

Mohammad Sultan Al-Assiri

List of Publications by Year in descending order

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83
papers

2,203
citations

185998

28
h-index

264894

42
g-index

83
all docs

83
docs citations

83
times ranked

2704
citing authors

#	ARTICLE	IF	CITATIONS
1	SnO ₂ doped ZnO nanostructures for highly efficient photocatalyst. Journal of Molecular Catalysis A, 2015, 397, 19-25.	4.8	106
2	Surface-enhanced Raman scattering (SERS)-active substrates from silver plated-porous silicon for detection of crystal violet. Applied Surface Science, 2015, 331, 241-247.	3.1	98
3	Ce-doped ZnO nanorods for the detection of hazardous chemical. Sensors and Actuators B: Chemical, 2012, 173, 72-78.	4.0	97
4	Highly sensitive amperometric hydrazine sensor based on novel γ -Fe ₂ O ₃ /crosslinked polyaniline nanocomposite modified glassy carbon electrode. Sensors and Actuators B: Chemical, 2016, 234, 573-582.	4.0	96
5	Hydrothermally grown ZnO nanoflowers for environmental remediation and clean energy applications. Materials Research Bulletin, 2012, 47, 2407-2414.	2.7	73
6	Hydrothermal synthesis of Sr-doped γ -Bi ₂ O ₃ nanosheets as highly efficient photocatalysts under visible light. Journal of Molecular Catalysis A, 2014, 387, 69-75.	4.8	73
7	Structural and Polaronic transport properties of semiconducting Cu ²⁺ /V ₂ O ₅ -TeO ₂ glasses. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2007, 137, 237-246.	1.7	66
8	Polythiophene/ZnO nanocomposite-modified glassy carbon electrode as efficient electrochemical hydrazine sensor. Materials Chemistry and Physics, 2018, 214, 126-134.	2.0	62
9	Novel mesoporous NiO/TiO ₂ nanocomposites with enhanced photocatalytic activity under visible light illumination. Ceramics International, 2018, 44, 7047-7056.	2.3	60
10	Two-dimensional ytterbium oxide nanodisks based biosensor for selective detection of urea. Biosensors and Bioelectronics, 2017, 98, 254-260.	5.3	59
11	Crystallization kinetics of melt-spun Fe ₈₃ B ₁₇ metallic glass. Thermochimica Acta, 2004, 413, 57-62.	1.2	49
12	A capacitive chemical sensor based on porous silicon for detection of polar and non-polar organic solvents. Applied Surface Science, 2014, 307, 704-711.	3.1	46
13	Fabrication of highly efficient TiO ₂ /C ₃ N ₄ visible light driven photocatalysts with enhanced photocatalytic activity. Journal of Molecular Structure, 2018, 1173, 428-438.	1.8	46
14	Study of nanostructural behavior and transport properties of BaTiO ₃ doped vanadate glasses and glass-ceramics dispersed with ferroelectric nanocrystals. Physica B: Condensed Matter, 2009, 404, 1437-1445.	1.3	40
15	Low-temperature growth and properties of flower-shaped - Ni(OH) ₂ and NiO structures composed of thin nanosheets networks. Superlattices and Microstructures, 2008, 44, 216-222.	1.4	37
16	Fabrication of non-enzymatic sensor using Co doped ZnO nanoparticles as a marker of H ₂ O ₂ . Physica E: Low-Dimensional Systems and Nanostructures, 2014, 62, 21-27.	1.3	36
17	Sensing performance optimization by tuning surface morphology of organic (D- α -A) dye based humidity sensor. Sensors and Actuators B: Chemical, 2016, 231, 30-37.	4.0	36
18	One-Pot Gram-Scale, Eco-Friendly, and Cost-Effective Synthesis of CuGa ₂ /ZnS Nanocrystals as Efficient UV-A Harvesting Down-Converter for Photovoltaics. Advanced Energy Materials, 2018, 8, 1703418.	10.2	36

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19	Fabrication and characterization of a highly sensitive hydroquinone chemical sensor based on iron-doped ZnO nanorods. Dalton Transactions, 2015, 44, 21081-21087.	1.6	35
20	Silver nanoparticles decorated stain-etched mesoporous silicon for sensitive, selective detection of ascorbic acid. Materials Letters, 2019, 234, 96-100.	1.3	35
21	Effect of iron doping on the characterization and transport properties of calcium phosphate glassy semiconductors. Journal of Physics and Chemistry of Solids, 2006, 67, 1873-1881.	1.9	34
22	Effects of Annealing Temperatures on the Structural and Dielectric Properties of ZnO Nanoparticles. Silicon, 2018, 10, 301-307.	1.8	34
23	Novel synthesis of Polyaniline/SrSnO ₃ nanocomposites with enhanced photocatalytic activity. Ceramics International, 2019, 45, 20484-20492.	2.3	34
24	Push-pull effect on the electronic, optical and charge transport properties of the benzo[2,3-b]thiophene derivatives as efficient multifunctional materials. Computational and Theoretical Chemistry, 2014, 1031, 76-82.	1.1	33
25	Enhanced efficiency and current density of solar cells via energy-down-shift having energy-tuning-effect of highly UV-light-harvesting Mn ²⁺ -doped quantum dots. Nano Energy, 2017, 33, 257-265.	8.2	33
26	Composite CdO-ZnO hexagonal nanocones: Efficient materials for photovoltaic and sensing applications. Ceramics International, 2018, 44, 5017-5024.	2.3	33
27	Modeling of multifunctional donor-bridge-acceptor 4,6-di(thiophen-2-yl)pyrimidine derivatives: A first principles study. Journal of Molecular Graphics and Modelling, 2013, 44, 168-176.	1.3	30
28	The effect of donors-acceptors on the charge transfer properties and tuning of emitting color for thiophene, pyrimidine and oligoacene based compounds. Journal of Fluorine Chemistry, 2014, 157, 52-57.	0.9	30
29	In-depth quantum chemical investigation of electro-optical and charge-transport properties of trans-3-(3,4-dimethoxyphenyl)-2-(4-nitrophenyl)prop-2-enitrile. Comptes Rendus Chimie, 2015, 18, 1289-1296.	0.2	28
30	Platinum nanoparticles decorated carbon nanotubes for highly sensitive 2-nitrophenol chemical sensor. Ceramics International, 2016, 42, 9257-9263.	2.3	27
31	Highly sensitive and selective non-enzymatic monosaccharide and disaccharide sugar sensing based on carbon paste electrodes modified with perforated NiO nanosheets. New Journal of Chemistry, 2018, 42, 964-973.	1.4	26
32	Synthesis, structural and electrical properties of annealed ZnO thin films deposited by pulsed laser deposition (PLD). Superlattices and Microstructures, 2014, 75, 127-135.	1.4	25
33	The effect of anchoring groups on the electro-optical and charge injection in triphenylamine derivatives@TiO ₂ . Journal of Theoretical and Computational Chemistry, 2015, 14, 1550027.	1.8	25
34	A facile synthesis of mesoporous PdZnO nanocomposites as efficient chemical sensor. Superlattices and Microstructures, 2016, 95, 128-139.	1.4	25
35	In-Doped ZnO Hexagonal Stepped Nanorods and Nanodisks as Potential Scaffold for Highly-Sensitive Phenyl Hydrazine Chemical Sensors. Materials, 2017, 10, 1337.	1.3	25
36	Mesoporous Ag/ZnO multilayer films prepared by repeated spin-coating for enhancing its photonic efficiencies. Surface and Coatings Technology, 2015, 263, 44-53.	2.2	24

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37	Time dependent growth of ZnO nanoflowers with enhanced field emission properties. <i>Ceramics International</i> , 2016, 42, 13215-13222.	2.3	24
38	Nitroaniline chemi-sensor based on bitter gourd shaped ytterbium oxide (Yb ₂ O ₃) doped zinc oxide (ZnO) nanostructures. <i>Ceramics International</i> , 2019, 45, 13825-13831.	2.3	24
39	Spectroscopic study of nanocrystalline V ₂ O ₅ ·nH ₂ O films doped with Li ions. <i>Optics and Laser Technology</i> , 2010, 42, 994-1003.	2.2	23
40	Correlation between nanostructural and electrical properties of barium titanate-based glass-ceramic nano-composites. <i>Journal of Alloys and Compounds</i> , 2011, 509, 8937-8943.	2.8	22
41	Quantum chemical study of the interaction of elemental Hg with small neutral, anionic and cationic Au _n (n=1-6) clusters. <i>Materials Research Bulletin</i> , 2013, 48, 995-1002.	2.7	22
42	Highly sensitive ethanol chemical sensor based on nanostructured SnO ₂ doped ZnO modified glassy carbon electrode. <i>Chemical Physics Letters</i> , 2015, 639, 238-242.	1.2	22
43	Evaluation of humidity sensing properties of TMBHPET thin film embedded with spinel cobalt ferrite nanoparticles. <i>Journal of Nanoparticle Research</i> , 2016, 18, 1.	0.8	22
44	Characterization and electrical properties of V ₂ O ₅ -CuO-P ₂ O ₅ glasses. <i>Physica B: Condensed Matter</i> , 2008, 403, 2684-2689.	1.3	19
45	Erbium-doped fluorotellurite titanate glasses for near infrared broadband amplifiers. <i>Optical Materials</i> , 2018, 83, 257-262.	1.7	19
46	Highly porous ZnO nanosheets self-assembled in rosette-like morphologies for dye-sensitized solar cell application. <i>New Journal of Chemistry</i> , 2015, 39, 7961-7970.	1.4	17
47	Grain size effects on dynamics of Li-ions in Li ₃ V ₂ (PO ₄) ₃ glass-ceramic nanocomposites. <i>Ionics</i> , 2016, 22, 2281-2290.	1.2	17
48	A highly sensitive and durable electrical sensor for liquid ethanol using thermally-oxidized mesoporous silicon. <i>Superlattices and Microstructures</i> , 2016, 100, 1064-1072.	1.4	17
49	Electrical porous silicon sensor for detection of various organic molecules in liquid phase. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015, 212, 1851-1857.	0.8	16
50	Quantum chemical investigation of spectroscopic studies and hydrogen bonding interactions between water and methoxybenzylidene-based humidity sensor. <i>Journal of Theoretical and Computational Chemistry</i> , 2015, 14, 1550029.	1.8	16
51	Low-cost and flexible ultra-thin silicon solar cell implemented with energy-down-shift via Cd _{0.5} Zn _{0.5} S/ZnS core/shell quantum dots. <i>Journal of Materials Chemistry A</i> , 2015, 3, 481-487.	5.2	16
52	Electrochemical performance of novel Li ₃ V ₂ (PO ₄) ₃ glass-ceramic nanocomposites as electrodes for energy storage devices. <i>Journal of Solid State Electrochemistry</i> , 2016, 20, 2663-2671.	1.2	16
53	Grain size effects on the transport properties of Li ₃ V ₂ (PO ₄) ₃ glass-ceramic nanocomposites for lithium cathode batteries. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 4074-4083.	1.1	16
54	Highly stable field emission properties from well-crystalline 6-Fold symmetrical hierarchical ZnO nanostructures. <i>Ceramics International</i> , 2017, 43, 11753-11758.	2.3	15

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55	Electronic band structure and derived properties of $\text{AlAs}_x\text{Sb}_{1-x}$ alloys. Superlattices and Microstructures, 2013, 59, 144-154.	1.4	14
56	Green material: ecological importance of imperative and sensitive chemi-sensor based on Ag/Ag ₂ O ₃ /ZnO composite nanorods. Nanoscale Research Letters, 2013, 8, 380.	3.1	13
57	Grain-size effects on the structural, electrical properties and ferroelectric behaviour of barium titanate-based glass-ceramic nano-composite. Journal of Materials Science: Materials in Electronics, 2013, 24, 784-792.	1.1	13
58	Synthesis, structural and transport properties of $\text{Na}_x\text{V}_2\text{O}_5 \cdot n\text{H}_2\text{O}$ xerogel nanocrystalline thin films. Journal of Alloys and Compounds, 2014, 590, 572-578.	2.8	13
59	Optical Properties of Annealed ZnO Thin Films Fabricated by Pulsed Laser Deposition. Silicon, 2015, 7, 393-400.	1.8	13
60	Enhanced photocatalytic reduction of Cr(VI) on silver nanoparticles modified mesoporous silicon under visible light. Journal of the American Ceramic Society, 2019, 102, 5071-5081.	1.9	13
61	Synthesis, structural and ferroelectric properties of barium titanate based glass-ceramic nano-composites. Journal of Non-Crystalline Solids, 2012, 358, 1605-1610.	1.5	12
62	<i>Ab initio</i> investigation of 2,2-bis(4-trifluoromethylphenyl)-5,5-bithiazole for the design of efficient organic field-effect transistors. International Journal of Quantum Chemistry, 2016, 116, 339-345.	1.0	12
63	UV-Vis-NIR and luminescent characterization of PZCdO:Tm laser oxide glasses. Optical Materials, 2017, 73, 284-289.	1.7	11
64	Nanocrystallization as a method of improvement of electrical properties of Fe_2O_3 - PbO_2 - TeO_2 glasses. Journal of Materials Science: Materials in Electronics, 2014, 25, 3703-3711.	1.1	10
65	Correlation between grain size and transport properties of lead titanate based-glass-ceramic nano-composites. Journal of Materials Science: Materials in Electronics, 2016, 27, 8446-8454.	1.1	10
66	X-RAY AND NEUTRON DIFFRACTION STUDIES OF THE AMORPHOUS ZrPd ALLOYS. Journal of Physics and Chemistry of Solids, 1998, 59, 1499-1505.	1.9	9
67	Transport of electrons and positrons impinging on solid targets: A comparative study performed by using a Monte Carlo simulation. Journal of Electron Spectroscopy and Related Phenomena, 2013, 191, 11-15.	0.8	9
68	Relaxor Ferroelectric-Like Behavior in Barium Titanate-Doped Glass via Formation of Polar Clusters. Journal of Cluster Science, 2017, 28, 2147-2156.	1.7	9
69	Structural and Gas Sensing Properties of Annealed ZnO Thin Film. Silicon, 2016, 8, 361-367.	1.8	8
70	Structural and thermoelectric power properties of Na-doped $\text{V}_2\text{O}_5 \cdot n\text{H}_2\text{O}$ nanocrystalline thin films. Journal of Physics and Chemistry of Solids, 2014, 75, 992-997.	1.9	7
71	Low-Temperature Growth and Properties of Nanocrystalline Thin ZnO Nanosheet Interconnects on Zinc Foil. Science of Advanced Materials, 2012, 4, 961-968.	0.1	7
72	Effect of sulfur addition and nanocrystallization on the transport properties of lithium-vanadium-phosphate glasses. Journal of Materials Science: Materials in Electronics, 2018, 29, 968-977.	1.1	5

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73	Poly(Acrylic Acid)/Multi-Walled Carbon Nanotube Composites: Efficient Scaffold for Highly Sensitive 2-Nitrophenol Chemical Sensor. <i>Nanoscience and Nanotechnology Letters</i> , 2016, 8, 200-206.	0.4	5
74	Organic analytes sensitivity in meso-porous silicon electrical sensor with front side and backside contacts. <i>Arabian Journal of Chemistry</i> , 2020, 13, 444-452.	2.3	4
75	Enhanced Field Emission Properties of Aligned ZnO Nanowires. <i>Nanoscience and Nanotechnology Letters</i> , 2016, 8, 521-526.	0.4	3
76	Influence of substrate temperature on the electrical behaviour of zinc stannate thin films deposited by electron beam evaporation technique. <i>Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics</i> , 1998, 20, 1881-1890.	0.4	2
77	Detection of electronically equivalent tautomers of adenine base: DFT study. <i>Materials Research Bulletin</i> , 2014, 51, 309-314.	2.7	2
78	Small angle neutron scattering studies of the amorphisation reaction in Zr4Pdâ€“H(D) system. <i>Physica B: Condensed Matter</i> , 1999, 270, 125-130.	1.3	1
79	Effect of Gallium Concentrations on the Morphologies, Structural and Optical Properties of Ga-Doped ZnO Nanostructures. <i>Journal of Nanoscience and Nanotechnology</i> , 2014, 14, 5317-5323.	0.9	1
80	Growth of Quasi-Aligned ZnO Nanoneedles: Structural, Optical and Field Emission Properties. <i>Journal of Nanoscience and Nanotechnology</i> , 2017, 17, 2134-2139.	0.9	1
81	Fabrication of Nitroaniline Chemical Sensor Based on Polyaniline Coated Multi-Walled Carbon Nanotubes. <i>Nanoscience and Nanotechnology Letters</i> , 2016, 8, 193-199.	0.4	1
82	Synthesis and characterisation of ZnO structures containing the nanoscale regime. <i>International Journal of Nano and Biomaterials</i> , 2009, 2, 255.	0.1	0
83	Improved luminescence properties of nanocrystalline silicon films deposited by plasma enhanced chemical vapour deposition technique at low temperature. <i>International Journal of Nano and Biomaterials</i> , 2009, 2, 110.	0.1	0