

Hikmat Hilal

List of Publications by Year in descending order

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91
papers

1,848
citations

279798

23
h-index

315739

38
g-index

92
all docs

92
docs citations

92
times ranked

1977
citing authors

#	ARTICLE	IF	CITATIONS
1	CdS-sensitized TiO ₂ in phenazopyridine photo-degradation: Catalyst efficiency, stability and feasibility assessment. <i>Journal of Hazardous Materials</i> , 2010, 173, 318-325.	12.4	144
2	Size fractionation and characterization of natural colloids by flow-field flow fractionation coupled to multi-angle laser light scattering. <i>Journal of Chromatography A</i> , 2006, 1104, 272-281.	3.7	98
3	Kaolin-supported ZnO nanoparticle catalysts in self-sensitized tetracycline photodegradation: Zero-point charge and pH effects. <i>Applied Clay Science</i> , 2019, 182, 105294.	5.2	97
4	An equivalent circuit approach to organic solar cell modelling. <i>Microelectronics Journal</i> , 2008, 39, 1173-1180.	2.0	83
5	Alternative natural dyes in water purification: Anthocyanin as TiO ₂ -sensitizer in Methyl orange photo-degradation. <i>Solid State Sciences</i> , 2011, 13, 1268-1275.	3.2	81
6	Thermodynamic correlations and band gap calculations in metal oxides. <i>Progress in Solid State Chemistry</i> , 2004, 32, 207-217.	7.2	73
7	Optimizing photo-mineralization of aqueous methyl orange by nano-ZnO catalyst under simulated natural conditions. <i>Journal of Environmental Health Science & Engineering</i> , 2015, 13, 46.	3.0	62
8	Removal of acetaminophen from water by simulated solar light photodegradation with ZnO and TiO ₂ nanoparticles: Catalytic efficiency assessment for future prospects. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 104038.	6.7	46
9	CdS/FTO thin film electrodes deposited by chemical bath deposition and by electrochemical deposition: A comparative assessment of photo-electrochemical characteristics. <i>Solid State Sciences</i> , 2013, 18, 83-90.	3.2	45
10	Pristine and supported ZnO-based catalysts for phenazopyridine degradation with direct solar light. <i>Solid State Sciences</i> , 2010, 12, 578-586.	3.2	42
11	Natural dye-sensitized ZnO nano-particles as photo-catalysts in complete degradation of E. coli bacteria and their organic content. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2016, 328, 207-216.	3.9	42
12	Hydrosilylation reactions catalysed by decacarbonyldimanganese(O). <i>Journal of Molecular Catalysis</i> , 1987, 39, 1-11.	1.2	39
13	Cluster versus non-cluster catalysis in olefin thermal isomerization and hydrosilylation in the presence of Ru ₃ (CO) ₁₂ . <i>Journal of Organometallic Chemistry</i> , 1993, 452, 167-173.	1.8	39
14	Self-sensitization of tetracycline degradation with simulated solar light catalyzed by ZnO@montmorillonite. <i>Solid State Sciences</i> , 2017, 74, 131-143.	3.2	39
15	Solid olive waste in environmental cleanup: Oil recovery and carbon production for water purification. <i>Journal of Environmental Management</i> , 2007, 84, 83-92.	7.8	34
16	Controlling charge-transfer processes at semiconductor/liquid junctions. <i>Electrochimica Acta</i> , 2006, 51, 6487-6497.	5.2	33
17	Effect of cooling rate of pre-annealed CdS thin film electrodes prepared by chemical bath deposition: Enhancement of photoelectrochemical characteristics. <i>Electrochimica Acta</i> , 2009, 54, 3433-3440.	5.2	33
18	Enhanced low-gap thermophotovoltaic cell efficiency for a wide temperature range based on a selective meta-material emitter. <i>Solar Energy</i> , 2018, 174, 1053-1057.	6.1	31

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19	Poly(siloxane)-supported decacarbonyldimanganese(0) catalyst for terminal olefin hydrosilylation reactions: the effect of the support on the catalyst selectivity, activity and stability. <i>Journal of Molecular Catalysis A</i> , 1999, 144, 47-59.	4.8	30
20	Synthesis of a new series of heterocyclic scaffolds for medicinal purposes. <i>European Journal of Medicinal Chemistry</i> , 2006, 41, 1017-1024.	5.5	28
21	Solid olive waste in environmental cleanup: Enhanced nitrite ion removal by ZnCl ₂ -activated carbon. <i>Journal of Environmental Management</i> , 2015, 152, 27-35.	7.8	26
22	Raw clay supported ZnO nanoparticles in photodegradation of 2-chlorophenol under direct solar radiations. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 104227.	6.7	26
23	Combined electrochemical/chemical bath depositions to prepare CdS film electrodes with enhanced PEC characteristics. <i>Journal of Electroanalytical Chemistry</i> , 2013, 707, 117-121.	3.8	25
24	Optimized opto-electronic and mechanical properties of orthorhombic methylammonium lead halides (MAPbX ₃) (X = I, Br and Cl) for photovoltaic applications. <i>Solar Energy</i> , 2019, 182, 9-15.	6.1	24
25	Copper selenide film electrodes prepared by combined electrochemical/chemical bath depositions with high photo-electrochemical conversion efficiency and stability. <i>Solid State Sciences</i> , 2018, 75, 53-62.	3.2	23
26	Breast Milk Lead Levels in 3 Major Regions of the West Bank of Palestine. <i>Journal of Human Lactation</i> , 2016, 32, 455-461.	1.6	22
27	Exploring N3 ruthenium dye adsorption onto ZnTiO ₃ (101) and (110) surfaces for dye sensitized solar cell applications: Full computational study. <i>Materials Today Energy</i> , 2019, 13, 109-118.	4.7	22
28	Aqueous nitrate ion adsorption/desorption by olive solid waste-based carbon activated using ZnCl ₂ . <i>Sustainable Chemistry and Pharmacy</i> , 2020, 18, 100335.	3.3	22
29	Enhancement of CdSe film electrode PEC characteristics by metalloporphyrin/polysiloxane matrices. <i>Electrochimica Acta</i> , 2014, 136, 138-145.	5.2	21
30	High PEC conversion efficiencies from CuSe film electrodes modified with metalloporphyrin/polyethylene matrices. <i>Electrochimica Acta</i> , 2015, 174, 472-479.	5.2	20
31	ZnO nanoparticles in complete photo-mineralization of aqueous gram negative bacteria and their organic content with direct solar light. <i>Solar Energy Materials and Solar Cells</i> , 2017, 168, 30-37.	6.2	19
32	Anthocyanin-Sensitized TiO ₂ Nanoparticles for Phenazopyridine Photodegradation under Solar Simulated Light. <i>Journal of Nanomaterials</i> , 2018, 2018, 1-14.	2.7	19
33	The catalytic activity of poly(siloxane)-supported metalloporphyrins in olefin oxidation reactions: the effect of the support on the catalytic activity and selectivity. <i>Journal of Molecular Catalysis A</i> , 1996, 113, 35-44.	4.8	18
34	Enhanced PEC characteristics for CdSe polycrystalline film electrodes prepared by combined electrochemical/chemical bath depositions. <i>Journal of Electroanalytical Chemistry</i> , 2016, 774, 7-13.	3.8	18
35	Highly active and selective catalysts for olefin hydrosilylation reactions using metalloporphyrins intercalated in natural clays. <i>Reaction Chemistry and Engineering</i> , 2016, 1, 194-203.	3.7	17
36	Direct sunlight-driven degradation of 2-chlorophenol catalyzed by kaolinite-supported ZnO. <i>International Journal of Environmental Science and Technology</i> , 2019, 16, 6267-6276.	3.5	17

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37	Metalloporphyrin/polysiloxane modified n-GaAs surfaces: effect on photoelectrochemical efficiency and surface stability. <i>Journal of Electroanalytical Chemistry</i> , 2002, 527, 47-55.	3.8	16
38	Enhanced PEC characteristics of pre-annealed CuS film electrodes by metalloporphyrin/polymer matrices. <i>Solar Energy Materials and Solar Cells</i> , 2016, 144, 429-437.	6.2	16
39	Effect of annealing temperature on physical characteristics of CuO films deposited by sol-gel spin coating. <i>Materials Research Express</i> , 2019, 6, 116405.	1.6	15
40	Simulation and modelling of charge transport in dye-sensitized solar cells based on carbon nano-tube electrodes. <i>Physica Scripta</i> , 2013, 87, 035703.	2.5	14
41	Efficiency improvement of single-junction InGaP solar cells by advanced photovoltaic device modeling. <i>Optik</i> , 2018, 163, 8-15.	2.9	14
42	Solar light-driven complete mineralization of aqueous gram-positive and gram-negative bacteria with ZnO photocatalyst. <i>Solar Energy</i> , 2019, 180, 351-359.	6.1	14
43	Spatial separation strategies to control charge recombination and dye regeneration in p-type dye sensitized solar cells. <i>Solar Energy</i> , 2022, 236, 107-152.	6.1	14
44	Investigation of the catalytic activity of poly (siloxane)-supported tetra (4-pyridyl) porphyrinatomanganese (III) in olefin oxidation reactions. <i>Journal of Molecular Catalysis</i> , 1993, 81, 157-165.	1.2	13
45	Enhancement of n-GaAs characteristics by combined heating, cooling rate and metalloporphyrin modification techniques. <i>Solid State Sciences</i> , 2004, 6, 139-146.	3.2	13
46	Recycled polycrystalline CdS film electrodes with enhanced photo-electrochemical characteristics. <i>Materials Science in Semiconductor Processing</i> , 2018, 74, 277-283.	4.0	13
47	CuZnSnSe Thin Film Electrodes Prepared by Vacuum Evaporation: Enhancement of Surface Morphology and Photoelectrochemical Characteristics by Argon Gas. <i>Materials Science Forum</i> , 2013, 756, 273-280.	0.3	12
48	A broad-band polarization-insensitive absorber with a wide angle range metamaterial for thermo-photovoltaic conversion. <i>Optical and Quantum Electronics</i> , 2018, 50, 1.	3.3	12
49	Optical properties and photoactivity of carbon nanodots synthesized from olive solid wastes at different carbonization temperatures. <i>RSC Advances</i> , 2022, 12, 4490-4500.	3.6	12
50	Simulation of electronic and optical properties of polyene-diphenylaniline-sensitizers for perovskite n-ZnTiO ₃ towards efficient dye sensitized solar cells. <i>Materials Science in Semiconductor Processing</i> , 2021, 134, 106037.	4.0	11
51	SnSe Thin Film Electrodes Prepared by Vacuum Evaporation: Enhancement of Photoelectrochemical Efficiency by Argon Gas Condensation Method. <i>Electrochemistry</i> , 2014, 82, 25-30.	1.4	10
52	Effects of annealing temperature and cooling rate on photo-electrochemical performance of pristine polycrystalline metal-chalcogenide film electrodes. <i>Solar Energy</i> , 2019, 183, 704-715.	6.1	10
53	Cost-saving and performance-enhancement of CuInGaSe solar cells by adding CuZnSnSe as a second absorber. <i>Solar Energy</i> , 2022, 234, 64-80.	6.1	9
54	Homogeneous catalysis of the reaction of silanes with alcohols using decacarbonyl dimanganese (0). <i>Journal of Molecular Catalysis</i> , 1986, 35, 137-142.	1.2	8

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55	Modification of n-Si Characteristics by Annealing and Cooling at Different Rates. Active and Passive Electronic Components, 2003, 26, 213-230.	0.3	8
56	n-GaAs Band-Edge Repositioning by Modification with Metalloporphyrin/Polysiloxane Matrices. Active and Passive Electronic Components, 2003, 26, 11-21.	0.3	8
57	Modes of tetra(4-pyridyl)porphyrinatomanganese(III) ion intercalation inside natural clays. Chemistry Central Journal, 2016, 10, 12.	2.6	8
58	Thermally switchable meta-material absorber involving vanadium dioxide semiconductorâ€“metal transition for thermo photovoltaic conversion. Materials Research Express, 2018, 5, 015803.	1.6	8
59	Photocatalytic degradation of phenazopyridine contaminant in soil with direct solar light. Environmental Technology (United Kingdom), 2019, 40, 2928-2939.	2.2	8
60	Effect of Annealing and of Effect of Annealing and of Cooling Rates onn-GaAs Electrode Photoelectrochemical Characteristics. Active and Passive Electronic Components, 2004, 27, 69-80.	0.3	7
61	Film electrodes deposited from Cu ₂ SnSe ₃ source in comparison with those deposited from SnSe and Cu ₂ ZnSnSe ₄ sources by thermal vacuum evaporation: Effect of argon gas flow rate. Electrochimica Acta, 2014, 139, 238-243.	5.2	7
62	Effect of under nitrogen annealing on photo-electrochemical characteristics of films deposited from authentic Cu ₂ SnSe ₃ sources by thermal vacuum under argon gas condensation. International Journal of Hydrogen Energy, 2017, 42, 9003-9010.	7.1	7
63	Optimization of Al-Doped ZnO Transparent Conducting Oxide and Emitter Layers for Enhanced Performance of Si Heterojunction Solar Cells. Journal of Electronic Materials, 2020, 49, 2179-2190.	2.2	7
64	Blood zinc levels in nursing women from different regions of the West Bank of Palestine. Women and Health, 2018, 58, 822-833.	1.0	6
65	Effect of ZnOâ€“based TCO on the performance of aâ€“Si H(n)/aâ€“Si H(i)/câ€“Si H(p)/Al BSF(p+)/Al heterojunction solar cells. Environmental Progress and Sustainable Energy, 2019, 38, 13114.	2.3	6
66	Electrochemically and chemically deposited polycrystalline CdSe electrodes with high photoelectrochemical performance by recycling from waste films. Materials Science in Semiconductor Processing, 2020, 107, 104852.	4.0	6
67	Charge transfer catalysis at solid/liquid interface in photoelectrochemical processes: Enhancement of polycrystalline film electrode stability and performance. Solar Energy, 2020, 197, 443-454.	6.1	6
68	Effects of Sn Doping on Properties of Multilayered ZnO Films Deposited by Spin Coating/Solâ€“Gel Method. Jom, 2021, 73, 411-419.	1.9	6
69	Self-assembly of diclofenac prodrug into nanomicelles for enhancing the anti-inflammatory activity. RSC Advances, 2021, 11, 22433-22438.	3.6	6
70	Simulation of the Electrochemical Properties of Dye-Sensitized Solar Cells Based on Quinoxaline Dyes: Effects of Hydroxyl Group Numbers and Positions. Journal of Electronic Materials, 2021, 50, 5656-5663.	2.2	6
71	ZnO-Based Catalyst for Photodegradation of 2-Chlorophenol in Aqueous Solution Under Simulated Solar Light Using a Continuous Flow Method. Jom, 2021, 73, 404-410.	1.9	5
72	Title is missing!. Transition Metal Chemistry, 2002, 27, 223-227.	1.4	4

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73	Curcumin-sensitized anatase TiO ₂ nanoparticles for photodegradation of methyl orange with solar radiation. , 2013, , .		4
74	Enhancement of electrochemically deposited pristine CdTe film electrode photoelectrochemical characteristics by annealing temperature and cooling rate. Optik, 2019, 197, 163220.	2.9	4
75	Physical and chemical behaviour of Nabali Mohassan single-cultivar olive oil during prolonged storage. Journal of the Science of Food and Agriculture, 2019, 99, 2757-2762.	3.5	4
76	Sub-chronic treatment with high doses of ascorbic acid reduces lead levels in hen eggs intentionally exposed to a concentrated source of lead: a pilot study. BMC Pharmacology & Toxicology, 2020, 21, 17.	2.4	4
77	Zinc Oxide in Photocatalytic Removal of Staphylococcus aureus and Klebsiella pneumoniae from Water with Ultraviolet and Visible Solar Radiations. Jom, 2021, 73, 420-431.	1.9	4
78	Multi-Layered Sol-Gel Spin-Coated CuO Nanofilm Characteristic Enhancement by Sn Doping Concentration. Processes, 2022, 10, 1277.	2.8	4
79	Nano-ZnO film photocatalysts in bench-scale continuous-flow mineralization of olive mill waste contaminants in water. International Journal of Environmental Science and Technology, 2022, 19, 4379-4392.	3.5	3
80	Measurement of neutral gas temperatures in nitrogen-corona discharges. Indian Journal of Physics, 2011, 85, 1433-1443.	1.8	2
81	Effect of Annealing on the Properties of SnSe Film Prepared by Thermal Vacuum Evaporation in the Presence of Argon Gas. Advanced Materials Research, 0, 1024, 323-326.	0.3	2
82	Effect of metal (Ag and Cd) substitution on methylammonium lead iodide perovskite MAPbI ₃ optoelectronic properties for photovoltaic applications. Organic Electronics, 2019, 75, 105393.	2.6	2
83	Extremely Low-Loss Broadband Thermal Infrared Absorber Based on Tungsten Metamaterial. Journal of Electronic Materials, 2019, 48, 3304-3310.	2.2	2
84	Effective and selective electroreduction of aqueous nitrate catalyzed by copper particles on multi-walled carbon nanotubes. Journal of Environmental Management, 2022, 305, 114420.	7.8	2
85	Fungus-based bioremediation of olive mill wastewater and potential use in horticulture. Water and Environment Journal, 0, , .	2.2	2
86	Fluorine tin oxide-supported copper nanofilms as effective and selective de-nitration electrocatalysts. Journal of Electroanalytical Chemistry, 2022, 911, 116249.	3.8	2
87	Homogeneous catalysis of O-silylation reactions using octacarbonyldicobalt(O). Microchemical Journal, 1986, 33, 392-398.	4.5	1
88	Effect of carbon nano tube working electrode thickness on charge transport kinetics and photo-electrochemical characteristics of dye-sensitized solar cells. Materials Research Express, 2018, 5, 025513.	1.6	1
89	Combined electrochemical-chemical bath deposited metal selenide nano-film electrodes with high photo-electrochemical characteristics. , 2018, , .		1
90	Experimental study of a novel filter structure designed for MEMS-based sensors in electric vehicles. IET Power Electronics, 2019, 12, 4063-4069.	2.1	1

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91	Lead in breastmilk samples from women living in the West Bank: a cross-sectional study. Lancet, The, 2018, 391, S29.	13.7	0