

# Mohamed Salah Aida

## List of Publications by Year in descending order

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89  
papers

1,516  
citations

361045

20  
h-index

360668

35  
g-index

92  
all docs

92  
docs citations

92  
times ranked

1691  
citing authors

#	ARTICLE	IF	CITATIONS
1	ZnO thin films deposition by spray pyrolysis: Influence of precursor solution properties. <i>Current Applied Physics</i> , 2012, 12, 1283-1287.	1.1	140
2	Cu <sub>2</sub> ZnSnS <sub>4</sub> thin films deposition by ultrasonic spray pyrolysis. <i>Journal of Alloys and Compounds</i> , 2012, 542, 22-27.	2.8	99
3	Growth and physical properties of CdS thin films prepared by chemical bath deposition. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 135404.	1.3	87
4	Indium and aluminium-doped ZnO thin films deposited onto FTO substrates: nanostructure, optical, photoluminescence and electrical properties. <i>Journal of Sol-Gel Science and Technology</i> , 2010, 55, 335-342.	1.1	66
5	Structural, optical and electrical properties of n-ZnO/p-Si heterojunction prepared by ultrasonic spray. <i>Materials Science in Semiconductor Processing</i> , 2011, 14, 229-234.	1.9	59
6	Effects of thickness variation on properties of ZnO:Al thin films grown by RF magnetron sputtering deposition. <i>Superlattices and Microstructures</i> , 2015, 79, 148-155.	1.4	55
7	High Performance CO Gas Sensor Based on ZnO Nanoparticles. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2020, 30, 4063-4071.	1.9	54
8	Optical and electrical properties of Bi doped ZnO thin films deposited by ultrasonic spray pyrolysis. <i>Journal of Materials Science: Materials in Electronics</i> , 2011, 22, 499-505.	1.1	52
9	Solution flow rate influence on properties of copper oxide thin films deposited by ultrasonic spray pyrolysis. <i>Materials Science in Semiconductor Processing</i> , 2015, 30, 645-650.	1.9	51
10	NO <sub>2</sub> Selective Sensor Based on Fe <sub>2</sub> O <sub>3</sub> Nanoparticles Synthesized via Hydrothermal Technique. <i>Sensors</i> , 2019, 19, 167.	2.1	41
11	Antibacterial activity of In-doped ZnO nanoparticles. <i>Inorganic Chemistry Communication</i> , 2020, 122, 108281.	1.8	38
12	Properties of n-type SnO <sub>2</sub> semiconductor prepared by spray ultrasonic technique for photovoltaic applications. <i>Journal of Semiconductors</i> , 2015, 36, 123002.	2.0	36
13	CdS thin films growth by ammonia free chemical bath deposition technique. <i>Thin Solid Films</i> , 2012, 520, 3485-3489.	0.8	32
14	A Comparative Study of Structural Stability and Mechanical and Optical Properties of Fluorapatite (Ca <sub>5</sub> (PO <sub>4</sub> ) <sub>3</sub> F) and Lithium Disilicate (Li <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> ) Components Forming Dental Glass-Ceramics: First Principles Study. <i>Journal of Electronic Materials</i> , 2016, 45, 5082-5095.	1.0	32
15	Chemical bath deposition of nanocrystalline ZnS thin films: Influence of pH on the reaction solution. <i>Materials Science in Semiconductor Processing</i> , 2013, 16, 1753-1758.	1.9	31
16	Influence of annealing temperature on the structural, morphological and optical properties of Cu doped ZnO thin films deposited by the sol-gel method. <i>Superlattices and Microstructures</i> , 2014, 75, 47-53.	1.4	31
17	ZnS thin films deposition by thermal evaporation for photovoltaic applications. <i>Journal of Semiconductors</i> , 2015, 36, 103001.	2.0	29
18	Sulfide precursor concentration and lead source effect on PbS thin films properties. <i>Journal of Alloys and Compounds</i> , 2016, 666, 327-333.	2.8	29

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19	Influence of precursor source on sol-gel deposited ZnO thin films properties. Journal of Materials Science: Materials in Electronics, 2017, 28, 9252-9257.	1.1	26
20	Zinc molarity effect on Cu <sub>2</sub> ZnSnS <sub>4</sub> thin film properties prepared by spray pyrolysis. Journal of Materials Science: Materials in Electronics, 2018, 29, 4089-4095.	1.1	22
21	Rhodamine (B) photocatalysis under solar light on high crystalline ZnO films grown by home-made DC sputtering. Optik, 2018, 174, 77-85.	1.4	21
22	Co <sub>3</sub> O <sub>4</sub> /Al-ZnO Nano-composites: Gas Sensing Properties. Sensors, 2019, 19, 760.	2.1	21
23	Morphology and photocatalytic activity of porous (In, Mg) co-doped ZnO nanoparticles. Optik, 2018, 156, 949-960.	1.4	19
24	ITO substrate resistivity effect on the properties of CuInSe <sub>2</sub> deposited using two-electrode system. Journal of Materials Science, 2009, 44, 1241-1244.	1.7	18
25	Effect of ZnO layer thickness upon optoelectrical properties of NiO/ ZnO heterojunction prepared at room temperature. Journal of Materials Science: Materials in Electronics, 2018, 29, 16317-16324.	1.1	17
26	SnO <sub>2</sub> thin film synthesis for organic vapors sensing at ambient temperature. Sensing and Bio-Sensing Research, 2016, 11, 52-57.	2.2	16
27	Isothermal crystallization kinetic of ZnO thin films. Journal of Crystal Growth, 2010, 312, 3282-3286.	0.7	15
28	Thermal sulfurization effect on sprayed CZTS thin films properties and CZTS/CdS solar cells performances. Materials Research Express, 2018, 5, 015511.	0.8	15
29	Solution flow rate influence on ZnS thin films properties grown by ultrasonic spray for optoelectronic application. Journal of Semiconductors, 2018, 39, 093001.	2.0	15
30	Preparation and photoluminescence of NiFe <sub>2</sub> O <sub>4</sub> nanoparticles. Journal of Materials Science: Materials in Electronics, 2019, 30, 15379-15387.	1.1	15
31	Growth study of CdS thin films deposited by chemical bath. Optik, 2016, 127, 8423-8430.	1.4	14
32	Gadolinium doping effect on SnO <sub>2</sub> thin films optical and electrical properties. Materials Research Express, 2019, 6, 096405.	0.8	14
33	Improved Cu <sub>2</sub> O/AZO Heterojunction by Inserting a Thin ZnO Interlayer Grown by Pulsed Laser Deposition. Journal of Electronic Materials, 2019, 48, 4381-4388.	1.0	14
34	Simulation of a thin film solar cell based on copper zinc tin sulfo-selenide Cu <sub>2</sub> ZnSn(S,Se) <sub>4</sub> . Superlattices and Microstructures, 2016, 91, 70-77.	1.4	13
35	Cadmium sulfide thin films growth by chemical bath deposition. Journal of Semiconductors, 2018, 39, 034004.	2.0	13
36	Effect of cerium doping on the structural, optical and photocatalytic properties of SnO <sub>2</sub> thin films prepared by spray pyrolysis method. Materials Research Express, 2019, 6, 076407.	0.8	13

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37	Optimization of sulphurization temperature for the production of single-phase CZTS kesterite layers synthesized by electrodeposition. <i>Surface Engineering</i> , 2020, 36, 1000-1011.	1.1	13
38	Dependence of the Physical Properties of Titanium Dioxide (TiO <sub>2</sub> ) Thin Films Grown by Sol-Gel (Spin-Coating) Process on Thickness. <i>ECS Journal of Solid State Science and Technology</i> , 2022, 11, 023003.	0.9	13
39	Modeling and Simulation of Hydrogenated Amorphous Silicon Thin-Film Transistors. <i>Japanese Journal of Applied Physics</i> , 2005, 44, 1192-1198.	0.8	12
40	SnS <sub>2</sub> Thin Film Deposition by Spray Pyrolysis. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 065801.	0.8	11
41	Oxygen effect in radio frequency magnetron sputtered aluminium doped zinc oxide films. <i>Thin Solid Films</i> , 2014, 562, 70-74.	0.8	11
42	Fabrication of a novel MOS diode by indium incorporation control for microelectronic applications <sup>*</sup> . <i>Journal of Semiconductors</i> , 2017, 38, 064004.	2.0	11
43	Fe <sub>2</sub> O <sub>4</sub> /ZnO-nanowires synthesis by dip-coating for Orange II-dye photodegradation. <i>Optik</i> , 2017, 144, 397-405.	1.4	11
44	Facile Synthesis and Antibacterial Activity of Bioplastic Membrane Containing In Doped ZnO/Cellulose Acetate Nanocomposite. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2022, 32, 1223-1233.	1.9	11
45	The optical properties of sputtered amorphous silicon nitride films: Effect of RF power. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1996, 73, 339-347.	0.6	10
46	Temperature-dependent photoluminescence of Li-doped ZnO. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 10521-10530.	1.1	10
47	Copper concentration effect on physical properties of ultrasonically sprayed Cu <sub>2</sub> ZnSnS <sub>4</sub> absorber thin films for solar cell applications. <i>Applied Physics A: Materials Science and Processing</i> , 2021, 127, 1.	1.1	10
48	The effect of Ni/Fe ratio on the physical properties of NiFe <sub>2</sub> O <sub>4</sub> nanocomposites. <i>Materials Research Express</i> , 2019, 6, 086107.	0.8	9
49	CO <sub>2</sub> sensing behavior of vertically aligned Si Nanowire/ZnO structures. <i>Materials Science in Semiconductor Processing</i> , 2021, 134, 106028.	1.9	9
50	Elaboration of Transparent Undoped ZnO and Al-Doped ZnO Thin Films by Spray Pyrolysis and their Properties. <i>Plasma Processes and Polymers</i> , 2007, 4, S356-S358.	1.6	8
51	Copper oxide thin films for ethanol sensing. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016, 108, 012004.	0.3	7
52	Electrical properties of Cu <sub>4</sub> ZnSnS <sub>2</sub> /ZnS heterojunction prepared by ultrasonic spray pyrolysis. <i>Journal of Semiconductors</i> , 2016, 37, 122001.	2.0	7
53	Mechanism for phosphorus deactivation in silicon-based Schottky diodes submitted to MW-ECR hydrogen plasma. <i>Applied Physics A: Materials Science and Processing</i> , 2018, 124, 1.	1.1	7
54	Influence of divalent metals (Zn, Cu and Co) on the synthesis and magnetic properties of spinel ferrite nanopowders. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 8194-8205.	1.1	7

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55	Metals and ITO Contact Nature on ZnO and NiO Thin Films. Brazilian Journal of Physics, 2021, 51, 1159-1165.	0.7	7
56	Impact of the meso-PSi substrate on ZnO thin films deposited by spray pyrolysis technique for UV photodetectors. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	7
57	Surface state dependence of PbS and PbSe infrared noise and detectivity. Journal of Materials Science: Materials in Electronics, 2012, 23, 2083-2088.	1.1	5
58	One-step electrodeposition process of CuInSe <sub>2</sub> : Deposition time effect. Bulletin of Materials Science, 2014, 37, 1535-1542.	0.8	5
59	Antibacterial activity of stannate M <sub>2</sub> SnO <sub>4</sub> (M = Co, Cu, Mg, Ni and Zn) nanoparticles prepared by hydrothermal. Applied Nanoscience (Switzerland), 2022, 12, 1601-1611.	1.6	5
60	Influence of solvent on humidity sensing of sol-gel deposited ZnO thin films. EPJ Applied Physics, 2014, 65, 20302.	0.3	4
61	A comparison of NO <sub>2</sub> sensing characteristics of $\hat{1}\pm$ - and $\hat{1}^3$ -iron oxide-based solid-state gas sensors. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	1.1	4
62	Effect of film structure on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite thin films's degradation. AIP Advances, 2021, 11, .	0.6	4
63	Relative importance of deposition rate for surface potential in amorphous silicon/SiO <sub>2</sub> interface. Journal Physics D: Applied Physics, 2002, 35, 2015-2020.	1.3	3
64	Films surface temperature calculation during growth by sputtering technique. Journal of Semiconductors, 2017, 38, 096001.	2.0	3
65	Synthesis and Characterization of Cu <sub>2</sub> ZnSnS <sub>4</sub> Absorber Layers by Ultrasonic Spray Pyrolysis. Advanced Structured Materials, 2017, , 325-331.	0.3	3
66	Effect of deposition time on chemical bath deposited CdS thin films properties. Bulletin of Materials Science, 2022, 45, 1.	0.8	3
67	Influence of substrate temperature and solution molarity on CuO thin films' properties prepared by spray pyrolysis. Journal of Materials Science: Materials in Electronics, 2022, 33, 14702-14710.	1.1	3
68	The sprayed ZnO films: nanostructures and physical parameters. Journal of Semiconductors, 2015, 36, 083001.	2.0	2
69	Investigation of photocatalytic activity of ZnO prepared by spray pyrolysis with various precursors. IOP Conference Series: Materials Science and Engineering, 2016, 108, 012049.	0.3	2
70	Solvent and Spinning Speed Effects on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Films Deposited by Spin Coating. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900340.	0.8	2
71	Co <sub>3</sub> O <sub>4</sub> / $\hat{1}\pm$ -Fe <sub>2</sub> O <sub>3</sub> nanocomposites (NCs): synthesis and characterization. Journal of Materials Science: Materials in Electronics, 2020, 31, 5591-5598.	1.1	2
72	Characterization of in-situ Doped Polycrystalline Silicon Using Schottky Diodes and Admittance Spectroscopy. Journal of Nano- and Electronic Physics, 2016, 8, 01038-1-01038-4.	0.2	2

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73	ZnO and Simonkolleite Nanocomposite Synthesis via Green Chemistry Using Hibiscus Flower Extract. ECS Journal of Solid State Science and Technology, 2021, 10, 123016.	0.9	2
74	Nanocrystalline ZnO thin film growth by ultrasonic spray from a non-aqueous solution. Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanoengineering and Nanosystems, 2009, 223, 25-33.	0.1	1
75	Surface states simulation model for photoconductors infrared detectors. Journal of Materials Science: Materials in Electronics, 2009, 20, 400-406.	1.1	1
76	Ammonia free growth of CdS thin films by Chemical Bath Technique. , 2011, , .		1
77	Study of the chemical structure of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite films deposited on different substrates. Journal of Materials Science: Materials in Electronics, 2021, 32, 3303-3312.	1.1	1
78	Characterization and photocatalytic activity of different molar ratios of TiO <sub>2</sub> thin films prepared by Sol-Gel process. Main Group Chemistry, 2023, 22, 55-65.	0.4	1
79	Influence de la température de substrat sur la croissance et les propriétés des films minces de silicium amorphe déposés par pulvérisation cathodique. Canadian Journal of Physics, 2003, 81, 1293-1302.	0.4	0
80	Substrate-plasma interaction during amorphous silicon thin films growth by sputtering technique. EPJ Applied Physics, 2009, 47, 31001.	0.3	0
81	Microstructure and opto-electrical properties of SnO <sub>2</sub> :In <sub>2</sub> O <sub>3</sub> alloys thin films prepared by ultrasonic spray. International Journal of Nanoparticles, 2013, 6, 252.	0.1	0
82	Influence of band gap profiling in front part of absorber on CIGS solar cell performance. , 2014, , .		0
83	CuInTe <sub>2</sub> thin films synthesis using one-step electrodeposition process: structural, optical, and electrical characterization. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	1.1	0
84	Preparation of iron oxide nanoparticles doped with divalent metal: Application for heavy metal removal from waste water. AIP Conference Proceedings, 2019, , .	0.3	0
85	A Low Cost Resistive Gas Sensor Network Based on Zn-Al Doped and Co <sub>3</sub> O <sub>4</sub> Nanopowder Composite. Lecture Notes in Electrical Engineering, 2020, , 163-168.	0.3	0
86	Realization and Characterization of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /c-Si Heterojunction. Defect and Diffusion Forum, 0, 406, 364-374.	0.4	0
87	ZnO Nanorods growth via green chemistry using wormwood (Artemisia). Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	0
88	Blue-shift in optical bandgap of sprayed nanocrystalline Cu <sub>2</sub> ZnSnS <sub>4</sub> thin films induced by 200 MeV Xe swift heavy ions irradiation. Journal of Materials Science: Materials in Electronics, 2021, 32, 25516.	1.1	0
89	Erratum "ZnO and Simonkolleite Nanocomposite Synthesis via Green Chemistry Using Hibiscus Flower Extract [ECS J. Solid State Sci. Technol., 10, 123016 (2021)]. ECS Journal of Solid State Science and Technology, 0, , .	0.9	0