

Prashant K Sarswat

List of Publications by Year in descending order

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52
papers

1,005
citations

471509

17
h-index

454955

30
g-index

53
all docs

53
docs citations

53
times ranked

1471
citing authors

#	ARTICLE	IF	CITATIONS
1	CZTS thin films on transparent conducting electrodes by electrochemical technique. <i>Thin Solid Films</i> , 2012, 520, 1694-1697.	1.8	88
2	Light emitting diodes based on carbon dots derived from food, beverage, and combustion wastes. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 27642-27652.	2.8	87
3	A study of energy band gap versus temperature for Cu ₂ ZnSnS ₄ thin films. <i>Physica B: Condensed Matter</i> , 2012, 407, 108-111.	2.7	81
4	Demonstration of a sol-gel synthesized bifacial CZTS photoelectrochemical cell. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2011, 208, 2861-2864.	1.8	67
5	Additive manufactured new hybrid high entropy alloys derived from the AlCoFeNiSmTiVZr system. <i>Applied Surface Science</i> , 2019, 476, 242-258.	6.1	60
6	Minimizing electron-hole pair recombination through band-gap engineering in novel ZnO-CeO ₂ -rGO ternary nanocomposite for photoelectrochemical and photocatalytic applications. <i>Environmental Science and Pollution Research</i> , 2020, 27, 25042-25056.	5.3	54
7	Temperature-dependent study of the Raman A mode of Cu ₂ ZnSnS ₄ thin films. <i>Physica Status Solidi (B): Basic Research</i> , 2011, 248, 2170-2174.	1.5	53
8	An investigation of rapidly synthesized Cu ₂ ZnSnS ₄ nanocrystals. <i>Journal of Crystal Growth</i> , 2013, 372, 87-94.	1.5	39
9	Geometrical modifications and tuning of optical and surface plasmon resonance behaviour of Au and Ag coated TiO ₂ nanotubular arrays. <i>RSC Advances</i> , 2015, 5, 70361-70370.	3.6	26
10	A Comparative Study of Co-electrodeposited Cu ₂ ZnSnS ₄ Absorber Material on Fluorinated Tin Oxide and Molybdenum Substrates. <i>Journal of Electronic Materials</i> , 2012, 41, 2210-2215.	2.2	24
11	Enhancing solar cell efficiency with plasmonic behavior of double metal nanoparticle system. <i>Vacuum</i> , 2018, 152, 285-290.	3.5	23
12	High-efficiency lithium isotope separation in an electrochemical system with 1-butyl-3-methylimidazolium dicyanamide, 1-ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide, and diethyl carbonate as the solvents. <i>Separation and Purification Technology</i> , 2020, 253, 117539.	7.9	21
13	The effects of dopant impurities on Cu ₂ ZnSnS ₄ system Raman properties. <i>Journal of Materials Science</i> , 2015, 50, 1613-1623.	3.7	20
14	Structural and Electrical Irregularities Caused by Selected Dopants in Black-Phosphorus. <i>ECS Journal of Solid State Science and Technology</i> , 2016, 5, Q3026-Q3032.	1.8	19
15	An evaluation of depletion layer photoactivity in Cu ₂ ZnSnS ₄ thin film. <i>Thin Solid Films</i> , 2012, 520, 4422-4426.	1.8	18
16	Synergistic effect of band convergence and carrier transport on enhancing the thermoelectric performance of Ga doped Cu ₂ Te at medium temperatures. <i>Scientific Reports</i> , 2019, 9, 8180.	3.3	18
17	Duality in Resistance Switching Behavior of TiO ₂ -Cu ₂ ZnSnS ₄ Device. <i>ECS Journal of Solid State Science and Technology</i> , 2015, 4, Q83-Q91.	1.8	17
18	Dopants induced structural and optical anomalies of anisotropic edges of black phosphorous thin films and crystals. <i>Ceramics International</i> , 2016, 42, 13113-13127.	4.8	17

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19	Phosphorus-Doped SnTe-Type Needle-like Crystals: Band Structure Modifications and Electronic Properties. <i>Journal of Physical Chemistry C</i> , 2017, 121, 18263-18273.	3.1	17
20	Investigation on Lithium Isotope Fractionation with Diffusion, Electrochemical Migration, and Electrochemical Isotope Effect in PEO-PC Based Gel Electrolyte. <i>Journal of the Electrochemical Society</i> , 2019, 166, E145-E152.	2.9	17
21	Fabrication and response of alpha-hydroxybutyrate sensors for rapid assessment of cardiometabolic disease risk. <i>Biosensors and Bioelectronics</i> , 2017, 89, 334-342.	10.1	16
22	Hybridized Tungsten Oxide Nanostructures for Food Quality Assessment: Fabrication and Performance Evaluation. <i>Scientific Reports</i> , 2018, 8, 3348.	3.3	16
23	Metal oxides and novel metallates coated stable engineered steel for corrosion resistance applications. <i>Applied Surface Science</i> , 2018, 456, 328-341.	6.1	16
24	Design and Fabrication of New High Entropy Alloys for Evaluating Titanium Replacements in Additive Manufacturing. <i>Materials</i> , 2020, 13, 3001.	2.9	16
25	Enhanced Photoelectrochemical Response from Copper Antimony Zinc Sulfide Thin Films on Transparent Conducting Electrode. <i>International Journal of Photoenergy</i> , 2013, 2013, 1-7.	2.5	15
26	High-efficiency lithium isotope separation by electrochemical deposition and intercalation with electrochemical isotope effect in propylene carbonate and [BMIM][DCA] ionic liquid. <i>Electrochimica Acta</i> , 2020, 361, 137060.	5.2	15
27	Augmented Z scheme blueprint for efficient solar water splitting system using quaternary chalcogenide absorber material. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 3788-3803.	2.8	14
28	A Comprehensive Review of Selected Major Categories of Lithium Isotope Separation Techniques. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2021, 218, 2100340.	1.8	11
29	Design, synthesis, and characterization of TPA-thiophene-based amide or imine functionalized molecule for potential optoelectronic devices. <i>Journal of Theoretical and Applied Physics</i> , 2013, 7, 4.	1.4	10
30	Li isotopes concentration flux investigation under conditions of diffusion and electric field assisted migration. <i>Vacuum</i> , 2018, 152, 291-300.	3.5	10
31	Elevated temperature corrosion resistance of additive manufactured single phase AlCoFeNiTiV0.9Sm0.1 and AlCoFeNiV0.9Sm0.1 HEAs in a simulated syngas atmosphere. <i>Additive Manufacturing</i> , 2019, 30, 100902.	3.0	10
32	Modifying the band-structure and properties of zirconium telluride using phosphorus addition. <i>Vacuum</i> , 2017, 146, 554-561.	3.5	9
33	Real-Time Detection of Thiols Using CoPc Modified Black-Phosphorus Based Sensors. <i>Journal of the Electrochemical Society</i> , 2019, 166, B1-B8.	2.9	9
34	Measurements and Simulations of Lithium Isotopes Concentration Fluxes during Electrolytic Lithium -7 Enrichment. <i>ECS Transactions</i> , 2018, 85, 79-87.	0.5	8
35	Frequency and atomic mass based selective electrochemical recovery of rare earth metals and isotopes. <i>Electrochimica Acta</i> , 2016, 219, 435-446.	5.2	7
36	Surface Texture-Induced Enhancement of Optical and Photoelectrochemical Activity of Cu ₂ ZnSnS ₄ Photocathodes. <i>Journal of Electronic Materials</i> , 2017, 46, 5308-5318.	2.2	7

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37	Design, fabrication and evaluation of Fe-Mn-Mo-Zr-Ti-V-B type additive manufactured mixed metal boride ceramics. Applied Surface Science Advances, 2022, 9, 100247.	6.8	7
38	An Assessment of Contact Engineering for the Cu ₂ S/ZnSnS ₄ -Alternative Back Contact. Materials Focus, 2013, 2, 244-250.	0.4	6
39	Tin-tellurium-phosphide: Investigation of composition dependent band structure and its experimental realization. Vacuum, 2017, 146, 444-454.	3.5	6
40	An Investigation of Nanocrystalline and Electrochemically Grown Cu ₂ ZnSnS ₄ Thin Film Using Redox Couples of Different Band Offset. Journal of Spectroscopy, 2013, 2013, 1-9.	1.3	5
41	Utility of by-product quantum dots obtained during synthesis of Cu ₂ ZnSnS ₄ colloidal ink. Ceramics International, 2014, 40, 859-869.	4.8	5
42	Anomalous electrical bistability in lateral grain rich polycrystalline molybdenum disulfide thin films. Vacuum, 2018, 155, 667-674.	3.5	4
43	Portable Scanning Vertical Probes for Localized Electrochemical Properties and Defects Analysis. Journal of the Electrochemical Society, 2019, 166, E512-E520.	2.9	3
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	Bifacial photodetector using CZTS absorber material. , 2012, , .		2
47	Long-term Stability of Mixed Perovskites. Materials Research Society Symposia Proceedings, 2015, 1771, 193-198.	0.1	2
48	Performance of photovoltaic cells in different segments of spatial-spectral distributions. Vacuum, 2017, 146, 542-547.	3.5	2
49	Evaluating and Enhancing Iron Removal via Filterable Iron Precipitates Formation during Coal-Waste Bioleaching. Eng, 2021, 2, 632-642.	2.4	2
50	Modification of Electronic and Vibrational Properties of Doped Black-P Films. MRS Advances, 2016, 1, 2285-2290.	0.9	1
51	Growth and examination of non-linear electrical behavior of bulk lead-tin-selenide. Vacuum, 2017, 146, 422-429.	3.5	1
52	Growth and Capacitive Performance of Metals Engineered Tungsten Oxide Structures and Application in Colorant Sensors. MRS Advances, 2018, 3, 691-696.	0.9	0