Omar M Al-Dossary

List of Publications by Year
in descending order

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104 papers	2,734 citations	257450 24 h-index	197818 49 g-index
105 all docs	105 docs citations	105 times ranked	2955 citing authors

#	Article	IF	Citations
1	Sulfation of arabinogalactan with ammonium sulfamate. Biomass Conversion and Biorefinery, 2024, 14, 719-731.	4.6	13
2	Molecular structure, spectroscopy, quantum chemical and antibacterial activity investigations of 2-methylbenzylammonium perchlorate. Journal of Molecular Structure, 2022, 1247, 131311.	3.6	14
3	Deciphering non-covalent interactions of 1,3-Benzenedimethanaminium bis(trioxonitrate): Synthesis, empirical and computational study. Journal of Molecular Structure, 2022, 1250, 131720.	3.6	13
4	Improved microwave absorption and EMI shielding properties of Ba-doped Coâ€“Zn ferrite. Ceramics International, 2022, 48, 3328-3343.	4.8	55
5	A density functional theory calculations of infrared spectra of galactomannan butyl ether. Journal of Molecular Structure, 2022, 1251, 131998.	3.6	8
6	Non covalent interactions analysis and spectroscopic characterization combined with molecular docking study of Nâ€²-(4-Methoxybenzylidene)-5-phenyl-1H-pyrazole-3-carbohydrazide. Journal of King Saud University - Science, 2022, 34, 101778.	3.5	4
7	Catalytic Sulfation of Betulin with Sulfamic Acid: Experiment and DFT Calculation. International Journal of Molecular Sciences, 2022, 23, 1602.	4.1	12
8	Self-assembly of a new cobalt complex, (C6H14N2)3[CoCl4]Cl: Synthesis, empirical and DFT calculations. Journal of King Saud University - Science, 2022, 34, 101807.	3.5	8
9	High-frequency applications of bismuth-doped Coâ€“Zn ferrite nanoparticles for electromagnetic interference filter and multilayer inductor chip fabrication. Applied Physics A: Materials Science and Processing, 2022, 128, 1.	2.3	26
10	Sulfamic acid/water complexes (SAA-H2O(1-8)) intermolecular hydrogen bond interactions: FTIR,X-ray, DFT and AIM analysis. Journal of Molecular Structure, 2022, 1265, 133394.	3.6	38
11	Influence of Y3+, Yb3+, Gd3+ cations on structural and electromagnetic properties of CuFe2O4 nanoferrites prepared via one step sol-gel method. Journal of Rare Earths, 2021, 39, 1224-1231.	4.8	14
12	Strain mediated enhancement in magnetoelectric properties of sonochemically synthesized piezoelectric and piezomagnetic composites. Ceramics International, 2021, 47, 6496-6504.	4.8	19
13	DFT and molecular docking study of chloroquine derivatives as antiviral to coronavirus COVID-19. Journal of King Saud University - Science, 2021, 33, 101248.	3.5	70
14	Investigation of dielectric, electrical and optical properties of copper substituted Mn-Zn nanoferrites. Journal of Materials Science: Materials in Electronics, 2021, 32, 313-322.	2.2	22
15	Quantum chemical studies on molecular structure, AIM, ELF, RDG and antiviral activities of hybrid hydroxychloroquine in the treatment of COVID-19: Molecular docking and DFT calculations. Journal of King Saud University - Science, 2021, 33, 101334.	3.5	86
16	Generalized non-integer Lennard-Jones potential function vs. generalized Morse potential function for calculating cohesive energy and melting point of nanoparticles. Journal of King Saud University - Science, 2021, 33, 101316.	3.5	2
17	Structural, morphological, optical and enhanced photodetection activities of CdO films: An effect of Mn doping. Sensors and Actuators A: Physical, 2021, 319, 112531.	4.1	22
18	Quantum chemical calculations, spectroscopic properties and molecular docking studies of a novel piperazine derivative. Journal of King Saud University - Science, 2021, 33, 101283.	3.5	53

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19	Tuning of Structural, Dielectric, and Electronic Properties of Cu Doped Coâ€“Zn Ferrite Nanoparticles for Multilayer Inductor Chip Applications. Magnetochemistry, 2021, 7, 53.	2.4	75
20	Fabrication and characterization of p-Si/n-In2O3 and p-Si/n-ITO junction diodes for optoelectronic device applications. Surfaces and Interfaces, 2021, 23, 100992.	3.0	6
21	Pseudo n-type behaviour of nickel oxide thin film at room temperature towards ammonia sensing. Ceramics International, 2021, 47, 13693-13703.	4.8	14
22	Bibliometric analysis, progress and prospects of Journal of King Saud University-Science at global level. Journal of King Saud University - Science, 2021, 33, 101440.	3.5	1
23	Molecular modeling and biological activity analysis of new organic-inorganic hybrid: 2-(3,4-dihydroxyphenyl) ethanaminium nitrate. Journal of King Saud University - Science, 2021, 33, 101616.	3.5	53
24	A constant phase impedance sensor for measuring conducting liquid level. ISA Transactions, 2021, 115, 250-258.	5.7	5
25	Improved room temperature dielectric properties of Gd3+ and Nb5+ co-doped Barium Titanate ceramics. Journal of Alloys and Compounds, 2021, 883, 160836.	5.5	68
26	Intermolecular hydrogen bonds interactions in water clusters of ammonium sulfamate: FTIR, X-ray diffraction, AIM, DFT, RDG, ELF, NBO analysis. Journal of Molecular Liquids, 2021, 342, 117475.	4.9	89
27	Non covalent interactions and molecular docking studies on morphine compound. Journal of King Saud University - Science, 2021, 33, 101606.	3.5	82
28	Noticeable improvement in the toxic gas-sensing activity of the Zn-doped TiO₂films for sensing devices. New Journal of Chemistry, 2021, 45, 10488-10495.	2.8	7
29	Optical Ferris wheels as a platform for collisional quantum gates. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 233.	2.1	7
30	Finite Element Study for Magnetohydrodynamic (MHD) Tangent Hyperbolic Nanofluid Flow over a Faster/Slower Stretching Wedge with Activation Energy. Mathematics, 2021, 9, 25.	2.2	40
31	Impact of non-covalent interactions on FT-IR spectrum and properties of 4-methylbenzylammonium nitrate. A DFT and molecular docking study. Heliyon, 2021, 7, e08204.	3.2	17
32	The Size and Shape Effects on the Melting Point of Nanoparticles Based on the Lennard-Jones Potential Function. Nanomaterials, 2021, 11, 2916.	4.1	14
33	Optimization of Antireflection Coating Design Using PC1D Simulation for cÂâ˜ÂSi Solar Cell Application. Electronics (Switzerland), 2021, 10, 3132.	3.1	3
34	The effect of the parameter Î± of Morse potential on cohesive energy. Journal of King Saud University - Science, 2020, 32, 1147-1151.	3.5	4
35	Design, Development and Validation of a Portable Gas Sensor Module: A Facile Approach for Monitoring Greenhouse Gases. Coatings, 2020, 10, 1148.	2.6	6
36	Comprehensive Assimilation of Fire Suppression Modeling and Simulation of Radiant Fire by Water and Its Synergistic Effects with Carbon Dioxide. Energies, 2020, 13, 5850.	3.1	2

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37	A Novel Power Scheduling Mechanism for Islanded DC Microgrid Cluster. Sustainability, 2020, 12, 6918.	3.2	5
38	Advanced Variable Step Size Incremental Conductance MPPT for a Standalone PV System Utilizing a GA-Tuned PID Controller. Energies, 2020, 13, 4153.	3.1	38
39	Magnetic Rotating Flow of a Hybrid Nano-Materials Ag-MoS2 and Go-MoS2 in C2H6O2-H2O Hybrid Base Fluid over an Extending Surface Involving Activation Energy: FE Simulation. Mathematics, 2020, 8, 1730.	2.2	27
40	A New Generalized Morse Potential Function for Calculating Cohesive Energy of Nanoparticles. Energies, 2020, 13, 3323.	3.1	4
41	Development of Ethanol Gas Sensor Using Î±-Fe2O3 Nanocubes Synthesized by Hydrothermal Process. Journal of Nanoelectronics and Optoelectronics, 2020, 15, 59-64.	0.5	9
42	NO_x Gas Sensing Properties of Fe-Doped ZnO Nanoparticles. Science of Advanced Materials, 2020, 12, 908-914.	0.7	21
43	Arrays of dark optical traps on a toroidal surface. Physical Review A, 2019, 99, .	2.5	0
44	Dark state atom mirrors based on artificial gauge fields created by surface optical vortices. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 971.	2.1	0
45	Synthesis and Characterization of CuO Nanodisks for High-Sensitive and Selective Ethanol Gas Sensor Applications. Journal of Nanoscience and Nanotechnology, 2017, 17, 1455-1459.	0.9	23
46	Artificial gauge magnetic and electric fields for free two-level atoms interacting with optical Ferris wheel light fields. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 1122.	2.1	10
47	Rotating optical tubes for vertical transport of atoms. Physical Review A, 2016, 94, .	2.5	12
48	Development of highly sensitive and selective ethanol sensor based on lance-shaped CuO nanostructures. Materials and Design, 2016, 105, 16-24.	7.0	100
49	Quantum Hall physics with cold atoms in cylindrical optical lattices. Physical Review A, 2016, 93, .	2.5	61
50	Guiding of atoms in helical optical potential structures. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 125002.	1.5	8
51	Electron angular distributions of noble gases in sequential two-photon double ionization. Journal of Modern Optics, 2016, 63, 324-333.	1.3	20
52	Enhanced BTEX gas-sensing performance of CuO/SnO 2 composite. Sensors and Actuators B: Chemical, 2016, 223, 914-920.	7.8	64
53	Highly Sensitive Ethanol Gas Sensors Based on Ag-Doped ZnO Nanocones. Nanoscience and Nanotechnology Letters, 2016, 8, 241-246.	0.4	10
54	Radiation pattern of two identical emitters driven by a Laguerre-Gaussian beam: An atom nanoantenna. Physical Review A, 2015, 92, .	2.5	4

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55	Graphene-like optical light field and its interaction with two-level atoms. Physical Review A, 2015, 92, .	2.5	5
56	Zinc Oxide Nanostructures for NO2 Gasâ€“Sensor Applications: A Review. Nano-Micro Letters, 2015, 7, 97-120.	27.0	649
57	ZnO nanostructured thin films: Depositions, properties and applicationsâ€”A review. Materials Express, 2015, 5, 3-23.	0.5	75
58	Theoretical Calculations of the Lowest Electronic States of O2 Using Multireference Configuration Interaction (MRCI) Method. Journal of Advanced Physics, 2015, 4, 32-36.	0.4	1
59	Atom vortex beams. Physical Review A, 2014, 89, .	2.5	48
60	Theoretical study of LiK and LiK+ in adiabatic representation. Russian Journal of Physical Chemistry A, 2014, 88, 73-84.	0.6	5
61	Angular Momentum Sensitive Two-Center Interference. Physical Review Letters, 2014, 112, 023001.	7.8	28
62	On Solution of Natural Convection and Radiation Heat Transfer Problem in a Moving Porous Fin. Arabian Journal for Science and Engineering, 2014, 39, 1303-1312.	1.1	18
63	Atomic mirrors for aÎ›-type three-level atom. Journal of Physics B: Atomic, Molecular and Optical Physics, 2014, 47, 185005.	1.5	5
64	Two-atom system as a nanoantenna for mode switching and light routing. Physical Review A, 2013, 88, .	2.5	10
65	Two-atom system as a directional frequency filter. , 2013, , .		0
66	EFFECT OF WALL PROPERTIES ON THE PERISTALTIC FLOW OF A THIRD GRADE FLUID IN A CURVED CHANNEL. Journal of Mechanics in Medicine and Biology, 2012, 12, 1250067.	0.7	22
67	Heat Transfer in a Couple Stress Fluid over a Continuous Moving Surface with Internal Heat Generation and Convective Boundary Conditions. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2012, 67, 217-224.	1.5	9
68	OSCILLATORY FLOW OF FOURTH-ORDER FLUID IN A POROUS HALF SPACE. Chemical Engineering Communications, 2012, 199, 1072-1084.	2.6	3
69	La_{0.7}Sr_{0.3}MnO₃ Nanoparticles Based Ultra-High Sensitive Ammonia Chemical Sensor. Journal of Nanoscience and Nanotechnology, 2012, 12, 6368-6373.	0.9	5
70	Appearance of Plasmons in Fullerenes. Journal of Physics: Conference Series, 2012, 388, 022087.	0.4	2
71	Coherent localization exhibited by unequal Auger Doppler components. Journal of Physics: Conference Series, 2012, 388, 022088.	0.4	0
72	Deflection of a Î›-type three-level atom by a light field: a mechanical demonstration of the coherent population trapping effect. Journal of Physics B: Atomic, Molecular and Optical Physics, 2012, 45, 115502.	1.5	3

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73	MHD flow of upper-convected Maxwell fluid over porous stretching sheet using successive Taylor series linearization method. Applied Mathematics and Mechanics (English Edition), 2012, 33, 975-990.	3.6	29
74	Bright and dark solitons for the resonant nonlinear SchrÃ¶dinger's equation with time-dependent coefficients. Optics and Laser Technology, 2012, 44, 2223-2231.	4.6	104
75	1-Soliton Solution of the Generalized Resonant Nonlinear Dispersive SchrÃ¶dinger's Equation with Time-Dependent Coefficients. Advanced Science Letters, 2012, 16, 309-312.	0.2	34
76	Solitary wave solutions of the Vakhnenkoâ€“Parkes equation. Nonlinear Analysis: Modelling and Control, 2012, 17, 60-66.	1.6	13
77	Shock wave solutions of the variants of the Kadomtsevâ€“Petviashvili equation. Canadian Journal of Physics, 2011, 89, 979-984.	1.1	15
78	Electronic states of CsLi and CsLi+ molecules. Journal of Applied Spectroscopy, 2011, 78, 11-24.	0.7	10
79	Solitary wave and shock wave solutions to a second order wave equation of Kortewegâ€“de Vries type. Applied Mathematics and Computation, 2011, 217, 8852-8855.	2.2	4
80	1-Soliton solution of the generalized Burgers equation with generalized evolution. Applied Mathematics and Computation, 2011, 217, 10289-10294.	2.2	13
81	Photoinduced localization and decoherence in inversion symmetric molecules. Journal of Electron Spectroscopy and Related Phenomena, 2011, 184, 154-156.	1.7	2
82	Soliton and shock wave solutions to the Degasperisâ€“Procesi equation with power law nonlinearity. Waves in Random and Complex Media, 2011, 21, 543-553.	2.7	1
83	Topological Soliton Solutions of .2 C 1/-dimensional KdV Equation with Power Law Nonlinearity and Time-dependent Coefficients. International Journal of Nonlinear Sciences and Numerical Simulation, 2011, 12, 35-43.	1.0	7
84	Many-Body Interaction and Computer Simulations for the Cohesive Energy of Spherical Metallic Nanocrystals. Journal of Computational and Theoretical Nanoscience, 2011, 8, 1134-1138.	0.4	1
85	The Role of Oxygen Vacancies on Magnetic Properties of LSMO. AIP Conference Proceedings, 2011, , .	0.4	3
86	Growth of La0.7Sr0.3MnO3 Thin-Films on SrTiO3 (100) Substrate by Pulsed Laser Deposition: Structural, Optical and Electrical Properties. Advanced Science Letters, 2011, 4, 3475-3479.	0.2	1
87	Entanglement in a time-dependent coupled<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="italic">XY</mml:mi></mml:mrow></mml:math>spin chain in an external magnetic field. Physical Review A, 2010, 82, .	2.5	28
88	Ordering of Ground State Energy Levels of Two-Electron Quantum Dot in a Magnetic Field. International Journal of Theoretical Physics, 2010, 49, 1187-1194.	1.2	5
89	Partial photoionization cross sections of C60 and C70: A gas versus adsorbed phase comparison. Surface Science, 2010, 604, 1940-1944.	1.9	13
90	An investigation of the size-dependent cohesive energy and the structural stability of spherical metallic nanoparticles. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 165104.	1.5	3

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91	Theoretical study of the electronic structure of LiNa and LiNa+ molecules. Journal of Russian Laser Research, 2009, 30, 172-186.	0.6	13
92	Nuclear-induced time evolution of entanglement of two-electron spins in anisotropically coupled quantum dot. Molecular Physics, 2008, 106, 1777-1786.	1.7	6
93	THE EFFECT OF MIE-TYPE POTENTIAL RANGE ON THE COHESIVE ENERGY OF METALLIC NANOPARTICLES. International Journal of Nanoscience, 2007, 06, 461-466.	0.7	9
94	THE ASYMPTOTIC ITERATION METHOD FOR THE EIGENENERGIES OF THE ASYMMETRICAL QUANTUM ANHARMONIC OSCILLATOR POTENTIALS $V(x)=sum_{j=2}^{2alpha}A_{j}x^{j}$. International Journal of Modern Physics A, 2007, 22, 203-212.	1.5	6
95	Morse potential eigen-energies through the asymptotic iteration method. International Journal of Quantum Chemistry, 2007, 107, 2040-2046.	2.0	10
96	The asymptotic iteration method for the angular spheroidal eigenvalues with arbitrary complex size parameter c. Canadian Journal of Physics, 2006, 84, 121-129.	1.1	14
97	Exact solutions for vibrational levels of the Morse potential via the asymptotic iteration method. European Physical Journal D, 2006, 56, 583-590.	0.4	16
98	Electron scattering and capture rates in quantum wells by emission of hybrid optical phonons. Physical Review B, 2001, 63, .	3.2	14
99	Optical-phonon tunnelling and the electron scattering rate. Superlattices and Microstructures, 1998, 23, 201-203.	3.1	0
100	Quantum optics of plasmon polaritons and velocity sum rules. Physical Review A, 1996, 54, 2419-2425.	2.5	16
101	Continuum model of the optical modes of vibration of an ionic crystal slab. Physical Review B, 1994, 50, 11701-11709.	3.2	9
102	Dispersion of superlattice optical phonons. Solid State Communications, 1993, 86, 191-194.	1.9	29
103	Interaction of electrons with polaritons. Journal of Physics Condensed Matter, 1993, 5, 5581-5590.	1.8	5
104	Fuchs-Kliewer interface polaritons and their interactions with electrons in GaAs/AlAs double heterostructures. Semiconductor Science and Technology, 1992, 7, B91-B93.	2.0	21