

Department of Chemistry
Research Paper/ books/ Book chapter Publications April 2020-April 2021

Sl. No	Year	Title	Journal, Issue, Page number	ISSN	Name of Authors	Indexing & Impact Factor
1	2020	Spectroscopic and TDDFT investigation of highly selective fluoride sensors by substituted acyl hydrazones	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 236 (2020) 118329	1386-1425	Athira M. John, Jemini Jose, Renjith Thomas, Karukappallil J. Thomas, Sreeja P. Balakrishnan	Scopus IF:3.232 Q2 journal
2	2020	Role of mesoporous silica supported mixed oxides of ceria and samaria for the synthesis of ϵ -caprolactone at room temperature	Journal of Porous Materials	1380-2224	A. Selva Priya, K. R. Sunaja Devi, Mothi Krishna Mohan & S. Sugunan	Scopus IF= 1.95
3	2020	Designing Biomass Rice Husk Silica as an Efficient Catalyst for the Synthesis of Biofuel Additive n-Butyl Levulinate	BioEnergy Research	1939-1234	A. Selva Priya1 & K. R. Sunaja Devi	Scopus IF 2.5

4	2020	Electrochemical sensing of vitamin B12 deficiency marker methylmalonic acid using PdAu-PPy tailored carbon fiber paper electrode	Talanta	ISSN: 0039-9140	K.B. Akshaya, Anitha Varghese, M. Nidhin, Y.N. Sudhakar, George Louis	Scopus indexed Impact Factor 4.916, Q1 journal
5	2020	TEMPO-Mediated Aqueous Phase Electrooxidation of Pyridyl Methanol at Palladium-Decorated PANI on Carbon Fiber Paper Electrode	ChemistrySelect, 2020, 5, 3283 – 3294 Wiley VCH	ISSN: 2365-6549	Agnus T. Mathew, K. B. Akshaya, T. P. Vinod, Anitha Varghese,* and Louis George,	Scopus Indexed Impact factor 1.716, Q2 journal
6	2020	Effect of surface charge and other critical parameters on the adsorption of dyes on SLS coated ZnO nanoparticles and optimization using response surface methodology	Journal of Environmental Chemical Engineering 88 (2020) 103987 Elsevier B.V.	ISSN: 2213-3437	Dephan Pinheiro, K.R. Sunaja Devi, Ajay Jose, N. Rajiv Bharadwaj, K.J. Thomas	Science citation index IF 4.3 SJR=1.26
7.	2020	Supercapacitor studies of activated carbon functionalized with poly (ethylene dioxythiophene): Effects of surfactants, electrolyte concentration on electrochemical properties	Materials Letters Volume 273, (2020), 127978	0167-577X	Sudhakar Y N, M. Selvakumar, D. Krishna Bhat, Smagul Karazhanov, Raghu Subash Chandrabose	SCI Indexed and, Scopus Impact factor 3.019

8	2020	A novel approach for the synthesis of functionalized hydroxylamino derivative of dihydroquinazolinones	Synthetic communications DOI: 10.1080/00397911.2020.1768406	ISSN, 15322432	Chikkanti Jaganmohan, Vinay Kumar K. P., Venkateshwarlu R., Sandeep Mohanty, Jaydeep Kumar, Venkateswara Rao B., Akula Raghunadh & Krishnaji Tadiparthi	(I. F. 1.52, 2019)
9	2020	Synthesis of Quinoxalin-2(1H)-ones and Hexahydroquinoxalin-2(1H)-ones via Oxidative Amidation–Heterocyclization	SynOpen 2020; 04(03): 55-61 10.1055/s-0040-1707203		Akula Raghunadh Krishnaji Tadiparthi* Suresh Babu Meruva V. Narayana Murthy L. Vaikunta Rao U. K. Syam Kumar	--
10	2020	[18-C-6H3O ⁺]: an in-situ generated macrocyclic complex and an efficient, novel catalyst for synthesis of pyrano[2,3-c] pyrazole derivatives	Scientific Reports volume 10, Article number: 14342 (2020)		Manisha Mishra, K. J. Jomon, V. R. Sriram Krishnan & Aatika Nizam	Scopus indexed Impact Factor 3.998
11	2020	Zirconia Supported on Rice Husk Silica from Biowaste: A Novel, Efficient, and Recoverable Nanocatalyst for the Green Synthesis of Tetrahydro-1-benzopyrans	Russian Journal of Organic Chemistry Volume 56 No 10, pp 1784-1789		Manisha Mishra, K. R. Sunaja Devi, Dephan. Pinheiro and Aatika. Nizam	Scopus Indexed Impact factor 0.68

12	2020	Modified Rice Husk Silica from Biowaste: An Efficient Catalyst for Transesterification of Diethyl Malonate and Benzyl Alcohol	Waste and Biomass Valorization (2020) 11:4809–4819	1877-2641	A. Selva Priya, K. R. Sunaja Devi, K. Karthik · S. Sugunan	Scopus indexed IF =2.85
13	2020	Synthesis and characterization of CeO ₂ /Bi ₂ O ₃ /gC ₃ N ₄ ternary Z-scheme nanocomposite,	International Journal of Applied Ceramic Technology 2020; <u>Vol 17, Issue 5</u> page 2346-2356 http://dx.doi.org/10.1111/ijac.13578		Sunaja Devi K.R., Sandra Mathew, Revathy Rajan, Josna Georgekutty, Dephan Pinheiro, Ananthapadmanabhan U, Sundararajan M	Scopus indexed IF 1.8
14	2020	Experimental design for optimization of 4-nitrophenol reduction by green synthesized CeO ₂ /g-C ₃ N ₄ /Ag catalyst using response surface methodology	Journal of Rare Earths, vol 38 (2020) 1171-1177 https://doi.org/10.1016/j.jre.2019.10.001		Dephan Pinheiro, K.R. Sunaja Devi, Ajay Jose, K Karthik, Mothi Krishna Mohan	Scopus indexed IF=3.1
15	2020	Improved Photocatalytic Activity of g-C ₃ N ₄ /ZnO: A Potential Direct Z-Scheme Nanocomposite	Chemistry Select Volume 5, Issue 38 (2020)		Madhushree R; Sunaja Devi K R; Jadan Jaleel U C; Dephan Pinheiro	Scopus Indexed IF=1.8

19	2020	Microcannular electrode/polymer electrolyte interface for high performance supercapacitor	Electrochimica Acta, 353, 2020, 136558.		V S Sumana, Y N Sudhakar, Anitha Varghese and Nagaraja K	Impact Factor 6.246, Scopus indexed
20	2020	TEMPO-Mediated Aqueous Phase Electrooxidation of Pyridyl Methanol at Palladium-Decorated PANI on Carbon Fiber Paper Electrode,	ChemistrySelect 2020, 5, 3283 – 3294		Agnus T. Mathew, K. B. Akshaya, T. P. Vinod, Anitha Varghese,* and Louis George	Impact factor 1.811, Scopus indexed
21	2020	Molecularly imprinted PEDOT on carbon fiber paper electrode for the electrochemical determination of 2,4-dichlorophenol	Synthetic Metals, Volume 261, 2020, 116309		Ann Maria C G, Akshaya K B, Sherin Rison, Anitha Varghese,* and Louis George,	Impact factor 3.286, Scopus indexed
22	2020	MnO ₂ Nanoclusters Decorated on Graphene Modified Pencil Graphite Electrode for Non-Enzymatic Determination of Cholesterol	Electroanalysis, 32(10), 2020, 2128-2136		Sherin Rison, K. B. Akshaya, Vinay S Bhat, G. Shanker, T. Maiyalagan, E. K. Joice, Gurumurthy Hegde, and Anitha Varghese	Impact Factor 2.544, Scopus indexed
23	2020	TEMPO mediated electrocatalytic oxidation of pyridyl carbinol using palladium nanoparticles dispersed on biomass derived porous nanoparticles,	Electrochimica Acta, 136624, 2020		Agnus T.Mathew ¹ Vinay S.Bhat ² Akshaya K.B ¹ Supriya ^{S2} Maiyalagan ^{T3} Anitha Varghese ^{1*} GurumurthyHegde ²	Impact Factor 6.246, Scopus indexed.
24	2020	Exploring the Inhibition Performance of Tetrachloroferrate Ionic Liquid in Acid	Surfaces and Interfaces,		Perumal Kannan, Anitha Varghese, Agnus T Mathew, Karumalaiyan	Impact Factor 3.724,

		Environment Scanning Electrochemical Microscope and Theoretical Approaches Using	2020, 100594		Palanisamy, Ashraf S.Abousalem, MadhuKalaiyarasan, Nallaiyan Rajendran,	Scopus indexed.
25	2020	A unique host matrix to disperse Pd nanoparticles for electrochemical sensing of Morin : Sustainable engineering approach	ACS Biomaterials Science & Engineering (2020)		Chaithra K P, Vinay S Bhat, Akshaya K B, Thandavarayan Maiyalagan, Gurumurthy Hegde, Anitha Varghese, and Louis George,	Impact Factor 4.152, Scopus indexed.
26	2020	Evaluation of Corrosion Mitigation Performance of 1-(3,4,5-Trimethoxyphenyl methylidene)-2-Naphthyl amine (TMPNA) Schiff's Base on Carbon Steel Using Electrochemical, Thermodynamic and Theoretical Approaches,	Journal of Bio-and Tribo-corrosion, 2020, 6,12.		Perumal Kannan, Anitha Varghese, K Palanisamy, Ashraf S.Abousalem & Louis George,	Impact Factor 1.81, Scopus indexed
27	2020	Electrochemically decorated MnO ₂ -pi on biomass derived porous carbon modified carbon fiber paper for electro-catalytic oxidation of pyridyl carbinol,	Journal of Electrochemical Society, https://doi.org/10.1149/1945-7111/ab8f7		Agnus T Mathew, Supriya Hegde, Akshaya K B, Kannan P, Anitha Varghese, Gurumurthy Hegde,	Q1 Journal, Impact Factor 3.72, Scopus indexed.
28	2020	Review—Electrocatalytic Oxidation of Alcohols Using Chemically Modified Electrodes: A Review,	Journal of Electrochemical Society, https://doi.org/10.1149/1		Rijo Rajeev, Bhavya Sharma, Agnus T Mathew, Louis George, Sudhakar Y N and Anitha Varghese,	Impact Factor 3.72, Scopus indexed.

			945-7111/ab b9d0			
29.	2020	β -Cyclodextrin-PANI decorated pencil graphite electrode for the electrochemical sensing of morin in almonds and mulberry leaves.	SN Applied. Sciences, 2, 1741 (2020).		Rison, S., Akshaya, K.B., Mathew, A.T. et al.	
30	2021	Electrochemical Sensors using Conducting Polymer/Noble Metals Nanoparticle nanocomposites for the detection of various analytes: A Review	Journal of Nanostructure in Chemistry		Anjali John, Libina Benny, Anila Rose Cherian, Sudhakar Yethadka Narahari, Anitha Varghese*, Gurumurthy Hegde**	impact Factor 4.077, Q1 Journal
31	2021	Recent advances in bimetallic based nanostructures: Synthesis and electrochemical sensing applications,	Microchemical Journal, 163, 105910, 2021,		Rijo Rajeev, Riya Datta, Anitha Varghese, Y.N. Sudhakar, Louis George,	Impact factor 3.288, Q1 journal.
32	2021	An aqueous phase TEMPO mediated electrooxidation of 2-thiophenemethanol using MnO ₂ -Pi dispersed nanocarbon spheres on a carbon fiber paper electrode.	RSC Advances, 2021, 11, 2000, DOI: 10.1039/d0ra09488a		Agnus T. Mathew, Supriya S, Akshaya K. B., Anitha Varghese * and Gurumurthy Hegde*	Impact factor 3.077, Q1 journal.
33	2021	Waste Elimination to Porous Carbonaceous Materials for the Application of	Journal of cleaner production,		Libina Benny ¹ , Anjali John ¹ , Anitha Varghese* ¹ , Gurumurthy	Impact factor 7.499, Q1 journal,

		Electrochemical Sensors: Recent Developments.	125759, 2021,		Hegde**2, Louis George1	
34	2020	De novo synthesis of amberlite-15 catalysed dihydroquinazolinones	Russian J. Org. Chem., 2020, 8, 1468-1475		T. Krishnaji , V. N. Murthy, A. Raghunadh and L. V. Rao	Impact factor 0.73
35	2020	Base mediated spirocyclization of quinazoline: one-step synthesis of spiro-isoindolinone dihydroquinazolinones	RSC Adv., 2020, 10, 9486–9491		R. Venkateshwarlu, V. N. Murthy, T. Krishnaji, S. P. Nikumbh, R. Jinkala, V. Siddaiah, M. V. M. babu, H. Rama Mohan and A. Raghunadh	Impact factor 3.077, Q1 journal.
36	2021	Stable copper nanoparticles as potential antibacterial agent against aquaculture pathogens and human fibroblast cell viability	Biocatalysis and Agricultural Biotechnology, 2021,32, 101932		Nidhin M Reshmi Ghuglot, William Titus, Ananya S Agnihotri, V Krishnakumar, Ganesan Krishnamoorthy	Impact factor 2.14, Q1 journal
37	2021	Review-Transition metal oxides in electrochemical and bio sensing: A state-of-art review	Applied Surface Science Advances, 2021,4,1000 72		Ananya S Agnihotri, Anitha Varghese, Nidhin M	Scopus indexed. Elsevier
38	2020	Diazanorbornene: A Valuable Synthon towards Carbocycles and Heterocycles	Eur. J. Org. Chem., 2020, (42), 6588-6613.	ISSN: 1099-0690	Preethanuj Preethalayam, E. Jijy, Praveen Prakash, Sarath Chand Sarnghadharan, Ajesh Vijayan, K. V. Radhakrishnan, and Jubi John	Scopus Impact Factor 2019: 2.889 Q1 Journal

39	2021	Advances in Carbon-Element Bond Construction under Chan-Lam Cross-Coupling Conditions: A Second Decade	Synthesis, 2021, 53 (05), 805-847	ISSN: 0039-7881	Ajesh Vijayan, Desaboini Nageswara Rao, K. V. Radhakrishnan, Patrick Y. S. Lam, and Parthasarathi Das	Scopus Impact Factor 2019: 2.675 Q1 Journal
40	2020	Conductivity/Electrochemical Study of Polyvinyl pyrrolidone-Poly(vinyl alcohol)/I3- Thin Film Electrolyte for Integrated Dye-Sensitized Solar Cells and Supercapacitors	Journal of Electronic Materials volume 49, pages 6325-6335(2020)	ISSN 0361-5235	D. N. Sangeetha, Niveditha Hegde, Vidyashri Poojari, Dheeraj Devadiga, Y. N. Sudhakar , M. S. Santosh & M. Selvakumar	Scopus Impact Factor 2019: 1.774
41	2020	Investigations on thermo-mechanical properties of organically modified polymer clay nanocomposites for packaging application	Polymers and Polymer Composites https://doi.org/10.1177/0967391120960645	ISSN: 0967-3911 Online ISSN: 1478-2391	Y. N. Sudhakar , M Selvakumar, D Krishna Bhat	Scopus Impact Factor 2019: 1.023
42	2020	Response surface Optimization and Process design for glycidol synthesis using potassium modified rice husk silica	Materials Today Proceedings https://doi.org/10.1016/j.matpr.2020.05.234		Sunaja Devi K.R., Varsha Prasanna, Fenita D'sa, Kritika R. Shetty, Janet R Miranda, Dephan Pinheiro, Ganapati V. Shanbhag	Scopus Indexed IF=0.96

43	2020	<p>Chapter title</p> <p>Sustainable photocatalytic degradation of Ciprofloxacin using CeO₂-La₂O₃ Nanocomposite</p>	<p>Scholars Press</p> <p>Book: Green methods and sustainable materials: An Application perspective</p>	<p>ISBN N-13 : 978-613-8-93906-1</p> <p>ISBN N-10 : 6138939069</p>	<p>Dephan Pinheiro and Sunaja Devi K R</p>	
44		<p>Chapter title:</p> <p>Metal Organic Frameworks: A promising material for NO₂ and NH₃ gas sensing</p>	<p>Scholars Press</p> <p>Book: Green methods and sustainable materials: An Application perspective</p>	<p>ISBN N-13 : 978-613-8-93906-1</p> <p>ISBN N-10 : 6138939069</p>	<p>Sruthi Rajasekaran, Sunaja Devi K R and Mothi Krishna Mohan</p>	
45		<p>Chapter title:</p> <p>Water Purification Using Subnanostructured Photocatalysts</p>	<p>ACS Books</p> <p>Advanced Heterogeneous Catalysts Volume 2: Applications at the Single-Atom Scale.</p> <p>Chapter 8, page no 189-225</p> <p>DOI: 10.1021/bk-2020-1360.ch008</p>	<p>ISBN13 : 9780841298781</p> <p>eISBN: 9780841298774</p>	<p>K R Sunaja Devi, Dephan Pinheiro, and Shalini Reghunath</p>	<p>Scopus</p>

46	2020	Box–Behnken design and experimental study of ciprofloxacin degradation over Ag ₂ O/CeO ₂ /g-C ₃ N ₄ nanocomposites	International Journal of Environmental Science and Technology https://doi.org/10.1007/s13762-020-02971-y		Dephan Pinheiro, K.R. Sunaja Devi, Ajay Jose, K Karthik	Scopus indexed IF=2.54
47	2020	An insight into the superior performance of ZnO@PEG nanocatalyst for the synthesis of 1,4-dihydropyrano[2,3-c]pyrazoles under ultrasound	Materials Today Proceedings https://doi.org/10.1016/j.matpr.2020.06.283		Sumaiya Tabassum, Sunaja Devi K.R, Santhosh Govindaraju	Scopus Indexed IF=1
48	2020	Large Power Factors in Wide Band Gap Semiconducting RFeO ₃ Materials for High Temperature Thermoelectric Applications	<i>ACS Appl. Energy Mater.</i> 2020, 3, 11, 11193–11205 https://doi.org/10.1007/s13762-020-02971-y		P. Iyyappa Rajan; Baldo III. Carlos; S. Mahalakshmi; M. Sundararajan; R. Navamathavan; Devi K R Sunaja; S. Yuvaraj	Scopus indexed IF=4.47
49	2021	Statistical and experimental studies of MoS ₂ /g-C ₃ N ₄ /TiO ₂ : a ternary Z-scheme hybrid composite	Journal of Materials Science J Mater Sci (2021) 56:6922–6944 https://doi.org/10.1007/s10853-020-05695-z		U. C. Jadan Resnik Jaleel, K. R. Sunaja Devi, R. Madhushree, and Dephan Pinheiro	Scopus indexed IF 3.55

50	2021	Ultrahigh Power Factors in Ultrawide-Band-Gap GaB3N4 and AlB3N4 for High-Temperature Thermoelectric Applications	ACS Appl. Electron. Mater. 2021, 3, 219–229 https://dx.doi.org/10.1021/acsaelm.0c00777		Iyyappa Rajan Panneerselvam, Sunaja Devi Kalathiparambil Rajendra Pai, Carlos Baldo, III, Navamathavan Rangaswamy, and Mahalakshmi Sahasranaman	Science citation indexed
51	2021	A review of hierarchical nanostructures of TiO2 : Advances and applications	Applied Surface Science Advances 3 (2021) 100063 https://doi.org/10.1016/j.apsadv.2021.100063		Shalini Reghunath, Dephan Pinheiro, Sunaja Devi K R	Elsevier
52	2020	Synthesis, spectral and DNA/Protein binding evaluation of novel Cu(II) chelates of an NNO donor tridentate aroylhydrazones: Halogenbonding directed close packing	Journal of Molecular Structure 1217 (2020) 128453 Journal of Molecular Structure 1217 (2020) 128453	0022-2860	Yamuna S. Nair, Sriram Krishnan Venkataraman, Francis Joy, P. Murali Krishna, Anil Kumar Agarwal, T.P. Vinod, Pramod Kandoth Madathil, M.R.Prathapachandra Kurup	Scopus indexed IF - 2.19
53	2021	Recent Trends in the Synthesis and Mechanistic Implications of Phenanthridines	Advanced Synthesis and Catalysis, https://doi.org/10.1002/a	16154 169, 16154 150	Vishal Talukdar, Ajesh Vijayan, Naresh Kumar Katari, K. V. Radhakrishnan, and Parthasarathi Das	Scopus indexed Impact Factor 2019: 5.851

			dsc.202001236			Q1 Journal
54	2021	P(III)-Mediated Cascade C-N/C-S Bond Formation: A Protocol towards the Synthesis of N,S-Heterocycles and Spiro Compounds.	Advanced Synthesis and Catalysis. Volume363, Issue 2 January 19, 2021 Pages 431-445 https://doi.org/10.1002/adsc.202001149	1615-4169	Saibabu Polina,, V. P. Rama Kishore Putta, Raghuram Gujjarappa, Virender Singh, Prasad Pralhad Pujar,* and Chandi C. Malakarb,*	Scopus indexed Impact Factor 2019: 5.851 Q1 Journal
55	2020	Aza-Michael addition of 1,2-diazoles to structurally diverse enones: Efficient methods toward β -amino ketones	Journal of Heterocyclic Chemistry https://doi.org/10.1002/jhet.4221	1943-5193	Saibabu Polina1, V. P. Rama Kishore Putta, Raghuram Gujjarappa, Prasad Pralhad Pujar, Chandi C. Malakar	Scopus indexed Impact Factor 2019: 1.484
56	2020	Evaluation of fresh water algae as an inexpensive corrosion inhibitor for acid pickling of mild steel in 1 M HCl	Journal of Interdisciplinary Cycle Research	ISSN NO: 0022-1945	P T Muthamma S J Hepziba Magie Jessima and S Subhashini	UGC CARE Category II

57	2020	Sunova spirulina Powder as an Effective Environmentally Friendly Corrosion Inhibitor for Mild Steel in Acid Medium	Journal of Bio- and Tribo-Corrosion (2020) 6:71 https://doi.org/10.1007/s40735-020-00370-x		S. J. Hepziba Magie Jessima · S. Subhashini · James Arulraj	Impact factor 1.81 Scopus indexed
58	2020	Evaluation of Lime Juice as Potential Green Corrosion Inhibitor Using Gravimetric and Electrochemical Studies	Asian Journal of Chemistry; Vol. 32, No. 8 (2020), 2055-2060 https://doi.org/10.14233/ajchem.2020.22730		S J Hepziba Magie Jessima, B G Rakesh, Moksha Muthappa, S Subhashini	Impact factor 0.14 Scopus indexed
59	2020	Evaluation of the inhibition efficiency of Pogonatum microstomum for mild steel in acid medium using gravimetric, kinetics, electrochemical studies and statistical modeling	AIP Conference Proceedings 2270, 050001 (2020); https://doi.org/10.1063/5.0019455		Jilna Jomy, S. J. Hepziba Magie Jessima, and S. Subhashini	Scopus indexed Impact factor 0.415
60	2020	Preparation, characterization, and evaluation of corrosion inhibition efficiency of sodium lauryl sulfate modified chitosan for	Journal of Molecular Liquids 320 (2020) 114382		S.J. Hepziba Magie Jessima Avni Berisha Subramanian Sathy Srikandan Subhashini S.	Scopus indexed Impact factor 5.065

		mild steel in the acid pickling process	https://doi.org/10.1016/j.molliq.2020.114382 0167-7322			Q1 Journal
61	2020	Corrosion mitigation performance of disodium EDTA functionalized chitosan biomacromolecule - Experimental and theoretical approach	International Journal of Biological Macromolecules Volume 178 , 1 May 2021, Pages 477-491 https://doi.org/10.1016/j.ijbiomac.2021.02.166		S.J. Hepziba Magie Jessimaa,*, Avni Berisha Ayhan Oral, Subramanian Sathy Srikandan, SubhashiniS	Scopus indexed Impact factor 5.162 Q1 Journal