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DEPARTMENT OF SCIENCE & HUMANITIES

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISSN number	Link to the recognition in UGC enlistment of the Journal /Digital Object Identifier (doi) number		
						Link to website of the Journal	Link to article / paper / abstract of the article	Is it listed in UGC Care list/Scopus/Web of Science
Enhanced electrochemical and thermal stability of CdS:Pb ²⁺ , Cu ²⁺ co-doped nanoparticles on energy storage applications	Dr.S.Muruganandam	Physics	Inorganic Chemistry Communications	2024	1387-7003	https://www.sciencedirect.com/journal/inorganic-chemistry-communications	https://doi.org/10.1016/j.inoche.2023.111881	Scopus/Web of Science
LSRW Plays a Vital Role in the Process of Learning a Language – Analytical Study	Ms. R Ramya	English	Journal of Emerging Technologies and Innovative Research	2024	ISSN: 2349-5162	https://www.jetir.org/index.html	https://www.jetir.org/view?paper=JETIR2403004	UGC CARE LIST
Enhanced electrochemical and thermal stability of CdS:Pb ²⁺ , Cu ²⁺ co-doped nanoparticles on energy storage applications	Dr. M. Jayavel	Chemistry	Inorganic Chemistry Communications	2024	1387-7003	https://www.sciencedirect.com/journal/inorganic-chemistry-communications	https://doi.org/10.1016/j.inoche.2023.111881	Scopus/Web of Science
Theoretical Analysis of the Enzyme Reaction Processes Within the Multiscale Porous Biocatalytic Electrodes: Akbari–Ganji's and Taylor's Series Method.	Dr. R. Usha Rani	Mathematics	International Journal of Electrochemical Science (Impact factor: 1.541)	2024	1452-3981	https://www.sciencedirect.com/journal/international-journal-of-electrochemical-science	https://www.sciencedirect.com/science/article/pii/S1452398124000683?via%3Dihub	Science citation index
A theoretical and computational analysis of the concentration of substrate and product in enzyme-based electrochemical biosensors: Akbari-Ganji's method	Dr. R. Usha Rani	Mathematics	Journal of electroanalytical Chemistry (Impact factor: 4.598)	2024	Online ISSN: 1873-2569 Print ISSN: 1572-6657	https://www.sciencedirect.com/journal/journal-of-electroanalytical-chemistry	https://www.sciencedirect.com/science/article/abs/pii/S1572665724000535	Science citation index
<u>Ultrafast photodegradation of textile industry dyes using efficient sulfide based ternary nanocomposites</u>	Dr.S.Muruganandam	Physics	Chemosphere	2023	1879-1298	https://www.sciencedirect.com/science/article/abs/pii/S004565352301367X	https://doi.org/10.1016/j.chemosphere.2023.139100	Scopus/Web of Science
Electrochemical performance of Yttrium doped SnO ₂ -NiO nanocomposite for energy storage applications	Dr.S.Muruganandam	Physics	Journal of Physics and Chemistry of Solids	2023	0022-3697	https://www.sciencedirect.com/journal/journal-of-physics-and-chemistry-of-solids	https://doi.org/10.1016/j.jpccs.2023.111420	Scopus/Web of Science

Oxygen-Vacancy-Rich HfO ₂ -x Nanoparticles Supported on Reduced Graphene Oxide for Electrocatalytic Hydrogen Evolution Reactions	Dr. M. Jayavel	Chemistry	ACS Applied Nano Materials	2023	2574-0970	https://pubs.acs.org/journal/aanmf6	https://pubs.acs.org/doi/abs/10.1021/acsanm.3c04439	Scopus/UGC Care
Efficiency enhancement of perovskite-sensitized solar cell based on electrospun titania nanofibers coated in organic-inorganic hybrid metal trihalide nanocrystals	Dr. M. Jayavel	Chemistry	Optical Materials	2023	9253467	https://www.sciencedirect.com/journal/optical-materials	https://www.sciencedirect.com/science/article/abs/pii/S0925346723004676	Scopus/UGC Care
Electrochemical and physiochemical studies on the effects of thiazazole derivatives in corrosion inhibition of Muntz metal in sulfide-polluted marine environment	Dr. M. Jayavel	Chemistry	Springer Nature of Journal of Applied Electrochemistry	2023	0021-891X (print) 1572-8838 (web)	https://link.springer.com/journal/10800	https://link.springer.com/article/10.1007/s10800-023-02009-4	Scopus/UGC Care
Enhanced electrochemical and thermal stability of CdS:Pb ²⁺ , Cu ²⁺ co-doped nanoparticles on energy storage applications	Dr. M. Jayavel	Chemistry	Inorganic Chemistry Communications	2023	1387-7003	https://www.sciencedirect.com/journal/inorganic-chemistry-communications	https://doi.org/10.1016/j.inoche.2023.111881	Scopus/Web of Science
Establishment of 4-tuples concerning integers with elite feature	B.Umamaheswari	Mathematics	European Chemical Bulletin	2023	2063-5346		https://www.eurchembull.com/uploads/paper/0e1ad33d731a9fd7ccd42b13098f245a.pdf	Scopus
,"Establishment of Order of 4-Tuples Concerning Familiar Polynomials with Captivating Condition	B.Umamaheswari	Mathematics	Indian Journal of Science and Technology 16 (36): 2982-2987-September	2023	0974-5645		https://doi.org/10.17485/JST/v16i36.1578	WOS
<u>Theoretical analysis of homogeneous catalysis of electrochemical reactions: steady-state current–potential</u>	Dr. R. Usha Rani	Mathematics	Reaction Kinetics, Mechanisms and Catalysis	2023	Print ISSN 1878-5190	https://link.springer.com/journal/11144	https://link.springer.com/article/10.1007/s11144-023-02407-x	Science citation index
<u>Theoretical analysis of amperometric response towards PPO-based rotating disk bioelectrodes: Taylors series and hyperbolic function method</u>	Dr. R. Usha Rani	Mathematics	International Journal of Electrochemical Science (Impact factor: 1.541)	2023	1452-3981	https://www.sciencedirect.com/journal/international-journal-of-electrochemical-science	https://www.sciencedirect.com/science/article/pii/S1452398123001104	Science citation index
Synthesis and characterization of sulfonated hafnium oxide nanoparticles for energy storage devices	Dr. M. Jayavel	Chemistry	Inorganic Chemistry Communications	2022	-	https://www.sciencedirect.com/journal/inorganic-chemistry-communications	https://www.sciencedirect.com/science/article/abs/pii/S1387700322004233?via%3Dihub	Scopus/Web of Science
Rose Bengal Anchored Silica-Magnetite Nanocomposite as Photosensitizer for Visible-Light-Mediated Oxidation of Thioethers	Dr.K.Lakshmi	Chemistry	Applied Organometallic Chemistry	2022			https://link.springer.com/article/10.1007/s10876-022-02338-y	Scopus/Web of Science
Ultrasound-assisted synthesis of silica-coated magnetite material decorated with silver nanoparticles for the detoxification of 4-nitrophenol	Dr.K.Lakshmi	Chemistry	Journal of Cluster Science	2022		https://onlinelibrary.wiley.com/	https://scholar.google.co.in/citations?view_op=view_citation&hl=en&user=rWncqcUAAAAJ&citation_for_view=rWncqcUAAAJ:Se3iqnhoufwC	Scopus/Web of Science

Approximate analytical expression of methanol and pinene concentration profiles in the air stream and bio-film phase: Taylor's series and Akbari Ganji's method	Dr. R. Usha Rani	Mathematics	International Journal of Electrochemical Science (Impact factor: 1.541)	2022	1452-3981	https://www.sciencedirect.com/journal/international-journal-of-electrochemical-science	http://www.electrochemsci.org/papers/vol17/220447.pdf	Science citation index
<u>Mathematical modelling of forced convection in a porous medium for a general geometry: Solution of thermal energy equation via Taylor's series with Ying Buzu algorithms</u>	Dr. R. Usha Rani	Mathematics	International Journal of Electrochemical Science (Impact factor: 1.541)	2022	1452-3981	https://www.sciencedirect.com/journal/international-journal-of-electrochemical-science	www.electrochemsci.org/papers/vol17/220623.pdf	Science citation index
Mathematical modelling of amperometric glucose biosensor based on immobilized enzymes: New approach of Taylors series method	Dr. R. Usha Rani	Mathematics	International Journal of Electrochemical Science (Impact factor: 1.541)	2022	1452-3981	https://www.sciencedirect.com/journal/international-journal-of-electrochemical-science	electrochemsci.org/papers/vol17/221064.pdf	Science citation index
A New Method to Study the Nonlinear Reaction-Diffusion Process in the Electroactive Polymer Film using Hyperbolic Function Method	Dr. R. Usha Rani	Mathematics	International Journal of Electrochemical Science (Impact factor: 1.541)	2022	1452-3981	https://www.sciencedirect.com/journal/international-journal-of-electrochemical-science	http://www.electrochemsci.org/papers/vol17/221261.pdf	Science citation index
Analytical expressions for steady-state current and estimation of kinetic parameters in an amperometric biosensor with the product inhibition: Power series method	Dr. R. Usha Rani	Mathematics	Aip conference proceedings	2022	0094243X, 15517616	https://aip.scitation.org/journal/apc	Analytical expressions for steady-state current and estimation of kinetic parameters in an amperometric biosensor with the product inhibition: Power series method: AIP Conference Proceedings	Scopus
Theoretical Analysis of Amperometric Response Towards PPO-Based Rotating Disk Bioelectrodes: Taylors Series and Hyperbolic Function Method	Dr. R. Usha Rani	Mathematics	International Journal of Electrochemical Science (Impact factor: 1.541)	2022	1452-3981	https://www.sciencedirect.com/journal/international-journal-of-electrochemical-science	https://www.sciencedirect.com/science/article/pii/S1452398123001104	Science citation index
perceiving solutions for an exponential diophantine equation linking safe and sophie germain primes $q^n + p^m = z^2$	B.Umamaheswari	Mathematics	Jnanabha	2022	0304-9892	www.vijnanaparishadofindia.org/jnanabha	https://doi.org/10.58250/jnanabha.2022.52219	
Structure Of Categories Of Diophantine 3-Tuples Apropos (2j, 3)-Polygonal Numbers	B.Umamaheswari	Mathematics	Advances and Applications in Mathematical Sciences	2022	0974-6803	https://www.mililink.com/journals_d_esc.php?id=59		
Exasperating Non-Negative Integer Solutions For An Exponential Diophantine Equation $(3u^2 + 5) + (6u^2 + 11) = z^2$	B.Umamaheswari	Mathematics	Stochastic Modeling &	2022	0972-3641	https://www.mukpublication		

Effect of co-doped (Ni ²⁺ :Co ²⁺) in CdS nanoparticles: investigation on structural and magnetic properties	Dr.S.Muruganandam	Physics	Applied Physics A	2021	0947-8396 (print) 1432-0630 (web)	https://link.springer.com/article/10.1007/s00339-023-06392-9	https://doi.org/10.1007/s00339-021-04555-0	UGC
Synthesis of Au nanoparticles using magnetite cored polyamine dendrimer template and its green catalysis for selective oxidation of alcohols	Dr.K.Lakshmi	Chemistry	Materials letter	2021	ISSN 0167-577X	https://www.sciencedirect.com/journal/materials-letters	https://www.sciencedirect.com/science/article/abs/pii/S0167577X2100954X	Scopus/Web of Science
Synthesis of ultrafine AuPd bimetallic nanoparticles using magnetic poly(propyleneimine) dendrimer template and its potential catalysis of Suzuki coupling reaction	Dr.K.Lakshmi	Chemistry	Royal Society of Chemistry	2021	2046-2069	https://www.rsc.org/	https://pubs.rsc.org/en/content/articlelanding/2021/nj/d1nj02914b/unauth	Scopus/Web of Science
Synthetic modification of PAMAM dendrimer to enrich amine group and terminal carboxyl groups in environmental remediation	Dr.K.Lakshmi	Chemistry	Journal of molecular structures	2021	0022-2860	https://www.sciencedirect.com/journal/journal-of-molecular-structure	https://www.sciencedirect.com/science/article/abs/pii/S0022286020314034	Scopus/Web of Science
Synthesis and Characterization of Fe ₃ O ₄ /Carbon Dot Supported MnO ₂ Nanoparticles for the Controlled Oxidation of Benzyl Alcohols	Dr.K.Lakshmi	Chemistry	Chemistry select	2021	23656549	https://chemistry-europe.onlinelibrary.wiley.com/journal/23656549	https://chemistry-europe.onlinelibrary.wiley.com/doi/abs/10.1002/slct.201903706	Scopus/Web of Science
Diffusion indicator for hemispheroidal and ring ultramicroelectrode geometry for E and EC' reaction	Dr. R. Usha Rani	Mathematics	Electrochemistry Communications (Impact factor: 5.443)	2021	13882481	https://www.sciencedirect.com/journal/electrochemistry-communications	https://www.sciencedirect.com/science/article/pii/S1388248121001557	Science citation index
Steady-state current in product inhibition kinetics in an amperometric biosensor: Adomian decomposition and Taylor series methods	Dr. R. Usha Rani	Mathematics	Journal of Electroanalytical Chemistry (Impact factor: 4.598)	2021	15726657	https://www.sciencedirect.com/journal/journal-of-electroanalytical-chemistry	https://www.sciencedirect.com/science/article/abs/pii/S1572665721001296	Science citation index
Nonlinear mass transfer at the electrodes with reversible homogeneous reactions: Taylor's series and Hyperbolic function method	Dr. R. Usha Rani	Mathematics	International Journal of Electrochemical Science (Impact factor: 1.541)	2021	1452-3981	https://www.sciencedirect.com/journal/international-journal-of-electrochemical-science	www.electrochemsci.org/papers/vol16/210644.pdf	Science citation index
An Approximation method for the concentration and effectiveness factor in porous catalysts of arbitrary shape: Taylor's series and Akbari-Ganji's method	Dr. R. Usha Rani	Mathematics	Mathematical Modeling of Engineering Problems	2021	2369-0739 (print); 2369-0747 (online)	https://www.iieta.org/Journals/MEP	https://www.researchgate.net/publication/354333639_Approximations_for_the_Concentration_and_Effectiveness_Factor_in_Porous_Catalysts_of_Arbitrary_Shape_Taylor_Series_and_Akbari-Ganji's_Methods	

Appraisal Of Integer Quadruples With Graceful Property	B.Umamaheswari	Mathematics	Journal of Xi'an Shiyou University, Natural Science Edition	2021	1673-064X	https://www.xisdxjsu.asia/		Scopus index
Large- scale preparation of ZnS-ZnO-SnS nanocomposites: Investigation on structural and optical properties	Dr.S.Muruganandam	Physics	Optik	2020	0030-4026	http://www.elsevier.com/locate/ijleo	https://doi.org/10.1016/j.ijleo.2020.165187	UGC
Synthesis of structurally enhanced magnetite cored poly (propyleneimine)dendrimer nanohybrid material and evaluation of its functionality in sustainable catalysis of condensation reactions	Dr.K.Lakshmi	Chemistry	Reactive and Functional polymers	2020	1381-5148	https://www.sciencedirect.com/journal/reactive-and-functional-polymers	https://www.sciencedirect.com/science/article/abs/pii/S1381514819313938	Scopus/Web of Science
Immobilisation of Pt nanoparticles on polymer coated amine functionalized iron oxide nanoparticles for the reduction of nitrocompound	Dr.K.Lakshmi	Chemistry	Springer Nature applied sciences	2020	2523-3971	https://www.springernature.com/br	https://link.springer.com/article/10.1007/s42452-019-1137-5	
Taylor's series method for solving the nonlinear reaction-diffusion equation in the electroactive polymer film	Dr. R. Usha Rani	Mathematics	Chemical Physics Letter (Impact factor: 2.719)	2020	92614	https://www.sciencedirect.com/journal/chemical-physics-letters	https://www.sciencedirect.com/science/article/abs/pii/S009261420304887	Science citation index
Approximate analytical solution of nonlinear equations in cubic autocatalytic reaction-diffusion process	Dr. R. Usha Rani	Mathematics	Aip conference proceedings	2020	0094243X, 15517616	https://aip.scitation.org/journal/apc	https://aip.scitation.org/doi/10.1063/5.0025604	Scopus index
A Kinetic and Mechanistic Study on The Oxidation of 3-Carboxy-3-HydroxyPentanedioic Acid in Buffered Medium	V. Sumithra	CHEMISTRY	Ind. Eng. Chem. Res.	2010	1520-5126	https://www.acs.org/	https://doi.org/10.1021/ie101076r	scopus/ ugc care
Enhanced catalytic activity, optical, magnetic and anti-bacterial studies of pure and Ni-doped ZnO nano-particles	V. Sumithra	CHEMISTRY	International Science and Technology Journal	2018	1632-2882	http://stjresearch.info/	http://stjresearch.info/	UGC CARE LIST
Hafnium Oxide/Graphene Oxide Nanocomposites as Efficient Supercapacitor Electrodes	Dr. M. Jayavel	Chemistry	Journal of Nanoscience and Technology	2018	ISSN: 2455-0191	https://jacsdirectory.com/journal-of-nanoscience-and-technology	http://www.jacsdirectory.com/journal-of-nanoscience-and-technology/articleview.php?id=110	UGC
Structural, electrochemical and magnetic properties of codoped (Cu, Mn) CdS nanoparticles with surfactant PVP	Dr.S.Muruganandam	Physics	Optik	2017	0030-4026	http://www.elsevier.com/locate/ijleo	https://doi.org/10.1016/j.ijleo.2016.12.001	UGC
Optical and magnetic properties of PVP surfactant with Cu doped CdS nanoparticles	Dr.S.Muruganandam	Physics	Optik	2017	0030-4026	http://www.elsevier.com/locate/ijleo	https://doi.org/10.1016/j.ijleo.2016.11.053	UGC
Synthesis, Characterization and Cytocompatibility of HfO2 Nanoparticle Against A549 Cell Lines with Potent Antimicrobial Activities	Dr. M. Jayavel	Chemistry	Journal of Nanoscience and Technology	2017		https://jacsdirectory.com/journal-of-nanoscience-and-technology	https://jacsdirectory.com/journal-of-nanoscience-and-technology/articleview.php?id=70	UGC
Empowering the Learners through the Process of Language Learning	Ms. R Ramya	English	International Journal of Engineering Trends and Applications (IJETA)	2017	ISSN No 2393-9516	www.ijetajournal.org	https://www.ijetajournal.org/volume-4/issue-2/IJETA-V4I2P14.pdf	UGC

Simple precipitation Synthesis, Characterization and Antibacterial Activity of Mn-Doped ZnO Nanoparticles	V. Sumithra	Chemistry	Advanced Science, Engineering and Medicine	2017	2164-6635	http://www.aspbs.com/asem	http://www.aspbs.com/asem	UGC CARE LIST
Approaches and Significance of Communicative Language Teaching	Ms. R Ramya	English	GJRA - GLOBAL JOURNAL FOR RESEARCH ANALYSIS	2016	ISSN No 2277 - 8160	https://www.worldwidejournals.com/global-journal-for-research-analysis-GJRA/fileview/	https://www.worldwidejournals.com/global-journal-for-research-analysis-GJRA/fileview/August_2016_1470922950_75.pdf	UGC CARE LIST
English Language for Professional Competence	Ms. R Ramya	English	INDIAN JOURNAL OF APPLIED RESEARCH	2016	ISSN NO : 2249-555X	https://www.worldwidejournals.com/indian-journal-of-applied-research-GJRA/	https://www.worldwidejournals.com/indian-journal-of-applied-research-GJRA/	UGC CARE LIST
Electrochemical and physicochemical studies on the effects of thiazazole derivatives in corrosion inhibition of Muntz metal in sulfide-polluted marine environment	Dr. R.Parkavi	Chemistry	ACS Applied Nano Materials	2023	2574-0970	https://pubs.acs.org/journal/aanmf6	https://pubs.acs.org/doi/abs/10.1021/acsanm.3c04439	Scopus/UGC Care
Oxygen-Vacancy-Rich HfO ₂ -x Nanoparticles Supported on Reduced Graphene Oxide for Electrocatalytic Hydrogen Evolution Reactions	Dr. R.Parkavi	Chemistry	ACS Applied Nano Materials	2023	2574-0970	https://pubs.acs.org/journal/aanmf6	https://pubs.acs.org/doi/abs/10.1021/acsanm.3c04439	Scopus/UGC Care
Effect of zinc oxide incorporation of poly (aniline)-titanium dioxide ternary nanocrystalline photo-anode for dye-sensitized solar cell applications	Dr. R.Parkavi	Chemistry	Current Applied Physics	2024	57-64	www.elsevier.com/locate/cap	https://doi.org/10.1016/j.cap.2023.12.001	Scopus/UGC Care
Cesium lead iodide-decorated two-dimensional titanium dioxide/reduced graphene oxide nanofiber composites as photoanodes for inorganic perovskite solar cells	Dr. R.Parkavi	Chemistry	Materials Today Communication	2023	107281	www.elsevier.com/locate/mtcomm	https://doi.org/10.1016/j.mtcomm.2023.107281	Scopus/UGC Care
Efficiency enhancement of perovskite-sensitized solar cell based on electrospun titania nanofibers coated in organic-inorganic hybrid metal trihalide nanocrystals	Dr. R.Parkavi	Chemistry	Optical Materials	2023	9253467	https://www.sciencedirect.com/journal/optical-materials	https://www.sciencedirect.com/science/article/abs/pii/S0925346723004676	Scopus/UGC Care
Inhibition of Substituted Benzotriazoles for the Corrosion and Dezincification of Brass (Cu65/Zn-35) in Neutral Aqueous Chloride Media	Dr. R.Parkavi	Chemistry	Journal of Advanced Chemical Sciences	2016	ISSN: 2394-5311	www.jacsdirectory.com/jacs	https://doi.org/10.30799/jacs	UGC
Protective Effect of 1-(Phenylthiomethyl)Benzotriazole and 1-(Benzylthiomethyl) Benzotriazole towards Corrosion of Brass in Polluted Natural Sea Water	Dr. R.Parkavi	Chemistry	Journal of Advanced Electrochemistry	2016	ISSN: 2455-0205	http://www.jacsdirectory.com/jaec	https://doi.org/10.30799/jaec	UGC
Corrosion Inhibition of Aluminium brass in natural sea water by substituted benzotriazoles derivatives	Dr. R.Parkavi	Chemistry	Chemical Science Review and Letters	2016	ISSN 2278-6783	Article CS3020451021		UGC