K G Mahmoud

List of Publications by Year
in descending order

121 papers	3,354 citations	94269 37 h-index	189595 50 g-index
121 all docs	121 docs citations	121 times ranked	613 citing authors

#	Article	IF	Citations
1	The effect of CuO additive on the mechanical and radiation shielding features of Li2B4O7â€“Pb2O3 glass system. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2022, 61, 275-283.	0.9	17
2	The role of Tb2O3 in enhancement the properties of the La2O3â€“P2O5 glass system: Mechanical and radiation shielding study. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2022, 61, 595-603.	0.9	4
3	Synthesis of different (RE)BaCuO ceramics, study their structural properties, and tracking their radiation protection efficiency using Monte Carlo simulation. Materials Chemistry and Physics, 2022, 276, 125412.	2.0	23
4	Fabrication, physical, linear optical, and nuclear radiation attenuation features of sodium borosilicate glasses. Journal of the Australian Ceramic Society, 2022, 58, 275.	1.1	1
5	Synthesis, FTIR, and mechanical as well as radiation shielding characteristics in Nd2O3-doped bismuth lithium borate glasses. Ceramics International, 2022, 48, 12829-12837.	2.3	6
6	Evaluation of the Radiation-Protective Properties of Bi (Pb)â€“Srâ€“Caâ€“Cuâ€“O Ceramic Prepared at Different Temperatures with Silver Inclusion. Materials, 2022, 15, 1034.	1.3	12
7	Influence of increasing SnO2 content on the mechanical, optical, and gamma-ray shielding characteristics of a lithium zinc borate glass system. Scientific Reports, 2022, 12, 1800.	1.6	6
8	Applicability of the multispectral remote sensing on determining the natural rock complexes distribution and their evaluability on the radiation protection applications. Radiation Physics and Chemistry, 2022, 193, 110004.	1.4	38
9	Effect of sintering conditions on the radiation shielding characteristics of YBCO superconducting ceramics. Journal of Physics and Chemistry of Solids, 2022, 164, 110627.	1.9	27
10	Multispectral remote sensing for determination the Ultra-mafic complexes distribution and their applications in reducing the equivalent dose from the radioactive wastes. European Physical Journal Plus, 2022, 137, 1.	1.2	24
11	A novel barium oxide-based Iraqi sand glass to attenuate the low gamma-ray energies: Fabrication, mechanical, and radiation protection capacity evaluation. Nuclear Engineering and Technology, 2022, 54, 3051-3058.	1.1	6
12	Optical and radiation shielding properties of titano-phosphate glasses: influence of BaO. Journal of the Australian Ceramic Society, 2022, 58, 867-880.	1.1	9
13	Examinations the optical, mechanical, and shielding properties of Ag2O doped B2O3â€“Bi2O3â€“SrF2â€“Na2O glasses for gamma ray shield applications. Scientific Reports, 2022, 12, 3548.	1.6	8
14	Assessment of mechanical and radiation shielding capacity for a ternary CdOâ€“BaOâ€“B2O3 glass system: A comprehensive experimental, Monte Carlo simulation, and theoretical studies. Progress in Nuclear Energy, 2022, 146, 104169.	1.3	4
15	Investigation of the mechanical and radiation shielding features for BaO-WO3-P2O5 glass systems. Optik, 2022, 258, 168810.	1.4	14
16	Theoretical Investigation of the radiation-protection properties of the CBS glass family. Optik, 2022, 258, 168851.	1.4	17
17	Simulation of the impact of Bi2O3 on the performance of gamma-ray protection for lithium zinc silicate glasses. Optik, 2022, 257, 168861.	1.4	14
18	Gamma-ray protection capacity evaluation and satellite data based mapping for the limestone, charnockite, and gneiss rocks in the Sirugudi taluk of the Dindigul district, India. Radiation Physics and Chemistry, 2022, 196, 110108.	1.4	23

#	ARTICLE	IF	CITATIONS
19	Structure, optical properties, and ionizing radiation shielding performance using Monte Carlo simulation for lead-free BTO perovskite ceramics doped with ZnO, SiO2, and WO3 oxides. Materials Science in Semiconductor Processing, 2022, 145, 106629.	1.9	36
20	Development of Tincal based polypropylene polymeric materials for radiation shielding applications: Experimental, theoretical, and Monte Carlo investigations. Materials Science in Semiconductor Processing, 2022, 146, 106696.	1.9	15
21	Fabrication, characterization, and gamma-ray shielding performance for the lead-based Iraqi white silicate glasses: A closer examination. Optik, 2022, , 169103.	1.4	1
22	Evaluation of radiation shielding characteristics of B2O3â€“K2Oâ€“ Li2O - HMO (HMO = TeO2/ SrO) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 200, 110172.	1.4	21
23	ErBaCuO/PbO ceramic composites: Synthesis, physical properties, and radiation shielding performance. Ceramics International, 2022, 48, 24355-24362.	2.3	2
24	The role of natural rock filler in optimizing the radiation protection capacity of the intermediate-level radioactive waste containers. Nuclear Engineering and Technology, 2022, 54, 3849-3854.	1.1	5
25	Network-modifying role of Er3+ ions on the structural, optical, mechanical, and radiation shielding properties of ZnF2â€“BaOâ€“Al2O3â€“Li2Oâ€“B2O3 glass. Radiation Physics and Chemistry, 2022, 200, 110228.	1.4	2
26	Optimizing the gamma-ray shielding behaviors for polypropylene using lead oxide: a detailed examination. Journal of Materials Research and Technology, 2022, 19, 1862-1872.	2.6	14
27	Improvement in the design of shielding containers for intermediate-level radioactive waste. Radiation Physics and Chemistry, 2022, 200, 110229.	1.4	3
28	Gamma-rays attenuation by mineralized siltstone and dolostone rocks: Monte Carlo simulation, theoretical and experimental evaluations. Radiation Physics and Chemistry, 2022, 198, 110281.	1.4	8
29	A closer look at the impacts of MnO2 on the optical, mechanical, and radiation shielding properties of the B2O3â€“BaF2â€“Li2O glass system of 40B2O3â€‰+â€‰(40-x) BaF2â€‰+â€‰5MgOâ€‰+â€‰15Li2Oâ€‰+â€‰xMnO2. Ap Materials Science and Processing, 2022, 128, .	1.1	0
30	Suggested two layers container for shielding the low and intermediate activity gamma-ray sources. Radiation Physics and Chemistry, 2022, 199, 110322.	1.4	0
31	Design and Gamma-Ray Attenuation Features of New Concrete Materials for Low- and Moderate-Photons Energy Protection Applications. Materials, 2022, 15, 4947.	1.3	24
32	Synthesis, optical and radiation shielding capacity of the Sm2O3 doped borate glasses. Journal of Non-Crystalline Solids, 2021, 553, 120505.	1.5	10
33	Influence of modifier oxide on the structural and radiation shielding features of Sm3+-doped calcium telluro-fluoroborate glass systems. Journal of the Australian Ceramic Society, 2021, 57, 275-286.	1.1	67
34	The influence of MgO on the radiation protection and mechanical properties of tellurite glasses. Nuclear Engineering and Technology, 2021, 53, 2000-2010.	1.1	86
35	A comprehensive examination of zinc-boro-vanadate glass reinforced with Ag2O in physical, optical, mechanical, and radiation shielding aspects. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	11
36	Impact of Bi2O3 modifier concentration on bariumâ€“zincborate glasses: physical, structural, elastic, and radiation-shielding properties. European Physical Journal Plus, 2021, 136, 116.	1.2	94

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37	The effect of Nb2O5 on waste sodaâ€lime glass in gammaâ€rays shielding applications. Journal of Materials Science: Materials in Electronics, 2021, 32, 4903-4915.	1.1	19
38	Synthesis, structure, mechanical and radiation shielding features of 50SiO2â€“(48â€‰+â€‰X) Na2B4O7â€“(2â€‰âˆ’â€‰X) MnO2 glasses. European Physical Journal Plus, 2021, 136, 1.	1.2	47
39	Radiation shielding competencies for waste sodaâ€“limeâ€“silicate glass reinforced with Ta2O5: experimental, computational, and simulation studies. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	8
40	Novel borosilicate glass system: Na2B4O7-SiO2-MnO2: Synthesis, average electronics polarizability, optical basicity, and gamma-ray shielding features. Journal of Non-Crystalline Solids, 2021, 553, 120509.	1.5	48
41	Tailoring Dy3+/Tb3+-doped lead telluride borate glasses for gamma-ray shielding applications. European Physical Journal Plus, 2021, 136, 1.	1.2	5
42	Structural, optical, and gamma-ray shielding properties of a newly fabricated P2O5â€“B2O3â€“Bi2O3â€“Li2Oâ€“ZrO2 glass system. European Physical Journal Plus, 2021, 136, 1.	1.2	5
43	Ta2O5 reinforced Bi2O3â€“TeO2â€“ZnO glasses: Fabrication, physical, structural characterization, and radiation shielding efficacy. Optical Materials, 2021, 112, 110757.	1.7	59
44	Effect of the Fe2O3 addition on the elastic and gamma-ray shielding features of bismuth sodium-borate glass system. Journal of Materials Science: Materials in Electronics, 2021, 32, 6942-6954.	1.1	19
45	Gamma ray exposure buildup factor and shielding features for some binary alloys using MCNP-5 simulation code. Nuclear Engineering and Technology, 2021, , .	1.1	24
46	Influence of heavy metal oxides to the mechanical and radiation shielding properties of borate and silica glass system. Journal of Materials Research and Technology, 2021, 11, 1322-1330.	2.6	14
47	The role of B2O3 on the structural, thermal, and radiation protection efficacy of vanadium phosphate glasses. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	40
48	Fabrication of TeO2-doped strontium borate glasses possessing optimum physical, structural, optical and gamma ray shielding properties. European Physical Journal Plus, 2021, 136, 1.	1.2	8
49	Evaluation of radiation shielding capacity of vanadiumâ€“telluriteâ€“antimonite semiconducting glasses. Optical Materials, 2021, 114, 110897.	1.7	27
50	A comprehensive investigation on the role of PbO in the structural and radiation shielding attribute of P2O5â€“CaOâ€“Na2Oâ€“K2Oâ€“PbO glass system. Journal of Materials Science: Materials in Electronics, 2021, 32, 12371-12382.	1.1	14
51	Repercussions of yttrium oxides on radiation shielding capacity of sodium-silicate glass system: experimental and Monte Carlo simulation study. European Physical Journal Plus, 2021, 136, 1.	1.2	13
52	Evaluation of gamma-rays attenuation competences for waste soda-lime glass containing MoO3: Experimental study, XCOM computations, and MCNP-5 results.. Journal of Non-Crystalline Solids, 2021, 557, 120572.	1.5	21
53	Physical, structural, and gamma ray shielding studies on novel (35+x) PbO-5TeO2-20Bi2O3-(20-x) MgO-20B2O3 glasses. Journal of the Australian Ceramic Society, 2021, 57, 971-981.	1.1	7
54	Tailoring bismuth borate glasses by incorporating PbO/GeO2 for protection against nuclear radiation. Scientific Reports, 2021, 11, 7784.	1.6	22

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55	A comprehensive study on the optical, mechanical, and radiation shielding properties of the TeO2â€"Li2Oâ€"GeO2 glass system. Journal of Materials Science: Materials in Electronics, 2021, 32, 15226-15241.	1.1	18
56	Gamma-ray shielding capacity of different B4C-, Re-, and Ni-based superalloys. European Physical Journal Plus, 2021, 136, 1.	1.2	9
57	Comprehensive study of radiation shielding and mechanical features of Bi2O3-TeO2-B2O3-GeO2 glasses. Journal of the Australian Ceramic Society, 2021, 57, 1267-1274.	1.1	21
58	Extensive study of the optical, mechanical properties, and gamma photon shielding effectiveness of potassium titanate biso-phosphate glasses. Journal of Materials Science: Materials in Electronics, 2021, 32, 18145-18162.	1.1	3
59	The Influence of Titanium Dioxide on Silicate-Based Glasses: An Evaluation of the Mechanical and Radiation Shielding Properties. Materials, 2021, 14, 3414.	1.3	23
60	Structural, mechanical, and nuclear radiation shielding properties of iron aluminoleadborate glasses. European Physical Journal Plus, 2021, 136, 1.	1.2	18
61	The Role of La2O3 in Enhancement the Radiation Shielding Efficiency of the Tellurite Glasses: Monte-Carlo Simulation and Theoretical Study. Materials, 2021, 14, 3913.	1.3	13
62	Influence of Li2O Incrementation on Mechanical and Gamma-Ray Shielding Characteristics of a TeO2-As2O3-B2O3 Glass System. Materials, 2021, 14, 4060.	1.3	2
63	Radiation shielding, optical, and physical properties of alkali borate glasses modified with Cu2+/Zn2+ ions. Journal of Materials Science: Materials in Electronics, 2021, 32, 19733-19741.	1.1	4
64	A new heavy-mineral doped clay brick for gamma-ray protection purposes. Applied Radiation and Isotopes, 2021, 173, 109720.	0.7	15
65	Optical and radiation shielding features for a new series of borate glass samples. Optik, 2021, 239, 166790.	1.4	101
66	A lanthanum-barium-borovanadate glass containing Bi2O3 for radiation shielding applications. Radiation Physics and Chemistry, 2021, 186, 109557.	1.4	19
67	Evaluation of optical, and radiation shielding features of New phosphate-based glass system. Optik, 2021, 242, 167220.	1.4	24
68	Newly developed glass samples containing P2O5â€"B2O3â€"Bi2O3â€"Li2Oâ€"CdO and their performance in optical and radiation attenuation applications. Optik, 2021, 242, 167219.	1.4	1
69	Synthesis, physical properties, and gammaâ€"ray shielding capacity of different Ni-based super alloys. Radiation Physics and Chemistry, 2021, 186, 109483.	1.4	14
70	Gamma-ray shielding, physical, and structural characteristics of TeO2â€"CdOâ€"PbOâ€"B2O3 glasses. Optical Materials, 2021, 119, 111333.	1.7	14
71	Developed barium fluoride-based borate glass: Ag2O impacts on optical and gamma-ray attenuation properties. Optik, 2021, 244, 167479.	1.4	3
72	Fabrication, structure, physical and optical features of the 50B2O3 +Â25Bi2O3 +Â(25-x) Li2OÂ+ÂxSrO2 glasses. Optik, 2021, 244, 167485.	1.4	2

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73	Tailor made barium borate doped Bi2O3 glass system for radiological protection. Radiation Physics and Chemistry, 2021, 187, 109558.	1.4	11
74	Synthesis and study of structural, optical and radiation-protective peculiarities of MTiO3 (M = Ba, Sr) metatitanate ceramics mixed with SnO2 oxide. Ceramics International, 2021, 47, 28528-28535.	2.3	23
75	Influence of ZnO to the physical, elastic and gamma radiation shielding properties of the tellurite glass system using MCNP-5 simulation code. Radiation Physics and Chemistry, 2021, 188, 109665.	1.4	16
76	Zinc-lead-borate glasses doped with dysprosium oxide: Structure, optical, and radiation shielding features. Optik, 2021, 246, 167765.	1.4	13
77	Ionizing radiation shielding features for titanium borosilicate glass modified with different concentrations of barium oxide. Materials Chemistry and Physics, 2021, 272, 125047.	2.0	50
78	The influence of BaO on the mechanical and gamma / fast neutron shielding properties of lead phosphate glasses. Nuclear Engineering and Technology, 2021, 53, 3816-3823.	1.1	15
79	Effect of Fe2O3 doping on structural, FTIR and radiation shielding characteristics of aluminium-lead-borate glasses. Progress in Nuclear Energy, 2021, 141, 103931.	1.3	56
80	The concentration impact of Yb3+ on the bismuth boro-phosphate glasses: Physical, structural, optical, elastic, and radiation-shielding properties. Radiation Physics and Chemistry, 2021, 188, 109617.	1.4	61
81	A novel CaOâ€“K2Oâ€“Na2Oâ€“P2O5 glass systems for radiation shielding applications. Radiation Physics and Chemistry, 2021, 188, 109645.	1.4	48
82	Advanced nuclear radiation shielding studies of some mafic and ultramafic complexes with lithological mapping. Radiation Physics and Chemistry, 2021, 189, 109777.	1.4	27
83	Fabrication, structural, optical, and dielectric properties of PVC-PbO nanocomposites, as well as their gamma-ray shielding capability. Radiation Physics and Chemistry, 2021, 189, 109753.	1.4	42
84	Development of a novel MoO3-doped borate glass network for gamma-ray shielding applications. European Physical Journal Plus, 2021, 136, 1.	1.2	34
85	Gamma ray interaction studies of the PbCl2â€“SnCl2â€“P2O5 bioactive glass system for applications in nuclear medicine. Journal of the Australian Ceramic Society, 2021, 57, 635-642.	1.1	5
86	Enhancement of the Shielding Capability of Sodaâ€“Lime Glasses with Sb2O3 Dopant: A Potential Material for Radiation Safety in Nuclear Installations. Applied Sciences (Switzerland), 2021, 11, 326.	1.3	40
87	On B2O3/Bi2O3/Na2O/Gd2O3 glasses: synthesis, structure, physical characteristics, and gamma-ray attenuation competence. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	3
88	Impact of Modifier Oxides on Mechanical and Radiation Shielding Properties of B2O3-SrO-TeO2-RO Glasses (Where RO = TiO2, ZnO, BaO, and PbO). Applied Sciences (Switzerland), 2021, 11, 10904.	1.3	36
89	Impact of tin oxide on the structural features and radiation shielding response of some ABO3 perovskites ceramics (Aâ€‰=â€‰Ca, Sr, Ba; Bâ€‰=â€‰Ti). Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	1
90	Aggregates grain size and press rate dependence of the shielding parameters for some concretes. Progress in Nuclear Energy, 2020, 118, 103092.	1.3	49

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91	Study on the radiation attenuation properties of locally available bees-wax as a tissue equivalent bolus material in radiotherapy. Radiation Physics and Chemistry, 2020, 172, 108559.	1.4	29
92	Germanate oxide impacts on the optical and gamma radiation shielding properties of TeO2-ZnO-Li2O glass system. Journal of Non-Crystalline Solids, 2020, 546, 120272.	1.5	50
93	Evaluation of Radiation Shielding Features of Co and Ni-Based Superalloys Using MCNP-5 Code: Potential Use in Nuclear Safety. Applied Sciences (Switzerland), 2020, 10, 7680.	1.3	55
94	Tm3+ ions-doped phosphate glasses: nuclear shielding competence and elastic moduli. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	1.1	4
95	Novel zinc vanadyl boro-phosphate glasses: ZnOâ€“V2O5â€“ P2O5â€“B2O3: Physical, thermal, and nuclear radiation shielding properties. Ceramics International, 2020, 46, 19318-19327.	2.3	66
96	Gamma ray shielding capacity and build up factors of CdO doped lithium borate glasses: theoretical and simulation study. Journal of Non-Crystalline Solids, 2020, 541, 120110.	1.5	43
97	Role of ZnO on TeO2.Li2O.ZnO glasses for optical and nuclear radiation shielding applications utilizing MCNP5 simulations and WINXCOM program. Journal of Non-Crystalline Solids, 2020, 544, 120162.	1.5	68
98	Investigation of the gamma ray shielding properties for polyvinyl chloride reinforced with chalcocite and hematite minerals. Heliyon, 2020, 6, e03560.	1.4	56
99	Evaluation of nuclear radiation shielding competence for ternary Geâ€“Sbâ€“S chalcogenide glasses. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	1.1	47
100	Novel tellurite glass (60-x)TeO2â€“10GeO2 -20ZnOâ€“10BaO - xBi2O3 for radiation shielding. Journal of Alloys and Compounds, 2020, 844, 155668.	2.8	52
101	The influence of PbO and Bi2O3 on the radiation shielding and elastic features for different glasses. Journal of Materials Research and Technology, 2020, 9, 8429-8438.	2.6	52
102	Physical, structural, optical and gamma radiation attenuation properties of germanate-tellurite glasses for shielding applications. Journal of Non-Crystalline Solids, 2020, 545, 120250.	1.5	55
103	Application of experimental measurements, Monte Carlo simulation and theoretical calculation to estimate the gamma ray shielding capacity of various natural rocks. Progress in Nuclear Energy, 2020, 126, 103405.	1.3	25
104	The role of cadmium oxides in the enhancement of radiation shielding capacities for alkali borate glasses. Ceramics International, 2020, 46, 23337-23346.	2.3	53
105	Modified halloysite minerals for radiation shielding purposes. Journal of Radiation Research and Applied Sciences, 2020, 13, 94-101.	0.7	34
106	Novel vanadyl lead-phosphate glasses: P2O5â€“PbOâ€“ZnO Na2Oâ€“V2O5: Synthesis, optical, physical and gamma photon attenuation properties. Journal of Non-Crystalline Solids, 2020, 534, 119944.	1.5	87
107	Direct influence of mercury oxide on structural, optical and radiation shielding properties of a new borate glass system. Ceramics International, 2020, 46, 17978-17986.	2.3	51
108	The role of PbO/Bi2O3 insertion on the shielding characteristics of novel borate glasses. Ceramics International, 2020, 46, 23357-23368.	2.3	83

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109	Physical and structural effect of modifiers on dysprosium ions incorporated boro-tellurite glasses for radiation shielding purposes. Ceramics International, 2020, 46, 17929-17937.	2.3	46
110	FTIR, UVâ€“Visâ€“NIR spectroscopy, and gamma rays shielding competence of novel ZnO-doped vanadium borophosphate glasses. Journal of Materials Science: Materials in Electronics, 2020, 31, 9099-9113.	1.1	90
111	Application of the MCNP 5 code to simulate the shielding features of concrete samples with different aggregates. Radiation Physics and Chemistry, 2020, 174, 108925.	1.4	37
112	The radiation-shielding properties of ternary SiO2â€“SnOâ€“SnF2 glasses: Simulation and theoretical study. Ceramics International, 2020, 46, 23369-23378.	2.3	62
113	Synthesis, structural, optical and radiation shielding features of tungsten trioxides doped borate glasses using Monte Carlo simulation and phy-X program. Journal of Non-Crystalline Solids, 2020, 543, 120134.	1.5	45
114	Evaluation of optical and gamma ray shielding features for tungsten-based bismuth borate glasses. Optical Materials, 2020, 106, 109981.	1.7	27
115	Application of the Monte Carlo simulation method to simulate the radiation shielding capacity of Lithium tungstate composites. AIP Conference Proceedings, 2020, , .	0.3	0
116	Comparative studies between the shielding parameters of concretes with different additive aggregates using MCNP-5 simulation code. Radiation Physics and Chemistry, 2019, 165, 108426.	1.4	44
117	Simulation studies for gamma ray shielding properties of Halloysite nanotubes using MCNP-5 code. Applied Radiation and Isotopes, 2019, 154, 108882.	0.7	37
118	Influence of single-walled carbon nanotubes induced exciton dissociation improvement on hybrid organic photovoltaic devices. Journal of Applied Physics, 2019, 126, .	1.1	9
119	Gamma ray shielding characteristics and exposure buildup factor for some natural rocks using MCNP-5 code. Nuclear Engineering and Technology, 2019, 51, 1835-1841.	1.1	109
120	Investigation of radiation shielding properties for some building materials reinforced by basalt powder. AIP Conference Proceedings, 2019, , .	0.3	41
121	Influence of the SrO Insertion to a Binary PbO-B₂O₃ Glass System: Mechanical Properties and Radiation Shielding Study. Transactions of the Indian Ceramic Society, 0, , 1-8.	0.4	1