

**UNIVERSITY OF CALICUT
(IQAC)
INFORMATION FOR
ACADEMIC AND ADMINISTRATIVE AUDIT OF THE DEPARTMENT
Year: 2020-21
(Provide information for last Five years from 2016-17 to 2020-21)**

1. **Name of the Department:** Department of Chemistry
2. **Year of establishment:** 1968
3. **Courses offered:** PG, M. Phil., Ph.D., Others

Year	PG	M.Phil	Ph.D.	Others
2016-17	M.Sc	M.Phil	Ph.D	NIL
2017-18	M.Sc	M.Phil	Ph.D	NIL
2018-19	M.Sc	M.Phil	Ph.D	NIL
2019-20	M.Sc	M.Phil	Ph.D	NIL
2020-21	M.Sc	M.Phil	Ph.D	NIL

4. **Courses introduced during last 4 years:** Nil
5. **Does the department have Academic flexibility? If yes since when?**
Yes, From the inception of the Department (1968)
6. **Interdisciplinary programs offered and departments involved:** Nil
7. **Courses conducted in collaboration with other universities and Institutions:** Nil
8. **Details of programmes discontinued, if any, with reasons:** Nil
9. **Examination System: Annual/ Semester / Choice Based Credit System/ Credit and Grading system/ any other system, specify:** Semester, Choice Based Credit Semester System
10. **Participation of the department in the curriculum development for courses offered by the Departments.**
All faculty members are the members of Department Council which is entrusted with framing the curricula and syllabi (in consultation with experts) of MSc Applied Chemistry. Senior faculty members of the department have served in important roles such as Chairmen of academic committees, Dean Faculty of Science, as well as members of Academic Council responsible for reviewing and approving the syllabi and curricula.
11. **Does the department have different syllabus than the one used by university for PG courses?**
Yes. The department has its own Syllabi framed by the Department Council and experts in the field for the M. Sc. Applied Chemistry program. This is different from the PG syllabi of M.Sc in Chemistry offered in affiliated colleges.
12. **Number of teaching posts sanctioned, filled and vacant.**

Designation	Sanctioned	Filled	Filled under CAS
Professor	2	1 (Retired in 2019)	6 (1 on Leave, 1 retired in 2021)
Associate Professor	6	1	-
Assistant Professor	10	6 (one relieved to join other university)	-
Total	18	6	4

13. Faculty profile with name, qualification, designation, experience, nature of appointment (confirmed/ probation/temporary):

a) Appointed on Government Sanctioned Post.

Name	Designation	Qualifications	Teaching/Research Experience	Nature of appointment,
Dr. Abraham Joseph	Professor	Ph.D	26 Years	Confirmed
Dr P.Raveendran	Professor	Ph.D	22 Years	Confirmed
Dr. K.Muraleedharan (Retired on 31 st March 2021)	Professor	Ph.D	17 Years	Confirmed
Dr Yahya A.I	Associate Professor, Head of the Department	Ph.D	24 Years	Confirmed
Dr. D. Bahulayan (On Leave)	Professor	Ph.D	20 Years	Confirmed
Dr. N. K Renuka	Associate Professor	Ph.D	17Years	Confirmed
Dr.M.T Ramesan	Associate Professor	Ph.D	17 Years	Confirmed
Dr.PradeepanPeriyat (Left the university in Aug 2020)	Assistant Professor	Ph.D	10 Years	Confirmed
Dr.Roymon Joseph	Assistant Professor	Ph.D	10 Years	Confirmed
Fazalurahman Kuttassery	Assistant Professor	Ph.D	6 Years	Confirmed
Dr.Suja T.D	Assistant Professor	Ph.D	10 Years	Confirmed
Derry Holaday MG	Assistant Professor	Ph.D	6 Years	Confirmed
Dr. A R Suresh Babu	Assistant Professor UGC -FRP	Ph.D	8 Years	UGC FRP

Appointed from University Fund (Ad-hoc/Guest/contract Faculty)

2019-20				
Name	Designation	Qualifications	Teaching/Research Experience	Nature of appointment,.
Dr.Roymon Joseph	Assistant Professor	Ph.D	8 Years	contract Faculty
Dr. Aparna P S	Assistant Professor	Ph.D	2 Years	contract Faculty
Dr. Silja P.P	Assistant Professor	Ph.D	2 Years	contract Faculty

Dr.Vijisha K Rajan	Assistant Professor	Ph.D	1 Year	contract Faculty
Dr. Jasna V C	Assistant Professor	Ph.D	1Year	contract Faculty
2018- 19				
Dr.Sareena C	Assistant Professor	Ph.D	3 Years	contract Faculty
Dr.Anupama K K	Assistant Professor	Ph.D	2 Year	contract Faculty
Dr.Aparna P S	Assistant Professor	Ph.D		contract Faculty
Dr.Jisha K A	Assistant Professor	Ph.D		contract Faculty
2017- 18				
Dr.Sareena C	Assistant Professor	Ph.D	2 Year	contract Faculty
Dr.Anupama K K	Assistant Professor	Ph.D	1 Year	contract Faculty
Dr.Sadiq Ali	Assistant Professor	Ph.D	1 Year	contract Faculty
Dr.Jithin Raj P	Assistant Professor	Ph.D	1 Year	contract Faculty
Dr.Reshma	Assistant Professor	Ph.D	1 Year	contract Faculty

14. List of Visiting Fellows/Teachers, Adjunct and Emeritus Professors, (for last 4 years)

Sl.No	Name	Designation	Year
1.	Dr. Purushothaman. E	Emeritus professor	2016 Nov. -2019 Nov.

15. Percentage of classes taken by temporary/visiting faculty (programme wise information):

There was no visiting faculty in the dept during the period mentioned. There were guest faculties who engaged classes for MSc and MPhil programs.

MSc	MPhil	PhD
35%	25%	--

16. Programme-wise Student Teacher Ratio: (Average of 5 Years)

MSc	2.24: 1
MPhil	1:1
PhD	5.63:1

17. Number of academic support staff (technical) and administrative staff sanctioned, filled and vacant:

Sl. No.	Posts	Sanctioned posts	Filled	Actual
1	Laboratory Assistant	3	2	3
2	Clerk (office)	-	3	-
3	Laboratory Attendant	-	-	-
4	Peon	1	1	1
5	Other (Technician & Librarian)	2	2	2

18. Thrust areas of research as identified by the department:

Polymer Chemistry, Green Chemistry, Supercritical fluids, Nanomaterials and nanocomposites, Photocatalysis, Conducting Polymers, Actuators and sensors, Corrosion science, Electrochemistry, Energy storage materials, Water splitting and CO₂ reduction, Hydrogen storage, Synthetic Organic Chemistry, Coordination Chemistry, Computational Chemistry etc.

19. Information about research grants, projects completed and ongoing during the period of last 4 years

a) From National funding agencies (like UGC, CSIR, DST, DBT etc):

No.	Name of the Principle Investigator (Co-investigator)	Title of the Project	Funding Agency, Duration & date of sanction	Amount (in Lakh)	Remarks if any
1	Dr. M.T.Ramesan	Flexible and Electrically Conductive Polymers Based on Chemically Modified Natural Rubber Reinforced with Heterocyclic Monomers and Nano fillers	Kerala State council for Science and Technology and Environment 2018- 2021	Rs.29,32,000 /-	

2.	Dr. P. Raveendran	Utilization of liquid and supercritical CO ₂ as media for making novel drug excipient systems based on CO ₂ – phillip excipient systems for pharmaceutical applications	Kerala State council for Science and Technology and Environment 2014-2017	Rs. 31,30,600/-	
3	Dr. Fazalurahman Kuttassery	Sustainable fuels from the sun and ambient air	Department of Science & Technology, INSPIRE Faculty Award Research Grant (20/04/2020) 2021 - 2026	Rs:35,00,000/- -	Total amount transferred from previous host (IISER Thiruvananthapuram) Rs. 2029776/- Date: 22/04/2021
4	Dr. Suja T.D.	Development of affordable anticancer therapeutic agents based on colchicine and its analogues	Department of Science & Technology, Women Scientist Scheme (SR/WOS-A/CS9/2019)	Rs:1233918/-	Host transfer from Central University, Haryana approved by DST
5	Dr. Suja T.D	Design and synthesis of truncated analogues of antitumor natural products aimed at the development of new and improved anticancer therapeutics	University of Calicut Seed money grant (30/05/2021) 2021-2023	Rs:5,00,00,000/- -	

6	Dr. Roymon Joseph	Supramolecular systems as a toolkit for the sensing of aminoacids and peptides	University of Calicut Seed money grant (30/05/2021) 2021-2023	Rs:5,000000/ -	
7	Dr. Derry Holaday	Exploring receptor applications of bipyrrrolomethene derived supramolecular hybrids	University of Calicut Seed money grant (30/05/2021) 2021-2023	Rs:5,000000/ -	

b) From International funding agencies: NIL

20. Funds received at Departmental level through DST-FIST; CSIR, UGC-SAP/CAS, DAE, DBT, BRNS, ICSSR, AICTE, etc

Scheme and Funding Agency	Non-Recurring	Recurring	Project Fellow	Total
DST FIST From 2014 for 5 years	Rs. 8000000/-		-	Rs. 8000000/-

21. Research facilities available in the department and recognition received, if any?

Well equipped Center for Advanced Materials is established in the department in 2018.

Following instruments are available in the departments

1. Automatic Refractometer, Rudolf Research Analytical USA, (J357-EP)
2. Differential Scanning Calorimeter, TA Instruments USA (Q20)
3. Electrochemical Workstation GillAC ,(1475)
4. Electrochemical Atomic Absorption Spectrometer, Agilent Workstation , Zahner Zennium Pro
5. Electrogravimetric Equipment
6. Electronic Analytical Precision Balance 220gm.0.01mg,
7. Flame Photometers
8. Fluorescence spectrophotometer with TCSPC, Horiba (Fluoromax-4C)
9. Fluorescence Spectrophotometer, Agilent (Carry Eclipse)
10. FTIR Spectrophotometer Jasco Make FT/IR 4100FTIR Spectrophotometer, Jasco(4600 LE)
11. FTIR Spectrophotometer with ATR PRO ONE with ZnSe Crystal. Jasco (FT/IR 4700LE)High
12. Performance computingsystems
13. Magnetic susceptibility balance, Sherwood scientific Co. Uk
14. Microwave Reactors, Anton Paar, (Monowave 300)
15. Muffle Furnaces
16. Photo Flourimeter
17. Photo Reactosr , Luzchem (LZC-4X)
18. Photoelectric Coluorimeter
19. Polarimeter Digital, Rudolf Research Analytical USA, (J357-EP 1)

20. Quartz Water Double Distillation Unit
21. Rotary Vacuum Evaporator Model Roteva Bath , Equitron
22. Rotary Vacuum Evaporator, BUCHI
23. Turbidity /Neflo Meter, Labtronics India Ltd., (No. LT.33)
24. Ultrasonic Processor EX MESSRS Sonics & Materials Inc
25. UV/VIS Spectrophotometer with ISV922 Diffuse Reflectance Accessory, Jasco (V750)
26. UV/VIS Spectrophotometer, Thermo Scientific (Evolution 201)
27. UV/VIS/NIR Spectrophotometer, with Solid sample Attachment ISV-923 Jasco(V750)
28. UV Visible Spectrometer Jasco (V 550 PC)
29. VASP 5.2 Software Licence
30. Viscometer Bruke field make Digital LVDV 1M with SSA
31. Flame Photometers
32. Potentiometers
33. Electro Phoresis Equipments
34. Electro Gravimetric Equipment
35. Polarimeter-Digital
36. Microwave reactors
37. Photoreactor
38. TGA Rod for LABSYS System
39. Ultrasonic Processor VIBRA-CELL(VC 505)

22. Special research laboratories sponsored by / created by industry or corporate bodies.

NIL

23. Publications:

Journal Publications

2016-17						
Sr . No.	Authors	Papers published in peer reviewed journals	Journal, Volume, Year, Page No.	Citations	h-index	Impact factor range/ Average Impact factor
1	Jinitha, T.V., Sreejith, M.P., Balan, A.K., Purushothaman, E.	Mechanical and transport properties of permanganate treated coconut shell powder - Natural rubber composites	Journal of Chemical and Pharmaceutical Sciences, 2016-January, pp. 5-11	4	21	
2	Sreejith, M.P., Balan, A.K., Shaniba, V., Purushothaman, E.	Effect of silane modification on the mechanical properties of coconut shell powder reinforced styrene butadiene rubber composites	Journal of Chemical and Pharmaceutical Sciences, 2016-January, pp. 28-34	1	21	
3	Punnadiyil, R.K., Sreejith, M.P., Purushothaman, E.	Isolation of microcrystalline and nano cellulose from peanut shells,	Journal of Chemical and Pharmaceutical Sciences 2016-January, pp. 28-34	2	21	

4	Naduparambath, S., Purushothaman, E.	Sago seed shell: determination of the composition and isolation of microcrystalline cellulose (MCC)	Cellulose 2016, 23(3), pp. 1803-1812	31	110	3.9
5	Sreejith, M.P., Balan, A.K., Shaniba, V., Subair, N., Purushothaman, E.	Biodegradation behavior of styrene butadiene rubber (SBR) reinforced with modified coconut shell powder	AIP Conference Proceedings 2017, 1849,020047	2	64	0.4
6	Balan, A.K., Sreejith, M.P., Shaniba, V., Subair, N., Purushothaman, E.	Transport behavior of aromatic hydrocarbons through coconut shell powder filled thermoplastic polyurethane/natural rubber blend-composites	AIP Conference Proceedings 2017, 1849,020046	1	64	.4
7	Shaniba, V., Balan, A.K., Sreejith, M.P., Subair, N., Purushothaman, E.	Effect of filler loading and silane modification on the biodegradability of SBR composites reinforced with peanut shell powder	AIP Conference Proceedings 2017, 1849,020049	0	64	.4
8	John, S., Jeevana, R., Aravindakshan, K.K., Joseph, A.	Corrosion inhibition of mild steel by N(4)-substituted thiosemicarbazone in hydrochloric acid media	Egyptian Journal of Petroleum 2017, 26(2), pp. 405-412	25	28	4.44
9	Subin Kuamr, K., Priya Varma, C., Reena, V.N., Aravindakshan, K.K.	Synthesis, characterization, cytotoxic, anticancer and antimicrobial studies of novel schiff base ligand derived from vanillin and its transition metal complexes	Journal of Pharmaceutical Sciences and Research, 2017, 9(8), pp. 1317-1323	2	24	.13
10	Sangeetha, K.G., Aravindakshan, K.K., Safna Hussan, K.P.	Insight into the theoretical and experimental studies of 1-phenyl-3-methyl-4-benzoyl-5-pyrazolone N(4)-methyl-N(4)-phenylthiosemicarbazone - A potential NLO material	Journal of Molecular Structure 2017, 1150, pp. 135-145	10	98	2.011
11	Hakikulla H Shah, Muhammad Changez, Vandita Singh, Mohammad Luqman, Yahya Ismail , Paul R Raithby, Frank Marken	Estimation of Energy Levels of Self-assembled Ferrocenyls and Investigation of Charge-driven Electro-crystallization of Ferricenyl Materials	<i>Energy Procedia</i> Volume 100, November 2016, Pages 149-154	1	73	1,15
12	Vijisha K Rajan, Shameera Ahamed TK, K Muraleedharan	Studies on the UV filtering and radical scavenging capacity of the bitter masking flavonone Eriodictyol	Journal of Photochemistry & Photobiology, B: Biology 170(2017)286-94	4	103	3.03

13	Shameera Ahamed TK, K. Muraleedharan	A ligand-based comparative molecular field analysis (CoMFA) and homology model based molecular docking studies on 3', 4'-dihydroxyflavones as rat 5-lipoxygenase inhibitors: Design of new inhibitors	Computational Biology and Chemistry 71 (2017) 188–200	3	55	1.66
14	P. Ajmala Shireen, V.M. Abdul Mujeeb, K. Muraleedharan	Identification of flavanones from Boesenbergia rotunda as potential antioxidants and monoamine oxidase B inhibitors	Chemical Papers 71(2017)2473–2483	3	37	1.3
15	Sindhu. N.V, K. Muraleedharan	Kinetic modelling of formation of K ⁺ doped BaTiO ₃ bones from barium titanyl oxalate via multi stage thermal decomposition	Materials Research Bulletin 94(2017) 231-40 DOI:10.1016/j.materresbull.2017.05.056	3	104	4.019
16	Nimisha NK, K. Muraleedharan	Photocatalytic activity of ZnO and Sr ²⁺ doped ZnO nanoparticles	Journal of Water Process Engineering 17(2017)264-270	2	28	1.89
17	P. Ajmala Shireen, V.M. Abdul Mujeeb, K. Muraleedharan	Theoretical insights on flavanones as antioxidants and UV filters: A TDDFT and NLMO study	Journal of Photochemistry and Photobiology B: Biology 170(2017)286-294	3	103	3.03
18	Basila Hassan, Vijisha K. Rajan, V.M. Abdul Mujeeb, K.Muraleedharan	A DFT based analysis of adsorption of Hg ²⁺ ion on chitosan monomer and its citralidene and salicylidene derivatives: Prior to the removal of Hg Toxicity	International Journal of Biological Macromolecules 99(2017)549-554	4	114	5.162
19	Mujeeb Rahman P, VM Abdul mujeeb, K. Muraleedharan	Flexible chitosan-nano ZnO antimicrobial pouches as a new material for extending the shelf life of raw meat	International Journal of Biological Macromolecules 97(2017) 382-391	10	114	5.162
20	Mujeeb Rahman P, VM Abdul mujeeb, K. Muraleedharan	Chitosan–green tea extract powder composite pouches for extending the shelf life of raw meat	Polymer Bulletin 74(2017) 3399-3419	8	58	1.858
21	Vijisha K Rajan, K Muraleedharan	A computational investigation on the structure, global parameters and antioxidant capacity of a polyphenol, Gallic acid	Food Chemistry 220(2017)93-99	5	221	4.2
22	Nusrat K, K. Muraleedharan	Effect of Ca(II) additive on the thermal dehydration kinetics of cerium oxalate rods	Journal of Thermal Analysis and Calorimetry 128(2017)541-552	4	87	2.471

23	K. Muraleedharan, Viswalekshmi C.H., Sarada. K	Synthesis, characterization and thermal dehydration and degradation kinetics of chitosan Schiff bases of o, m and p- nitrobenzaldehyde	Polymer Bulletin 74(2017)39-54	5	58	1.858
24	Sarada K, K. Muraleedharan	Thermal degradation and optical properties of SiC infused polystyrene nanocomposites	Journal of Thermal Analysis and Calorimetry 126(2016)1809–1819	4	87	2.471
25	Nusrath K, K Muraleedharan	Effect of Ca (II) on the multistep kinetic behavior of thermally induced oxidative decomposition of Cerium (III) oxalate to CeO ₂	Journal of Analytical Applied Pyrolysis 120 (2016) 379–388	5	101	3.9
26	P. Sagitha, Sarada K, K. Muraleedharan	One-pot synthesis of poly vinyl alcohol (PVA) supported silver nanoparticles and its efficiency in catalytic reduction of methylene blue	Transactions of Nonferrous Metals Society of China 26(2016) 2693-2700	3	54	1.1
27	K. Jayakrishnana, Antony Joseph, K. Paulson Mathew, T.B. Siji, K. Chandrasekharan, K. Siji Narendran, M.A. Jaseela, K. Muraleedharan	Synthesis, Z-Scan and Degenerate Four Wave Mixing characterization of certain novel thiocoumarin derivatives for third order nonlinear optical applications	Optical Materials 58 (2016) 171-182	9	92	2.1
28	Sarada K, Vijisha KR, K Muraleedharan	Exploration of the thermal decomposition of oxalates of copper and silver by experimental and computational methods	Journal of Analytical Applied Pyrolysis 120 (2016) 207–214	3	101	3.9
29	Kavitha AP, U.C. Abdul Jaleel , V.M. Abdul Mujeeb , K. Muraleedharan	Performance of knowledge-based biological models in higher dimensional chemical space	Chemometrics and Intelligent Laboratory Systems, 153 (2016) 58–66	7	117	3.010
30	Sarada K, K Muraleedharan	Studies on the Kinetics of Thermal Decomposition of Copper Oxalate Mixed With Silver Oxalate	International Journal of Thermodynamics and Chemical Kinetics, 2(2016) 1-11	3	-	
31	Vijisha K. Rajan, K. Muraleedharan	Calculation of pKa Values of Alkanolamines – A DFT-B3LYP Computational Analysis	International Journal of Greenhouse Gas Control: 58, 2017, 62-70. http://dx.doi.org/10.1016/j.ijggc.2017.01.009	5	92	4.764

32	T. Noushad, Alikutty P, Basila H, Vijisha. K. Rajan, K. Muraleedharan, V.M. Abdul Mujeeb	A comparative study on the druggability of Schiff bases and dithiocarbamate derivatives of chitosan	Polymer Bulletin 73(2016)2165-2177	5	58	1.858
33	Sarada K, K Muraleedharan	Effect of addition of silver on the thermal decomposition kinetics of copper oxalate	Journal of Thermal Analysis and Calorimetry, 123(2016)643-651	4	87	2.471
34	Kavitha, A.P., Jaleel, U.C.A., Mujeeb, V.M.A., Muralee dharan, K.	Performance of knowledge-based biological models in higher dimensional chemical space,	Chemometrics and Intelligent Laboratory Systems, 2016,153, pp. 58-66,	1	117	3.010
35	Rahman, P.M., Mujeeb, V.M.A., Muralee dharan, K.,	Flexible chitosan-nano ZnO antimicrobial pouches as a new material for extending the shelf life of raw meat	International Journal of Biological Macromolecules, 2017,97, pp. 382-391,	37	114	5.162
36	Hassan, B., Rajan, V.K., Mujeeb, V.M.A., K., Muraleedharan,,	A DFT based analysis of adsorption of Hg ²⁺ ion on chitosan monomer and its citralidene and salicylidene derivatives: Prior to the removal of Hg toxicity	International Journal of Biological Macromolecules, 2017, 99, pp. 549-554	13	114	5.162
37	Ramya, K., Anupama, K.K., Shainy, K.M., Joseph, A.	Synergistic and hydrogen bonded interaction of alkyl benzimidazoles and urea pair on mild steel in hydrochloric acid: Adsorption, electroanalytical and theoretical studies	Journal of the Taiwan Institute of Chemical Engineers 2016, 58, pp. 517-527	6	66	4.040
38	Anupama, K.K., Shainy, K.M., Joseph, A.	Excellent Anticorrosion Behavior of Ruta Graveolens Extract (RGE) for Mild Steel in Hydrochloric Acid: Electro Analytical Studies on the Effect of Time, Temperature, and Inhibitor Concentration,	Journal of Bio- and Tribo-Corrosion, 2016, 2(1),2	17	13	1.81
39	Anupama, K.K., Ramya, K., Joseph, A.	Electrochemical and computational aspects of surface interaction and corrosion inhibition of mild steel in hydrochloric acid by Phyllanthus amarus leaf extract (PAE),	Journal of Molecular Liquids ,2016, 216, pp. 146-155	60	96	4.85
40	Shainy, K.M., Joseph, A.	Electro analytical studies on the interaction and corrosion inhibition of a triazine dimer (AMTDT) on metallic copper in hydrochloric acid,	Chemist,2016, 89(1), pp. 16-26	0	5	

41	Mohan, R., Ramya, K., Anupama, K.K., Joseph, A.	Density functional treatment and electro analytical measurements of liquid phase interaction of 2-ethylbenzimidazole (EBI) and ethyl (2-ethylbenzimidazolyl) acetate (EEBA) on mild steel in hydrochloric acid	2016, Journal of Molecular Liquids, 220, pp. 707-717	15	96	4.85
42	Shainy, K.M., Rugmini Ammal, P., Unni, K.N., Benjamin, S., Joseph, A.	Surface Interaction and Corrosion Inhibition of Mild Steel in Hydrochloric Acid Using Pyoverdine, an Eco-Friendly Bio-molecule,	Journal of Bio- and Tribo-Corrosion, 2016, 2(3),20,	15	13	1.81
43	Kuruvilla, M., John, S., Joseph, A.	Electroanalytical Studies on the Interaction Of l-Serine-Based Schiff Base, HHDMP, with Copper in Sulphuric Acid,	Journal of Bio- and Tribo-Corrosion, 2016, 2(3),19	9	13	1.81
44	Pathoor, R., Bahulayan, D.	Synthesis of large Stokes shift and narrow emission indole-triazole-carboxamide peptidomimetics via MCR-click strategy	Tetrahedron Letters 2016, 57(22), pp. 2360-2366	5	165	2.379
45	Neogi, I., Bruno, A., Bahulayan, D., Mathews, N., Mhaisalkar, S.G.,	Broadband-Emitting 2 D Hybrid Organic-Inorganic Perovskite Based on Cyclohexane-bis(methylammonium) Cation,	ChemSusChem,2017 10(19), pp. 3765-3772	42	145	7.962
46	Soumya, T.V., Muhammed Ajmal, C., Bahulayan, D.	Synthesis of bioactive and fluorescent pyridine-triazole-coumarin peptidomimetics through sequential click-multicomponent reactions,	Bioorganic and Medicinal Chemistry Letters, 2017, 27(3), pp. 450-455	7	141	2.42
47	Raj, P.J., Bahulayan, D.	"MCR-Click" synthesis of coumarin-tagged macrocycles with large Stokes shift values and cytotoxicity against human breast cancer cell line MCF-7,	Tetrahedron Letters 2017, 58(22), pp. 2122-2126	10	165	2.379
48	Thasnim, P., Bahulayan, D.	Click-on fluorescent triazolyl coumarin peptidomimetics as inhibitors of human breast cancer cell line MCF-7,	New Journal of Chemistry, 2017, 41(22), pp. 13483-13489	12	118	3.288
49	Puthiyedath, T., Bahulayan, D.	A click-generated triazole tethered oxazolone-pyrimidinone dyad: A highly selective colorimetric and ratiometric FRET based fluorescent probe for sensing azide ions	Sensors and Actuators, B: Chemical, 2017, 239, pp. 1076-1086	15	184	6.390

50	Mohan, T.J., Bahulayan, D.	Design, synthesis and fluorescence property evaluation of blue emitting triazole-linked chromene peptidomimetics,	Molecular Diversity, 2017, 21(3), pp. 585-596		56	2.070
51	Anju, M., Divya, T., Nikhila, M.P., Ansi, V.A., Renuka, N.K.	An elegant and handy selective sensor for ppt level determination of mercury ions,	RSC Advances, 2016, 6(111), pp. 109506-109513	3	128	3.07
52	Nikhila, M.P., Renuka, N.K.	Novel template free synthetic strategy to single crystalline multishelled hollow nanospheroids of titania with boosted application potential,	RSC Advances, 2016, 6(29), pp. 24210-24217	3	128	3.07
53	Renuka, N.K., Nikhila, M.P.,	Synthesis, characterization and photocatalytic activity of Titania nanotube,	Journal of Chemical and Pharmaceutical Sciences, 2016-January, pp. 85-90	1	21	
54	Renuka, N.K., Divya, T.	Synthesis characterization and dielectric studies of morphologically controlled ceria nanostructures,	Journal of Chemical and Pharmaceutical Sciences, 2016-January, pp. 57-61	1	21	
55	Renuka, N.K., Akhila, A.K.	Preparation and photocatalytic activity of anatase titania modified with dysprosium oxide,	Journal of Chemical and Pharmaceutical Sciences, 2016-January, pp. 79-84	2	21	
56	Arsha Kusumam, T.V., Panakkal, T., Divya, T., Anas, K., Renuka, N.K.	Morphology controlled synthesis and photocatalytic activity of zinc oxide nanostructures,	Ceramics International, 2016, 42(3), pp. 3769-3775	19	100	3.640
57	M.T.Ramesan, Ankita George, Jayakrishnan P and G. Kalaprasad	, “Role of Pumice Particles in the Thermal, Electrical and Mechanical Properties of Poly (vinyl alcohol)/ Poly (vinyl pyrrolidone) Composites”	Journal of Thermal Analysis and Calorimetry, 126:511–519, 2016	23	87	2.471
58	M.T.Ramesan and K. Surya,	“Studies on Electrical, Thermal and Corrosion Behaviour of Cashew Tree Gum Grafted Poly (acrylamide)”	Polymers from Renewable Resources Volume 7 (3), pp.81-99, 2016	29	8	1.290
59	P. Jayakrishnan , P.P. Pradyumnan and M. T. Ramesan,	“Thermal and Electrical Properties of Polyindole/ Magnetite Nanocomposites”	Chemist, Volume 89, pp. 27-32, 2016	11	5	

60	M.T.Ramesan, Athira V.K., P. Jayakrishnan and C. Gopinathan,	“Preparation, Characterization, Antibacterial and Electrical Properties of Sericin/Poly (vinyl alcohol)/ Poly (vinyl pyrrolidone) Composites”	Journal of Applied Polymer Science Volume 133, pp.5827-5836, 2016	12	159	2.280
61	M.T.Ramesan and Surya K.	Synthesis, Characterization and Properties of Cashew Gum Graft Poly (acrylamide)/ Magnetite Nanocomposites,	Journal of Applied Polymer Science, Volume 133 (22), pp.5431- 5438, 2016	26	159	2.280
62	K. Jayakrishnan, A. Joseph, Jayakrishnan B., M.T. Ramesan, K. Chandrasekharan and N.K.S. Narendran,	“Reverse saturable absorption studies in polymerized indole – Effect of polymerization in the phenomenal enhancement of third order optical nonlinearity”	Optical Materials, Volume 54, pp.252-261, 2016	16	98	2.023
63	A. Nihmath and M. T. Ramesan,	“Effect of Hydroxyapatite Nanoparticles on Structural and Electrical Properties of Ethylene Propylene Diene Monomer Rubber”	Journal of Chemical and Pharmaceutical Sciences, Special Issue 1; pp.38-44; 2016.	0	21	
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67	Jayakrishnan P and M.T.Ramesan;	“Synthesis, Characterization and Properties of Poly (vinyl alcohol)/ Chemically Modified and Unmodified Pumice Composites”	Journal of Chemical and Pharmaceutical Sciences, Special Issue 1; pp. 97-104; 2016.	8	21	
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72	Peryat,P., Bijudas, K.,	Diethanoleamine modification for high temperature stable titanium dioxide,	Journal of Chemical and Pharmaceutical Sciences 2016-January, pp. 75-78	0	21	
73	Ullattil, S.G., Periyat, P.	A 'one pot' gel combustion strategy towards Ti ³⁺ self-doped 'black' anatase TiO _{2-x} solar photocatalyst	Journal of Material Chemistry A, 2016, 4(16), pp. 5854-5858	80	283	6.626
74	Ullattil, S.G., Periyat, P., Naufal, B., Lazar, M.A.,	Self-Doped ZnO Microrods - High Temperature Stable Oxygen Deficient Platforms for Solar Photocatalysis,	J. Industrial Engineering Chemistry Research, 2016, 55(22), pp. 6413-6421	48	211	3.575
75	Chandralekha, K., Gavaskar, D., Sureshababu, A.R., Lakshmi, S.,	Crystal structure of 5''-benzylidene-1'-methyl-4'-phenyltrispiro[acenaphthylene-1,2'-pyrrolidine-3'',1''-cyclohexane-3'',2''-[1,3]dioxane]-2,6''-dione,	Acta Crystallographica Section E: Crystallographic Communications, 2016, 72, pp. 387-390	0	11	0.453
76	Chandralekha, K., Sureshababu, A.R., Gavaskar, D., Lakshmi, S.,	Crystal structure of methyl 3'-benzamido-4'-(4-methoxyphenyl)-1'-methylspiro[indeno[1,2-b]quinoxaline-11,2'-pyrrolidine]-3'-carboxylate,	Acta Crystallographica Section E: Crystallographic Communications, 2016, 72, pp. 1257-1259	0	11	0.453

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No.	Authors	Papers published in peer reviewed journals	Journal, Volume, Year, Page No.	Citations	h-index	Impact factor range/Average Impact factor
77	Sam John, R. Jeevana, K.K. Aravindakshnan, Abraham Joseph	Corrosion inhibition of mild steel by N(4)-substituted thiosemicarbazone in hydrochloric acid media	Egyptian Journal of Petroleum. 26 (2017) 405-412 Elsevier	27	19	2.061

78	K. Ramya, K.K. Anupama, K.M. Shainy, Abraham Joseph	Corrosion protection of mild steel in hydrochloric acid solution through the synergistic of alkylbenzimidazole s and semicarbazide pair – Electroanalytical and computational studies	Egyptian Journal of Petroleum 26 (2017) 421-437	14	19	2.061
79	K.K. Anupama, K. Ramya, Abraham Joseph	Electrochemical measurements and theoretical calculations on the inhibitive interaction of Plectranthus amboinicus leaf extract with mild steel in hydrochloric acid	Measurement. 95 (2017) 297–305	26	70	2.791
80	Sam John, Abraham Joseph, Mathew Kuruvilla, Sajini T	Inhibition of Mild Steel Corrosion using Chitosan– Polyvinyl Alcohol Nanocomposite Films by Sol–Gel Method: An Environmentally Friendly Approach	Journal of Bio-and Tribo-Corrosion. 3 (2017) 3	11	10	1.81
81	Revathi Mohan, K. K. Anupama, Abraham Joseph	Effect of Methyl, Ethyl, and Propyl Substitution on Benzimidazole for the Protection of Copper Metal in Nitric Acid: Theoretical and Electrochemical Screening Studies	Journal of Bio-and Tribo-Corrosion. 3 (2017) 2	8	10	1.81

82	Mathew Kuruvilla, Anupama R. Prasad, Sam John, Abraham Joseph	Enhanced Inhibition of the Corrosion of Metallic Copper Exposed in Sulphuric Acid Through the Synergistic Interaction of Cysteine and Alanine: Electrochemical and Computational Studies	Journal of Bio-and Tribo-Corrosion. 3(2017) 5	8	10	1.81
83	M. Prajila, Asha Thomas, Abraham Joseph	Development of Passive Film and Enhancement of Corrosion Protection of Mild Steel Exposed in Hydrochloric Acid due to the Adsorption of Water Dispersed 4-[(E)-(3,4-Dihydroxybenzylidene)amino]-6-Methyl-3-1,2,4-Triazin-5(4H)-one(DHMMT)	Journal of Bio-and Tribo-Corrosion. 3 (2017) 16	4	10	1.81
84	P. Rugmini Ammal, M. Prajila, Abraham Joseph	Physicochemical studies on the inhibitive properties of a 1, 2, 4-triazole Schiff's base, HMATD, on the corrosion of mild steel in hydrochloric acid	Egyptian journal of petroleum. (2017)	10	19	2.061
85	P. Rugmini Ammal, M. Prajila, Abraham Joseph	Electroanalytical and Kinetic Studies on PBIMOT, a Benzimidazole Motif of 1, 3, 4-Oxadiazole as a Powerful Corrosion Inhibitor for Mild Steel in Nitric Acid.	Journal of Bio-and Tribo-Corrosion. 3 (2017) 47	1	10	1.81

86	M. Prajila , Abraham Joseph	Inhibition of mild steel corrosion in hydrochloric using three different 1, 2, 4-triazole Schiff's bases: a comparative study of electrochemical, theoretical and spectroscopic results	Journal of Molecular Liquids. 241 (2017) 1-8	15	82	4.561
87	M. Prajila, P. Rugmini Ammal, Abraham Joseph	Protection of Mild Steel in Hydrochloric Acid Through Surface Finishing using HMMT, a Substituted 3-Mercapto-6-Methyl-1, 2, 4-Triazin (4H)-5-One	Protection of Metals and Physical Chemistry of Surfaces. 53 (2017)	-	20	0.787
88	Anupama R. Prasad, Abraham Joseph	Synthesis, characterization and investigation of methyl orange dye removal from aqueous solutions using waterborne poly vinyl pyrrolidone (PVP) stabilized poly aniline (PANI) core-shell nanoparticles	RSC Advances. 7 (2017) 20960-20968	15	11 3	3.049
89	P. Jayakrishna n and <u>M.T. Ramesan</u>	Studies on the Effect of Magnetite Nanoparticles on Magnetic, Mechanical, Thermal, Temperature Dependent Electrical Resistivity and DC Conductivity Modeling of Poly (vinyl alcohol-co-acrylic acid)/Fe ₃ O ₄ Nanocomposites	Material Chemistry and Physics 2017, 186, 513-522.	34	13 2	2.781

90	<u>M.T. Ramesan</u> and P. Jayakrishnan	Role of Nickel Oxide Nanoparticles on Magnetic, Thermal and Temperature Dependent Electrical Conductivity of Novel Poly (vinyl cinnamate) based Nanocomposites: Applicability of Different Conductivity Models	Journal of Inorganic and Organometallic Polymers and Materials, 2017, 27, 143-153	18	40	1.637
91	P. Jayakrishnan and <u>M.T. Ramesan</u>	Synthesis, Characterization, Electrical Conductivity and Material Properties of Magnetite/ Polyindole/ Poly (vinyl Alcohol) Blend Nanocomposites	Journal of Inorganic and Organometallic Polymers and Materials, 2017, 27, 323-333.	32	40	1.637
92	K. Suhailath, <u>M.T. Ramesan</u> , B. Naufal, P. Periyat, V.C. Jasna, and P. Jayakrishnan	Synthesis, Characterization, Flame, Thermal and Electrical Properties of Poly (n-butyl methacrylate)/Titanium Dioxide Nanocomposites	Polymer Bulletin, 2017 74, 671-688.	23	55	1.858
93	A. Nihmathan and <u>M. T. Ramesan</u>	Fabrication, Characterization and Dielectric Studies of NBR/Hydroxyapatite Nanocomposites	Journal of Inorganic and Organometallic Polymers and Materials, 2017, 27, 481-489.	27	40	1.637
94	<u>M.T. Ramesan</u> , V. Nidhisha and P. Jayakrishnan	Facile Synthesis, Characterization and Material Properties of Novel Poly (vinyl cinnamate)/Nickel Oxide Nanocomposites	Polymer International, 2017, 66, 548-556.	20	95	2.433

95	K. Suhailath and <u>M.T. Ramesan</u>	Effect of Titanium Dioxide Nanoparticles on Temperature Dependent Electrical Conductivity of Poly (n-butyl methacrylate) Nanocomposites: Application of Different Conductivity Models	American Institute of Physics Conference Proceedings, 2017, 1849, pp. 20035	-	60	0.36
96	V.C. Jasna and <u>M.T. Ramesan</u>	Preparation, Characterization, Dielectric Properties and Diffusion Studies of Styrene Butadiene Rubber (SBR)/Manganous Tungstate (MnWO ₄) Nanocomposites	American Institute of Physics Conference Proceedings, 2017, 1849, 20044	4	60	3.0
97	T. Anilkumar, A.A. Naik and <u>M.T. Ramesan</u>	Preparation, Characterization and Conductivity Study of Nitro-mercurated Styrene Butadiene Rubber/Silver Doped Zinc Oxide Nanocomposites	American Institute of Physics Conference Proceedings, 2017, 1849, 20037	-	60	3.0
98	<u>M.T. Ramesan</u> , V. Nidhisha and P. Jayakrishnan	Synthesis, Characterization and Conducting Properties of Novel Poly (Vinyl Cinnamate) / Zinc Oxide Nanocomposites via In situ Polymerization	Materials Science in Semiconductor Processing, 2017, 63, 253-260.	22	49	2.722

99	<u>M.T. Ramesan</u> , P. Jayakrishna n, T. Sampreeth and P. Pradyumna n	Temperature Dependent AC Electrical Conductivity, Thermal Stability and Different DC Conductivity Modelling of Novel Poly (vinyl cinnamate)/Zinc Oxide Nanocomposites	Journal of Thermal Analysis and Calorimetry, 2017, 129, 135-145	13	78	2.471
100	V.C. Jasna and <u>M.T.Ramesan</u>	Studies on the Mechanical, Electrical Properties and Interaction of Petroleum Fuels with SBR/ Manganous Tungstate Nanocomposites	Journal of Inorganic and Organometallic Polymers and Materials, 2017, 27, 968-978.	15	40	1.637
101	P. Jayakrishna n and <u>M.T. Ramesan</u>	Synthesis, Structural, Magnetoelectric and Thermal Properties of Poly (anthranilic acid)/Magnetite Nanocomposites	Polymer Bulletin, 2017, 74, 3179-3198.	14	55	1.858
102	K. Suhailath and <u>M.T. Ramesan</u>	Temperature Dependent AC Conductivity, Mechanical and Different DC Conductivity Modeling of Poly (butyl methacrylate) / Samarium Doped Titanium Dioxide Nanocomposites	Journal of Material Science: Materials in Electronics, 2017, 28, 13797-13805.	11	63	2.195
103	<u>M.T. Ramesan</u> and K. Surya	Fabrication and characterization of Biopolymer Nanocomposite from Natural Resource Materials	Polymer Composites, 2017, 38, pp. E 66-E73.	16	73	2.268

104	M.T. Ramesan and T. Sampreeth	Synthesis, Characterization, Material Properties and Sensor Application Study of Polyaniline/Niobium Doped Titanium Dioxide Nanocomposites	Journal of Material Science: Materials in Electronics, 2017, 28, 16181-16191.	20	63	2.195
105	M.T. Ramesan and V. Santhi	In Situ Synthesis, Characterization, Conductivity Studies of Polypyrrole/ Silver Doped Zinc Oxide Nanocomposites and Their Application for Ammonia Gas Sensing	Journal of Material Science: Materials in Electronics, 2017, 28, 18804-18814.	26	63	2.195
106	Vijisha K Rajan, Shameera Ahamed TK, K Muraleedharan	Studies on the UV filtering and radical scavenging capacity of the bitter masking flavonone Eriodictyol	Journal of Photochemistry & Photobiology, B: Biology 170(2017)286-94	4	103	3.03
107	Shameera Ahamed TK, K. Muraleedharan	A ligand-based comparative molecular field analysis (CoMFA) and homology model based molecular docking studies on 3', 4'-dihydroxyflavones as rat 5-lipoxygenase inhibitors: Design of new inhibitors	Computational Biology and Chemistry 71 (2017) 188–200	3	55	1.66
108	P. Ajmala Shireen, V.M. Abdul Mujeeb, K. Muraleedharan	Identification of flavanones from Boesenbergia rotunda as potential antioxidants and monoamine oxidase B inhibitors	Chemical Papers 71(2017)2473–2483	3	37	1.3

109	Sindhu. N.V, K. Muraleedh aran	Kinetic modelling of formation of K+ doped BaTiO ₃ bones from barium titanyl oxalate via multi stage thermal decomposition	Materials Research Bulletin 94(2017) 231-40 DOI:10.1016/j.materresbull.2017.05.056	3	96	2.345
110	Nimisha NK, K. Muraleedh aran	Photocatalytic activity of ZnO and Sr ²⁺ doped ZnO nanoparticles	Journal of Water Process Engineering 17(2017)264-270	2	28	1.89
111	P. Ajmala Shireen, V.M. Abdul Mujeeb, K. Muraleedh aran	Theoretical insights on flavanones as antioxidants and UV filters: A TDDFT and NLMO study	Journal of Photochemistry and Photobiology B: Biology 170(2017)286-294	3	10 3	3.03
112	Basila Hassan, Vijisha K. Rajan, V.M. Abdul Mujeeb, K. Muraleedh aran	A DFT based analysis of adsorption of Hg ²⁺ ion on chitosan monomer and its citralidene and salicylidene derivatives: Prior to the removal of Hg Toxicity	International Journal of Biological Macromolecules 99(2017)549-554	4	10 1	3.227
113	Mujeeb Rahman P, VM Abdul mujeeb, K. Muraleedh aran	Flexible chitosan-nano ZnO antimicrobial pouches as a new material for extending the shelf life of raw meat	International Journal of Biological Macromolecules 97(2017) 382-391	10	10 1	3.227
114	Mujeeb Rahman P, VM Abdul mujeeb, K. Muraleedh aran	Chitosan–green tea extract powder composite pouches for extending the shelf life of raw meat	Polymer Bulletin 74(2017) 3399-3419	8	55	1.3
115	Vijisha K Rajan, K. Muraleedh aran	A computational investigation on the structure, global parameters and antioxidant capacity of a polyphenol, Gallic acid	Food Chemistry 220(2017)93-99	5	22 1	4.2

116	Nusrat K, K. Muraleedh aran	Effect of Ca(II) additive on the thermal dehydration kinetics of cerium oxalate rods	Journal of Thermal Analysis and Calorimetry 128(2017)541-552	4	78	2.2
117	K. Muraleedh aran, Viswaleksh mi C.H., Sarada. K	Synthesis, characterization and thermal dehydration and degradation kinetics of chitosan Schiff bases of o, m and p-nitrobenzaldehyde	Polymer Bulletin 74(2017)39-54	5	55	1.3
118	Sarada K, K. Muraleedh aran	Thermal degradation and optical properties of SiC infused polystyrene nanocomposites	Journal of Thermal Analysis and Calorimetry 126(2016)1809-1819	4	78	2.2
119	Nusrath K, K. Muraleedh aran	Effect of Ca (II) on the multistep kinetic behavior of thermally induced oxidative decomposition of Cerium (III) oxalate to CeO ₂	Journal of Analytical Applied Pyrolysis 120 (2016) 379-388	5	10 1	3.9
120	P. Sagitha, Sarada K, K. Muraleedh aran	One-pot synthesis of poly vinyl alcohol (PVA) supported silver nanoparticles and its efficiency in catalytic reduction of methylene blue	Transactions of Nonferrous Metals Society of China 26(2016) 2693-2700	3	54	1.1

121	K. Jayakrishna, Antony Joseph, K. Paulson Mathew, T.B. Siji, K. Chandrasekharan, K. Siji Narendran, M.A. Jaseela, K. Muraleedharan	Synthesis, Z-Scan and Degenerate Four Wave Mixing characterization of certain novel thiocoumarin derivatives for third order nonlinear optical applications	Optical Materials 58 (2016) 171-182	9	92	2.1
122	Sarada K, Vijisha KR, K Muraleedharan	Exploration of the thermal decomposition of oxalates of copper and silver by experimental and computational methods	Journal of Analytical Applied Pyrolysis 120 (2016) 207–214	3	101	3.9
123	Kavitha AP, U.C. Abdul Jaleel, V.M. Abdul Mujeeb, K. Muraleedharan	Performance of knowledge-based biological models in higher dimensional chemical space	Chemometrics and Intelligent Laboratory Systems, 153 (2016) 58–66	7	109	2.8
124	Sarada K, K Muraleedharan	Studies on the Kinetics of Thermal Decomposition of Copper Oxalate Mixed With Silver Oxalate	International Journal of Thermodynamics and Chemical Kinetics, 2(2016) 1-11	3	-	
125	Vijisha K. Rajan, K. Muraleedharan	Calculation of pKa Values of Alkanolamines – A DFT-B3LYP Computational Analysis	International Journal of Greenhouse Gas Control: 58, 2017, 62-70. http://dx.doi.org/10.1016/j.jggc.2017.01.009	5	92	4.764

126	T. Noushad, Alikutty P, Basila H, Vijisha. K. Rajan, K. Muraleedharan, V.M. Abdul Mujeeb	A comparative study on the druggability of Schiff bases and dithiocarbamate derivatives of chitosan	Polymer Bulletin 73(2016)2165-2177	5	55	1.33
127	Sarada K, K Muraleedharan	Effect of addition of silver on the thermal decomposition kinetics of copper oxalate	Journal of Thermal Analysis and Calorimetry, 123(2016)643-651	4	78	2.206
128	V.A.Ansi, N.K. Renuka	<u>Table sugar derived Carbon dot–a naked eye sensor for toxic Pb²⁺ ions</u>	Sensors and Actuators B: Chemical, 264 (2018) 67	49	170	7.1
129	M. Anju, N. K. Renuka	Magnetically actuated graphene coated polyurethane foam as potential sorbents for oils and organics	Arabain Journal of Chemistry, 13(2020) 1752	18	43	4.762
130	T.V.A. Kusumam, N.K. Renuka	<u>Effect of crystal plane orientation in tuning the photocatalytic activity of zinc oxide particles,</u>	Materials Today: Proceedings, 5,8 (2018) 16118	1	18	SNIP 0.654
131	AK Akhila, PS Vinitha, NK Renuka	<u>Photocatalytic Activity of Graphene–Titania Nanocomposite</u>	Materials Today: Proceedings, 5, 8 (2018) 16085	3	18	SNIP 0.694
132	R. Balasubramanian, S. Sreenikesh, R. M. Ramakrishnan, P. Raveendran, B. Narayanan	Sucrose-mediated mechanical exfoliation of graphite: a green method for the large scale production of graphene and its application in catalytic reduction of 4-nitrophenol	<i>J. Chem.</i> 2017 , <i>41</i> , 11969-11978.		112	3.06

133	M S. Beegam, S. B Narendranath, P. Periyat*	Tuning of selective solar photocatalysis by Mn ²⁺ decorated nanocrystalline mesoporous TiO ₂	Solar Energy, 2017, 158 , 774-781	9	15 1	4.674
134	J. Kavil, S. G. Ullattil, Ahmed Alshahrie, P. Periyat	Polyaniline as photocatalytic promoter in black anatase TiO ₂	Solar Energy,2017, 158, 792-796	10	15 1	4.674
135	B. Naufal, S. G. Ullattil, P. Periyat	A dual function nanocrystalline TiO ₂ platform for solar photocatalysis and self-cleaning application	Solar Energy,2017, 155, 1380-1388	7	15 1	4.674
136	S. G. Ullattil, Tadka, J. Kavil, B.K. Vijayan, P. Periyat	A Sol-solvothermal Processed 'Black TiO ₂ ' as Photoanode Material in Dye Sensitized Solar Cells	Solar Energy,2017, 155, 490-495	12	15 1	4.674
137	S. G. Ullattil, Pradeepan Periyat	Microwave-power induced green synthesis of randomly oriented mesoporous anatase TiO ₂ nanoparticles for efficient dye sensitized solar cells	Solar Energy 2017, 147, 99-105	21	15 1	4.674

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Sr. No.	Authors	Papers published in peer reviewed journals	Journal, Volume, Year, Page No.	Citations	h-index	Impact factor range /Average Impact factor

138	P. Rugmini Ammal, M. Prajila, Abraham Joseph	Effective inhibition of mild steel corrosion in hydrochloric acid using EBIMOT, a 1, 3, 4-oxadiazole derivative bearing a 2-ethylbenzimidazole moiety: electro analytical, computational and kinetic studies	Egyptian journal of petroleum. 27 (2018) 823-833	13	19	2.061
139	M. Prajila, P. Rugmini Ammal, Abraham Joseph	Comparative studies on the corrosion inhibition characteristics of three different triazine based Schiff's bases, HMMT, DHMMT and MHMMT, for mild steel exposed in sulfuric acid	Egyptian journal of petroleum. 27(2018) 467-475	8	19	2.061
140	K. M. Shainy, P. Rugmini Ammal, Abraham Joseph	Development of passive film and enhancement of corrosion protection of mild steel in hydrochloric acid through the synergistic interaction of 2-amino-4-methyl benzothiazole (AMBT) and (E)-2-methylbenzo [d] thiazol-2-yl) imino-4-methyl phenol (MBTP)	Egyptian journal of petroleum. 27 (2018) 621-632	4	19	2.061
141	Shainy K M, Mathew Kuruvilla, Abraham Joseph	Electrochemical studies on the adsorption interaction and corrosion inhibition properties of a substituted triazinone, BCATDT on mild steel in hydrochloric acid.	Indian journal of chemical technology. 25 (2018) 9-20		33	0.614
142	P. Rugmini Ammal, M. Prajila, Abraham Joseph	Effect of substitution and temperature on the corrosion inhibition properties of benzimidazole bearing 1, 3, 4-oxadiazoles for mild steel in sulphuric acid: Physicochemical and theoretical studies	Journal of environmental chemical engineering. 6 (2018) 1072-1085	13	47	1.198

143	P. Rugmini Ammal, Anupama R. Prasad, Abraham Joseph	Comparative studies on the electrochemical and physicochemical behaviour of three different benzimidazole motifs as corrosion inhibitor for mild steel in hydrochloric acid	Egyptian journal of petroleum. 27 (2018) 1067-1076	4	19	2.061
144	Sam John, James Baben George, Abraham Joseph	Photoluminescence of Co: ZnNiO and Zr: ZnNiO nanocomposites capped with biodegradable polymer poly (2-ethyl-2-oxazoline)	In AIP Conference Proceedings. 1953 (2018) 060018	1		0.40
145	P. K. Jaseela, Abraham Joseph	Development of Flower Like Hierarchical Thiourea Loaded Titania–Poly Vinyl Alcohol Nano Composite Coatings for the Corrosion Protection of Mild Steel in Hydrochloric Acid	Journal of Inorganic and Organometallic Polymers and Materials. 28 (2018) 1468-1482	1	40	1.637
146	K. K. Anupama, Abraham Joseph	Experimental and theoretical studies on Cinnamomum verum leaf extract and one of its major components, eugenol as environmentally benign corrosion inhibitors for mild steel in acid media	Journal of Bio-and Tribo-Corrosion. 4 (2018) 30	19	10	1.81
147	Anupama R. Prasad, P. Rugmini Ammal, Abraham Joseph	Effective photocatalytic removal of different dye stuffs using green synthesized zinc oxide nanogranules	Materials Research Bulletin. 102 (2018) 116-121	20	96	3.355
148	M.T. Ramesan, P. Jayakrishnan, T. K. Manojkumar, G. Mathew	Structural, mechanical and electrical properties biopolymer blend nanocomposites derived from poly (vinyl alcohol)/cashew gum/ magnetite	Materials Research Express, 2018, 5, 15308-11	15	21	1.449

149	M.T. Ramesan , Chip py Jose, P. Jayakrishnan, T. Anilkumar	Multifunctional Ternary Composites of Poly (Vinyl Alcohol)/Cashew Tree Gum/Pumice Particles	Polymer Composites, 2018, 39, 38-45	16	73	2.268
150	T. Sampreeth, M. A. Al-Maghrabi, B. Bahuleyan, M. T. Ramesan	Synthesis, Characterization, Thermal Properties, Conductivity and Sensor Application Study of Polyaniline/ Cerium doped Titanium Dioxide Nanocomposites	Journal of Material Science, 2018, 53, 591-603.	42	154	3.442
151	M.T. Ramesan , Meghana Varghese, Jayakrishnan P, P. Periyat	Silver-doped Zinc Oxide as a Nanofiller for Development of Poly(vinyl alcohol)/Poly(vinyl pyrrolidone) Blend Nanocomposites	Advances in Polymer Technology, 2018, 37, 137-143.	22	39	2.663
152	M. T. Ramesan , P. Jayakrishnan, T. Anilkumar and G. Mathew	Influence of Copper Sulphide Nanoparticles on the Structural, Mechanical and Dielectric Properties of Poly (vinyl alcohol)/Poly (vinyl pyrrolidone) Blend Nanocomposites	Journal of Material Science: Materials in Electronics, 2018, 29, 1992-2000.	27	63	2.195
153	M. T. Ramesan and T. Sampreeth	In Situ Synthesis of Polyaniline/Sm-Doped TiO ₂ Nanocomposites: Evaluation of Structural, Morphological, Conductivity Studies and Gas Sensing Applications	Journal of Material Science: Materials in Electronics, 2018, 29, 4301-4311.	21	63	2.195
154	M. T. Ramesan , P.P. Privya, P. Jayakrishnan, G.Kalaprasad, B. K. Bahuleyan and M. A. Al-Maghrabi	Influence of Magnetite Nanoparticles on Electrical, Magnetic and Thermal Properties of Chitin/ Cashew Gum Biopolymer Nanocomposites	Polymer Composites, 2018, 39, E 540-549.	14	73	2.268

155	M. C. Divyasree, E Shiju, M. V. Vijisha, M.T. Ramesan and K. Chandrasekharan	Phenomenal Enhancement of Optical Nonlinearity in PTZ-I based ZnS/ZnSe Nanocomposites	Optical Materials, 2018, 79, 72-77.	4	92	2.687
156	M. T. Ramesan , V. Santhi, B. K. Bahuleyan and M. A. Al-Maghrabi	Structural Characterization, Material Properties and Sensor Application Study of In Situ Polymerized Polypyrrole/Silver Doped Titanium Dioxide Nanocomposites	Material Chemistry and Physics 2018, 211, 343-354.	22	132	2.781
157	V.C. Jasna, T. Anilkumar, A. A. Naik and M. T. Ramesan	Chlorinated Styrene Butadiene Rubber/Zinc Sulfide: Novel Nanocomposites with Unique Properties- Structural, Flame Retardant, Transport and Dielectric Properties	Journal of Polymer Research, 2018, 25, 144-14.	10	47	1.53
158	V.C. Jasna and M. T. Ramesan	Fabrication of Novel Nanocomposites from Styrene Butadiene Rubber/ Zinc Sulphide Nanoparticles	Journal of Material Science, 2018, 53, 8250-8262.	12	154	3.442
159	K. Suhailath, P. Jayakrishnan, B. Naufal, P. Periyat, V.C. Jasna, and M.T.Ramesan	Synthesis by In Situ Free Radical Polymerization, Characterization and Properties of Poly (n-butyl methacrylate)/Samarium doped Titanium Dioxide Nanoparticles Composites	Advances in Polymer Technology, 2018, 37, 1114-1123.	6	39	2.663
160	A. Nihmath and M.T.Ramesan	Preparation, Characterization, Thermal and Electrical Properties of Chlorinated EPDM/Hydroxyapatite Nanocomposites	Polymer Composites, 2018, 39, 2093-2100.	4	73	2.268

161	V.C. Jasna, T. Anilkumar, G. Mathew and <u>M.T. Ramesan</u>	Novel Nanocomposites based on Chlorinated Styrene Butadiene Rubber and Manganous Tungstate: Focus on Curing, Mechanical, Electrical and Solvent Transport Properties	Journal of Material Science, 2018, 53, 9861-9876.	9	154	3.442
162	<u>M.T. Ramesan</u> , C. Siji, G.Kalaprasad, B. K. Bahuleyan and M. A. Al-Maghrabi	Effect of Silver Doped Zinc Oxide as Nanofiller for the Development of Biopolymer Nanocomposites from Chitin and Cashew Gum	Journal of Polymers and the Environment, 2018, 26, 2983-2991.	20	64	2.765
163	V.C. Jasna, K. Priyanka, G. Mathew and <u>M.T. Ramesan</u> ,	Evaluation of Spectral, Thermal, Flame retardant, Dielectric, Solvent Diffusion and Transport Behavior of Novel Nanocomposite Derived from Chlorinated Styrene Butadiene Rubber and Manganous Tungstate	Polymer Composites, 2018, 39, E 1880-1889.	7	73	2.268
164	V.C. Jasna, T. Anilkumar and <u>M.T Ramesan</u>	Nanocomposite Materials Based on Zinc Sulfide Nanoparticles Reinforced Chlorinated Styrene Butadiene Rubber	Journal of Applied Polymer Science, 2018, 135, pp. 46538	7	149	2.188
165	A. Nihmath and <u>M.T. Ramesan</u>	Synthesis, Characterization, Processability, Mechanical Properties, Flame Retardant and Oil Resistance of Chlorinated Acrylonitrile Butadiene Rubber	Polymer for Advanced Technologies, 2018, 29, pp. 2165-2173.	12	82	2.162
166	P. Jayakrishnan and <u>M.T. Ramesan</u>	Temperature Dependence of the Electrical Conductivity of Poly (anthranilic acid)/Magnetite Nanocomposites and the Applicability of Different Conductivity Models	Polymer Composites, 2018, 39, 2791-2800.	16	73	2.268

167	M. C. Divyasree, K. Vasudevan, K. K. Abdul Basith, P. Jayakrishnan, M.T. Ramesan and K. Chandrasekharan	Third-order nonlinear optical properties of Phenothiazine-Iodine Charge Transfer complexes in different proportions	Optics and Laser Technology, 2018, 105, 94-101.	5	63	3.319
168	M. T. Ramesan and V. Santhi	Synthesis, Characterization, Conductivity, Thermal Properties and Sensor Application Study of Polypyrrole/Silver Doped Nickel Oxide Nanocomposites	Composite Interfaces, 2018, 25, 725-741.	16	40	2.025
169	K. Suhailath and M.T. Ramesan	Effect of Nano Ce doped TiO ₂ on AC Conductivity and DC Conductivity Modeling Studies of Poly (n-butyl methacrylate)	Journal of Electronic Materials, 2018, 47, pp. 6484-6493.	9	87	1.676
170	M. T. Ramesan , T. Anjitha, K. Parvathi, T. Anilkumar and G. Mathew	Nano Zinc Ferrite Filler Incorporated Polyindole/Poly (vinyl alcohol) Blend: Preparation, Characterization and Investigation of Electrical Properties	Advances in Polymer Technology, 2018, 37, 3639-3649.	13	39	2.663
171	V.C. Jasna and M.T. Ramesan	Preparation, Characterization, Dielectric Properties and Solvent Imbibing Behavior of Styrene Butadiene Rubber/Zinc Sulfide Nanocomposites	International Journal of Plastics Technology, 2018, 23, 217-233	3	11	0.36
172	Shameera Ahamed TK, Vijisha K Rajan, K Muraleedharan	QSAR classification-based virtual screening followed by molecular docking studies for identification of potential inhibitors of 5-Lipoxygenase	Computational Biology and Chemistry 77(2018)154-166 .	4	55	1.66

173	Vijisha K Rajan, Shameera Ahamed TK, K Muraleedharan	Data on the UV filtering and radical scavenging capacity of the bitter masking flavanone Eriodictyol	Data in Brief 20 (2018) 981–985	3	17	1.56
174	Vijisha K. Rajan, Shameera Ahamed TK, Hasna C.K., K Muraleedharan	A non toxic natural food colorant and antioxidant ‘Peonidin’ as a pH indicator: A TDDFT analysis	Computational Biology and Chemistry 76 (2018) 202–209.	3	55	1.66
175	P. Ajmala Shireen, K. Muraleedharan, V.M. Abdul Mujeeb	Theoretical studies on anti-oxidant potential of alpinetin	Materials today: proceedings 5(2) (2018)8908-8915 DOI: 10.1016/j.matpr.2017.12.325	2	18	1.82
176	Vijisha K Rajan, C.K. Hasna, K Muraleedharan	The natural food colorant Peonidin from cranberries as a potential radical scavenger – A DFT based mechanistic analysis	Food Chemistry 262 (2018) 184–190	3	221	4.2
177	K.P. Safna Hussan, M. Shahin Thayyil, Vijisha K. Rajan, K. Muraleedharan	Experimental and theoretical studies on a double active pharmaceutical ingredient, benzalkonium ibuprofenate	Computational Biology and Chemistry 72(2018)113-121	3	55	1.66
178	Mujeeb Rahman P, VM Abdul mujeeb, K. Muraleedharan	Chitosan /nano ZnO composite films; enhanced mechanical, antimicrobial and dielectric properties	Arabian Journal of Chemistry 11(2018)120-127	9	43	4.1
179	Varsha Raveendran, A dukamparai Rajukrishnan Suresh Babu, Neeroli Kizhakayil Renuka	Mint leaf derived carbon dots for dual analyte detection of Fe(III) and ascorbic acid	RSC Advances, 9 (2019)12070	31	113	3.119
180	Anju M., Renuka N.K.	Graphene–dye hybrid optical sensors	Nano-Structures & Nano-Objects, 17 (2019) 194	11	14	4.25

181	A. K. Akhila, N. K. Renuka	Coumarin–graphene turn-on fluorescent probe for femtomolar level detection of copper(II)	New Journal of Chemistry, 43 (2019) 1001	5	112	3.288
182	Anju M., Renuka N.K.	Graphene-dye supramolecular assembly for parts per trillion level F– monitoring	Materials Research Bulletin, 110 (2019) 50	2	96	4.019
183	V.A. Ansi, N. K. Renuka,	Exfoliated Graphitic Carbon Dots: Application in Heavy Metal Ion Sensing	Journal of Luminescence, 205 (2019) 467	8	104	3.280
184	Ansi V.A., Renuka N.K.	Sucrose Derived Luminescent Carbon Dots as a Promising BioMedical Agent	Materials Today: Proceedings, 18 (2019) 1724	1	18	SNIP 0.654
185	Ansi V. A., Ritu G., Thasleena Panakkal, Aji A. Anappara, Renuka N. K.	Acetic acid derived carbon dots as efficient pH and bio-molecule sensor	International Journal of Environmental Analytical Chemistry ISSN: 0306-7319, DOI: 10.1080/03067319.2019.1669581. 2019 October		38	1.628
186	A. Antony, J. Ramachandran, R. M. Ramakrishnan, P. Raveendran*	Sizing of paper with sucrose octaacetate using liquid and supercritical carbon dioxide as a green alternative medium	J. CO ₂ Utilization (2018), 28, 306-312.		33	5.99
187	A. Antony, A. Raj, J. Ramachandran, R. M. Ramakrishnan, S. L. Wallen, P. Raveendran*	Sizing and desizing of cotton and polyester yarns using liquid and supercritical carbon dioxide with non-fluorous CO ₂ -philes as size compounds.	ACS Sus. Chem. Engg. (2018), 6, 12275-12280.		65	7.63
188	A. Ajayan, V. Madhavan, S. Chandran, P. Raveendran* ,	A Simple Anti-solvent Method for the Controlled Deposition of Metal and Alloy Nanoparticles	New. J. Chem. (2018), 42, 11979-11983		112	3.09

189	K. Shaniba, M. Akbar, K. Ramseena, P. Raveendran , B. Narayanan, R. M. Ramakrishnan.	Sunlight-assisted oxidative degradation of cefixime antibiotic from aqueous medium using TiO ₂ /nitrogen doped holey graphene nanocomposite as a high performance photocatalyst	J. Env. Chem. Engg. (2018), 2213-3437.		47	4.02
190	U. Rajeena, M. Akbar, P. Raveendran , R. M. Ramakrishnan.	Fluorographite to hydroxy graphene to graphene: a simple wet chemical approach for good quality grapheme	New. J. Chem. (2018), 42, 9658-966		112	3.09
191	Yahya A. Ismail , M. Luqman, R.S. Mane, Yasser Griesh, Habib Pathan	Advances in Applications of Polymer Nanocomposites, https://doi.org/10.1155/2019/713698	Advances in Material science and Engineering, 2019,1-2 (Hindawi)	1	23	1.399
192	S. Jose, S. B Narendranath, D. Joshy, NV Sajith, MR P. Kurup, P. Periyat	Low temperature synthesis of NIR reflecting bismuth doped cerium oxide yellow nano-pigment	Nano-Structures & Nano-Objects, 2019, 18, 1-5	7	124	3.019
193	J. Kavil, A. Alshahrie, P. Periyat	CdS sensitized TiO ₂ nano heterostructures as sunlight driven photocatalyst	Materials Letters, 2018, 233,82-85	23	14	1.097
194	S. G. Ullattil, S. B Narendranath, S. C Pillai, P. Periyat	Black TiO ₂ nanomaterials: a review of recent advances	Nano-Structures & Nano-Objects, 2018, 16, 24-30	91	172	6.97
195	J. Kavil, PM Anjana, P. Periyat , RB Rakhi	Titania nanotubes dispersed graphitic carbon nitride nanosheets as efficient electrode materials for supercapacitors	Chemical Engineering Journal, 2018,343, 708-736	6	63	6.97
196	B. Babu, S. G. Ullattil, P. Periyat , M. M. Shajumon	Ti ³⁺ Induced Brown TiO ₂ Nanotubes for High Performance Sodium-Ion Hybrid Capacitors	J. Materials Science: Materials in Electronics, 2018. 598, 16598-1660	33	65	6.97

197	M S.s Beegam, S.G. Ullattil, P. Periyat	Selective Solar Photocatalysis by High Temperature Stable Anatase TiO ₂	ACS Sustainable Chemistry & Engineering, 2018, 4, 5401-5412	2	151	4.674
198	J. Kavi, PM Anjana, R. B. Rakhi, P. Periyat.	One-Pot Synthesis of g-C ₃ N ₄ /MnO ₂ and g-C ₃ N ₄ /SnO ₂ Hybrid Nanocomposites for Supercapacitor Applications	Solar Energy, 2018, 160, 10-17	20	159	4.912

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Sr. No.	Authors	Papers published in peer reviewed journals	Monographs, Books, Chapters in books	Citations	h-index	Impact factor range /Average Impact factor
199	Shamsheera K O, Anupama R Prasad, Julia Garvasis, Sabeel M Basheer, Abraham Joseph	Stearic acid grafted chitosan/epoxy blend surface coating for prolonged protection of mild steel in saline environment	Journal of Adhesion Science and Technology. 33 (2019) 2250-2264	2	61	1.039
200	K. M. Shainy, Anupama R. Prasad, AshaThomas, Abraham Joseph	Synergistic interaction of 2-amino 4-methyl benzothiazole (AMBT) and benzotriazole (BTZ) offers excellent protection to mild steel exposed in acid atmosphere at elevated temperatures: Electrochemical, computational and surface studies	Egyptian Journal of Petroleum. 28 (2019) 35-45	-	19	2.061

201	Sam John, Alfeena Salam, Anju Maria Baby, Abraham Joseph	Corrosion inhibition of mild steel using chitosan/TiO ₂ nanocomposite coatings	Progress in Organic Coatings. 129 (2019) 254-259	13	96	3.420
202	Rugmini Ammal P, Anupama R Prasad, Ramya K, Sam John, Abraham Joseph	Protection of mild steel in hydrochloric acid using methyl benzimidazole substituted 1, 3, 4-oxadiazole: computational, electroanalytical, thermodynamic and kinetic studies	Journal of Adhesion Science and Technology. 33 (2019) 2227-2249	3	61	1.039
203	Jaseela P.K, Julia Garvasis, Abraham Joseph	Selective adsorption of methylene blue (MB) dye from aqueous mixture of MB and methyl orange (MO) using mesoporous titania (TiO ₂)–poly vinyl alcohol (PVA) nanocomposite	Journal of Molecular Liquids. 286 (2019) 110908	7	82	4.561
204	P. K. Jaseela, K. O. Shamsheera, Abraham Joseph	HMDS–GPTMS Modified Titania Silica Nanocomposite: A New Material for Oil–Water Separation	Journal of Inorganic and Organometallic Polymers and Materials. (2019) 1-8	-	40	1.637
205	Anupama R. Prasad, Julia Garvasis, Shamsheera Kunnekkat Oruvil, Abraham Joseph	Bio-inspired green synthesis of zinc oxide nanoparticles using Abelmoschus esculentus mucilage and selective degradation of cationic dye pollutants	Journal of Physics and Chemistry of Solids. 127 (2019) 265-274	10	97	2.752
206	Anupama R. Prasad, Sabeel M. Williams, Abraham Joseph	Highly selective inhibition of α -glucosidase by green synthesised ZnO nanoparticles-In-vitro screening and in-silico docking studies	International journal of biological macromolecules. 139 (2019) 712-718	2	101	4.784

207	Anupama R. Prasad, Sabeel M. Basheer, Induja R. Gupta, K.K. Elyas, Abraham Joseph	Investigation on Bovine Serum Albumin (BSA) binding efficiency and antibacterial activity of ZnO nanoparticles	Materials Chemistry and Physics. 240 (2020) 122115	3	132	2.781
208	Linda Williams, Anupama R. Prasad, P. Sowmya, Abraham Joseph	Characterization and Temperature dependent DC conductivity study of bio templated nickel oxide nanoparticles (NiO) and their composites using polyaniline (PANI)	Materials Chemistry and Physics. 242 (2020) 122469	-	132	2.781
209	Julia Garvasis, Anupama R. Prasad, K.O. Shamsheera, P.K. Jaseela, Abraham Joseph	Efficient removal of Congo red from aqueous solutions using phyto-genic aluminum sulfate nano coagulant	Materials Chemistry and Physics https://doi.org/10.1016/j.matchemphys.2020.123040	-	132	2.781
210	Asha Thomas1 · P. Rugmini Ammal2 · Abraham Joseph	A comprehensive study of mild steel corrosion in the aggressive acidic environment using CMPPC, a substituted pyrazole derivative	Chemical Papers, 2020, https://doi.org/10.1007/s11696-020-01142-0	-	37	1.246
211	Shamsheera KO, Anupama R. Prasad, Jaseela PK, Abraham Joseph	Development of self-assembled monolayer of stearic acid grafted chitosan on mild steel and inhibition of corrosion in hydrochloric acid	Chemical Data Collections Vol.28, 2020, https://doi.org/10.1016/j.cdc.2020.100402	-	5	0.94
212	Anupama R Prasad, Anagha M, Shamsheera K O and Abraham Joseph	Bio-fabricated ZnO nanoparticles: Direct sunlight driven selective photodegradation, antibacterial activity and thermoluminescence emission characteristics	New Journal of Chemistry, 2020, DOI: 10.1039/d0nj01611j	-	112	3.069

213	K. Suhailath and <u>M.T. Ramesan</u>	Theoretical and Experimental Studies on DC Conductivity and Temperature Dependent AC Conductivity of Poly (butyl methacrylate)/Nd doped TiO ₂ Nanocomposites	Journal of Thermoplastic Composite Materials, 2019, DOI: 10.1177/0892705718817350.	2	39	1.343
214	K. Suhailath and <u>M.T. Ramesan</u>	Effect of Neodymium Doped Titanium Dioxide Nanoparticles on the Structural, Mechanical and Electrical Properties of Poly (butyl methacrylate) Nanocomposites	Journal of Vinyl and Additive Technology, 2019, 25, 9-18.	8	32	1.292
215	K. Suhailath and <u>M.T. Ramesan</u>	Investigations on the Structural, Mechanical, Thermal and Electrical Properties of Ce Doped TiO ₂ /Poly (n-butyl methacrylate) Nanocomposites	Journal of Thermal Analysis and Calorimetry, 2019, 135, 2159-2169.	8	78	2.471
216	T. Anjitha, T. Anilkumar, G. Mathew and M. T. Ramesan,	Zinc Ferrite @ Polyindole Nanocomposites: Synthesis, Characterization and Gas Sensing Applications	Polymer Composites, 2019, 40, 2802-2811.	8	73	2.268
217	M. T. Ramesan, K. Nushhat, K. Parvathi and T. Anilkumar	Nickel oxide @polyindole/phenothiazine blend nanocomposites: preparation, characterization, thermal, electrical properties and gas sensing applications	Journal of Material Science: Materials in Electronics, 2019, 30, 13719-13728.	6	63	2.195

218	<u>M. T. Ramesan</u> , and K. Dilsha	Structural Properties, Conductivity, Dielectric Behaviour and Gas sensing Application of Polyaniline/Phenothia zine/ Copper Sulphide Blend Nanocomposites	Materials Research Express, 2019, 6, 105328	3	21	1.449
219	B. K.Bahuleyan, C. Induja and <u>M.T. Ramesan</u>	Influence of titanium dioxide nanoparticles on the structural, thermal, electrical properties, and gas sensing behavior of polyaniline/phenothia zie blend nanocomposites	Polymer Composites, 2019, 40, 4816-4826.	3	73	2.268
220	S. Sankar, K. Parvathi and <u>M. T. Ramesan</u>	Structural Characterization, Electrical Properties and Gas Sensing Applications of Polypyrrole/ Cu- Al ₂ O ₃ Hybrid Nanocomposites	High Performance Polymers, 2020, 32, 719-728.		38	1.584
221	K. Suhailath and <u>M.T. Ramesan</u>	Effect of Ceria Nanoparticles on Mechanical Properties, Thermal and Dielectric Properties of Poly (butyl methacrylate) Nanocomposites	Polymer Composites, 2020, 41, 2344-2354.	0	73	2.268
222	S. Sankar, A. A. Naik, T. Anilkumar and <u>M.T. Ramesan</u>	Characterization, Conductivity Studies, Dielectric Properties and Gas Sensing Performance of In- Situ Polymerized Polyindo le / Copper Alumina Nanocomposites	Journal of Applied Polymer, 2020, DOI: 10.1002/app.49145 Science, 2018, 135, 46538	0	149	2.188
223	S. Sankar, Meenu Thomas and <u>M.T. Ramesan</u>	Synthesis, Characterization, Gas Sensing and Electrical Property Evaluation of Polyaniline / Copper–Alumina Nanocomposites	Polymer Composites, 2020, 41, 900-910.	0	73	2.268

224	A. Nihmath and <u>M.T. Ramesan</u>	Comparative Evaluation of Oil Resistance, Dielectric Properties, AC Conductivity and Transport Properties of Nitrile Rubber and Chlorinated Nitrile Rubber	Progress in Rubber Plastics and Recycling Technology, 2020, DOI: 10.1177/1477760620925490	0	11	0.559
225	<u>M.T. Ramesan</u> , K. P. Greeshma, K. Parvathi and T. Anilkumar,	Structural, Electrical, Thermal and Gas Sensing Properties of New Conductive Blend Nanocomposites Based on Polypyrrole/Phenothiazine/Silver Doped Zinc Oxide"	Journal of Vinyl and Additive Technology, 2020, 26, 187-195.	1	32	1.292
226	K. Suhailath, Meenu Thomas and <u>M.T. Ramesan</u>	Effect of Temperature on AC Conductivity of Poly (butyl methacrylate)/Cerium Dioxide Nanocomposites and Applicability of Different Conductivity Modeling Studies	Research on Chemical Intermediates, 2020, 46, 2579-2594.	0	43	2.024
227	K.P. Safna Hussan, M. Shahin Thayyil, Shameera Ahamed T.K., <u>K. Muraleedharan</u>	Biological Evaluation and Molecular Docking Studies of Benzalkonium Ibuprofenate	Computational Biology and Chemistry DOI: http://dx.doi.org/10.5772/intechopen.90191	2	55	
228	V.A Ansi, K.R.Vijisha, <u>K.Muraleedharan</u> , <u>N.K.Renuka</u>	Fluorescent Carbon Nanodots as an Efficient Nitro Aromatic Sensor-Analysis Based On Computational Perspectives	Sensors and Actuators A: Physical 302(2020)111817 DOI: org/10.1016/j.sna.2019.111817	4	139	2.8
229	K. Sabira, <u>K. Muraleedharan</u>	Exploration of the thermal decomposition of zinc oxalate by experimental and computational methods	Journal of Thermal Analysis and Calorimetry 10.1007/s10973-019-09169-6	2	78	2.2

230	Vijisha K. Rajan, C. Ragi, K. Muraleedharan	A computational exploration into the structure, antioxidant capacity, toxicity and drug-like activity of the anthocyanidin "Petunidin"	Heliyon 5 (2019) e02115	3	11	1.62
231	G.S. Amitha , Vijisha K. Rajan , B. Amritha , K. Muraleedharan , Sunil Vasudevan	Betti base and its modified phthalonitrile derivative for the turn on fluorimetric detection of Hg 2+ and Cr 3+ ions	Journal of Photochemistry & Photobiology A: Chemistry 382 (2019) 111904	5	145	2.89
232	Sindhu N.V. K. Muraleedharan	Kinetic study of the multistep thermal behaviour of barium titanate prepared via chemical precipitation method	Journal of Thermal Analysis and Calorimetry 136(2019)1295-1306 DOI : 10.1007/s10973-018-7777-7	2	78	2.2
233	Shameera Ahamed T.K., Vijisha K Rajan, K. Sabira, K. Muraleedharan	DFT and QTAIM based investigation on the structure and antioxidant behavior of lichen substances Atranorin, Evernic acid and Diffractaic acid	Computational Biology and Chemistry 80(2019)66-78	4	55	1.66
234	Nusrath K.and K. Muraleedharan	Effect of nano transition metal oxides of Fe, Co and Ni and Ferrites of Co and Ni on the multistage thermal decomposition of oxalates of Ce (III)	Journal of Thermal Analysis and Calorimetry 136(2019)549-563	2	78	2.2
235	Shameera Ahamed T.K., Vijisha K Rajan, K. Muraleedharan	QSAR modeling of benzoquinone derivatives as 5-lipoxygenase inhibitors	Food Science and Human Wellness 8(2019)53-62 DOI: https://doi.org/10.1016/j.fshw.2019.02.001	2	13	1.3
236	K.P. Safna Hussan, M. Shahin Thayyil, Vijisha K. Rajan, K. Muraleedharan	DFT Studies on Global parameters, antioxidant mechanism and molecular docking of amlodipine besylate	Computational Biology and Chemistry 80(2019)46-53	4	13	1.66

237	M. Vintu, Vijisha K. Rajan, G. Unnikrishnan, K. Muraleedharan	Suzuki coupling derived indolocarbazole based macromolecule as a solid phase / solution phase sensor for Hg ²⁺ : Experimental and theoretical explorations	European Polymer Journal 114 (2019) 287–297	5	13	3.8
238	G. S. Amitha, Vijisha K Rajan, K. Muraleedharan , Suni Vasudevan	Novel 4,4'-Fluoresceinoxy Bisphthalonitrile Showing Aggregation-Induced Enhanced Emission and Fluorescence Turn off Behavior to Fe ³⁺ Ions	Journal of Fluorescence 29(2019)279-291 https://doi.org/10.1007/s10895-018-02338-0	5	13	1.67
239	V. A. Ansi, N. K. Renuka	Antagonistic interaction of Pb ²⁺ -Al ³⁺ ion pair with sugar derived Carbon dots: Visual monitoring of Al ³⁺ ions	Colloids and Surfaces A: Physicochemical and Engineering Aspects, 593, 20 (2020) 124632	1	149	3.99
240	V. A. Ansi, K. R. Vijisha, K. Muraleedharan, N. K. Renuka	Fluorescent carbon dots as efficient aromatic nitrocompound sensor-Analysis based on computational perspectives	Sensors and Actuators A: Physical, 302 (2020) 111817	5	139	2.904
241	M.P.Nikhila, Deepthi John, MrinalR.Pai, N.K.Renuka	Cu and Ag modified mesoporous TiO ₂ nanocuboids for visible light Cu and Ag modified mesoporous TiO ₂ nanocuboids for visible light driven photocatalysis	Nanostructures and Nanoobjects, 21 (2020) 100420	1	14	4.25
242	V. A. Ansi, N. K. Renuka	Stable luminescent markers from sugar for patterning and pH sensing applications	Colloids and Surfaces A: Physicochemical and Engineering Aspects, 572 (2019) 107	1	149	3.99

243	V. Madhavan, P. K. Gangadharan, A. Ajayan, S. Chandran, P. Raveendran,	Microwave-assisted solid-state synthesis of Au nanoparticles, size-selective speciation, and their self-assembly into 2D-superlattice, Nano-Structures & Nano-Objects	Nano-Structures & Nano-Objects (2019), 17, 218-22.		14	4.25
244	U. Rajeena, M Akbar, P. Raveendran, R. M. Ramakrishnan,	Graphene reduction of P25 titania: Ti ³⁺ -doped titania/graphene nanohybrids for enhanced photocatalytic hydrogen production,	Int. J. of Hydrogen Energy (2020) 45 (16), 9564-9574		187	4.23
245	U Rajeena, P Raveendran, RM Ramakrishnan	Stepwise defluorination of fluorographene: How do the structural features govern the rates of heterogeneous electron transfer?	J. Flu. Chem., 109555		82	2.05
246	Anjali C and Yahya A. Ismail	Large scale preparation of Polyaniline/Polyvinyl alcohol hybrid films through in situ chemical polymerization for flexible electrode materials.	J. Adhesion Science and Technology, 2020 Taylor and Francis 34:24,2685- 702, DOI: 10.1080/01694243.2020.1781352		61	1.35
247	Yahya A.Ismail, Jose G.Martinez and Toribio F.Otero	Conducting polymers as reactive materials for sensing working conditions: Chitosan/poly-o-toluidine hybrid microfiber as a reactive sensor	Electrochimica acta Under review		238	6.22

248	Chang Su Yeo , Young-Jung Heo , Dr. Min Kyoon Shin , Jung Woon Heo , Jong-Hoon Lee , Yong Yeol Park , Seong-Jun Moon , Yahya Ismail , Le Hoang Sinh , Dr. SangYoon Park	Rolled-up Production of Conductive and Capacitive Graphene Fibers through Ultrafast Gel Reduction : Over 100 Graphene Fibers- Inserted Yarn as High-Performance Supercapacitor	ACS Applied Energy Materials		39	4.89
249	J. Kavil, PM Anjana, CP Roshni, P. Periyat , RB Rakhi	Multifunctional nanohybrid material from discarded razor blades as cost- effective supercapacitor electrodes and oil- spill cleaners	Applied Surface Science, 2019, 487, 109-115	3	159	5.155
250	S. Jose, D. Joshy, S. B Narendranath, P. Periyat	Recent advances in infrared reflective inorganic pigment	Solar Energy Materials and Solar Cells, 2019, 194	14	168	6.019
251	J. Kavil, S. Pilathottathil, M. S. Thayyil, P. Periyat	Development of 2D nano heterostructures based on g-C3N4 and flower shaped MoS2 as electrode in symmetric supercapacitor device	Nano-Structures & Nano-Objects, 2019, 18, 1-5	2	14	1.097

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Sr. No.	Authors	Papers published in peer reviewed journals	Journal, Volume, Year, Page No.	Cita tion s	<i>h</i> - ind ex	Impa ct facto r range /Aver age Impa ct facto r

252	Sidheeka M P, Geethu Rajendran, Shabeeba A.K and Yahya A. Ismail	Current Sensing Supercapacitors based on Poly-o-toluidine/chitosan composites	Journal of Materials Research(Springer), May 2021 https://doi.org/10.1557/s43578-021-00241-2 Available online		143	2.52
253	Roopasri R, Sivakrishna Prakash, Yahya A. Ismail	Synthesis and Characterization of Polyaniline/Polyvinyl alcohol composites as supercapacitors	Rubber, Polymers and composites, Taylor and Francis Accepted, 2021		39	1.54
254	Shamsheera KO, Prasad AR, Joseph A	Extended protection of mild steel in saline and acidic environment using stearic acid grafted chitosan preloaded with mesoporous-hydrophobic silica (mhSiO ₂).	Surface and Coatings Technology. 402 (2020) 126350. (Elsevier)	20	96	3.784
255	Shamsheera KO, Prasad AR, Joseph A.	Extended protection of mild steel in saline and acidic environment using stearic acid grafted chitosan preloaded with mesoporous-hydrophobic silica (mhSiO ₂).	Surface and Coatings Technology. 402 (2020) 126350. (Elsevier)	2	61	3.784
256	Anupama R. Prasad, Linda Williams, Julia, K.O. Shamsheera , Sabeel M. Basheer, Mathew Kuruvilla , Abraham Joseph,	Applications of phytogenic ZnO nanoparticles: A review on recent advancements,	Journal of Molecular Liquids 331 (2021) 115805, (Elsevier)	13	96	5.054

257	Anupama R. Prasad, K.O. Shamsheera, Abraham Joseph	Electrochemical and surface characterization of mild steel with corrosion resistant zirconia network fabricated by aqueous sol-gel technique	Journal of the Indian Chemical Society,98, (2021), 100052(Elsevier) IF: 0.228	3	61	1.039
258	A.T. Jeeja Rani, Asha Thomas, Abraham Joseph,	Inhibition of mild steel corrosion in HCl using aqueous and alcoholic extracts of <i>Crotalaria Pallida</i> – A combination of experimental, simulation and theoretical studies	Journal of Molecular Liquids 334, (2021) 116515,(Elsevier), IF:5.054		40	1.637
259	K.O. Shamsheera, Anupama R. Prasad, P.K. Jaseela, Abraham Joseph	Effect of surfactant addition to Guar Gum and protection of mild steel in hydrochloric acid at high temperatures: Experimental and theoretical studies	Journal of Molecular Liquids 331 (2021), 115807, IF: 5.054	10	97	2.752
260	Anila Paul, Shamsheera K.O., Anupama R. Prasad, Abraham Joseph	Electroanalytical and surface studies on the protective action of a coating of PVA@3WGO on mild steel in acidic and saline environment	Results in Surfaces and Interfaces,4, (2021), 100018			
261	K. Suhailath and <u>M.T. Ramesan</u>	Theoretical and Experimental Studies on DC Conductivity and Temperature Dependent AC Conductivity of Poly (butyl methacrylate)/Nd doped TiO ₂ Nanocomposites	Journal of Thermoplastic Composite Materials, 2020, 33, 1061-1077	2	39	1.529

262	A. Nihmath and <u>M.T. Ramesan</u>	Development of Novel Elastomeric Blends Derived from Chlorinated Nitrile Rubber and Chlorinated Ethylene Propylene Diene Rubber	Polymer Testing, 2020, 89, 106728	5	98	3.275
263	K. Suhailath, Meenu Thomas and <u>M.T. Ramesan</u>	Studies on Mechanical Properties, Dielectric Behavior and DC Conductivity of Neodymium Oxide/ Poly (butyl methacrylate)	Polymer & Polymer Composites, 2020, DOI: 10.1177/0967391120960658		28	1.023
264	A. Nihmath and <u>M.T. Ramesan</u>	Studies on the Role of Hydroxyapatite Nanoparticles in Imparting Unique Thermal, Dielectric, Flame Retardancy and Petroleum Fuel Resistance to Novel Chlorinated EPDM/ Chlorinated NBR Blend	Research on Chemical Intermediates, 2020, 46, 5049-5068	2.26 2	1	43
265	A. Nihmath and <u>M.T. Ramesan</u>	Fabrication, Characterization, Dielectric Properties, Thermal Stability, Flame Retardancy and Transport Behavior of Chlorinated Nitrile Rubber/ Hydroxyapatite Nanocomposites	Polymer Bulletin, 2020, DOI: 10.1007/s00289-020-03469-w	2.01 4	-	55

266	A. Nihmath and <u>M.T. Ramesan</u>	Hydroxyapatite as a Potential Nanofiller in Technologically Useful Chlorinated Acrylonitrile Butadiene Rubber	Polymer Testing, 2020, 91, 106837	3.27 5	1	98
267	K. Suhailath, B.K. Bahuleyan and <u>M.T. Ramesan</u>	Synthesis, Characterization, Thermal Properties and Temperature-Dependent AC conductivity Studies of Poly (butyl methacrylate)/ Neodymium Oxide Nanocomposites	Journal of Inorganic and Organometallic Polymers and Materials, 2021, 31, 365-374	1.94 1	-	40
268	A. Nihmath and <u>M.T. Ramesan</u>	Development of Hydroxyapatite Nanoparticles Reinforced Chlorinated Acrylonitrile Butadiene Rubber / Chlorinated Ethylene Propylene Diene Monomer Rubber Blends	Journal of Applied Polymer Science, 2021, 138, 50189		1	2.52
269	A. Nihmath and <u>M.T. Ramesan</u>	Comparative Evaluation of Oil Resistance, Dielectric Properties, AC Conductivity and Transport Properties of Nitrile Rubber and Chlorinated Nitrile Rubber	Progress in Rubber Plastics and Recycling Technology, 2021, 37, 131-147		0	0.742
270	K. Parvathi, M. A. Al-Maghrabi, M. Subburaj and <u>M.T. Ramesan</u>	Natural Rubber and Copper Alumina Nanocomposite Based Flexible Elastomer-Inorganic Hybrid Systems	Polymer Composites, 2021, DOI: 10.1002/pc.26170		1	2.265

271	U. Rajeena, M Akbar, P. Raveendran , R. M. Ramakrishnan,	Graphene reduction of P25 titania: Ti ³⁺ -doped titania/graphene nanohybrids for enhanced photocatalytic hydrogen production,	Int. J. of Hydrogen Energy (2020) 45 (16), 9564-9574		215	4.94
272	U Rajeena, P Raveendran , RM Ramakrishnan	Stepwise defluorination of fluorographene: How do the structural features govern the rates of heterogeneous electron transfer?	J. Flu. Chem., 109555 2020		82	2.332
273	Ramachandran, J. P.; Kottammal, A. P.; Antony, A.; Ramakrishnan, R. M.; Wallen, S. L.; Raveendran, P.	Green processing: CO ₂ -induced glassification of sucrose octaacetate and its implications in the spontaneous release of drug from drug-excipient composites,	Journal of CO ₂ Utilization, 47 (2021) 10147,		53	5.99
274	Ansi, V. A.; Sreelakshmi, P.; Raveendran, P. ; Renuka, N. K. ,	Table sugar derived carbon dot—A promising green reducing agent,	Materials Research Bulletin 139 (2021) 111284		110	4.02
275	A.K. Akhila, A.R. Suresh Babu, N.K. Renuka ,	Cu(II) monitoring at attomolar level assisted by rGO mediated PET	Materials Letters 289 (2021) 129397		144	3.204
276	M. Anju, A.K. Akhila, N.K. Renuka	Non-covalently functionalised rGO –fluorescein unit for selective detection of fluoride ions,	Nano-Structures & Nano-Objects 24 (2020) 100606		27	4.25
277	V. A Ansi, N. K. Renuka	Table Sugar Derived Carbon Nanodots For the Extraction of Bulk Silver	Materials Letters, 284, 2, 2021, 128985		144	3.204

278	T.VArshaKusuma, V.S Siril, K.N. Madhusoodanan, M. Prashantkumar, Y.T Ravikiran, N.K Renuka	NO ₂ gas sensing performance of Zinc Oxide Nanostructures Synthesized by Surfactant Assisted Low Temperature Hydrothermal Technique	Sensors and Actuators: A. Physical, 318 (2021) 112389		139	2.9041
279	T. Divya, C.Anjali, K.R.Sunajadevi, K.Anas, N.K.Renuka	Influence of hydrothermal synthesis conditions on lattice defects in cerium oxide	Journal of Solid state Chemistry, 300, (2021) 122253		142	2.726
280	Vijayasree Harids, Zahira Yakob, Renuka N.K. , S. Sugunan, N. N. Binitha,	Selective Electrochemical Determination of Paracetamol using Hematite/Graphene Nanocomposite Modified Electrode Prepared in a Green Chemical Route,	Materials Chemistry and Physics 263(2021) 124379		152	3.408
281	K. Parvathi, M. A. Al-Maghrabi, M. Subburaj and M.T. Ramesan	Natural Rubber and Copper Alumina Nanocomposite Based Flexible Elastomer-Inorganic Hybrid Systems	Polymer Composites, 2021, DOI: 10.1002/pc.26170			
282	Roymon Joseph	Selective Detection of Fe ³⁺ , F ⁻ , and Cysteine by a Novel Triazole-Linked Decaamine Derivative of Pillar[5]arene and Its Metal Ion Complex in Water	ACS Omega, 5,2020, 6215-6220	3	40	2.87
283	Rohit Varshney, Mujeeb Alam, Chinmayee Agashe, Roymon Joseph , Debabrata Patra	Pillar[5]arene Microcapsules Turn on Fluid Flow in Presence of Paraquat	Chemical Communications, 56, 2020, 9284-9287	3	333	5.996

284	Roymon Joseph	Pillar[n]arene derivatives as sensors for amino acids	Chemistry Select, 14, 2021, 3519-3533.	0	34	1.881
285	Siby Mathew, Abin Sebastian, Fazalurahman Kuttassery , Shinsuke Takagi, Hiroshi Tachibana, Haruo Inoue	Acid-Base Equilibria of Axial Ligand and Peripheral Pyridyl Group with Stepwise Formation of Nine Species of Aluminum (III) Tera(4-Pyridyl) Porphyrin	Inorganica Chimica Acta (Under Review)		99	2.304

Sr. No.	Papers published in peer reviewed journals	Monographs, Books, Chapters in books	Citations	<i>h</i> -index	Impact factor range/Average Impact factor
	285	12	1401	12488	2.56
Details are given below :-					

Books and Book Chapters

	Title of Book /Book Chapters with Authors	Book /edited volume details	Publishers	Remarks
1	Role of nanoparticles on polymer composites, M.T. Ramesan	Woodhead Publishing Series in Composites Science and Engineering, 2017	Elsevier. 978-0-08-101991-7	Book Chapter
2	Recent Advances in Nanotechnology and Material Sciences, December, Editor: Yahya A. Ismail	UGC-HRDC, University of Calicut Dec. 2018	ISBN : 978-3-16-148410-0. Published by University Grants Commission HRDC of University of Calicut,	Book
3	Applications of Advances in Polymer Nanocomposites, Lead Editor: Yahya A. Ismail	Advances in Materials Science and Engineering (SCI Expanded) March 2019	ISSN: 1687-8434 (Print) ISSN: 1687-8442 (Online) by Hindawi Publishing	Lead Editor

4	Conducting Polymer/Hydrogel systems as Soft Actuators" Yahya A. Ismail , Shabeeba A.K, Siddika. M.P and Lijin Rajan	book edition "Actuators: Fundamentals, Principles, Materials and Applications" by Scrivener April 2020	by Wiley-Scrivener, Print ISBN:9781119661146 Online ISBN:9781119662693	Book Chapter
5	Black TiO ₂ nanomaterial, Pradeepan periyat	Book edition "Visible Light-Active Photocatalysis" by Wiley International 10 April 2018	Wiley International 10 April 2018 ISBN: 9783527342938	
6	Advances in the Development of Novel Photocatalysts for Detoxification, Pradeepan periyat	Book edition "Visible Light-Active Photocatalysis" 10 April 2018	Wiley International ISBN: 9783527342938	
7	Sol Gel synthesis of titanium dioxide, Pradeepan periyat	Book edition "Sol-Gel Materials for Energy, Environment and Electronic Applications" 2017	Springer International ISBN : 978-3-319-84326-1	
8	TiO ₂ nanomaterials a Future prospect, Pradeepan periyat	Book edition "Photocatalytic Nanomaterials for Environmental Applications " February 2018	Material Research Forum, USA International ISBN : 978-1-94529-58-6	
9	Synthesis, characterisation and application of Sm ³⁺ doped CeO ₂ , Pradeepan periyat	Book edition "Photocatalytic Nanomaterials for Environmental Applications" February 2018	Material Research Forum, USA International ISBN : 978-1-94529-58-6	
10	Black TiO ₂ nanomaterials for selective photocatalysis, Pradeepan periyat		SH College International ISBN : 978-81-930558-0-9	
11	A short review on Mesoporous TiO ₂ , Pradeepan periyat		UGC-HRDC University of Calicut ISBN : 978-3-16-148410-0	
12	'Corrosion Inhibition in Oil and Gas Industry: Economic Considerations', Anupama R. Prasad, Anupama K Abraham Joseph	Corrosion Inhibitors in the Oil and Gas Industries.	Wiley-VCH Verlag GmbH & Co. KGaA, of Boschstr. 12, 69469 Weinheim, Germany (the "Publisher").	

13	Abraham Joseph		
14	Characterization techniques for morphological and physicochemical evaluation of nanomaterials Animesh M. Ramachandran, Roymon Joseph , Adersh Asok	Nanobiotechnology: Microbes and Plant Assisted Synthesis of Nanoparticles, Mechanisms and Applications, 1 st Edition, Elsevier, 2021 , p21-50	Elsevier 978-0-12-822878-4

24. Details of patents filed & granted and income generated:

Title: Slow Release Fertilizer Composite and Process for Preparation Thereof

Inventors: **Dr. P. Raveendran and Anu Antony**

Indian Patent Application No. 201941950835 A

Date of filing application: 09.12.2019

Date of Publication: 11.06.2021

25. Consultancy services provided, name of the teacher/s and income generated:

Sr. No.	Year	Name of the teacher	Nature of consultancy	Funds generated (In Lakh)

26. Details of teachers invited as resource persons for Refresher courses, Orientation courses, Seminars, Workshops, Conferences at national and international levels.

No	Name of Faculty	Programme	Organised by	Date	Remarks
1	Abraham Joseph	UGC Sponsored Refresher Course in Nano Science	UGC-HRD Centre, University of Calicut, Kerala	14/12/2018	Resource Person
2	Abraham Joseph	Periodic Table of Life	Nirmalagiri College Kannur, Kerala	23/09/2019	Resource Person
3	Abraham Joseph	National Seminar on Spectroscopy	Govt. Arts & Science College, Calicut, Kerala	17/10/2019	Resource Person
4	Abraham Joseph	Two Day National Seminar on Recent Advances in Chemistry	Govt. Brennen College, Thalassery, Kerala	19/11/2019	Resource Person

5	Renuka N. K.	International Conference ICNM 2017	International and Interuniversity Centre for Nanoscience and Nanotechnology, Mahathma Gandhi University, Kottayam	11-2- 2017	Resource Person
6	Renuka N. K.	UGC sponsored Refresher Course	UGC HRDC Kannur University	20-7- 2017	Resource Person
7	Renuka N. K.	National seminar	PSGR Krishnammal College for Women, Coimbatore	11-8- 2017	Resource Person
8	Renuka N. K.	National Seminar-Ctric 2018	Dept. of Applied Chemistry, CUSAT cusat during	16-2- 2018	Resource Person
9	Renuka N. K.	Regional Seminar	Dept of Physics, PSMO College, Thirurangadi	5-3-2018	Resource Person
10	Renuka N. K.	National Seminar	Dept of Chemistry, Govt. Colege, Kasaragod	5-11- 2018	Resource Person
11	Renuka N. K.	National Seminar-EFCS 2018	Dept. of Chemistry, Farook college	24-11- 2018	Resource Person
12	Renuka N. K.	International Conference on Advanced Materials	IUMSE, Mahatma Gandhi University, Kottayam	9-8-2019	Resource Person
13	Renuka N. K.	National Seminar on Recent Trends in Materials Science	Department of Chemistry, Govt. College, Chittur	5 -12-2019	Resource Person
14	Renuka N. K.	State Level Seminar on Novel Trends in Chemistry for Environmental Sustainability	Post Graduate Department of Chemistry, KAHM Unity Womens College, Manjeri	4 -2- 2020	Resource Person
15	Pradeepan Periyat	UGC sponsord Refresher Course	Academic Staff college, Kannur University	22/07/2017	Resource Person
16	Pradeepan Periyat	National Seminar	DTE and Govt. engineering college, Trissur	24/07/2017	Resource Person

17	Pradeepan Periyat	UGC sponsord Refresher Course	Academic Staff College, Kannur University	18/08/2017	Resource Person
18	Pradeepan Periyat	National Seminar	Govt. College Kattappana	08/11/2017	Resource Person
19	Pradeepan Periyat	National Seminar	DCE and KKTM government college, Tirur	14/11/2017	Resource Person
20	Pradeepan Periyat	National Seminar	Payyanur college, Payyanur	11/12/2017	Resource Person
21	Pradeepan Periyat	National Seminar	University of Calicut	27/02/2018	Resource Person
22	Pradeepan Periyat	National Seminar	Sahrdaya college, Kodakara	14/02/2018	Resource Person
23	Pradeepan Periyat	National Seminar	KSCSTE and Saint Joseph college autonomous, Trissur	16/02/2018	Resource Person
24	Pradeepan Periyat	National Seminar	Kannur university, Payyanur campus	16/03/2018	Resource Person
25	Pradeepan Periyat	International Conference on Nanomaterials ICN-2018		13/05/2018	Resource Person
26	Pradeepan Periyat	UGC sponsord Refresher Course	Kannur University	09/11/2018	Resource Person
27	Pradeepan Periyat	National Seminar	Dept. of Chemistry, Govt. Engineering College, Palakkad	27/11/2018	Resource Person
28	Pradeepan Periyat	National Seminar	Saint Joseph college autonomous, Trissur	15/02/2018	Resource Person
29	Pradeepan Periyat	UGC sponsord Refresher Course	University of Calicut	15/02/2019	Resource Person
30	Pradeepan Periyat		DCE and T.M. Jacob Memorial Government college, Manimala	17/01/2019	Resource Person

31	M. T. Ramesan	State level	Department of Industries and Commerce, Common Facility Centre (CFC), Govt. of Kerala, Payyanad, Manjeri,	25/08/2017	Resource Person
32	M. T. Ramesan	State level	Department of Industries and Commerce, Common Facility Centre (CFC), Govt. of Kerala, Payyanad, Manjeri,	13/11/2017	Resource Person
33	M. T. Ramesan	State level	Department of Industries and Commerce, Common Facility Centre (CFC), Govt. of Kerala , Payyanad, Manjeri,	24/09/2018	Resource Person
34	M. T. Ramesan	State level	Department of Industries and Commerce, Common Facility Centre (CFC), Govt. of Kerala, Payyanad, Manjeri,	03/07/2019	Resource Person
35	M. T. Ramesan	State level	Department of Industries and Commerce, Common Facility Centre (CFC), Govt. of Kerala, Payyanad, Manjeri,	07/08/2019	Resource Person
36	M. T. Ramesan	State level	Department of Industries and Commerce, Common Facility Centre (CFC), Govt. of Kerala, Payyanad, Manjeri,	20/08/2019	Resource Person

37	M. T. Ramesan	State level	Department of Industries and Commerce, Common Facility Centre (CFC), Govt. of Kerala, Payyanad, Manjeri,	10/02/2020	Resource Person
38	Yahya A. Ismail	Training Programme on Academic Leadership Conducted by PMMMNT & CALEM AMU	MES Keveeyam College Valanchery, Malappuram, Kerala	18/07/2018	Resource Person
39	<u>Yahya A. Ismail</u>	International Conference on Chemistry, Industry and Environment (ICCIE-2019)	ZH College of Engineering and Technology, Aligarh Muslim University, India,	18/2/2019	Invited talk /Resource person
40	Yahya A. Ismail	Seminar Cum Workshop on Outcome Based Education	Vedavyasa Institute of Technology Malappuram, Kerala	28/08/2019	Lead Resource Person
41	Yahya A. Ismail	04 Days Training Programme on Academic Leadership Conducted by PMMMNT & CALEM AMU	P.S.M.O. College Tirurangadi, Kerala	22/03/2019	Resource Person
42	Yahya A. Ismail	Short Run Course on Designing Outcome Based Curriculum for Faculty in Sciences and Social Sciences	MHRD-TLC, Department of Education, University of Calicut, Kerala	06/07/2019	Resource Person
43	Yahya A. Ismail	UGC Sponsored Orientation Programme	UGC – HRDC, University of Calicut, Kerala	11/10/2019	Resource Person
44	Yahya A. Ismail	UGC Sponsored Orientation Programme	UGC – HRDC, University of Calicut, Kerala	07/11/2019	Resource Person
45	Yahya A. Ismail	UGC Sponsored Refresher Course in Material Science	UGC – HRDC, University of Calicut, Kerala	10/12/2019	Resource Person

46	Yahya A. Ismail	Short Run Course on Innovations and Rejuvenations on Teaching in Higher Education for Faculty in Universities and Colleges	MHRD-Teaching Learning Centre, Department of Education, University of Calicut, Kerala	12/12/2019	Resource Person
47	Yahya A. Ismail	UGC Sponsored Orientation Programme	UGC – HRDC, University of Calicut, Kerala	14/01/2020	Resource Person
48	Yahya A. Ismail	UGC Sponsored Orientation Programme	UGC – HRDC, University of Calicut, Kerala	05/10/2020	Resource Person
49	Yahya A. Ismail	UGC Sponsored Refresher Course on Materials Sciences	UGC – HRDC, University of Calicut, Kerala	31/10/2020	Resource Person
50	Yahya A. Ismail	UGC Sponsored 2 nd Induction Orientation Programme	UGC – HRDC, University of Calicut, Kerala	09/12/2020	Resource Person
51	Yahya A. Ismail	UGC Sponsored 3 rd Induction Orientation Programme	UGC – HRDC, University of Calicut, Kerala	12/01/2021	Resource Person
52	Yahya A. Ismail	UGC Sponsored program on Strategic Planning for Quality Improvement	UGC – HRDC, University of Calicut, Kerala	13/02/2021	Resource Person
53	Yahya A. Ismail	UGC Sponsored 3 rd Induction Orientation Programme	UGC – HRDC, University of Calicut, Kerala	27/02/2021	Resource Person
54	Yahya A. Ismail	National Conference on Emerging Frontiers in Chemical Sciences' EFCS – 2020	Post graduate and Research department of Chemistry, Farook College, Calicut,	5/ 12/2020	Resource person
55	P.Raveendran	International conference on material science (ICCPM-2018)	St. Thomas College, Thrissur	19-21 December 2018	Invited speaker
56	P.Raveendran	Emerging Frontiers in Chemical Sciences, EFCS 2019	Farooq college	13-15 December 2019	Invited Speaker
57	Yahya A. Ismail	International Webinar series on Novel areas of Chemical Research	Post graduate and department of Chemistry, KAHM Unity Women's College	03/10/2020	Resource person

58	Royon Joseph	UGC Sponsored Refresher Course in Material Science	UGC-HRDC, University of Calicut	05/12/2019	Resource Person
59	Roymon Joseph	Webinar on Supramolecular Chemistry	Department of Chemistry, D. B. Pampa College, Parumala, Kerala	28/05/2020	Resource Person
60	Roymon Joseph	Workshop on Supramolecular Chemistry	Sree Sankara Vidyaapeetom College, Perumbavoor, Kerala	12/06/2021	Resource Person

27. Details of teachers participated in Refresher courses, Orientation courses, Seminars, Workshops, Conferences at national and international levels.(participant, presented paper, chaired the session)

SNo	Title of the paper & Authors	Conference/Seminar Details	Vanue, Date	National /International	Paper Presented/ Chaired/Invited, Resource Person
1	Polymeric Sensing Electrochemical Motors. One Device with Two Tools Working Simultaneously: Mimicking Proprioception, <u>Yahya A. Ismail</u> and Toribio F. Otero	68 th Annual Meeting of the International Society of Electrochemistry(ISE)	Providence, RI, USA, 27 th August - 1 st September 2017.	International	Paper presented
2.	Artificial Muscles based on Conducting Polymers: Towards Artificial Proprioception <u>Yahya A. Ismail</u>	InInternational Conference on Chemistry, Industry and Environment (ICCIE-2019)	ZH College of Engineering and Technology, Aligarh Muslim University, India, 18-19, Feb 2019	International	Invited talk

3	ynthesis and Characterization of Poly-o-toluidine/ Chitosan composites, Geethu R and <i>Yahya A.Ismail</i> ,	ernational Conference on ' Emerging Frontiers in Chemical Sciences' EFCS – 2019	Postgraduate and Research department of Chemistry, Farook College, Calicut, India. 13-15 December 2019	Internationa l	Paper Presented
4	Electrochemical actuation characteristics of a hydrogel/polyaniline microfiber artificial muscle. Evidence for a mechanical sensor, <u><i>Yahya A. Ismail</i></u>	National seminar on Frontiers in chemical Sciences (FCS -2018),	University of Calicut, Kerala, India, 28-28 th Feb 2018.	National	Paper Presented
5	Synthesis and Characterisation of Polyvinyl alcohol/Polyaniline composite systems, Roopasri R &Yahya A.Ismail	National Seminar 'Frontiers in Chemical Sciences' FCS-2019.	Department of Chemistry, University of Calicut. Feb 2019	National	Paper Presented
6	Synthesis and properties of Polyaniline Nanowires coated Polyvinyl alcohol hybrid films, Anjali C&Yahya A.Ismail	National Seminar 'Frontiers in Chemical Sciences' FCS-2019.	Department of Chemistry, University of Calicut. Feb 2019	National	Paper Presented
7	Synthesis and Electrochemical Characterization of Conducting polymers/ Chitosan hybrid film as Concentration sensor, Sidheekha M. P &Yahya A.Ismail	National Seminar 'Frontiers in Chemical Sciences' FCS-2020 'Advances in Electrochemistry and Materials Science'	Department of Chemistry ,University of Calicut. 29-31 January 2020	National	Paper Presented

8	Synthesis and Electrochemical Characterization of Polypyrole/ hydrogel hybrid film as Current Sensor, Shabeeba A.K&Yahya A.Ismail	National Seminar 'Frontiers in Chemical Sciences' FCS-2020 'Advances in Electrochemistry and Materials Science'	Department of Chemistry ,University of Calicut. 29-31 January 2020	National	Paper Presented
9	Synthesis and Electrochemical Characteristics of Polyaniline doped with different Acids, Thasneem C &Yahya A.Ismail	National Seminar 'Frontiers in Chemical Sciences' FCS-2020 'Advances in Electrochemistry and Materials Science'	Department of Chemistry, University of Calicut. 29-31 January 2020	National	Paper Presented
10	<i>Yahya A. Ismail</i>	International Conference ' Emerging Frontiers in Chemical Sciences' EFCS – 2019	Postgraduate and Research department of Chemistry, Farook College, Calicut, India. 14 th December 2019	International	Session Chaired
11	<i>Yahya A. Ismail</i>	ESMAC International Conference	Postgraduate and Research department of Chemistry, MES College, Mampad, Malappuram, India. 15 th January 2020	International	Session Chaired
12	Fazalurahman Kuttassery	International conference on materials for the millenium	Department of Applied Chemistry, CUSAT, Kerala, INDIA 15-19 March 2021	International	Session Chaired

No	Name of Faculty	Programme	Organised by	Date	Remarks
13	Abraham Joseph	UGC Sponsored Refresher Course in Biosciences	UGC-HRD Centre, University of Calicut, Kerala	29/01/2018	Session Chair
14	Abraham Joseph	UGC Sponsored Orientation Programme	UGC-HRD Centre, University of Calicut, Kerala	06/03/2018	Session Chair
15	Abraham Joseph	UGC Sponsored Orientation Programme	UGC-HRD Centre, University of Calicut, Kerala	08/10/2018	Session Chair
16	Abraham Joseph	UGC Sponsored Orientation Programme	UGC-HRD Centre, University of Calicut, Kerala	27/11/2018	Session Chair
17	Abraham Joseph	UGC Sponsored Orientation Programme	UGC-HRD Centre, University of Calicut, Kerala	25/08/2017	Session Chair
18	Dr. M.T. Rameshan	A national conference on light	NIT Calicut	10/01/ 2017	Paper presented
19	Dr. M.T. Rameshan	National conference on Frontiers in chemical science FCS-2018	University of Calicut	27/02/2018	Paper presented
20	Dr. M.T. Rameshan	MESMAC International conferences	MES Mampad College	16/01/2019	Paper presented
21	Dr. M.T. Rameshan	31 st Kerala Science Congress	Kollam	03/02/2019	Paper presented
22	Dr. M.T. Rameshan	National conference on Frontiers in chemical science FCS-2019	University of Calicut	20/03/2019	Paper presented

28. Participation of teachers in various academic activities as members of committees at University level, State level, National level, International level bodies. (give details)

S.No	Name of faculty Member	Committee details	University/State/National/International level
1.	Prof. K Muraleedharan	Life Member, Indian thermal Analysis Society	National
		Director, CSIF, University of Calicut	University level
		Member, Academic Council, University of Calicut	University level
		Member, Academic committee, University of Calicut	University level

		Secretary, Departmental Alumni Association	University Level
6	Dr. Yahya A.I.	Member, Academic Council, University of Calicut	University level
		Member, PG Board of Studies in MSc Chemistry, University of Calicut	University level
		Chairman, Department Council, Dept of Chemistry, University of Calicut	University level
		Chairman of MSc Applied Chemistry Exam Board, University of Calicut,	University level
		Assistant Co-ordinator, Intellectual Property Right (IPR) cell, University of Calicut,	University level
		Member, University Committee in International Academic Collaboration,	University level
		Member, Research Advisory Council, University of Calicut, MES College, Mannarghat and PSMO College, Thirurangadi.	University level
2	Prof. Abraham Joseph	Former Dean, Faculty of Science, university of Calicut	University level
		Member University Planning Board, University of Calicut	University Level
		Member RAC (VC Nominee), St. Josephs college, Kozhikode; Govt. College Madappally, Kozhikkode; MES Mannarkad College, Palakkad.	University Level
		Member BOS in Chemistry CUSAT	University Level
		Member IQAC AAA Committee, CUSAT and MG University	University Level
		Member BOS in Chemistry, St. Thomas College Trichur	University Level
		Member Teacher Promotions committee in different Universities in Kerala	State Level

		Member various staff selection committee in different colleges in Kerala	State Level
		PhD Examiner at different Universities and National institutes across the country	University Level
		Member Governing Body:, St. Josephs college, Kozhikode; Nirmalagiri College Kuthuparamba, Kannur	State level
		Member, Academic Council, University of Calicut	University of Calicut
3	Prof. P.Raveendran	Member, Senate, University of Calicut	University level
		Dean, Faculty of Science Since 2017- 2019 (2 years)	University level
		Member academic Council 201-19	University level
		Chairman, MSc BOS in Applied Chemistry	University level
		Member, KVPY selection committee,	National University level
		Member, Planning Board, University of Calicut	University level
		Member, Research Advisory Committee, University of Calicut	
		Member, Human Ethics Committee Government Medical College, Manjeri	State level
		Member Selection committee (Universities in Kerala)	State level
		Expert Committee set up by the State Higher Education Council for empowering research in the Universities	State level
4.	Dr. M.T. Ramesan	Chairman, BOS in MSc Chemistry, University of Calicut Member BOS in MSc Applied Chemistry Former member, BOS in Pharmaceutical Chemistry,	University level

		Member, BOS in Polymer Chemistry, BOS in Gemmology and Jewellery designing, Member BOS in Industrial Chemistry	University level
		Member, Academic Committee, University of Calicut,	University Level.
5.	Dr. Pradeepan Periyat	Chairman Board of Studies, MSc Applied Chemistry, University of Calicut, Member Board of Studies, Saint Joseph College, Iringalkuda (Autonomus), Trissur, Kerala.	University level University level
6.	Dr. N.K.Renuka	Member, BOS in MSc Applied Chemiastry Member, BOS in Polymer Chemistry Secretary, Department Council, Dept of Chemistry, University of Calicut Co-ordinator, Erudite Programme, University of Calicut Co-ordinator, Frontier Lecture Programme, University of Calicut Member, Research Advisory Committee, University of Calicut Member Teacher Promotions committee Member, Board of Studies, Farook College, Farook	University level University level University level University level University level University level University level University level
7	Dr. Fazalurahman K	Secretary, Alumni Association, Department of Chemistry	University level

29. Details of teachers appointed/nominated on Editorial Boards at university, state, national and international levels.

S.No	Name of faculty Member	Details of Journal	Role
1	Prof. K.Muraleedharan	J. Thermal Analysis and Calorimetry (Springer)	Member, editorial Board
2	Prof. K.Muraleedharan	International J. Biological Macromolecules (Elsevier)	Member, editorial Board
3.	Prof. K.Muraleedharan	J. Computational Biology and Chemistry (Elsevier)	Member, editorial Board
4.	Prof. P.Raveendran	Peer J	Member, Editorial Board

30. Awards / Prizes and recognitions received by teachers at university, state, national and international level:

S.No.	Name of Faculty Member	Details of the award
1	Dr. Pradeepan Peryat	Young Scientist Award of Kerala State Council for Science, Technology and Environment (KSCSTE), 2018
2	Dr. P. Raveendran	Selected among world top 2 percentage scientists 2020 (university of sanfransisco)
3	Dr. M.T. Ramesan	Selected among world top 2 percentage scientists 2020 in polymer science. (Stanford university)
2.	Dr. M.T. Ramesan	Outstanding Contribution in Reviewing , Synthetic Metals, Elsevier, Amsterdam, 03/2017
3	Dr. M.T. Ramesan	Outstanding Contribution in Reviewing Journal of Molecular Liquids, Elsevier, Amsterdam, 09/2017
4	Dr. M.T. Ramesan	Outstanding Contribution in Reviewing , Journal of Industrial Engineering and Chemistry, Elsevier, Amsterdam, The Netherlands 04/2018
5	Dr. M.T. Ramesan	Outstanding Contribution in Reviewing, Material Research Bulletin, Elsevier,Amsterdam, The Netherlands06/2018
6	Dr. M.T. Ramesan	Outstanding Contribution in Reviewing, Carbohydrate Polymers, Elsevier, Amsterdam, The Netherlands09/2018
7	Dr. M.T. Ramesan	Outstanding Contribution in Reviewing, Results in Physics, Elsevier 09/2018

31. Awards and Prizes received by students at university, state, national and international level:

No	Name of student	Name of supervisor	Awards/prizes	Details	Year
1	Anupama R. Prasad	Dr. Abraham Joseph	RSC best chemical communication prize	Chemical research society of India, 26 th national symposium in chemistry (CRSI-RSC-26)B & 14 th CRSI-RSC joint symposium at VIT University	2020
2	Ansi V. A.	Dr. N. K. Renuka	Second prize in oral presentation	National Seminar 'Frontiers in Chemical Sciences' FCS-2020 'Advances in Electrochemistry and Materials Science' by University of Calicut	2020

3	Anu Antony	Dr. P. Raveendran	First prize in poster presentation	National Seminar 'Frontiers in Chemical Sciences' FCS-2020 'Advances in Electrochemistry and Materials Science' by University of Calicut	2020
4	Anupama R. Prasad	Dr. Abraham Joseph	Second prize in oral presentation	National Seminar 'Frontiers in Chemical Sciences' FCS-2020 'Advances in Electrochemistry and Materials Science' by University of Calicut	2020
5	Shabeeba A. K.	Dr. Yahya A. I	Second prize in poster presentation	National Seminar 'Frontiers in Chemical Sciences' FCS-2020 'Advances in Electrochemistry and Materials Science' by University of Calicut	2020
6	Sidheekha M. P	Dr. Yahya A. I	Third prize oral presentation	National Seminar 'Frontiers in Chemical Sciences' FCS-2020 'Advances in Electrochemistry and Materials Science' by University of Calicut	2020
7	Thasneem	Dr. Yahya A. I	Third prize in poster presentation	National Seminar 'Frontiers in Chemical Sciences' FCS-2020 'Advances in Electrochemistry and Materials Science' by University of Calicut	2020
8	Julia Garvasis	Dr. Abraham Joseph	First prize in poster presentation	FCS 2019 by University of Calicut	2019
9	Linda Williams	Dr. Abraham Joseph	Second prize in poster presentation	FCS 2019 by University of Calicut	2019
10	Jaseela P. K.	Dr. Abraham Joseph	Best poster award	TEQIP II Sponsored international conference on advances in biological, chemical, and physical sciences (ABCPS'2017) BY Anna university	2017
11	Shameera Ahamed T. K.	Dr. K. Muraleedharan	Best poster presentation award	Emerging frontiers in chemical sciences (EFCS-2017)	2017
12	Sindu N. V.	Dr. K. Muraleedharan	Best oral presentation award	International conference on advanced materials science and technology (ICAMST-2017) by Bannari Amman Institute of Technology	2017
13	Arshad (Details to be added)	Prof Abraham Joseph	Best oral presentation award	EFCS 2020 Farook College	2020

32. Details of Seminars/ Conferences/Workshops organized at university, state, national and international level and the source of funding with details:

Name of Conference/ Seminars / Workshops	Funding agency	No. of Participants	University/State/National/ International	Dates
Affordable clean water using advanced materials	University	120	National	March 22,2016
Seminar on “Hazards and Environmental Issues of Fireworks”	University	90	National	10th March 2017
National Seminar on “Frontiers in Chemistry” 2017	University	122	National	28th to 30th March 2017
Frontier Lecture on " Time domain invivo EPR Imaging and MRI in Cancer Research"by Prof. S. Subramanyan, IIT Madras	University	97	National	10th July 2017
Frontier Lecture on “Phosphorescent Organometallic Complexes as Emitters for Organic Light-emitting Diodes”	University	110	University level	25th September 2017

National Seminar on Frontiers in Chemical Sciences FCS-2018	KSCSTE & University	175	National	February 26-28, 2018
Frontier Lecture on Higher Education in India- Perspectives and Challenges by Prof. Goutham Desiraju, IISc, Bangalore	University	130	National	December 7, 2018
		150	National	
		100	University	March 19-21, 2019
National seminar on Frontiers in Chemical Sciences FCS - 2019	University	140		
		177		July 22 nd 2019
Seminar on Reversal of Polarity by SET Oxidation by Prof. Sundarababu Baskaran, IIT Madras	University	100	State level	
		130	State Level	December 19th 2019
Frontier Lecture on Battery wars ending with Nobel Prize in Chemistry By Prof. Vijayamohan Pillai	University			
	University		State level	December 19th 2019
Inspire Science Lecture on 150 years of Periodic table: A historical Perspective.	University			December 30th 2019
			State/University level	
Quiz Programme for School students based on 150 th anniversary of Periodic table (International year of periodic Table)	University			January 13 th 2020
Frontier Lecture on” importance of Early Questions” by Prof. Padmasri E.D.Jemmis, IISc, Bangalore				

National seminar on Frontiers in Chemical Sciences FCS 2020: Advances in Electrochemistry and Materials Science	University	150	National	January 29-31, 2020
Affordable Excellence: Doing Science in Indian Universities	University	200	National	September 28, 2020
Frontiers in Chemical Sciences (FCS 2021)	University	150	International	March 17-19, 2021
One day seminar on computational chemistry	University	150	State/university level	March 25, 2021

33. Student profile programme-wise at PG

PG	Applications Received	No. of students Admitted	Seats Available	Male	Female	Total	Year
MSc Applied Chemistry	424	24	24+3	2	22	24	2016-17
	743	25	24+3	2	23	25	2017-18
	908	24	24+3	2	22	24	2018-19
	1128	24	24+3	5	19	24	2019-20
	1257	31	31	3	28	31	2020-21

34. Year-wise results of students at PG:

PG	Year	Appeared	Passed	Pass%	Grade %		
		A	B		C		
	2016-17	24	24	100			
	2017-18	23	21	91			
	2018-19	25	24	96			
	2019-20	24	23	96			
	2020-21	ongoing batch		Result awaited			

35. Information about M. Phil. programme:

Year	Applications Received	No. of students admitted	Male	Female	Total

2016-17	69	9	1	8	9
2017-18	14	9	2	7	9
2018-19 ongoing batch	25	9	-	9	9
2019-20 ongoing	74	11	2	9	11
2020-21 notification to be called					

36. Information about Ph. D. programme :

Year	Applications Received	No. of students admitted	Male	Female	Total
2016-17	54	8	0	8	8
2017-18	61	6	3	3	6
2018-19	145	9	1	8	9
2019-20	120	8	2	6	8
2020-21 notified only					

37. Number of students awarded M.Phil., Ph.D ,Degree :

Year	M.Phil	Ph.D.	Male	Female	Total
2016-17	9	7	4	12	16
2017-18	9	11	5	15	20
2018-19	Result awaiting	11	-	11	11
2019-20	Undergoing batch	8	1	7	8
2020-21		9	3	6	9

38. Diversity of Students : (Year-wise)

Name of the Programme	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
UG	NA	NA	NA	NA

PG	85%	15%	Nil	Nil
M.Phil.	90%	10%	Nil	Nil
Ph. D.	90%	5%	5%	Nil

39. Number of students cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give Category wise data.

Year	KPSC/UPSC	NET/ SET	GATE	Other Exams	Total
2019-21	-	-	1	-	1
2018-20	-	2	7	1 (Jr.Engg.Asst.GR 2)	6
2017-19		4	3	-	7
2016-18	-	5	3	-	8
2015-17	1	5	-	-	6

40. Student progression/ placement record: Number/ percentage of students proceeded for higher studies Number/percentage of students placed:

Year	% proceeded for higher studies	PG to Ph.D (MSc/MPhil to PhD)	
	PG to M.Phil		
2016-17	12%	4%	-
2017-18		8%	-
2018-19			
2019-20	34.8%		

41. Diversity of Faculty:

Teaching faculty	%
from the same university	2 = 18.2 %
from other universities within the State	4 = 36.4 %
from other States	4 = 36.4 %
from outside the country	1 = 9.1 %

42. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. / D.Lit.:

NIL

43. details of departmental infrastructural & other facilities with regard to**a) Central Library Books and Journals, etc, relevant to Department :**

Books : 3195

Journals: 118

b) Departmental Library (books, journals etc.) : 6953

c) Computers and Internet facilities for staff : 13

d) Total number of class rooms : 3

e) Class rooms with ICT facility : 3

f) Students' laboratory : 6

g) Research laboratories : 1

h) Seminar Hall

i) Smart class room : 2

j) Any other facility LCDs,

44. List of post-doctoral students and Research Associates**a) Post-doctoral. students-**

Sr. No.	Name of the Faculty	Post-doctoral Students	Research Topic
1	Dr. Pradeepan Periyat	Dr. C. P Jijil	Brownmillerite ($A_2B_2O_5$) Based Solar Photocatalysts for Energy and Environmental Applications
2	Dr. Abraham Joseph	Dr. Sabeel M Basheer	Development of Multi ion chemosensors by structurally modified com-plexes of Mio-semicarbazons in aqueous nmedia; experimental and computational investigation on host-guest interaction

b) Research Associates

Sr. No.	Name of the Faculty	Research Associates	Research Topic
1			
2			

45. Number of post graduate students getting financial assistance from the university/state / central government

S.No.	Type of Scholarship	Number of Students
1.	PG Indira Gandhi Scholarship	2
2	Rank Scholarship	2

3	Central Sector Scholarship	1
4.	Inspire Scholarship	3
5	Higher Education Scholarships (Keral Govt)	6
6	SJMS Scholarship	8
7	CH Muhammed Koya Scholarship	7
8	Prof. Joseph Mundassery Scholar Scholarship	1
9	University Fellowship	12
10	E-grants	2019-21 -27
		2018-20 -20
		2017-19 - 22
		2016-18 - 25
11	ASPIRE Scholarship	8

46. Curricular Aspects:

a) Does the faculty take initiative in curriculum development process?

Yes, All faculty members are members of Department Council which is responsible for framing the curricula and syllabi of MSc Applied Chemistry. Many faculty members are either members or chairmen of various boards of Studies and Academic Council.

b) Is curriculum suitable to make students globally competitive in the subject? If yes, substantiate.

Yes, We frequently evaluate and benchmark with the syllabi with those in national institutes and global perspectives

Our syllabus is par with the international standards. The outgoing students have thorough knowledge in basic as well as applied aspects of the subject. Well placed alumni worldwide serve as the proof for the merit of our well-framed syllabi.

c) Does the department offer program with sufficient no. of electives options.

Yes, Sufficient Elective papers are offered in 3rd and 4th semester students. Along with vertical mobility students are advised to utilize the courses offered by other department to ensure horizontal mobility.

d) While framing curriculum, is feed-back taken from stakeholder's viz. Students/Alumni/Parents/Employers considered?

Yes, Suggestions from the students are collected at the end of each semester. The Department also organises PTA meetings at regular intervals so as to gather the opinions and suggestions from the parents. A good number of alumni is in touch with the department frequently, who too contribute towards the improvement of academic as well as non-academic Departmental activities.

e) What is the frequency of curriculum revision? (3/4/5 years or more)

Every 3 Year

f) Does the curriculum have emerging thrust areas, including interdisciplinary areas? (If yes, elaborate).

Yes, We offer courses in Nano Science, Bio-inorganic Chemistry, Advanced Polymers, Green Chemistry, Advanced synthesis and catalysis- New synthetic methodologies Solid State Chemistry, Organometallic chemistry, Synthetic organic chemistry, Computational Chemistry etc.

47. Teaching-Learning, Evaluation.

1) Number of teachers preparing & following Academic Teaching plan

All Teachers handle the classes as per the academic calendar published by Coordinator, CCSS time to time.

2) How many teachers use the following teaching methods:

a) Interactive lecture method using blackboard, Group discussions, Problem solving, Seminars.

All the Faculty Members

b) Use ICT methods to support lectures. All the faculty members

3) Does the Department have Peer review processes? If yes, are the suggestions effectively used to improve the teaching quality?

Yes. IQAC members and external auditors visit the department once in a year and analyse the feedback and concern of the department.

Feedbacks collected from the students are made available to the teacher concerned, and remedial measures, if required, are done. The Department council constantly monitors the progress of the students, and necessary steps for further improvement of the teaching quality, if required, are taken. Opinions of the parents are also taken care of, to assure the quality teaching.

4) Does the department have any mechanism to ensure that entire syllabus is completed?

Yes. Progress in Teaching and learning process is monitored and evaluated periodically during the department Council meetings, accordingly mid term test papers are conducted. If necessary special time tables are set for completion of theory courses by converting some of the lab hours.

5) Do you offer Bridge/Remedial courses? If yes, Give details.

Yes, remedial classes are offered during the tutorial hours for the needy students.

6) What is the method for conducting internal evaluation?

University has set rules and regulations for providing internal marks through mid term exams, assignments, seminar presentations, etc. Department follows the same rules and regulations for providing the internal marks.

48.. Teacher Performance:

1) Whether the performance of the teacher assessed by the students? If yes, are the feedback reports analysed and suggestions communicated to teachers?

Yes

2) Number of teachers getting a) Very Good 7 b) Good 5 (Including Guest/Contact Faculty members)

c) Average Very Good remarks from students.

3) Whether suggestion boxes are kept in the department to get suggestions from students on infrastructural facilities available in the department?

Yes

4) Are the suggestions received from students used for improvement of facilities?

Yes

5) Do teachers submit Self-Appraisal Reports? Are these reports appraised by HOD and forwarded to the university with comments?

Yes

6) What is the individual faculty wise h index?

S.No.	Name of Faculty Member	<i>h-Index</i>
1.	Dr.M.T Ramesan	23
2	Dr P.Raveendran	19
3	Dr. Abraham Joseph	19
4	Dr.PradeepanPeriyat	20
5	Dr. D. Bahulayan (on leave)	18
6	Dr. N. K Renuka	16
7	Dr. K.Muraleedharan (Retd)	14
8	Dr Yahya A.I	14
9	Dr. A R Suresh Babu	15
10	Dr. Roymon Joseph	15
11	Dr. Fazalurahman Kuttassery	10
12	Dr. Suja T.D.	11
13	Dr. Derry Holaday	NA

7) Give details of “beyond syllabus scholarly activities” of the department.

Seminars are being conducted on recent publications, discussion on selected research papers, discussion on theme topic of the year including nobel prize winning topic are being conducted for the students. Presentation competition on selected topics of contemporary relevance are also conducted. Interaction with scholars/external experts are facilitated. Students are directed to pursue their project work on a recent topics in Chemical sciences preferably in National institutes.

49. List the distinguished alumni of the department (maximum 10)

Prof. K.L. Sebastian (Bhatnagar awardee), Dr. A. Ajayaghosh (Bhatnagar awardee), Bhasikkuttan (BARC), P.L.Joy (NPL), M.Padmanabhan (M.G.University), Dr. A. Seema (CMET), Dr. Praveen (NIIST, Trivandrum), Dr. Nishanth (NIIST, Trivandrum, Dr, Minimol (NIT, Calicut),

50. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

The department conducts induction program for the MSc and Mphil students. Department regularly conducts Seminars, lectures, workshops by experts from various national institutes and universities.

51. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

. Department has a transparent feedback system for quite a long time. It includes students, parents, Alumni and other stakeholders. Those feed backs are critically analyzed in the department council meeting to monitor the progress of attainment of program objectives and learning outcomes. The department council meets at least twice in a month and teaching learning process is monitored.

52. Highlight the Special facilities (if, any) of the Department.

1. A well equipped computational Chemistry lab,
2. Center for Advanced Materials (CAM) consisting of equipment like Horiba Fluorescence Spectrometer, Electrochemical Workstation with spectro electrochemistry facility(Zennher), GONIOMETER (Contact angle measurement, FTIR (with ATR facility - Jasco), UV- Vis Spectrometer (Jasco), AAS, TGA, DSC, Brrokfield Viscometers and digital Refractometers and polarimeters

53. Highlight the unique features of the department.

Average h- index of Faculty members of the department : 17

Department having Highest number of Scopus/Web of Science indexed Journal publications in the university

Cordial Teacher student relationship
Dedicated faculty members striving in harmony for excellence
Cordial atmosphere with administrative staff
Satisfaction of students, parents and alumni
Better PTA interaction

54. State the Innovative practices adopted in the department.

Every Research scholar publishes minimum three papers in reputed international journal and national/international conference participation
Every PG student pursue Project wok in reputed national institutes
Financially poor students are supported by staff and PTA
Good progression ratio
Self sufficiency in wet and dry labs
Availability of Sophisticated equipments for students round the clock
Every PG student is familiar in advanced chemistry softwares like CHEM DRAW, GAUSSIAN etc

55. Highlight the participation of students and faculty in extension activities.

Facilities available in the department including sophisticated equipmnts are made available to external students and faculty members. Faculty expertise are utilized by other academic institutions like colleges and schools. Department organizes chemistry exhibitions occasionally in and outside the campus. Students are encouraged to associate with various co-curricular activities like NSS, NCC, Reading Club, Green Club, Sports Club, Red Ribbon Club, Film Club, Forestry Club, Fine Arts Club, Blood donation club, etc.

56. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

a. Strengths:

- The Dept. of Chemistry, University of Calicut is the most productive department in terms of number of publications in SCI/Scopus indexed journals with an average impact factor greater that 2.6, in terms of number of students intake and number of research scholars.
- The department is also unique in terms of diversity of faculties in respect of specialization and international exposure.

- Hastransparent admission criteria for MSc and MPhil program to attract best students. Total number of applicants for MSc is usually around 1200.
- Majority of Research scholars (over 90%) are recipients of UGC/CSIR/GATE/KSCSTE etc scholarships. The remaining PhD scholars receive university fellowships.
- Well maintained departmental library having more than 9000 books
- Center for advanced materials
- Highly competent administrative staff
- Contributes towards women empowerment: Highest number of girls students among PG/Mphil/PhD programs
- Strong involvement of PTA
- Good Alumni participation

b. Weaknesses:

- Lack of adequate space for teaching/research activities
- Lack of general/sufficient common facilities for research scholars and PG students
- Very poor internet connectivity due to lack of structured cabling
- Existing wet labs constructed long ago does not meet the contemporary needs.
- Vacant faculty position (needs to be filled at the earliest)

c. Opportunities:

- Highly talented students
- Diversity of students/ being from backward districts
- Diversity of faculties with international exposure
- Greater mutual understanding among faculty members
- International Connectivity/ Collaboration of Faculty members

d. Challenges:

- Minimum academic freedom with respect to teaching, learning and evaluation, and research activities. Pace of administrative process needs to be improved and major administrative reforms are needed.
- Inhibition of faculty members to apply and take up externally funded project due to the cumbersome administrative involvement (Difficulty in rising grants through externally funded projects)
- No start up grants
- Access to journals through inflienet – should be retained
- No mechanism/policy for faculties to support for their open access publication in reputed journals.

57.Future plans of the department:

a. Long term plans-

- To develop premium quality learning spaces, resources and technologies. -Establishing state of the art laboratory facilities for MSc students and Research scholars at international standards and construction of separate building to meet the needs of the department
- Enhance research consultancy and research commercialization
- Strive for Program accreditation by International Accreditation agencies (ACS or RSC)
- Launch a quality Research Journal in Chemical Sciences

b. Short term plans

- To restructure curriculum and learning strategies based on Outcome Based Education (OBE) and Implementing OBE .
- Starting new courses/ interdisciplinary courses for facilitating horizontal mobility
- Proposing new MSc programs in Materials Chemistry /Proposing new Integrated MSc programs
- Proposing new specialization in the existing MSc programme by offering new electives courses in 3rd and 4th semester
- Facilitate and enhance collaborations and partnerships between faculty, with other universities and research institutes, government and industries, nationally and internationally.
- To attract competent and creative faculty to lead academic and developmental activities of the department.

Declaration by the Head of the Department/Institution:

I am aware that the above information provided by the department will be validated by the AAA committee during the visit.

Head of Department

(Dr. Yahya A. Ismail)

Date: 22/06/2021

Dr. ABRAHAM JOSEPH (Professor)

1. Name of the faculty: Dr. Abraham Joseph
2. Name of the Department: Dept. of Chemistry
3. Educational qualifications: Ph. D.
4. Present position: Professor
5. Address for correspondence: Dept. of Chemistry, University of Calicut, Kerala, India
6. E-mail and contact number: abrahamjoseph@uoc.ac.in; drabrahamj@gmail.com
7. Specialization: Inorganic Chemistry/ Analytical Chemistry
8. Total teaching experience: 28 years
9. Courses taught: Inorganic Chemistry I, II&III and Bioinorganic Chemistry for Fourth Semester
10. Research experience: 16 Years
11. Major research projects completed: Nil
12. Minor research projects completed: 1
13. Number of students awarded Ph.D. degree: 8
14. Number of students registered for Ph.D. degree: 5

No.	Name	TOPIC	Year
1	Somya P.	Metal oxide nano architectures for photo electrochemical applications	2018
2	Linda Williams	Synthesis and characterization of novel G/GO/RGO @ M/MOx/MSx Nano structures for potential applications	2019
3	Jeejarani A T	Synthesis, characterization and analytical screening of coordination compounds of selected 'd' and 'f' block elements with macrocycles and other n, s, o donor mixed ligand systems	2019
4	Mohammed Arshad	Synthesis, characterization and sensing applications of novel schiff base ligands	2020
5	Anila Paul	Protection of steel in aggressive environments using natural polymers and their modifications"	2021

15. Provide information as indicated in 11 and 12 above.
16. Participation in conferences, symposium, seminars and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person.

No	Name of Faculty	Programme	Institution	Date	Remarks
1	Abraham Joseph	UGC Sponsored Refresher Course in Biosciences	UGC-HRD Centre, University of Calicut, Kerala	29/01/2018	Session Chair
2	Abraham Joseph	UGC Sponsored Orientation Programme	UGC-HRD Centre, University of Calicut, Kerala	06/03/2018	Session Chair
3	Abraham Joseph	UGC Sponsored Orientation Programme	UGC-HRD Centre, University of Calicut, Kerala	08/10/2018	Session Chair
4	Abraham Joseph	UGC Sponsored Orientation Programme	UGC-HRD Centre, University of Calicut, Kerala	27/11/2018	Session Chair
5	Abraham Joseph	UGC Sponsored Refresher Course in Nano Science	UGC-HRD Centre, University of Calicut, Kerala	14/12/2018	Resource Person
6	Abraham Joseph	Periodic Table of Life	Nirmalagiri College Kannur, Kerala	23/09/2019	Invited Lecture
7	Abraham Joseph	National Seminar on Spectroscopy	Govt. Arts & Science College, Calicut, Kerala	17/10/2019	Invited Lecture
8	Abraham Joseph	Two Day National Seminar on Recent Advances in Chemistry	Govt. Brennen College, Thalassery, Kerala	19/11/2019	Invited Lecture
9	Abraham Joseph	62 nd Meeting of the Student Project Committee	KSCSTE Thiruvananthapuram, Kerala	25/07/2017	Member for Project Proposal Evaluation
10	Abraham Joseph	IQAC Meeting	St. Theresa's College Ernakulam, Kerala	29/08/2017	IQAC Meeting
11	Abraham Joseph	Emerging Frontiers in Chemical Sciences (EFCS – 2017)	Farook College, Kozhikode, Kerala	23/09/2017 25/09/2017	Delivered a lecture
12	Abraham Joseph	Evaluation Committee for Promotion	N.S.S. College Ottapalam, Kerala	05/10/2017	University Nominee
13	Abraham Joseph	Subject Expert for the Selection of Assistant Professor	Mar Thoma College Chungathara, Kerala	08/01/2018	Subject expert
14	Abraham Joseph	Academic Audit	Cochin University of Science and Technology, Kerala	20/02/2018	Member of Academic audit
15	Abraham Joseph	Selection Committee of UGC Librarian	Nirmalagiri College Kannur, Kerala	07/03/2018	Manager's Nominee
16	Abraham Joseph	Interview for the post of Production Assistant, Administration Assistant and Academic Coordinator	Educational Multimedia Research Centre, University of Calicut, Kerala	26/03/2018	Interview Board Member
17	Abraham Joseph	Selection of Principals in NNS College	N.S.S. Colleges Central Committee, Changanacherry, Kerala	05/05/2018	Subject Expert
18	Abraham	Screening cum	Nehru Arts and	20/04/2018	Subject

	Joseph	Evaluation Committee Meeting	Science College, Kanhangad, Kerala		Expert
19	Abraham Joseph	Screening cum Evaluation Committee Meeting	N.S.S. College Manjeri, Kerala	07/02/2019	Subject Expert
20	Abraham Joseph	Two Day Workshop on Revised Accreditation Framework of NAAC and Quality Systems in Higher Education	IQAC, University of Calicut, Kerala	05/03/2019	Participation
21	Abraham Joseph	Selection Committee Member	Kannur University, Kerala	11/07/2019	Selection Committee Member
22	Abraham Joseph	V.C. Nominated Subject Expert	St. Pius X College Rajapuram, Kasargod, Kerala	28/08/2019	Subject Expert
23	Abraham Joseph	Two Day National Seminar on Spectroscopy: Theory and Practice	Govt. Arts and Science College Kozhikode, Kerala	17/10/2019 18/10/2019	Participation
24	Abraham Joseph	Subject Expert for the Appointment of Assistant Professors	Nirmalagiri College, Kannur, Kerala	11/02/2020	Subject Expert
26	Abraham Joseph	UGC Sponsored Orientation Programme	UGC-HRD Centre, University of Calicut, Kerala	25/08/2017	Session Chair

17. Innovative processes developed in teaching and learning.
18. Participation in curricular development: Dean, Faculty of Science. Chairman BOS in Chemistry. MSc And MPhil Syllabus revised
19. Participation in co-curricular and extra-curricular activities. Member IQAC
1. Member University Planning Board. Member RAC (VC Nominee), St. Josephs college, Kozhikode; Govt. College Madappally, Kozhikkode; MES Mannarkad College, Palakkad.
 2. Member Governing Body: St. Josephs college, Kozhikode; Nirmalagiri College Kuthuparamba, Kannur
 3. Member BOS in Chemistry CUSAT
 4. Member BOS Mangalore University
 5. Member IQAC AAA Committee, CUSAT and MG University
 6. Member BOS in Chemistry, St. Thomas College Trichur
 7. Member various staff selection committee in different colleges in Kerala
 8. Member Teacher Promotions committee in different Universities in Kerala
 9. Member Academic Council, Vimala College (Autonomous), Thrissur
 10. PhD Examiner at different Universities and National institutes across the country
20. Refresher and Orientation courses attended: NA
21. Examination /Evaluation reforms initiated:
22. Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index. Numbers in SCOPUS.

S. No	Author(s)	Title	Journal & year, Volume, pages	IF	Citation	h Index
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1	Sam John, R. Jeevana, K.K. Aravindakshan, Abraham Joseph	Corrosion inhibition of mild steel by N(4)-substituted thiosemicarbazone in hydrochloric acid media	Egyptian Journal of Petroleum. 26 (2017) 405-412 Elsevier	2.06 1	27	19
2	K. Ramya, K.K. Anupama, K.M. Shainy, Abraham Joseph	Corrosion protection of mild steel in hydrochloric acid solution through the synergistic of alkylbenzimidazoles and semicarbazide pair – Electroanalytical and computational studies	Egyptian Journal of Petroleum 26 (2017) 421-437	2.06 1	14	19
3	K.K. Anupama, K. Ramya, Abraham Joseph	Electrochemical measurements and theoretical calculations on the inhibitive interaction of Plectranthus amboinicus leaf extract with mild steel in hydrochloric acid	Measurement. 95 (2017) 297–305	2.79 1	26	70
4	Sam John, Abraham Joseph, Mathew Kuruvilla, Sajini T	Inhibition of Mild Steel Corrosion using Chitosan–Polyvinyl Alcohol Nanocomposite Films by Sol–Gel Method: An Environmentally Friendly Approach	Journal of Bio-and Tribo-Corrosion. 3 (2017) 3	1.81	11	10
5	Revathi Mohan, K. K. Anupama, Abraham Joseph	Effect of Methyl, Ethyl, and Propyl Substitution on Benzimidazole for the Protection of Copper Metal in Nitric Acid: Theoretical and Electrochemical Screening Studies	Journal of Bio-and Tribo-Corrosion. 3 (2017) 2	1.81	8	10
6	Mathew Kuruvilla, Anupama R. Prasad, Sam John, Abraham Joseph	Enhanced Inhibition of the Corrosion of Metallic Copper Exposed in Sulphuric Acid Through the Synergistic Interaction of Cysteine and Alanine: Electrochemical and Computational Studies	Journal of Bio-and Tribo-Corrosion. 3(2017) 5	1.81	8	10
7	M. Prajila, Asha	Development of Passive	Journal of Bio-and Tribo-	1.81	4	10

	Thomas, Abraham Joseph	Film and Enhancement of Corrosion Protection of Mild Steel Exposed in Hydrochloric Acid due to the Adsorption of Water Dispersed 4-[(E)-(3,4-Dihydroxybenzylidene)amino]-6-Methyl-3-1,2,4-Triazin-5(4H)-one(DHMMT)	Corrosion. 3 (2017) 16			
8	P. Rugmini Ammal, M. Prajila, Abraham Joseph	Physicochemical studies on the inhibitive properties of a 1, 2, 4-triazole Schiff's base, HMATD, on the corrosion of mild steel in hydrochloric acid	Egyptian journal of petroleum. (2017)	2.06 1	10	19
9	P. Rugmini Ammal, M. Prajila, Abraham Joseph	Electroanalytical and Kinetic Studies on PBIMOT, a Benzimidazole Motif of 1, 3, 4-Oxadiazole as a Powerful Corrosion Inhibitor for Mild Steel in Nitric Acid.	Journal of Bio-and Tribo-Corrosion. 3 (2017) 47	1.81	1	10
10	M. Prajila , Abraham Joseph	Inhibition of mild steel corrosion in hydrochloric using three different 1, 2, 4-triazole Schiff's bases: a comparative study of electrochemical, theoretical and spectroscopic results	Journal of Molecular Liquids. 241 (2017) 1-8	4.56 1	15	82
11	M. Prajila, P. Rugmini Ammal, Abraham Joseph	Protection of Mild Steel in Hydrochloric Acid Through Surface Finishing using HMMT, a Substituted 3-Mercapto-6-Methyl-1, 2, 4-Triazin (4H)-5-One	Protection of Metals and Physical Chemistry of Surfaces. 53 (2017)	0.78 7	-	20
12	Anupama R. Prasad, Abraham Joseph	Synthesis, characterization and investigation of methyl orange dye removal from aqueous solutions using waterborne poly vinyl pyrrolidone (PVP) stabilized poly aniline	RSC Advances. 7 (2017) 20960-20968	3.04 9	15	113

		(PANI) core-shell nanoparticles				
13	P. Rugmini Ammal, M. Prajila, Abraham Joseph	Effective inhibition of mild steel corrosion in hydrochloric acid using EBIMOT, a 1, 3, 4-oxadiazole derivative bearing a 2-ethylbenzimidazole moiety: electro analytical, computational and kinetic studies	Egyptian journal of petroleum. 27 (2018) 823-833	2.06 1	13	19
14	M. Prajila, P. Rugmini Ammal, Abraham Joseph	Comparative studies on the corrosion inhibition characteristics of three different triazine based Schiff's bases, HMMT, DHMMT and MHMMT, for mild steel exposed in sulfuric acid	Egyptian journal of petroleum. 27(2018) 467-475	2.06 1	8	19
15	K. M. Shainy, P. Rugmini Ammal, Abraham Joseph	Development of passive film and enhancement of corrosion protection of mild steel in hydrochloric acid through the synergistic interaction of 2-amino-4-methyl benzothiazole (AMBT) and (E)-2-methylbenzo [d] thiazol-2-yl) imino-4-methyl) phenol (MBTP)	Egyptian journal of petroleum. 27 (2018) 621-632	2.06 1	4	19
16	Shainy K M, Mathew Kuruvilla, Abraham Joseph	Electrochemical studies on the adsorption interaction and corrosion inhibition properties of a substituted triazinone, BCATDT on mild steel in hydrochloric acid.	Indian journal of chemical technology. 25 (2018) 9-20	0.61 4		33
17	P. Rugmini Ammal, M. Prajila, Abraham Joseph	Effect of substitution and temperature on the corrosion inhibition properties of benzimidazole bearing 1, 3, 4-oxadiazoles for mild steel in sulphuric acid: Physicochemical and theoretical studies	Journal of environmental chemical engineering. 6 (2018) 1072-1085	1.19 81	13	47
18	P. Rugmini Ammal,	Comparative studies on the electrochemical and	Egyptian journal of petroleum. 27 (2018)	2.06 1	4	19

	Anupama R. Prasad, Abraham Joseph	physicochemical behaviour of three different benzimidazole motifs as corrosion inhibitor for mild steel in hydrochloric acid	1067-1076			
19	Sam John, James Baben George, Abraham Joseph	Photoluminescence of Co: ZnNiO and Zr: ZnNiO nanocomposites capped with biodegradable polymer poly (2-ethyl-2-oxazoline)	In AIP Conference Proceedings. 1953 (2018) 060018	0.40	1	
20	P. K. Jaseela, Abraham Joseph	Development of Flower Like Hierarchical Thiourea Loaded Titania–Poly Vinyl Alcohol Nano Composite Coatings for the Corrosion Protection of Mild Steel in Hydrochloric Acid	Journal of Inorganic and Organometallic Polymers and Materials. 28 (2018) 1468-1482	1.63 7	1	40
21	K. K. Anupama, Abraham Joseph	Experimental and theoretical studies on Cinnamomum verum leaf extract and one of its major components, eugenol as environmentally benign corrosion inhibitors for mild steel in acid media	Journal of Bio-and Tribo-Corrosion. 4 (2018) 30	1.81	19	10
22	Anupama R. Prasad, P. Rugmini Ammal, Abraham Joseph	Effective photocatalytic removal of different dye stuffs using green synthesized zinc oxide nanogranules	Materials Research Bulletin. 102 (2018) 116-121	3.35 5	20	96
23	Shamsheera K O, Anupama R Prasad, Julia Garvasis, Sabeel M Basheer, Abraham Joseph	Stearic acid grafted chitosan/epoxy blend surface coating for prolonged protection of mild steel in saline environment	Journal of Adhesion Science and Technology. 33 (2019) 2250-2264	1.03 9	2	61
24	K. M. Shainy, Anupama R. Prasad, AshaThomas, Abraham Joseph	Synergistic interaction of 2-amino 4-methyl benzothiazole (AMBT) and benzotriazole (BTZ) offers excellent protection to mild steel exposed in acid atmosphere at elevated	Egyptian Journal of Petroleum. 28 (2019) 35-45	2.06 1	-	19

		temperatures: Electrochemical, computational and surface studies				
25	Sam John, Alfeena Salam, Anju Maria Baby, Abraham Joseph	Corrosion inhibition of mild steel using chitosan/TiO ₂ nanocomposite coatings	Progress in Organic Coatings. 129 (2019) 254-259	3.42 0	13	96
26	Rugmini Ammal P, Anupama R Prasad, Ramya K, Sam John, Abraham Joseph	Protection of mild steel in hydrochloric acid using methyl benzimidazole substituted 1, 3, 4-oxadiazole: computational, electroanalytical, thermodynamic and kinetic studies	Journal of Adhesion Science and Technology. 33 (2019) 2227-2249	1.03 9	3	61
27	Jaseela P.K, Julia Garvasis, Abraham Joseph	Selective adsorption of methylene blue (MB) dye from aqueous mixture of MB and methyl orange (MO) using mesoporous titania (TiO ₂)–poly vinyl alcohol (PVA) nanocomposite	Journal of Molecular Liquids. 286 (2019) 110908	4.56 1	7	82
28	P. K. Jaseela, K. O. Shamsheera, Abraham Joseph	HMDS–GPTMS Modified Titania Silica Nanocomposite: A New Material for Oil–Water Separation	Journal of Inorganic and Organometallic Polymers and Materials. (2019) 1-8	1.63 7	-	40
29	Anupama R. Prasad, Julia Garvasis, Shamsheera Kunnekkat Oruvil, Abraham Joseph	Bio-inspired green synthesis of zinc oxide nanoparticles using Abelmoschus esculentus mucilage and selective degradation of cationic dye pollutants	Journal of Physics and Chemistry of Solids. 127 (2019) 265-274	2.75 2	10	97
30	Anupama R. Prasad, Sabeel M. Basheer, Linda Williams, Abraham Joseph	Highly selective inhibition of α -glucosidase by green synthesized ZnO nanoparticles-In-vitro screening and in-silico docking studies	International journal of biological macromolecules. 139 (2019) 712-718	4.78 4	2	101
31	Anupama R. Prasad, Sabeel M.	Investigation on Bovine Serum Albumin (BSA)	Materials Chemistry and Physics. 240 (2020)	2.78 1	3	132

	Basheer, Induja R. Gupta, K.K. Elyas, Abraham Joseph	binding efficiency and antibacterial activity of ZnO nanoparticles	122115			
32	Linda Williams, Anupama R. Prasad, P. Sowmya, Abraham Joseph	Characterization and Temperature dependent DC conductivity study of bio templated nickel oxide nanoparticles (NiO) and their composites using polyaniline (PANI)	Materials Chemistry and Physics. 242 (2020) 122469	2.78 1	-	132
33	Julia Garvasis, Anupama R. Prasad , K.O. Shamsheera , P.K. Jaseela , Abraham Joseph	Efficient removal of Congo red from aqueous solutions using phytogenic aluminum sulfate nano coagulant	Materials Chemistry and Physics https://doi.org/10.1016/j.matschemphys.2020.123040	2.78 1	-	132
34	Asha Thomas1 · P. Rugmini Ammal2 · Abraham Joseph	A comprehensive study of mild steel corrosion in the aggressive acidic environment using CMPPC, a substituted pyrazole derivative	Chemical Papers , 2020, https://doi.org/10.1007/s11696-020-01142-0	1.24 6	-	37
35	Shamsheera KO, Anupama R. Prasad, Jaseela PK, Abraham Joseph*	Development of self- assembled monolayer of stearic acid grafted chitosan on mild steel and inhibition of corrosion in hydrochloric acid	Chemical Data Collections Vol.28, 2020, https://doi.org/10.1016/j.cdc.2020.100402	0.94	-	5
36	Anupama R Prasad, Anagha M, Shamsheera K O and Abraham Joseph	Bio-fabricated ZnO nanoparticles: Direct sunlight driven selective photodegradation, antibacterial activity and thermoluminescence emission characteristics	New Journal of Chemistry, 2020, DOI: 10.1039/d0nj01611j	3.06 9	-	112
37	Kuruvilla M, Prasad AR, Shainy KM, Joseph A	Protection of Metallic Copper from the Attack of Sulphuric Acid Using HDMMA, a Schiff Base Derived from l-Cysteine and 2-Hydroxy-1- naphthaldehyde	Journal of Bio-and Tribo- Corrosion.5(2019) 9. (Springer)	2.06 1	27	19
38	Shainy KM, Prasad AR, Thomas A, Joseph A	Synergistic interaction of 2-amino 4-methyl benzothiazole (AMBT) and benzotriazole (BTZ) offers excellent	Egyptian Journal of Petroleum. 28 (2019) 35- 45 (Elsevier)) IF:5.25	2.06 1	14	19

		protection to mild steel exposed in acid atmosphere at elevated temperatures: Electrochemical, computational and surface studies				
39	Prasad AR, Garvavis J, Oruvil SK, Joseph A	Bio-inspired green synthesis of zinc oxide nanoparticles using <i>Abelmoschus esculentus</i> mucilage and selective degradation of cationic dye pollutants	Journal of Physics and Chemistry of Solids. 127 (2019) 265-274 (Elsevier) IF:3.442	2.79 1	26	70
40	Jaseela PK, Garvavis J, Joseph A	Selective adsorption of methylene blue (MB) dye from aqueous mixture of MB and methyl orange (MO) using mesoporous titania (TiO ₂)–poly vinyl alcohol (PVA) nanocomposite.	Journal of Molecular Liquids. 286 (2019) 110908 (Elsevier)	: 5.06 5	11	10
41	John S, Salam A, Baby AM, Joseph A.	Corrosion inhibition of mild steel using chitosan/TiO ₂ nanocomposite coatings Theoretical and Electrochemical Screening Studies	Progress in Organic Coatings. 129 (2019) 254-259 (Elsevier) IF: 4.469	1.81	8	10
42	Prasad AR, Basheer SM, Williams L, Joseph A.	Highly selective inhibition of α -glucosidase by green synthesised ZnO nanoparticles-In-vitro screening and in-silico docking studies	International journal of biological macromolecules. 139 (2019) 712-718 (Elsevier)	5.16 2	4	10
43	Ammal P R, R Prasad A, John S, Joseph A.	Protection of mild steel in hydrochloric acid using methyl benzimidazole substituted 1, 3, 4-oxadiazole: computational, electroanalytical, thermodynamic and kinetic studies.	Journal of Adhesion Science and Technology. 33 (2019) 2227-2249 (Taylor & Francis)	1.36 5	10	19
44	KO Shamsheera, Prasad AR, Garvavis J,	Stearic acid grafted chitosan/epoxy blend surface coating for	Journal of Adhesion Science and Technology. 33 (2019)	1.81	1	10

	Basheer SM, Joseph A	prolonged protection of mild steel in saline environment.	2250-2264 (Taylor & Francis)			
45	Jaseela PK, Shamsheera KO, Joseph A.	HMDS–GPTMS Modified Titania Silica Nanocomposite: A New Material for Oil-Water Separation.	Journal of Inorganic and Organometallic Polymers and Materials. (2019) 1-8 (Springer)	4.56 1	15	82
46	Prasad AR, Basheer SM, Gupta IR, Elyas KK, Joseph A.	Investigation on Bovine Serum Albumin (BSA) binding efficiency and antibacterial activity of ZnO nanoparticles.	Materials Chemistry and Physics. 240 (2020) 122115 (Elsevier)	3.40 8	-	20
47	Williams L, Prasad AR, Sowmya P, Joseph A	Characterization and Temperature dependent DC conductivity study of bio templated nickel oxide nanoparticles (NiO) and their composites using polyaniline (PANI).	Materials Chemistry and Physics. 242 (2020) 122469 (Elsevier)	3.04 9	15	113
48	Prasad AR, Anagha M, Shamsheera KO, Joseph A	Bio-fabricated ZnO nanoparticles: direct sunlight-driven selective photodegradation, antibacterial activity, and thermoluminescence-emission characteristics.	New Journal of Chemistry. 44 (2020) 8273-8279.(Royal Society of Chemistry)	3.28 8	13	19
49	Thomas A, Ammal PR, Joseph A	A comprehensive study of mild steel corrosion in the aggressive acidic environment using CMPPC, a substituted pyrazole derivative.	Chemical Papers. 74 (2020) 3025–3037 (Springer)	1.68 0	8	19
50	Thomas A, Prajila M, Shainy KM, Joseph A.	A green approach to corrosion inhibition of mild steel in hydrochloric acid using fruit rind extract of Garcinia indica (Binda).	Journal of Molecular Liquids. 16 (2020) 113369. (Elsevier)	5.06 5	4	19
51	Jaseela PK, Shamsheera KO, Joseph A.	Mesoporous Titania-Silica nanocomposite as an effective material for the degradation of Bisphenol A under visible light.	Journal of Saudi Chemical Society. 24 (2020) 651–662. (Elsevier)	3.51 7		33
52	Jaseela PK, Kuruvilla M, Williams L, Jacob	Excellent protection of mild steel in sodium chloride solution for a	Arabian Journal of Chemistry. 13 (2020) 6921-30.	4.76 2	13	47

	C, Shamsheera KO, Joseph A.	substantial period of time using a hybrid nanocoating of poly vinyl alcohol and Titania	(Elsevier)			
53	Garvasis J, Prasad AR, Shamsheera KO, Jaseela PK, Joseph A.	Efficient removal of Congo red from aqueous solutions using phytogetic aluminum sulfate nano coagulant	Materials Chemistry and Physics. 251 (2020) 123040. (Elsevier)	3.408	4	19
54	Ammal PR, Prasad AR, Joseph A	Synthesis, characterization, in silico, and in vitro biological screening of coordination compounds with 1, 2, 4-triazine based biocompatible ligands and selected 3d-metal ions.	Heliyon. 6 (2020) e05144. (Elsevier)	0.40	1	
55	Shamsheera KO, Prasad AR, Jaseela PK, Joseph A.	Development of self-assembled monolayer of stearic acid grafted chitosan on mild steel and inhibition of corrosion in hydrochloric acid	Chemical Data Collections. 28 (2020) 100402. (Elsevier)	2.22	1	40
56	Shamsheera KO, Anupama RP, Abraham J.	Computational simulation, surface characterization, adsorption studies and electrochemical investigation on the interaction of guar gum with mild steel in HCl environment	Results in Chemistry. 2 (2020) 100054. (Elsevier)	1.81	19	10
57	Shamsheera KO, Prasad AR, Joseph A	Extended protection of mild steel in saline and acidic environment using stearic acid grafted chitosan preloaded with mesoporous-hydrophobic silica (mhSiO ₂).	Surface and Coatings Technology. 402 (2020) 126350. (Elsevier)	3.784	20	96
58	Shamsheera KO, Prasad AR, Joseph A.	Extended protection of mild steel in saline and acidic environment using stearic acid grafted chitosan preloaded with mesoporous-hydrophobic silica (mhSiO ₂).	Surface and Coatings Technology. 402 (2020) 126350. (Elsevier)	3.784	2	61
59	Anupama R. Prasad, Linda	Applications of phytogetic ZnO	Journal of Molecular Liquids 331	5.054	13	96

	Williams, Julia, K.O. Shamsheera, Sabeel M. Basheer, Mathew Kuruvilla, Abraham Joseph,	nanoparticles: A review on recent advancements,	(2021) 115805, (Elsevier)			
60	Anupama R. Prasad, K.O. Shamsheera, Abraham Joseph	Electrochemical and surface characterization of mild steel with corrosion resistant zirconia network fabricated by aqueous sol-gel technique	Journal of the Indian Chemical Society,98, (2021), 100052(Elsevier) IF: 0.228	1.039	3	61
61	A.T. Jeeja Rani, Asha Thomas, Abraham Joseph,	Inhibition of mild steel corrosion in HCl using aqueous and alcoholic extracts of Crotalaria Pallida – A combination of experimental, simulation and theoretical studies	Journal of Molecular Liquids 334 (2021) 116515,(Elsevier), IF:5.054	1.637	-	40
62	K.O. Shamsheera, Anupama R. Prasad, P.K. Jaseela, Abraham Joseph	Effect of surfactant addition to Guar Gum and protection of mild steel in hydrochloric acid at high temperatures: Experimental and theoretical studies	Journal of Molecular Liquids 331 (2021) 115807, IF: 5.054	2.752	10	97
63	Anila Paul, Shamsheera K.O., Anupama R. Prasad, Abraham Joseph	Electroanalytical and surface studies on the protective action of a coating of PVA@3WGO on mild steel in acidic and saline environment	Results in Surfaces and Interfaces,4, (2021), 100018			

Publication of research papers: proceedings,

No .	Title of the paper & Authors	Conference/Seminar Details	Vanue, Date	National /International	Paper Presented/ Chaired/Invited, Resource Person
1	Jaseela P.K & Abraham Joseph.	Poly vinyl alcohol modified titania Sol-Gel coatings a novel inorganic - organic hybrid for the protection of mild steel in acid environment	TEQIP II sponsored International Conference on Advances in Biological, Chemical and Physical Sciences (ABCPS	2017	International

			2017) held at Bharathidasan Institute of Technology (BIT) Campus, Anna University, Tiruchirappalli		
2		Development of Thiourea Loaded Titania (TiO ₂) - Poly Vinyl Alcohol (PVA) Nanocomposite as Protective Coating for Mild Steel in NaCl Solution	MESMAC international conference, organised by MES Mampad college, Mampad. Malappuram, Kerala, in association with Kerala State Higher Educational Council on January 2019	2019	International
3		Titania -Silica Hybrid Photocatalyst For The Degradation of Methylene Blue Dye Under Visible Light	National Conference on Advances in Green Chemistry and its applications organised by Sri Ramakrishna College of Arts and Science, Coimbatore	2020	National
4	Anupama R prasad&Abraham Joseph	Biogenic ZnO NPs: TL emission and direct sunlight assisted selective photodegradation of cationic dyes	14 th RSC-CSRI Joint Symposium and 26 th CSRI National Symposium in Chemistry, organised at VIT Vellore	2020	National
5		Green synthesized zinc oxide	National seminar on	2018	National

		nanogranules for the photodegradation of organic dye stuffs	Frontiers in Chemical Sciences (FCS-2018), February 2018, held at university of Calicut, Organized by the department of chemistry and KSCSTE.		
6		2-mercaptobenzimidazole loaded nano ZnO: CeO ₂ combination as protective coating for mild steel corrosion in HCl	International Seminar on Environment, Society and Economy AMBIENTE December 2017	2017	International
7		Cyclic voltametric characterization of polyaniline/polyvinyl pyrrolidone nanoparticles	TEQIP II Sponsored International Conference on Advances in Biological, Chemical and Physical Sciences (ABCPS'2017), March 2017 jointly organized by the departments of Biotechnology, Chemistry and Physics BIT campus, Anna University, Tiruchirappalli.	2017	National
8		Electrochemical investigation on ZrO ₂ nanocoating for corrosion protection of mild steel in Hydrochloric acid,	International Symposium on New Trends in Applied Chemistry (NTAC-2017),	2017	International

			February 2017, Organized by Post Graduate and Research department of Chemistry, Sacred Heart College (Autonomous), Thevara.		
9	Shamsheera K.O&Abraham Joseph	Corrosion protection of mild steel in hydrochloric acid using stearic acid grafted chitosan film: Electroanalytical and surface studies	International seminar on Emerging Frontiers in Chemical Sciences at Farook College	2017	International
10		Chitosan/SiO ₂ nanocomposite film with anticorrosive properties on mild steel	National seminar on Medicinal Chemistry at KAHM Unity Women's college, Manjeri	2017	National
11		Development of hydrophobic stearic acid grafted chitosan film as a protective shield for mild steel in acid hydrochloric environment	National seminar organized by the Department of Chemistry, University of Calicut	2018	National
12	Sr. Asha Thomas&Abraham Joseph	The effect of temperature on the Corrosion inhibition properties of 5 - Chloro-3-methyl-1-phenyl-1H-pyrazole-4-carbaldehyde for Mild Steel in HCl	National seminar on Frontiers in Chemical Sciences (FCS-2019) organised by the Department of Chemistry, University of Calicut	2019	National
13		A comprehensive	International	2019	International

		study of Mild Steel corrosion in aggressive acidic environment using Garcinia Indica (GI) fruit rind extract	Seminar EFCS-2019 organized by Department of Chemistry, Farook College		
14	Julia Garvasis & Abraham Joseph	Phytogenic aluminium sulphate nanocoagulant for the removal of Congo red	National seminar on Frontiers in Chemical Sciences (FCS-2019) organized by the Department of Chemistry, University of Calicut	2019	National
15	Linda Williams & Abraham Joseph	Synthesis, Characterization and Conductivity Study of Biotemplated Nickel Oxide Nanoparticles, Waterborne Polyaniline and their Composites	National seminar on Frontiers in Chemical Sciences (FCS-2019) organized by the Department of Chemistry, University of Calicut	2019	National
16	Rugmini Ammal P & Abraham Joseph	Synthesis, characterization and in-silico bioactivity screening of Co(II), Ni(II) and Zn(II) complexes of 3-Mercapto-1,2,4-triazine Schiff Base	International conference on Emerging Frontiers in Chemical Sciences (EFCS-2017) at the Department of Chemistry, Farook college	2017	National
17		Do mild steel get protected in Nitric acid at ambient temperatures? Electrochemical, adsorption and	International conference on advances in Biological, Chemical & Physical	2017	International

		computational screening studies with a 1,3,4-oxadiazole derivative bearing 2-methyl benzimidazole	Sciences (ABCPS) at Department of Chemistry, Anna University, BIT campus, Tiruchirappalli, Tamil Nadu		
18	Ramya K & Abraham Joseph	Interaction of ethyl (2-methyl benzimidazolyl) acetate [EMBA] and thiosemicarbazide [BTZ]: Its combined effect on mild steel corrosion in HCl	EFCS-2019, Farook college, Calicut	2019	National

23. Books published: with ISBN No., Without ISBN No., **Chapters in books.**

Corrosion Inhibition in Oil and Gas Industry: Economic Considerations	Anupama R. Prasad, Anupama Kunyankandy, and Abraham Joseph	Saji S. Viswanathan, Saviour A. Umoren (Eds.): Corrosion Inhibitors in the Oil and Gas Industries.	Wiley-VCH Verlag GmbH & Co. KGaA, of Boschstr. 12, 69469 Weinheim, Germany (the "Publisher").
Corrosion Inhibition in Oil and Gas Industry: Economic Considerations	Anupama R. Prasad, Anupama Kunyankandy, and Abraham Joseph	Saji S. Viswanathan, Saviour A. Umoren (Eds.): Corrosion Inhibitors in the Oil and Gas Industries.	Wiley-VCH Verlag GmbH & Co. KGaA, of Boschstr. 12, 69469 Weinheim, Germany (the "Publisher").
Applications of cysteine in health and industries, Cysteine: Sources, Uses and Health Effects	Anupama R. Prasad, Mathew Kuruvilla and Abraham Joseph	Editor: Taran Saunders, ISBN: 978-1-53619-033-5 © 2021	Nova Science Publishers, Inc.(Book Chapter).

24. Patents Applied/Granted: National. International, commercialized: No

25. Consultancy services provided and revenue generated: No

26. Conferences, seminars, symposia and workshops organized as convener/coordinator:

1	FCS 2019	Convener	National	
2	FCS 2020	Joint Convener	National	

27. Number of collaborations:

28. Awards /recognitions received: International, National, State, University level.

Note: If necessary for Item No. 11 and 12 provide information in Enclosure-I, for 13,14 and 15 Enclosure- II, for 16 Enclosure-III, for 22 and 23 Enclosure- IV and so on.

Dr. K.M MURALEEDHARAN (Professor)

Faculty profile

- Name of the faculty: Dr. K. Muraleedharan
- Name of the Department: Chemistry
- Educational qualifications: Ph.D.
- Present position: Professor
- Address for correspondence: A4, Kailash Apartments, Govindapuram, Calicut 16
- E-mail and contact number: kmuralika@gmail.com; 9447567203
- Specialization: Solid State Chemistry, Computational Chemistry
- Total teaching experience: 25 years
- Courses taught: Physical Chemistry
- Research experience: 30 years
- Major research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. NIL.
- Minor research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. NIL.
- Number of students awarded Ph.D. degree: Name of the student, topic of research, date of registration, date of declaration of Ph.D. degree.
Number of Students: 4
 - Sarada K., Solid state chemistry, 2012; 2016
 - Nusrath K., Solid state Chemistry, 2013, 2017
 - Sindhu N.V., Solid state Chemistry, 2013, 2017
 - Vijisha K.R., Computational Chemistry, 2014, 2019
- Number of students registered for Ph.D. degree: Name of the student, topic of research, date of registration.
- Provide information as indicated in 11 and 12 above. NIL
- Participation in conferences, symposia, seminars and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person.
- Innovative processes developed in teaching and learning. : ICT enabled teaching
- Participation in curricular development: : Actively participated
- Participation in co-curricular and extra-curricular activities.: Actively participated
- Refresher and Orientation courses attended: NIL
- Examination /Evaluation reforms initiated: Initiated and implemented
- Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index. Numbers in SCOPUS.
- Books published: with ISBN No., Without ISBN No., Chapters in books.
- Patents Applied/Granted: National. International, commercialized: NIL
- Consultancy services provided and revenue generated: NIL
- Conferences ,seminars, symposia and workshops organized as convener/coordinator:
- Number of collaborations: 4
- Awards /recognitions received: International, National, State, University level. NIL

Publications 2016-17 to 2019-20

No	Author(s)	Title of the article	Journal, Year, Volume & page	IF	Citation	h Index
1	K.P. Safna Hussan, M. Shahin Thayyil, Shameera Ahamed T.K., K. Muraleedharan	Biological Evaluation and Molecular Docking Studies of Benzalkonium Ibuprofenate	Computational Biology and Chemistry DOI: http://dx.doi.org/10.5772/intechopen.90191	1.549	2	55
2	V.AAnsi, K.R.Vijisha,	Fluorescent Carbon Nanodots	Sensors and Actuators A: Physical 302(2020)111817 DOI:	2.8	4	139

	K.Muraleedharan, N.K.Renuka	as an Efficient Nitro Aromatic Sensor- Analysis Based On Computational Perspectives	org/10.1016/j.sna.2019.111817			
3	K. Sabira, K. Muraleedharan	Exploration of the thermal decomposition of zinc oxalate by experimental and computational methods	Journal of Thermal Analysis and Calorimetry 10.1007/s10973-019-09169-6	2.2	2	78
4	Vijisha K. Rajan, C. Ragi, K. Muraleedharan	A computational exploration into the structure, antioxidant capacity, toxicity and drug-like activity of the anthocyanidin "Petunidin"	Heliyon 5 (2019) e02115	1.62	3	11
5	G.S. Amitha , Vijisha K. Rajan , B. Amritha , K. Muraleedharan, Suni Vasudevan	Betti base and its modified phthalonitrile derivative for the turn on fluorimetric detection of Hg ²⁺ and Cr ³⁺ ions	Journal of Photochemistry & Photobiology A: Chemistry 382 (2019) 111904	2.89	2	145
6	Sindhu N.V. K. Muraleedharan	Kinetic study of the multistep thermal behaviour of barium titanate oxalate prepared via chemical precipitation method	Journal of Thermal Analysis and Calorimetry 136(2019)1295-1306 DOI : 10.1007/s10973-018-7777-7	2.2	2	78
7	Shameera Ahamed T.K., Vijisha K Rajan, K. Sabira, K. Muraleedharan	DFT and QTAIM based investigation on the structure and antioxidant behavior of lichen substances Atranorin, Evernic acid and Diffractaic acid	Computational Biology and Chemistry 80(2019)66-78	1.66	4	55
8	Nusrath K. K. Muraleedharan	Effect of nano transition metal oxides of Fe, Co and Ni and Ferrites of Co and Ni on the multistage thermal decomposition of oxalates of Ce (III)	Journal of Thermal Analysis and Calorimetry 136(2019)549-563	2.2	2	78
9	Shameera Ahamed T.K.,	QSAR modeling of benzoquinone	Food Science and Human Wellness 8(2019)53-62 DOI:	1.3	2	-

	Vijisha K Rajan, K Muraleedharan	derivatives as 5-lipoxygenase inhibitors	https://doi.org/10.1016/j.fshw.2019.02.001			
10	K.P. Safna Hussan, M. Shahin Thayyil, Vijisha K. Rajan, K. Muraleedharan	DFT Studies on Global parameters, antioxidant mechanism and molecular docking of amlodipine besylate	Computational Biology and Chemistry 80(2019)46-53	1.66	3	55
11	M. Vintu, Vijisha K. Rajan, G. Unnikrishnan, K. Muraleedharan	Suzuki coupling derived indolocarbazole based macromolecule as a solid phase / solution phase sensor for Hg ²⁺ : Experimental and theoretical explorations	European Polymer Journal 114 (2019) 287–297	3.8	3	120
12	G. S. Amitha, Vijisha K Rajan, K Muraleedharan, Suni Vasudevan	Novel 4,4'-Fluoresceinoxy Bisphthalonitrile Showing Aggregation-Induced Enhanced Emission and Fluorescence Turn off Behavior to Fe ³⁺ Ions	Journal of Fluorescence 29(2019)279-291 https://doi.org/10.1007/s10895-018-02338-0	1.67	3	63
13	Shameera Ahamed TK, Vijisha K Rajan, K Muraleedharan	QSAR classification-based virtual screening followed by molecular docking studies for identification of potential inhibitors of 5-Lipoxygenase	Computational Biology and Chemistry 77(2018)154-166 .	1.66	4	55
14	Vijisha K Rajan, Shameera Ahamed TK, K Muraleedharan	Data on the UV filtering and radical scavenging capacity of the bitter masking flavanone Eriodictyol	Data in Brief 20 (2018) 981–985	1.56	3	17
15	Vijisha K. Rajan, Shameera Ahamed TK, Hasna C.K., K Muraleedharan	A non toxic natural food colorant and antioxidant 'Peonidin' as a pH indicator: A TDDFT analysis	Computational Biology and Chemistry 76 (2018) 202–209.	1.66	3	55
16	P. Ajmala Shireen, K. Muraleedharan,	Theoretical studies on anti-oxidant potential	Materials today: proceedings 5(2) (2018)8908-8915 DOI: 10.1016/j.matpr.2017.12.325	1.82	2	18

	V.M. Abdul Mujeeb	of alpinetin				
17	Vijisha K Rajan, C.K. Hasna, K Muraleedharan	The natural food colorant Peonidin from cranberries as a potential radical scavenger – A DFT based mechanistic analysis	Food Chemistry 262 (2018) 184–190	4.2	9	221
18	K.P. Safna Hussan, M. Shahin Thayyil, Vijisha K. Rajan, K. Muraleedharan	Experimental and theoretical studies on a double active pharmaceutical ingredient, benzalkonium ibuprofenate	Computational Biology and Chemistry 72(2018)113-121	1.66	5	55
19	Mujeeb Rahman P, VM Abdul mujeeb, K. Muraleedharan	Chitosan /nano ZnO composite films; enhanced mechanical, antimicrobial and dielectric properties	Arabian Journal of Chemistry 11(2018)120-127	4.1	9	43
20	Vijisha K Rajan, Shameera Ahamed TK, K Muraleedharan	Studies on the UV filtering and radical scavenging capacity of the bitter masking flavonone Eriodictyol	Journal of Photochemistry & Photobiology, B: Biology 170(2017)286-94	3.03	6	103
21	Shameera Ahamed TK, K. Muraleedharan	A ligand-based comparative molecular field analysis (CoMFA) and homology model based molecular docking studies on 3', 4'-dihydroxyflavones as rat 5-lipoxygenase inhibitors: Design of new inhibitors	Computational Biology and Chemistry 71 (2017) 188–200	1.66	3	55
22	P. Ajmala Shireen, V.M. Abdul Mujeeb, K. Muraleedharan	Identification of flavanones from Boesenbergia rotunda as potential antioxidants and monoamine oxidase B inhibitors	Chemical Papers 71(2017)2473–2483	1.3	3	37
23	Sindhu. N.V, K. Muraleedharan	Kinetic modelling of formation of K ⁺ doped BaTiO ₃ bones from barium titanyl oxalate via multi	Materials Research Bulletin 94(2017) 231-40 DOI:10.1016/j.materresbull.2017.05.056	2.345	3	96

		stage thermal decomposition				
24	Nimisha NK, K. Muraleedharan	Photocatalytic activity of ZnO and Sr ²⁺ doped ZnO nanoparticles	Journal of Water Process Engineering 17(2017)264-270	1.89	2	28
25	P. Ajmala Shireen, V.M. Abdul Mujeeb, K. Muraleedharan	Theoretical insights on flavanones as antioxidants and UV filters: A TDDFT and NLMO study	Journal of Photochemistry and Photobiology B: Biology 170(2017)286-294	3.03	3	103
26	Basila Hassan, Vijisha K. Rajan, V.M. Abdul Mujeeb, K.Muraleedharan	A DFT based analysis of adsorption of Hg ²⁺ ion on chitosan monomer and its citralidene and salicylidene derivatives: Prior to the removal of Hg Toxicity	International Journal of Biological Macromolecules 99(2017)549-554	3.227	9	101
27	<i>Mujeeb Rahman P, VM Abdul mujeeb, K. Muraleedharan</i>	Flexible chitosan-nano ZnO antimicrobial pouches as a new material for extending the shelf life of raw meat	International Journal of Biological Macromolecules 97(2017) 382-391	3.227	10	101
28	<i>Mujeeb Rahman P, VM Abdul mujeeb, K. Muraleedharan</i>	Chitosan–green tea extract powder composite pouches for extending the shelf life of raw meat	Polymer Bulletin 74(2017) 3399-3419	1.3	8	55
29	Vijisha K Rajan, K Muraleedharan	A computational investigation on the structure, global parameters and antioxidant capacity of a polyphenol, Gallic acid	Food Chemistry 220(2017)93-99	4.2	55	221
30	Nusrat K, K. Muraleedharan	Effect of Ca(II) additive on the thermal dehydration kinetics of cerium oxalate rods	Journal of Thermal Analysis and Calorimetry 128(2017)541-552	2.2	4	78
31	K. Muraleedharan, Viswalekshmi C.H., Sarada. K	Synthesis, characterization and thermal dehydration and degradation kinetics of chitosan Schiff bases of o, m and	Polymer Bulletin 74(2017)39-54	1.3	5	55

		p-nitrobenzaldehyde				
32	Sarada K, K. Muraleedharan	Thermal degradation and optical properties of SiC infused polystyrene nanocomposites	Journal of Thermal Analysis and Calorimetry 126(2016)1809–1819	2.2	4	78
33	Nusrath K, K Muraleedharan	Effect of Ca (II) on the multistep kinetic behavior of thermally induced oxidative decomposition of Cerium (III) oxalate to CeO ₂	Journal of Analytical Applied Pyrolysis 120 (2016) 379–388	3.9	5	101
34	P. Sagitha, Sarada K, K. Muraleedharan	One-pot synthesis of poly vinyl alcohol (PVA) supported silver nanoparticles and its efficiency in catalytic reduction of methylene blue	Transactions of Nonferrous Metals Society of China 26(2016) 2693-2700	1.1	3	54
35	K. Jayakrishnana, Antony Joseph, K. Paulson Mathew, T.B. Siji, K. Chandrasekharan, K. Siji Narendran, M.A. Jaseela, K. Muraleedharan	Synthesis, Z-Scan and Degenerate Four Wave Mixing characterization of certain novel thiocoumarin derivatives for third order nonlinear optical applications	Optical Materials 58 (2016) 171-182	2.1	9	92
36	Sarada K, Vijisha KR, K Muraleedharan	Exploration of the thermal decomposition of oxalates of copper and silver by experimental and computational methods	Journal of Analytical Applied Pyrolysis 120 (2016) 207–214	3.9	3	101
37	Kavitha AP, U.C. Abdul Jaleel , V.M. Abdul Mujeeb , K. Muraleedharan	Performance of knowledge-based biological models in higher dimensional chemical space	Chemometrics and Intelligent Laboratory Systems, 153 (2016) 58–66	2.8	7	109
38	Sarada K, K Muraleedharan	Studies on the Kinetics of Thermal Decomposition of Copper Oxalate Mixed With Silver Oxalate	International Journal of Thermodynamics and Chemical Kinetics, 2(2016) 1-11		3	-
39	Vijisha K. Rajan, K. Muraleedharan	The pK _a values of amine based solvents for CO ₂	International Journal of Greenhouse Gas Control: 58, 2017, 62-70. http://dx.doi.org/10.1016/j.ijggc.2017.01.009	4.764	11	97

		capture and its temperature dependence—An analysis by density functional theory.				
40	T. Noushad, Alikutty P, Basila H, Vijisha. K. Rajan, K. Muraleedharan, V.M. Abdul Mujeeb	A comparative study on the druggability of Schiff bases and dithiocarbamate derivatives of chitosan	Polymer Bulletin 73(2016)2165-2177	1.33	5	55
41	Sarada K, K Muraleedharan	Effect of addition of silver on the thermal decomposition kinetics of copper oxalate	Journal of Thermal Analysis and Calorimetry, 123(2016)643-651	2.206	4	78

Dr. P. RAVEENDRAN (Professor)

1. Name of the faculty: Dr. P. Raveendran
2. Name of the Department: Dept. of Chemistry
3. Educational qualifications: PhD, Post Doc.
4. Present position: Professor
5. Address for correspondence: Dept. of Chemistry, University of Calicut, Kerala, India
6. E-mail and contact number: raveendran.pr@gmail.com; (M) 9446537724
7. Specialization: Physical Chemistry, Advanced Materials, Intelligent Polymers, Green Chemistry, Theoretical Chemistry, Spectroscopy and Nanomaterials
8. Total teaching/ research experience: 22 years
9. Courses taught: Quantum Chemistry, Group Theory, Chemical Bonding, Spectroscopy
10. Research experience: 29 years
11. Major research projects completed: Utilization of Liquid and Supercritical CO₂ as an alternative solvent for the preparation of drug-excipient composites, 31.03.2014 3 years, 31.2, KSCSTE agency. PI
12. Minor research projects completed: Title of the project, Date of sanction and Duration, Grant received, Nil
13. Number of students awarded Ph.D. degree: Name of the student, topic of research, date of registration, date of declaration of Ph.D. degree. – Nil

S No	Name	Title of the Thesis	Date of award
1	Bindu U.	Chemical and Biological Applications of Self-assembled Nanostructured Materials	28.01.2013
2	Jyothy P.R.	Utilization of supercritical CO ₂ as a green solvent for the preparation of drug-excipient composites for controlled drug release	10.10.2019
3	Anu Antony	Green coatings/processing using liquid and supercritical CO ₂ with non-fluorous CO ₂ -Philes.	18.12.2019
4	Anju Ajayan	Boble metal, ally and hybrid platforms for plasmonic applications	18.02.2020

14. Number of students registered for Ph.D. degree: Name of the student, topic of research, date of registration.

S No	Name	Topic	Date of Regn.
1	Sumitha Chandran	Optical and Electronic Properties of Metal Nanoparticles	27.02.2012
2	Vineeth Madhavan	Biomimetic, superhydrophobic metal nanostructures for Plastronic applications	27.02. 2012
3	K. B. Roy	Understanding and Formulating a Unified Principle for the Conventional and Non-Conventional Hydrogen Bonds	05.07.2014
4	Dheeraj P Das	Utilization of liquid and supercritical CO ₂ as an alternative solvent for Chemical Separations and Processing	04.09.2019
5	Hanna Ameena M A	Applications of liquid and supercritical CO ₂ as alternative solvent in pharmaceutical sciences	01-02-2021

15. Provide information as indicated in 11 and 12 above.

16. Participation in conferences, symposium, seminars and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person.

Delivered several lectures in several National and International Seminars

Sl. No	Title of Conference / Seminar	Organized by	Whether international /national /state /regional /college or university level	Date
1	International conference on material science (ICCPM-2018)	St. Thomas College, Thrissur	International	19-21 December 2018
2	Emerging Frontiers in Chemical Sciences, EFCS 2019	Farooq college	International	13-15 December 2019

17. Innovative processes developed in teaching and learning: Classes were converted into student-centric to ensure that students develop into better learners.

18. Participation in curricular development: Participation in curricular development: Dean, Faculty of Sciences, Chairman Board of Studies for Applied Chemistry, Member, Research Advisory Council, University of Calicut, Member, Academic Council

19. Participation in co-curricular and extra-curricular activities: Chairman, Foundation for Education, Research and Innovation (FERI), an organization that provides teaching and training for rural students, Member, Senate, University of Calicut, Member, Planning Board, University of Calicut, Member, Institutional Ethics Committee, Govt Medical College, Manjeri, Expert member in many selection committees and other academic committees

20. Refresher and Orientation courses attended: NIL

21. Examination /Evaluation reforms initiated: As Dean, was part of the core academic group of the University

22. Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index.

Total Citations: 4597 H-index: 19

Publication	Journal H-index	Journal Impact Factor
R. Balasubramanian, S. Sreenikesh, R. M. Ramakrishnan, P. Raveendran , B. Narayanan, Sucrose-mediated mechanical exfoliation of graphite: a green method for the large scale production of graphene and its application in catalytic reduction of 4-nitrophenol <i>New. J. Chem.</i> (2017), 41, 11969-11978.	112	3.06
A. Antony, J. Ramachandran, R. M. Ramakrishnan, P. Raveendran* , Sizing of paper with sucrose octaacetate using liquid and supercritical carbon dioxide as a green alternative medium, <i>J. CO₂ Utilization</i> (2018), 28, 306-312.	33	5.19
A. Antony, A. Raj, J. Ramachandran, R. M. Ramakrishnan, S. L. Wallen, P. Raveendran* , Sizing and desizing of cotton and polyester yarns using liquid and supercritical carbon dioxide with non-fluorous CO ₂ -philes as size compounds. <i>ACS Sus. Chem. Engg.</i> (2018), 6, 12275-12280.	65	7.03
A. Ajayan, V. Madhavan, S. Chandran, P. Raveendran* , A Simple Anti-solvent Method for the Controlled Deposition of Metal and Alloy Nanoparticles <i>New. J. Chem.</i> (2018), 42, 11979-11983.	112	3.09
K. Shaniba, M. Akbar, K. Ramseena, P. Raveendran , B. Narayanan, R. M. Ramakrishnan. Sunlight-assisted oxidative degradation of cefixime antibiotic from aqueous medium using TiO ₂ /nitrogen doped holey graphene nanocomposite as a high performance photocatalyst. <i>J. Env. Chem. Engg.</i> (2018), 2213-3437.	47	4.02
U. Rajeena, M. Akbar, P. Raveendran , R. M. Ramakrishnan. Fluorographite to	112	3.09

hydroxy graphene to graphene: a simple wet chemical approach for good quality grapheme. <i>New J. Chem.</i> (2018), 42, 9658-966		
V. Madhavan, P. K. Gangadharan, A. Ajayan, S. Chandran, P. Raveendran , Microwave-assisted solid-state synthesis of Au nanoparticles, size-selective speciation, and their self-assembly into 2D-superlattice, <i>Nano-Structures & Nano-Objects</i> (2019), 17, 218-22.	27	1.097
Shaniba, C.; Akbar, M.; Ramseena, K.; Raveendran, P. ; Narayanan, B. N.; Ramakrishnan, R. M., Sunlight-assisted oxidative degradation of cefixime antibiotic from aqueous medium using TiO ₂ /nitrogen doped holey graphene nanocomposite as a high performance photocatalyst, <i>J. Environ. Chem. Engg.</i> 8 (2020) 102204.	72	4.3
U. Rajeeena, M Akbar, P. Raveendran , R. M. Ramakrishnan, Graphene reduction of P25 titania: Ti ³⁺ -doped titania/graphene nanohybrids for enhanced photocatalytic hydrogen production, <i>Int. J. of Hydrogen Energy</i> (2020) 45 (16), 9564-9574	215	4.94
U Rajeeena, P Raveendran , RM Ramakrishnan Stepwise defluorination of fluorographene: How do the structural features govern the rates of heterogeneous electron transfer? <i>J. Flu. Chem.</i> , 109555	82	2.332
Ramachandran, J. P.; Kottammal, A. P.; Antony, A.; Ramakrishnan, R. M.; Wallen, S. L.; Raveendran, P. Green processing: CO ₂ -induced glassification of sucrose octaacetate and its implications in the spontaneous release of drug from drug-excipient composites, <i>Journal of CO₂ Utilization</i> , 47 (2021) 10147,	53	5.993
Ansi, V. A.; Sreelakshmi, P.; Raveendran, P. ; Renuka, N. K., Table sugar derived carbon dot—A promising green reducing agent, <i>Materials Research Bulletin</i> 139 (2021) 111284	110	4.02

23. Books published: with ISBN No., Without ISBN No., Chapters in books.: NIL

24. Patents Applied/Granted: National. International, commercialized:

Title: Slow Release Fertilizer Composite And Process For Preparation Thereof

Inventors: P. Raveendran and Anu Antony

Indian Patent Application No. 201941950835 A

Date of Filing: 09/12/2-19

Date of Publication: 11.06.2021

CHE

25. Consultancy services provided and revenue generated:

Consultancy process initiated with Asha Biotech Ltd, Vadakara

26. Conferences ,seminars, symposia and workshops organized as convener/coordinator:

27. Number of collaborations:

1. Dr. M. Eswramoorthy, JNCASR, Bangalore
2. Dr. Scott L Wallen, Florida Polytech University
3. NSF STC, UNC Chapel Hill
4. AIST, Japan

28. Awards /recognitions received: International, National, State, University level.

Note: If necessary for Item No. 11 and 12 provide information in Enclosure-I, for 13,14 and 15 Enclosure- II, for 16 Enclosure-III, for 22 and 23 Enclosure- IV and so on.

Dr. N. K RENUKA (Associate Professor)

1. Name of the faculty : Dr. Renuka N. K.
2. Name of the Department : Dept. of Chemistry
3. Educational qualifications : M. Phil., PhD,
4. Present position : Associate Professor
5. Address for correspondence: :Associate Professor, Dept. of Chemistry, University of Calicut,
Kerala, India
6. E-mail and contact number : nkrenu@gmail.com
7. Specialization : Physical Chemistry/ Materials / Catalysis, Sensors
8. Total teaching experience : 20 years
9. Courses taught:
Physical Chemistry I (Thermodynamics), Physical Chemistry II (Statistical Thermodynamics), Physical Chemistry III (Chemical Kinetics, Instrumental Methods),Catalysis
10. Research experience : 17 Years
11. Major research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI. Principal Investigator, major Project, Title, Funding Agency, Date of sanction and Duration: Nil
12. Minor research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI. Nil
13. Number of students awarded Ph.D. degree: Name of the student, topic of research, date of registration, date of declaration of Ph.D. degree. –

1	Shijina A. V.	Preparation, characterisation and catalytic activity studies of mesoporous alumina and supported analogues	7-8-2008	12-8-2014
2	Praveen A. K.	Catalyzed synthesis and efficiency of biodiesel derived from non-edible vegetable oils	12-5-2009	1-11-2013
3	Divya T.	Morphology controlled synthesis and Applications of Ceria based nanostructures	4-2-2012	11-10-2017
4.	Nikhila M. P.		30-11-2012	19-7-2018
5	Anju M.	Graphene based sorbents and sensors for environmental applications	10-9-2013	16-8-2018
6	Arsha Kusumam T. V.	ZnO Architectures for gas sensing and photo-catalytic applications	8-5-2014	6-2-2020
7	Arsha Kusumam T. V.	ZnO Architectures for gas sensing and photo-catalytic applications	8-5-2014	6-2-2020

14. Number of students registered for Ph.D. degree: Name of the student, topic of research, date of registration.

	Name	Topic	Date of Registration
1	Akhila A. K.	Synthesis and application of graphene – TiO ₂ Nanocomposites	30-3-2015
2	Ansi V. A.	Synthesis of carbon quantum dots from natural precursors for various applications	28-4-2016
3	Varsha Raveendran	Synthesis of carbon quantum dots for various fine applications	19-10-2016
4	Nidhisha V.	Carbon based nanomaterials for supercapacitor applications	17-12-2018
5	Anjali C.	Synthesis, characterization and functional applications of	4-1-2019

		layerd materials	
6	Amrutha T. P.	Design and synthesis of electrochromic materials for various applications	1-10-2019

15. Provide information as indicated in 11 and 12 above.

16. Participation in conferences, symposium, seminars and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person.

Resource Person

Sl. No	Title of Conference / Seminar	Organized by	Whether international /national /state /regional /college or university level	Date
1	ICNM 2017	International and Interuniversity Center for Nanoscience and Nanotechnology, Mahathma Gandhi University, Kottayam	International	10-12 Feb 2017
2	Refresher course	UGC HRDC Kannur University	National	20 July 2017
3	National seminar	PSGR Krishnammal College for Women, Coimbatore	National	11 August 2017
4	Ctric 2018	Dept. of Applied Chemistry, CUSAT cusat during	National	16-17 February 2018
5	Regional Seminar	Dept of Physics, PSMO College, Thirurangadi	Regional	5 March 2018
6	National Seminar	Dept of Chemistry, Govt Colege, Kasaragod	National	5-October 2018
7	EFCS 2018	Dept. of Chemistry, Farook college	National	23-24 november 2018
7	International Conference on Advanced Materials	By IUMSE, Mahatma Gandhi University, Kottayam	International	9-11 August 2019
8	National Seminar on Recent Trends in Materials Science	Department of Chemistry, Govt. College, Chittur	National	5,6 December 2019
9	Novel Trends in Chemistry for Environmental Sustainability	Post Graduate Department of Chemistry, KAHM Unity	State level	4 February 2020

		Womens College, Manjeri		
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17. Innovative processes developed in teaching and learning.
18. Participation in curricular development: Member, Board of Studies, Applied Chemistry
19. Participation in co-curricular and extra-curricular activities.
 - o Member Research Admission Committee (Subject Expert), Farook Colle, Farook; Govt. College, Madappalli
 - o Member Board of Studies in Chemistry, Farook College, farook
 - o Member Teacher Promotions committee in different Universities
 - o PhD Examiner at different Universities and National institutes
 - o Coordinator, Erudite Programme
 - o Coordinator, Frontier Programme
 - o Subject expert, Inspection Commission
 - o Teacher in Charge, Departmental IQAC
 - o Secretary, Department Council
20. Refresher and Orientation courses attended :Nil
21. Examination /Evaluation reforms initiated: Nil
22. Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index. Numbers in SCOPUS.

Sl. No	Authors	Title	Journal , Volume, Year and Page number	Impact Factor	Citations	h-index
1	V.A.Ansi, N.K. Renuka	Table sugar derived Carbon dot–a naked eye sensor for toxic Pb²⁺ ions	Sensors and Actuators B: Chemical, 264 (2018) 67	6.393	20	170
2	M. Anju N. K. Renuka	Magnetically actuated graphene coated polyurethane foam as potential sorbents for oils and organics	Arabain Journal of Chemistry, 13(2020) 1752 (Accepted in January 2018)	3.298	4	43
3	T.V.A. Kusumam, N.K. Renuka	Effect of crystal plane orientation in tuning the photocatalytic activity of zinc oxide particles,	Materials Today: Proceedings, 5,8 (2018) 16118	SNIP 0.694	-	18
4	AK Akhila, PS Vinitha, NK Renuka	Photocatalytic Activity of Graphene–Titania Nanocomposite	Materials Today: Proceedings, 5, 8 (2018) 16085	SNIP 0.694	-	18

2018-2019

Sl. No	Authors	Title	Journal, Volume, Year and Page number	Impact Factor	Citations	h-index
1	Varsha Raveendran, Adukamparai Rajukrishnan Suresh	Mint leaf derived carbon dots for dual	RSC Advances, (2019)12070	9	3.049	7

	Babu, Neeroli Kizhakayil Renuka	analyte detection of Fe(III) and ascorbic acid				
2	Anju M., Renuka N.K.	Graphene–dye hybrid optical sensors	Nano-Structures & Nano-Objects, 17 (2019) 194	SNIP 1.097	5	14
3	A. K. Akhila, N. K. Renuka	Coumarin–graphene turn-on fluorescent probe for femtomolar level detection of copper(II)	New Journal of Chemistry, 43 (2019) 1001	3.069	3	112
4	Anju M., Renuka N.K.	Graphene-dye supramolecular assembly for parts per trillion level F– monitoring	Materials Research Bulletin, 110 (2019) 50	3.355		96
5	V.A. Ansi, N. K. Renuka,	Exfoliated Graphitic Carbon Dots: Application in Heavy Metal Ion Sensing	Journal of Luminescence, 205 (2019) 467	2.961	5	104
6	Ansi V.A., Renuka N.K.	Sucrose Derived Luminescent Carbon Dots as a Promising BioMedical Agent	Materials Today: Proceedings, 18 (2019) 1724	SNIP 0.694		18
7	Ansi V. A., Ritu G., Thasleena Panakkal, Aji A. Anappara, Renuka N. K.	Acetic acid derived carbon dots as efficient pH and bio-molecule sensor	International Journal of Environmental Analytical Chemistry (2019), 506 ISSN: 0306-7319, DOI: 10.1080/03067319.2019.1669581. 2019 October	1.267		38

2019-2010

Sl. No	Authors	Title	Journal, Volume, Year and Page number	Impact Factor	Citations	h-index
1	V. A. Ansi, N. K. Renuka	Antagonistic interaction of Pb ²⁺ -Al ³⁺ ion pair with sugar derived Carbon dots: Visual monitoring of Al ³⁺ ions,	Colloids and Surfaces A: Physicochemical and Engineering Aspects, 593, 20 (2020) 124632	3.131	-	149

2	V. A. Ansi, K. R. Vijisha, K. Muraleedharan, N. K. Renuka	Fluorescent carbon dots as efficient aromatic nitrocompound sensor-Analysis based on computational perspectives,	Sensors and Actuators A: Physical, 302 (2020) 111817	2.739	-	139
3	M.P.Nikhila, Deepthi John, MrinalR.Pai, N.K.Renuka	Cu and Ag modified mesoporous TiO ₂ nanocuboids for visible light driven photocatalysis	Nanostructures and Nanoobjects, 21 (2020) 100420	SNIP 1.097	-	14
4	V. A. Ansi, N. K. Renuka	Stable luminescent markers from sugar for patterning and pH sensing applications	Colloids and Surfaces A: Physicochemical and Engineering Aspects, 572 (2019) 107	3.131	1	149
5	V. A. Ansi, N. K. Renuka	Antagonistic interaction of Pb ²⁺ -Al ³⁺ ion pair with sugar derived Carbon dots: Visual monitoring of Al ³⁺ ions	Colloids and Surfaces A: Physico-chemical and Engineering Aspects, 593(2020) 124632	3.99	1	149
6	A.K. Akhila, A.R. Suresh Babu, N.K. Renuka,	Cu(II) monitoring at attomolar level assisted by rGO mediated PET	Materials Letters 289 (2021) 129397	3.204	-	144
7	M. Anju, A.K. Akhila, N.K. Renuka	Non-covalently functionalised rGO-fluorescein unit for selective detection of fluoride ions,	Nano-Structures & Nano-Objects 24 (2020) 100606	SNIP 1.097	1	27
8	Ansi V.A, Sreelakshmi P, Raveendran Poovathinthodiyil, Renuka N.K	Table sugar derived carbon dot—A promising green reducing agent	Materials Research Bulletin 139 (2021) 111284	4.019	-	96
9	V. A. Ansi, N. K. Renuka	Table Sugar Derived Carbon Nanodots For the Extraction of Bulk Silver	Materials Letters, 284, 2, 2021, 128985	3.2041	-	144
10	T.VArshaKusumam, V.S Siril, K.N. Madhusoodanan, M. Prashantkumar, Y.T Ravikiran, N.K. Renuka	NO ₂ gas sensing performance of Zinc Oxide Nanostructures Synthesized by Surfactant Assisted Low Temperature Hydrothermal Technique	Sensors and Actuators: A. Physical, 318 (2021) 112389	2.9041		139
11	T. Divya, <u>C.Anjali</u> , <u>K.R.Sunajadevi</u> , <u>K.Anas</u> , <u>N.K.Renuka</u>	Influence of hydrothermal synthesis conditions on lattice defects in cerium oxide	Journal of Solid state Chemistry, 300, (2021) 122253	2.726	-	142

12	Vijayasree Harids, Zahira Yakob, Renuka N.K., S. Sugunan, N. N. Binitha,	Selective Electrochemical Determination of Paracetamol using Hematite/Graphene Nanocomposite Modified Electrode Prepared in a Green Chemical Route,	<u>Materials Chemistry and Physics</u> 263(202 1) 124379	3.408	-	152
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23. Books published: with ISBN No., Without ISBN No., Chapters in books. : Nil

24. Patents Applied/Granted: National. International, commercialized: Nil

25. Consultancy services provided and revenue generated: Nil

26. Conferences ,seminars, symposia and workshops organized as convener/coordinator:

Sl No.	Title of Conference / Seminar	Organised by	Whether international /national level	Date
1	Frontiers in chemical sciences –2020 (Joint Convener)	Department of Chemistry, University of Calicut	National	March 2020
2	Frontiers in chemical sciences –2019 (Joint Convener)	Department of Chemistry, University of Calicut	National	March 2019
3	Frontiers in chemical sciences –2018(Joint Convener)	Department of Chemistry, University of Calicut	National	March 2018

27. Number of collaborations: Nil

28. Awards /recognitions received: International, National, State, University level.

Note: If necessary for Item No. 11 and 12 provide information in Enclosure-I, for 13,14 and 15 Enclosure- II, for 16 Enclosure-III, for 22 and 23 Enclosure- IV and so on.

Dr. M. T RAMESAN (Associate Professor)

1. Name of the faculty: Dr. M.T. Ramesan
2. Name of the Department: Dept. of Chemistry
3. Educational qualifications: Ph. D., Post Doc.
4. Present position: Associate Professor
5. Address for correspondence: Dept. of Chemistry, University of Calicut, Kerala, India
6. E-mail and contact number: mtramesan@uoc.ac.in; mtramesan@hotmail.com
7. Specialization: Polymer Chemistry
8. Total teaching experience: 15 years
9. Courses taught: Organic Chemistry, Polymer Chemistry
10. Research experience: 22 Years
11. Major research projects completed as Principal Investigator
 Title of the project: Flexible and Electrically Conductive Polymers Based on Chemically Modified Natural Rubber Reinforced with Heterocyclic Monomers and Nano fillers
 Date of sanction and Duration: 05/04/2018, Three years
 Grant received: Rs.29,32,000/-
 Funding agency: Kerala State council for Science and Technology and Environment
12. Minor research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI. Nil
13. Number of students awarded Ph.D. degree:

S. No	Name of the student	Topic of Research	Date of registration	Date of declaration of Ph.D. degree.
1	V.C. Jasna	Studies on the effect of nano manganous tungstate and zinc sulfide as potential filler for styrene butadiene rubber and chlorinated form	02-07-2013	27-02-2019
2	A. Nihmath	Studies on the chemically modified and unmodified acrylonitrile butadiene rubber, ethylene propylene diene monomer rubber and its nanocomposites	02-07-2013	19-11-2020

14. Number of students registered for Ph.D. degree: 5

S. No	Name of Student	Topic of research	Date of registration
1	Parvathi K	Reinforcement of natural rubber and modified natural rubber with selected heterocycles and nanocomposites	22-12-2018
2	Sankar S	Studies on selected conducting polymers and nanocomposites	12-11-2020
3	Meera Krishnan	Studies on biopolymer blends and their nanocomposites	19-04-2021
4	Shini M	Studies on nanoparticle reinforced poly ethylene-co-vinyl acetate and their blends	20-04-2021

15. Provide information as indicated in 11 and 12 above.
16. Participation in conferences, symposium, seminars and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person.

S.	Title of paper and	Conference/	Venue/date	National/	Paper

No	authors	seminar details		International	presented/chaired Invited/ Resource Person
1	Effect of titanium dioxide nanoparticles on temperature dependent electrical conductivity of poly (n-butyl methacrylate) nanocomposites: Application of different conductivity models, K. Suhailath and M. T. Ramesan	A conference on light	NIT Calicut, 10/01/2017	National	Paper presented
2	Rubber Products Manufacturing, M.T. Ramesan	Department of Industries and Commerce, Common Facility Centre (CFC), Govt. of Kerala	Payyanad, Manjeri, 25/08/2017	State	Invited Lecture
3	Latex based products- Different types of latex products- Type of rubbers-formulations- Product Development, M.T. Ramesan	Department of Industries and Commerce, Common Facility Centre (CFC), Govt. of Kerala	Payyanad, Manjeri, 13/11/2017	State	Invited Lecture
4	Effect of Ce doped TiO ₂ nanoparticles on the dielectric properties of poly(n-butyl methacrylate), K. Suhailath and M. T. Ramesan	Frontiers in chemical science FCS-2018	University of Calicut, 27/02/2018	National	Paper presented
5	Dry rubber-based products- Different types of rubber products- Type of rubbers formulations- Product Development, M.T. Ramesan	Department of Industries and Commerce, Common Facility Centre (CFC), Govt. of Kerala	Payyanad, Manjeri, 24/09/2018	State	Invited Lecture
6	Preparation and tensile studies of PBMA/TiO ₂ nanocomposites, K. Suhailath and M. T. Ramesan	MESMAC International conferences	MES Mampad College, 16/01/2019	International	Paper presented
7	Conductivity studies of poly (butyl methacrylate) (PBMA) based nanocomposites using CeO ₂ nanoparticles, K.	31 st Kerala Science Congress	03/02/2019 Kollam	National	Paper presented

	Suhailath and M. T. Ramesan				
8	Thermal and Dielectric properties of Poly(butylmethacrylate)-Nd-TiO ₂ nanocomposites, Suhailath K , Parvathi K, Sanker S Menon and M T Ramesan	Frontiers in chemical science FCS-2019	University of Calicut, 20/03/2019	National	Paper presented
	Latex and and Dry rubber based products, M T Ramesan	Department of Industries and Commerce, Common Facility Centre (CFC), Govt. of Kerala	Payyanad, Manjeri, 03/07/2019	State	Invited Lecture
10	Rubber Products Manufacturing, M T Ramesan	Department of Industries and Commerce, Common Facility Centre (CFC), Govt. of Kerala	Payyanad, Manjeri, 07/08/2019	State	Invited Lecture
11	Latex and Rubber based products	Department of Industries and Commerce, Common Facility Centre (CFC), Govt. of Kerala	Payyanad, Manjeri, 20/08/2019	State	Invited Lecture
12	Adhesives based on natural and synthetic polymers: formulation, product development	Department of Industries and Commerce, Common Facility Centre (CFC), Govt. of Kerala	Payyanad, Manjeri, 10/02/2020	State	Invited Lecture

17. Innovative processes developed in teaching and learning.

18. Participation in curricular development:

- Member, PG Board of studies in Chemistry, University of Calicut (2017-2019)
- Member, PG Board of studies in Applied Chemistry, University of Calicut (2017-2019)
- Member, Board of studies in Pharmaceutical Chemistry, University of Calicut (2017-19)
- Member, Board of studies in Gemology and Jewelry Designing, University of Calicut (17-19)
- Chairman, PG Board of studies in Chemistry, University of Calicut (2020-2022)
- Member, Board of studies in Polymer Chemistry, University of Calicut (2020-2022)

19. Participation in co-curricular and extra-curricular activities.

Ph. D Thesis Evaluation (various Universities in India and Institute)

20. Refresher and Orientation courses attended:

21. Examination /Evaluation reforms initiated:

22. Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index. Numbers in SCOPUS.

S. No.	Authors	Title	Journal & year, volume, pages	IF	Citation	h-Index
1	P. Jayakrishnan and <u>M.T. Ramesan</u>	Studies on the Effect of Magnetite Nanoparticles on Magnetic, Mechanical, Thermal, Temperature Dependent Electrical Resistivity and DC Conductivity Modeling of Poly (vinyl alcohol-co-acrylic acid)/Fe ₃ O ₄ Nanocomposites	Material Chemistry and Physics 2017, 186, 513-522.	2.781	29	132
2	<u>M.T. Ramesan</u> and P. Jayakrishnan	Role of Nickel Oxide Nanoparticles on Magnetic, Thermal and Temperature Dependent Electrical Conductivity of Novel Poly (vinyl cinnamate) based Nanocomposites: Applicability of Different Conductivity Models	Journal of Inorganic and Organometallic Polymers and Materials, 2017, 27, 143-153	1.637	12	40
3	P. Jayakrishnan and <u>M.T. Ramesan</u>	Synthesis, Characterization, Electrical Conductivity and Material Properties of Magnetite/ Polyindole/ Poly (vinyl Alcohol) Blend Nanocomposites	Journal of Inorganic and Organometallic Polymers and Materials, 2017, 27, 323-333.	1.637	28	40
4	K. Suhailath, <u>M.T.Ramesan</u> , B. Naufal, P. Periyat, V.C. Jasna, and P. Jayakrishnan	Synthesis, Characterization, Flame, Thermal and Electrical Properties of Poly (n-butyl methacrylate)/Titanium Dioxide Nanocomposites	Polymer Bulletin, 2017 74, 671-688.	1.858	19	55
5	A. Nihmathand <u>M. T. Ramesan</u>	Fabrication, Characterization and Dielectric Studies of NBR/Hydroxyapatite Nanocomposites	Journal of Inorganic and Organometallic Polymers and Materials, 2017, 27, 481-489.	1.637	15	40
6	<u>M.T. Ramesan</u> , V. Nidhisha and P. Jayakrishnan	Facile Synthesis, Characterization and Material Properties of Novel Poly (vinyl cinnamate)/Nickel Oxide Nanocomposites	Polymer International, 2017, 66, 548-556.	2.433	17	95
7	K. Suhailath and <u>M.T. Ramesan</u>	Effect of Titanium Dioxide Nanoparticles on Temperature Dependent Electrical Conductivity of Poly (n-butyl methacrylate) Nanocomposites: Application of Different Conductivity Models	American Institute of Physics Conference Proceedings, 2017, 1849, pp. 20035	-	0.36	60
8	V.C. Jasna and <u>M.T. Ramesan</u>	Preparation, Characterization, Dielectric Properties and Diffusion Studies of Styrene Butadiene Rubber (SBR)/Manganous Tungstate (MnWO ₄) Nanocomposites	American Institute of Physics Conference Proceedings, 2017, 1849, 20044	3	0.36	60
9	T. Anilkumar, A.A. Naik and <u>M.T. Ramesan</u>	Preparation, Characterization and Conductivity Study of Nitro-mercurated Styrene Butadiene Rubber/Silver Doped Zinc Oxide Nanocomposites	American Institute of Physics Conference Proceedings, 2017, 1849, 20037	3	0.36	60
10	<u>M.T.Ramesan</u> , V.	Synthesis, Characterization and	Materials Science in	19	2.722	49

	Nidhisha and P. Jayakrishnan	Conducting Properties of Novel Poly (Vinyl Cinnamate) / Zinc Oxide Nanocomposites via In situ Polymerization	Semiconductor Processing, 2017, 63, 253-260.			
11	<u>M.T. Ramesan</u> , P. Jayakrishnan, T. Sampreeth and P. Pradyumnan	Temperature Dependent AC Electrical Conductivity, Thermal Stability and Different DC Conductivity Modelling of Novel Poly (vinyl cinnamate)/Zinc Oxide Nanocomposites	Journal of Thermal Analysis and Calorimetry, 2017, 129, 135-145	10	2.471	78
12	V.C. Jasna and <u>M.T.Ramesan</u>	Studies on the Mechanical, Electrical Properties and Interaction of Petroleum Fuels with SBR/ Manganous Tungstate Nanocomposites	Journal of Inorganic and Organometallic Polymers and Materials, 2017, 27, 968-978.	1.637	13	40
13	P. Jayakrishnan and <u>M.T. Ramesan</u>	Synthesis, Structural, Magnetoelectric and Thermal Properties of Poly (anthranilic acid)/Magnetite Nanocomposites	Polymer Bulletin, 2017, 74, 3179-3198.	1.858	13	55
14	K. Suhailath and <u>M.T. Ramesan</u>	Temperature Dependent AC Conductivity, Mechanical and Different DC Conductivity Modeling of Poly (butyl methacrylate) / Samarium Doped Titanium Dioxide Nanocomposites	Journal of Material Science: Materials in Electronics, 2017, 28, 13797-13805.	2.195	10	63
15	<u>M.T. Ramesan</u> and K. Surya	Fabrication of Biopolymer Nanocomposite from Natural Resource Materials	Polymer Composites, 2017, 38, pp. E 66-E73.	2.268	12	73
16	<u>M.T. Ramesan</u> and T. Sampreeth	Synthesis, Characterization, Material Properties and Sensor Application Study of Polyaniline/Niobium Doped Titanium Dioxide Nanocomposites	Journal of Material Science: Materials in Electronics, 2017, 28, 16181-16191.	2.195	16	63
17	<u>M.T. Ramesan</u> and V. Santhi	In Situ Synthesis, Characterization, Conductivity Studies of Polypyrrole/ Silver Doped Zinc Oxide Nanocomposites and Their Application for Ammonia Gas Sensing	Journal of Material Science: Materials in Electronics, 2017, 28, 18804-18814.	2.195	18	63
18	<u>M.T. Ramesan</u> , P. Jayakrishnan, T. K. Manojkumar, G. Mathew	Structural, mechanical and electrical properties biopolymer blend nanocomposites derived from poly (vinyl alcohol)/cashew gum/ magnetite	Materials Research Express, 2018, 5, 15308-11	1.449	13	21
19	<u>M.T. Ramesan</u> , Chippy Jose, P. Jayakrishnan, T. Anilkumar	Multifunctional Ternary Composites of Poly (Vinyl Alcohol)/Cashew Tree Gum/Pumice Particles	Polymer Composites, 2018, 39, 38-45	2.268	14	73
20	T. Sampreeth, M. A. Al-Maghrabi, B. Bahuleyan,	Synthesis, Characterization, Thermal Properties, Conductivity and Sensor	Journal of Material Science, 2018, 53, 591-603.	3.442	30	154

	<u>M. T. Ramesan</u>	Application Study of Polyaniline/ Cerium doped Titanium Dioxide Nanocomposites				
21	<u>M.T. Ramesan</u> , Meghana Varghese, Jayakrishnan P, P. Periyat	Silver-doped Zinc Oxide as a Nanofiller for Development of Poly(vinyl alcohol)/Poly(vinyl pyrrolidone) Blend Nanocomposites	Advances in Polymer Technology, 2018, 37, 137-143.	2.663	15	39
22	<u>M. T. Ramesan</u> , P. Jayakrishnan, T. Anilkumar and G. Mathew	Influence of Copper Sulphide Nanoparticles on the Structural, Mechanical and Dielectric Properties of Poly (vinyl alcohol)/Poly (vinyl pyrrolidone) Blend Nanocomposites	Journal of Material Science: Materials in Electronics, 2018, 29, 1992-2000.	2.195	17	63
23	<u>M. T. Ramesan</u> and T. Sampreeth	In Situ Synthesis of Polyaniline/Sm-Doped TiO ₂ Nanocomposites: Evaluation of Structural, Morphological, Conductivity Studies and Gas Sensing Applications	Journal of Material Science: Materials in Electronics, 2018, 29, 4301-4311.	2.195	15	63
24	<u>M. T. Ramesan</u> , P.P. Privya, P. Jayakrishnan, G.Kalaprasad, B. K. Bahuleyan and M. A. Al-Maghrabi	Influence of Magnetite Nanoparticles on Electrical, Magnetic and Thermal Properties of Chitin/ Cashew Gum Biopolymer Nanocomposites	Polymer Composites, 2018, 39, E 540-549.	2.268	9	73
25	M. C. Divyasree, E Shiju, M. V. Vijisha, <u>M.T. Ramesan</u> and K. Chandrasekharan	Phenomenal Enhancement of Optical Nonlinearity in PTZ-I based ZnS/ZnSe Nanocomposites	Optical Materials, 2018, 79, 72-77.	2.687	3	92
26	<u>M. T. Ramesan</u> , V. Santhi, B. K. Bahuleyan and M. A. Al-Maghrabi	Structural Characterization, Material Properties and Sensor Application Study of In Situ Polymerized Polypyrrole/Silver Doped Titanium Dioxide Nanocomposites	Material Chemistry and Physics 2018, 211, 343-354.	2.781	15	132
27	V.C. Jasna, T. Anilkumar, A. A. Naik and <u>M. T. Ramesan</u>	Chlorinated Styrene Butadiene Rubber/Zinc Sulfide: Novel Nanocomposites with Unique Properties- Structural, Flame Retardant, Transport and Dielectric Properties	Journal of Polymer Research, 2018, 25, 144-14.	1.53	5	47
28	V.C. Jasna and <u>M. T. Ramesan</u>	Fabrication of Novel Nanocomposites from Styrene Butadiene Rubber/ Zinc Sulphide Nanoparticles	Journal of Material Science, 2018, 53, 8250-8262.	3.442	10	154
29	K. Suhailath, P. Jayakrishnan, B. Naufal, P. Periyat, V.C. Jasna, and	Synthesis by In Situ Free Radical Polymerization, Characterization and Properties of Poly (n-butyl	Advances in Polymer Technology, 2018, 37, 1114-1123.	2.663	5	39

	<u>M.T.Ramesan</u>	methacrylate)/Samarium doped Titanium Dioxide Nanoparticles Composites				
30	A. Nihmath and <u>M.T.Ramesan</u>	Preparation, Characterization, Thermal and Electrical Properties of Chlorinated EPDM/Hydroxyapatite Nanocomposites	Polymer Composites, 2018, 39, 2093-2100.	2.268	4	73
31	V.C. Jasna,T. Anilkumar, G. Mathew and <u>M. T. Ramesan</u>	Novel Nanocomposites based on Chlorinated Styrene Butadiene Rubber and Manganous Tungstate: Focus on Curing, Mechanical, Electrical and Solvent Transport Properties	Journal of Material Science, 2018, 53, 9861-9876.	3.442	5	154
32	<u>M.T. Ramesan</u> , C. Siji, G.Kalaprasad, B. K. Bahuleyan and M. A. Al-Maghrabi	Effect of Silver Doped Zinc Oxide as Nanofiller for the Development of Biopolymer Nanocomposites from Chitin and Cashew Gum	Journal of Polymers and the Environment, 2018, 26, 2983-2991.	2.765	12	64
33	V.C. Jasna, K. Priyanka, G. Mathew and <u>M. T. Ramesan</u> ,	Evaluation of Spectral, Thermal, Flame retardant, Dielectric, Solvent Diffusion and Transport Behavior of Novel Nanocomposite Derived from Chlorinated Styrene Butadiene Rubber and Manganous Tungstate	Polymer Composites, 2018, 39, E 1880-1889.	2.268	1	73
34	V.C. Jasna, T. Anilkumar and <u>M.T Ramesan</u>	Nanocomposite Materials Based on Zinc Sulfide Nanoparticles Reinforced Chlorinated Styrene Butadiene Rubber	Journal of Applied Polymer Science,2018, 135, pp. 46538	2.188	3	149
35	A. Nihmath and <u>M.T. Ramesan</u>	Synthesis, Characterization, Processability, Mechanical Properties, Flame Retardant and Oil Resistance of Chlorinated Acrylonitrile Butadiene Rubber	Polymer for Advanced Technologies, 2018,	2.162	4	82
36	P. Jayakrishnan and <u>M.T. Ramesan</u>	Temperature Dependence of the Electrical Conductivity of Poly (anthranilic acid)/Magnetite Nanocompositesand the Applicability of Different Conductivity Models	Polymer Composites, 2018, 39, 2791-2800.	2.268	10	73
37	M. C. Divyasree, K.Vasudevan, K. K. Abdul Basith, P. Jayakrishnan, <u>M.T. Ramesan</u> and K. Chandrasekharan	Third-order nonlinear optical properties of Phenothiazine-Iodine Charge Transfer complexes in different proportions	Optics and Laser Technology,2018, 105, 94-101.	3.319	5	63
38	<u>M. T. Ramesan</u> and V. Santhi	Synthesis, Characterization, Conductivity, Thermal Properties and Sensor Application Study of Polypyrrole/Silver Doped Nickel Oxide Nanocomposites	Composite Interfaces, 2018, 25, 725-741.	2.025	16	40

39	<u>K. Suhailath and M.T. Ramesan</u>	Effect of Nano Ce doped TiO ₂ on AC Conductivity and DC Conductivity Modeling Studies of Poly (n-butyl methacrylate)	Journal of Electronic Materials, 2018, 47, pp. 6484-6493.	1.676	4	87
40	<u>M. T. Ramesan</u> , T. Anjitha, K. Parvathi, T. Anilkumar and G. Mathew	Nano Zinc Ferrite Filler Incorporated Polyindole/Poly (vinyl alcohol) Blend: Preparation, Characterization and Investigation of Electrical Properties	Advances in Polymer Technology, 2018, 37, 3639-3649.	2.663	10	39
41	<u>V.C. Jasna and M.T. Ramesan</u>	Preparation, Characterization, Dielectric Properties and Solvent Imbibing Behavior of Styrene Butadiene Rubber/Zinc Sulfide Nanocomposites	International Journal of Plastics Technology, 2018, 23, 217-233	0.36	0	11
42	<u>K. Suhailath and M.T. Ramesan</u>	Theoretical and Experimental Studies on DC Conductivity and Temperature Dependent AC Conductivity of Poly (butyl methacrylate)/Nd doped TiO ₂ Nanocomposites	Journal of Thermoplastic Composite Materials, 2019, DOI: 10.1177/0892705718817350.	1.343	2	39
43	<u>K. Suhailath and M.T. Ramesan</u>	Effect of Neodymium Doped Titanium Dioxide Nanoparticles on the Structural, Mechanical and Electrical Properties of Poly (butyl methacrylate) Nanocomposites	Journal of Vinyl and Additive Technology, 2019, 25, 9-18.	1.292	8	32
44	<u>K. Suhailath and M.T. Ramesan</u>	Investigations on the Structural, Mechanical, Thermal and Electrical Properties of Ce Doped TiO ₂ /Poly (n-butyl methacrylate) Nanocomposites	Journal of Thermal Analysis and Calorimetry, 2019, 135, 2159-2169.	2.471	8	78
45	T. Anjitha, T. Anilkumar, G. Mathew and <u>M. T. Ramesan</u> ,	Zinc Ferrite @ Polyindole Nanocomposites: Synthesis, Characterization and Gas Sensing Applications	Polymer Composites, 2019, 40, 2802-2811.	2.268	8	73
46	<u>M. T. Ramesan</u> , K. Nushhat, K. Parvathi and T. Anilkumar	Nickel oxide @polyindole/phenothiazine blend nanocomposites: preparation, characterization, thermal, electrical properties and gas sensing applications	Journal of Material Science: Materials in Electronics, 2019, 30, 13719-13728.	2.195	6	63
47	<u>M. T. Ramesan</u> , and K. Dilsha	Structural Properties, Conductivity, Dielectric Behaviour and Gas sensing Application of Polyaniline/Phenothiazine/ Copper Sulphide Blend Nanocomposites	Materials Research Express, 2019, 6, 105328	1.449	3	21
48	B. K.Bahuleyan, C. Induja and <u>M.T. Ramesan</u>	Influence of titanium dioxide nanoparticles on the structural, thermal, electrical properties, and gas sensing behavior of polyaniline/phenothiazine blend nanocomposites	Polymer Composites, 2019, 40, 4816-4826.	2.268	3	73

49	S. Sankar, K. Parvathi and <u>M.T. Ramesan</u>	Structural Characterization, Electrical Properties and Gas Sensing Applications of Polypyrrole/ Cu-Al ₂ O ₃ Hybrid Nanocomposites	High Performance Polymers, 2020, DOI: 10.1177/0954008319899157	1.584		38
50	K. Suhailath and <u>M.T. Ramesan</u>	Effect of Ceria Nanoparticles on Mechanical Properties, Thermal and Dielectric Properties of Poly (butyl methacrylate) Nanocomposites	Polymer Composites, 2020, DOI: 10.1002/PC. 25542	2.268	0	73
51	S. Sankar, A. A. Naik, T. Anilkumar and <u>M.T. Ramesan</u>	Characterization, Conductivity Studies, Dielectric Properties and Gas Sensing Performance of In-Situ Polymerized Polyindole / Copper Alumina Nanocomposites	Journal of Applied Polymer, 2020, DOI: 10.1002/app.49145 Science, 2018, 135, 46538	2.188	0	149
52	S. Sankar, Meenu Thomas and <u>M.T. Ramesan</u>	Synthesis, Characterization, Gas Sensing and Electrical Property Evaluation of Polyaniline / Copper–Alumina Nanocomposites	Polymer Composites, 2020, 41, 900-910.	2.268	0	73
53	A. Nihmath and <u>M.T. Ramesan</u>	Comparative Evaluation of Oil Resistance, Dielectric Properties, AC Conductivity and Transport Properties of Nitrile Rubber and Chlorinated Nitrile Rubber	Progress in Rubber Plastics and Recycling Technology, 2020, DOI: 10.1177/1477760620925490	0.559	0	11
54	<u>M.T. Ramesan</u> , K. P. Greeshma, K. Parvathi and T. Anilkumar,	Structural, Electrical, Thermal and Gas Sensing Properties of New Conductive Blend Nanocomposites Based on Polypyrrole/Phenothiazine/Silver Doped Zinc Oxide"	Journal of Vinyl and Additive Technology, 2020, 26, 187-195.	1.292	1	32
55	K. Suhailath, Meenu Thomas and <u>M.T. Ramesan</u>	Effect of Temperature on AC Conductivity of Poly (butyl methacrylate)/Cerium Dioxide Nanocomposites and Applicability of Different Conductivity Modeling Studies	Research on Chemical Intermediates, 2020, 46, 2579-2594.	2.024	0	43
56	K. Suhailath and <u>M.T. Ramesan</u>	Theoretical and Experimental Studies on DC Conductivity and Temperature Dependent AC Conductivity of Poly (butyl methacrylate)/Nd doped TiO ₂ Nanocomposites	Journal of Thermoplastic Composite Materials, 2020, 33, 1061-1077	1.529	2	39
57	A. Nihmath and <u>M.T. Ramesan</u>	Development of Novel Elastomeric Blends Derived from Chlorinated Nitrile Rubber and Chlorinated Ethylene Propylene Diene Rubber	Polymer Testing, 2020, 89, 106728	3.275	5	98
58	K. Suhailath, Meenu Thomas and <u>M.T. Ramesan</u>	Studies on Mechanical Properties, Dielectric Behavior and DC Conductivity of Neodymium Oxide/ Poly (butyl methacrylate)	Polymer & Polymer Composites, 2020, DOI: 10.1177/0967391120960658	1.023	-	28
59	A. Nihmath and	Studies on the Role of	Research on Chemical	2.262	1	43

	<u>M.T. Ramesan</u>	Hydroxyapatite Nanoparticles in Imparting Unique Thermal, Dielectric, Flame Retardancy and Petroleum Fuel Resistance to Novel Chlorinated EPDM/ Chlorinated NBR Blend	Intermediates,2020, 46, 5049-5068			
60	A. Nihmath and <u>M.T. Ramesan</u>	Fabrication, Characterization, Dielectric Properties, Thermal Stability, Flame Retardancy and Transport Behavior of Chlorinated Nitrile Rubber/ Hydroxyapatite Nanocomposites	Polymer Bulletin, 2020, DOI: 10.1007/s00289-020-03469-w	2.014	-	55
61	A. Nihmath and <u>M.T. Ramesan</u>	Hydroxyapatite as a Potential Nanofiller in Technologically Useful Chlorinated Acrylonitrile Butadiene Rubber	Polymer Testing, 2020, 91, 106837	3.275	1	98
62	K. Suhailath, B.K. Bahuleyan and <u>M.T. Ramesan</u>	Synthesis, Characterization, Thermal Properties and Temperature-Dependent AC conductivity Studies of Poly (butyl methacrylate)/ Neodymium Oxide Nanocomposites	Journal of Inorganic and Organometallic Polymers and Materials, 2021, 31, 365-374	1.941	-	40
63	A. Nihmath and <u>M.T. Ramesan</u>	Development of Hydroxyapatite Nanoparticles Reinforced Chlorinated Acrylonitrile Butadiene Rubber / Chlorinated Ethylene Propylene Diene Monomer Rubber Blends	Journal of Applied Polymer Science, 2021, 138, 50189	2.52	1	149
64	A. Nihmath and <u>M.T. Ramesan</u>	Comparative Evaluation of Oil Resistance, Dielectric Properties, AC Conductivity and Transport Properties of Nitrile Rubber and Chlorinated Nitrile Rubber	Progress in Rubber Plastics and Recycling Technology, 2021,37, 131-147	0.742	0	11
65	K. Parvathi, M. A. Al-Maghrabi, M. Subburaj and <u>M.T. Ramesan</u>	Natural Rubber and Copper Alumina Nanocomposite Based Flexible Elastomer- Inorganic Hybrid Systems	Polymer Composites, 2021, DOI:10.1002/pc.26170	2.265	1	32

23. Books published: with ISBN No., Without ISBN No., Chapters in books.

Publication type	ISSN/ISBN No.	Publishers details	Title of the Paper	Year
Chapter in books (International Publishers)	978-0-08-101991-7	Woodhead Publishing Series in Composites Science and Engineering, Elsevier.	Role of nanoparticles on polymer composites	2017
Chapter in books (International Publishers)	978-0-12-824272-8	Woodhead Publishers in Nano-Particles-Based Polymer Composites, Elsevier.	Preparation of conducting polymer nanocomposite with their characteristic properties	2021

24. Patents Applied/Granted: National. International, commercialized:

25. Consultancy services provided and revenue generated:

26. Conferences, seminars, symposia and workshops organized as convener/coordinator:

27. Number of collaborations: 4

28. Awards /recognitions received: International, National, State, University level.

S. No.	Name of Awarding Body	Name of Award/Honor	Date	Level
1	Synthetic Metals, Elsevier, Amsterdam, The Netherlands	Outstanding Contribution in Reviewing	10/03/2017	International
2	Journal of Molecular Liquids, Elsevier, Amsterdam, The Netherlands	Outstanding Contribution in Reviewing	15/09/2017	International
3	Journal of Industrial Engineering and Chemistry, Elsevier, Amsterdam, The Netherlands	Outstanding Contribution in Reviewing	12/04/2018	International
4	Material Research Bulletin, Elsevier, Amsterdam, The Netherlands	Outstanding Contribution in Reviewing	15/06/2018	International
5	Carbohydrate Polymers, Elsevier, Amsterdam, The Netherlands	Outstanding Contribution in Reviewing	14/09/2018	International
6	Results in Physics, Elsevier	Outstanding Contribution in Reviewing	24/09/2018	International
7	Stanford University, USA in PLOS Biology	World Top 2 % Scientist in Polymer Category	October-2020	International

Note: If necessary for Item No. 11 and 12 provide information in Enclosure-I, for 13,14 and 15 Enclosure- II, for 16 Enclosure-III, for 22 and 23 Enclosure- IV and so on.

Dr. YAHYA A. I. (Associate Professor & Head)

1. Name of the faculty: Dr. Yahya A. Ismail
2. Name of the Department: Dept. of Chemistry
3. Educational qualifications: PhD, Post Doc.
4. Present position: Associate Professor & Head
5. Address for correspondence: Head, Dept. of Chemistry, University of Calicut, Kerala, India
6. E-mail and contact number: aiyahya@uoc.ac.in; aiyahya123@gmail.com
7. Specialization: Physical Chemistry/ Advanced Materials/ Intelligent Polymers
8. Total teaching experience: 25 years
9. Courses taught: Physical Chemistry I (Electrochemistry), Theoretical Chemistry, Physical Chemistry II (Molecular Spectroscopy, Solid State and Photochemistry), Instrumental Methods, Physical Chemistry III (Solid State Chemistry- Elective, Kinetics of Photochemical reaction), Research methodology
10. Research experience: 16 Years
11. Major research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI. As Co- PI, Sinica Foundation, Spain
12. Minor research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI. Nil
13. Number of students awarded Ph.D. degree: Name of the student, topic of research, date of registration, date of declaration of Ph.D. degree. - Nil
14. Number of students registered for Ph.D. degree: Name of the student, topic of research, date of registration. - 6

1	Shabeeba A.K.	Polypyrrole/hydrogel hybrid materials for artificial muscle and sensing applications	1/2/2018
2	Sidheekha M P	Polyaniline based Materials for Artificial Muscle and Sensing Applications	
3	Lijin Rajan	Biomimetic Artificial Muscles based on Conducting polymers	19-2-2018
4	Roopasri R	Metal Organic Frameworks (MOFs) Based Materials For Supercapacitor Applications	16-5-2019
5	Sivakrishna Prakash	Studies on novel electrode materials for energy storage application	16-5-2019
6	Shivan Govind	Studies on Aniline based Conducting polymers and their Composites for Sensing, Supercapacitor and Environmental Applications	02-05-2018

15. Provide information as indicated in 11 and 12 above.
16. Participation in conferences, symposium, seminars and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person.

S. No.	Title of the paper & Authors	Conference/Seminar Details	Venue, Date	National /International	Paper Presented/ Chaired/Invited, Resource Person
1	Polymeric Sensing Electrochemical Motors. One Device with Two Tools Working Simultaneously: Mimicking Proprioception, Yahya A. Ismail and	8 th Annual Meeting of the International Society of Electrochemistry (ISE)	Providence, RI, USA , 27 th August - 1 st September 2017 .	International	paper presented

	Toribio F. Otero				
2.	Artificial Muscles based on Conducting Polymers: Towards Artificial Proprioception Yahya A. Ismail	International Conference on Chemistry, Industry and Environment (ICCIE-2019)	ZH College of Engineering and Technology, Aligarh Muslim University, India, 18-19, Feb 2019	International	Invited talk
3	Synthesis and Characterization of Poly-o-toluidine/ Chitosan composites, Geethu R and Yahya A. Ismail ,	International Conference on ‘Emerging Frontiers in Chemical Sciences’ EFCS – 2019	Postgraduate and Research department of Chemistry, Farook College, Calicut, India. 13-15 December 2019	International	Paper Presented
4	Electrochemical actuation characteristics of a hydrogel/polyaniline microfiber artificial muscle. Evidence for a mechanical sensor, Yahya A. Ismail	National seminar on Frontiers in chemical Sciences (FCS -2018),	University of Calicut, Kerala, India, 28 th Feb 2018.	National	Paper Presented
5	Synthesis and Characterisation of Polyvinyl alcohol/Polyaniline composite systems, Roopasri R & Yahya A. Ismail	National Seminar ‘Frontiers in Chemical Sciences’ FCS-2019.	Department of Chemistry, University of Calicut. Feb 2019	National	Paper Presented
6	Synthesis and properties of Polyaniline Nanowires coated Polyvinyl alcohol hybrid films, Anjali C & Yahya A. Ismail	National Seminar ‘Frontiers in Chemical Sciences’ FCS-2019.	Department of Chemistry, University of Calicut. Feb 2019	National	Paper Presented
7	Synthesis and Electrochemical Characterization of Conducting polymers/ Chitosan hybrid film as Concentration sensor, Sidheekha M. P & Yahya A. Ismail	National Seminar ‘Frontiers in Chemical Sciences’ FCS-2020 ‘Advances in Electrochemistry and Materials Science’	Department of Chemistry, University of Calicut. 29-31 January 2020	National	Paper Presented
8	Synthesis and Electrochemical	National Seminar ‘Frontiers in	Department of Chemistry	National	Paper Presented

	Characterization of Polypyrrole/hydrogel hybrid film as Current Sensor, Shabeeba A.K.&Yahya A.Ismail	Chemical Sciences' FCS-2020 'Advances in Electrochemistry and Materials Science'	,University of Calicut. 29-31 January 2020		
9	Synthesis and Electrochemical Characteristics of Polyaniline doped with different Acids, Thasneem C &Yahya A.Ismail	National Seminar 'Frontiers in Chemical Sciences' FCS-2020 'Advances in Electrochemistry and Materials Science'	Department of Chemistry, University of Calicut. 29-31 January 2020	National	Paper Presented
10	<i>Yahya A.Ismail</i>	International Conference on 'Emerging Frontiers in Chemical Sciences' EFCS – 2019	Post graduate and Research department of Chemistry, Farook College, Calicut, India. 14 th <i>December 2019</i>	International	Session Chaired
11	<i>Yahya A.Ismail</i>	MESMAC International Conference	Postgraduate and Research department of Chemistry, MES College, Mampad, Malappuram, India. 15 th <i>January 2020</i>	International	Session Chaired
12	<i>Yahya A.Ismail</i>	Workshop cum Orientation program on Leadership in Educational Administration For Academic Administrators	National Institute of Educational planning and Administration (NIEPA) New Delhi, 24-26, July 2019	National	Attended
13	<i>Yahya A.Ismail</i>	National Conference on Emerging Frontiers in Chemical Sciences' EFCS – 2020	Post graduate and Research department of Chemistry, Farook College, Calicut, India. 5 th <i>December 2020</i>	International	Resource person

A Resource person

No	Name of Faculty	Programme	Institution	Date	Remarks
1	Yahya A. Ismail	Training Programme on Academic Leadership Conducted by PMMMNT & CALEM AMU	MES Keveeyam College Valanchery, Malappuram, Kerala	18/07/2018	Resource Person
2	Yahya A. Ismail	Seminar Cum Workshop on Outcome Based Education	Vedavyasa Institute of Technology Malappuram, Kerala	28/08/2019	Resource Person
3	Yahya A. Ismail	04 Days Training Programme on Academic Leadership Conducted by PMMMNT & CALEM AMU	P.S.M.O. College Tirurangadi, Kerala	22/03/2019	Resource Person
4	Yahya A. Ismail	Short Run Course on Designing Outcome Based Curriculum for Faculty in Sciences and Social Sciences	MHRD-TLC, Department of Education, University of Calicut, Kerala	06/07/2019	Resource Person
5	Yahya A. Ismail	UGC Sponsored Orientation Programme	UGC – HRDC, University of Calicut, Kerala	11/10/2019	Resource Person
6	Yahya A. Ismail	UGC Sponsored Orientation Programme	UGC – HRDC, University of Calicut, Kerala	07/11/2019	Resource Person
7	Yahya A. Ismail	UGC Sponsored Refresher Course in Material Science	UGC – HRDC, University of Calicut, Kerala	10/12/2019	Resource Person
8	Yahya A. Ismail	Short Run Course on Innovations and Rejuvenations on Teaching in Higher Education for Faculty in Universities and Colleges	MHRD-Teaching Learning Centre, Department of Education, University of Calicut, Kerala	12/12/2019	Resource Person
9	Yahya A. Ismail	UGC Sponsored Orientation Programme	UGC – HRDC, University of Calicut, Kerala	14/01/2020	Resource Person
10	Yahya A. Ismail	One day workshop on Quality Assurance and New Trends in teaching and Learning Practices	IQAC, Sullamussalam Science College, Areacode	07/03/2019	Resource Person
11	Yahya A. Ismail	UGC Sponsored 1 st Induction Orientation Programme	UGC – HRDC, University of Calicut, Kerala	05/10/2020	Resource Person

17. Innovative processes developed in teaching and learning.

18. Participation in curricular development: Serving as member of Board of studies in MSc Chemistry and Chair of Department Council which is entrusted with reviewing framing Curricula for MSc in Applied chemistry

19. Participation in co-curricular and extra-curricular activities.

Member, Academic Council, University of Calicut
 Chair of MSc Exam Board, University of Calicut,
 Assistant Co-ordinator, Intellectual Property Right (IPR) cell, University of Calicut,
 Member, University Committee in International Academic Collaboration,
 Member, Research Advisory Council, University of Calicut, MES College, Mannarghat,
 PSMO College, Thirurangadi.

20. Refresher and Orientation courses attended:
 21. Examination /Evaluation reforms initiated:
 22. Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index. Numbers in SCOPUS.

S. No	Author(s)	Title	Journal & year, Volume, pages	IF	Citation	h Index
1	Yahya A.Ismail , M. Luqman, R.S. Mane, Yasser Griesh, Habib Pathan	Advances in Applications of Polymer Nanocomposites,	Advances in Material science and Engineering, 2019,1-2 (Hindawi) https://doi.org/10.1155/2019/713698	1.399	1	23
2.	Anjali C and Yahya A. Ismail	Large scale preparation of Polyaniline/Polyvinyl alcohol hybrid films through in situ chemical polymerization for flexible electrode materials.	J. Adhesion Science and Technology, 2020 Taylor and Francis DOI: 10.1080/01694243.2020.1781352	2.079		66
3	Yahya A.Ismail , Jose G.Martinez and Toribio F.Otero	Conducting polymers as reactive materials for sensing working conditions: Chitosan/poly- <i>o</i> -toluidine hybrid microfiber as a reactive sensor	Electrochimica acta Submitted	6.98		215
4	Chang Su Yeo , Young-Jung Heo , Dr. Min Kyoon Shin , Jung Woon Heo , Jong-Hoon Lee , Yong Yeol Park , Seong-Jun Moon , Yahya Ismail , Le Hoang Sinh , Dr. SangYoon Park	Rolled-up Production of Conductive and Capacitive Graphene Fibers through Ultrafast Gel Reduction : Over 100 Graphene Fibers-Inserted Yarn as High-Performance Supercapacitor	ACS Applied Energy Materials Under Review	6.06		39
5	Sidheeka	Current Sensing	Journal of Materials	3.089		143

	M P, Geethu Rajendran, Shabeeba A.K and Yahya A.Ismail	Supercapacitors based on Poly-o-toluidine/chitosan composites	Research(Springer), May 2021 https://doi.org/10.1557/s43578-021-00241-2 Available online			
6	Roopasri R, Sivakrishna Prakash, Yahya A.Ismail	Synthesis and Characterization of Polyaniline/Polyvinyl alcohol composites as supercapacitors	Rubber, Polymers and composites, Taylor and Francis Accepted, 2021	2.021		39
7	Shabeeba A.K and Yahya A.Ismail	Chitosan/polypyrrole hybrid film as biomimetic multistep electrochemical sensor: sensing electrical and chemical working ambient	Materials Research Bulletin Under review	4.61		

23. Books published: with ISBN No., Without ISBN No., Chapters in books.

1	Recent Advances in Nanotechnology and Material Sciences, Published by University Grants Commission HRDC of University of Calicut, December, 2018	ISBN: 978-3-16-148410-0.	Book
2	Advances in Materials Science and Engineering (SCI Expanded) – Special Issue on Applications of Advances in Polymer Nanocomposites, Hindawi Publishing 2019	ISSN: 1687-8434 (Print) ISSN: 1687-8442 (Online) by Hindawi Publishing	Lead Editor
3	Conducting Polymer/Hydrogel systems as Soft Actuators" Yahya A.Ismail , Shabeeba A.K, Siddika. M.P and Lijin Rajan inbook edition "Actuators: Fundamentals, Principles, Materials and Applications"by Wiley-Scrivener, April 2020	Print ISBN:9781119661146 Online ISBN:9781119662693 by Wiley-Scrivener,	Book Chapter

24. Patents Applied/Granted: National. International, commercialized: Nil

25. Consultancy services provided and revenue generated: Providing non profit Consultancy services for framing academic Strategic Plan and Outcome based education for various academic institutions

26. Conferences, seminars, symposia and workshops organized as convener/coordinator:

1	Conference Chair	National Seminar on Frontiers in Chemical Sciences – FCS2020, Advances in Electrochemistry and Materials science held at University of Calicut, Kerala, India during Jan. 28-30, 2020.
2	Conference Convener	National Seminar on Frontiers in Chemical Sciences – FCS2018, held at University of Calicut, Kerala, India during Feb. 26-28, 2018.

3	Course Coordinator	UGC- Refresher Course on NanoScience and Technology conducted by UGC-HRDC, University of Calicut, Nov-Dec,2018
4	Conference Chair	National Webinar on Frontiers in Chemical Sciences – FCS2021 at University of Calicut, Kerala, India during Feb. 26-28, 2021.

27. Number of collaborations: 2, Prof. Toribio Fernandez Otero, UPCT, Spain and Prof. Min Kyoong Shin, SNU, Seoul, South Korea.

28. Awards /recognitions received: International, National, State, University level.

Note: If necessary for Item No. 11 and 12 provide information in Enclosure-I, for 13,14 and 15 Enclosure- II, for 16 Enclosure-III, for 22 and 23 Enclosure- IV and so on.

Dr. PRADEEPAN PERIYAT (Assistant Professor)

1. Name of the faculty: Dr. Pradeepan Periyat
2. Name of the Department: Dept. of Chemistry
3. Educational qualifications: PhD, Post Doc.
4. Present position: Assistant Professor
5. Address for correspondence: Dept. of Chemistry, University of Calicut, Kerala, India
6. E-mail and contact number: pperiyat@uoc.ac.in; ppnambiar@gmail.com
7. Specialization: Inorganic Chemistry/ Advanced Materials/ Nanochemistry
8. Total teaching experience: 8 years
9. Courses taught: General Inorganic Chemistry, Organometallic Chemistry, Instrumental Methods, Nano Chemistry- Elective, Research methodology
10. Research experience: 16 Years
11. Major research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI.

Title of project	Date of Sanction and Duration	Grant received	Funding Agency	PI/Co-PI
Study and development of graphene based composites and magnetically recoverable composites for water purification by photocatalysis	36 months	30,44,400	KSCSTE	Co-PI
Flexible and electrically conductive polymers based on chemically modified natural rubber reinforced with heterocyclic monomers and nano fillers.	36 months	29,32,000	KSCSTE	Co-PI

12. Minor research projects completed: Nil
13. Number of students awarded Ph.D. degree: Name of the student, topic of research, date of registration, date of declaration of Ph.D. degree. – 3

S. No.	Name of Student	Topic of research	Date registration	Status (Completed/Ongoing)
1.	Sanjay Gopal U	Semiconducting Metal oxide Architectures for solar energy applications	DoR/B1/3548/PhD-2012	Degree Awarded. 31/03/2017
2.	Binu Nauphal	Nano crystal semiconductor synthesis, characterisation and photodegradation	DoR/B1/4252/PhD-2012	Degree Awarded 17/01/2018

3.	Shahanas Beegam M	Synthesis, Characterisation and applications of semiconducting metal oxide nanomaterials	DoR/B1/1009/PhD-2013	Degree Awarded 14/08/2018
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14. Number of students registered for Ph.D. degree: Name of the student, topic of research, date of registration. – 3

S. No.	Name of Student	Topic of research	Date registration
1.	Dinesh Kumar M.P.	Synthesis, Characterization and Photocatalytic applications of TiO ₂ nanomaterials	DoR/B1/3553/PhD-2012. 22/10/2012
2.	Jithesh. K	Synthesis, Characterisation and applications of metal oxide nanomaterials	2202/RESEARCH-B-ASST-1/2014/CU. 03/01/2014
3.	Anjitha K	Synthesis, Characterisation and Functional Applications of Polymer Nanocomposites.	173007 RESEARCH-B-ASST-1/2018/ Admn. 31/10/2018
4	Deepak Joshy	Synthesis, characterisation and Functional Applications of Semiconductor Metal oxide Nanomaterials	25788/RESEARCH-B-ASST-3/2018/Admn 20/02/2018

15. Provide information as indicated in 11 and 12 above.

16. Participation in conferences, symposium, seminars and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person.

No	Title	Details of Conference	Category/Type of Event	Date of Presentation	Invited Talk/Paper Presented
1	Black titanium dioxide material	International Conference on Nanomaterials ICN-2018	International	13/05/2018	Invited Lecture
2	Synthesis, characterisation and functional application of semiconductor nanomaterials	Academic Staff college, Kannur University	National	22/07/2017	Resource Person
3	Nanomaterials in Science, Technology and Medicine	DTE and Govt. engineering college, Trissur	National	24/07/2017	Invited Lecture
4	Renewable energy	Academic Staff college, Kerala University	National	18/08/2017	Resource Person
5	Current perspective in Nanochemistry	Govt. College Kattappana	National	08/11/2017	Invited Lecture

6	Thin film Technology	DCE and KKTM government college, Tirur	National	14/11/2017	Invited Lecture
7	Challenges and perspective of Materials chemistry	Payyanur college, Payyanur	National	11/12/2017	Invited Lecture
8	Frontiers in Chemical Sciences	University of Calicut	National	27/02/2018	Invited Lecture
9	Nanochemistry	Sahrdaya college, Kodakara	National	14/02/2018	Invited Lecture
10	Semiconducting Oxide nanoparticles and its applications	KSCSTE and Saint Joseph college autonomous, Trissur	National	16/02/2018	Resource Person
11	Advances in Materials Chemistry	Kannur university, Payyanur campus	National	16/03/2018	Invited Lecture
12	Nanomaterials for Energy Applications	Academic Staff college, Kannur University	National	09/11/2018	Invited Lecture
13	Nanomaterials: genesis, current status and promises	Dept. of Chemistry, Govt. Engineering College, Palakkad	National	27/11/2018	Resource Person
14	Materials chemistry Theory and applications	Saint Joseph college autonomous, Trissur	National	15/02/2018	Invited Lecture
16	Seminar Evaluation	Academic Staff college, Calicut University	State/University	15/02/2019	Resource Person
17	Advances in Nanomaterials Research	DCE and T.M. Jacob Memorial Government college, Manimala	National	17/01/2019	Resource Person

17. Innovative processes developed in teaching and learning.: Developed Vedio classes link <https://www.youtube.com/playlist?list=PLOnJQiDsowoiZj3Ph4gQVrouKTdWARAln>
18. Participation in curricular development: Chairman Board of Studies, MSc Applied Chemistry, University of Calicut, Member Board of Studies, Saint Joseph College, Iringalkuda (Autonomus), Trissur, Kerala.
19. Participation in co-curricular and extra-curricular activities. Acted as reviewer for various journals of RSC, ACS and Science direct.
20. Refresher and Orientation courses attended:

No	Name of Course	Venue	Duration	Grade Obtained
1	Refresher course in Nano science	UGC HRDC University of Calicut	3 weeks 29/11/2018 to 19/12/20218	A

21. Examination /Evaluation reforms initiated:
22. Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index. Numbers in SCOPUS.

No	Authors	Title	Journal & year, Volume, pages	IF	Citation	h Index
1.	J. Kavil, PM	Multifunctional	Applied Surface	5.155	3	159

	Anjana, CP Roshni, P. Periyat, , RB Rakhi	nanohybrid material from discarded razor blades as cost-effective supercapacitor electrodes and oil-spill cleaners	Science, 2019, 487, 109-115			
2.	S. Jose, D. Joshy, S. B Narendranath, P. Periyat	Recent advances in infrared reflective inorganic pigment	Solar Energy Materials and Solar Cells, 2019, 194	6.019	14	168
3.	J. Kavil, S. Pilathottathil, M. S. Thayyil, P. Periyat	Development of 2D nano heterostructures based on g-C ₃ N ₄ and flower shaped MoS ₂ as electrode in symmetric supercapacitor device	Nano-Structures & Nano-Objects, 2019, 18, 1-5	1.097	2	14
4.	S. Jose, S. B Narendranath, D. Joshy, NV Sajith, MR P. Kurup, P. Periyat	Low temperature synthesis of NIR reflecting bismuth doped cerium oxide yellow nano-pigment	Materials Letters, 2018, 233,82-85	3.019	7	124
5.	J. Kavil, A. Alshahrie, P. Periyat	CdS sensitized TiO ₂ nano heterostructures as sunlight driven photocatalyst	Nano-Structures & Nano-Objects,2018, 16, 24-30	1.097	23	14
6.	S. G. Ullattil, S. B Narendranath, S. C Pillai, P. Periyat	Black TiO ₂ nanomaterials: a review of recent advances	Chemical Engineering Journal, 2018,343, 708-736	6.97	91	172
7.	J. Kavil, PM Anjana, P. Periyat, RB Rakhi	Titania nanotubes dispersed graphitic carbon nitride nanosheets as efficient electrode materials for supercapacitors	J. Materials Science: Materials in Electronics,2018. 598, 16598-1660	6.97	6	63
8.	B. Babu, S. G. Ullattil, P. Periyat, M. M. Shaijumon	Ti ³⁺ Induced Brown TiO ₂ Nanotubes for High Performance Sodium-Ion Hybrid Capacitors	ACS Sustainable Chemistry & Engineering,2018, 4, 5401-5412	6.97	33	65
9.	M S.s Beegam, S.G. Ullattil, P. Periyat	Selective Solar Photocatalysis by High Temperature Stable Anatase TiO ₂	Solar Energy,2018, 160, 10-17	4.674	2	151
10.	J. Kavil, PM Anjana , R. B.	One-Pot Synthesis of g-C ₃ N ₄ /MnO ₂ and g-	Sustainable Energy &	4.912	20	159

	Rakhi, P. Periyat.	C ₃ N ₄ /SnO ₂ Hybrid Nanocomposites for Supercapacitor Applications	Fuels,2018, 2, 1-22			
11.	M S. Beegam, S. B Narendranath, P. Periyat*	Tuning of selective solar photocatalysis by Mn ²⁺ decorated nanocrystalline mesoporous TiO ₂	Solar Energy,2017, 158 , 774-781	4.674	9	151
12.	J. Kavil, S. G. Ullattil, Ahmed Alshahrie, P. Periyat	Polyaniline as photocatalytic promoter in black anatase TiO ₂	Solar Energy,2017, 158, 792-796	4.674	10	151
13.	B. Naufal, S. G. Ullattil, P. Periyat	A dual function nanocrystalline TiO ₂ platform for solar photocatalysis and self-cleaning application	Solar Energy,2017, 155, 1380-1388	4.674	7	151
14.	S. G. Ullattil, Tadka, J. Kavil, B.K. Vijayan, P. Periyat	A Sol-solvothermal Processed ‘Black TiO ₂ ’ as Photoanode Material in Dye Sensitized Solar Cells	Solar Energy,2017, 155, 490-495	4.674	12	151
15.	S. G. Ullattil, Pradeepan Periyat	Microwave-power induced green synthesis of randomly oriented mesoporous anatase TiO ₂ nanoparticles for efficient dye sensitized solar cells	Solar Energy 2017, 147, 99-105	4.674	21	151

23. Books published: with ISBN No., Without ISBN No., Chapters in books.

Publication Type	Publisher's Details	Title of the Paper	Author/Co-Author	Year
Chapter in Edited Book	Wiley International	Black TiO ₂ nanomaterial	First and Principal/Corresponding author	2017
Chapter in Edited Book	Wiley International	Advances in the Development of Novel Photocatalysts for Detoxification	First and Principal/Corresponding author	2017
Chapter in Edited Book	Springer International	Sol Gel synthesis of titanium dioxide	First and Principal/Corresponding author	2017
Chapter in Edited Book	Material Research Forum, USA International	TiO ₂ nanomaterials a Future prospect	First and Principal/Corresponding author	2018

Chapter in Edited Book	Material Research Forum, USA International	Synthesis, characterisation and application of Sm ³⁺ doped CeO ₂	First and Principal/Corresponding author	2018
Chapter in Edited Book	SH College International	Black TiO ₂ nanomaterials for selective photocatalysis	First and Principal/Corresponding author	2017
Chapter in Edited Book	UGC-HRDC University of Calicut	A short review on Mesoporous TiO ₂	Single Author	2018

24. Patents Applied/Granted: National. International, commercialized: Nil

25. Consultancy services provided and revenue generated: Nil

26. Conferences ,seminars, symposia and workshops organized as convener/coordinator:Nil

27. Number of collaborations:3

1. Prof. M.M. Shaijumon, Department of Physics, IISER Trivandrum

2. Dr Raghi Raghavan, Assistant Professor, Department of Chemistry, University of Kerala.

3.. Prof. S.C. Pillai, Department of Environmental Science, Institute of Sligo, Ireland

28. Awards /recognitions received: International, National, State, University level.

2018 Young Scientist Award by Kerala State Government.

Note: If necessary for Item No. 11 and 12 provide information in Enclosure-I, for 13,14 and 15 Enclosure- II, for 16 Enclosure-III, for 22 and 23 Enclosure- IV and so on.



Dr. A R Suresh Babu, Assistant Professor (UGC- FRP)

1. Name of the faculty: **Dr A R Suresh Babu**
2. Name of the Department: Chemistry
3. Educational qualifications: Ph.D
4. Present position: UGC-Assistant Professor
5. Address for correspondence: Room 24, Salwa Cultural Centre, Kohinoor, Calicut.
6. E-mail and contact number: arsborg@gmail.com, 8939511354
7. Specialization: Organic Chemistry
8. Total teaching experience: 3 years
9. Courses taught: Organic Chemistry-I, II, III, Organic Chemistry-practicals
10. Research experience: 3 years
11. Major research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI. Nil
12. Minor research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI. (Ongoing project for MPhil student : Literature survey on recent developments in synthesis of pyrrolidine heterocycles)
13. Number of students awarded Ph.D. degree: Name of the student, topic of research, date of registration, date of declaration of Ph.D. degree. Nil
14. Number of students registered for Ph.D. degree: Name of the student, topic of research, date of registration. Nil
15. Provide information as indicated in 11 and 12 above. UGC-Start-up-Grant, Reference No F.4-5 2018(FRP Start-up-grant) (Cycle IV) (BSR), dated June 2019 till March 2022. (Approved Rs 10 Lakhs, Received, 8 Lakhs)
16. Participation in conferences, symposia, seminars and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person.
 - i) UGC-sponsored Refresher course in Nano-sciences held between 29th November-19th December, 2018 (Resource person and adjudicated the seminar paper presentation of the participants)
 - ii) Chief Guest, Resource person: National Seminar on Design and synthesis of biodegradable carbon nanotubes, on 30th January, 2019, at MES college, Kalladi, Kerala.
 - iii) Conference organizing committee member in National Seminar on Frontiers in Chemical Sciences on 19th-21st March, 2019, at University of Calicut, Kerala.
 - iv) National Seminar –Frontiers in Chemical Sciences-Advances in Electrochemistry and Material Sciences, 29th-31st January 2020, at University of Calicut, Kerala.
 - v) Online Hands on Training Programme on Learning Management System organized by Department of Computer Sciences and IQAC, University of Calicut, between 26th June-4th July 2020
 - vi) International Virtual Conference on Advanced Materials for Energy and Materials Applications (ICAMEEA 2020), during 3-4th December 2020, organized by Bharath Institute for Higher Education and Research, Tamilnadu.
 - vii) Faculty Enrichment Webinar for Chemistry Teachers in Higher Education organized by NIEPA, New Delhi on 11th February 2021
 - viii) Organizing Committee member- Webinar Series Frontiers in Chemical Sciences FCS-2021 held between 17th-19th March 2021
17. Innovative processes developed in teaching and learning. Nil
18. Participation in curricular development: Syllabus Modification for M.Sc (Applied Chemistry) Organic Chemistry
19. Participation in co-curricular and extra-curricular activities. Nil
20. Refresher and Orientation courses attended:
 - i) Orientation Programme for Faculties in Universities Colleges Institutes of Higher Education, conducted by Teaching Learning Centre, Ramanujan College, University of Delhi, during 10th November-9th December 2020.

- ii) Faculty Development Programme on Design and Fabrication of Miniaturized Biosensors, conducted at Vellore Institute of Technology (VIT), Chennai, Tamilnadu during 9th -11th October 2020
21. Examination /Evaluation reforms initiated: Nil
22. Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index. Numbers in SCOPUS.
- i) Mint leaf derived carbon dots for dual analyte detection of Fe(III) and ascorbic acid. Varsha, R.; Suresh Babu, A. R.; and Renuka, N. K. *RSC Advances* 2019, 9, 12070-12078. Impact factor: 3.24, Citations: 30, h-index: 148.
- ii) A facile atom – economical synthesis of highly substituted pyrazolo-*N*-methylpiperidine grafted spiro-indenoquinoxaline pyrrolidine heterocycles via a sequential multicomponent reaction. Gavaskar, D, and Suresh Babu A. R *Synthetic Communications* 2020, 50, 3820-3829. Impact factor : 1.89, h-index: 74
- iii) Cu(II) monitoring at attomolar level assisted by rGO mediated PET. A.K. Akhila, A. K, Suresh Babu, A. R.; Renuka, N. K. *Materials Letters*. 2021, 289, 129397. Impact factor : 3.36, h-index: 144
- iv) An easy access to highly substituted trispiroheterocycles – Synthesis of novel pyrazolo-1,4-dioxaspiro[4,5]decane grafted spiro-oxindolopyrrolidines via a sequential multicomponent reaction. Gavaskar, D & Suresh Babu A. R. *Synthetic Communications* 2021, 51, 1066-1075. Impact factor : 1.89, h-index: 74
- v) A sequential multicomponent reaction (SMCR) strategy: Synthesis of novel pyrazolo-1,4-dioxaspiro[4,5]decane grafted spiro-indenoquinoxaline pyrrolidine heterocycles. *Synthetic Communications* 2021, 51, 2063-2076. Impact factor : 1.89, h-index: 74
23. Books published: with ISBN No., Without ISBN No., Chapters in books. Nil
24. Patents Applied/Granted: National. International, commercialized: Nil
25. Consultancy services provided and revenue generated: Nil
26. Conferences ,seminars, symposia and workshops organized as convener/coordinator:
Convener, National Seminar –Frontiers in Chemical Sciences-Advances in Electrochemistry and Material Sciences, 29th-31st January 2020, at University of Calicut, Kerala.
27. Number of collaborations: Nil
28. Awards /recognitions received: International, National, State, University level.
- i) IOP Trusted Reviewer Status 2020- Materials Research Express

Note: If necessary for Item No. 11 and 12 provide information in Enclosure-I, for 13, 14 and 15 Enclosure- II, for 16 Enclosure-III, for 22 and 23 Enclosure- IV and so on.

Dr. Roymon Joseph (Assistant Professor)

1. Name of the faculty: **Roymon Joseph**
2. Name of the Department: **Chemistry**
3. Educational qualifications: **PhD**
4. Present position: **Assistant Professor**
5. Address for correspondence: **Department of Chemistry, University of Calicut**
6. E-mail and contact number: royj80@gmail.com **8301871153**
7. Specialization: **Inorganic Chemistry, Supramolecular Chemistry**
8. Total teaching experience: **2 years**
9. Courses taught: **Analytical Chemistry, Inorganic Chemistry**
10. Research experience: **8 years**
11. Major research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI.
Ion/molecular mediated supramolecular polymers in organic & aqueous medium , 21/06/2016, 3 years, 3828000, SERB-DST. PI.
12. Minor research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI.
Nil
13. Number of students awarded Ph.D. degree: Name of the student, topic of research, date of registration, date of declaration of Ph.D. degree.
Nil
14. Number of students registered for Ph.D. degree: Name of the student, topic of research, date of registration.
Nil
15. Provide information as indicated in 11 and 12 above.
16. Participation in conferences, symposia, seminars and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person.
Enclosure - I
17. Innovative processes developed in teaching and learning: **Conducted classes in online platform such as moodle, google meet, etc**
18. Participation in curricular development: **Attended "Online Hands on Training Programme on Learning Management System – Moodle" organized by the Department of Computer Science and IQAC during 26th June to 4th July 2020.**
19. Participation in co-curricular and extra-curricular activities. **Nil**
20. Refresher and Orientation courses attended: **Nil**
21. Examination /Evaluation reforms initiated: **Nil**
22. Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index. Numbers in SCOPUS.
Enclosure - II
23. Books published: with ISBN No., Without ISBN No., Chapters in books.
(a) Characterization techniques for morphological and physicochemical evaluation of nanomaterials, Animesh M. Ramachandran, Roymon Joseph, Adersh Asok, 2021, p21-50, Nanobiotechnology 1st Edition, Elsevier. ISBN: 978-0-12-822878-4 (Book Chapter)
24. Patents Applied/Granted: National. International, commercialized:
(a) Pillararenes and uses thereof. WO2017025951A1. Yoram Cohen, Micha Fridman, Roymon Joseph, Alissa Naugolny, Mark Feldman, Ido M. Herzog, Dana Kaizerman, February 2017. (Applied)

(b) Cationic Pillararenes and uses thereof. US Patent Application No. 15751786. Yoram Cohen, Micha Fridman, Roymon Joseph, Alissa Naugolny, Mark Feldman, Ido M Herzog, Dana Kaizerman. (Granted)

25. Consultancy services provided and revenue generated: **Nil**
 26. Conferences, seminars, symposia and workshops organized as convener/coordinator: **Nil**
 27. Number of collaborations: **4**
 28. Awards /recognitions received: International, National, State, University level.
SERB (DST) Young Scientist Award in 2016

Enclosure – I

Conferences/Workshops			
Title	Details of Conference/Workshop/etc	Date of Presentation	Invited/Chaired Session/Resource Person
Basics of Supramolecular Chemistry	Workshop on Supramolecular Chemistry, organized by Sree Sankara Vidyapeetom College, Perumbavoor, Kerala	12/06/2021	Resource Person
Supramolecular Chemistry for Materials, Biology & Molecular Recognition	3 rd Refresher Course in Material Science, Organized by UGC-HRDC, University of Calicut	28/10/2020	Resource Person
Supramolecular Chemistry and Applications	Webinar Conducted by the Department of Chemistry, D. B. Pampa College, Parumala, Kerala	28/05/2020	Resource Person
Application of Supramolecules in Chemistry and Biology	UGC Sponsored Refresher Course in Material Science Conducted by UGC-HRDC, University of Calicut	05/12/2019	Resource Person
Functionalized Macrocycles for Ion/Molecular Detection and Biological Applications	International Conference on Recent Trends in Material Science and Technology, organized by Indian Institute of Space Science & Technology Thiruvananthapuram, Kerala	11/10/2018	Invited Talk
Cationic Amphiphiles as Biofilm Inhibitors	KSCSTE sponsored seminar organized by the Post Graduate Department of Chemistry, Mercy College Palakkad	01/10/2018	Resource Person

Enclosure – II

Research Publications in Peer Reviewed Journals							
No	Authors	Title	Journal Name, Year, Volume, & Page Number	ISSN	Impact Factor	h-Index	Citations
1	Roymon Joseph	Pillar[n]arene derivatives as sensors for amino acids	Chemistry Select, 2021, 14, 3519-3533	2365-6549	1.881	34	0
2	Dana Kaizerman-Kane,	Design Guidelines for Cationic	ACS Infectious Diseases 2021, 7, 579-585	2373-8227	4.614	39	1

	Maya Hadar, Roymon Joseph , Yossi Zafrani, Yoram Cohen	Pillar[n]arenes that Prevent Biofilm Formation by Gram-Positive Pathogens					
3	Rohit Varshney, Mujeeb Alam, Chinmayee Agashe, Roymon Joseph , Debabrata Patra	Pillar[5]arene Microcapsules Turn on Fluid Flow in Presence of Paraquat	Chemical Communications 2020, 56, 9284-9287	1364-548X	5.996	333	3
4	Roymon Joseph	Selective Detection of Fe ³⁺ , F ⁻ , and Cysteine by a Novel Triazole-Linked Decaamine Derivative of Pillar[5]arene and Its Metal Ion Complex in Water	ACS Omega, 2020, 5, 6215-6220	2470-1343	2.87	40	3
5	Roymon Joseph , Adersh Asok, Kuruvilla Joseph	Quinoline appended pillar[5]arene (QPA) as Fe ³⁺ sensor and complex of Fe ³⁺ (FeQPA) as a selective sensor for F ⁻ , arginine and lysine in the aqueous medium	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 2020, 224, 117390	1386-1425	3.232	123	8
6	Matthias Schnurr, Roymon Joseph , Alissa Naugolny-Keisar,	Labile complexes of ¹²⁹ Xe with water-soluble pillar[5]arenes as biosensor building blocks	ChemPhysChem, 2019, 20, 246-251	1439-7641	3.144	140	13

	Dana Kaizerman-Kane, Nils Bogdanoff, Patrick Schünke, Yoram Cohen, Leif Schröder	for adjustable magnetization transfer MRI					
7	Roymon Joseph, Dana Kaizerman, Ido M Herzog, Maya Hadar, Mark Feldman, Micha Fridman, Yoram Cohen	Phosphonium pillar[5]arenes as a new class of efficient biofilm inhibitors: importance of charge cooperativity and the pillar platform	Chemical Communications 2016, 52, 10656-10659-10659	1364-548X	5.996	333	30

Dr. Fazalurahman Kuttassery (Assistant Professor)

1. Name of the faculty: FAZALURAHMAN K.
2. Name of the Department: Chemistry
3. Educational qualifications: Ph.D.
4. Present position: Assistant Professor
5. Address for correspondence: Parappilakkal House, Velimukku South, Malappuram 676317
6. E-mail and contact number: kfazalurahman@gmail.com ; +919895686875
7. Specialization: Physical Chemistry, Photochemistry, Sustainable Energy Technologies
8. Total teaching experience: 2 Year 9 Months
9. Courses taught: Physical Chemistry & Organic Chemistry
10. Research experience: 3 Year 2 Months
11. Major research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI.: DST INSPIRE Faculty Research Grant, Sanction date: 20/04/2020, Duration: 04/01/2021-03/01/2026, Grant sanctioned: 35,00,000/-, Funding agency: Department of Science & Technology, Principal Investigator (Project ongoing)
12. Minor research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI.: Nil
13. Number of students awarded Ph.D. degree: Name of the student, topic of research, date of registration, date of declaration of Ph.D. degree.: Nil
14. Number of students registered for Ph.D. degree: Name of the student, topic of research, date of registration.: Nil
15. Provide information as indicated in 11 and 12 above.
16. Participation in conferences, symposia, seminars and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person.
Participation & Presented papers – 5 (International)
1 (University level)
Attended and chaired session – 2 (University level)
17. Innovative processes developed in teaching and learning. - Nil
18. Participation in curricular development: 1
19. Participation in co-curricular and extra-curricular activities. Nil
20. Refresher and Orientation courses attended: Nil
21. Examination /Evaluation reforms initiated: Nil
22. Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index. Numbers in SCOPUS.
Peer reviewed journals: 15
23. Books published: with ISBN No., Without ISBN No., Chapters in books. Nil
24. Patents Applied/Granted: National. International, commercialized: Granted Patent 1
25. Consultancy services provided and revenue generated: Nil
26. Conferences, seminars, symposia and workshops organized as convener/coordinator: Nil
27. Number of collaborations: 2
28. Awards /recognitions received: International, National, State, University level.
National – 1

Note: If necessary for Item No. 11 and 12 provide information in Enclosure-I, for 13, 14 and 15 Enclosure- II, for 16 Enclosure-III, for 22 and 23 Enclosure- IV and so on.

Enclosure II

Participation in conferences, symposia, seminars and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person.

Participation and Presentation (International)

1. Photoelectrochemical CO₂ reduction in water using poly-pyrrole based ruthenium supramolecular photocathodes. F. Kuttassery, R. Kamata, H. Kumagai, O. Ishitani. International Conference on Artificial Photosynthesis – ICARP-2019 and 3rd International Solar Fuel Conference (ISF-3) November 20-24 2019 Hiroshima, Japan.
2. Visible light induced water splitting sensitized by earth-abundant metalloporphyrins. F.

Kuttassery, S. Mathew, D. Yamamoto, Y. Nabetani, A. Iwase, A. Kudo, H. Tachibana, H. Inoue
The Second International Symposium on Hydrogen Energy-based Society. Nov 20-21 2017
Tokyo, Japan (**Invited talk**)

- Hydrogen peroxide generation induced by one-electron oxidation of earth-abundant aluminum porphyrins. F. Kuttassery, S. Mathew, D. Yamamoto, S. Onuki, Y. Nabetani, H. Tachibana, H. Inoue. International Conference on Artificial Photosynthesis-**ICARP-2017** (March 2-5, 2017) in Kyoto, Japan.
- Artificial photosynthesis: A new approach through one-electron induced two electron activation of water on aluminum porphyrins. F. Kuttassery, S. Mathew, D. Yamamoto, S. Onuki, Y. Nabetani, H. Tachibana, H. Inoue. Royal Society of Chemistry Faraday Discussions in Artificial Photosynthesis. (February 28-March 2, 2017) in Kyoto, Japan.

Participation and Presentation (University level)

- Recycling CO₂ using water and sunlight. F.Kuttassery. National Science Day Lecture organized by department of chemistry, University of Calicut on 5th March 2021

Participation and Chaired session (University level)

- International Conference for the Millennium (MATCON 2021) organized by Department of Applied Chemistry, Cochin University of Science & Technology, Kerala during 15-19 March 2021
- Frontiers in Chemical Sciences (FCS – 2021) organized by Department of Chemistry, University of Calicut, 17-19 March 2021, Organizing committee member and chaired a session
- One day seminar on Computational Chemistry organized by Department of Chemistry, University of Calicut, 25 March 2021, Organizing committee member
- Covid -19 combating pandemic, extension lecture series organized by Department of Chemistry, University of Calicut, 27-29 May 2021, Organizing committee member

Enclosure III Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index.

Research publications (Peer Reviewed Publications)							
No	Authors	Title	Name, Year, Issue and Page number	ISSN	Impact factor	h index	citations
1	Siby Mathew, <u>Fazalurahman Kuttassery</u> , Daisuke Yamamoto, Satomi Onuki, Yu Nabetani, Hiroshi Tachibana, Haruo Inoue	One-Pot Facile Synthesis of Water-Soluble Cationic Aluminum (III) Porphyrins in a Unique Heterogeneous System at Ambient Temperature	Bulletin of Chemical Society of Japan 2016, 89(3), 334-336	1348-0634	4.488	99	10
2	Arun Thomas, <u>Fazalurahman Kuttassery</u> , Sebastian Nybin Remello, Siby Mathew, Daisuke Yamamoto, Satomi Onuki, Yu Nabetani, Hiroshi Tachibana, Haruo Inoue	Facile Synthesis of Water- Soluble Cationic Tin (IV) Porphyrins and Water-Insoluble Tin (IV) Porphyrins in Water at Ambient Temperature	Bulletin of Chemical Society of Japan 2016, 89(8), 902-904	1348-0634	4.488	99	6
3	<u>Fazalurahman Kuttassery</u> , Siby Mathew, Shogo Sagawa, Sebastian Nybin Remello, Arun	One Electron Initiated Two Electron Oxidation of Water by Aluminum Porphyrins with	ChemSusChem 2017, 10(9), 1909-1915	1864-564X	7.962	157	23

	Thomas, Daisuke Yamamoto, Satomi Onuki, Yu Nabetani, Hiroshi Tachibana, Haruo Inoue	Earth's Most Abundant Metal					
4	Sebastian Nybin Remello, <u>Fazalurahman Kuttassery</u> , Siby Mathew, Arun Thomas, Daisuke Yamamoto, Yu Nabetani, Keito Sano, Hiroshi Tachibana, Haruo Inoue	Two-electron oxidation of water to form hydrogen peroxide catalysed by silicon- porphyrins	Sustainable Energy & Fuels 2018, 2(9), 1966- 1973	2398- 4902 (IF: 5.503)	5.503	38	12
5	Siby Mathew, <u>Fazalurahman Kuttassery</u> , Sebastian Nybin Remello, Arun Thomas, Daisuke Yamamoto, Satomi Onuki, Yu Nabetani, Hiroshi Tachibana, Haruo Inoue	Two electron oxidation of water through one photon excitation of aluminium porphyrins: molecular mechanism and detection of key intermediates	ChemPhotoChem 2018, 2(3), 240- 248	2367- 0932	2.838	18	14
6	<u>Fazalurahman Kuttassery</u> , Daisuke Yamamoto, Siby Mathew, Sebastian Nybin Remello, Arun Thomas, Yu Nabetani, Akihhide Iwase, Akihiko Kudo, Hiroshi Tachibana, Haruo Inoue	Photochemical hydrogen evolution on metal ion surface- grafted TiO ₂ - particles prepared by sol/gel method without calcination	Journal of Photochemistry and Photobiology A, Chemistry 2018, 358, 386- 394	1010- 6030	3.306	158	10
7	Arun Thomas, <u>Fazalurhaman Kuttassery</u> , Siby Mathew, Sebastian Nybin Remello, Yutaka Ohsaki, Daisuke Yamamoto, Yu	Protolytic behavior of axially coordinated hydroxy groups of Tin (IV) porphyrins as promising molecular catalysts	Journal of Photochemistry and Photobiology A, Chemistry 2018, 358, 402- 410	1010- 6030	3.306	158	10

	Nabetani, Hiroshi Tachibana, Haruo Inoue	for water oxidation					
8	Yutaka Ohsaki, Arun Thomas, Fazalurahman Kuttassery , Siby Mathew, Sebastian Nybin Remello, Yu Nabetani, Tetsuya Shimada, Shinsuke Takagi, Hiroshi Tachibana, Haruo Inoue	How does the tin (IV)-insertion to porphyrins proceed in water at ambient temperature?: Re-investigation by time dependent ¹ H NMR and detection of intermediates	Inorganica Chimica Acta 2018, 482, 914-924	0020-1693	2.304	99	2
9	Fazalurahman Kuttassery , Siby Mathew, Sebastian Nybin Remello, Arun Thomas, Keito Sano, Yutaka Ohsaki, Yu Nabetani, Hiroshi Tachibana, Haruo Inoue	Alternative route to bypass the bottle-neck of water oxidation: Two-electron oxidation of water catalyzed by earth-abundant metalloporphyrins	Coordination Chemistry Reviews 2018, 377, 64-72	0010-8545	15.367	276	19
10	Fazalurahman Kuttassery , Abin Sebastian, Siby Mathew, Hiroshi Tachibana, Haruo Inoue	Promotive Effect of Bicarbonate Ion on Two-Electron Water Oxidation to Form H ₂ O ₂ Catalyzed by Aluminum Porphyrins	ChemSusChem 2019, 12(9), 1939-1948	1864-564X	7.962	157	13
11	Fazalurahman Kuttassery , Shogo Sagawa, Siby Mathew, Yu Nabetani, Akihiko Iwase, Akihiko Kudo, Hiroshi Tachibana, Haruo Inoue	Water Splitting on Aluminum Porphyrins To Form Hydrogen and Hydrogen Peroxide by One Photon of Visible Light	ACS Applied Energy Materials 2019, 2(11), 8045-8051	2574-0962	4.473	36	11
12	Fazalurahman Kuttassery , Siby Mathew, Hiroshi	How one-photon can induce water splitting into	Sustainable Energy and Fuels 2020, 4, 1945-	2398-4902	5.503	38	7

	Tachibana, Haruo Inoue	hydrogen peroxide and hydrogen by aluminum porphyrins. Rationale of the thermodynamics	1953				
13	Abin Sebastian, Sebastian Nybin Remello, Fazalurahman Kuttassery , Siby Mathew, Yutaka Ohsaki, Hiroshi Tachibana, Haruo Inoue	Protolytic behavior of water-soluble zinc (II) porphyrin and the electrocatalytic two-electron water oxidation to form hydrogen peroxide	Journal of Photochemistry & Photobiology A, Chemistry 2020, 400, 112619	1010-6030	3.306	158	6
14	Yutaka Ohsaki, Arun Thomas, Fazalurahman Kuttassery , Siby Mathew, Sebastian Nybin Remello, Tetsuya Shimada, Tamao Ishida, Shinsuke Takagi, Hiroshi Tachibana, Haruo Inoue	Two-electron oxidation of water to form hydrogen peroxide initiated by one- electron oxidation of Tin (IV)-porphyrins	Journal of Photochemistry & Photobiology A, Chemistry 2020, 400, 112732	1010-6030	3.306	158	3
15	Keito Sano, Fazalurahman Kuttassery , Tetsuya Shimada, Tamao Ishida, Shinsuke Takagi, Bunsho Ohtani, Akira Yamakata, Tetsuo Honma, Hiroshi Tachibana, Haruo Inoue	Optically Transparent Colloidal Dispersion of Titania Nanoparticles Storable for Longer than One Year Prepared by Sol/Gel Progressive Hydrolysis/Conde	ACS Applied Materials & Interfaces 2020, 12(40), 44743-44753	1944-8244	8.758	228	1

Enclosure III

Awards /recognitions received: International, National, State, University level.

- DST-Inspire Faculty Award** by Department of Science & Technology, Government of India (2020). INSPIRE Faculty Fellowship scheme provides consolidated research fellowship along with Rs.35 lakh (Rupees 7 lakh per year) of Research Grant for 5 years to youngachievers for independent research and to emerge as a leader in the chosen area. (National level)

Dr. Suja T. D. (Assistant Professor)

1. Name of the faculty: Dr. Suja T D
2. Name of the Department: Department of Chemistry
3. Educational qualifications: Ph. D
4. Present position: Assistant Professor
5. Address for correspondence: 19/545D, Kalarivayil Apartments, Moscopara, Pallikkal PO, Malappuram, 673635
6. E-mail and contact number: tdsuja@gmail.com
7. Specialization: Synthetic Organic Chemistry and Medicinal Chemistry
8. Total teaching experience: 5 years
9. Courses taught: Ph. D, Masters and bachelors
10. Research experience: 6.5 years
11. Major research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI.:

Title of the project	Date of sanction and Duration	Grant received	Funding agency	PI or Co-PI.
Design and Synthesis of Natural Product Analogues Aimed at the Discovery of Anticancer Therapeutics	27-06-2014, 3 years	Rs 29,50,000/-	SERB- Fast Track Project (CS-179/2013)	PI
Development of affordable anticancer therapeutic agents based on colchicine and its analogues (ongoing)	26-10-2020, 3 years	Rs 12,33,918/-*	DST, New Delhi, Women Scientists Scheme (SR/WOS-A/CS-9/2019)	PI

*Transfer from previous host institute Central University of Haryana in progress

12. Minor research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI.

Title of the project	Date of sanction and Duration	Grant received	Funding agency	PI or Co-PI.
Design and Synthesis of Truncated Analogues of Antitumor Natural Products Aimed at the Development of New and Improved Anticancer Therapeutics (<i>awarded</i>)	30-05-2021, 2 years	Awaiting for the financial approval	University of Calicut	PI

13. Number of students awarded Ph.D. degree: Name of the student, topic of research, date of registration, date of declaration of Ph.D. degree. Nil
14. Number of students registered for Ph.D. degree: Name of the student, topic of research, date of registration. Nil
15. Provide information as indicated in 11 and 12 above. Provided above
16. Participation in conferences, symposia, seminars and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person.

S. No	Conference/ seminar details	Venue/date	National/ International/University	Paper presented/chaired Invited/ Resource Person

1	National Science Day Celebrations 2021	University of Calicut 28-02-21	University	Novel synthetic methods to access affordable anticancer scaffolds
2	Chemistry Webinar	Sri Ramkrishna College of Arts and Science 10-7-20	University	Opportunities for chemistry graduates

17. Innovative processes developed in teaching and learning.

18. Participation in curricular development:

A) Invitee in Board of Studies and Organizing member of Curriculum Development committee of B.Voc. Biomedical Sciences and B Voc Industrial Waste Management programs, Central University of Haryana

B) Curriculum development for the course Advanced Organic Chemistry for M Phil program, University of Calicut

19. Participation in co-curricular and extra-curricular activities.

a) Organizing committee member, Science Exhibition, National Science Day 2017 and 2018 at Central University of Haryana, Mahendergarh

b) Organized field trips for students of B.Voc. Biomedical Sciences programme, Central University of Haryana, to Pharma industries in NCR

c) Co-ordinated with industry partners to arrange internships and placements for students of B.Voc. Biomedical Sciences programme, Central University of Haryana

20. Refresher and Orientation courses attended:

Online Hands on Training Programme on Learning Management System-Moodle, 5-15 March 2021, University of Calicut

21. Examination /Evaluation reforms initiated: Nil

22. Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index. Numbers in SCOPUS. 3

S. No.	Authors	Title	Journal & year, volume, pages	IF	Citation	h-Index
1	Reddy, L.; Suja T. D*.; Manupati, K.; Yeeravalli, R.; Vijay, L. D.; Dantiboina, K.; Naik, V. L.; Das, A.	Concise Synthesis of 1,1-Diarylvinyl Sulfones and Investigations on their Antiproliferative Activity via Tubulin Inhibition.	Anti-Cancer Agents Med. Chem., 2020, 20(12) 1469	2.180	0	82

23. Books published: with ISBN No., Without ISBN No., Chapters in books.

Publication type	ISSN/ISBN No.	Publishers details	Title of the Book chapter	Year

Chapter in books (International Publishers)	9783527826445	Wiley-VCH Verlag GmbH & Co. KGaA	Cu-catalyzed Multicomponent Reactions, Suja, T. D.; Menon, R. S. in Copper Catalysis in Organic Synthesis, G. Anilkumar and S. Saranya (Eds.),	2020
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24. Patents Applied/Granted: National. International, commercialized: Nil

25. Consultancy services provided and revenue generated: Nil

26. Conferences ,seminars, symposia and workshops organized as convener/coordinator:

A) Recent trends in Eco-friendly chemistry, September 2016, Central University of Haryana, Organizing committee member

B)Organizing committee member for workshop cum meeting of Research and Development and Industry experts for discussing and framing the draft syllabi of Level 6 and Level 7 of B. Voc. Biomedical Science for the batch of January 2016 and July 2016, May 2018 Central University of Haryana.

27. Number of collaborations: 1(Dr. Amitava Das, CSIR-IICT Hyderabad)

28. Awards /recognitions received: International, National, State, University level. Nil

Note: If necessary for Item No. 11 and 12 provide information in Enclosure-I, for 13, 14 and 15 Enclosure- II, for 16 Enclosure-III, for 22 and 23 Enclosure- IV and so on.

Dr. Derry Holaday M. G. (Assistant Professor)

1. Name of the faculty: **Dr. Derry Holaday M G**
2. Name of the Department: Chemistry
3. Educational qualifications: MSc, NET, PhD
4. Present position: Assistant Professor
5. Address for correspondence: Mappilaserry House, H. No: 9/1196, Manthra 682002
6. E-mail and contact number: getderry@gmail.com, Phone: 9142311548
7. Specialization: Photochemistry
8. Total teaching experience: 7 years
9. Courses taught: Inorganic chemistry, Pharmaceutical chemistry, computational chemistry, Quantum mechanics, Nuclear chemistry
10. Research experience: 5 years
11. Major research projects completed: Nil
12. Minor research projects completed: Nil
13. Number of students awarded Ph.D. degree: Nil
14. Number of students registered for Ph.D. degree: Nil
15. Provide information as indicated in 11 and 12 above.
16. Participation in conferences, symposia, seminars and workshops: 10
17. Innovative processes developed in teaching and learning: ICT enables classes, quizzes and practical workshops
18. Participation in curricular development: 1; St. Teresa's College Ernakulam (Board of Studies member for UG and PG programs)
19. Participation in co-curricular and extra-curricular activities:
 - a) Coordinated add on course in green chemistry and served as resource person for Add-on course in computational chemistry for students of TM Jacob Memorial Government college. **2019**
 - b) Coordinator Nirbhaya squad at St. Teresa's college and TM Jacob Memorial Government college. **2017**
 - c) Coordinator for two years Rural outreach program Dept. of Chemistry St. Teresa's college Ernakulam 2016-2017
 - d) Founder of the Pharmaceutical company Dr. Derry's Healthcare Products Cochin **2020**
 - e) Manufactured and Provided sanitizers for Police, government hospitals in Cochin during the pandemic free of cost. **2020**
 - f) Coordinator Career guidance and women cell St. Teresa's college Ernakulam **2017**
 - g) Women cell committee member TM Jacob Memorial Government college **2019**
20. Refresher and Orientation courses attended: NA
21. Examination /Evaluation reforms initiated:
 - a) Question paper setting, invigilation, and paper correction for exams conducted for MSc and BSc chemistry- MG university 2016, 2017, 2018, 2019.
 - b) Examiner for MSc chemistry practical exams 2018, 2019.
22. Publication of research papers: One
Marine macroalgae biofabricated silver nanoparticles as naked-eye colorimetric and turn-on fluorescent sensor for cyanide ions in aqueous media, Environmental Nanotechnology, Monitoring & Management, ISSN: 2215-1532, 2020, 15, 100399
23. Books published: Nil
24. Patents Applied/Granted: National. International, commercialized:
25. Consultancy services provided and revenue generated: 1
26. Conferences, seminars, symposia and workshops organized as convener/coordinator:
27. Number of collaborations: 2 (NISER Bhubaneswar and KUFOS Panagad)
28. Awards /recognitions received: 2