

# Ziyad A Alrowaili

## List of Publications by Year in descending order

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78  
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257450

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79  
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79  
docs citations

79  
times ranked

544  
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis, physical and nuclear shielding properties of novel Pb-Al alloys. Progress in Nuclear Energy, 2021, 142, 103992.	2.9	79
2	Significant influence of MoO <sub>3</sub> content on synthesis, mechanical, and radiation shielding properties of B <sub>2</sub> O <sub>3</sub> -Pb <sub>3</sub> O <sub>4</sub> -Al <sub>2</sub> O <sub>3</sub> glasses. Journal of Alloys and Compounds, 2021, 882, 160625.	5.5	76
3	Optical and radiation shielding effectiveness of a newly fabricated WO <sub>3</sub> doped TeO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> glass system. Radiation Physics and Chemistry, 2022, 193, 109968.	2.8	76
4	Optical properties and radiation shielding performance of tellurite glasses containing Li <sub>2</sub> O and MoO <sub>3</sub> . Optik, 2022, 249, 168257.	2.9	65
5	Nuclear shielding properties of Ni-, Fe-, Pb-, and W-based alloys. Radiation Physics and Chemistry, 2022, 195, 110090.	2.8	60
6	Environmentally compatible and highly improved hole transport materials (HTMs) based on benzotrithiophene (BTT) skeleton for perovskite as well as narrow bandgap donors for organic solar cells. Solar Energy, 2022, 231, 793-808.	6.1	56
7	The impact of Fe <sub>2</sub> O <sub>3</sub> on the dispersion parameters and gamma/fast neutron shielding characteristics of lithium borosilicate glasses. Optik, 2022, 249, 168259.	2.9	50
8	ZnO-Bi <sub>2</sub> O <sub>3</sub> nanopowders: Fabrication, structural, optical, and radiation shielding properties. Ceramics International, 2022, 48, 3464-3472.	4.8	49
9	Synthesis and characterization of B <sub>2</sub> O <sub>3</sub> -Ag <sub>3</sub> PO <sub>4</sub> -ZnO-Na <sub>2</sub> O glasses for optical and radiation shielding applications. Optik, 2021, 248, 168199.	2.9	48
10	CdSe supported SnO <sub>2</sub> nanocomposite with strongly hydrophilic surface for enhanced overall water splitting. Fuel, 2022, 321, 124086.	6.4	47
11	A Review of Chemotherapy and Photodynamic Therapy for Lung Cancer Treatment. Anti-Cancer Agents in Medicinal Chemistry, 2020, 21, 149-161.	1.7	45
12	Nuclear shielding properties and buildup factors of Cr-based ferroalloys. Progress in Nuclear Energy, 2021, 141, 103956.	2.9	42
13	Fabrication, optical and radiation shielding properties of BaO-TeO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> -Cr <sub>2</sub> O <sub>3</sub> glass system. Optik, 2022, 258, 168877.	2.9	42
14	Structure and optical properties of polycrystalline ZnSe thin films: validity of Swanepol's approach for calculating the optical parameters. Materials Research Express, 2020, 7, 016422.	1.6	41
15	Synthesis, physical, optical, structural and radiation shielding characterization of borate glasses: A focus on the role of SrO/Al <sub>2</sub> O <sub>3</sub> substitution. Ceramics International, 2022, 48, 2124-2137.	4.8	37
16	Machine Learning Enabled Early Detection of Breast Cancer by Structural Analysis of Mammograms. Computers, Materials and Continua, 2021, 67, 641-657.	1.9	34
17	Novel green synthesis of hydroxyapatite uniform nanorods via microwave-hydrothermal route using licorice root extract as template. Ceramics International, 2021, 47, 3928-3937.	4.8	33
18	Design of mesoporous ZnO @ silica fume-derived SiO <sub>2</sub> nanocomposite as photocatalyst for efficient crystal violet removal: Effective route to recycle industrial waste. Journal of Cleaner Production, 2021, 326, 129416.	9.3	32

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19	Fabrication of nanostructured NiO and NiO:Cu thin films for high-performance ultraviolet photodetector. <i>Optical Materials</i> , 2021, 120, 111387.	3.6	31
20	Determining the optical properties and simulating the radiation shielding parameters of Dy <sup>3+</sup> doped lithium yttrium borate glasses. <i>Optik</i> , 2022, 250, 168318.	2.9	31
21	Physical, optical, and radiation characteristics of bioactive glasses for dental prosthetics and orthopaedic implants applications. <i>Radiation Physics and Chemistry</i> , 2022, 193, 109995.	2.8	31
22	Organic heterostructure modified carbon nitride as apprehension for Quercetin Biosensor. <i>Synthetic Metals</i> , 2021, 278, 116813.	3.9	30
23	Effects of TeO <sub>2</sub> /B <sub>2</sub> O <sub>3</sub> substitution on synthesis, physical, optical and radiation shielding properties of ZnO–Li <sub>2</sub> O–GeO <sub>2</sub> –Bi <sub>2</sub> O <sub>3</sub> glasses. <i>Ceramics International</i> , 2021, 47, 30137-30146.	4.8	29
24	Investigations into the physical properties of SnO <sub>2</sub> /MoO <sub>3</sub> and SnO <sub>2</sub> /WO <sub>3</sub> bi-layered structures along with photocatalytic and antibacterial applications. <i>Thin Solid Films</i> , 2018, 648, 12-20.	1.8	28
25	Quantum chemical study of end-capped acceptor and bridge on triphenyl diamine based molecules to enhance the optoelectronic properties of organic solar cells. <i>Polymer</i> , 2022, 245, 124675.	3.8	26
26	Theoretical investigations of Tamm plasmon resonance for monitoring of isoprene traces in the exhaled breath: Towards chronic liver fibrosis disease biomarkers. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2021, 413, 127610.	2.1	23
27	Wet-chemical synthesis of urchin-like Co-doped CuO: A visible light trigger photocatalyst for water remediation and antimicrobial applications. <i>Ceramics International</i> , 2022, 48, 21763-21772.	4.8	22
28	Theoretical investigation of pressure sensing using a defect of polystyrene inside photonic crystals. <i>Materials Chemistry and Physics</i> , 2021, 270, 124853.	4.0	21
29	Estimation of radiation protection ability of borate glass system doped with CdO, PbO, and TeO <sub>2</sub> . <i>Radiation Physics and Chemistry</i> , 2022, 193, 109996.	2.8	21
30	Optical properties, elastic moduli, and radiation shielding performance of some waste glass systems treated by bismuth oxide. <i>Optik</i> , 2022, 266, 169567.	2.9	21
31	Significant influence of Cu content on the radiation shielding properties of Ge-Se-Te bulk glasses. <i>Radiation Physics and Chemistry</i> , 2022, 193, 109981.	2.8	20
32	Nuclear shielding characteristics of Sm <sup>3+</sup> doped borosilicate glasses containing Na <sub>2</sub> O, PbO and ZnO. <i>Radiation Physics and Chemistry</i> , 2022, 194, 110044.	2.8	20
33	Holmium(III) oxide and its significant effects on the radiation shielding performance of P <sub>2</sub> O <sub>5</sub> + B <sub>2</sub> O <sub>3</sub> + ZnSO <sub>4</sub> optical glasses. <i>Optik</i> , 2022, 261, 169188.	2.9	20
34	Optical borophosphate glass system with excellent properties for radiation shielding applications. <i>Optik</i> , 2022, 266, 169568.	2.9	20
35	Optical and radiation shielding studies on tellurite glass system containing ZnO and Na <sub>2</sub> O. <i>Optik</i> , 2022, 257, 168821.	2.9	19
36	Influence of Fe <sub>2</sub> O <sub>3</sub> content on the optical features and radiation shielding efficiency of CaO-Na <sub>2</sub> O-B <sub>2</sub> O <sub>3</sub> glass system. <i>Optik</i> , 2022, 265, 169473.	2.9	18

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37	Design of a low-cost laser CUT-OFF filters using carmine dye-doped PVA polymeric composite films. Results in Physics, 2020, 18, 103203.	4.1	17
38	Development and Characterization of Gentamicin-Loaded Arabinoxylan-Sodium Alginate Films as Antibacterial Wound Dressing. International Journal of Molecular Sciences, 2022, 23, 2899.	4.1	16
39	A synergistic effect of heavy metal oxides to enhance the physical, optical, and radiation-absorption properties of TeO <sub>2</sub> -Li <sub>2</sub> O-BaO glasses. Optik, 2022, 261, 169189.	2.9	16
40	Antibiotic-Loaded Psyllium Husk Hemicellulose and Gelatin-Based Polymeric Films for Wound Dressing Application. Pharmaceutics, 2021, 13, 236.	4.5	15
41	Optical and spectroscopic behavior of Eu <sup>3+</sup> doped heavy metal phosphate glasses. Ceramics International, 2022, 48, 19424-19433.	4.8	15
42	Synthesis and properties of tellurite based glasses containing Na <sub>2</sub> O, BaO, and TiO <sub>2</sub> : Raman, UV and neutron/charged particle shielding assessments. Ceramics International, 2022, 48, 18330-18337.	4.8	15
43	Effect of Nb <sub>2</sub> O <sub>5</sub> inclusion on the radiation shielding efficiency of TeO <sub>2</sub> -ZnO-LiF-NaF glass system. Radiation Physics and Chemistry, 2022, 196, 110127.	2.8	14
44	Structure and AC electrical characterization for amorphous Se <sub>50</sub> Te <sub>50</sub> thin-film fabricated by thermal evaporation technique. Physica B: Condensed Matter, 2021, 612, 412975.	2.7	13
45	Optical properties and radiation shielding competence of Bi/Te-BGe glass system containing B <sub>2</sub> O <sub>3</sub> and GeO <sub>2</sub> . Optik, 2022, 257, 168883.	2.9	12
46	Synthesis, optical properties and radiation shielding performance of TeO <sub>2</sub> -Na <sub>2</sub> O-BaO-WO <sub>3</sub> glass system. Optik, 2022, 261, 169167.	2.9	12
47	A theoretical study on the radiation shielding performance of borate and tellurite glasses. Solid State Sciences, 2022, 129, 106902.	3.2	12
48	The significant role of CeO <sub>2</sub> content on the radiation shielding performance of Fe <sub>2</sub> O <sub>3</sub> -P <sub>2</sub> O <sub>5</sub> glass-ceramics: Geant4 simulations study. Physica Scripta, 2021, 96, 115305.	2.5	11
49	Influence of iron (III) oxide on the optical, mechanical, physical, and radiation shielding properties of sodium-barium-vanadate glass system. Optik, 2022, 257, 168844.	2.9	11
50	Investigation of the magnetocaloric effect and the critical behavior of the interacting superparamagnetic nanoparticles of La <sub>0.8</sub> Sr <sub>0.15</sub> Na <sub>0.05</sub> MnO <sub>3</sub> . Journal of Alloys and Compounds, 2022, 890, 161739.	5.5	10
51	Synthesis of an optimized ZnS/Au/ZnS multilayer films for solar cell electrode applications. Optical Materials, 2021, 113, 110814.	3.6	9
52	Robust Adaptive HCS MPPT Algorithm-Based Wind Generation System Using Model Reference Adaptive Control. Sensors, 2021, 21, 5187.	3.8	9
53	Designing phenyl-di-p-tolyl-amine-based asymmetric small molecular donor materials with favorable photovoltaic parameters. Optik, 2022, 256, 168739.	2.9	9
54	Beam perturbation characteristics of a 2D transmission silicon diode array, Magic Plate. Journal of Applied Clinical Medical Physics, 2016, 17, 85-98.	1.9	8

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55	Modeling the Magnetocaloric Effect of La <sub>0.67</sub> Pb <sub>0.33</sub> MnO <sub>3</sub> by the Mean-Field Theory. Journal of Superconductivity and Novel Magnetism, 2018, 31, 3717-3722.	1.8	7
56	Spontaneous Magnetization Estimation and Magnetocaloric Effect Study by Means of Theoretical Models in La <sub>0.67</sub> Pb <sub>0.33</sub> MnO <sub>3</sub> . Journal of Superconductivity and Novel Magnetism, 2019, 32, 1285-1291.	1.8	7
57	High density binary TeO <sub>2</sub> -Bi <sub>2</sub> O <sub>3</sub> glasses: strong potential as a nontoxic and environmentally friendly glass shields for photons/charged particles. Journal of Materials Research and Technology, 2022, 17, 1311-1318.	5.8	7
58	2D mapping of the MV photon fluence and 3D dose reconstruction in real time for quality assurance during radiotherapy treatment. Journal of Instrumentation, 2015, 10, P09019-P09019.	1.2	6
59	Boosting the catalytic efficiency of platinum nanoparticles supported on pristine carbon nanotubes: Synergistic effects of conducting polymers. Fuel, 2021, 306, 121681.	6.4	6
60	DFT study of 2D graphitic carbon nitride based preferential targeted delivery of levosimendan, a cardiovascular drug. Computational and Theoretical Chemistry, 2022, 1209, 113584.	2.5	6
61	Optical properties and photon-shielding performance of B <sub>2</sub> O <sub>3</sub> -based glasses. Optik, 2022, 264, 169343.	2.9	6
62	Ozone Depletion Identification in Stratosphere Through Faster Region-Based Convolutional Neural Network. Computers, Materials and Continua, 2021, 68, 2159-2178.	1.9	5
63	Klein-Nishina formula and Monte Carlo method for evaluating the gamma attenuation properties of Zn, Ba, Te and Bi elements. Materials Science-Poland, 2021, .	1.0	4
64	Study of the influence of MoO <sub>3</sub> concentration on the chemical structure, physical properties, and radiation absorption prowess of alumino lead borate glasses. Physica Scripta, 2021, 96, 125325.	2.5	4
65	Dynamic models for air-breathing and conventional polymer electrolyte fuel cells: A comparative study. Renewable Energy, 2022, 195, 1001-1014.	8.9	4
66	Impact of a monolithic silicon detector operating in transmission mode on clinical photon beams. Physica Medica, 2017, 43, 114-119.	0.7	3
67	MATLAB Image Treatment of Copper-Steel Laser Welding. Advances in Materials Science and Engineering, 2020, 2020, 1-13.	1.8	3
68	The Influence of CoO/P <sub>2</sub> O <sub>5</sub> Substitutions on the Structural, Mechanical, and Radiation Shielding of Boro-Phosphate Glasses. Materials, 2021, 14, 6632.	2.9	3
69	Mechanical, optical, and gamma-attenuation properties of a newly developed tellurite glass system. Optik, 2022, 266, 169355.	2.9	3
70	Two-dimensional solid-state array detectors: A technique for <i>in vivo</i> dose verification in a variable effective area. Journal of Applied Clinical Medical Physics, 2019, 20, 88-94.	1.9	2
71	Bipyridine-based polybenzimidazole as a nitrogen-rich ionomer and a platinum nanoparticle support for enhanced fuel cell performance. Fuel, 2022, 312, 122954.	6.4	2
72	The influential role of ITO heat treatment on improving the performance of solar cell n-ITO/p-Si junction: Structural, optical, and electrical characterizations. Materials Today Communications, 2022, 31, 103272.	1.9	2

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73	Structural and Optical Properties of Calcium Titanate Prepared from Gypsum. Journal of Nanotechnology, 2022, 2022, 1-9.	3.4	2
74	Controlled growth of hexagonal nanocrystals Co and Gd co-doping ZnO by hydrothermal method. Emerging Materials Research, 2020, 9, 1032-1040.	0.7	1
75	Experimental evaluation of fracture properties of bovine hip cortical bone using elastic-plastic fracture mechanics. Bio-Medical Materials and Engineering, 2022, 33, 91-99.	0.6	1
76	Fully-developed laminar flow in trapezoidal ducts with rounded corners: a numerical solution and case study. International Journal of Numerical Methods for Heat and Fluid Flow, 2022, 32, 2682-2699.	2.8	1
77	Evaluation of Radiation Doses from Computed Tomography Conducted in Al Jouf Region (Saudi Arabia). Journal of Medical Imaging and Health Informatics, 2021, 11, 2194-2200.	0.3	0
78	Sapphire irradiation by phosphorus as an approach to improve its optical properties. Open Physics, 2022, 20, 202-207.	1.7	0