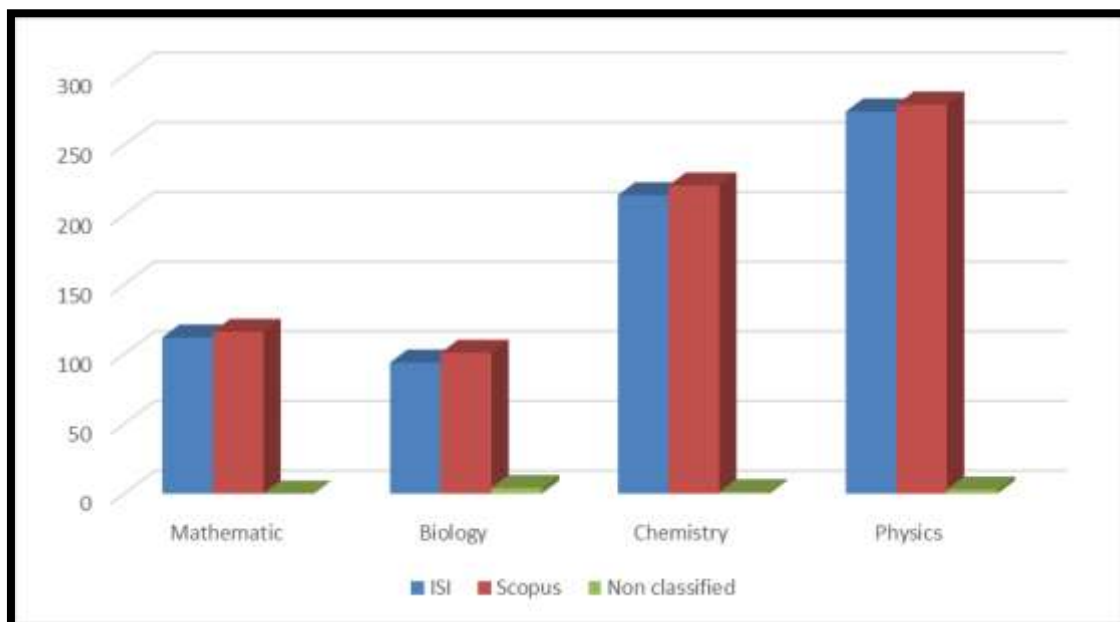
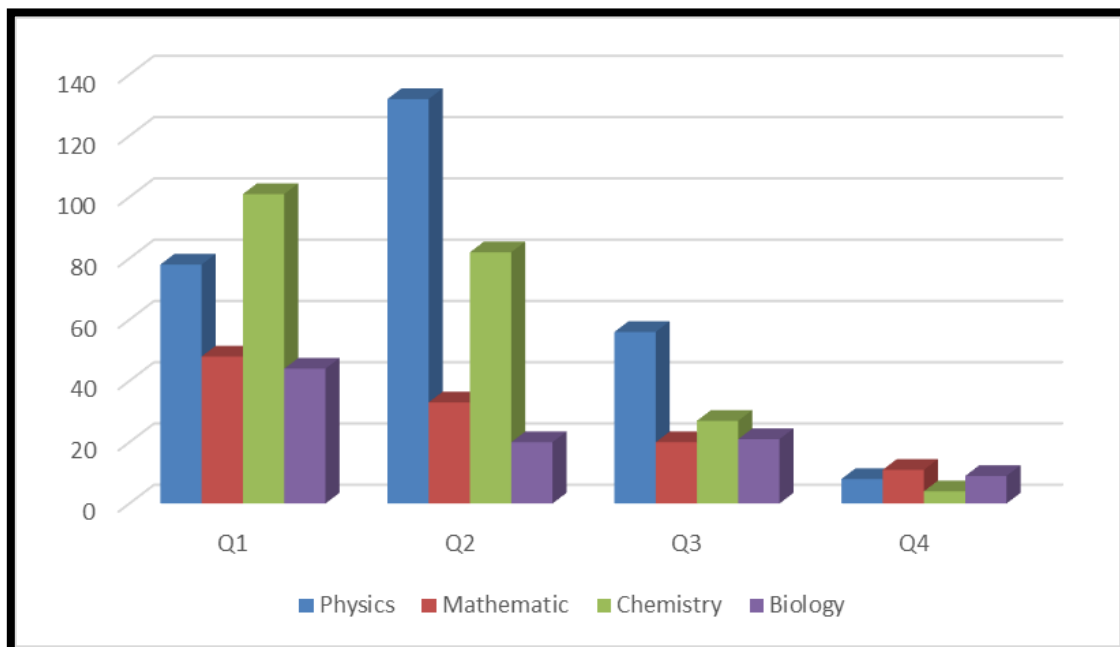




# STATISTICS AND DATA

## Number of articles published in 2022



## Top 10% (IF) impacted articles in Web of Science

### Physics program:

Article Title	Journal Name	link	Journal Rank
Amolecular amalgamation of carbon nitride polymer as emphasized photocatalytic performance	International Journal of Energy Research	<a href="https://doi.org/10.1002/er.7063">https://doi.org/10.1002/er.7063</a>	1/34
An extended assessment of natural radioactivity in the sediments of the mid-region of the Egyptian Red Sea coast	MARINE POLLUTION BULLETIN	<a href="https://doi.org/j.marpolbul.2021.112658">https://doi.org/j.marpolbul.2021.112658</a>	2/113
Effect of an optimal oxide layer on the efficiency of graphene-silicon Schottky junction solar cell	International Journal of Energy Research	<a href="https://doi.org/10.1002/er.6962">https://doi.org/10.1002/er.6962</a>	1/34
Effects of TeO <sub>2</sub> /B <sub>2</sub> O <sub>3</sub> substitution on synthesis, physical, optical and radiation shielding properties of ZnO-Li <sub>2</sub> O-GeO <sub>2</sub> -Bi <sub>2</sub> O <sub>3</sub> glasses	CERAMICS INTERNATIONAL	<a href="https://doi-org.sdl.idm.oclc.org/10.1016/j.ceramint.2021.07.192">https://doi-org.sdl.idm.oclc.org/10.1016/j.ceramint.2021.07.192</a>	3/29
Influence of nickel doping on the energy band gap, luminescence, and magnetic order of spray deposited nanostructured ZnO thin films	Journal of Alloys and Compounds	<a href="https://doi.org/10.1016/j.jallcom.2019.152538">https://doi.org/10.1016/j.jallcom.2019.152538</a>	5/79
LiTaO <sub>3</sub> assisted giant strain and thermally stable energy storage response for renewable energy storage applications	Ceramics International	<a href="https://doi.org/10.1016/j.ceramint.2021.02.142">https://doi.org/10.1016/j.ceramint.2021.02.142</a>	3/29
Molecular grafting based polymeric carbon nitride for wondrous artificial photosynthesis	International Journal of Energy Research	<a href="https://doi.org/10.1002/er.7304">https://doi.org/10.1002/er.7304</a>	1/34
Novel green synthesis of hydroxyapatite uniform nanorods via microwave-hydrothermal route using licorice root extract as template	CERAMICS INTERNATIONAL	<a href="https://doi-org.sdl.idm.oclc.org/10.1016/j.ceramint.2020.09.256">https://doi-org.sdl.idm.oclc.org/10.1016/j.ceramint.2020.09.256</a>	3/29
Recent progress in the role of two-dimensional materials as an efficient charge transport layer in perovskite solar cells	International Journal of Energy Research	<a href="https://doi.org/10.1002/er.6672">https://doi.org/10.1002/er.6672</a>	1/34
Significant influence of MoO <sub>3</sub> content on synthesis, mechanical, and radiation shielding properties of B <sub>2</sub> O <sub>3</sub> -Pb <sub>3</sub> O <sub>4</sub> -Al <sub>2</sub> O <sub>3</sub> glasses	JOURNAL OF ALLOYS AND COMPOUNDS	<a href="https://doi-org.sdl.idm.oclc.org/10.1016/j.jallcom.2021.160625">https://doi-org.sdl.idm.oclc.org/10.1016/j.jallcom.2021.160625</a>	5/79
Synthesis, physical, optical, structural and radiation shielding characterization of borate glasses: A focus on the role of SrO/Al <sub>2</sub> O <sub>3</sub> substitution	CERAMICS INTERNATIONAL	<a href="https://doi-org.sdl.idm.oclc.org/10.1016/j.ceramint.2021.09.301">https://doi-org.sdl.idm.oclc.org/10.1016/j.ceramint.2021.09.301</a>	3/29
Characterization of the shape-staggering effect in mercury nuclei	NATURE PHYSICS	<a href="https://doi.org/10.1038/s41567-021-01447-1">https://doi.org/10.1038/s41567-021-01447-1</a>	4/86
Inducing lattice defects in calcium ferrite anode materials for improved electrochemical performance in lithium-ion batteries	Ceramics International	<a href="https://doi.org/10.1016/j.ceramint.2022.01.121">https://doi.org/10.1016/j.ceramint.2022.01.121</a>	3/29
Poly(m-toluidine)/rolled graphene oxide nanocomposite photocathode for hydrogen generation from wastewater	International Journal of Energy Research	<a href="https://doi.org/10.1002/er.7963">https://doi.org/10.1002/er.7963</a>	1/34
Induced linear and nonlinear optical modifications of nickel cadmium borosilicate glass by sunlight irradiation	Ceramics International	<a href="https://doi.org/10.1016/j.ceramint.2022.08.048">https://doi.org/10.1016/j.ceramint.2022.08.048</a>	3/29
Diffusion control and surface control mechanism in hierarchical nanostructured porous zinc-based MOF material for supercapattery	International Journal of Energy Research	<a href="https://doi.org/10.1002/er.8169">https://doi.org/10.1002/er.8169</a>	1/34
Reduced graphene oxide/cobalt phosphate composites with improved electrochemical performance for supercapattery devices	International Journal of Energy Research	<a href="https://doi.org/10.1002/er.8636">https://doi.org/10.1002/er.8636</a>	1/34
Electrochemical performance of transition metal sulfide by employing different synthesis techniques for hybrid batteries	International Journal of Energy Research	<a href="https://doi.org/10.1002/er.8522">https://doi.org/10.1002/er.8522</a>	1/34
Ag <sub>2</sub> Se/SnTe nanorod as potential candidate for energy conversion system developed via hydrothermal route	Ceramics International	<a href="https://doi.org/10.1016/j.ceramint.2022.10.131">https://doi.org/10.1016/j.ceramint.2022.10.131</a>	3/29
Bi-functional green-synthesis of Co <sub>3</sub> O <sub>4</sub> NPs for photocatalytic and electrochemical applications	Ceramics International	<a href="https://doi.org/10.1016/j.ceramint.2022.07.138">https://doi.org/10.1016/j.ceramint.2022.07.138</a>	3/29
Fabrication of substituted Y-type hexaferrites/carbon dots composites for recording media and photodegradation of dye	Ceramics International	<a href="https://doi.org/10.1016/j.ceramint.2022.06.048">https://doi.org/10.1016/j.ceramint.2022.06.048</a>	3/29
Visible light induced photocatalytic activity of MnO <sub>2</sub> /BiVO <sub>4</sub> for the degradation of organic dye and tetracycline	Ceramics International	<a href="https://doi.org/10.1016/j.ceramint.2022.11.229">https://doi.org/10.1016/j.ceramint.2022.11.229</a>	3/29
Enhanced electrochemical performance of MgFe O /SrTiO and MgFe O /SiO nanocomposite structures	Journal of Alloys and Compounds	<a href="https://doi.org/10.1016/j.jallcom.2022.166660">https://doi.org/10.1016/j.jallcom.2022.166660</a>	5/79
Facile synthesis of CoFePO on eggshell membrane for oxygen evolution reaction and supercapacitor applications	Ceramics International	<a href="https://doi.org/10.1016/j.ceramint.2022.08.266">https://doi.org/10.1016/j.ceramint.2022.08.266</a>	3/29
Magnetic Ge:Mn nanocrystals grown by MBE on insulator substrate for solar cell and photodetector applications	Applied Surface Science	<a href="https://doi.org/10.1016/j.apsusc.2021.151644">https://doi.org/10.1016/j.apsusc.2021.151644</a>	1/20

SnTe nanomaterial decorated over graphene nanosheet for robust OER activity	International Journal of Energy Research	<a href="https://doi.org/10.1002/er.8685">https://doi.org/10.1002/er.8685</a>	1/34
Boosting the catalytic efficiency of platinum nanoparticles supported on pristine carbon nanotubes: Synergistic effects of conducting polymers	<a href="#">Fuel</a>	<a href="https://www.sciencedirect.com/journal/fuel/vol/306/suppl/C">https://www.sciencedirect.com/journal/fuel/vol/306/suppl/C</a>	19/143
ZnO-Bi2O3 nanopowders: Fabrication, structural, optical, and radiation shielding properties	CERAMICS INTERNATIONAL	<a href="https://doi.org/10.1016/j.ceramint.2021.10.124">https://doi.org/10.1016/j.ceramint.2021.10.124</a>	3/29
Design of mesoporous ZnO @ silica fume-derived SiO2 nanocomposite as photocatalyst for efficient crystal violet removal: Effective route to recycle industrial waste	JOURNAL OF CLEANER PRODUCTION	<a href="https://doi.org/10.1016/j.jclepro.2021.129416">https://doi.org/10.1016/j.jclepro.2021.129416</a>	5/47
Fabrication and characterization of La2O3-Fe2O3- Bi2O3 nanopowders: Effects of La2O3 addition on structure, optical, and radiation-absorption properties	CERAMICS INTERNATIONAL	<a href="https://doi.org/10.1016/j.ceramint.2022.04.255">https://doi.org/10.1016/j.ceramint.2022.04.255</a>	3/29
Wet-chemical synthesis of urchin-like Co-doped CuO: A visible light trigger photocatalyst for water remediation and antimicrobial applications	CERAMICS INTERNATIONAL	<a href="https://doi.org/10.1016/j.ceramint.2022.04.159">https://doi.org/10.1016/j.ceramint.2022.04.159</a>	3/29
Investigation of the magnetocaloric effect and the critical behavior of the interacting superparamagnetic nanoparticles of La0.8Sr0.15Na0.05MnO3	JOURNAL OF ALLOYS AND COMPOUNDS	<a href="https://doi.org/10.1016/j.jallcom.2021.161739">https://doi.org/10.1016/j.jallcom.2021.161739</a>	5/79
Optical and spectroscopic behavior of Eu3+ doped heavy metal phosphate glasses	CERAMICS INTERNATIONAL	<a href="https://doi.org/10.1016/j.ceramint.2022.03.240">https://doi.org/10.1016/j.ceramint.2022.03.240</a>	3/29
High density binary TeO2-Bi2O3 glasses: strong potential as a nontoxic and environmentally friendly glass shields for photons/charged particles	JOURNAL OF MATERIALS RESEARCH AND TECHNOLOGYJMR&T	<a href="https://doi.org/10.1016/j.jmrt.2022.01.040">https://doi.org/10.1016/j.jmrt.2022.01.040</a>	8/79
Synthesis, characterization, and heavy-ion rejection rate efficiency of PVA/MWCNTs and Triton X-100/MWCNTs Buckypaper membranes	Journal of Materials Research and Technology	<a href="https://doi.org/10.1016/j.jmrt.2022.03.099">https://doi.org/10.1016/j.jmrt.2022.03.099</a>	8/79
Facile synthesis of CoFePO4 on eggshell membrane for oxygen evolution reaction and supercapacitor applications	Ceramics International	<a href="https://doi.org/10.1016/j.ceramint.2022.08.266">https://doi.org/10.1016/j.ceramint.2022.08.266</a>	3/29
Effect of bismuth surfactant on the structural, morphological and optical properties of self-assembled InGaAs quantum dots grown by Molecular Beam Epitaxy on GaAs (001) substrates	<a href="#">Journal of Alloys and Compounds</a>	<a href="https://doi.org/10.1016/j.jallcom.2022.164015">https://doi.org/10.1016/j.jallcom.2022.164015</a>	5/79
Synthesis and properties of tellurite based glasses containing Na2O, BaO, and TiO2: Raman, UV and neutron/charged particle shielding assessments	Ceramics International	<a href="https://doi.org/10.1016/j.ceramint.2022.03.092">https://doi.org/10.1016/j.ceramint.2022.03.092</a>	3/29
Synthesis and dielectric relaxation behavior of 55B2O3–15SiO2–30Na2O: WO3 glass system	Ceramics International	<a href="https://doi.org/10.1016/j.ceramint.2021.04.027">https://doi.org/10.1016/j.ceramint.2021.04.027</a>	3/29

## Chemistry program

Article Title	Journal Name	Link	Journal Rank
Valuation of rice straw residues: Production of silylated methylcellulose containing propylamine and propylethylenediamine for use as anticorrosion and antibacterial	International Journal of Biological Macromolecules	<a href="https://doi.org/10.1016/j.ijbio.2022.08.137">https://doi.org/10.1016/j.ijbio.2022.08.137</a>	6/90
Quantitative assessment of phosphate food additive in frozen and chilled chicken using spectrophotometric approach combined with graphitic digestion	Food Chemistry	<a href="https://doi.org/10.1016/j.foodchem.2022.133050">https://doi.org/10.1016/j.foodchem.2022.133050</a>	6/73
Phosphotungstic acid and manganese containing periodic mesoporous organosilica with imidazolium ionic liquid framework: A robust and durable nanocomposite for desulfurization of aromatic sulfur in diesel fraction	Separation and Purification Technology	<a href="https://doi.org/10.1016/j.seppur.2022.121624">https://doi.org/10.1016/j.seppur.2022.121624</a>	14/143
Hybrid solvothermal/sonochemical-mediated synthesis of ZnO NPs generative of •OH radicals: Photoluminescent approach to evaluate •OH scavenging activity of Egyptian and Yemeni Punica granatum arils extract	Ultrasonics Sonochemistry	<a href="https://doi.org/10.1016/j.ultsonch.2022.106152">https://doi.org/10.1016/j.ultsonch.2022.106152</a>	1/32
Antibiotic-free combinational hyaluronic acid blend nanofibers for wound healing enhancement	International Journal of Biological Macromolecules	<a href="https://doi.org/10.1016/j.ijbio.2020.11.109">https://doi.org/10.1016/j.ijbio.2020.11.109</a>	6/90
Oil tea shell synthesized biochar adsorptive utilization for the nitrate removal from aqueous media	Chemosphere	<a href="https://doi.org/10.1016/j.chemosphere.2022.136045">https://doi.org/10.1016/j.chemosphere.2022.136045</a>	28/325

Alginate/κ-carrageenan oral microcapsules loaded with Agaricus bisporus polysaccharides MH751906 for natural killer cells mediated colon cancer immunotherapy	International Journal of Biological Macromolecules	<a href="https://doi.org/10.1016/j.ijbio mac.2022.02.058">https://doi.org/10.1016/j.ijbio mac.2022.02.058</a>	6/90
The nutraceutical properties and health benefits of pseudocereals: a comprehensive treatise	Critical Reviews in Food Science and Nutrition	<a href="https://doi.org/10.1080/10408398.2022.2071205">https://doi.org/10.1080/10408398.2022.2071205</a>	6/144
Facile synthesis of CoFePO <sub>4</sub> on eggshell membrane for oxygen evolution reaction and supercapacitor applications	Ceramics International	<a href="https://doi.org/10.1016/j.ceramint.2022.08.266">https://doi.org/10.1016/j.ceramint.2022.08.266</a>	3/29
Triboelectric nanogenerator self-heating floor – possibility to achieve intelligence in the architecture	Journal of Materials Chemistry A	<a href="https://doi.org/10.1039/D2TA06942C">https://doi.org/10.1039/D2TA06942C</a>	9/119
Co-substituted Mg–Zn spinel nanocrystalline ferrites: Synthesis, characterization and evaluation of catalytic degradation efficiency for colored and colorless compounds	Ceramics International	<a href="https://doi.org/10.1016/j.ceramint.2022.06.241">https://doi.org/10.1016/j.ceramint.2022.06.241</a>	3/29
Design of a Fischer-Tropsch multi-tube reactor fitted in a container: A novel design approach for small scale applications	Journal of Cleaner Production	<a href="https://doi.org/10.1016/j.jclepro.2022.132477">https://doi.org/10.1016/j.jclepro.2022.132477</a>	24/279
Estimating the optimal parameters of solid oxide fuel cell-based circuit using parasitism-predation algorithm	Int J Energy Res.	<a href="https://doi.org/10.1002/er.6946">https://doi.org/10.1002/er.6946</a>	1/34
Determination of time constants of diffusion and electrochemical processes in Polymer Electrolyte Membrane Fuel Cells	Energy	<a href="https://doi.org/10.1016/j.energy.2021.119833">https://doi.org/10.1016/j.energy.2021.119833</a>	3/63
A reliable approach for modeling the photovoltaic system under partial shading conditions using three diode model and hybrid marine predators-slime mould algorithm	Energy Conversion and Management	<a href="https://doi.org/10.1016/j.enconman.2021.114269">https://doi.org/10.1016/j.enconman.2021.114269</a>	2/63
A comprehensive insight into current control of COVID-19: Immunogenicity, vaccination, and treatment.	Biomedicine & Pharmacotherapy	<a href="https://doi.org/10.1016/j.biopha.2022.113499">https://doi.org/10.1016/j.biopha.2022.113499</a>	26/279
Fabrication and characterization of a novel (GO/PAA/PAM) nanocomposite as effective adsorbent for cationic dyes	Journal of Materials Research and Technology	<a href="https://doi.org/10.1016/j.jmrt.2021.10.013">https://doi.org/10.1016/j.jmrt.2021.10.013</a>	8/79
Preparation and characterization of layered-double hydroxides decorated on graphene oxide for dye removal from aqueous solution	Journal of Materials Research and Technology	<a href="https://doi.org/10.1016/j.jmrt.2022.02.040">https://doi.org/10.1016/j.jmrt.2022.02.040</a>	8/79
Adsorption of crystal violet and methylene blue dyes using a cellulose-based adsorbent from sugarcane bagasse: characterization, kinetic and isotherm studies	Journal of Materials Research and Technology	<a href="https://doi.org/10.1016/j.jmrt.2022.06.045">https://doi.org/10.1016/j.jmrt.2022.06.045</a>	8/79
Assessment of commercialized nylon membranes integrated with thin layer of MWCNTs for potential use in desalination process	Journal of Materials Research and Technology	<a href="https://doi.org/10.1016/j.jmrt.2022.09.084">https://doi.org/10.1016/j.jmrt.2022.09.084</a>	8/79
Synthesis, characterization, and heavy-ion rejection rate efficiency of PVA/MWCNTs and Triton X-100/MWCNTs Buckypaper membranes	Journal of Materials Research and Technology	<a href="https://doi.org/10.1016/j.jmrt.2022.03.099">https://doi.org/10.1016/j.jmrt.2022.03.099</a>	8/79
Tailoring an efficient nanocomposite of activated carbon-layered double hydroxide for elimination of water-soluble dyes	JOURNAL OF ALLOYS AND COMPOUNDS	<a href="https://DOI.10.1016/j.jallcom.2020.157551">https://DOI.10.1016/j.jallcom.2020.157551</a>	7/91
Fabrication of novel valorized ecofriendly olive seed residue/anthracite/chitosan composite for removal of Cr (VI): kinetics, isotherms and thermodynamics modeling	CELLULOSE	<a href="https://DOI.10.1007/s10570-021-03963-y">https://DOI.10.1007/s10570-021-03963-y</a>	1/23

## Biology program

Title of research	Journal	link	Rank in Category
S-Methylcysteine Ameliorates the Intestinal Damage Induced by Eimeria tenella Infection via Targeting Oxidative Stress and Inflammatory Modulator	Frontiers In Veterinary Science	<a href="https://doi.org/10.3389/fvets.2021.754991">https://doi.org/10.3389/fvets.2021.754991</a>	9/146

## Mathematic program

Title of research	Journal	link	Rank in Category
Some results for a class of two-dimensional fractional hyperbolic differential systems with time delay	Journal of Applied Mathematics and Computing	<a href="https://doi.org/10.1007/s12190-021-01625-7">https://doi.org/10.1007/s12190-021-01625-7</a>	200/90
New Result for the Analysis of Katugampola Fractional-Order Systems—Application to Identification Problems	Mathematics	<a href="https://www.mdpi.com/2227-7390/10/11/1814">https://www.mdpi.com/2227-7390/10/11/1814</a>	24/330
Stability of a time fractional advection-diffusion system	Chaos, Solitons & Fractals	<a href="https://www.sciencedirect.com/science/article/abs/pii/S096007792200159X">https://www.sciencedirect.com/science/article/abs/pii/S096007792200159X</a>	200/90
Some New Weakly Singular Integral Inequalities with Applications to Differential Equations in Frame of Tempered $\chi$ -Fractional Derivatives	Mathematics	<a href="https://www.mdpi.com/2227-7390/10/20/3792">https://www.mdpi.com/2227-7390/10/20/3792</a>	21/332
Stability of a fractional advection–diffusion system with conformable derivative	Chaos, Solitons & Fractals	<a href="https://www.sciencedirect.com/science/article/abs/pii/S0960077922008281">https://www.sciencedirect.com/science/article/abs/pii/S0960077922008281</a>	1/108



## List of articles cooperation with the best Top 200 University

### Physics program

Article Title	Journal	University
Fully-developed laminar flow in trapezoidal ducts with rounded corners: a numerical solution and case study	International Journal Of Numerical Methods For Heat & Fluid Flow	The University of Sheffield
Magnetocaloric effect and critical behavior in La <sub>0.8</sub> K <sub>0.2</sub> MnO <sub>3</sub> nanoparticle	RESULTS IN PHYSICS	Uppsala University, Sweden
Novel green synthesis of hydroxyapatite uniform nanorods via microwave-hydrothermal route using licorice root extract as template	CERAMICS INTERNATIONAL	University of Louisiana at Monroe, 700 University Ave, CNSB 200, Monroe, LA, USA
Optical and magnetic characterization of one-dimensional Cu(ii)-based perovskite: a high UV-Vis-NIR absorber	JOURNAL OF MATERIALS CHEMISTRY C	The University of Western Australia
Investigation of the magnetocaloric effect and the critical behavior of the interacting superparamagnetic nanoparticles of La <sub>0.8</sub> Sr <sub>0.15</sub> Na <sub>0.05</sub> MnO <sub>3</sub>	JOURNAL OF ALLOYS AND COMPOUNDS	Uppsala University, Box 35, SE-751 03 Uppsala, Sweden
Bunch of Grape-Like Shape PANI/Ag <sub>2</sub> O/Ag Nanocomposite Photocatalyst for Hydrogen Generation from Wastewater	Adsorption Science & Technology	University of North Carolina at Charlotte, Charlotte, North Carolina 28223, USA
Converting Sewage Water into H <sub>2</sub> Fuel Gas Using Cu/CuO Nanoporous Photocatalytic Electrodes	Materials	University of New South Wales, Sydney, NSW 2052, Australia
Critical exponents and magnetic entropy change across the continuous magnetic transition in (La, Pr)-Ba manganites	Applied Physics A	Univ. Grenoble Alpes, CNRS, Grenoble INP, Institut Néel, 38000, Grenoble, France
Development of CuO nanoporous material as a highly efficient optoelectronic device	Applied Physics A	Nanoscale Science, University of North Carolina at Charlotte, Charlotte, NC, 28223, USA
Effect of Au Plasmonic Material on Poly M-Toluidine for Photoelectrochemical Hydrogen Generation from Sewage Water	Polymers	University of North Carolina at Charlotte, Charlotte, NC 28223, USA
Embedding Aromatic Conjugated Monomer within Carbon Nitride for Efficient Photocatalytic Reduction Reactions	Journal of Molecular Liquids	Zhejiang Normal University, Jinhua 321004, China
Enhancing the efficiency of Cu <sub>2</sub> Te thin-film solar cell with WS <sub>2</sub> buffer layer: A simulation study	Optics and Laser Technology	Seikei University, 3-3-1 Kichijojikitamachi, Musashino-shi, Tokyo 1808633, Japan
Highly crystalline hexagonal PbI <sub>2</sub> sheets on polyaniline/antimony tin oxide surface as a novel and highly efficient photodetector in UV, Vis, and near IR regions	Polymers for Advanced Technologies	University of North Carolina at Charlotte, Charlotte, North Carolina, USA
Poly(m-toluidine)/rolled graphene oxide nanocomposite photocathode for hydrogen generation from wastewater	International Journal of Energy Research	University of North Carolina at Charlotte, Charlotte, North Carolina, USA
Exploring seebeck-coefficient fluctuations in endohedral-fullerene. single-molecule junctions	Nanoscale Horizons	Lancaster University, Lancaster, UK.
Highly insulating alkane rings with destructive $\sigma$ -interference	SCIENCE CHINA-CHEMISTRY	Lancaster University, Lancaster, UK.
Orientational control of molecular scale thermoelectricity	Nanoscale Advances	Lancaster University, Lancaster, UK.

Investigation of the effect of substrate orientation on the structural, electrical and optical properties of n-type GaAs <sub>1-x</sub> Bi <sub>x</sub> layers grown by Molecular Beam Epitaxy.	JOURNAL OF Alloys and Compound	School of Physics and Astronomy, University of Nottingham, Nottingham NG7 2RD, UK
Structural and optical properties of n-type and p-type GaAs(1-x)Bi <sub>x</sub> thin films grown by molecular beam epitaxy on (311)B GaAs substrates	JOURNAL Semiconductor Science and Technology	School of Physics and Astronomy, University of Nottingham, Nottingham NG7 2RD, UK
Optical properties of self-assembled InAs quantum dots based P-I-N structures grown on GaAs and Si substrates by Molecular Beam Epitaxy	JOURNAL Luminescence	School of Physics and Astronomy, University of Nottingham, Nottingham NG7 2RD, UK
Multi-component self-assembled molecular-electronic films: towards new high-performance thermoelectric systems	Chemical Science	Physics Department, Lancaster University, Lancaster, LA1 4YB, UK
Oriental control of molecular scale thermoelectricity	Nanoscale Advances	Physics Department, Lancaster University, Lancaster, LA1 4YB, UK
Producing gold at ISOLDE-CERN	Nucl. Instrum. Methods Phys. Res B	University of Manchester, School of Physics and Astronomy, Oxford Road, M13 9PL Manchester, United Kingdom
Dynamic models for air-breathing and conventional polymer electrolyte fuel cells: A comparative study	Renewable Energy	University of Sheffield, Sheffield, S3 7RD, United Kingdom
Charge radii, moments, and masses of mercury isotopes across the N=126 shell closure.	PHYSICAL REVIEW C	The University of Manchester,
Laser Spectroscopy of Neutron-Rich Hg 207, 208 Isotopes: Illuminating the Kink and Odd-Even Staggering in Charge Radii across the N= 126 Shell Closure	PHYSICAL REVIEW C	The University of Manchester,
Characterization of the shape-staggering effect in mercury nuclei.	Nature Physics	The University of Manchester,
Mn-Based Hierarchical Polyhedral 2D/3D Nanostructures MnX <sub>2</sub> (X = S, Se, Te) Derived from Mn-Based Metal–Organic Frameworks as High-Performance Electrocatalysts for the Oxygen Evolution Reaction	Energy Fuels	Department of Materials Science and Engineering, College of Engineering, Peking University, 100871 Beijing, China
Recent Advancement of the Current Aspects of g-C <sub>3</sub> N <sub>4</sub> for its Photocatalytic Applications in Sustainable Energy System	The chemical record	University of Electronic Science and Technology of China
Molecular grafting based polymeric carbon nitride for wondrous artificial photosynthesis	International Journal of Energy Research	University of Electronic Science and Technology of China
Molecular engineering control defects within carbon nitride for optimized co-catalyst Pt induced photocatalytic CO <sub>2</sub> reduction and NO <sub>2</sub> oxidation reaction	International Journal of Hydrogen Energy	University of Electronic Science and Technology of China 200-151 shangahi ranking
Structural and optical properties of n-type and p-type GaAs (1-x) Bi <sub>x</sub> thin films grown by molecular beam epitaxy on (311) B GaAs substrates	Semiconductor Science and Technology	School of Physics and Astronomy, University of Nottingham, Nottingham NG7 2RD, United Kingdom
The effect of strain and spatial Bi distribution on the band alignment of GaAsBi single quantum well structure	Physica B: Condensed Matter	School of Physics and Astronomy, University of Nottingham, Nottingham NG7 2RD, United Kingdom
Effect of bismuth surfactant on the structural, morphological and optical properties of self-assembled InGaAs quantum dots grown by Molecular Beam Epitaxy on GaAs (001) substrates	Journal of Alloys and Compounds	School of Physics and Astronomy, University of Nottingham, Nottingham NG7 2RD, United Kingdom



Fabrication of TiVO4 photoelectrode for photoelectrochemical application	RSC Advances	Environment and Sustainability Institute, Faculty of Environment, Science and Economy, University of Exeter, Penryn TR10 9FE, UK
Scaling of Dzyaloshinskii-Moriya interaction with magnetization in Pt/Co(Fe)B/Ir multilayers	PHYSICAL REVIEW B	Leeds University UK
Comprehensive simulation study on CT isotope imaging beyond the experiment on the <sup>208</sup> Pb based on nuclear resonance fluorescence	Journal of Nuclear Science and Technology	Institute of Advanced Energy, Kyoto University, Kyoto, Japan

## Chemistry program:

Article Title	Journal	University
Anti-cancer Effect of Hyoscyamus muticus Extract via Its Activation of Fas/FasL-ASK1-p38 Pathway	Biotechnology and Bioprocess Engineering	Department of Cellular and Molecular Medicine, University of California San Diego, La Jolla, CA 92093, USA
Integrated approach in treatment of solid olive residue and olive wastewater	IOP	School of Materials Science and Engineering, University of New South Wales, Sydney, Australia
Preparation and characterization of layered-double hydroxides decorated on graphene oxide for dye removal from aqueous solution	Journal of materials research and technology	The Key Laboratory of Advanced Textile Materials and Manufacturing Technology of Ministry of Education, Zhejiang Sci-Tech University, Hangzhou, 310018, China
Review of the Recent Advances in Electrospun Nanofibers Applications in Water Purification	Polymer	Institute of Organic Chemistry (IOC), Karlsruhe Institute of Technology (KIT), Fritz-Haber-Weg 6, 76133 Karlsruhe, Germany
Recent Progress and Potential Biomedical Applications of Electrospun Nanofibers in Regeneration of Tissues and Organs	Polymer	Institute of Organic Chemistry (IOC), Karlsruhe Institute of Technology (KIT), Fritz-Haber-Weg 6, 76133 Karlsruhe, Germany
Fabrication and Characterization of Effective Biochar Biosorbent Derived from Agricultural Waste to Remove Cationic Dyes from Wastewater	Polymer	Institute of Organic Chemistry (IOC), Karlsruhe Institute of Technology (KIT), Fritz-Haber-Weg 6, 76133 Karlsruhe, Germany
Efficient, Recyclable, and Heterogeneous Base Nanocatalyst for Thiazoles with a Chitosan-Capped Calcium Oxide Nanocomposite	Polymer	Institute of Organic Chemistry (IOC), Karlsruhe Institute of Technology (KIT), Fritz-Haber-Weg 6, 76133 Karlsruhe, Germany
Chitosan-Functionalized-Graphene Oxide (GO@CS) Beads as an Effective Adsorbent to Remove Cationic Dye from Wastewater	Polymer	Institute of Organic Chemistry (IOC), Karlsruhe Institute of Technology (KIT), Fritz-Haber-Weg 6, 76133 Karlsruhe, Germany
Preparation and Characterization of Magnetite Talc (Fe <sub>3</sub> O <sub>4</sub> @Talc) Nanocomposite as an Effective Adsorbent for Cr(VI) and Alizarin Red S Dye	Materials	Institute of Organic Chemistry (IOC), Karlsruhe Institute of Technology (KIT), Fritz-Haber-Weg 6, 76133 Karlsruhe, Germany
Graphene Oxide@Heavy Metal Ions (GO@M) Complex Simulated Waste as an Efficient Adsorbent for Removal of Cationic Methylene Blue Dye from Contaminated Water	Materials	Institute of Organic Chemistry (IOC), Karlsruhe Institute of Technology (KIT), Fritz-Haber-Weg 6, 76133 Karlsruhe, Germany
A Novel P@SiO <sub>2</sub> Nano-Composite as Effective Adsorbent to Remove Methylene Blue Dye from Aqueous Media	Materials	Institute of Organic Chemistry (IOC), Karlsruhe Institute of Technology (KIT), Fritz-Haber-Weg 6, 76133 Karlsruhe, Germany
Synthesis and greener pastures biological study of bis-thiadiazoles as potential Covid-19 drug candidates	Arabian Journal of Chemistry	Institute of Organic Chemistry (IOC), Karlsruhe Institute of Technology (KIT), Fritz-Haber-Weg 6, 76133 Karlsruhe, Germany

Novel Pyridinium Based Ionic Liquid Promoter for Aqueous Knoevenagel Condensation: Green and Efficient Synthesis of New Derivatives with Their Anticancer Evaluation	Molecules	Institute of Organic Chemistry (IOC), Karlsruhe Institute of Technology (KIT), Fritz-Haber-Weg 6, 76133 Karlsruhe, Germany
Azides in the Synthesis of Various Heterocycles	Molecules	Institute of Organic Chemistry (IOC), Karlsruhe Institute of Technology (KIT), Fritz-Haber-Weg 6, 76133 Karlsruhe, Germany
High-Pressure Metal-Free Catalyzed One-Pot Two-Component Synthetic Approach for New 5-Arylazopyrazolo[3,4-b]Pyridine Derivatives	Molecules	Institute of Organic Chemistry (IOC), Karlsruhe Institute of Technology (KIT), Fritz-Haber-Weg 6, 76133 Karlsruhe, Germany
Recent progress in the applications of silica-based nanoparticles	RSC Advances	Institute of Organic Chemistry (IOC), Karlsruhe Institute of Technology (KIT), Fritz-Haber-Weg 6, 76133 Karlsruhe, Germany
Oil tea shell synthesized biochar adsorptive utilization for the nitrate removal from aqueous media	Chemosphere	School for Engineering of Matter, Transport and Energy, Arizona State University, 551 E. Tyler Mall, Tempe, AZ, 85287, United States
Facile conversion of the Quinone-Semicarbazone Chromophore of Naftazone into a Fluorescent Quinol-Semicarbazide: Kinetic Study and Analysis of Naftazone in Pharmaceuticals and Human Serum	Sensors	K Dementia Research Institute Cardiff, School of Medicine, Cardiff University, Cardiff CF24 1TP, UK
Cross-Linked Chitosan/Gelatin Beads Loaded with Chlorella vulgaris Microalgae/Zinc Oxide Nanoparticles for Adsorbing Carcinogenic Bisphenol-A Pollutant from Water	ACS-Omega	Department of Medicine, Washington University School of Medicine, St. Louis, Missouri 63110, United States
A novel green synthesized NiO nanoparticles modified glassy carbon electrode for non-enzymatic glucose sensing	Microchemical Journal	Université de Strasbourg, CNRS-Institut Charles Sadron 67000 Strasbourg, France
Adsorptive performance of tetracarboxylic acid-modified magnetic silica nanocomposite for recoverable efficient removal of toxic Cd(II) from aqueous environment	Journal of Molecular Liquids	Chemistry Department, School of Life Sciences, Sussex University, Brighton BN1 9QJ, UK
Assessment of commercialized nylon membranes integrated with thin layer of MWCNTs for potential use in desalination process	Journal of Materials Research and Technology	School of Civil and Environmental Engineering, Faculty of Engineering and IT, University of Technology Sydney, Australia
Fabrication of sulfonated polyethersulfone ultrafiltration membranes with an excellent antifouling performance by impregnating with polysulfopropyl acrylate coated ZnO nanoparticles	Environmental Technology & Innovation	Chemistry Department, School of Life Sciences, Sussex University, Brighton BN1 9QJ, UK
A facile molecular aggregation of isoquinoline based g-C <sub>3</sub> N <sub>4</sub> for high photocatalytic performance under visible light illumination	Materials Research Bulletin	University of Electronic Science and Technology of China
Nanocomposite based on Rice Husk Photocatalytic Degradation of Methylene Blue and Antibacterial Activity of Mesoporous TiO <sub>2</sub> -SBA-15	Adsorption Science & Technology	Chemistry Department, School of Life Sciences, Sussex University, Brighton BN1 9QJ, UK
Towards superior permeability and antifouling performance of sulfonated polyethersulfone ultrafiltration membranes modified with sulfopropyl methacrylate functionalized SBA-15	Chinese Journal of Chemical Engineering	Chemistry Department, School of Life Sciences, Sussex University, Brighton BN1 9QJ, UK
Dynamic models for air-breathing and conventional polymer electrolyte fuel cells: A comparative study	Renewable Energy	Translational Energy Research Centre, University of Sheffield, Sheffield, S9 1ZA, United Kingdom
Fully-developed laminar flow in trapezoidal ducts with rounded 2 corners: a numerical solution and case study	<i>International journal of numerical methods for heat &amp; fluid flow</i>	Energy Institute, University of Sheffield, Sheffield S3 7RD, United Kingdom b 5 Translational Energy Research Centre (TERC), University of Sheffield, Sheffield S9 1ZA, United Kingdom
Promising Membrane for Polymer Electrolyte Fuel Cells Shows Remarkable Proton Conduction over Wide Temperature and Humidity Ranges	ACS Applied Polymer Materials	Department of Mechanical Engineering, University of Sheffield, Sheffield S3 7RD, United Kingdom; Translational Energy Research Centre (TERC), University of Sheffield, Sheffield S9 1ZA, United Kingdom

Enhanced photocatalytic overall water splitting from an assembly of donor- $\pi$ -acceptor conjugated polymeric carbon nitride	Journal of Colloid and Interface Science	University of Electronic Science and Technology of China
A Superficial Intramolecular Alignment of Carbon Nitride through Conjugated Monomer for Optimized Photocatalytic CO <sub>2</sub> Reduction	catalysts	Soochow University
Generalised predictability in the synthesis of biocarbons as clean energy materials: targeted high performance CO <sub>2</sub> and CH <sub>4</sub> storage	Energy & Environmental Science	School of Chemistry, University of Nottingham, University Park, Nottingham NG7 2RD, UK
Mn-Based Hierarchical Polyhedral 2D/3D Nanostructures MnX <sub>2</sub> (X = S, Se, Te) Derived from Mn-Based Metal–Organic Frameworks as High-Performance Electrocatalysts for the Oxygen Evolution Reaction	Energy Fuels	Department of Materials Science and Engineering, College of Engineering, Peking University, 100871 Beijing, China
Polypyrrole-based sensors for volatile organic compounds (VOCs) sensing and capturing: A comprehensive review	Sensors and Actuators A: Physical	Curtin University
Synergistic Electrocatalytic Hydrogen Evolution in Ni/NiS Nanoparticles Wrapped in Multi-Heteroatom-Doped Reduced Graphene Oxide Nanosheets	ACS Appl. Mater. Interfaces	School of Chemical Engineering and Australian Institute for Bioengineering and Nanotechnology (AIBN), The University of Queensland, Brisbane, Queensland 4072, Australia
Recent Advancement of the Current Aspects of g-C <sub>3</sub> N <sub>4</sub> for its Photocatalytic Applications in Sustainable Energy System	The chemical record	University of Electronic Science and Technology of China
Molecular grafting based polymeric carbon nitride for wondrous artificial photosynthesis	International Journal of Energy Research	University of Electronic Science and Technology of China
Molecular engineering control defects within carbon nitride for optimized co-catalyst Pt induced photocatalytic CO <sub>2</sub> reduction and NO <sub>2</sub> oxidation reaction	International Journal of Hydrogen Energy	University of Electronic Science and Technology of China
Therapeutic application of carvacrol: A comprehensive review	FOOD SCIENCE & NUTRITION	Moscow State University
Myricetin: A comprehensive review on its biological potentials	FOOD SCIENCE & TECHNOLOGY	University of Padua
In-vitro stress stability, digestibility and bioaccessibility of curcumin-loaded polymeric nanocapsules	JOURNAL OF EXPERIMENTAL NANOSCIENCE	Shaanxi University of Science and Technology

## Biology program

Article Title	Journal	University
A flavonoid-rich fraction of <i>Monolluma quadrangula</i> inhibits xanthine oxidase and ameliorates potassium oxonate-induced hyperuricemia in rats	Environmental Science and Pollution Research	Manchester Metropolitan University, Manchester, UK
Ecological risk assessment and bioaccumulation of trace element, copper, in wheat varieties irrigated with non-conventional water resources in a semi-arid tropic	Agricultural Water Management	Zhejiang University, Hangzhou 310058, China
Harnessing the Potential of <i>Bacillus altitudinis</i> MT422188 for Copper Bioremediation	Frontiers in Microbiology	University of Adelaide, Adelaide, SA, Australia