

# Ashutosh Tiwari

## List of Publications by Year in descending order

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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	Spin-glass behavior and magnetocaloric properties of high-entropy perovskite oxides. Applied Physics Letters, 2022, 120, .	3.3	10
2	Towards actinide heterostructure synthesis and science. Nature Communications, 2022, 13, 2221.	12.8	6
3	Understanding the effect of thickness on the thermoelectric properties of Ca <sub>3</sub> Co <sub>4</sub> O <sub>9</sub> thin films. Scientific Reports, 2021, 11, 6324.	3.3	13
4	A Review of Strategies for Developing Promising Thermoelectric Materials by Controlling Thermal Conduction (Phys. Status Solidi A 14 <sup>th</sup> 2019). Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1970048.	1.8	0
5	Influence of the planar orientation of the substrate on thermoelectric response of SnSe thin films. Journal of Physics and Chemistry of Solids, 2019, 129, 347-353.	4.0	20
6	A Review of Strategies for Developing Promising Thermoelectric Materials by Controlling Thermal Conduction. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800904.	1.8	19
7	CuPt Alloy Thin Films for Application in Spin Thermoelectrics. Scientific Reports, 2019, 9, 3133.	3.3	22
8	Growth of two-dimensional WS <sub>2</sub> thin films by pulsed laser deposition technique. Thin Solid Films, 2018, 668, 69-73.	1.8	34
9	Nonenzymatic glucose sensing using metal oxides – Comparison of CuO, Co <sub>3</sub> O <sub>4</sub> , and NiO. Vacuum, 2018, 155, 696-701.	3.5	40
10	Growth and characterization of zinc oxide thin films on flexible substrates at low temperature using pulsed laser deposition. Vacuum, 2017, 146, 483-491.	3.5	21
11	Recent Developments in Perpendicular Magnetic Anisotropy Thin Films for Data Storage Applications. Vacuum, 2017, 146, 329-341.	3.5	123
12	Spintronic detection of interfacial magnetic switching in a paramagnetic thin film of tris(8-hydroxyquinoline)iron(III). Physical Review B, 2017, 95, .	3.2	9
13	Recent advances in oxide thermoelectric materials and modules. Vacuum, 2017, 146, 356-374.	3.5	146
14	Thermoelectric response of porous Ca <sub>3</sub> Co <sub>4</sub> O <sub>9</sub> prepared by an eco-friendly technique. Ceramics International, 2017, 43, 9505-9511.	4.8	17
15	Growth and properties of Cu <sub>2</sub> ZnSnS <sub>4</sub> thin films prepared by multiple metallic layer stacks as a function of sulfurization time. Journal of Materials Science: Materials in Electronics, 2017, 28, 11702-11711.	2.2	15
16	Terbium Ion Doping in Ca <sub>3</sub> Co <sub>4</sub> O <sub>9</sub> : A Step towards High-Performance Thermoelectric Materials. Scientific Reports, 2017, 7, 44621.	3.3	80
17	Low Temperature Magnetotransport Properties of Polycrystalline Ca <sub>3</sub> Co <sub>4</sub> O <sub>9</sub> . MRS Advances, 2017, 2, 1237-1242.	0.9	1
18	A simple and selective colorimetric mercury (II) sensing system based on chitosan stabilized gold nanoparticles and 2,6-pyridinedicarboxylic acid. Materials Science and Engineering C, 2017, 71, 195-199.	7.3	27

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19	Effect of Composition and Thickness on the Perpendicular Magnetic Anisotropy of (Co/Pd) Multilayers. <i>Sensors</i> , 2017, 17, 2743.	3.8	19
20	2D Tin Monoxide—An Unexplored p-Type van der Waals Semiconductor: Material Characteristics and Field Effect Transistors. <i>Advanced Electronic Materials</i> , 2016, 2, 1500453.	5.1	125
21	Facile preparation of nickel/carbonized wood nanocomposite for environmentally friendly supercapacitor electrodes. <i>Scientific Reports</i> , 2016, 6, 33659.	3.3	37
22	2D Materials: 2D Tin Monoxide—An Unexplored p-Type van der Waals Semiconductor: Material Characteristics and Field Effect Transistors ( <i>Adv. Electron. Mater.</i> 4/2016). <i>Advanced Electronic Materials</i> , 2016, 2, .	5.1	2
23	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
24	Growth of centimeter-scale atomically thin MoS <sub>2</sub> films by pulsed laser deposition. <i>APL Materials</i> , 2015, 3, 056103.	5.1	115
25	Synthesis and characterization of copper-infiltrated carbonized wood monoliths for supercapacitor electrodes. <i>Electrochimica Acta</i> , 2015, 161, 343-350.	5.2	37
26	Spin Current Response in Bi-YIG/Pt Thin Film Heterostructures Induced by Gamma Radiation. <i>IEEE Electron Device Letters</i> , 2015, 36, 853-855.	3.9	2
27	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
28	Electrochemical Performance of Cu Nanoparticle/Carbonized Wood Electrode for Supercapacitor Application. <i>Materials Research Society Symposia Proceedings</i> , 2014, 1678, 19.	0.1	1
29	Novel Low Temperature Molten Salt Synthesis of a Li <sub>5</sub> La <sub>3</sub> Nb <sub>2</sub> O <sub>12</sub> Solid State Electrolyte and Its Properties. <i>Materials Research Society Symposia Proceedings</i> , 2014, 1679, 7.	0.1	2
30	A review of recent advances in nonenzymatic glucose sensors. <i>Materials Science and Engineering C</i> , 2014, 41, 100-118.	7.3	469
31	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
32	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
33	Robust longitudinal spin-Seebeck effect in Bi-YIG thin films. <i>Scientific Reports</i> , 2014, 4, 4429.	3.3	75
34	Kinetically stable glassy phase formation in neodymium nickelate thin films as evidenced by Hall effect and electrical resistivity measurements. <i>Journal of Materials Research</i> , 2013, 28, 1699-1706.	2.6	1
35	Room-temperature solid-state radiation detectors based on spintronics. , 2012, , .		1
36	Electrical Transport in Ultrathin NdNiO <sub>3</sub> Films. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1454, 27-32.	0.1	0

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37	Characterization of $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ Thin Films Prepared by Pulsed Laser Deposition. Materials Research Society Symposia Proceedings, 2012, 1471, 37.	0.1	7
38	Modification of High Potential, High Capacity $\text{Li}_2\text{FeP}_2\text{O}_7$ Cathode Material for Lithium Ion Batteries. Materials Research Society Symposia Proceedings, 2012, 1440, 37.	0.1	0
39	Garnet-type $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ Electrolyte Prepared by a Solution-Based Technique for Lithium ion battery. Materials Research Society Symposia Proceedings, 2012, 1440, 73.	0.1	1
40	Synthesis of Cubic Phase $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ Electrolyte for Solid-State Lithium-Ion Batteries. Electrochemical and Solid-State Letters, 2012, 15, A37.	2.2	52
41	Magnetic materials and devices: Research and applications. Jom, 2011, 63, 24-24.	1.9	2
42	Magnetic behavior of $\text{CeO}_2$ - $\text{Fe}$ thin films doped with non-magnetic transition metals. Jom, 2011, 63, 25-28.	1.9	2
43	Temperature-dependent study of the Raman A mode of $\text{Cu}_2\text{ZnSnS}_4$ thin films. Physica Status Solidi (B): Basic Research, 2011, 248, 2170-2174.	1.5	53
44	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
45	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
46	Antimicrobial properties of silver-doped hydroxyapatite nano-powders and thin films. Jom, 2010, 62, 65-70.	1.9	44
47	Unexpected magnetic behavior of Cu-doped $\text{CeO}_2$ . Applied Physics Letters, 2010, 96, .	3.3	43
48	Ferromagnetism in Ni-doped ZnO films: Extrinsic or intrinsic?. Applied Physics Letters, 2009, 94, .	3.3	78
49	Spintronic materials and devices: Advances and applications. Jom, 2009, 61, 66-66.	1.9	0
50	Progress in ZnO-based diluted magnetic semiconductors. Jom, 2009, 61, 72-75.	1.9	28
51	Controlled synthesis of hydroxyapatite-based coatings for biomedical application. Materials Science and Engineering C, 2009, 29, 1071-1076.	7.3	38
52	Proton conducting $\text{BaZr}_{0.8}\text{Y}_{0.2}\text{O}_{3-x}$ thin films by pulsed laser deposition technique. Journal of Crystal Growth, 2008, 310, 3590-3595.	1.5	9
53	Ferromagnetism in Cu-doped ZnO films: Role of charge carriers. Applied Physics Letters, 2008, 92, .	3.3	110
54	Synthesis and Characterization of ZnO Nano-Plant-Like Electrodes. Journal of Nanoscience and Nanotechnology, 2008, 8, 3981-3987.	0.9	26

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55	Structural, electrical, and optical characterizations of epitaxial Zn <sub>1-x</sub> GaxO films grown on sapphire (0001) substrate. Journal of Applied Physics, 2007, 101, 124912.	2.5	68
56	Growth and Observation of Low-Field Giant Magnetoresistance in La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> /ZnO Superlattice Structures. Journal of Nanoscience and Nanotechnology, 2006, 6, 612-617.	0.9	0
57	Co-doped ZnO dilute magnetic semiconductor. Journal of Electronic Materials, 2006, 35, 852-856.	2.2	27
58	Ferromagnetism in Co doped CeO <sub>2</sub> : Observation of a giant magnetic moment with a high Curie temperature. Applied Physics Letters, 2006, 88, 142511.	3.3	210
59	Origin of room-temperature ferromagnetism in cobalt-doped ZnO. Journal of Electronic Materials, 2004, 33, 1298-1302.	2.2	17
60	TaN-TiN binary alloys and superlattices as diffusion barriers for copper interconnections. Journal of Electronic Materials, 2004, 33, L5-L5.	2.2	4
61	Zn <sub>0.9</sub> Co <sub>0.10</sub> -based diluted magnetic semiconducting thin films. Applied Physics Letters, 2004, 84, 5255-5257.	3.3	301
62	TaN-TiN binary alloys and superlattices as diffusion barriers for copper interconnects. Journal of Electronic Materials, 2003, 32, 994-999.	2.2	10
63	Rectifying electrical characteristics of La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> /ZnO heterostructure. Applied Physics Letters, 2003, 83, 1773-1775.	3.3	91
64	Growth and characteristics of TaN/TiN superlattice structures. Applied Physics Letters, 2003, 83, 3072-3074.	3.3	13
65	Role of Self-assembled Gold Nanodots in Improving the Electrical and Optical Characteristics of Zinc Oxide Films. Journal of Nanoscience and Nanotechnology, 2003, 3, 368-371.	0.9	13
66	Growth of epitaxial NdNiO <sub>3</sub> and integration with Si(100). Applied Physics Letters, 2002, 80, 1337-1339.	3.3	12
67	Strain-induced tuning of metal-insulator transition in NdNiO <sub>3</sub> . Applied Physics Letters, 2002, 80, 4039-4041.	3.3	75
68	Epitaxial growth of TaN thin films on Si(100) and Si(111) using a TiN buffer layer. Applied Physics Letters, 2002, 80, 2323-2325.	3.3	35
69	Copper diffusion characteristics in single-crystal and polycrystalline TaN. Applied Physics Letters, 2002, 81, 1453-1455.	3.3	40
70	Epitaxial growth of ZnO films on Si(111). Journal of Materials Research, 2002, 17, 2480-2483.	2.6	48
71	WEAK-LOCALIZATION EFFECT IN SINGLE CRYSTAL TaN(001) FILMS. Modern Physics Letters B, 2002, 16, 1143-1149.	1.9	5
72	Single Crystal TaN Thin Films on TiN/Si Heterostructure. Materials Research Society Symposia Proceedings, 2002, 716, 881.	0.1	0

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73	Copper Diffusion Characteristics in Single Crystal and Polycrystalline TaN. Materials Research Society Symposia Proceedings, 2002, 745, 6111.	0.1	0
74	Growth of TiN/AlN Superlattice by Pulsed Laser Deposition. Materials Research Society Symposia Proceedings, 2002, 750, 1.	0.1	1
75	Growth of epitaxial ZnO films on Si(111). Materials Research Society Symposia Proceedings, 2002, 722, 1071.	0.1	3
76	Low temperature electrical transport in $\text{La}_{1-x}\text{Nd}_x\text{NiO}_3$ . Solid State Communications, 2002, 121, 357-361.	1.9	24
77	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
78	Electrical transport in. Journal of Physics Condensed Matter, 1999, 11, 3291-3298.	1.8	21
79	Metal-insulator transition in $\text{La}_{0.7}\text{Sr}_{0.3}\text{Mn}_{1-x}\text{Fe}_x\text{O}_3$ . Journal of Applied Physics, 1999, 86, 5175-5178.	2.5	31
80	Anomalous Thermoelectric Power of Sol-Gel Prepared $\text{NdNiO}_3$ . Modern Physics Letters B, 1997, 11, 1161-1167.	1.9	3