Department of Chemistry
List of Publications

Academic Year: 2022 -2023

1	An Enduring In vitro Wound Healing Phase Recipient by Bioactive Glass-Graphene Oxide Nanocomposites	M. Nandhakumar, National Centre for Nanoscience and Nanotechnology, University of Madras, Chennai, 600 025, India	**T. Daniel Thangadurai**, S. Sundaram (Corresponding author), A. Roy, B. Subramanian (Corresponding author). 2nd author- Department of Chemistry and Centre for Nanoscience and Technology, KPR Institute of Engineering and Technology, Coimbatore, 641 407, India 3rd author- Electrical and Electronics Engineering, School of Engineering and the Built Environment, Edinburgh Napier University, Edinburgh, EH10 5DT, UK 4th author- Environment and Sustainability Institute, University of Exeter, Penryn, TR10 9FE, UK 5th author- National Centre for Nanoscience and Nanotechnology, University of Madras, Chennai, 600 025, India	Scientific Reports	12, 16162 (28 September 2022)	WoS, Scopus	Yes	https://www.nature.com/articles/s41598-022-20575-z

2	Two-dimensional z-type MoS2/g-C3N4 Semiconductor Heterojunction Nanocomposites for Industrial Methylene Blue Dye Degradation under Daylight	**S. Sivakumar**, Department of Chemistry, and Centre for Nanoscience and Technology, KPR Institute of Engineering and Technology, Coimbatore, 641407, Tamil Nadu, India	**T. Daniel Thangadurai** (Corresponding Author), N. Manjubaashini, D. Nataraj. 2nd author- Department of Chemistry, and Centre for Nanoscience and Technology, KPR Institute of Engineering and Technology, Coimbatore, 641407, Tamil Nadu, India 3rd author- National Centre for Nanoscience and Nanotechnology, University of Madras, Chennai 600025, Tamil Nadu, India 4th author - Department of Physics, Bharathiar University, Coimbatore 641046, Tamil Nadu, India	Colloids and Surfaces A: Physicochemical and Engineering Aspects	654, 130090 (5 December 2022)	WoS, Scopus	Yes	https://www.sciencedirect.com/science/article/abs/pii/S0927775722018453
3	Do the acid/base modifiers in solvothermal synthetic conditions influence the formation of Zr-Tyr MOFs to be amorphous?	V. Subramaniyam, Department of Nanoscience and Technology, Sri Ramakrishna Engineering College, Coimbatore, 641 022, Tamil Nadu	**T. Daniel Thangadurai,** P. V. Ravi, M. Pichumani (Corresponding author). 2nd author- Department of Chemistry, KPR Institute of Engineering and Technology, Coimbatore 641407, Tamil Nadu, India 3rd &4th author- Department of Nanoscience and	Journal of Molecular Structure	1267, 133611 (5 November 2022)	SCIE, WoS, Scopus	Yes	https://www.sciencedirect.com/science/article/abs/pii/S0022286022012674

			Technology, Sri Ramakrishna Engineering College, Coimbatore, 641 022, Tamil Nadu					
4	Phosphorus-Doped Graphitic Carbon Nitride: A New Metal-Free Electrochemical Antioxidant Quercetin Sensing Catalyst in Fruit samples	G. Kesavan, Department of Chemical Engineering and Biotechnology, College of Engineering, National Taipei University of Technology, Taipei 106, Taiwan, ROC	V. Vinothkumar, S.-M. Chen, T. Daniel Thangadurai 2nd and 3rd author- Department of Chemical Engineering and Biotechnology, College of Engineering, National Taipei University of Technology, Taipei 106, Taiwan, ROC 4th author- Department of Chemistry, KPR Institute of Engineering and Technology, Coimbatore 641407, Tamil Nadu, India	Electrochimica Acta	426, 140759 (10 September 2022)	Scopus	Yes	https://www.sciencedirect.com/science/article/abs/pii/S0013468622009185
5	Recent advances in turn off-on fluorescence sensing strategies for sensitive biochemical analysis - A mechanistic approach	B. T. Huy, Department of Chemistry, Changwon National University, Changwon 51140, Republic of Korea	**T. Daniel Thangadurai**, M. Sharipov, N. N. Nghia, N. V. Cuong, Y. –I. Lee. 2nd author- Department of Chemistry, KPR Institute of Engineering and Technology, Affiliated to Anna University, Coimbatore, Tamil Nadu 641407, India 3rd,4th &5th authors- Department of Chemistry,	Microchemical Journal	179, 107511 (August 2022)	SCI, WoS, Scopus	Yes	https://www.sciencedirect.com/science/article/pii/S0026265X22003393

			Changwon National University, Changwon 51140, Republic of Korea					
6	Adsorption of Molybdenum from Wastewater by Surface Altered Agricultural Solid Waste	**M. Vinolia Thamilarasi** (Corresponding author), Department of Chemistry, KPR Institute of Engineering and Technology, Coimbatore-641407, INDIA	M. V. Sureshkumar, A.K. Priya. 2nd&3rd author- Department of Chemistry, Jansons Institute of Technology, Coimbatore-641659, India 4th author- Department of Civil Engineering, KPR Institute of Engineering and Technology, Coimbatore-641407, India	Iranian Journal of Chemistry and Chemical Engineering	41, 1883-1895 (June 2022)	Scopus	Yes	https://www.ijcce.ac.ir/article_245933.html
7	Enhanced visible light induced Dye degradation and Antibacterial activities of ZnO/NiO Nanocomposite synthesized using Clitoria ternatea flower extract	S. Prabhu (Corresponding author), Department of Research and Development, Bharathiar University, Coimbatore, Tamil Nadu, India	**T. Daniel Thangadurai,** T. Indhumathi, P. Kalugasalam. 2nd author- Department of Chemistry, and Centre for Nanoscience and Technology, KPR Institute of Engineering and Technology, Coimbatore, Tamil Nadu, India 3rd author- Department of Chemistry, Christ (Deemed to be University), Bangalore, Karnataka, India 4th author- Department of Physics, Anna University Regional	Inorganic Chemistry Communications	146, 100771 (December 2022)	Scopus	Yes	

			Campus, Coimbatore, Tamil Nadu, India					
8	Synthesis, spectral characterization, crystal structure and computational investigation of 2-formyl-6-methoxy-3-carbethoxy quinoline as potential SARS-CoV inhibitor	A. Franklin Ebenazer, Post-Graduate and Research Department of Chemistry, Chikkanna Government Arts College, Tiruppur, 641 602, Tamil Nadu, India	**M. Saravanabhavan**, K.S. Ramesh, Shabbir Muhammad, Abdullah G. Al-Sehemi, N. Sampathkumar (Corresponding Author). 2nd author- Department of Chemistry, KPR Institute of Engineering and Technology, Coimbatore, 641 407, Tamil Nadu, India 3rd author- Department of Chemistry, Adithya Institute of Technology, Coimbatore, 641 107, Tamil Nadu, India 4th author- Department of Chemistry, College of Science, King Khalid University, P.O. Box 9004, Abha, 61413, Saudi Arabia 5th author- Post-Graduate and Research Department of Chemistry, Chikkanna Government Arts College, Tiruppur, 641 602, Tamil Nadu, India	Journal of Physics and Chemistry of Solids	170, 110886 (November 2022)	Scopus	Yes	https://www.sciencedirect.com/science/article/pii/S0022369722003134
9	Synthesis, characterization,	K. S. Ramesh, Department of Chemistry, Sri	**S. Munusamy** (Corresponding author), Shabbir	Journal of Materials Science:	34, 1140 (13 May 2023)	SCI	Yes	https://link.springer.com/article/1

	and computational exploration of 6-ethoxy-2-aminobenzothiazolium diphenylacetate crystal as an efficient NLO material	Ramakrishna Mission Vidyalaya College of Arts and Science, Tamil Nadu, Coimbatore, 641 020, India	Muhammad, **M. S. Karthikeyan**, Abdullah G. Al-Sehemi, M. Sekar(Corresponding author)	Materials in Electronics				0.1007/s10854-023-10528-1
10	Anodization of TiO_2 Nanotubes on Titanium Alloys and their Analysis of Mechanical Properties	**D. Sudha**, Department of Chemistry, and Centre for Nanoscience and Technology, KPR Institute of Engineering and Technology, Coimbatore, Tamil Nadu, India	R. Suganya, A.Revathi, K.Yoghanantha n, V.Sivaprakash 2nd author- Department of Chemistry, VCST, Erode, Tamil Nadu, India 3rd author- Department of Chemistry, Centre for Environmental Research, Kongu Engineering College, Erode, Tamil Nadu, 638060, India 4th author- Department of Chemistry, Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu, India	Materials Science Forum	1070, 127-132 (October 2022)	Scopus	Yes	https://www.scientific.net/MSF.1070.127
11	Evaluation of structural, optical properties and photocatalytic activity of Ag_2O coated ZnO nanoparticles	R. Suganya, Department of Chemistry, K.S. Rangasamy College of Arts and Science (Autonomous), Thiruchengode, Tamil Nadu, 637 215, India	A. Revathi, **D. Sudha**, V. Sivaprakash, E. Ranjith Kumar (Corresponding Author) 2nd author- Department of Chemistry, Centre for Environmental Research, Kongu Engineering College, Erode,	Journal of Materials Science: Materials in Electronics	33, 23224–23235 (23 September 2022)	SCI	Yes	https://link.springer.com/article/10.1007/s10854-022-09086-9

			Tamil Nadu, 638060, India 3rd author- Department of Chemistry, KPR Institute of Engineering and Technology, Coimbatore, Tamil Nadu, 641 407, India 4th author- School of Mechanical Engineering, Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu, India 5th author- Department of Physics, KPR Institute of Engineering and Technology, Coimbatore, Tamil Nadu, 641 407, India					
12	Fabrication of Earth-Abundant Electrocatalysts Based on Green-Chemistry Approaches to Achieve Efficient Alkaline Water Splitting—A Review	M. I. Jamesh (Corresponding author), Department of Chemistry, Division of Science and Humanities, VSB College of Engineering Technical Campus, Coimbatore 642109, Tamil Nadu, India	A. Akila, **D. Sudha**, K. Gnana Priya, V. Sivaprakash and A. Revathi 2nd author- Department of Chemistry, Sri Eshwar College of Engineering, Coimbatore 641202, Tamil Nadu, India 3rd author- Department of Chemistry, KPR Institute of Engineering and Technology, Coimbatore 641407, Tamil Nadu, India 4th author- Department of	Sustainability	14, 16359 (7 December 2022)	Scopus	Yes	https://www.mdpi.com/2071-1050/14/24/16359

			Chemistry, Sri Ramakrishna College of Arts & Science, Coimbatore 641006, Tamil Nadu, India 5th author- Department of Mechanical Engineering, Sathyabama Institute of Science and Technology, Chennai 600119, Tamil Nadu, India 6th author- Department of Chemistry, Centre for Environmental Research, Kongu Engineering College, Perundurai, Erode 638060, Tamil Nadu, India					
13	Pharmacological and quantum chemical studies of 2-aminobenzo[d]thiazol-3-ium 4-chlorobenzenesulphonate: Synthesis, spectral, thermal analysis and structural elucidation	C. Sudhakar, Centre for Research and Evaluation, Bharathiyar University, Coimbatore 641 046, Tamil Nadu, India	**M. Saravanabhavan** (Corresponding author), K.S. Ramesh, V.N. Badavath, S. Chandrasekar, B. Babu, M. Sekar, (Corresponding author) 2nd author- Department of Chemistry, KPR Institute of Engineering and Technology, Coimbatore 641 407, Tamil Nadu, India 3rd author- Department of Chemistry, Adithya	Results in Chemistry	4, 100442 (January 2022)	SCI	Yes	https://www.sciencedirect.com/science/article/pii/S2211715622001618

			Institute of Technology, Coimbatore 641107, Tamil Nadu, India 4th author- Department of pharmaceutical chemistry, SVKM's NMIMS Deemed-to-be-University, Hyderabad 509301, India 5th &6thauthor- Department of Physics, National Chung Hsing University, Taichung 402, Taiwan 7th author- Department of Chemistry, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore 641 107, Tamil Nadu, India					
14	Creating hierarchical heterostructure arrays of ZnO@MOF@PPy as a highly effective electrode for an asymmetric supercapacitor application	A. Revathi, Department of Chemistry, Kongu Engineering College, Erode, Tamil Nadu, 638 069, India	D. John Williams, **D. Sudha**, R. Boopathiraja (Corresponding author) 2nd author- Division of Science, Spicer Adventist University, Pune, 411067, India 3rd author- Department of Chemistry, KPR Institute of Engineering and Technology, Coimbatore, Tamil Nadu, 641 407, India	Journal of Materials Science: Materials in Electronics	34, 1175 (19 May 2023)	SCI	Yes	https://link.springer.com/article/10.1007/s10854-023-10521-8

			4th author- Department of Physics, Chikkaiah Naicker College, Erode, Tamil Nadu, 638 004, India					
15	Structural, optical, morphological and electrochemical properties of ZnO and graphene oxide blended ZnO nanocomposites	**D. Sudha**, Department of Chemistry, KPR Institute of Engineering and Technology, Coimbatore 641 407, Tamil Nadu, India	E. Ranjith Kumar (Corresponding author), S. Shanjitha, Alaa M. Munshi, G. A.A. Al-Hazmi, Nashwa M. El-Metwaly, S. Jone Kirubavathy (Corresponding author) 2nd author- Department of Physics, KPR Institute of Engineering and Technology, Coimbatore, 641 407, Tamilnadu, India 3rd&7thauthor- Department of Chemistry, PSGR Krishnammal College for Women, Coimbatore, 641 004, Tamil Nadu, India 4th&6th author- Department of Chemistry, Faculty of Applied Sciences, Umm Al Qura University, Makkah, Saudi Arabia 6th author- Department of Chemistry,	Ceramics International	49,7284 (1 March 2023)	SCI	Yes	https://www.sciencedirect.com/science/article/abs/pii/S0272884222037737

			Faculty of Science, P.O. Box 9004, King Khalid University, Abha, Saudi Arabia					
16	Electrochemical, structural, optical, and morphological characteristics of Cu-loaded ZnO nanostructures synthesized from bio-waste (maize) using a green synthesis technique	**R. Jagadeeswari** (Corresponding author), Department of Chemistry, KPR Institute of Engineering and Technology, Coimbatore - 641407, India	G. Rathika, K. V. Satheesh Kumar, P. Selvakumar 2nd author- Department of Chemistry, PSG College of Arts & Science, Coimbatore - 641014, Tamil Nadu, India 3rd author- Department of Mechanical Engineering, Kongu Engineering College, Perundurai 638060, Tamilnadu, India 4th author- Department of Chemistry, Erode Sengunthar Engineering College, Thudupathi638057, Tamilnadu, India	Digest Journal of Nanomaterials and Biostructures	18, 291 - 298 (March 2023)	Scopus	Yes	https://chalcogen.ro/291_JagadeeswariR.pdf
17	Study of the Crystal Architecture, Optoelectronic Characteristics, and Nonlinear Optical Properties of 4 Amino Antipyrine Schiff Bases	Amsaveni Arumugam, Department of Chemistry, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore 641 020, Tamil Nadu, India	Ramesh Shanmugam, **Saravanabhavan Munusamy** (Corresponding author), S. Muhammad, H. Algarni, and M. Sekar 2nd&6th author- Department of Chemistry, Sri Ramakrishna Mission Vidyalaya College of Arts and Science,	ACS Omega	8, 15168–15180 (17 April 2023)	SCI	Yes	https://pubs.acs.org/doi/10.1021/acsomega.2c08305

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18	Synthesis, physico-chemical characterization and quantum chemical studies of 2, 3-dimethyl quinoxalinium-5-sulphosalicylate crystal	K.S. Ramesh, Chemistry, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore, Tamil Nadu 641 020, India	**M. Saravanabhavan** (Corresponding author), Shabbir Muhammad, D. Edison, Mon-Shu Ho, M. Sekar(Corresponding author), Abdullah G. Al-Sehemi 2nd author- Department of Chemistry, KPR Institute of Engineering and Technology, Coimbatore, Tamil Nadu 641 407, India 3rd&7thauthor- Department of Chemistry, College of Science, King Khalid University, P.O. Box 9004, Abha 61413, Saudi Arabia 4th author- Department of	Journal of Molecular Structure	1285,135 425,2023	SCI	Yes	

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19	Synthesis, analysis and characterization of camellia sinensis mediated synthesis of NiO nanoparticles for ethanol gas sensor applications	S. Ananthi, Department of Physics, The Madura College, Madurai 625011, Tamil Nadu, India	M. Kavitha, A. Balamurugan, E. Ranjith Kumar(Corresponding author), G. Magesh, A.F. Abd El-Rehim, Ch. Srinivas, **P. Anilkumar**, J. Suryakanth, C. Sharmila Rahale 2nd author- Department of Physics, The Madura College, Madurai 625011, Tamil Nadu, India 3rd author- Department of Physics, Government Arts and Science College, Avinashi 641654, Tamil Nadu, India	Ceramics International	387, 133742 (15 July 2023)	SCI	Yes	https://www.sciencedirect.com/science/article/abs/pii/S0925400523004574

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20	Evaluation of structural, optical and morphological	**Anilkumar P** (Corresponding author), Department of Chemistry, KPR	Kalaivani T, Deepak S, Jasmin J, A.F. Abd El-Rehim, E. Ranjith	Ceramics International	49, 16991 (1 June 2023)	SCI	Yes	https://www.sciencedirect.com/science/article/abs/pii/

	properties of La doped TiO_2 nanoparticles	Institute of Engineering and Technology, Coimbatore, Tamil Nadu, 641 407, India	Kumar (Corresponding author) 2nd author- Department of Chemistry, Jairams College of Arts and Science, Karur, Tamil Nadu, 639003, India 3rd&4th author- Department of Chemistry, KPR Institute of Engineering and Technology, Coimbatore, Tamil Nadu, 641 407, India 5thauthor- Physics Department, Faculty of Science, King Khalid University, P.O. Box 9004, Abha, 61413, Saudi Arabia 6th author- Department of Physics, K P R Institute of Engineering and Technology, Coimbatore, 643 407, Tamilnadu, India					S0272884223003498#:~:text=The%20optical%2C%20structural%2C%20electrical%2C,with%20(101)%20preferential%20orientation.

23/11/23

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