Parag Banerjee

List of Publications by Year
in descending order

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61	2,149	304602	223716
papers	citations	22 h-index	46 g-index

63	63	63	3996
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nanotubular metalâ€“insulatorâ€“metal capacitor arrays for energy storage. Nature Nanotechnology, 2009, 4, 292-296.	15.6	337
2	Structural, electrical, and optical properties of atomic layer deposition Al-doped ZnO films. Journal of Applied Physics, 2010, 108, .	1.1	320
3	High to ultra-high power electrical energy storage. Physical Chemistry Chemical Physics, 2011, 13, 20714.	1.3	134
4	Plasmon-Induced Electrical Conduction in Molecular Devices. ACS Nano, 2010, 4, 1019-1025.	7.3	131
5	Ozone-Based Atomic Layer Deposition of Crystalline V₂O₅ Films for High Performance Electrochemical Energy Storage. Chemistry of Materials, 2012, 24, 1255-1261.	3.2	118
6	Surface Engineered CuO Nanowires with ZnO Islands for CO₂ Photoreduction. ACS Applied Materials & Interfaces, 2015, 7, 5685-5692.	4.0	100
7	Confined propagation of covalent chemical reactions on single-walled carbon nanotubes. Nature Communications, 2011, 2, 382.	5.8	67
8	TEMâ€Based Metrology for HfO₂ Layers and Nanotubes Formed in Anodic Aluminum Oxide Nanopore Structures. Small, 2008, 4, 1223-1232.	5.2	66
9	Highly Conducting, n-Type Bi₁₂O₁₅Cl₆ Nanosheets with Superlattice-like Structure. Chemistry of Materials, 2015, 27, 7710-7718.	3.2	55
10	Review Article: Atomic layer deposition of doped ZnO films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	0.9	52
11	MnO2/TiN heterogeneous nanostructure design for electrochemical energy storage. Physical Chemistry Chemical Physics, 2011, 13, 15221.	1.3	50
12	Electrical conductivity of p-type BiOCl nanosheets. Chemical Communications, 2015, 51, 2629-2632.	2.2	46
13	SnO₂ Nanostructured Thin Films for Room-Temperature Gas Sensing of Volatile Organic Compounds. ACS Applied Materials & Interfaces, 2018, 10, 29972-29981.	4.0	44
14	Atmospheric pressure chemical vapor deposition of methylammonium bismuth iodide thin films. Journal of Materials Chemistry A, 2017, 5, 24728-24739.	5.2	41
15	Indirect Phase Transformation of CuO to Cu₂O on a Nanowire Surface. Langmuir, 2016, 32, 4485-4493.	1.6	39
16	Star-shaped hole transport materials with indeno[1,2-b] thiophene or fluorene on a triazine core for efficient perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 1186-1190.	5.2	38
17	Unravelling transient phases during thermal oxidation of copper for dense CuO nanowire growth. CrystEngComm, 2014, 16, 3264-3267.	1.3	33
18	Charge transport in single CuO nanowires. Applied Physics Letters, 2014, 105, .	1.5	32

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19	Cationically Substituted Bi_{0.7}Fe_{0.3}OCl Nanosheets as Li Ion Battery Anodes. ACS Applied Materials & Interfaces, 2017, 9, 14187-14196.	4.0	32
20	Profile Evolution for Conformal Atomic Layer Deposition over Nanotopography. ACS Nano, 2010, 4, 4637-4644.	7.3	31
21	Nanoscale Matrix Topography Influences Microscale Cell Motility through Adhesions, Actin Organization, and Cell Shape. ACS Biomaterials Science and Engineering, 2017, 3, 2980-2986.	2.6	31
22	Disentangling Photochromism and Electrochromism by Blocking Hole Transfer at the Electrolyte Interface. Chemistry of Materials, 2016, 28, 7198-7202.	3.2	24
23	Plasmonic Metal-to-Semiconductor Switching in Au Nanorod-ZnO nanocomposite films. ACS Applied Materials & Interfaces, 2013, 5, 7693-7697.	4.0	22
24	Standing and sitting adlayers in atomic layer deposition of ZnO. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	0.9	20
25	Self-Catalyzed, Low-Temperature Atomic Layer Deposition of Ruthenium Metal Using Zero-Valent Ru(DMBD)(CO)₃ and Water. Chemistry of Materials, 2019, 31, 1304-1317.	3.2	20
26	Conduction in ultrathin ruthenium electrodes prepared by atomic layer deposition. Materials Letters, 2012, 73, 43-46.	1.3	18
27	Mechanism of Na-Ion Storage in BiOCl Anode and the Sodium-Ion Battery Formation. Journal of Physical Chemistry C, 2019, 123, 11500-11507.	1.5	18
28	Rayleigh Instability Driven Nodular Cu₂O Nanowires via Carbothermal Reduction of CuO Nanowires. Crystal Growth and Design, 2015, 15, 1588-1595.	1.4	15
29	Doping Mechanism in Transparent, Conducting Tantalum Doped ZnO Films Deposited Using Atomic Layer Deposition. Advanced Materials Interfaces, 2016, 3, 1600496.	1.9	15
30	Layered lead zirconate titanate and lanthanum-doped lead zirconate titanate ceramic thin films. Journal of Materials Research, 2002, 17, 2379-2385.	1.2	14
31	Uniqueness in Activation Energy and Charge-to-Breakdown of Highly Asymmetrical DRAM<tex>$hbox Al_2 hbox O_3$</tex>Cell Capacitors. IEEE Electron Device Letters, 2004, 25, 574-576.	2.2	14
32	Anodization control for barrier-oxide thinning and 3D interconnected pores and direct electrodeposition of nanowire networks on native aluminium substrates. Physical Chemistry Chemical Physics, 2015, 17, 3873-3879.	1.3	13
33	Mixed mode, ionic-electronic diode using atomic layer deposition of V2O5 and ZnO films. Journal of Materials Chemistry, 2011, 21, 15391.	6.7	12
34	Phase and stress evolution in diamond microparticles during diamond-coated wire sawing of Si ingots. International Journal of Advanced Manufacturing Technology, 2016, 82, 1675-1682.	1.5	12
35	Intrinsic point defects and intergrowths in layered bismuth triiodide. Physical Review Materials, 2018, 2, .	0.9	12
36	Improving the Passivation of Molybdenum Oxide Holeâ€Selective Contacts with 1â€‰nm Hydrogenated Aluminum Oxide Films for Silicon Solar Cells. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000093.	0.8	11

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37	Multiscale Characterization of Photovoltaic Modulesâ€"Case Studies of Contact and Interconnect Degradation. IEEE Journal of Photovoltaics, 2022, 12, 62-72.	1.5	10
38	Direct Growth of Flexible and Scalable Photocathodes from Î±-Brass Substrates. ACS Sustainable Chemistry and Engineering, 2015, 3, 3197-3204.	3.2	9
39	ALD based nanostructured zinc oxide coated antiviral silk fabric. RSC Advances, 2022, 12, 19327-19339.	1.7	9
40	Correlation of Raman, electrical, and optical properties of high-Îº, atomic layer deposited Al-doped TiO2. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, .	0.6	8
41	Optically active Fe²⁺-doped ZnSe particles in a chalcogenide glass matrix. Optical Materials Express, 2022, 12, 1555.	1.6	8
42	Confined anodic aluminum oxide nanopores on aluminum wires. RSC Advances, 2014, 4, 7919.	1.7	7
43	Phase and stress evolution of Si swarf in the diamond-coated wire sawing of Si ingots. International Journal of Advanced Manufacturing Technology, 2017, 89, 735-742.	1.5	6
44	Ultralow Loading Ruthenium on Alumina Monoliths for Facile, Highly Recyclable Reduction of p-Nitrophenol. Catalysts, 2021, 11, 165.	1.6	6
45	Processâ€"Structureâ€"Properties Relationships of Passivating, Electronâ€Selective Contacts Formed by Atmospheric Pressure Chemical Vapor Deposition of Phosphorusâ€Doped Polysilicon. Physica Status Solidi - Rapid Research Letters, 2022, 16, .	1.2	6
46	Achieving near-zero temperature coefficient of resistivity in atomic layer deposition TiSixN films through composition tuning. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 062404.	0.9	5
47	Machine learning approach to thickness prediction from in situ spectroscopic ellipsometry data for atomic layer deposition processes. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	0.9	5
48	Enhancement of ZnSe stability during optical composite processing via atomic layer deposition. Journal of Non-Crystalline Solids, 2022, 576, 121259.	1.5	5
49	Frontiers in Applied Atomic Layer Deposition (ALD) Research. Materials Science Forum, 0, 736, 147-182.	0.3	4
50	Configurational Entropy of Adlayers in Atomic Layer Deposition. Chemistry of Materials, 2017, 29, 5458-5462.	3.2	4
51	Semiconductor-to-metal transition in atomic layer deposition (ALD) of VO2 films using VCl4 and water. Applied Physics Letters, 2021, 118, .	1.5	4
52	Crystallization Behavior of HfO2 Nanotubes in Different Environments. Microscopy and Microanalysis, 2009, 15, 1250-1251.	0.2	3
53	Unraveling delocalized electrons in metal induced gap states from second harmonics. Applied Physics Letters, 2017, 111, .	1.5	3
54	Amorphous Cu2-Î´O as Passivation Layer for Ultra Long Stability of Copper Oxide Nanowires in Photoelectrochemical Environments. Journal of the Electrochemical Society, 2018, 165, H417-H424.	1.3	3

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55	In situ ellipsometry aided rapid ALD process development and parameter space visualization of cerium oxide nanofilms. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	0.9	3
56	Survey reveals interdisciplinarity of MSE faculty. MRS Bulletin, 2012, 37, 541-542.	1.7	1
57	Raman microspectroscopy of a silicon solar cell. , 2021, , .		1
58	Analysis of biological and artificial chemical sensor repsonses to odor mixtures. , 2013, , .		0
59	Understanding EDXS Analysis of Nanostructures in TEM. Microscopy and Microanalysis, 2017, 23, 1086-1087.	0.2	0
60	Materials science and engineering graduate core courses in the United States. MRS Bulletin, 2019, 44, 7-9.	1.7	0
61	Raman Microspectroscopy of a Multi-Crystalline Silicon Solar Cell. IEEE Journal of Photovoltaics, 2022, 12, 230-237.	1.5	0