# Annual Review Research 2023

#### الأولويات البحثية لكلية العلوم

- 1. Research Excellence in advanced materials
- 2. Research in olive
- 3. Obtain solutions to environmental problems in Al Jouf region
- 4. Petrochemical and industrial
- 5. Theoretical Studies (Modeling and simulation)
- **6.** Excellence in the scope of medical

	Top 10	Q1	Q2	Q3	Q4	ISI	Scopus	Other	Total	Top 100	Top 200	Top 500
Physics	31	76	136	57	8	277	277	6	283	1	44	50
Chemistry	1	42	45	15	4	106	106	8	114	3	13	23
Biology	0	22	13	16	4	55	55	5	60	2	8	7
Mathematics	4	18	14	7	4	43	43	2	45	3	2	1
Total	36	158	208	95	20	481	481	21	502	9	67	81

: ISI& Scopus البيانات

1. اجمالي الأبحاث المنشورة481 بحثا

2. 481 بحث منشور في مجالات مصنفه في قاعدة البيانات بحث منشور

بحث منشور في مجالات مصنفه في قاعدة البيانات ISI

## 4. 36 بط مصنف في Top 10 Journal

5. نسبة مجموع البحوث المنشورة والمصنفة في Q1&Q2 journal بسبة 76%

للبحوث المنشورة في حين المنشور في 2022 بسبه 77%.

6. نسبة البحوث المنشورة والمصنفة في Q1 journal بسبة 33% من العدد الكلى للبحوث

المنشورة في حين المنشور في 2022 م بسبه 38.8%.

7. نسبة البحوث المنشورة والمصنفة في Q2 journal بسبة 43%من العدد الكلى للبحوث

المنشورة في حين المنشور في 2022 م بنسبة 38.2%.

8. نسبة البحوث المنشورة والمصنفة في | Q3 journal بسبة 20% من العدد الكلى للبحوث

المنشورة في حين المنشور في 2022 م بنسبة 17.7%.

و. نسبة البحوث المنشورة والمصنفة في ا Q4 journal بنسبة هه من العدد الكلى للبحوث المنشورة

في حين المنشور في 2022 م بنسبة 4.8%.

# Physics program

#### 1- Number of Published articles in 2023

Q1				
Top	Q1	Q2	Q3	Q4
10				
31	76	136	57	8

ISI	Scopus	Other	Total
277	277	6	238

Top	Top	Top
100	200	500
1	44	50

## 3- List of impacted articles in Web of ScienceVeb of Science

No	Article Title	Journal Name	Link	Quartile
1	Recycling of waste cathode-ray tube glasses as building materials for shielding structures in medical and nuclear facilities	CONSTRUCTION AND BUILDING MATERIALS	10.1016/j.conbuildmat.2023. 131029	Q1
2	Tb3+-doped GeO2-B2O3–P2O5–ZnO magneto-optical glasses: Potential application as gamma-radiation absorbers	RADIATION PHYSICS AND CHEMISTRY	10.1016/j.radphyschem.2023 .110874	Q1
3	A new nanocomposite of copper oxide and magnetite intercalated into Attapulgite clay to enhance the radiation shielding	Radiation Physics and Chemistry	https://doi.org/10.1016/j.radp hyschem.2023.111398	Q1
4	Atomic structure calculations, and electron impact ionization cross-sections of W LXI	Physica Scripta	https://doi.org/10.1088/1402- 4896/ad0bc1	Q1
5	Boosting the electrochemical activities of MnO2 for next-generation supercapacitor application: Adaptation of multiple approaches	Fuel	https://doi.org/10.1016/j.fuel. 2023.127946	Q1
6	Impact of CdO on optical, structural, elastic, and radiation shielding parameters of CdO–PbO–ZnO–B2O3–SiO2 glasses	Ceramics International	https://doi.org/10.1016/j.cera mint.2023.03.042	Q1
7	In Situ Polycondensation Synthesis of NiS-g-C3N4 Nanocomposites for Catalytic Hydrogen Generation from NaBH4	Nanomaterials	https://doi.org/10.3390/nano1 3050938	Q1
8	Influence of B2O3/Bi2O3 on the radiation absorption and nuclear safety of bismuth borosilicate glass system	RADIATION PHYSICS AND CHEMISTRY	10.1016/j.radphyschem.2023 .110877	Q1
9	Management of heat transfer and hydraulic characteristics of a micro-channel heat sink with various arrangements of rectangular vortex generators utilizing artificial neural network and response surface methodology	Case Studies in Thermal Engineering	https://doi.org/10.1016/j.csite .2023.102850	Q1
10	MoO3/S@g-C3N4 Nanocomposite Structures: Synthesis, Characterization, and Hydrogen Catalytic Performance	Nanomaterials	https://doi.org/10.3390/nano1 3050820	Q1
11	New Hybrid PVC/PVP Polymer Blend Modified with Er2O3 Nanoparticles for Optoelectronic Applications	Polymers	https://doi.org/10.3390/polym 15030684	Q1
12	Novel (Y2O3) x (CdO) 1-x binary mixed oxide nanocomposites: facile synthesis, characterization, and photocatalysis enhancement	Journal of Materials Research and Technology	https://doi.org/10.1016/j.jmrt. 2023.01.105	Q1
13	One-step Hydrothermal Synthesis of Flower-like MoS2/VS2 Nanocomposite for Biomedical Applications	Inorganic Chemistry Communications	https://doi.org/10.1016/j.inoc he.2023.111336	Q1
14	Photoluminescence and Fourier Transform Infrared Spectral Studies of Varying Levels of Manganese Doping in Zinc Phosphate Oxide Glasses	Journal of Electronic Materials	http://dx.doi.org/10.1007/s11 664-023-10389-8	Q1
15	Radiation shielding performance of a newly synthesized bismuth borate glass system	RADIATION PHYSICS AND CHEMISTRY	10.1016/j.radphyschem.2022 .110711	Q1

16	Silicate glass system and significant role of Bi2O3 on radiation protection ability against gamma, neutron, and charged particle	RADIATION PHYSICS AND CHEMISTRY	10.1016/j.radphyschem.2022 .110609	Q1
17	Structural and Optical Characterization of g-C3N4 Nanosheet Integrated PVC/PVP Polymer Nanocomposites	Polymers	https://doi.org/10.3390/polym 15030684	Q1
18	Study on active sites of Mn-doped iron selenide on pencil electrode for electrocatalytic water splitting	Journal of Sol-Gel Science and Technology	https://doi.org/10.1007/s1097 1-022-05961-3	Q1
19	Synthesis of Sulfur@g-C3N4 and CuS@g-C3N4 Catalysts for Hydrogen Production from Sodium Borohydride	Materials	https:// doi.org/10.3390/ma1612421 8	Q1
20	Tailoring confined CdS quantum dots in polysulfone membrane for efficiently durable performance in solar-driven wastewater remediating systems	Tailoring confined CdS quantum dots in polysulfone membrane for efficiently durable performance in solar-driven wastewater remediating systems	https://www.sciencedirect.co m/science/article/abs/pii/S03 01479723001391	Q1
21	Preparation and Optical Properties of PVDF-CaFe2O4 Polymer Nanocomposite Films	Polymers	https://doi.org/10.3390/polym 15092232	Q1
22	Structural characteristics and dielectric properties of irradiated polyvinyl alcohol/sodium iodide composite films	Inorganic Chemistry Communications	https://doi.org/10.1016/j.inoc he.2023.111651	Q1
23	[HTML] from mdpi.com Fabrication, Structural Properties, and Electrical Characterization of Polymer Nanocomposite Materials for Dielectric Applications	Polymers	https://www.mdpi.com/2073- 4360/15/14/3067	Q1
24	An ab-initio insight computation of Structural, Electronic and Optical properties of Na-doped CsSrF3 Fluoro-Perovskite for optoelectronic applications	Inorganic Chemistry Communications	https://doi.org/10.1016/j.inoc he.2023.111151	Q1
25	Characterization and linear/non-linear optical properties of polypyrrole/NiO for optoelectronic devices	Inorganic Chemistry CommunicationS	https://scholar.google.com/cit ations?view_op=view_citatio n&hl=en&user=h0GJXDEAA AAJ&sortby=pubdate&citatio n_for_view=h0GJXDEAAAAJ :_Ybze24A_UAC	Q1
26	Effect of Asymmetric Fins on Thermal Performance of Phase Change Material-Based Thermal Energy Storage Unit	Materials	https://www.mdpi.com/1996- 1944/16/7/2567	Q1
27	Effect of BaO addition on gamma radiation shielding performance of sodium barium borate glasses using FLUKA code and PhyX/PSD platform	Radiation Physics and Chemistry	https://doi.org/10.1016/j.radp hyschem.2023.110766	Q1
28	Effects of Nd2O3 Nanoparticles on the Structural Characteristics and Dielectric Properties of PVA Polymeric Films	Polymers	https://www.mdpi.com/2073- 4360/15/20/4084	Q1
29	Enhancing the efficiency of Cu2Te thin-film solar cell with WS2 buffer layer: A simulation study	Optics and Laser Technology	https://doi.org/10.1016/j.optla stec.2022.108942	Q1
30	First-principles calculations to investigate structural, electronics, optical, and mechanical properties of Bi-based novel fluoroperovskites TBiF3 (T = Hg, Xe) for optoelectronic applications	Materials Science in Semiconductor Processing	https://doi.org/10.1016/j.mss p.2023.107399	Q1
31	Lead-Free Ternary Glass for Radiation Protection: Composition and Performance Evaluation for Solar Cell Coverage	Materials	https://doi.org/10.3390/ma16 083036	Q1

32	NaBeAs and NaBeSb: Novel Ternary Pnictides with Enhanced Thermoelectric Performance	J. Phys. Chem. C 2023, 127, 1733–1743	https://doi.org/10.1021/acs.jp cc.2c07676	Q1
33	Optical Band Gap Tuning, DFT Understandings, and Photocatalysis Performance of ZnO Nanoparticle-Doped Fe Compounds	Materials	https://doi.org/10.3390/ma16 072676	Q1
34	Phase and domain engineering strategy for enhancement of piezoelectricity in the lead-free BiFeO3-BaTiO3 ceramics	Journal of Materiomics	https://www.sciencedirect.co m/science/article/pii/S235284 7823000540	Q1
35	Radiation shielding and optical features for a PbO–BaO–B2O3 system	Radiation Physics and Chemistry	https://doi.org/10.1016/j.radp hyschem.2022.110566	Q1
36	Synthesis of flexible polymer nanocomposites based on methyl cellulose/copper oxide with desired dielectric properties for electrical applications	Inorganic Chemistry Communications	https://scholar.google.com/sc holar?oi=bibs&cluster=76450 824798302775&btnl=1&hl=e n	Q1
37	The potential of MXenes-based nanomaterials towards high performance in energy production and storage applications	International Journal of Hydrogen Energy	https://doi.org/10.1016/j.ijhyd ene.2023.05.166	Q1
38	A new Y-Zr/g-C3N4 nanoflakes anchored mesoporous silica composite for efficient environmental remediation applications	Inorganic Chemistry Communications, 151, 110610	https://doi.org/10.1016/j.inoc he.2023.110609	Q1
39	Corrigendum to "Facile synthesis of transition metal oxide SnO2/MnO2 hierarchical nanostructure: As an efficient electrocatalyst for robust oxygen evolution reaction" [Surf. Interfaces 36 (2023) 102467] (Surfaces and Interfaces (2023) 36, (S246802302200726X), (10.1016/j.surfin.2022.102467))	Construction and Building Materials, 376, 131029	https://doi.org/10.1016/j.conb uildmat.2023.131028	Q1
40	Effect of source to the substrate distance on thermoelectric properties of copper nitride thin films grown by thermal evaporation method	Inorganic Chemistry Communications, 153, 110818	https://doi.org/10.1016/j.inoc he.2023.110817	Q1
41	Facile synthesis of rGO/PANI/ZnO ternary nanocomposites for energy storage devices	Journal of Biomolecular Structure and Dynamics, 41(14), pp. 6894– 6908	https://doi.org/10.1080/07391 102.2022.2113562	Q1
42	GeSe/MoS2 van der Waal heterostructure a potential photocatalyst candidate for overall water splitting: A DFT study	Journal of Building Engineering, 73, 106857	https://doi.org/10.1016/j.jobe. 2023.106856	Q1
43	Radiation shielding and nuclear security functions of Na2O-Fe2O3-B2O3-La2O3 glass system	Journal of Alloys and Compounds, 961, 170891	https://doi.org/10.1016/j.jallco m.2023.170890	Q1
44	Significant impact of lead (II) chloride on synthesis and properties of b mechanical, optical, and radiation applications	oron-based metallic glasses for	https://doi.org/10.1016/j.ijhyd ene.2023.03.313	Q1
45	The impact of cu-doping on Ni0.5-Co0.5Fe2O4 @graphitic carbon nitride for the degradation of organic pollutants	Results in Physics, 52, 106812	https://doi.org/10.1016/j.rinp. 2023.106811	Q1
46	A closer inspection of the structural, mechanical, optical and radiation shielding properties of GeO2-doped magnesium-telluroborate glasses	Ceramics International, 49(17), pp. 28022–28029	https://doi.org/10.1016/j.cera mint.2023.06.047	Q1 -Top 10%
47	Bragg curve, dose distribution, and target fragmentation for thyroid proton therapy	Radiation Physics and Chemistry, 212, 111088	https://doi.org/10.1016/j.radp hyschem.2023.111087	Q1 -Top 10%
48	Characterization and applications of highly optical transparency tellurit and Nd3+	te glasses doped with Er3+, Tm3+,	https://doi.org/10.1016/j.radp hyschem.2022.110673	Q1 -Top 10%

49	Corrigendum to "Gamma shielding performance of B2O3/BaObased glassy system: Synthesis and simulation study" [Radiat. Phys. Chem. 214 (2024) 111301] (Radiation Physics and Chemistry (2024) 214, (S0969806X23005479), (10.1016/j.radphyschem.2023.111301))	Journal of the Korean Ceramic Society	https://doi.org/10.1007/s4320 7-023-00330-3	Q1 -Top 10%
50	Designing of near-IR organic semiconductors for photodetectors:  Machine learning and data mining assisted efficient pipeline	Journal of Molecular Liquids, 383, 122085	https://doi.org/10.1016/j.molli q.2023.122084	Q1 -Top 10%
51	Experimental design and characterization of Eu-doped tellurite matrix glassy composite for medical and ionizing-radiation sensing applications	Ceramics International, 49(11), pp. 18988–19002	https://doi.org/10.1016/j.cera mint.2023.03.023	Q1 -Top 10%
52	Fabrication of ZnO-CuFe2O4-CNTs ternary nanocomposite for harmful organic effluents degradation by sunlight irradiation	Surfaces and Interfaces, 38, 102753	https://doi.org/10.1016/j.surfi n.2022.102466	Q1 -Top 10%
53	Heavy metals biosensor based on defective one-dimensional phononic crystals	Ceramics International, 49(7), pp. 11600–11611	https://doi.org/10.1016/j.cera mint.2022.12.006	Q1 -Top 10%
54	Investigations of graphene oxides and cement on strength performance of soil	International Journal of Hydrogen Energy, 48(70), pp. 27201–27214	https://doi.org/10.1016/j.ijhyd ene.2023.03.312	Q1 -Top 10%
55	Magnetically separable rGO based ternary composite for enhanced photocatalytic activity	Radiation Physics and Chemistry, 209, 110969	https://doi.org/10.1016/j.radp hyschem.2023.110968	Q1 -Top 10%
56	Polarizability, optical electronegativity, and gamma transmission ability of newly developed Bi2O3–GeO2-Eu2O glasses	Surfaces and Interfaces, 36, 102467	https://doi.org/10.1016/j.surfi n.2022.102466	Q1 -Top 10%
57	Radiation shielding capacity of Li2O-SiO2/GeO2 glasses doped with rare earth oxides: Nuclear security applications	Radiation Physics and Chemistry, 204, 110711	https://doi.org/10.1016/j.radp hyschem.2022.110709	Q1 -Top 10%
58	Rational design of dithieno [2, 3-D: 2', 3'-D']-benzo [1, 2-B: 4, 5-B'] dithiophene based small molecule donor for plausible performance organic solar cell	Journal of Materials Research and Technology	https://doi.org/10.1016/j.jmrt. 2022.11.177	Q1 -Top 10%
59	Synthesis of nanostructured gadolinium doped mixed ferrite: A novel catalyst for the mineralization of textile dyes	Ceramics International, 49(12), pp. 20772–20783	https://doi.org/10.1016/j.cera mint.2023.03.208	Q1 -Top 10%
60	Virtual mining of polymer monomers for photodetectors application and regression-aided reorganization energy prediction	Ceramics International, 49(18), pp. 30049–30059	https://doi.org/10.1016/j.cera mint.2023.06.261	Q1 -Top 10%
61	Virtual screening of efficient building blocks and designing of new polymers for organic solar cells	Radiation Physics and Chemistry, 208, 110874	https://doi.org/10.1016/j.radp hyschem.2023.110873	Q1 -Top 10%
62	Economic, environmental and multi objective optimization of a clean tri-generation system based co-firing of natural gas and biomass: An emergy evaluation	Process Safety and Environmental Protection	https://doi.org/10.1016/j.psep .2023.02.076	Q1- Top 10%
63	Integration of 2D graphene oxide sheets with MgFe2O4/ZnO heterojunction for improved photocatalytic degradation of organic dyes and benzoic acid	CERAMICS INTERNATIONAL	10.1016/j.ceramint.2023.03.0 24	Q1- Top 10%
64	Effect of MoO3 on Na2O–B2O3–CdO–ZnO glasses: Applications in optoelectronics, communication devices, and radiation shielding	CERAMICS INTERNATIONAL	10.1016/j.ceramint.2022.12.0 07	Q1-Top 10%
65	Fabrication and characterization of structured Zn1-xCdxWO4 (0≤x≤1) with tunable photoluminescent and promising applicable heterometallic nanocomposites in shielding properties	Radiation Physics and Chemistry	https://doi.org/10.1016/j.radp hyschem.2023.111335	Q1-Top 10%
66	Facile synthesis of transition metal oxide SnO2/MnO2 hierarchical nanostructure: As an efficient electrocatalyst for robust oxygen evolution reaction	SURFACES AND INTERFACES	10.1016/j.surfin.2022.102467	Q1-Top 10%

67	Development and synergistic effects of magnetodielectric Dy-Gd co- doped YIG nanoferrites based meta-absorber for improved absorption applications	Results in Physics, 55, 107142	https://doi.org/10.1016/j.rinp. 2023.107142	Q1-Top 10%
68	Influence of Alkaline Earth Metals on the Optical Properties and Radiation-Shielding Effectiveness of Sm3+-Doped Zinc Borophosphate Glasses	Radiation Physics and Chemistry, 212, 111200	https://doi.org/10.1016/j.radp hyschem.2023.111199	Q1-Top 10%
69	Modulation of optical and structural properties of CoFe2O4/ZnO@CNTs for photocatalytic removal of crystal violet and phenol	Surfaces and Interfaces, 42, 103377	https://doi.org/10.1016/j.surfi n.2023.103376	Q1-Top 10%
70	Detection and Selective Removal Strategy of Thorium Ions Using a Novel Fluorescent Ligand and Hybrid Mesoporous γ-Al2O3-like Nanoneedles	Detection and Selective Removal Strategy of Thorium Ions Using a Novel Fluorescent Ligand and Hybrid Mesoporous γ-Al2O3-like Nanoneedles	https://pubs.acs.org/doi/full/1 0.1021/acssuschemeng.2c05 000	Q1-Top10%
71	Visible light induced photocatalytic activity of MnO2/BiVO4 for the degradation of organic dye and tetracycline	Visible light induced photocatalytic activity of MnO2/BiVO4 for the degradation of organic dye and tetracycline	https://www.sciencedirect.co m/science/article/abs/pii/S02 72884222042663	Q1-Top10%
72	Recent advances, properties, fabrication and opportunities in two- dimensional materials for their potential sustainable applications	Energy Storage Materials	https://doi.org/10.1016/j.ens m.2023.102780	Q1-Top10%
73	[HTML] from sciencedirect.com Evaluation of photon, proton, and alpha interaction parameters of EDTMPLu and MDPLu medications used for some bone cancer	Radiation Physics and Chemistry	https://doi.org/10.1016/j.radp hyschem.2023.111419	Q1-Top10%
74	Optimal Composition for Radiation Shielding in BTCu-x Glass Systems as Determined by FLUKA Simulation	Journal of Materials Research and Technology	https://www.sciencedirect.co m/science/article/pii/S223878 5423013558	Q1-Top10%
75	Structure, magnetic, opto-electronic and thermoelectric properties of A3In2As4 and A5In2As6 (A = Sr and Eu) Zintl phase compounds	Journal of Alloys and Compounds	https://doi.org/10.1016/j.jallco m.2022.168614	Q1-Top10%
76	Synergistic approach for enhancement of piezoelectricity in the lead-free BiFeO3-BaTiO3 ceramics	Journal of Alloys and Compounds	https://www.sciencedirect.co m/science/article/abs/pii/S09 2583882300717X	Q1-Top10%
77	[HTML] from rsc.org Theoretical framework for achieving high V oc in non-fused non-fullerene terthiophene-based end-capped modified derivatives for potential applications in organic photovoltaics	RSC Advances	DOI: 10.1039/D3RA00038A	Q2
78	A comprehensive first-principles study on the physical properties of Sr2ScBiO6 for low-cost energy technologies	Optical and Quantum Electronics	https://link.springer.com/articl e/10.1007/s11082-023- 05282-x	Q2
79	Characterization and applications of highly optical transparency tellurite glasses doped with Er3+, Tm3+, and Nd3+	OPTIK	10.1016/j.ijleo.2023.170825	Q2
80	Enhancement of optical, electrical and sensing characteristics of ZnO nanowires for optoelectronic applications	Journal of Materials Science: Materials in Electronics	https://doi.org/10.1007/s1085 4-023-09905-7	Q2
81	Machine learning assisted designing of organic semiconductors for organic solar cells: High-throughput screening and reorganization energy prediction	INORGANIC CHEMISTRY COMMUNICATIONS	10.1016/j.inoche.2023.11061 0	Q2

82	Quantum mechanical modeling of fused rings-based small-donor molecules with enhanced optoelectronic attributes for high performance organic photovoltaic cells	Journal of Physics and Chemistry of Solids	https://doi.org/10.1016/j.jpcs. 2022.111140	Q2
83	Radiation shielding competence of chalcogenide alloys with high Te content	APPLIED RADIATION AND ISOTOPES	10.1016/j.apradiso.2023.110 759	Q2
84	Synthesis and characterization of graphitic carbon nitride composite with NiFe2O4/CdO for photocatalytic treatment of diclofenac sodium and crystal violet	OPTICAL MATERIALS	10.1016/j.optmat.2023.11372 1	Q2
85	Virtual screening of efficient building blocks and designing of new polymers for organic solar cells	JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS	10.1016/j.jpcs.2023.111340	Q2
86	One dimensional photonic crystal structure comprising a hyperbolic metamaterial for optical filtering purpose	OPTICAL AND QUANTUM ELECTRONICS	10.1007/s11082-022-04291- 6	Q2
87	Optimising the physical, thermal, optical, and gamma-ray shielding features of B2O3–As2O3–Li2O–PbO glasses	JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS	10.1007/s10854-023-10062- 0	Q2
88	Surface modifications and optical studies of irradiated flexible PDMS materials	Surface Innovations	https://doi.org/10.1680/jsuin. 22.01089	Q2
89	Synthesis, physical properties, neutron, and gamma-ray shielding competence of borate-based glasses reinforced with erbium (III) oxide: a closer-look on the impact of Eu2O3	JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS	10.1007/s10854-022-09748- 8	Q2
90	A closer-look at lithium strontium boro-fluoride glasses doped with CeO2 and Yb2O3 ions: Synthesis, radiation shielding properties, and prediction of density using artificial intelligence techniques	OPTICAL MATERIALS	10.1016/j.optmat.2022.11333 8	Q2
91	A theoretical investigation of the lead-free double perovskites halides Rb2XCl6 (X = Se, Ti) for optoelectronic and thermoelectric applications	J Computational Chem. 2023;1–14.	10.1002/jcc.27119	Q2
92	Alteration of the central core of a DF-PCIC chromophore to boost the photovoltaic applications of non-fullerene acceptor based organic solar cells	RSC Advances	DOI: 10.1039/D2RA08091E	Q2
93	Approach toward Low Energy Loss in Symmetrical Nonfullerene Acceptor Molecules Inspired by Insertion of Different π-Spacers for Developing Efficient Organic Solar Cells	ACS Omega	https://doi.org/10.1021/acso mega.3c05665	Q2
94	As2 O3 -poly(1H-pyrrole) nanocomposite for hydrogen generation from Red Sea water with high efficiencey	Physica scripta	DOI 10.1088/1402- 4896/ace391	Q2
95	Chemical deposition of Ag and Ag2O on grafting film of PET-COOH by photografting polymerization for optoelectronic application	Journal of Materials Science: Materials in Electronics	https://doi.org/10.1007/s1085 4-022-09474-1	Q2
96	Controllable Fabrication of Zn2+ Self-Doped TiO2 Tubular Nanocomposite for Highly Efficient Water Treatment	Molecules	https://doi.org/10.3390/molec ules28073072	Q2
97	Controlled supramolecular interactions for targeted release of Amiodarone drug through Graphyne to treat cardiovascular diseases: An in silico study	JOURNAL OF MOLECULAR GRAPHICS & MODELLING	https://doi.org/10.1016/j.jmg m.2023.108452	Q2
98	Deep insights into the Cu- and W-doped Na0.5Bi0.5TiO3 solid solution: A study focusing on optical, dielectric and electrical properties	Journal of Molecular Structure	https://doi.org/10.1016/j.mols truc.2023.136319	Q2

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99	Designing of Thiophene [3, 2-b] Pyrrole Ring-Based NFAs for High- Performance Electron Transport Materials: A DFT Study	ACS omega	https://doi.org/10.1021/acso mega.2c07954	Q2
100	Development of Bi2O3/MoSe2 mixed nanostructures for photocatalytic degradation of methylene blue dye	Journal of Taibah University for Science	https://doi.org/10.1080/16583 655.2022.2161333	Q2
101	Development of VSe2@ Cu2Se nano-composites via facile one-pot hydrothermal method for pharmaceutical applications	Physica Scripta	10.1088/1402-4896/aceada	Q2
102	Effect of copper and silver as a middle layer on the structural, electrical, photocatalytic, and optical properties of ZnS/metal/ZnS films for optoelectronics applications	Physica Scripta	DOI 10.1088/1402- 4896/aceab9	Q2
103	Effect of Nd:YAG pulsed laser on the antibacterial activity and physical properties of newly synthesized composites, CdO/Co3O4 and Ag/CdO/Co3O4	Physic scripta	https://doi.org/10.1088/1402- 4896/ad0fca	Q2
104	Effective Dielectric Loss Reduction and Enhanced Dielectric Temperature Stability of (1-x)BaFe0.5Nb0.5O3-xBiCu0.75W0.25O3 Ceramics	Journal of Inorganic and Organometallic Polymers and Materials	https://doi.org/10.1007/s1090 4-023-02850-2	Q2
105	Enhancement of optical, electrical and sensing characteristics of ZnO nanowires for optoelectronic applications	Journal of Materials Science: Materials in Electronics	https://doi.org/10.1007/s1085 4-023-09905-7	Q2
106	Enhancement of visible Light émission of Ni-doped ZnO sprayed thin films by Cooper Co doped	Protection of Metals And Physics Chemistry of Surfaces	https://doi.org/10.1134/S207 0205123700533	Q2
107	Enhancing energy storage capability of advanced redox-based supercapacitors through PANI incorporation into NiMnS matrix	Materials Chemistry and Physics	https://doi.org/10.1016/j.matc hemphys.2023.128077	Q2
108	Fabrication of Polypyrrole/Graphene Oxide Polymer Nanocomposites and Evaluation of their Optical Behavior for Optoelectronic Applications	Journal of Inorganic and Organometallic Polymers and Materials	https://doi.org/10.1007/s1090 4-023-02643-7	Q2
109	Fabrication of PPy nanomaterial/nanosheets graphene oxide composites and evaluation of their optical behaviour for optoelectronic applications	Journal of Inorganic and Organometallic Polymers and Materials	https://doi.org/10.1007/s1090 4-023-02643-7	Q2
110	Fabrication, surface characterization and electrical properties of hydrogen-irradiated nanocomposite materials	Surface Innovations	https://scholar.google.com/cit ations?view_op=view_citatio n&hl=en&user=h0GJXDEAA AAJ&sortby=pubdate&citatio n_for_view=h0GJXDEAAAAJ :z_wVstp3MssC	Q2
111	Facile fabrication of polypyrrole/NiOx core-shell nanocomposites for hydrogen production from wastewater	Polymers for Advanced Technologies	DOI: 10.1002/pat.5997	Q2
112	Flower-like shapes M-PbS (M = Li, na, or Cs)/porous CuO photocatalytic electrode for converting sewage water into H2 fuel gas	Journal of Materials Science: Materials in Electronics	https://link.springer.com/articl e/10.1007/s10854-023- 10154-x	Q2
113	Growth of AgCoS@CNTs composite on nickel foam to enrich the redox active sites for battery-supercapacitor hybrid energy storage device	Journal of Physics and Chemistry of Solids	https://doi.org/10.1016/j.jpcs. 2023.111473	Q2
114	Hydrothermally assisted bimetallic transition metal sulfide as battery grade electrode and activated carbon as capacitive electrode for hybrid energy storage devices	Diamond and Related Materials	https://doi.org/10.1016/j.diam ond.2023.109737	Q2

115	Impact of Y2O3 on structural, mechanical and nonlinear optical properties of CrO3-Na2O-B2O3 glasses	Optik	https://doi.org/10.1016/j.ijleo. 2023.170546	Q2
116	Influence of temperature on the redox behaviour of binder-free CNTs-NiZnS electrode and the application in efficient energy storage devices	Physica Scripta	DOI 10.1088/1402- 4896/aceac3	Q2
117	Investigating the effect of Te on the structural and physical properties of CdSe films for optoelectronic applications	Materials Today Communications	https://doi.org/10.1016/j.mtco mm.2023.107001	Q2
118	Locally resonant porous phononic crystal sensor for heavy metals detection: A new approach of highly sensitive liquid sensors	OPTICAL MATERIALS	10.1016/j.optmat.2022.11333 8	Q2
119	Low energy irradiation induced effects on the surface characteristics of polydimethylsiloxane polymeric films	Macromolecular Research	https://doi.org/10.1007/s1323 3-023-00118-9	Q2
120	Modelling of GaAsSb/InAs type-II QW heterostructure and simulation of its optical gain characteristics under (100), (001) and (110) directional pressure	Physica B: Condensed Matter	https://doi.org/10.1016/j.phys b.2023.414969	Q2
121	Novel A-π-D-π-A type non-fullerene acceptors of dithienyl diketopyrropopyrrole derivatives to enhance organic photovoltaic applications: a DFT study	RSC Advances	DOI: 10.1039/D2RA07291B	Q2
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123	Optical and electrical modeling of CZTSSe based thin-film solar cells	Physica Scripta	10.1088/1402-4896/ace667	Q2
124	Optical and electrical properties of thin films of MnS/metal/MnS for photocatalysis and gas sensing applications	Optik	https://doi.org/10.1016/j.ijleo. 2023.171549	Q2
125	Optical, structural, electrical and photocatalytic properties of aluminum doped zinc oxide nanostructures	Optical materials	https://doi.org/10.1016/j.optm at.2023.113880	Q2
126	Optimization of NPD/Alq3/TPBi/Bphen OLED structure and investigation of electrical characteristics along with allied parameters	Optical and Quantum Electronics	https://link.springer.com/article/10.1007/s11082-023-05000-7	Q2
127	Photoelectrochemical Conversion of Sewage Water into H2 Fuel over the CuFeO2/CuO/Cu Composite Electrode	Catalysts	https://doi.org/10.3390/catal1 3030456	Q2
128	Physica Scripta PAPER As2O3-poly(1H-pyrrole) nanocomposite for hydrogen generation from Red Sea water with high efficiencey	Physica Scripta	0.1088/1402-4896/ace391	Q2
129	Quantum modeling of dimethoxyl-indaceno dithiophene based acceptors for the development of semiconducting acceptors with outstanding photovoltaic potential	RSC Advances	DOI: 10.1039/D2RA07957G	Q2
130	Radiation transmittance of the optical SiO2-based glass system	OPTIK	10.1016/j.ijleo.2022.170385	Q2
131	Recycling of optical borosilicate waste glasses by Y2O3 doping for radiation shielding applications	OPTIK	10.1016/j.ijleo.2022.170399	Q2
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133	Structural characterization and dielectric properties of low energy hydrogen beam irradiated PVA/ZnO nanocomposite materials	Inorganic Chemistry Communications	https://doi.org/10.1016/j.inoc he.2023.110779	Q2
134	Structural, characterization and linear/nonlinear optical properties of oxygen beam irradiated PEO/NiO composite films	Optical and Quantum Electronics	https://doi.org/10.1007/s1108 2-023-04600-7	Q2

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139	Synthesis of CaCO3/Cu2O/GO Nanocomposite Catalysts for Hydrogen Production from NaBH4 Methanolysis	Catalysts	https://doi.org/10.3390/catal1 3061010	Q2
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141	Tailoring the interfacial surfaces of tungsten and molybdenum tungsten disulfide electrodes for hybrid supercapacitors	RSC advances	DOI: 10.1039/D3RA00847A	Q2
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148	Boost the photocatalytic hydrogen production of the nanocomposites conducting polypyrrole modified with metal oxide (CuO)	Physica Scripta 98	https://scholar.google.com/cit ations?view_op=view_citatio n&hl=en&user=h0GJXDEAA AAJ&sortby=pubdate&citatio n_for_view=h0GJXDEAAAAJ :VLnqNzywnoUC	Q2
149	CASTEP study for mapping phase stability, and optical parameters of halide perovskite CsSiBr3 for photovoltaic and solar cell applications	Inorganic Chemistry Communications	https://www.sciencedirect.co m/science/article/abs/pii/S13 87700323000862	Q2
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234	Structural Characterization and Dielectric Properties of Flexible PVA/PANI/Ag Nanocomposite Materials	ECS Journal of Solid State Science and Technology	DOI 10.1149/2162- 8777/acc9dc	Q3
235	Study of impurities diffusion in Al2O3/GaN/AlxGa1-xN heterostructures	Journal of Materials Science: Materials in Electronics	https://doi.org/10.1007/s1085 4-022-09744-y	Q3
236	Study of mechanical, optical, and thermoelectric characteristics of Ba2XMoO6 (X = Zn, Cd) double perovskite for energy harvesting	Journal of Computational Chemistry	https://doi.org/10.1002/jcc.27 209	Q3
237	Synthesis of ternary photocatalysts BiVO4/Ag/black phosphorene for the degradation of dyes and pharmaceuticals	Applied Nanoscience	https://link.springer.com/article/10.1007/s13204-023-02762-0	Q3
238	Theoretical designing of small molecule donors for organic solar cells: Analyzing the effect of molecular polarity through structural engineering at terminal position	CHEMICAL PHYSICS LETTERS	10.1016/j.cplett.2023.140349	Q3
239	Thermal and Mechanical Studies of Cerium Molybdenum Borosilicate Glasses and Glass–Ceramics	SILICON	10.1007/s12633-023-02433- 3	Q3
240	An Ab–initio simulation of boron-based hydride perovskites XBH3 (X= Cs and Rb) for advance hydrogen storage system	Elsevier	https://doi.org/10.1016/j.com ptc.2023.114173	Q3
241	Significant improvement of dielectric, magnetic, and gas-sensing properties of the (La0.8Ca0.2)0.6Bi0.4FeO3 nanomaterial: particles size effects	Journal of Materials Science: Materials in Electronics	https://doi.org/10.1007/s1085 4-022-09408-x	Q3
242	Structural, electronic, mechanical and dynamical stability properties of LiAH3 (A= Sc, Ti & V) perovskite-type hydrides: A first principle study	Chemical Physics	https://www.sciencedirect.co m/science/article/abs/pii/S03 01010423000332	Q3
243	Synthesis, structural characterization, and optical properties of PVA/MnO2 materials for optoelectronics applications	Macromolecular Research	https://scholar.google.com/cit ations?view_op=view_citatio n&hl=en&user=h0GJXDEAA	Q3

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			AAJ&sortby=pubdate&citatio	
			n_for_view=h0GJXDEAAAAJ	
			:uWiczbcajpAC	
244	Ba 2- x Ho x Sr 2- y Ni y Fe 12 O 22 and its composite with	Physica B: Condensed Matter	https://doi.org/10.1016/j.phys	Q3
	MXene: synthesis, characterization and enhanced visible light		b.2022.414550	
	mediated photocatalytic activity for colored dye			
245	Design, synthesis, and characterization of Pb-free tellurite glasses	Silicon, 15(12), pp. 5233-5243	https://doi.org/10.1007/s1263	Q3
2.0	for radiation shielding applications	Cilidon, 10(12), pp. 0200-0210	3-023-02433-2	Q.O
246	Designing of novel organic semiconductors materials for organic	Current Applied Physics, 51, pp.	https://doi.org/10.1016/j.cap.	Q3
240				QS
0.47	solar cells: A machine learning assisted proficient pipeline	80–90	2023.05.001	00
247	Dosimetric characterization of CyberKnife® robotic SRS using	Journal of Radiation Research and	https://doi.org/10.1016/j.jrras.	Q3
	MOSFET-based" MOskin" detector	Applied Sciences	2023.100676	
248	Effect of poling on electrochemical properties of	Silicon	https://doi.org/10.1007/s1263	Q3
	Ag/Ba0.85Ca0.15Zr0.1Ti0.9O3 composites		3-023-02685-z	
249	First-principles calculations to investigate structural, electrical,	Energy Technology, 11(9),	https://doi.org/10.1515/ract-	Q3
	elastic and optical characteristics of BWF3 (W = S and Si)	2300459	2023-0138	
	fluoroperovskites			
250	Gamma, neutron, and charged particle shielding performance of	Journal of Radiation Research and	https://doi.org/10.1016/j.jrras.	Q3
	ABKT glass system	Applied Sciences	2023.100743	
251	Microwave absorption, physicochemical, elemental mapping, and	Journal of Electronic Materials,	https://doi.org/10.1007/s1166	Q3
201	high-frequency perspectives of the Co, Cu, Zn doped Ni-Ce	52(11), pp. 7794–7806	4-023-10698-y	Q.O
	absorbers for Ku band frequency	σ2(11), pp. 1104 1000	4 020 10000 y	
252	Modulating electronic and structural properties of NiCo-layered double	hydroxide with iodine: As an	https://doi.org/10.1016/j.phys	Q3
202	efficient electro-catalyst for the oxygen evolution reaction	e flydroxide with lodine. As an	b.2023.414885	QS
253	One dimensional photonic crystal structure comprising a hyperbolic	Journal of Electronic Materials,	https://doi.org/10.1007/s1166	Q3
200	metamaterial for optical filtering purpose	52(1), pp. 569–582	4-022-10028-7	Q.J
254	Optical features and radiation absorption efficiency of borate	Journal of Radiation Research and	https://doi.org/10.1016/j.jrras.	Q3
204	glasses and the role of PbO/Eu2O3 substitution	Applied Sciences	2023.100746	QS
255				00
255	Phase transformation of $\alpha$ -MnO2 to $\beta$ - MnO2 induced by Cu doping:	Physica B: Condensed Matter, 663,	https://doi.org/10.1016/j.phys	Q3
	Improved electrochemical performance for next generation	415008	b.2023.415006	
	supercapacitor			
256	Photocatalytic BiVO4-Cement Composites for Dye Degradation	Physica B: Condensed Matter, 660,	https://doi.org/10.1016/j.phys	Q3
		414885	b.2023.414884	
257	Pyro-Catalytic Activates of Cement-Based BaTiO3 Composites	Silicon	https://doi.org/10.1007/s1263	Q3
			3-023-02654-5	
258	Radiation attenuation and optical properties of P2O5-based glass	Journal of Radiation Research and	https://doi.org/10.1016/j.jrras.	Q3
	system	Applied Sciences	2023.100712	
259	Radiation attenuation of SiO2–MgO glass system for shielding	Journal of Radiation Research and	https://doi.org/10.1016/j.jrras.	Q3
	applications	Applied Sciences	2023.100747	, -
260	Rare earth Gd-doped NiFe2O4@ 2D layered carbonaceous	Journal of Radiation Research and	https://doi.org/10.1016/j.jrras.	Q3
200	composite: Synthesis, structural evaluation and photocatalytic	Applied Sciences	2023.100639	~~
	parameters studies	Applied Odielides	2020.100003	
261	Study on the synthesis and activity of Ag/LaFeO3/CNTs for	Environmental Progress and	https://doi.org/10.1002/op.14	03
261	photodegradation of harmful pollutants under visible light irradiation	U U	https://doi.org/10.1002/ep.14	Q3
1	photodegradation of narmini politiants under visible light irradiation	Sustainable Energy	297	

262	Synthesis and optimization of alkaline earth borate glasses doped with Fe2O3: Significance of BaO/MgO on the physical, structural features and radiation shielding performance	Applied Radiation and Isotopes	https://doi.org/10.1016/j.apra diso.2023.111139	Q3
263	Synthesis and optimization of B2O3-based glass: Influence of MgO on hardness, structure properties, and radiation shielding performance	Silicon, 15(18), pp. 8031–8043	https://doi.org/10.1007/s1263 3-023-02636-7	Q3
264	Synthesis of Cd-substituted NiCoPrFe2O4@ CNTs via sol-gel method photocatalytic properties	5 5	https://doi.org/10.1016/j.jrras. 2023.100579	Q3
265	Synthesis of CNT supported nickel and cobalt doped zinc ferrite for photodegradation of organic effluents by visible light irradiation	Journal of Electronic Materials, 52(10), pp. 6445–6459	http://dx.doi.org/10.1007/s11 664-023-10613-4	Q3
266	Synthesis, physical, optical, and radiation attenuation efficiency of Bi2O3+ SrF2+ Li2O glass system	Journal of Radiation Research and Applied Sciences	https://doi.org/10.1016/j.jrras. 2023.100688	Q3
267	Synthetic accessibility-informed designing of efficient organic semi- conductors for organic solar cells	Zeitschrift fur Physikalische Chemie, 237(11), pp. 1691–1711	https://doi.org/10.1515/zpch- 2023-0266	Q3
268	Thermal, optical, and radiation shielding capacity of B2O3-MoO3-Li2O-Nb2O5 glasses	Journal of Radiation Research and Applied Sciences	https://doi.org/10.1016/j.jrras. 2023.100742	Q3
269	Tungsten oxide-copper oxide supported on reduced graphene oxide as a proficient electrocatalyst with enhanced hydrogen evolution efficiency in an alkaline media	Journal of Electronic Materials, 52(7), pp. 4672–4685	https://doi.org/10.1007/s1166 4-023-10408-7	Q3
270	Characterization, electrical and optical properties of PVA/MnO2 nanocomposite materials	Digest Journal of Nanomaterials and Biostructures	https://scholar.google.com/cit ations?view_op=view_citatio n&hl=en&user=h0GJXDEAA AAJ&sortby=pubdate&citatio n_for_view=h0GJXDEAAAAJ :0KyAp5RtaNEC	Q4
271	Effect of Fe doping on the structural, electrical and optical properties of Bi2Te3 thin films	Bulletin of Materials Science	https://doi.org/10.1007/s1203 4-022-02855-6	Q4
272	Effects of inorganic MnO2 and ZnO nanofillers on the structural investigations and dielectric behaviour of PVA polymeric materials.	Journal of Ovonic Research	DOI:10.15251/JOR.2023.192 .175	Q4
273	Effects of modified argon glow plasma source on PET polymeric surface properties	Emerging Materials Research	https://doi.org/10.1680/jemmr .22.00199	Q4
274	Preparation, surface characterization and dielectric studies of hydrogen irradiated Cu/PANI polymer composites	Digest Journal of Nanomaterials and Biostructures	https://doi.org/10.15251/DJN B.2023.182.475	Q4
275	Tunable Optical Gain Characteristics of AIN/GaN/InAIN Quantum Well Heterostructure under Uniaxial and Biaxial Pressures	physica status solidi (b)	https://doi.org/10.1002/pssb. 202200479	Q4
276	Characterization and discrimination of some gem silicate minerals adopting LIBS, FTIR, and Raman spectroscopic techniques	AIP advances	https://doi.org/10.1063/5.015 7623	Q4
277	Optical Properties and Radiation Shielding Performance of Boron Silicate Glasses Containing CrO3 and SrTiO3	Integrated Ferroelectrics, 237(1), pp. 133–139	https://doi.org/10.1080/10584 587.2023.2227054	Q4

## 4- List of articles cooperation with the best Top 100/200/500 university

No	Title of research	Journal	Link	Quart ile
1	Structural investigation and optical characteristics of low-energy hydrogen beam irradiated polyvinyl alcohol/polyaniline composite materials	Optical and Quantum Electronics	https://link.springer.com/article/10.1007/s11082-023-05490-5#citeas	None
2	Structural, optical, electronic, elastic properties and population inversion of novel 2D carbides and nitrides MXene: A DFT study	Materials Science and Engineering: B	https://www.sciencedirect.com/science/article/abs/pii/S0921510722006183	None
3	Preparation and Optical Properties of PVDF-CaFe2O4 Polymer Nanocomposite Films	Polymers	https://doi.org/10.3390/polym15092232	Q1
4	Structural characteristics and dielectric properties of irradiated polyvinyl alcohol/sodium iodide composite films	Inorganic Chemistry Communications	https://doi.org/10.1016/j.inoche.2023.111651	Q1
5	[HTML] from mdpi.com Fabrication, Structural Properties, and Electrical Characterization of Polymer Nanocomposite Materials for Dielectric Applications	Polymers	https://www.mdpi.com/2073-4360/15/14/3067	Q1
6	An ab-initio insight computation of Structural, Electronic and Optical properties of Na-doped CsSrF3 Fluoro-Perovskite for optoelectronic applications	Inorganic Chemistry Communications	https://doi.org/10.1016/j.inoche.2023.111151	Q1
7	Characterization and linear/non- linear optical properties of polypyrrole/NiO for optoelectronic devices	Inorganic Chemistry CommunicationS	https://scholar.google.com/citations?view_op=view_citation&hl=en&user=h0GJXDEAA AAJ&sortby=pubdate&citation_for_view=h0GJXDEAAAAJ:_Ybze24A_UAC	Q1
8	Effect of Asymmetric Fins on Thermal Performance of Phase Change Material-Based Thermal Energy Storage Unit	Materials	https://www.mdpi.com/1996-1944/16/7/2567	Q1
9	Effect of BaO addition on gamma	Radiation Physics and	https://doi.org/10.1016/j.radphyschem.2023.110766	Q1

	radiation shielding performance of sodium barium borate glasses using FLUKA code and PhyX/PSD platform	Chemistry		
10	Effects of Nd2O3 Nanoparticles on the Structural Characteristics and Dielectric Properties of PVA Polymeric Films	Polymers	https://www.mdpi.com/2073-4360/15/20/4084	Q1
11	Enhancing the efficiency of Cu2Te thin-film solar cell with WS2 buffer layer: A simulation study	Optics and Laser Technology	https://doi.org/10.1016/j.optlastec.2022.108942	Q1
12	First-principles calculations to investigate structural, electronics, optical, and mechanical properties of Bi-based novel fluoroperovskites TBiF3 (T = Hg, Xe) for optoelectronic applications	Materials Science in Semiconductor Processing	https://doi.org/10.1016/j.mssp.2023.107399	Q1
13	Lead-Free Ternary Glass for Radiation Protection: Composition and Performance Evaluation for Solar Cell Coverage	Materials	https://doi.org/10.3390/ma16083036	Q1
14	NaBeAs and NaBeSb: Novel Ternary Pnictides with Enhanced Thermoelectric Performance	J. Phys. Chem. C 2023, 127, 1733–1743	https://doi.org/10.1021/acs.jpcc.2c07676	Q1
15	Optical Band Gap Tuning, DFT Understandings, and Photocatalysis Performance of ZnO Nanoparticle- Doped Fe Compounds	Materials	https://doi.org/10.3390/ma16072676	Q1
16	Phase and domain engineering strategy for enhancement of piezoelectricity in the lead-free BiFeO3-BaTiO3 ceramics	Journal of Materiomics	https://www.sciencedirect.com/science/article/pii/S2352847823000540	Q1
17	Radiation shielding and optical features for a PbO–BaO–B2O3 system	Radiation Physics and Chemistry	https://doi.org/10.1016/j.radphyschem.2022.110566	Q1
18	Synthesis of flexible polymer nanocomposites based on methyl cellulose/copper oxide with desired dielectric properties for electrical applications	Inorganic Chemistry Communications	https://scholar.google.com/scholar?oi=bibs&cluster=76450824798302775&btnI=1&hl=en	Q1
19	The potential of MXenes-based	International Journal of	https://doi.org/10.1016/j.ijhydene.2023.05.166	Q1

	nanomaterials towards high performance in energy production and storage applications	Hydrogen Energy		
20	Recent advances, properties, fabrication and opportunities in two-dimensional materials for their potential sustainable applications	Energy Storage Materials	https://doi.org/10.1016/j.ensm.2023.102780	Q1- Top10 %
21	[HTML] from sciencedirect.com Evaluation of photon, proton, and alpha interaction parameters of EDTMPLu and MDPLu medications used for some bone cancer	Radiation Physics and Chemistry	https://doi.org/10.1016/j.radphyschem.2023.111419	Q1- Top10 %
22	Optimal Composition for Radiation Shielding in BTCu-x Glass Systems as Determined by FLUKA Simulation	Journal of Materials Research and Technology	https://www.sciencedirect.com/science/article/pii/S2238785423013558	Q1- Top10 %
23	Structure, magnetic, opto- electronic and thermoelectric properties of A3In2As4 and A5In2As6 (A = Sr and Eu) Zintl phase compounds	Journal of Alloys and Compounds	https://doi.org/10.1016/j.jallcom.2022.168614	Q1- Top10 %
24	Synergistic approach for enhancement of piezoelectricity in the lead-free BiFeO3-BaTiO3 ceramics	Journal of Alloys and Compounds	https://www.sciencedirect.com/science/article/abs/pii/S092583882300717X	Q1- Top10 %
25	Investigation of external isotropic pressure effect on widening of bandgap, mechanical, thermodynamic, and optical properties of rubidium niobate using first-principles	Optical and Quantum Electronics	https://link.springer.com/article/10.1007/s11082-023-04596-0	Q2
26	Direct synthesis of sodium doped Cu2O/GO nanocomposites for catalytic hydrogen production from NaBH4	Diamond and relate materials	https://doi.org/10.1016/j.diamond.2023.110148	Q2
27	Synthesis and optical properties of polyvinylidene difluoride nanocomposites comprising MoO3/g-C3N4	Results in physics	https://doi.org/10.1016/j.rinp.2023.106403	Q2
28	A Promising Alternative: Examining TVS Tellurite Glass for	Frontiers in Materials	doi: 10.3389/fmats.2023.1210524	Q2

	Gamma Radiation Shielding Applications			
29	A simple new method for retrieving spectral changes of the refractive index of thin films from transmission spectra	Optical Materials	https://doi.org/10.1016/j.optmat.2023.114584	Q2
30	Boost the photocatalytic hydrogen production of the nanocomposites conducting polypyrrole modified with metal oxide (CuO)	Physica Scripta 98	https://scholar.google.com/citations?view_op=view_citation&hl=en&user=h0GJXDEAA AAJ&sortby=pubdate&citation_for_view=h0GJXDEAAAAJ:VLnqNzywnoUC	Q2
31	CASTEP study for mapping phase stability, and optical parameters of halide perovskite CsSiBr3 for photovoltaic and solar cell applications	Inorganic Chemistry Communications	https://www.sciencedirect.com/science/article/abs/pii/S1387700323000862	Q2
32	Characterization and linear/nonlinear optical properties of PVA/CS/TiO2 polymer nanocomposite films for optoelectronics applications	Optical and Quantum Electronics	https://doi.org/10.1007/s11082-023-05542-w	Q2
33	Copper oxide and copper nanoparticles insertion within a PPy matrix for photodetector applications	Optical and Quantum Electronics	https://scholar.google.com/citations?view_op=view_citation&hl=en&user=h0GJXDEAA AAJ&sortby=pubdate&citation_for_view=h0GJXDEAAAAJ:9Nmd_mFXekcC	Q2
34	Coupling photonic quasicrystals with a one-dimensional critical high-temperature superconducting cavity	Optik	https://doi.org/10.1016/j.ijleo.2023.170847	Q2
35	Developing a Simple, Effective, and Quick Process to Make Silver Nanowires with a High Aspect Ratio	Materials	https://www.mdpi.com/1996-1944/16/15/5501	Q2
36	Effect of Al2O3 and NiO Nanoparticle Additions on the Structure and Corrosion Behavior of Sn—4% Zn Alloy Coating Carbon Steel	Sustainability	https://doi.org/10.3390/su15032511	Q2
37	Electro-oxidation reconstitution of aluminium copper MOF-derived metal oxyhydroxides for a robust OER process	RSC Advances	https://doi.org/10.1039/D2RA07661F	Q2

38	Exploring the potential of BBNCo glasses: Physical, optical, and radiation shielding analysis	Optical Materials	https://doi.org/10.1016/j.optmat.2023.113976	Q2
39	Exploring the Potential of Zirconium-89 in Diagnostic Radiopharmaceutical Applications: An Analytical Investigation	Biomedicines	https://doi.org/10.3390/biomedicines11041173	Q2
40	First-principles calculations to investigate Structural, Elastic, Electronic, Optical, and Magnetic Properties of Hg2WO4 for Photocatalytic Applications	Optik	https://doi.org/10.1016/j.ijleo.2023.170565	Q2
41	PVC/PVP/SrTiO3 polymer blend nanocomposites as potential materials for optoelectronic applications	Results in physics	https://doi.org/10.1016/j.rinp.2022.106173	Q2
42	Structural, optical and electronic properties of novel 2D carbides and nitrides MXene based Materials: A DFT study	Optical and Quantum Electronics	https://link.springer.com/article/10.1007/s11082-023-04803-y	Q2
43	Structure, optical and magnetic properties of barium sodium borate/cobalt oxide glass structures	Optical and Quantum Electronics	https://doi.org/10.1007/s11082-023-04680-5	Q2
44	Surface Characterization and Electrical Properties of Low Energy Irradiated PANI/PbS Polymeric Nanocomposite Materials	Inorganics	https://doi.org/10.3390/inorganics11020074	Q2
45	Surface morphology, structure, and dielectric relaxation investigations of ZnO/iron nanostructures	Journal of Materials Science: Materials in Electronics	https://doi.org/10.1007/s10854-023-10160-z	Q2
46	Synthesis of ZnO/MoS2 heterojunction with the green Ag nanoparticles for the efficient sunlight photocatalytic activity	Optical and Quantum Electronics	https://link.springer.com/article/10.1007/s11082-022-04263-w	Q2
47	Tailoring 2D carbides and nitrides based photo-catalytic nanomaterials for energy production and storage: a review	Zeitschrift für Physikalische Chemie	https://www.degruyter.com/document/doi/10.1515/zpch-2021-3158/html	Q2
48	First-principles calculations to investigate structural, electronics,	Materials Science in Semiconductor Processing	https://www.sciencedirect.com/science/article/abs/pii/S1369800123000926	Q2

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	optical, and mechanical properties of Bi-based novel fluoroperovskites TBiF3 (T= Hg, Xe) for			
	Modifying the optical properties of hydrogen-beam-irradiated flexible PVA polymeric films	Surface Innovations	https://doi.org/10.1680/jsuin.22.01078	Q2
	Synthesis and investigation of electromechanical property of lead-free BiFeO3–BaTiO3 quenched ceramics	Journal of Materials Science: Materials in Electronics	https://link.springer.com/article/10.1007/s10854-023-09837-2	Q2
	An Ab-initio simulation of boron- based hydride perovskites XBH3 (X= Cs and Rb) for advance hydrogen storage system	Elsevier	https://doi.org/10.1016/j.comptc.2023.114173	Q3
	Significant improvement of dielectric, magnetic, and gassensing properties of the (La0.8Ca0.2)0.6Bi0.4FeO3 nanomaterial: particles size effects	Journal of Materials Science: Materials in Electronics	https://doi.org/10.1007/s10854-022-09408-x	Q3
	Structural, electronic, mechanical and dynamical stability properties of LiAH3 (A= Sc, Ti & V) perovskite-type hydrides: A first principle study	Chemical Physics	https://www.sciencedirect.com/science/article/abs/pii/S0301010423000332	Q3
	Synthesis, structural characterization, and optical properties of PVA/MnO2 materials for optoelectronics applications	Macromolecular Research	https://scholar.google.com/citations?view_op=view_citation&hl=en&user=h0GJXDEAA AAJ&sortby=pubdate&citation_for_view=h0GJXDEAAAAJ:uWiczbcajpAC	Q3
	Characterization and discrimination of some gem silicate minerals adopting LIBS, FTIR, and Raman spectroscopic techniques	AIP advances	https://doi.org/10.1063/5.0157623	Q4

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## Chemistry program

#### 1- Number of Published articles in 2023

Q1				
Тор	Q1	Q2	Q3	Q4
10				
1	42	45	15	4

ISI	Scopus	Other	Total
106	106	8	114

Top	Top	Top
100	200	500
3	13	23

1- List of impacted articles in Web of ScienceVeb of Science

	N Title of research	Journal	Link	Q
1				u
1				ar
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i   ′	A Superficial Intramolecular Alignment of Carbon	Catalysts	https://doi.org/10.3390/catal11080935	Q
	Nitride through Conjugated Monomer for Optimized			1
	Photocatalytic CO2 Reduction. Catalysts 2021			
2	Journal of Environmental Management	Journal of	https://doi.org/10.1016/j.jenvman.2023.117351	Q
		Environmental		1
l		Management	1 // / / / / / / / / / / / / / / / /	_
		Organic	https://doi.org/10.1039/D2QO01938H	Q
	using ammonia borane under mild conditions	Chemistry		1
	4 Catalytic Dadyestics of a Nitrophanal as Ma CO/7 a lite	Frontiers	https://dei.aug/40.0000/mag.a40040705	<del> </del>
	Catalytic Reduction of p-Nitrophenol on MnO2/Zeolite -	Nanomaterials	https://doi.org/10.3390/ nano13040785	Q
	13X Prepared with Lawsonia inermis Extract as a			1
١,	Stabilizing and Capping Agent  Correction: A butterfly shaped organic heterojunction	Cristate a Com	DOI https://doi.org/40.4020/D40E0040EI/	
;		CrystEngCom	DOI https://doi.org/10.1039/D1CE00405K	Q
1	photocatalyst for effective photocatalytic CO 2	m		1
١,	reduction  6 Covalent organic frameworks (COFs) as Multi-target	Dolumoro	https://doi.org/10.2200/polym15020267	
ΙΙ,	Multifunctional frameworks	Polymers	https://doi.org/10.3390/polym15020267	Q
۱.	7 Efficient nitrophenol reduction with Noria-GO	Environmental	https://doi.org/10.1016/j.envres.2023.116259	Q
11 '	nanocomposite decorated with Pd–Cu nanoparticles	Research	Tittps://doi.org/To.ToTo/j.envies.2023.TT0239	1
,	B Electrospun TiO2-GO/PAN-CA nanofiber mats: A novel	Environmental	https://doi.org/10.1016/j.envres.2023.116587	Q
Ш,	material for remediation of organic contaminants and	Research	Thttps://doi.org/10.1010/j.chv1c3.2023.110307	1
	nitrophenol reduction	rescaron		1'
		Water	https://doi.org/10.3390/w15040780	Q
	for the Water–Energy–Food Nexus: A Case Study in	774.0.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	Wadi-Dara on the Red Sea Coast, Egypt			
-	Fabrication, Structural Properties, and Electrical	Polymers	https://doi.org/10.3390/polym15143067	Q
П	·	- ,	, , , , , , , , , , , , , , , , , , , ,	1
	for Dielectric Applications			
	Fabrication, Structural Properties, and Electrical	Polymers	https://doi.org/10.3390/polym15143067	Q
	Characterization of Polymer Nanocomposite Materials	,		1
	for Dielectric Applications			
•	Facile fabrication of nano zerovalent iron and granular	Geology,	https://doi.org/10.1080/24749508.2023.2167626	Q
2	activated carbon for enhanced nitrate removal from	Ecology, and		1
	water	Landscapes		
•	Galangal–cinnamon spice mixture blocks the	Pharmaceutica	https://doi.org/10.3390/ph16101378	Q
1	coronavirus infection pathway through inhibition of	ls		1
	SARS-CoV-2 MPro, three HCoV-229E targets;			

	quantum-chemical calculations support in vitro evaluation			
1 4	Hybrid Beads of Poly(Acrylonitrile-co- Styrene/Pyrrole)@Poly Vinyl Pyrrolidone for Removing Carcinogenic Methylene Blue Dye Water Pollutant	JOURNAL OF POLYMERS AND THE ENVIRONME NT	DOI10.1007/s10924-023-02776-3	Q 1
1 5	Modification of sugarcane bagasse as a novel lignocellulosic biomass adsorbent nanocomposite to improve adsorption of methylene blue	Cellulose	https://doi.org/10.1007/s10570-023-05205-9.	Q 1
1 6	Novel (Y2O3) x (CdO) 1-x binary mixed oxide nanocomposites: facile synthesis, characterization, and photocatalysis enhancement	Journal of Materials Research and Technology	https://doi.org/10.1016/j.jmrt.2023.01.105	Q 1
<b>1 7</b>	Novel P@SiO2 Nano-Composite as Effective Adsorbent to Remove Methylene Blue Dye from Aqueous Media	Materials	https://doi.org/10.3390/ma16020514	Q 1
1 8	Phthalazone tethered 1,2,3-triazole conjugates: In silico molecular docking studies, synthesis, in vitro antiproliferative, and kinase inhibitory activities	Bioorganic Chemistry	DOI: 10.1016/j.bioorg.2023.106404	Q 1
9	Simultaneous green TLC determination of nirmatrelvir and ritonavir in the pharmaceutical dosage form and spiked human plasma	Scientific Reports	https://doi.org/10.1038/s41598-023-32904-x	Q 1
0	Surface modified Acacia Senegal Gum based spherical hydrogel; fabrication, characterization, and kinetically optimized waste water treatment with remarkable adsorption efficiency	Heliyon	https://doi.org/10.1016/j.heliyon.2023.e17197	Q 1
1	Synergistic effect of gold nanoparticles anchored on conductive carbon black as an efficient electrochemical sensor for sensitive detection of anti-COVID-19 drug Favipiravir in	Microchemical Journal	https://doi.org/10.1016/j.microc.2023.108696	Q 1
2	Synthesis of Ni-Fe-CO3 layered double hydroxide as Effective Adsorbent to remove Cr(VI) and ARS-dye from aqueous media	Environmental Technology & Innovation.	https://doi.org/10.1016/j.eti.2023.103214	Q 1
3	Tailoring confined CdS quantum dots in polysulfone membrane for efficiently durable performance in solar-driven wastewater remediating systems	Journal of Environmental Management	https://doi.org/10.1016/j.jenvman.2023.117351	Q 1
2 4	Tailoring confined CdS quantum dots in polysulfone membrane for efficiently durable performance in solar-driven wastewater remediating systems	Journal of Environmental Management	https://doi.org/10.1016/j.jenvman.2023.117351	Q 1
5	Unveiling the elastic properties of PbF2–MoO3– Bi2O3–B2O3 glass: A comprehensive analysis using FTIR and Raman spectroscopy	Ceramics International	https://doi.org/10.1016/j.ceramint.2023.11.124	Q 1

2 6	Visible light driven Ni doped hematite for photocatalytic reduction of noxious methylene blue	Materials Research Bulletin	https://doi.org/10.1016/j.materresbull.2023.112306	Q 1
7	Direct synthesis of organic salt-derived porous carbons for enhanced CO2 and methane storage	Journal of Materials Chemistry A	DOI: 10.1039/D3TA00044C	Q 1
8	The nutraceutical properties and health benefits of pseudocereals: a comprehensive treatise	CritiCal reviews in Food sCienCe and nutrition	https://doi.org/10.1080/10408398.2022.2071205	Q 1
9	Chitosan Polymer Functionalized-Activated Carbon/Montmorillonite Composite for the Potential Removal of Lead Ions from Wastewater	Polymers	DOI10.3390/polym15092188	Q 1
3 0	A hybrid mesoporous composite of SnO2 and MgO for adsorption and photocatalytic degradation of anionic dye from a real industrial effluent water	Environmental Science and Pollution Research	https://link.springer.com/article/10.1007/s11356-023-29649-5	Q 1
3	carbon nanodots fabricated from manufactured dairy product as a precursorBifunctional ratiometric sensor based on highly fluorescent nitrogen and sulfur biomass-derived	Spectrochimic a Acta Part A: Molecular and Biomolecular Spectroscopy	https://doi.org/10.1016/j.saa.2023.122444	Q 1
3 2	Chitosan Polymer Functionalized-Activated Carbon/ Montmorillonite Composite for the Potential Removal of Lead Ions from Wastewater	polymers	https://doi.org/10.3390/polym15092188	Q 1
3	Detection and Selective Removal Strategy of Thorium Ions Using a Novel Fluorescent Ligand and Hybrid Mesoporous γ-Al2O3-like Nanoneedles	SustainableCh emistry& Engineering	https://pubs.acs.org/doi/full/10.1021/acssuschemeng.2c05000	Q 1
3 4	Highly efficient ultrafiltration membrane performance of PES@microcrystalline cellulose extracted from waste fruits for the removal of BrO3- from drinking water samples	COLLOID AND INTERFACE SCIENCE COMMUNICA TIONS	DOI10.1016/j.colcom.2023.100718	Q 1
3 5	Synthesis, characterization, and biological evaluation of Mel-drum's acid derivatives: Dual activity and molecular docking stud	Pharmaceutica Is	https://doi.org/10.3390/ph16020281	Q 1
3 6	Bifunctional ratiometric sensor based on highly fluorescent nitrogen and sulfur biomass-derivedcarbon nanodots fabricated from manufactured dairy product as a precursor	Spectrochimic a Acta Part A: Molecular and Biomolecular Spectroscopy	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	Q 1
<b>3 7</b>	Carbon microspheres uniformly decorated with ceria nanoparticles as an ultrasensitive platform for electrochemical sensing of antihypertensive drug	Microchemical Journal	https://doi.org/10.1016/j.microc.2023.108422	Q 1

	lacidipine in patient plasma and pharmaceutical			
	formulation			
3	Efficient Dual-Function Catalyst: Palladium-Copper Nanoparticles Immobilized on Co-Cr LDH for Seamless Aerobic Oxidation of Benzyl Alcohol and Nitrobenzene Reduction	Nanomaterials	DOI10.3390/nano13131956	Q 1
3 9	Monitoring antiviral active metabolite (N-hydroxycytidine) levels in plasma in presence of carboxylesterase-2 inhibitor verapamil using copper tetracyanoquinodimethane enhanced sensor	Microchemical	https://doi.org/10.1016/j.microc.2023.109330	Q 1
4 0	Synthesis of Adenosine 5-monophosphate monohydrate functionalized mesoporous Ag/CuO/MCM-41 nanostructures for enormous mineralization of insistent organic contaminants and	Journal of Molecular Liquids	https://doi.org/10.1016/j.molliq.2023.123379	Q 1
1	Ultrasensitive and selective determination of naringin using eggplant peel- derived nitrogen doped-carbon dots after extraction with Amberlite IRA-400: Evaluation the bitterness of grapefruit juice	Microchemical Journal	https://doi.org/10.1016/j.microc.2023.109358	Q 1
4 2	Bifunctional ratiometric sensor based on highly fluorescent nitrogen and sulfur biomass-derived carbon nanodots fabricated from manufactured dairy product as a precursor	Spectrochimic a Acta Part A:Molecular and Biomolecular Spectroscopy	https://doi.org/10.1016/j.saa.2023.122444	Q 1- T op 10 %
3	A p-Si/CoPc Hybrid Photodiode System for Looking at Frequency and Temperature Dependence on Dielectric Relaxation and AC Electrical Conductivity	Journal of Electronic Materials	https://doi.org/10.1007/s11664-023-10460-4	Q 2
4	Advanced Plasmonic Nanoparticle-Based Techniques for the Prevention, Detection, and Treatment of Current COVID-19	Plasmonics	https://doi.org/10.1007/s11468-022-01754-0	Q 2
<b>4 5</b>	anaging Encapsulated Oil Extract of Date Seed Waste for High Hydroxyl Radical Scavenging Assayed via Hybrid Photo-Mediated/Spectrofluorimetric Probing	Molecules 28(13)	DOI: 10.3390/molecules28135160	Q 2
<b>4 6</b>	Anticancer, antioxidant, ameliorative and therapeutic properties of kaempferol	International Journal of Food Properties	https://doi.org/10.1080/10942912.2023.2205040	Q 2
7	Applicability of mesoporous carbon-glassy polyvinyl alcohol/silica gel hybrid composite to remove methylene blue from aqueous solution	Research on Chemical Intermediates	https://doi.org/10.1007/s11164-023-05041-3	Q 2
<b>4</b> <b>8</b>	Asiatic acid: a review on its polypharmacologicalproperties and therapeutic potential againstvarious Maladies	International Journal of Food Properties	nternational Journal of Food Properties	Q 2

9	Berberine: a comprehensive Approach to combat human maladies	International Journal of Food Properties	https://doi.org/10.1080/10942912.2023.2184300	Q 2
5 0	Bionanocomposite scaffolds based on MnS-nanorods loaded acacia-Senegal-gum hydrogels:Fabrication, characterization and biological evaluation	Bioactive Carbohydrates and Dietary Fibre	https://doi.org/10.1016/j.bcdf.2023.100368	Q 2
5 1	Bio-synthesis of Fe-nanocomplex using leaves Ocimum basilicum L. as a promising tool for tanning effluent treatment	Biomass Conversion and Biorefinery	https://doi.org/10.1007/s13399-023-04139-3	Q 2
5 2	Characterization and Catalytic Performance of Al-SBA- 15 Catalyst Fabricated Using Ionic Liquids with High Aluminum Content	Catalysts	https://doi.org/10.3390/catal13111395	Q 2
5 3	Characterization and linear/nonlinear optical properties of PVA/CS/TiO2 polymer nanocomposite films for optoelectronics applications	Optical and Quantum Electronics	https://doi.org/10.1007/s11082-023-05542-w	Q 2
5 4	Chitosan/Selenium@ Olive Oil Nanocomplex Targeted Therapy for Multiple Cancers	Journal of Polymers and the Environment	https://doi.org/10.1007/s10924-023-02975-y	Q 2
5 5	Chrysin a promising anticancer agent: recent perspectives	INTERNATIO NAL JOURNAL OF FOOD PROPERTIES	https://doi.org/10.1080/10942912.2023.2246678© 2023 Muhammad Shahbaz, Hammad Naeem, Muhammad Imran, Hammad UI Hassan, Suliman A. Alsagaby, Waleed AI Abdulmonem, Ahmed Bilal Waqar, Ahmed H. Ghorab, Mohamed A. Abdelgawad, Mohammed M. Ghoneim, Muzzamal Hussain, Entessar AI Jbawi and Amna Ihsan Published with license by Taylor & Francis Group, LLC. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.	Q 2
5 6	Curcumin: recent updates on gastrointestinal cancers	JOURNAL OF FOOD : 2023, VOL. 21, NO. 1, 502–513	https://doi.org/10.1080/19476337.2023.2245009	Q 2
5 7	Design, Synthesis, Characterization, Spectral, Chemical Analysis, Biological Evaluation, and Molecular Docking Studies of Novel Fatty Schiff Base Ligands and Their Nickel and Mercury Complexes	Inorganic chemistry communication	https://doi.org/10.1016/j.inoche.2023.111382	Q 2
5 8	Development of Bi2O3/MoSe2 mixed nanostructures for photocatalytic degradation of methylene blue dye	Journal of Taibah University for	https://doi.org/10.1080/16583655.2022.2161333	Q 2

		Science 17 (1),		
		2161333		
5	Effect of green and sustainable extracted fucoidan	Biomass	https://doi.org/10.1007/s13399-022-03579-7	Q
9	polysaccharide as a corrosion inhibitor in 3.5% NaCl	Conversion		2
		and Biorefinery		
6	Experimental strategy of the spectrophotometric	Journal of	https://doi.org/10.1016/j.jscs.2023.101615	Q
0	approach using freeze-drying for PO34 determination	Saudi		2
	in frozen and chilled chickens in the Saudi Arabia	Chemical		
	market	Society		
6	Isolation and Bioassay of a New Terminalone A from	Molecules	https://doi.org/10.3390/molecules28031015	Q
6	Terminalia arjuna  Microwave-Aided Green Synthesis of ZrO2/ZnO/AC	Water, Air, &	https://doi.org/10.1007/s11270-023-06451-0	Q Q
2	Nanocomposite for Catalytic Degradation of Organic	Soil Pollution	mtps://doi.org/10.1007/\$11270-023-06451-0	2
	Dye	Son i Snation		_
6	Mixed matrix membrane comprising functionalized	DIAMOND	10.1016/j.diamond.2023.109945	Q
3	sulfonated activated carbon from tea waste biomass for	AND		2
	enhanced hydrophilicity and antifouling properties	RELATED		
		MATERIALS		
6	Phytochemical profile and pro-healthy properties of	International	https://www.tandfonline.com/loi/ljfp20	Q
4	Terminalia chebula: A comprehensive review	Journal of		2
		Food		
		Properties		_
6	Purification of benzene-laden air by static adsorption of	Biomass	https://doi.org/10.1007/s13399-021-01462-5	Q
5	benzene onto activated carbon prepared from	Conversion		2
6	Diplotaxis acris biomass  Quantitative determination of trace elements in frozen	and Biorefinery Journal of	https://doi.org/10.1080/16583655.2023.2196235	
6	and chilled chicken using ICP OES and related health	Taibah	111tps://doi.org/10.1000/10303033.2023.2190233	Q 2
"	risk assessment	University for		~
	Tion doocsoment	Science		
6	Synthesis of Bivalent Ni(II), Cu(II) and Zn(II)	Crystals	10.3390/cryst13030367	Q
7	Complexes of Azodicarbonamide in Mixture of	,	,	2
	Methanol and Aqueous Solvents: Spectral			
	Characterizations and Anti-Microbial Studies			
6	Synthesis, Spectroscopic Characterization and	crystals	https://doi.org/10.3390/cryst13050728	Q
8	Thermal Studies of Polymer-Metal Complexes Derived			2
	from Modified Poly Styrene-Alt-(Maleic Anhydride) as a			
	Prospects for Biomedical Applications			
6	The anticancer and EGFR-TK/CDK-9 dual inhibitory	Journal of	DOI: 10.1080/07391102.2023.2167000	Q
9	potentials of new synthetic pyranopyrazole and	biomolecular		2
	pyrazolone derivatives: X-ray crystallography, in vitro,	Structure &		
	and in silico mechanistic investigations	Dynamics		
7	Adsorptive performance of aminonaphthalenesulfonic	20:1-15	https://doi.org/10.1016/j.inoche.2022.110261	0
0	acid modified magnetic-graphene oxide for methylene	Inorganic Chemistry	11ttps://doi.org/10.1016/j.inocne.2022.110261	Q 2
U	acia modilica magnetio-graphene oxide for methylene	Onemialiy		

	blue dye: Mechanism, isotherm and thermodynamic studies	Communicatio ns		
7	Light trapping by porous TiO2 hollow hemispheres for high efficiency photoelectrochemical water splitting	PHYSICAL CHEMISTRY CHEMICAL PHYSICS	DOI10.1039/d2cp04246k	Q 2
7 2	Optimizing the performance of Au-y/Ni-x/TiO2NTs photoanodes for photoelectrochemical water splitting	RSC advances	DOI10.1039/d3ra02011h	Q 2
7	Physical and chemical evaluation of groundwater quality in Jouf region in Saudi Arabia for energy, agriculture and drinking purposes	Desalination and Water Treatment	doi: 10.5004/dwt.2023.29554	Q 2
7 4	Synthesis, physicochemical properties, biological, molecular docking and DFT investigation of Fe(III), Co(II), Ni(II), Cu(II) and Zn(II) complexes of the 4-[(5-oxo-4,5-dihydro-1,3-thiazol-2-yl)hydrazono]methyl}phenyl 4-methylbenzenesulfonate Schiff-base ligand	Polyhedron	https://doi.org/10.1016/j.poly.2022.116219	Q 2
7 5	Towards superior permeability and antifouling performance of sulfonated polyethersulfone ultrafiltration membranes modified with sulfopropyl methacrylate functionalized SBA-15	Chinese Journal of Chemical Engineering	https://doi.org/10.1016/j.cjche.2021.09.019	Q 2
<b>7 6</b>	A DFT study for improving the photovoltaic performance of organic solar cells by designing symmetric non-fullerene acceptors by quantum chemical modification on pre-existed	Tamer H. A. Hasanin	https://doi.org/10.1016/j.jmgm.2023.108613	Q 2
7	Anticancer and apoptosis inducing potentialof quercetin against a wide range of humanmalignancies	International Journal of Food Properties	https://doi.org/10.1080/10942912.2023.2252619	Q 2
<b>7</b> 8	Assessment of Physicochemical, Functional, Rheological and end-use properties of Tribulus terrestris	INTERNATIO NAL JOURNAL OF FOOD PROPERTIES	DOI: 10.1080/10942912.2023.2261666	Q 2
7 9	Cleaner pathway for developing bioactive textile materials using natural dyes: a review	Environmental Science and Pollution Research	DOI: 10.1007/s11356-023-26131-0	Q 2
8	corrosion protection of AA 2024-T3 in acidic to neutral chloride-rich environments: Electrochemical and surface characterization studies	Journal of Rare Earths	https://doi.org/10.1016/j.jre.2022.05.014	Q 2
8	Design and Synthesis of Pyridine and Thiazole Derivatives as Eco-friendly Insecticidal to Control Olive Pests	Chemistry and Biodiversity	https://doi.org/10.1002/cbdv.202300559	Q 2

8	Design, synthesis, docking study of	Chemistry &	https://doi.org/10.1002/cbdv.202201209	Q
2	pyrazolohydrazinopyrimidin-4-one derivatives and their application as antimicrobials	Biodiversity		2
8 3	Design, Synthesis, Docking Study of Pyrazolohydrazinopyrimidin-4-one Derivatives and Their Application as Antimicrobials	Chemistry and Biodiversity	https://doi.org/10.1002/cbdv.202201209	Q 2
8	DFT Study of Structural, Electronic, Thermoelectric and Elastic Properties of KPdX3 (X = F, Cl, Br, and I) Perovskites	Physica Scripta	DOI: 10.1088/1402-4896/acce76	Q 2
8 5	Dual activity of indolin-2-ones containing an arylidene motif: DNA and BSA interaction	RSC Advances	https://doi.org/10.1039/D3RA04997C	Q 2
8 6	Electrochemical and surface characterisation of carbon steel exposed to mixed Ce and iodide electrolytes	Metals	Doi.org/10.3390/met13091553	Q 2
8 7	Green Synthesis of Novel Pyridines via One-Pot Multicomponent Reaction and Their Anti-Inflammatory Evaluation	ACS omega	: https://doi.org/10.1021/acsomega.3c00066	Q 2
8	Characterization, Antimicrobial and Antitumor Investigation for Substituted Cyclodiphosph (V) azane sulfa medicines and their Transition Metal Complexes.	Egyptian Journal of Chemistry	DOI: 10.21608/EJCHEM.2022.136363.6007	Q 3
8 9	"Adsorption of Direct Red 81 dye onto friendly prepared Iron oxide /MWCNTs Nanocomposite: Kinetics and Thermodynamic studies	Desalination and Water Treatment	accepted/ in press	Q 3
9	Adsorption of Direct red 81 dye onto friendly prepared iron oxide/multi-walled carbon nanotubes nanocomposite: kinetics and thermodynamic studies	desalination and water treatment	doi: 10.5004/dwt.2023.29565	Q 3
9	An overview of chemical composition and fungicidal activity of Olive (Olea Europea L.) Leaf Extract.	Egyptian journal of chemistry	10.21608/EJCHEM.2022.120206.5397	Q 3
9	Asymmetrical liquid crystals synthesis for effective sensing: Fluorescence investigations	Results in Chemistry	https://doi.org/10.1016/j.rechem.2023.101166	Q 3
9	Biochemical profile, antioxidant effect and antifungal activity of Saudi Ziziphus spina-christi (L.) Desf. for vaginal lotion formulation	Plant Science Today	https://doi.org/10.14719/pst.1659	Q 3
9	Design, antimicrobial testing, and molecular docking studies of new chalcone and pyrimidine derivatives based on 2-phenyl-1H-pyrazol-3(2H)-one	Letters in Drug Design & Discovery	http://dx.doi.org/10.2174/1570180820666230505142821	Q 3
9 5	Electrochemical study on using aminated MIL-101(Cr) as corrosion inhibitor for mild steel in acidic environment	Anti-Corrosion Methods and Materials	https://doi.org/10.1108/ACMM-08-2022-2686	Q 3
9	haracterization, Antimicrobial and Antitumor Investigation for Substituted Cyclodiphosph(V)azane sulfa medicines and their Transition Metal Complexes.	Egyptian journal of chemistry	10.21608/EJCHEM.2022.136363.6007	Q 3

9 7	LC-MS/MS Approach for Simultaneous Assessment of Hyoscine N-butyl bromide and Ketoprofen in biological fluids and Pharmaceuticals	biomedical chromatograph y	https://doi.org/10.1002/bmc.5612	Q 3
9 8	Novel Indene-[1, 3, 4] Oxadiazine hybrids: Design, construction, molecular docking, QSAR, ADME study and anticancer potential	Egyptian Journal of Chemistry	DOI: 10.21608/ejchem.2023.216875.8133	Q 3
9	Preparation and characterization of Polyvinyl chloride/Polymethyl- methacrylate/Graphite [PVC/PMMA/G] membrane used for the purification of the bioethanol produced from the hydrolysis and fermentation of rice waste	Egyptian Journal of Chemistry	10.21608/ejchem.2022.143958.6292	Q 3
1 0 0	Synthesis, characterization, and adsorption study of magnetic superhydrophobic monolithic core-shell polystyrene composite for the removal of ethyl naphthalene from produced water using fixed column bed	Egyptian Journal of Chemistry	DOI: 10.21608/ejchem.2023.188348.7486	Q 3
1 0 1	Synthesis, Characterization, Antibacterial Evaluation, and Insecticidal Activity of Some New Heterocyclic Compounds Containing Styrylpyridine Moiety	Russian Journal of Bioorganic Chemistry	-	Q 3
1 0 2	Design, Antimicrobial Testing, and Molecular Docking Studies of New Chalcone and Pyrimidine Derivatives Based on 2-phenyl-1H-pyrazol3(2H)-one	Letters in Drug Design & Discovery, 2023, Vol. 20, No. 0	DOI: 10.2174/1570180820666230505142821	Q 3
1 0 3	A SIMPLE AND LOW-COST NEW PROCEDURE FOR SYNTHESIS OF NICKEL(II) AND CADMIUM(II) SULFIDES in situ THIOUREA METAL-CHELATION PRECURSOR	BULLETIN OF THE CHEMICAL SOCIETY OF ETHIOPIA	10.4314/bcse.v37i3.10	Q 4
1 0 4	Organic Ligands on the Sorption of Radiocobalt on Soil	Arab Journal of Nuclear Sciences and Applications	DOI: 10.21608/ajnsa.2022.145694.1603	Q 4
1 0 5	Strategies towards end-group engineering of chrysene core based non-fullerene acceptors for high performance organic solar cells: A DFT study	Journal of Computational Biophysics and Chemistry	https://doi.org/10.1142/S2737416523420097	Q 4
1 0 6	Towards Development of High-performance Perovskite Solar cells based on Pyrrole Materials for Hole Transport Layer by using Computational Approach	Journal of Computational Biophysics and Chemistry	https://doi.org/10.1142/S2737416523420127	Q 4

### 4- List of articles cooperation with the best Top 100/200/500 university

N o	Title of research	Journal	Link	Qua rtile
1	Direct synthesis of organic salt-derived porous carbons for enhanced CO2 and methane storage	Journal of Materials Chemistry A	DOI: 10.1039/D3TA00044C	Q1
2	The nutraceutical properties and health benefits of pseudocereals: a comprehensive treatise	CritiCal reviews in Food sCienCe and nutrition	https://doi.org/10.1080/10 408398.2022.2071205	Q1
3	Chitosan Polymer Functionalized-Activated Carbon/Montmorillonite Composite for the Potential Removal of Lead Ions from Wastewater	Polymers	DOI10.3390/polym15092 188	Q1
4	Synthesis and X-ray structure of the first thioether of quinolin-2-one naming as 4,4'-thio-bis(1-methylquinoline-2(1H)-thione) and X-ray structure of 3,3'- methylenebis(4-hydroxy-1-methylquinolin2(1H)-one)	researchsquare preprint	https://doi.org/10.21203/r s.3.rs-3085178/v1	Q1
5	A hybrid mesoporous composite of SnO2 and MgO for adsorption and photocatalytic degradation of anionic dye from a real industrial effluent water	Environmental Science and Pollution Research	https://link.springer.com/a rticle/10.1007/s11356- 023-29649-5	Q1
6	carbon nanodots fabricated from manufactured dairy product as a precursorBifunctional ratiometric sensor based on highly fluorescent nitrogen and sulfur biomass-derived	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	https://doi.org/10.1016/j.s aa.2023.122444	Q1
7	Chitosan Polymer Functionalized-Activated Carbon/ Montmorillonite Composite for the Potential Removal of Lead Ions from Wastewater	polymers	https://doi.org/10.3390/po lym15092188	Q1
8	Detection and Selective Removal Strategy of Thorium Ions Using a Novel Fluorescent Ligand and Hybrid Mesoporous γ-Al2O3-like Nanoneedles	SustainableChemistry& Engineering	https://pubs.acs.org/doi/f ull/10.1021/acssuscheme ng.2c05000	Q1
9	Highly efficient ultrafiltration membrane performance of PES@microcrystalline cellulose extracted from waste fruits for the removal of BrO3- from drinking water samples	COLLOID AND INTERFACE SCIENCE COMMUNICATIONS	DOI10.1016/j.colcom.202 3.100718	Q1
 1 0	Synthesis, characterization, and biological evaluation of Mel-drum's acid derivatives: Dual activity and molecular docking stud	Pharmaceuticals	https://doi.org/10.3390/ph 16020281	Q1
1	Bifunctional ratiometric sensor based on highly fluorescent nitrogen and sulfur biomass- derivedcarbon nanodots fabricated from manufactured dairy product as a precursor	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	Q1

1 2	Carbon microspheres uniformly decorated with ceria nanoparticles as an ultrasensitive platform for electrochemical sensing of antihypertensive drug lacidipine in patient plasma and pharmaceutical formulation	Microchemical Journal	https://doi.org/10.1016/j. microc.2023.108422	Q1
1	Efficient Dual-Function Catalyst: Palladium-Copper Nanoparticles Immobilized on Co-Cr LDH for Seamless Aerobic Oxidation of Benzyl Alcohol and Nitrobenzene Reduction	Nanomaterials	DOI10.3390/nano131319 56	Q1
1	Monitoring antiviral active metabolite (N-hydroxycytidine) levels in plasma in presence of carboxylesterase-2 inhibitor verapamil using copper tetracyanoquinodimethane enhanced sensor	Microchemical	https://doi.org/10.1016/j. microc.2023.109330	Q1
1 5	Synthesis of Adenosine 5-monophosphate monohydrate functionalized mesoporous Ag/CuO/MCM-41 nanostructures for enormous mineralization of insistent organic contaminants and	Journal of Molecular Liquids	https://doi.org/10.1016/j. molliq.2023.123379	Q1
1 6	Ultrasensitive and selective determination of naringin using eggplant peel- derived nitrogen doped-carbon dots after extraction with Amberlite IRA-400: Evaluation the bitterness of grapefruit juice	Microchemical Journal	https://doi.org/10.1016/j. microc.2023.109358	Q1
7	Bifunctional ratiometric sensor based on highly fluorescent nitrogen and sulfur biomass- derived carbon nanodots fabricated from manufactured dairy product as a precursor	Spectrochimica Acta Part A:Molecular and Biomolecular Spectroscopy	https://doi.org/10.1016/j.s aa.2023.122444	Q1- Top 10 %
1 8	Adsorptive performance of aminonaphthalenesulfonic acid modified magnetic-graphene oxide for methylene blue dye: Mechanism, isotherm and thermodynamic studies	Inorganic Chemistry Communications	https://doi.org/10.1016/j.i noche.2022.110261	Q2
1 9	Light trapping by porous TiO2 hollow hemispheres for high efficiency photoelectrochemical water splitting	PHYSICAL CHEMISTRY CHEMICAL PHYSICS	DOI10.1039/d2cp04246k	Q2
2	Optimizing the performance of Au-y/Ni-x/TiO2NTs photoanodes for photoelectrochemical water splitting	RSC advances	DOI10.1039/d3ra02011h	Q2
2	Physical and chemical evaluation of groundwater quality in Jouf region in Saudi Arabia for energy, agriculture and drinking purposes	Desalination and Water Treatment	doi: 10.5004/dwt.2023.29554	Q2
2 2	Synthesis, physicochemical properties, biological, molecular docking and DFT investigation of Fe(III), Co(II), Ni(II), Cu(II) and Zn(II) complexes of the 4-[(5-oxo-4,5-dihydro-1,3-thiazol-2-yl)hydrazono]methyl}phenyl 4-methylbenzenesulfonate Schiff-base ligand	Polyhedron	https://doi.org/10.1016/j.p oly.2022.116219	Q2
2 3	Towards superior permeability and antifouling performance of sulfonated polyethersulfone ultrafiltration membranes modified with sulfopropyl methacrylate functionalized SBA-15	Chinese Journal of Chemical Engineering	https://doi.org/10.1016/j.c jche.2021.09.019	Q2
2	A DFT study for improving the photovoltaic performance of organic solar cells by designing symmetric non-fullerene acceptors by quantum chemical modification on pre-existed	Tamer H. A. Hasanin	https://doi.org/10.1016/j.j mgm.2023.108613	Q2
5	Anticancer and apoptosis inducing potentialof quercetin against a wide range of humanmalignancies	International Journal of Food Properties	https://doi.org/10.1080/10 942912.2023.2252619	Q2
2 6	Assessment of Physicochemical, Functional, Rheological and end-use properties of Tribulus terrestris	INTERNATIONAL JOURNAL OF FOOD PROPERTIES	DOI: 10.1080/10942912.2023. 2261666	Q2
2 7	Cleaner pathway for developing bioactive textile materials using natural dyes: a review	Environmental Science and Pollution Research	DOI: 10.1007/s11356- 023-26131-0	Q2
2	Combined influence of Ce(III) and iodide ions for corrosion protection of AA 2024-T3 in acidic to neutral chloride-rich environments: Electrochemical and surface characterization studies	Journal of Rare Earths	https://doi.org/10.1016/j.jr e.2022.05.014	Q2
2	Design and Synthesis of Pyridine and Thiazole Derivatives as Eco-friendly Insecticidal to Control Olive Pests	Chemistry and Biodiversity	https://doi.org/10.1002/cb dv.202300559	Q2

3 0	Design, synthesis, docking study of pyrazolohydrazinopyrimidin-4-one derivatives and their application as antimicrobials	Chemistry & Biodiversity	https://doi.org/10.1002/cb dv.202201209	Q2
3	Design, Synthesis, Docking Study of Pyrazolohydrazinopyrimidin-4-one Derivatives and Their Application as Antimicrobials	Chemistry and Biodiversity	https://doi.org/10.1002/cb dv.202201209	Q2
3 2	DFT Study of Structural, Electronic, Thermoelectric and Elastic Properties of KPdX3 (X = F, Cl, Br, and I) Perovskites	Physica Scripta	DOI: 10.1088/1402- 4896/acce76	Q2
3	Dual activity of indolin-2-ones containing an arylidene motif: DNA and BSA interaction	RSC Advances	https://doi.org/10.1039/D 3RA04997C	Q2
3	Electrochemical and surface characterisation of carbon steel exposed to mixed Ce and iodide electrolytes	Metals	Doi.org/10.3390/met1309 1553	Q2
3 5	Green Synthesis of Novel Pyridines via One-Pot Multicomponent Reaction and Their Anti- Inflammatory Evaluation	ACS omega	: https://doi.org/10.1021/ac somega.3c00066	Q2
3 6	Adsorption of Molnupiravir anti-COVID-19 drug over B12N12 and Al12N12 nanocarriers: a DFT study	Journal of Biomolecular Structure and Dynamics	https://doi.org/10.1080/07 391102.2023.2169763	Q3
3 7	Design, Antimicrobial Testing, and Molecular Docking Studies of New Chalcone and Pyrimidine Derivatives Based on 2-phenyl-1H-pyrazol3(2H)-one	Letters in Drug Design & Discovery, 2023, Vol. 20, No. 0	DOI: 10.2174/1570180820666 230505142821	Q3
3 8	Strategies towards end-group engineering of chrysene core based non-fullerene acceptors for high performance organic solar cells: A DFT study	Journal of Computational Biophysics and Chemistry	https://doi.org/10.1142/S 2737416523420097	Q4
3 9	Towards Development of High-performance Perovskite Solar cells based on Pyrrole Materials for Hole Transport Layer by using Computational Approach	Journal of Computational Biophysics and Chemistry	https://doi.org/10.1142/S 2737416523420127	Q4

# Biology program

#### 1- Number of Published articles in 2023

Q1 Top 10	Q1	Q2	Q3	Q4
-	22	13	16	4

ISI	Scopus	Other	Total
55	55	5	60

Top	Top	Top
100	200	500
2	8	7

### 2- List of impacted articles in Web of Science eb of Science

No	Title of research	Journal	Link	Qua rtile
1	Advanced implications of nanotechnology in disease control and environmental perspectives	Biomedicine & Pharmacotherapy	https://doi.org/10.1016/j.biopha.2022.114172	Q1
2	Chromium (VI) Toxicity and Active Tolerance Mechanisms of Wheat Plant Treated with Plant Growth- Promoting Actinobacteria and Olive Solid Waste	ACS Omega	https://doi.org/10.1021/acsomega.3c02447?urlappend=%3Fref%3DPD F&jav=VoR&rel=cite-as	Q1
3	Determination of the relationship between class IV sirtuin genes and growth traits in Chinese black Tibetan sheep	Animal Biotechnology	https://doi.org/10.1080/10495398.2021.2016434	Q1
4	Exploration of Maternal and Fetal Toxicity Risks for Metronidazole- Related Teratogenicity and Hepatotoxicity through an Assessment in Albino Rats	Toxics	https://doi.org/ 10.3390/toxics11040303	Q1
5	Helicobacter pylori Infection: Current Status and Future Prospects on Diagnostic, Therapeutic and Control Challenges	antibiotics	https://doi.org/10.3390/ antibiotics12020191	Q1
6	Hydrocortisone-Loaded Lipid— Polymer Hybrid Nanoparticles for Controlled Topical Delivery: Formulation Design Optimization and In Vitro and In Vivo Appraisal	ACS omega	https://pubs.acs.org/doi/10.1021/acsomega.3c00638?goto=supporting-info	Q1
7	Immune Responses of Rhynchophorus ferrugineus to a New Strain of Beauveria bassiana	Sustainability	; https://doi.org/10.3390/su142013002	Q1
8	Integrating Chemical Profiling, In Vivo Study, and Network Pharmacology to Explore the Anti-inflammatory Effect of Pterocarpus dalbergioides Fruits and Its	ACS Omega	https://doi.org/10.1021/acsomega.3c02940?urlappend=%3Fref%3DPD F&jav=VoR&rel=cite-as	Q1

	Correlation with the Major Phytoconstituents			
9	Interactive Effect of Arbuscular Mycorrhizal Fungi (AMF) and Olive Solid Waste on Wheat under Arsenite Toxicity	Plants	https://doi.org/10.3390/plants12051100	Q1
10	Novel Ultrasensitive Point of Care Device for Diagnosis of Human Schistosomiasis Mansoni	Acta Tropica	ScienceDirect https://www.sciencedirect.com > actaActa Tropica   Journal   ScienceDirect.com by Elsevier	Q1
11	Positive Interaction of Selenium Nanoparticles and Olive Solid Waste on Vanadium-Stressed Soybean Plant	Agriculture	https://doi.org/10.3390/agriculture13020426	Q1
12	NMR-Based Metabolomics for Geographical Discrimination of Adhatoda vasica Leaves	Plants	https://doi.org/10.3390/ plants12030453	Q1
13	Organic Amendments Improved the Productivity and Bio-Fortification of Fine Rice by Improving Physiological Responses and Nutrient Homeostasis under Salinity Stress	Plants	https://doi.org/10.3390/plants12081644	Q1
14	Facilitation by Haloxylon persicum Shrubs Enhances Density and Richness of Soil Seed Bank of Annual Plants in a Hyper-Arid Ecosystem	Plants	https://doi.org/10.3390/plants12061276	Q1
15		Plants	https://doi.org/10.3390/plants12061410	Q1
16	Mentha piperita and Stressful Conditions	Mentha piperita and Stressful Conditions	DOI: 10.1201/9781003242963-10	Q1
17	characteristics of Varanus niloticus (Squamata, Varanidae) blood cells	Microscopy Research and Technique	https://doi.org/10.1002/jemt.24298	Q1
18	Petrosolinum crispum under Stressful Conditions	Petrosolinum crispum under Stressful Conditions	DOI: 10.1201/9781003242963-15	Q1
19	Protective efficacy of luteolin against aflatoxinB1-induced toxicity, oxidative damage, and apoptosis in the rat liver	Environmental Science and Pollution Research	https://link.springer.com/article/10.1007/s11356-023-26085-3	Q1
20	Rosemary and neem methanolic extract: antioxidant, cytotoxic, and larvicidal activities supported by	Frontiers in Plant Science	https://doi.org/10.3389/fpls.2023.1155698	Q1

	chemical composition and molecular docking simulations			
21		Animal	https://www.mdpi.com/2076-2615/13/6/1088	Q1
22	Tongue microarchitecture and functional characterization of the lingual papillae in the desert hedgehog (Paraechinus aethiopicus)	Journal of Experimental Zoology – A (JEZ-A)	https://doi.org/10.1002/jez.2770	Q1
23	A Comprehensive Approach to Derivatization: Elemental Composition, Biochemical, and In Silico Studies of Metformin Derivatives Containing Copper and Zinc Complexes	Molecules	https://doi.org/10.3390/metabo13010094	Q2
24	Aloe vera and wound healing: a brief review	Brazilian Journal of Pharmaceutical Sciences	https://doi.org/10.1590/s2175-97902022e20837	Q2
25	Antifungal Activity of Fresh and Stored Olive Mill Wastewater (OMW) and Its Ethyl Acetate Extract against Plant Pathogens Fungi	agricultural science and agronomy	doi: 10.20944/preprints202304.0661.v1	Q2
26	Antiviral activities of olive oil apigenin and taxifolin against SARS-CoV-2 RNA-dependent RNA polymerase (RdRP): In silico, pharmacokinetic, ADMET, and invitro approaches	Cogent Food \& Agriculture	https://doi.org/10.1080/23311932.2023.2236828	Q2
27		Biomass Conversion and Biorefnery https://doi.org/10.1007/s13399- 023-04139-3	https://link.springer.com/article/10.1007/s13399-023-04139-3	Q2
28	Detecting STR profiles from degrading menstrual blood samples and their use as possible evidence in forensic investigations	Forensic Science International	https://www.sciencedirect.com/science/article/abs/pii/S0379073823000 129	Q2
29	Molecular and physiochemical evaluation of buck semen cryopreserved with antioxidants	Reprod Dom Anim.	DOI: 10.1111/rda.14354	Q2
30	Patterns of mutations in nine cancer- related genes and PAF development among smoking male patients diagnosed with bladder cancer	Tumor Biology	https://content.iospress.com/articles/tumor-biology/tub220032	Q2
31	Polysaccharides in Berberis dasystachya improve intestinal flora	Journal of Functional Foods	https://www.sciencedirect.com/science/article/pii/S1756464622004510	Q2

	depending on the molecular weight			
	and ameliorate type 2 diabetes in			
	rats			
32	Revealing the Underlying Mechanism of Acacia Nilotica against Asthma from a Systematic Perspective: A Network Pharmacology and Molecular Docking Study	Life	https://doi.org/10.3390/life13020411	Q2
33	The Combined Effect of Licorice Extract and Bone Marrow Mesenchymal Stem Cells on Cisplatin-Induced Hepatocellular Damage in Rats	Metabolites	https://doi.org/10.3390/metabo13010094	Q2
34	Vaccine Strategies for Early Detection and Control of Human Brucellosis, Particularly in Endemic Areas	vaccines	https:// doi.org/10.3390/vaccines11030654	Q2
35	hepatic molecular apoptosis caused by high-fat diet in rats	current issue in molecular biology	https://doi.org/10.3390/cimb45010031	Q2
36	Fish Scales as a Bio Indicator of Environmental Pollution in Some Fish Species Collected from Different Areas in Saudi Arabia	Egyptian Journal of Aquatic Biology & Fisheries	DOI: 10.21608/EJABF.2023.297302	Q3
37	A Promising Approach to Control Aquatic Developmental Stages of Culex Cx. univittatus Theobald, 1901 Using 4G Mobile (HSDPA 2100) Radiation	Egyptian Journal of Aquatic Biology and Fisheries (EJABF)	DOI: 10.21608/EJABF.2023.299731	Q3
38	Biosynthesis of Fe nano complex using leaves Ocimum basilicum L. as a promising tool for tanning efuent treatment	Biomass Conversion and Biorefinery	https://doi.org/10.1007/s13399-023-04139-3	Q3
39	Characterization of the Small Intestine in the Southern White- breasted Hedgehog (Erinaceus concolor) Using Histological, Histochemical, Immunohistochemical, and Scanning Electron Microscopic Techniques	Microscopy and Microanalysis	DOI: 10.1093/micmic/ozad128	Q3
40	Design, Antimicrobial Testing, and Molecular Docking Studies of New Chalcone and Pyrimidine Derivatives	Letters in Drug Design & Discovery	DOI: 10.2174/1570180820666230505142821	Q3

	Based on 2-phenyl-1H-pyrazol3(2H)-one			
41	Development of more potent anti-microbial drugs from extracts of fve medicinal plants resistant to S. aureus in human fuids: an ex vivo and in vivo analysis	Rendiconti Lincei. Scienze Fisiche e Naturali	https://link.springer.com/article/10.1007/s12210-023-01135-7	Q3
42	FGFR3 and FGFR4 overexpression in juvenile nasopharyngeal angiofibroma: impact of smoking history and implications for personalized management	JOURNAL OF APPLIED GENETICS	. https://doi.org/10.1080/02772248.2015.1070853	Q3
43	Fish Scales as a Bio Indicator of Environmental Pollution in Some Fish Species Collected from Different Areas in Saudi Arabia	Egyptian Journal of Aquatic Biology & Fisheries	DOI: 10.21608/EJABF.2023.297302	Q3
44	Immunohistochemical Studies of the Effect of Buspirone Hydrochloride on the Fetal Lung Tissue of Rats	International Journal of Pharmacology	DOI: 10.3923/ijp.2023.80.88	Q3
45	major salivary glands in the southern white-breasted hedgehog (Erinaceus concolor)	Anatomia, Histologia, Embryologia	https://doi.org/10.1111/ahe.12878	Q3
46	Integrated Use of Organic and Bio- fertilizers to Improve Yield and Fruit Quality of Olives Grown in Low Fertility Sandy Soil in an Arid Environment	Phyton-International Journal of Experimental Botany	https://scholar.google.com/scholar?hl=ar&as_sdt=0%2C5&q=Integrated +Use+of+Organic+and+Bio- fertilizers+to+Improve+Yield+and+Fruit+Quality+of+Olives+Grown+in+L ow+Fertility+Sandy+Soil+in+an+Arid+Environment&btnG=	Q3
47	Knowledge, attitudes and preventive practices towards COVID-19 among prenatal women in an antenatal clinic in Sakaka City, Aljouf region: A cross-sectional study	African Journal of Reproductive Health	DOI: 10.29063/ajrh2023/v27i1.7	Q3
48	Phytochemical Screening of Some Medicinal Plants in Al Jouf, KSA	Open Journal of Ecology	https://doi.org/10.4236/oje.2023.132006	Q3
49	Characterization of different Varieties of Olea europaea Using Metabolomics Combined with Multivariate Data Analysis	International Journal of Agriculture and Biology	DOI: 10.17957/IJAB/15.2032	Q3
50	Microbiological quality assessment of milk and its fermented derivatives produced in Sfax region, Tunisia	The South African Journal of Animal Science	Accepted, in Press	Q3

51	Evaluation of the physiological and histological effects induced by some energy drinks on male rabbits	Bioscience Research	Available online freely at www.isisn.org-Print ISSN: 1811-9506 Online ISSN: 2218-3973 Journal by Innovative Scientific Information & Services Network	Q4
52		International Journal of Morphology	http://dx.doi.org/10.4067/S0717-95022023000100167	Q4
53		DESALINATION AND WATER TREATMENT	10.5004/dwt.2023.29959	Q4
54	Effect of Microwave Radiation on the Red Flour Beetle Tribolium castaneum (Herbst)	Indian Journal of Entomology	https://indianentomology.org/index.php/ije/article/view/1246/755	Q4

### 3- List of articles cooperation with the best Top 100/200/500 university

N	Title of research	Journal	Link	Qu
0				arti le
1	Physico-chemical characterization of compost Extracts- Study of the antifungal activity against phytopathogenic fungi: Aspergillus niger and Fusarium oxysporum	International Conference on New Trends in Renewable Energy and Environment for 2030 Vision (ICNTREE 2023)	none	Q2
2	Prevalence and Morphological Investigation of Parasitic Infection in Freshwater Fish (Nile Tilapia) from Upper Egypt	Animal	https://www.mdpi.com/207 6-2615/13/6/1088	Q1
3	Tongue microarchitecture and functional characterization of the lingual papillae in the desert hedgehog (Paraechinus aethiopicus)	Journal of Experimental Zoology – A (JEZ-A)	https://doi.org/10.1002/jez. 2770	Q1
4	Characterization of different Varieties of Olea europaea Using Metabolomics Combined with Multivariate Data Analysis	International Journal of Agriculture and Biology	DOI: 10.17957/IJAB/15.2032	Q3
5	Microbiological quality assessment of milk and its fermented derivatives produced in Sfax region, Tunisia	The South African Journal of Animal Science	Accepted, in Press	Q3
6	Effect of Microwave Radiation on the Red Flour Beetle Tribolium castaneum (Herbst)	Indian Journal of Entomology	https://indianentomology.or g/index.php/ije/article/view/ 1246/755	Q4

## Mathematic program

#### 1- Number of Published articles in 2023.

Q1				
Top	Q1	Q2	Q3	Q4
10				
4	18	14	7	4

ISI Scopus		Other	Total	
43	43	2	45	

Top	Top	Top
100	200	500
3	2	1

2- List of articles/impacted in Web of Science eb of Science

•	N	Title of research	Journal	Link	Qua
	0				rtile
•	1	Conjugate free convection from an array of discrete heat sources with water and nano-encapsulated phase change particle in a cold enclosure	Journal of Energy Storage	https://doi.org/10.1016/j.est.2022.10 6076	Q1
	2	Convective Flow Analysis for Moderate Rayleigh Numbers of Nano Encapsulated Phase Change Materials-Water Filled Enclosure with Various Thermal Conditions	Journal of Energy Storage	https://doi.org/10.1016/j.est.2023.10 7523	Q1
·	3	Some results for a class of delayed fractional partial differential equations with Caputo–Hadamard derivative	Mathematical Methods in the Applied Sciences	https://onlinelibrary.wiley.com/doi/abs/10.1002/mma.9096	Q1
•	4	Stability of some generalized fractional differential equations in the sense of Ulam–Hyers–Rassias	Boundary Value Problems	https://doi.org/10.1186/s13661-023- 01695-5	Q1
•	5	On Ulam Stability of the Inhomogeneous Version of the General Linear Functional Equation	Results in Mathematics	https://link.springer.com/article/10.10 07/s00025-023-01840-7	Q1
•	6	Optimal control problems governed by a class of nonlinear systems	Aims Mathematics	DOI:10.3934/math.2024024	Q1
•	7	Chitosan/Selenium@Olive Oil Nanocomplex Targeted Therapy for Multiple Cancers	Journal of Polymers and the Environment	https://link.springer.com/article/10.10 07/s10924-023-02975-y	Q1
•	8	Existence and uniqueness for a coupled system of fractional equations involving Riemann-Liouville and Caputo derivatives with coupled Riemann-Stieltjes integromultipoint boundary conditions	Aims Math.	https://www.aimspress.com/aimspre ss-data/math/2023/5/PDF/math-08- 05-510.pdf	Q1
•	9	Fractional Itô-Doob Stochastic Differential Equations Driven by Countably Many Brownian Motions	Fractal and Fractional	https://www.mdpi.com/2504- 3110/7/4/331	Q1
	1 0	On Coupled System of Langevin Fractional Problems with Different Orders of µ-Caputo Fractional Derivatives	fractal and fractional	https://doi.org/10.3390/fractalfract70 40337	Q1
	1	A new Cosine-Weibull model: Distributional properties with applications to basketball and medical sectors	Alexandria Engineering Journal	https://doi.org/10.1016/j.aej.2022.10. 068	Q1
•	1 2	A novel logarithmic approach to generate new probability distributions for data modeling in the engineering sector	Alexandria Engineering Journal	https://doi.org/10.1016/j.aej.2022.07. 021	Q1
•	1 3	Numerical simulation and mathematical modeling for heat and mass transfer in MHD stagnation point flow of nanofluid consisting of entropy generation	Scientific Reports	https://doi.org/10.1038/s41598-023- 33412-8	Q1
•	1	An Infinite System of Fractional Sturm–Liouville Operator with Measure of Noncompactness Technique in Banach Space	mathematics	Website: https://www.mdpi.com/2227- 7390/11/6/1444	Q1
•	1 5	Averaged control	Mathematics	https://doi.org/10.1155/2023/668700 6	Q1- Top 10%
	1 6	Practical stability for nonlinear systems with generalized conformable derivative	AIMS Mathematics	http://www.aimspress.com/article/doi /10.3934/math.2023797	Q1- Top 10%
•	1 7	Analyzing the acoustic wave propagation characteristics in discontinuous bifurcated waveguide	Chaos, Solitons and Fractals	https://doi.org/10.1016/j.chaos.2023. 113499	Q1- Top 10%
	1 8	Proportional Itô-Doob Stochastic Fractional Order Systems	Mathematics	https://www.mdpi.com/2227- 7390/11/9/2049	Q1- Top 10%

			T	
1	Enhancement of conjugate heat transfer in an enclosure by utilizing water and	Journal of Energy	https://doi.org/10.1016/j.est.2023.10	Q2
9	nano encapsulated phase change materials with active cylinder	Storage	7422	
2	Multicomponent approach to the synthesis and spectral characterization of some	Current Chemistry	doi: 10.5267/j.ccl.2023.8.003	Q2
0	3,5- pyrazolididione derivatives and evaluation as anti-inflammatory agents	Letters		
2	Quantum Fisher information matrix for the two-axis twisting model at thermal	Modern Physics Letters	https://doi.org/10.1142/S021773232	Q2
1	equilibrium	A	2502078	
2	Classes of operators related to m-hypercontractive and m-hyperexpansive Hilbert	Linear and Multilinear	https://doi.org/10.1080/03081087.20	Q2
2	space operators	Algebra	22.2114409	
_		ISSN:		
2	Convective heat transfer performance of MHD nanofluid flow with temperature	ZAMM-Zeitschrift fur	https://doi.org/10.1002/zamm.20230	Q2
3	dependent viscosity over stretching surface	Angewandte Mathematik	0053	QZ
	dependent viscosity over stretching surface	und Mechanik	0033	
_	Cutman Connection Index of Cranha under Operations		https://doi.org/10.2200/ov/m1501002	02
2	Gutman Connection Index of Graphs under Operations	Symmetry	https://doi.org/10.3390/sym1501002	Q2
4	O seller O seeds O seed in Transferrediese	0	1	00
2	n-Quasi-m-Complex Symmetric Transformations	Symmetry	n-Quasi-m-Complex Symmetric	Q2
5			Transformations	
2	Theoretical and Numerical Study for Volterra-Fredholm Fractional Integro-	Complexity	https://www.hindawi.com/journals/co	Q2
6	Differential Equations Based on Chebyshev Polynomials of the Third Kind		mplexity/2023/6401067/	
2	Thermal-Diffusive Processes of an Electron-Hole Non-Local Semiconductor	Mathematics	https://doi.org/10.3390/math110202	Q2
7	Model with Variable Thermal Conductivity and Hall Current Effect		64	
2	Quantum Fisher information for two-qubit XY spin-chain: individual	Optical and Quantum	https://doi.org/10.1007/s11082-023-	Q2
8	characterization of different parameters	Electronics	04696-x	
2	(n1, · · · , nd)-quasi-(p, q)-isometric commuting tuple of operators	Filomat	https://doi.org/10.2298/FIL2328531A	Q2
9			, ,	
3	Thermal local quantum Fisher and Wigner–Yanase correlations in an anisotropic	Optical and Quantum	https://doi.org/10.1007/s11082-023-	Q2
0	two-qubit Heisenberg XY model	Electronics	04839-0	
3	Bioconvection Maxwell nanofluid flow over a stretching cylinder influenced by	Frontiers in Physics	https://doi.org/10.3389/fphy.2022.10	Q2
1	chemically reactive activation energy surrounded by a permeable medium	Trontioro in Triyoloo	65264	Q_
3	Influence of COVID-19 vaccination on the dynamics of new infected cases in the	Mathematical	doi: 10.3934/mbe.2023156	Q2
2	world	Biosciences and	doi: 10.3334/11bc.2023130	QZ
_	World	Engineering		
2	Unated du free convection in a composite analogue having flevible wall	Advances in Mechanical	https://doi.org/10.1177/1607012222	Q3
3	Unsteady free convection in a composite enclosure having flexible wall		https://doi.org/10.1177/1687813223	Q3
3	The of Civita Classout Mathed for Case Occupation of New (Civitalia)	Engineering	1167947	00
3	Use of Finite Element Method for Free Convection of Nanofluids between a	Advances in	https://doi.org/10.1155/2023/842682	Q3
4	Rectangular Enclosure and a Sinusoidal Cylinder Using Buongiorno's Two-Phase	Mathematical Physics	5	
_	Model			
3	Components' Tolerance Impact on the Design of a Real Case of One MW PV	Discrete Dynamics in	https://www.hindawi.com/journals/dd	Q3
5	Substation	Nature and Society	ns/2023/8520036/	
3	Nonsimilar convection analysis of single and multilayer carbon nanotubes based	Journal of Magnetism	https://doi.org/10.1016/j.jmmm.2023.	Q3
6	nanofluid flow over a vertical cone in a complex porous media subjected to	and Magnetic Materials	170583	
	thermal radiations and chemical reaction			
3	On k-Quasi-(m, n, C)-Isosymmetric Operators	Hacettepe Journal of	https://doi.org/10.1007/s41478-023-	Q3
7		Mathematics and	00676-2(0123456789().,-	
		Statistics	volV)(0123456789().,-volV)	

3 8	On some inequalities for numerical radius of semi – Hilbert space multioperators	Georgian Mathematical iournal	https://doi.org/10.1016/j.jmmm.2023.	Q3
3 9	SOME RESULTS ON (m; n;C)-ISOSYMMETRIC COMMUTING d- TUPLES OF OPERATORS ON A HILBERT SPACE	Rocky Mountain J. Math.	https://doi.org/10.1007/s41478-023- 00676-2(0123456789().,- volV)(0123456789().,-volV)	Q3
<i>4</i> 0	On a class of Drazin invertible operators for which (S*)2(SD)2 = (S*SD)2	The Journal of Analysis	https://doi.org/10.1007/s41478-023- 00676-2(0123456789().,- volV)(0123456789().,-volV)	Q4
4	CLASS OF OPERATORS RELATED TO (; )-CLASS (Q) OPERATORS	Bulletin of Mathematical Analysis and Applications	https://doi.org/10.54671/BMAA- 2023-4-2	Q4
4 2	m-QUASI-(n;A)-PARANORMAL OPERATORS IN SEMI-HILBERTIAN SPACES	Bulletin of Mathematical Analysis and Applications	https://doi.org/10.54671/BMAA- 2023-3-5	Q4
<i>4</i> 3	Numerical examination of the Darcy–Forchheimer Casson model with instigation energy and second-order momentum slip: Thermal features	Numerical Heat Transfer, Part B: Fundamentals	https://doi.org/10.1080/10407790.20 23.2257881	Q4

### 3- List of articles cooperation with the best Top 100/200/500 university

Title of research	Journal	Link	Quartile
A new Cosine-Weibull model: Distributional properties	Alexandria	https://doi.org/10.1016/j.aej.2022.10.068	Q1
with applications to basketball and medical sectors	Engineering		
	Journal		
A novel logarithmic approach to generate new probability	Alexandria	https://doi.org/10.1016/j.aej.2022.07.021	Q1
distributions for data modeling in the engineering sector	Engineering		
	Journal		
Numerical simulation and mathematical modeling for heat	Scientific	https://doi.org/10.1038/s41598-023-	Q1
and mass transfer in MHD stagnation point flow of	Reports	33412-8	
nanofluid consisting of entropy generation			
Influence of COVID-19 vaccination on the dynamics of new	Mathematical	doi: 10.3934/mbe.2023156	Q2
infected cases in the world	Biosciences and		
	Engineering		
An Infinite System of Fractional Sturm-Liouville Operator	mathematics	Website: https://www.mdpi.com/2227-	Q1
with Measure of Noncompactness Technique in Banach		7390/11/6/1444	
Space			
Proportional Itô-Doob Stochastic Fractional Order Systems	Mathematics	https://www.mdpi.com/2227-	Q1-
		7390/11/9/2049	Top10%