Bhaskar Chandra Mohanty

List of Publications by Year
in descending order

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Version: 2024-02-01

40 papers	524 citations	687363 13 h-index	677142 22 g-index
40 all docs	40 docs citations	40 times ranked	697 citing authors

#	Article	IF	Citations
1	Evaluating the role of composition and local structure on alkali outâ€diffusion in glasses for thinâ€film solar cells. Journal of the American Ceramic Society, 2021, 104, 851-859.	3.8	4
2	A thin Cu interlayer-mediated control of phase evolution of Cu2ZnSnS4 thin films grown by RF magnetron sputtering of a single elementary target with high white light sensitivity. Applied Surface Science, 2021, 539, 148149.	6.1	5
3	Diffusional investigation of alkali ions from composition tuned glass substrates to Mo-thin film for solar cell application. Surfaces and Interfaces, 2021, 24, 101060.	3.0	3
4	Influencing mechanism of post-sulfurization with sulfur flakes on phase evolution and Schottky diode characteristic of Cu2ZnSnS4 thin films sputter deposited from a single target. Solar Energy, 2021, 228, 333-338.	6.1	5
5	Critical Influence of Annealing Configuration in Kesterite Phase Evolution During Growth of Cu2ZnSnS4 Thin Films from Non-Toxic Environment-Friendly Solutions. Journal of Electronic Materials, 2021, 50, 1314-1322.	2.2	2
6	Improving performance of Cu2ZnSnS4 solar cell via back contact interface engineering. Solar Energy, 2021, 230, 986-995.	6.1	4
7	Designing composition tuned glasses with enhanced properties for use as substrate in Cu2ZnSnS4 based thin film solar cells. Journal of Alloys and Compounds, 2020, 819, 152984.	5.5	13
8	Balanced Performance Enhancements of aâ€InGaZnO Thin Film Transistors by Using Allâ€Amorphous Dielectric Multilayers Sandwiching Highâ€k CaCu 3 Ti 4 O 12. Advanced Electronic Materials, 2019, 5, 1900322.	5.1	5
9	Evaluating the role of precursor concentration in facile conformal coating of sub-micrometer thick Cu2ZnSnS4 films using non-toxic ethanol based solutions. Applied Surface Science, 2019, 494, 795-804.	6.1	6
10	Nanoindentation and Bending Fracture Behavior of Flexible Sulfide Thin Films Grown at Near Room Temperature With in Situ Tensile/Compressive Stress. Advanced Engineering Materials, 2019, 21, 1801329.	3.5	3
11	Eliminating secondary phases: Understanding kesterite phase evolution of Cu2ZnSnS4 thin films grown from ethanol based solutions with high photosensitivity. Solar Energy, 2019, 181, 214-221.	6.1	9
12	Growth control of molybdenum thin films with simultaneously improved adhesion and conductivity via sputtering for thin film solar cell application. Vacuum, 2019, 161, 347-352.	3.5	24
13	Elucidating doping driven microstructure evolution and optical properties of lead sulfide thin films grown from a chemical bath. Applied Surface Science, 2018, 435, 444-451.	6.1	3
14	Experimental Demonstration of in Situ Stress-Driven Optical Modulations in Flexible Semiconducting Thin Films with Enhanced Photodetecting Capability. Chemistry of Materials, 2018, 30, 7776-7781.	6.7	12
15	Origin of Prestress-Driven Optical Modulations of Flexible ZnO Thin Films Processed in Stretching Mode. Journal of Physical Chemistry Letters, 2018, 9, 5934-5939.	4.6	11
16	High-Efficiency Double Absorber PbS/CdS Heterojunction Solar Cells by Enhanced Charge Collection Using a ZnO Nanorod Array. ACS Omega, 2017, 2, 4894-4899.	3.5	23
17	Improved Photovoltaic Characteristics and Grain Boundary Potentials of CuIn_{0.7}Ga_{0.3}Se₂ Thin Films Spin-Coated by Na-Dissolved Nontoxic Precursor Solution. ACS Applied Materials & Interfaces, 2016, 8, 17011-17015.	8.0	18
18	Effect of band-aligned double absorber layers on photovoltaic characteristics of chemical bath deposited PbS/CdS thin film solar cells. Scientific Reports, 2015, 5, 14353.	3.3	22

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19	Improved photovoltaic and grain boundary characteristics of single elementary target-sputtered Cu₂ZnSnSe₄ thin films by post sulfurization/selenization process. Journal Physics D: Applied Physics, 2015, 48, 245103.	2.8	6
20	Tensile Stress-Dependent Fracture Behavior and Its Influences on Photovoltaic Characteristics in Flexible PbS/CdS Thin-Film Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 4573-4578.	8.0	20
21	RF power dependence of refractive index of room temperature sputtered ZnO:Al thin films. Applied Physics A: Materials Science and Processing, 2014, 115, 347-351.	2.3	4
22	Unusual near-band-edge photoluminescence at room temperature in heavily-doped ZnO:Al thin films prepared by pulsed laser deposition. Materials Chemistry and Physics, 2013, 140, 610-615.	4.0	2
23	Surface scaling evolution and dielectric properties of sputter-deposited low loss Mg 2 SiO 4 thin films. Surface and Coatings Technology, 2013, 231, 229-233.	4.8	9
24	Sputter-deposited low loss Mg2SiO4 thin films for multilayer hybrids. Thin Solid Films, 2013, 527, 250-254.	1.8	3
25	Phase development, microstructure and optical properties of Cu 2 ZnSnSe 4 thin films modified with Pb and Ti. Surface and Coatings Technology, 2013, 231, 389-393.	4.8	6
26	Effective Laser Sealing Enabled by Glass Thick Films Containing Carbon Black/Carbon Nanotubes. Journal of the American Ceramic Society, 2013, 96, 1113-1117.	3.8	4
27	Structural and Raman Scattering Properties of ZnO:Al Thin Films Sputter-Deposited at Room Temperature. Journal of the Electrochemical Society, 2011, 159, H96-H101.	2.9	9
28	Dopant induced variations in microstructure and optical properties of CeO2 nanoparticles. Materials Research Bulletin, 2011, 46, 875-883.	5.2	22
29	Enhanced electrical properties of pulsed laser-deposited CuIn0.7Ga0.3Se2 thin films via processing control. Solar Energy, 2010, 84, 2213-2218.	6.1	23
30	Crystallization and surface segregation in CuIn0.7Ga0.3Se2 thin films on Cu foils grown by pulsed laser deposition. Applied Surface Science, 2010, 256, 6819-6823.	6.1	26
31	Preparation and electrical properties of CuInSe₂ thin films by pulsed laser deposition using excess Se targets. Journal of Materials Research, 2010, 25, 1936-1942.	2.6	2
32	AlN Passivation Layer-Mediated Improvement in Tensile Failure of Flexible ZnO:Al Thin Films. ACS Applied Materials & Interfaces, 2010, 2, 2471-2474.	8.0	21
33	Structural and Electrical Characteristics of ZnO Thin Films on Polycrystalline AlN Substrates. Journal of the American Ceramic Society, 2009, 92, 665-670.	3.8	5
34	Scaling of surface roughness in sputter-deposited ZnO:Al thin films. Journal of Applied Physics, 2009, 106, 054908.	2.5	22
35	Stress-induced anomalous shift of optical band gap in ZnO:Al thin films. Applied Physics Letters, 2009, 95, .	3.3	129
36	SIMS study of effect of Cr adhesion layer on the thermal stability of silver selenide thin films on Si. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 1480-1485.	1.4	2

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37	Atomic force microscopy study of thermal stability of silver selenide thin films grown on silicon. Applied Surface Science, 2006, 252, 7975-7982.	6.1	9
38	Thermal stability of silver selenide thin films on silicon formed from the solid state reaction of Ag and Se films. Thin Solid Films, 2006, 515, 2059-2065.	1.8	14
39	Growth and Rutherford backscattering spectrometry study of direct current sputtered indium oxide films. Thin Solid Films, 2005, 488, 26-33.	1.8	13
40	Characterization of interface between CuInSe2 and In2O3. Journal of Physics and Chemistry of Solids, 2005, 66, 1928-1932.	4.0	1