Alaa F Abd El-Rehim

List of Publications by Year
in descending order

54 papers	1,142 citations	393982 19 h-index	414034 32 g-index
54 all docs	54 docs citations	54 times ranked	389 citing authors

#	Article	IF	Citations
1	Investigation of structural, magneto-electronic, elastic, mechanical and thermoelectric properties of novel lead-free halide double perovskite Cs2AgFeCl6: First-principles calcuations. Journal of Physics and Chemistry of Solids, 2022, 167, 110795.	1.9	108
2	The effects of La2O3 addition on mechanical and nuclear shielding properties for zinc borate glasses using Monte Carlo simulation. Ceramics International, 2020, 46, 29191-29198.	2.3	75
3	Investigation of the Structural, Elastic, Electronic, and Optical Properties of Half-Heusler CaMgZ (Z =) Tj ETQq1 1 0.784314 rgBT /Overlo	1.0	65
4	Influence of La2O3 content on the structural, mechanical, and radiation-shielding properties of sodium fluoro lead barium borate glasses. Journal of Materials Science: Materials in Electronics, 2021, 32, 4651-4671.	1.1	55
5	Structural, Elastic Moduli, and Radiation Shielding of SiO2-TiO2-La2O3-Na2O Glasses Containing Y2O3. Journal of Materials Engineering and Performance, 2021, 30, 1872-1884.	1.2	54
6	Structural and Mechanical Properties of Lithium Bismuth Borate Glasses Containing Molybdenum (LBBM) Together with their Glassâ€"Ceramics. Journal of Inorganic and Organometallic Polymers and Materials, 2021, 31, 1057-1065.	1.9	52
7	Spectroscopic, Structural, Thermal, and Mechanical Properties of B2O3-CeO2-PbO2 Glasses. Journal of Inorganic and Organometallic Polymers and Materials, 2021, 31, 1774-1786.	1.9	51
8	Radiation, Crystallization, and Physical Properties of Cadmium Borate Glasses. Silicon, 2021, 13, 2289-2307.	1.8	48
9	Physical, Radiation Shielding and Crystallization Properties of Na2O-Bi2O3- MoO3-B2O3- SiO2-Fe2O3 Glasses. Silicon, 2022, 14, 405-418.	1.8	46
10	Dispersion Parameters, Polarizability, and Basicity of Lithium Phosphate Glasses. Journal of Electronic Materials, 2021, 50, 3116-3128.	1.0	43
11	FT-IR and Gamma Shielding Characteristics of 22SiO2- 23Bi2O3-37B2O3-13TiO2-(5-x) LiF- x BaO Glasses. Silicon, 2022, 14, 7043-7051.	1.8	40
12	Investigation of microstructure and mechanical properties of Sn-xCu solder alloys. Journal of Alloys and Compounds, 2017, 695, 3666-3673.	2.8	36
13	Optical Properties of SiO2 â€" TiO2 â€" La2O3 â€" Na2O â€" Y2O3 Glasses and A Novel Process of Preparing the Parent Glass-Ceramics. Silicon, 2022, 14, 373-384.	1.8	32
14	Structural characterization and optical properties of zeolitic imidazolate frameworks (ZIF-8) for solid-state electronics applications. Optical Materials, 2020, 100, 109648.	1.7	31
15	Characterization of Ultramaficâ€"Alkalineâ€"Carbonatite complex for radiation shielding competencies: An experimental and Monte Carlo study with lithological mapping. Ore Geology Reviews, 2022, 142, 104735.	1.1	29
16	Advanced nuclear radiation shielding studies of some mafic and ultramafic complexes with lithological mapping. Radiation Physics and Chemistry, 2021, 189, 109777.	1.4	27
17	Physical, Optical, and Radiation Shielding Features of Yttrium Lithium Borate Glasses. Journal of Inorganic and Organometallic Polymers and Materials, 2022, 32, 2873-2881.	1.9	24
18	Effect of Fe2O3 as an Aggregate Replacement on Mechanical, and Gamma/ Neutron Radiation Shielding Properties of Phosphoaluminate Glasses. Journal of Inorganic and Organometallic Polymers and Materials, 2022, 32, 3117-3127.	1.9	23

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19	Fabrication of lithium borosilicate glasses containing Fe2O3 and ZnO for FT-IR, UVâ€“Visâ€“NIR, DTA, and highly efficient shield. Applied Physics A: Materials Science and Processing, 2022, 128, 1.	1.1	22
20	Gamma Radiation Shielding and Mechanical Studies on Highly Dense Lithium Iron Borosilicate Glasses Modified by Zinc Oxide. Silicon, 2022, 14, 10391-10399.	1.8	19
21	Effect of TiO2 Nanoparticles Addition on the Thermal, Microstructural and Room-Temperature Creep Behavior of Sn-Zn Based Solder. Journal of Electronic Materials, 2018, 47, 6984-6994.	1.0	18
22	Modification of ZIF-8 with triethylamine molecules for enhanced iodine and bromine adsorption. Inorganica Chimica Acta, 2020, 509, 119678.	1.2	17
23	The joint effect of naphthalene-system and defects on dye removal by UiO-66 derivatives. Microporous and Mesoporous Materials, 2021, 325, 111314.	2.2	16
24	Effect of aging treatment on microstructure and creep behaviour of Snâ€“Ag and Snâ€“Agâ€“Bi solder alloys. Materials Science and Technology, 2014, 30, 434-438.	0.8	15
25	MW synthesis of ZIF-65 with a hierarchical porous structure. Microporous and Mesoporous Materials, 2020, 293, 109685.	2.2	15
26	Microstructure evolution and tensile creep behavior of Snâ€“0.7Cu lead-free solder reinforced with ZnO nanoparticles. Journal of Materials Science: Materials in Electronics, 2019, 30, 2213-2223.	1.1	14
27	The Mechanical and Microstructural Changes of Sn-Ag-Bi Solders with Cooling Rate and Bi Content Variations. Journal of Materials Engineering and Performance, 2018, 27, 344-352.	1.2	13
28	Enhanced room temperature ammonia gas sensing properties of Al-doped ZnO nanostructured thin films. Optical and Quantum Electronics, 2020, 52, 1.	1.5	13
29	Simulation and Prediction of the Vickers Hardness of AZ91 Magnesium Alloy Using Artificial Neural Network Model. Crystals, 2020, 10, 290.	1.0	13
30	Mathematical Modelling of Vickers Hardness of Sn-9Zn-Cu Solder Alloys Using an Artificial Neural Network. Metals and Materials International, 2021, 27, 4084-4096.	1.8	13
31	Microhardness and microstructure characteristics of AZ91 magnesium alloy under different cooling rate conditions. Materials Research Express, 2019, 6, 086572.	0.8	11
32	The variation of work hardening characteristics of Al-5wt% Mg alloy during phase transition. Physica B: Condensed Matter, 2010, 405, 3616-3623.	1.3	10
33	Modelling the Effect of Cu Content on the Microstructure and Vickers Microhardness of Sn-9Zn Binary Eutectic Alloy Using an Artificial Neural Network. Crystals, 2021, 11, 481.	1.0	9
34	Effect of Cu addition on the microstructure and mechanical properties of Alâ€“30wt% Zn alloy. Journal of Alloys and Compounds, 2014, 607, 157-162.	2.8	8
35	Effect of Graphitic Carbon Nitride Nanosheets Addition on the Microstructure and Mechanical Properties of Sn-3.5Ag-0.5Cu Solder Alloy. Journal of Electronic Materials, 2018, 47, 5614-5624.	1.0	8
36	Study of precipitates formation in Al-4.5Wt%Cu and Al-4.5Wt%Cu-0.1Wt%In alloys using creep measurements and positron annihilation technique. Crystal Research and Technology, 2005, 40, 665-671.	0.6	7

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37	Transient and steady state creep of age-hardenable Alâ€“5Âwt% Mg alloy during superimposed torsional oscillations. Journal of Materials Science, 2013, 48, 2659-2669.	1.7	6
38	Structural, elastic, electronic and optical properties of the newly synthesized selenides Tl2CdXSe4 (Xâ€‰=â€‰Ge, Sn). European Physical Journal B, 2022, 95, 1.	0.6	6
39	Plastic deformation of Al-4.5 wt% Cu and Al-4.5 wt% Cu-0.1 wt% In alloys under the effect of cyclic stress reduction. Physica Status Solidi A, 2004, 201, 2295-2304.	1.7	5
40	Effect of torsional oscillations on the stressâ€“strain behavior of Alâ€“5wt% Mg alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 6026-6033.	2.6	5
41	Nanomaterial-based biosensors for COVID-19 detection. Critical Reviews in Solid State and Materials Sciences, 2022, 47, 955-978.	6.8	5
42	Effect of superimposed oscillations on creep behaviour of Al â€“ 2 4Â·.5Cu and Al â€“ 2 4Â·5Cu â€“ 2 0Â·1In (wt-%) alloys containingÎ¸â€² precipitates. Materials Science and Technology, 2007, 23, 620-626.	0.8	4
43	Effect of structure transformation on the creep characteristics of Snâ€“3wt% Bi alloy. Journal of Alloys and Compounds, 2007, 440, 127-131.	2.8	4
44	Effect of Bi Content on the Microstructure and Mechanical Performance of Sn-1Ag-0.5Cu Solder Alloy. Crystals, 2021, 11, 314.	1.0	4
45	Morphological and optical investigations of the NiZnFe2O3 quaternary alloy nanostructures for potential application in optoelectronics. Journal of Taibah University for Science, 2021, 15, 275-281.	1.1	4
46	Examination of breakdown stress in creep by viscous glide in Alâ€“5Â·5 at.-%Mg solid solution alloy at high stress levels. Materials Science and Technology, 2007, 23, 1144-1148.	0.8	3
47	The enhancement of creep in Alâ€“22Âwt% Ag alloy by cyclic stressing. Journal of Materials Science, 2010, 45, 1579-1587.	1.7	3
48	Effect of Strain on the Electronic Structure and Phonon Stability of SrBaSn Half Heusler Alloy. Molecules, 2022, 27, 3785.	1.7	3
49	Influence of quenching conditions on the mechanical and structural properties of Alâ€“30wt% Zn alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 602, 105-109.	2.6	2
50	Evaluation of laser Induced Breakdown Spectroscopy for analysis of annealed Aluminum Germanium alloy at different temperatures. IOP Conference Series: Materials Science and Engineering, 2018, 383, 012012.	0.3	2
51	Influence of Sb₂O₃ Nanoparticles Addition on the Thermal, Microstructural and Creep Properties of Hypoeutectic Snâ€“Bi Solder Alloy. Science of Advanced Materials, 2021, 13, 20-29.	0.1	2
52	Exchange bias and magnetocrystalline anisotropy of non-stoichiometric CoxFe3â^'xO4 nanoparticles. Journal of Materials Science: Materials in Electronics, 2022, 33, 9629-9640.	1.1	2
53	Effect of cyclic stress reduction on high temperature creep characteristics of solid solution Alâ^'2Â·9 wt-Mg alloy. Materials Science and Technology, 2011, 27, 44-48.	0.8	1
54	Optical investigations of Cu2CdSnS<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e335" altimg="si2.svg"><mml:msub><mml:mrow /><mml:mrow><mml:mn>4</mml:mn></mml:mrow></mml:msub></mml:math> quaternary alloy nanostructure for indoor optical wireless communications. Optics Communications, 2022, 517, 128351.	1.0	1