

Ashutosh Tiwari

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

3,293
citations

159585

30
h-index

144013

57
g-index

81
all docs

81
docs citations

81
times ranked

5248
citing authors

#	ARTICLE	IF	CITATIONS
1	A review of recent advances in nonenzymatic glucose sensors. <i>Materials Science and Engineering C</i> , 2014, 41, 100-118.	7.3	469
2	Zn _{0.9} Co _{0.1} O-based diluted magnetic semiconducting thin films. <i>Applied Physics Letters</i> , 2004, 84, 5255-5257.	3.3	301
3	Ferromagnetism in Co doped CeO ₂ : Observation of a giant magnetic moment with a high Curie temperature. <i>Applied Physics Letters</i> , 2006, 88, 142511.	3.3	210
4	Recent advances in oxide thermoelectric materials and modules. <i>Vacuum</i> , 2017, 146, 356-374.	3.5	146
5	2D Tin Monoxide—An Unexplored van der Waals Semiconductor: Material Characteristics and Field Effect Transistors. <i>Advanced Electronic Materials</i> , 2016, 2, 1500453.	5.1	125
6	Recent Developments in Perpendicular Magnetic Anisotropy Thin Films for Data Storage Applications. <i>Vacuum</i> , 2017, 146, 329-341.	3.5	123
7	Growth of centimeter-scale atomically thin MoS ₂ films by pulsed laser deposition. <i>APL Materials</i> , 2015, 3, 056103.	5.1	115
8	Ferromagnetism in Cu-doped ZnO films: Role of charge carriers. <i>Applied Physics Letters</i> , 2008, 92, .	3.3	110
9	Rectifying electrical characteristics of La _{0.7} Sr _{0.3} MnO ₃ /ZnO heterostructure. <i>Applied Physics Letters</i> , 2003, 83, 1773-1775.	3.3	91
10	Enzymatic glucose sensor based on Au nanoparticle and plant-like ZnO film modified electrode. <i>Materials Science and Engineering C</i> , 2015, 46, 548-552.	7.3	82
11	P-type SnO thin films and SnO/ZnO heterostructures for all-oxide electronic and optoelectronic device applications. <i>Thin Solid Films</i> , 2016, 605, 193-201.	1.8	82
12	Terbium Ion Doping in Ca ₃ Co ₄ O ₉ : A Step towards High-Performance Thermoelectric Materials. <i>Scientific Reports</i> , 2017, 7, 44621.	3.3	80
13	Ferromagnetism in Ni-doped ZnO films: Extrinsic or intrinsic?. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	78
14	Recent developments in garnet based solid state electrolytes for thin film batteries. <i>Current Opinion in Solid State and Materials Science</i> , 2014, 18, 29-38.	11.5	77
15	Strain-induced tuning of metal-insulator transition in NdNiO ₃ . <i>Applied Physics Letters</i> , 2002, 80, 4039-4041.	3.3	75
16	Robust longitudinal spin-Seebeck effect in Bi-YIG thin films. <i>Scientific Reports</i> , 2014, 4, 4429.	3.3	75
17	Structural, electrical, and optical characterizations of epitaxial Zn _{1-x} GaxO films grown on sapphire (0001) substrate. <i>Journal of Applied Physics</i> , 2007, 101, 124912.	2.5	68
18	Temperature-dependent study of the Raman A mode of Cu ₂ ZnSn ₄ thin films. <i>Physica Status Solidi (B): Basic Research</i> , 2011, 248, 2170-2174.	1.5	53

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19	Synthesis of Cubic Phase Li ₇ La ₃ Zr ₂ O ₁₂ Electrolyte for Solid-State Lithium-Ion Batteries. <i>Electrochemical and Solid-State Letters</i> , 2012, 15, A37.	2.2	52
20	Epitaxial growth of ZnO films on Si(111). <i>Journal of Materials Research</i> , 2002, 17, 2480-2483.	2.6	48
21	Antimicrobial properties of silver-doped hydroxyapatite nano-powders and thin films. <i>Jom</i> , 2010, 62, 65-70.	1.9	44
22	Unexpected magnetic behavior of Cu-doped CeO ₂ . <i>Applied Physics Letters</i> , 2010, 96, .	3.3	43
23	Copper diffusion characteristics in single-crystal and polycrystalline TaN. <i>Applied Physics Letters</i> , 2002, 81, 1453-1455.	3.3	40
24	Nonenzymatic glucose sensing using metal oxides – Comparison of CuO, Co ₃ O ₄ , and NiO. <i>Vacuum</i> , 2018, 155, 696-701.	3.5	40
25	Controlled synthesis of hydroxyapatite-based coatings for biomedical application. <i>Materials Science and Engineering C</i> , 2009, 29, 1071-1076.	7.3	38
26	Synthesis and characterization of copper-infiltrated carbonized wood monoliths for supercapacitor electrodes. <i>Electrochimica Acta</i> , 2015, 161, 343-350.	5.2	37
27	Facile preparation of nickel/carbonized wood nanocomposite for environmentally friendly supercapacitor electrodes. <i>Scientific Reports</i> , 2016, 6, 33659.	3.3	37
28	Epitaxial growth of TaN thin films on Si(100) and Si(111) using a TiN buffer layer. <i>Applied Physics Letters</i> , 2002, 80, 2323-2325.	3.3	35
29	Growth of two-dimensional WS ₂ thin films by pulsed laser deposition technique. <i>Thin Solid Films</i> , 2018, 668, 69-73.	1.8	34
30	Metal-insulator transition in La _{0.7} Sr _{0.3} Mn _{1-x} FexO ₃ . <i>Journal of Applied Physics</i> , 1999, 86, 5175-5178.	2.5	31
31	Progress in ZnO-based diluted magnetic semiconductors. <i>Jom</i> , 2009, 61, 72-75.	1.9	28
32	Co-doped ZnO dilute magnetic semiconductor. <i>Journal of Electronic Materials</i> , 2006, 35, 852-856.	2.2	27
33	A simple and selective colorimetric mercury (II) sensing system based on chitosan stabilized gold nanoparticles and 2,6-pyridinedicarboxylic acid. <i>Materials Science and Engineering C</i> , 2017, 71, 195-199.	7.3	27
34	Synthesis and Characterization of ZnO Nano-Plant-Like Electrodes. <i>Journal of Nanoscience and Nanotechnology</i> , 2008, 8, 3981-3987.	0.9	26
35	Low temperature electrical transport in La _{1-x} NdxNiO ₃ . <i>Solid State Communications</i> , 2002, 121, 357-361.	1.9	24
36	CuPt Alloy Thin Films for Application in Spin Thermoelectrics. <i>Scientific Reports</i> , 2019, 9, 3133.	3.3	22

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37	Electrical transport in. <i>Journal of Physics Condensed Matter</i> , 1999, 11, 3291-3298.	1.8	21
38	Growth and characterization of zinc oxide thin films on flexible substrates at low temperature using pulsed laser deposition. <i>Vacuum</i> , 2017, 146, 483-491.	3.5	21
39	Influence of the planar orientation of the substrate on thermoelectric response of SnSe thin films. <i>Journal of Physics and Chemistry of Solids</i> , 2019, 129, 347-353.	4.0	20
40	Effect of Composition and Thickness on the Perpendicular Magnetic Anisotropy of (Co/Pd) Multilayers. <i>Sensors</i> , 2017, 17, 2743.	3.8	19
41	A Review of Strategies for Developing Promising Thermoelectric Materials by Controlling Thermal Conduction. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1800904.	1.8	19
42	Origin of room-temperature ferromagnetism in cobalt-doped ZnO. <i>Journal of Electronic Materials</i> , 2004, 33, 1298-1302.	2.2	17
43	Thermoelectric response of porous Ca ₃ Co ₄ O ₉ prepared by an eco-friendly technique. <i>Ceramics International</i> , 2017, 43, 9505-9511.	4.8	17
44	Growth and properties of Cu ₂ ZnSnS ₄ thin films prepared by multiple metallic layer stacks as a function of sulfurization time. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 11702-11711.	2.2	15
45	Simple and rapid green synthesis of micrometer scale single crystalline gold nanoplates using chitosan as the reducing agent. <i>Journal of Crystal Growth</i> , 2014, 406, 12-17.	1.5	14
46	Growth and characteristics of TaN/TiN superlattice structures. <i>Applied Physics Letters</i> , 2003, 83, 3072-3074.	3.3	13
47	Role of Self-assembled Gold Nanodots in Improving the Electrical and Optical Characteristics of Zinc Oxide Films. <i>Journal of Nanoscience and Nanotechnology</i> , 2003, 3, 368-371.	0.9	13
48	Understanding the effect of thickness on the thermoelectric properties of Ca ₃ Co ₄ O ₉ thin films. <i>Scientific Reports</i> , 2021, 11, 6324.	3.3	13
49	Growth of epitaxial NdNiO ₃ and integration with Si(100). <i>Applied Physics Letters</i> , 2002, 80, 1337-1339.	3.3	12
50	TaN-TiN binary alloys and superlattices as diffusion barriers for copper interconnects. <i>Journal of Electronic Materials</i> , 2003, 32, 994-999.	2.2	10
51	Spin-glass behavior and magnetocaloric properties of high-entropy perovskite oxides. <i>Applied Physics Letters</i> , 2022, 120, .	3.3	10
52	Proton conducting BaZr _{0.8} Y _{0.2} O _{3-x} thin films by pulsed laser deposition technique. <i>Journal of Crystal Growth</i> , 2008, 310, 3590-3595.	1.5	9
53	Spintronic detection of interfacial magnetic switching in a paramagnetic thin film of tris(8-hydroxyquinoline)iron(III). <i>Physical Review B</i> , 2017, 95, .	3.2	9
54	Characterization of Li ₇ La ₃ Zr ₂ O ₁₂ Thin Films Prepared by Pulsed Laser Deposition. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1471, 37.	0.1	7

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55	Towards actinide heterostructure synthesis and science. Nature Communications, 2022, 13, 2221.	12.8	6
56	WEAK-LOCALIZATION EFFECT IN SINGLE CRYSTAL TaN(001) FILMS. Modern Physics Letters B, 2002, 16, 1143-1149.	1.9	5
57	TaN-TiN binary alloys and superlattices as diffusion barriers for copper interconnections. Journal of Electronic Materials, 2004, 33, L5-L5.	2.2	4
58	Anomalous Thermoelectric Power of Sol-Gel Prepared NdNiO ₃ . Modern Physics Letters B, 1997, 11, 1161-1167.	1.9	3
59	Growth of epitaxial ZnO films on Si(111). Materials Research Society Symposia Proceedings, 2002, 722, 1071.	0.1	3
60	Magnetic materials and devices: Research and applications. Jom, 2011, 63, 24-24.	1.9	2
61	Magnetic behavior of CeO ₂ thin films doped with non-magnetic transition metals. Jom, 2011, 63, 25-28.	1.9	2
62	A Study of Increased Resistivity of FTO Back Contact for CZTS Based Absorber Material Grown by Electrodeposition-Annealing Route. Materials Research Society Symposia Proceedings, 2011, 1315, 1.	0.1	2
63	A factorial design of experiments approach to synthesize CZTS absorber material from aqueous media. Materials Research Society Symposia Proceedings, 2011, 1288, 1.	0.1	2
64	Novel Low Temperature Molten Salt Synthesis of a Li ₅ La ₃ Nb ₂ O ₁₂ Solid State Electrolyte and Its Properties. Materials Research Society Symposia Proceedings, 2014, 1679, 7.	0.1	2
65	Spin Current Response in Bi-YIG/Pt Thin Film Heterostructures Induced by Gamma Radiation. IEEE Electron Device Letters, 2015, 36, 853-855.	3.9	2
66	2D Materials: 2D Tin Monoxide-An Unexplored p-Type van der Waals Semiconductor: Material Characteristics and Field Effect Transistors (Adv. Electron. Mater. 4/2016). Advanced Electronic Materials, 2016, 2, .	5.1	2
67	Growth of TiN/AlN Superlattice by Pulsed Laser Deposition. Materials Research Society Symposia Proceedings, 2002, 750, 1.	0.1	1
68	Room-temperature solid-state radiation detectors based on spintronics. , 2012, , .		1
69	Garnet-type Li ₇ La ₃ Zr ₂ O ₁₂ Electrolyte Prepared by a Solution-Based Technique for Lithium ion battery. Materials Research Society Symposia Proceedings, 2012, 1440, 73.	0.1	1
70	Kinetically stable glassy phase formation in neodymium nickelate thin films as evidenced by Hall effect and electrical resistivity measurements. Journal of Materials Research, 2013, 28, 1699-1706.	2.6	1
71	Electrochemical Performance of Cu Nanoparticle/Carbonized Wood Electrode for Supercapacitor Application. Materials Research Society Symposia Proceedings, 2014, 1678, 19.	0.1	1
72	Low Temperature Magnetotransport Properties of Polycrystalline Ca ₃ Co ₄ O ₉ . MRS Advances, 2017, 2, 1237-1242.	0.9	1

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73	Single Crystal TaN Thin Films on TiN/Si Heterostructure. Materials Research Society Symposia Proceedings, 2002, 716, 881.	0.1	0
74	Copper Diffusion Characteristics in Single Crystal and Polycrystalline TaN. Materials Research Society Symposia Proceedings, 2002, 745, 6111.	0.1	0
75	Growth and Observation of Low-Field Giant Magnetoresistance in La _{0.7} Sr _{0.3} MnO ₃ /ZnO Superlattice Structures. Journal of Nanoscience and Nanotechnology, 2006, 6, 612-617.	0.9	0
76	Spintronic materials and devices: Advances and applications. Jom, 2009, 61, 66-66.	1.9	0
77	Electrical Transport in Ultrathin NdNiO ₃ Films. Materials Research Society Symposia Proceedings, 2012, 1454, 27-32.	0.1	0
78	Modification of High Potential, High Capacity Li ₂ FeP ₂ O ₇ Cathode Material for Lithium Ion Batteries. Materials Research Society Symposia Proceedings, 2012, 1440, 37.	0.1	0
79	A Review of Strategies for Developing Promising Thermoelectric Materials by Controlling Thermal Conduction (Phys. Status Solidi A 14 th 2019). Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1970048.	1.8	0
80	Self-Aligned Passivated Copper Interconnects: A Novel Technique for Making Interconnections in Ultra Large Scale Integration Device Applications. Materials Research Society Symposia Proceedings, 2002, 716, 811.	0.1	0