

Ahmed A Al-Hossainy

List of Publications by Year in descending order

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100
papers

2,862
citations

94269

37
h-index

243296

44
g-index

101
all docs

101
docs citations

101
times ranked

833
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural, optical, and electrical properties of multi-walled carbon nanotubes/polyaniline/Fe ₃ O ₄ ternary nanocomposites thin film. <i>Synthetic Metals</i> , 2018, 238, 1-13.	2.1	75
2	Synthesis, DFT studies, fabrication, and optical characterization of the [ZnCMC] ^{TF} polymer (organic/inorganic) as an optoelectronic device. <i>New Journal of Chemistry</i> , 2020, 44, 8621-8637.	1.4	66
3	Doped-poly (para-nitroaniline- co-aniline): Synthesis, semiconductor characteristics, density, functional theory and photoelectric properties. <i>Journal of Alloys and Compounds</i> , 2019, 789, 670-683.	2.8	59
4	Synthesis, characterization, and DFT modeling of novel organic compound thin films derived from 2-amino-4-(2-hydroxy-3-methoxyphenyl)-4H-thiazolo[3,2-a][1,3,5]triazin-6(7H)-one. <i>Optical Materials</i> , 2020, 105, 109915.	1.7	59
5	Poly(o-phenylenediamine) thin film for organic solar cell applications. <i>Journal of Solid State Electrochemistry</i> , 2018, 22, 3673-3687.	1.2	58
6	DFT and experimental study on adsorption of dyes on activated carbon prepared from apple leaves. <i>Carbon Letters</i> , 2021, 31, 863-878.	3.3	58
7	Novel synthesis, DFT and investigation of the optical and electrical properties of carboxymethyl cellulose/thiobarbituric acid/copper oxide [CMC+TBA/CuO]C nanocomposite film. <i>Journal of Polymer Research</i> , 2020, 27, 1.	1.2	55
8	Spectroscopic, DFT, optical band gap, powder X-ray diffraction and bleomycin-dependant DNA studies of Co(II), Ni(II) and Cu(II) complexes derived from macrocyclic Schiff base. <i>Journal of Molecular Structure</i> , 2018, 1165, 177-195.	1.8	53
9	FEM for Blood-Based SWCNTs Flow Through a Circular Cylinder in a Porous Medium with Electromagnetic Radiation*. <i>Communications in Theoretical Physics</i> , 2019, 71, 1425.	1.1	52
10	Doped poly (o-phenylenediamine -co- p-toluidine) fibers for polymer solar cells applications. <i>Solar Energy</i> , 2020, 195, 194-209.	2.9	52
11	Synthesis, characterization and DFT molecular modeling of doped poly (para-nitroaniline-co-para-toluidine) thin film for optoelectronic devices applications. <i>Optical Materials</i> , 2020, 99, 109593.	1.7	51
12	New organic semiconductor thin film derived from p-toluidine monomer. <i>Journal of Molecular Structure</i> , 2018, 1156, 83-90.	1.8	50
13	Structural, DFT, optical dispersion characteristics of novel [DPPA-Zn-MR(Cl)(H ₂ O)] nanostructured thin films. <i>Materials Chemistry and Physics</i> , 2019, 232, 180-192.	2.0	50
14	Structural, optical dispersion and dielectric properties of novel chromium nickel organic crystalline semiconductors. <i>Materials Science in Semiconductor Processing</i> , 2015, 38, 13-23.	1.9	48
15	Facile synthesis and fabrication of a poly(o-ortho-anthranilic acid) emeraldine salt thin film for solar cell applications. <i>New Journal of Chemistry</i> , 2018, 42, 10386-10395.	1.4	48
16	Fabrication of heterojunction diode using doped-poly (ortho-aminophenol) for solar cells applications. <i>Physica B: Condensed Matter</i> , 2019, 566, 6-16.	1.3	48
17	Combined experimental thin films, TDDFT-DFT theoretical method, and spin effect on [PEG-H ₂ O/ZrO ₂ +MgO]h hybrid nanofluid flow with higher chemical rate. <i>Surfaces and Interfaces</i> , 2021, 23, 100971.	1.5	48
18	Elucidation of Electrical and Optical Parameters of Poly(o-anthranilic acid)-poly(o-amino) Tj ETQqO O rgBT /Overlock 10 Tf 50 67 Td (ph and Materials, 2018, 28, 2572-2583.	1.9	47

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19	Combined experimental and DFT-TDDFT computational studies of doped [PoDA+PpT/ZrO ₂]C nanofiber composites and its applications. Vacuum, 2020, 182, 109777.	1.6	47
20	Synthesis, spectral, thermal, optical dispersion and dielectric properties of nanocrystalline dimer complex (PEPyrâ€“diCd) thin films as novel organic semiconductor. Bulletin of Materials Science, 2016, 39, 209-222.	0.8	46
21	Synthesis, DFT calculations, and heat transfer performance large-surface TiO ₂ : ethylene glycol nanofluid and coolant applications. European Physical Journal Plus, 2020, 135, 1.	1.2	45
22	Effects of neutronâ€“gamma radiation on the free radical contents in epoxy resin: upconversion luminescence and structural stabilization. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	1.1	44
23	Synthesis and optoelectronic properties of conductive nanostructured poly(aniline-co-o-aminophenol) thin film. Journal of Materials Science: Materials in Electronics, 2018, 29, 8431-8445.	1.1	43
24	Synthesis and characterization of Co-Al mixed oxide nanoparticles via thermal decomposition route of layered double hydroxide. Journal of Molecular Structure, 2020, 1206, 127679.	1.8	43
25	Structure, DFT calculations and heat transfer enhancement in [ZnO/PGâ€“+â€“H ₂ O]C hybrid nanofluid flow as a potential solar cell coolant application in a double-tube. Journal of Materials Science: Materials in Electronics, 2020, 31, 15243-15257.	1.1	43
26	The effects of annealing temperature on the structural properties and optical constants of a novel DPEA-MR-Zn organic crystalline semiconductor nanostructure thin films. Optical Materials, 2017, 73, 138-153.	1.7	42
27	Synthesis, structural and optical properties of gold nanoparticle-graphene-selenocysteine composite bismuth ultrathin film electrode and its application to Pb(II) and Cd(II) determination. Arabian Journal of Chemistry, 2019, 12, 2853-2863.	2.3	42
28	Elucidation of Charge Transport and Optical Parameters in the Newly 1CR-dppm Organic Crystalline Semiconductors. Journal of Physical Chemistry C, 2008, 112, 14188-14195.	1.5	41
29	Thickness dependence of structural and optical properties of novel 2-((1, Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 347 Td (1-bis copper (II) (DPP-Cr-Palan-Cu) nanocrystalline thin film. Synthetic Metals, 2015, 209, 389-398.	2.1	41
30	Synthesis and characterization of mixed metal oxide nanoparticles derived from Coâ€“Cr layered double hydroxides and their thin films. Journal of Materials Science: Materials in Electronics, 2019, 30, 11627-11642.	1.1	41
31	Density functional theory for investigation of optical and spectroscopic properties of zinc-quinonoid complexes as semiconductor materials. Structural Chemistry, 2019, 30, 1365-1380.	1.0	41
32	Synthesis, structural and optical properties of novel 3-(3,5-dimethyl-1H-pyrazol-1-yl)-1-(diphenylphosphino)-2-((diphenylphosphino)methyl)-3-methylbutanone-1,2-diphenylethene-1,2-diamin tungsten dicarbonyl (PyrPMB-W) nanostructure thin film. Optical Materials, 2015, 46, 131-140.	1.1	41
33	Structure and photoluminescence characteristics of mixed nickelâ€“chromium oxides nanostructures. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	1.1	40
34	Synthesis, structural characterization, DFT, kinetics and mechanism of oxidation of bromothymol blue: application to textile industrial wastewater treatment. Chemical Papers, 2021, 75, 297-309.	1.0	40
35	Combined experimental thin film, DFT-TDDFT computational study, flow and heat transfer in [PG-MoS ₂ /ZrO ₂] hybrid nanofluid. Waves in Random and Complex Media, 2023, 33, 1-26.	1.6	40
36	Conductive thin films based on poly (aniline-co- o -anthranilic acid)/magnetite nanocomposite for photovoltaic applications. Synthetic Metals, 2017, 231, 34-43.	2.1	39

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37	Polymer solar cell based on doped o-anthranilic acid and o-aminophenol copolymer. Optical Materials, 2020, 104, 109947.	1.7	39
38	Synthesis and optical properties for crystals of a novel organic semiconductor [Ni(Cl) 2{(Ph 2P) 2CHC(R 1R 2)NHNH 2}]. European Physical Journal B, 2006, 53, 439-448.	0.6	38
39	Novel synthesis, structure characterization, DFT and investigation of the optical properties of cyanine dye/zinc oxide [4-CHMQI/ZnO]C nanocomposite thin film. Journal of Molecular Structure, 2021, 1224, 128989.	1.8	36
40	Diphosphine Compounds, Part III: UV/Visible Spectroscopy and Novel Routes to Functionalized Diphosphine-M(CO) ₆ Complexes (M = W, Mo, or Cr). Phosphorus, Sulfur and Silicon and the Related Elements, 2009, 184, 2996-3022.	0.8	35
41	Structural and optical characterization of novel [ZnKCMC]TF for optoelectronic device applications. Journal of Materials Science: Materials in Electronics, 2020, 31, 8690-8704.	1.1	34
42	Synthesis, characterization and optical properties of multi-walled carbon nanotubes/aniline-o-anthranilic acid copolymer nanocomposite thin films. Journal of Materials Science: Materials in Electronics, 2018, 29, 16702-16714.	1.1	33
43	SQLM for external yield stress effect on 3D MHD nanofluid flow in a porous medium. Physica Scripta, 2019, 94, 105208.	1.2	33
44	One-Dimensional Nanocomposites Based on Polypyrrole-Carbon Nanotubes and Their Thermoelectric Performance. Polymers, 2021, 13, 278.	2.0	33
45	Influence of Gamma-Irradiation on Structural, Optical and Photocatalytic Performance of TiO ₂ Nanoparticles Under Controlled Atmospheres. Journal of Electronic Materials, 2020, 49, 1904-1921.	1.0	32
46	Facile synthesis of spin-coated poly (4-nitroaniline) thin film: Structural and optical properties. Optical Materials, 2020, 109, 110378.	1.7	32
47	Novel synthesis, structure characterization, DFT and investigation of the optical properties of diphenylphosphine compound/zinc oxide [DPPB+ZnO] _C nanocomposite thin film. Composite Interfaces, 2021, 28, 879-904.	1.3	31
48	Doped-poly (anthranilic acid-co-o-phenylene diamine) thin film for optoelectronic applications. Optical Materials, 2021, 111, 110621.	1.7	31
49	Determination of cadmium and lead in perch fish samples by differential pulse anodic stripping voltammetry and furnace atomic absorption spectrometry. Arabian Journal of Chemistry, 2017, 10, S347-S354.	2.3	30
50	DIPHOSPHINE COMPOUNDS: PART I. NOVEL BIOLOGICALLY ACTIVE 1,1- ² bis-AND/OR 1,2-cis-(DIPHENYLPHOSPHINO-)ETHENE AND THEIR COMPLEXES [M(CO) _n {Ph ₂ P(CHn) _n PPh ₂ }] & [Cu(Cl) ₂ {Ph ₂ P(CHn) _n PPh ₂ }], (M = W, Mo, Crn = 1,2- ² .n). Phosphorus, Sulfur and Silicon and the Related Elements, 2004, 179, 1251-1266.	0.8	29
51	Performance estimation of a mini-passive solar still via machine learning. Renewable Energy, 2020, 162, 489-503.	4.3	26
52	High-performance nanofluid synthesis and DFT-TDDFT study of graphene nanosheets along bent surface for enhanced oil-recovery implementations. Case Studies in Thermal Engineering, 2021, 25, 100983.	2.8	25
53	Homogeneous-heterogeneous catalysis on electromagnetic radiative Prandtl fluid flow: Darcy-Forchheimer substance scheme. Surfaces and Interfaces, 2021, 24, 101119.	1.5	24
54	Development of azithromycin-Pd mono nanocomposite: Synthesis, physicochemical, characterization and TD-DFT calculations. Journal of Molecular Structure, 2022, 1263, 133126.	1.8	24

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73	Experimental characterization, TDDFT-DFT, and spin effect on [PEG/H ₂ O@ZrO ₂ /TiO ₂] hybrid nanofluid 3D flow as potential ceramic industry application. <i>International Journal of Chemical Reactor Engineering</i> , 2021, 19, 1135-1149.	0.6	13
74	Synthesis, characterization, DFT-TDDFT calculations and optical properties of a novel pyrazole-1,2,3-triazole hybrid thin film. <i>Optik</i> , 2021, 247, 167971.	1.4	13
75	Combined Experimental Thin Film, DFT-TDDFT Computational Study, structure properties for [FeO+P2O5] bio-nanocomposite by <i>Geotrichum candidum</i> and Environmental application. <i>Journal of Molecular Structure</i> , 2022, 1258, 132635.	1.8	13
76	Combined experimental and theoretical study, characterization, and nonlinear optical properties of doped-poly (p-nitroaniline -co- o-aminophenol) thin films. <i>Journal of Molecular Structure</i> , 2021, 1227, 129712.	1.8	12
77	From Blue to Green Photoluminescence: Design, Synthesis, and DFT Calculations of Heterocyclic Compounds Containing Chromenothienopyrimidine Moiety. <i>Asian Journal of Organic Chemistry</i> , 0, , .	1.3	12
78	Kinetics and Mechanism Studies of Oxidation of Dibromothymolsulfonphthalein Toxic Dye by Potassium Permanganate in Neutral Media with the Synthesis of 2-Bromo-6-isopropyl-3-methyl-cyclohexa-2,5-dienone. <i>ACS Omega</i> , 2022, 7, 16109-16115.	1.6	12
79	Synthesis and intriguing single-component white-light emission from oxadiazole or thiadiazole integrated with coumarin luminescent core. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2022, 431, 113992.	2.0	12
80	Physical structure, TD-DFT computations, and optical properties of hybrid nanocomposite thin film as optoelectronic devices. <i>Journal of Industrial and Engineering Chemistry</i> , 2022, 112, 106-124.	2.9	12
81	Effect of implanted copper into 1¼m cadmium telluride thick film by heat treatment for optoelectronics: Structural, optical, and electrical properties. <i>International Journal of Energy Research</i> , 2021, 45, 20258-20269.	2.2	11
82	Synthesis of a novel coumarin heterocyclic derivative and fabrication of hybrid nanocomposite thin film with CoOFe2O4 for optoelectronic applications. <i>Journal of Molecular Structure</i> , 2021, 1241, 130640.	1.8	11
83	Oxidation process and kinetics of bromothymol blue by alkaline permanganate. <i>International Journal of Chemical Kinetics</i> , 2021, 53, 675-684.	1.0	11
84	Thermal Analysis of a Metal-Organic Framework Zn _x Co _{1-x} -ZIF-8 for Recent Applications. <i>Polymers</i> , 2021, 13, 4051.	2.0	11
85	Physical properties and DFT calculations of the hybrid organic polymeric nanocomposite thin film [P(An+o-Aph)+Glycine/TiO ₂]/HNC with 7.42% power conversion efficiency. <i>Journal of Molecular Structure</i> , 2022, 1262, 133001.	1.8	11
86	Removal of bromothymol blue dye by the oxidation method using KMnO ₄ : Accelerating the oxidation reaction by Ru (III) catalyst. <i>Journal of Molecular Structure</i> , 2022, 1268, 133679.	1.8	11
87	Facile synthesis of single-crystal of o-phenylene diamine dihydrochloride as a polychloride and fabrication of high-performance semiconductor thin film. <i>Optical Materials</i> , 2021, 112, 110758.	1.7	10
88	Base-catalyzed oxidation of sugarcane molasses by potassium ferricyanide in alkaline solutions. <i>International Journal of Chemical Kinetics</i> , 2021, 53, 1101-1112.	1.0	10
89	Synthesis, spectral characterization, optical properties and X-ray structural studies of S centrosymmetric N ₂ S ₂ or N ₂ S ₂ O ₂ donor Schiff base ligand and its binuclear transition metal complexes. <i>Journal of Molecular Structure</i> , 2021, 1244, 130974.	1.8	10
90	Combined experimental and TDDFT computations for the structural and optical properties for poly (ortho phenylene diamine) thin film with different surfactants. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 5489-5503.	1.1	8

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91	High-performance one and two-dimensional doped polypyrrole nanostructure for polymer solar cells applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2022, 33, 10165-10182.	1.1	8
92	Synthesis, characterization, physicochemical properties, and in-vitro anti-bacterial evaluation for doped Fe-Fusarium oxysporum bio-nanocomposite. <i>Journal of Molecular Structure</i> , 2022, 1259, 132643.	1.8	8
93	Geotrichum candidum Mediated [Cu ₈ O ₇ +P ₂ O ₅] Nanocomposite Bio Fabrication, Characterization, Physicochemical Properties, and its In-Vitro Biocompatibility Evaluation. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2022, 32, 2398-2415.	1.9	8
94	Simultaneous determination of Cd(II) and Cu(II) using stripping voltammetry in groundwater, soil and Alhagi maurorum plants in industrial and urban areas in Northern Border, Saudi Arabia with luminol as a chelating agent. <i>Water Science and Technology</i> , 2015, 72, 1127-1139.	1.2	7
95	Combined experimental and DFT-TDDFT computational, structural and study effect of inter-diffusion Cu into CdTe thick film by annealing for optoelectronics. <i>Journal of Molecular Structure</i> , 2021, 1238, 130411.	1.8	7
96	TD-DFT calculations and two-dimensional poly (ortho phenylenediamine-co-meta-phenylene diamine) for polymeric solar cell applications. <i>Chemical Papers</i> , 2022, 76, 6175-6191.	1.0	7
97	Fabrication, characterization and optical properties of poly(p-phenylenediamine-co-o-aminophenol) nanostructure thin film. <i>Applied Physics A: Materials Science and Processing</i> , 2021, 127, 1.	1.1	5
98	Fabrication and Characterization of Polypyrrole/Multi-Walled Carbon Nanotubes Thin Films Using Thermal Evaporation. <i>Polymers</i> , 2021, 13, 4045.	2.0	4
99	Combined experimental and TDDFT computational studies of the optical and electrical characteristic of luminol films-doped TiO ₂ with 9.027% power conversion efficiency. <i>Journal of Materials Science: Materials in Electronics</i> , 2022, 33, 5244.	1.1	4
100	HCl-doped poly (para-nitro aniline-co-para-toluidine) thin film as a gamma ray dosimeter. <i>Radiation Effects and Defects in Solids</i> , 2021, 176, 940-954.	0.4	1