

Sanjay K Behura

List of Publications by Year in descending order

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45
papers

942
citations

471509

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454955

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docs citations

45
times ranked

1736
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanoscience and Nanotechnology for Food and Agroforestry. <i>ES Food & Agroforestry</i> , 2021, , .	1.3	2
2	Highly Efficient Osmotic Energy Harvesting in Charged Boron-Nitride Nanopore Membranes. <i>Advanced Functional Materials</i> , 2021, 31, 2009586.	14.9	52
3	Development of photovoltaic solar cells based on heterostructure of layered materials: challenges and opportunities. <i>Emergent Materials</i> , 2021, 4, 881-900.	5.7	6
4	Preface on: "Challenges and Opportunities for 2D Materials and Heterostructure Devices". <i>Emergent Materials</i> , 2021, 4, 811-812.	5.7	3
5	Moiré physics in twisted van der Waals heterostructures of 2D materials. <i>Emergent Materials</i> , 2021, 4, 813-826.	5.7	17
6	Perovskite semiconductor-engineered cascaded molecular energy levels in naturally-sensitized photoanodes. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 151, 111606.	16.4	5
7	MXene: A Non-oxide Next-Generation Energy Storage Materials for Batteries and Supercapacitors. <i>Materials Horizons</i> , 2021, , 73-98.	0.6	2
8	CHAPTER 8. Highly Efficient Dye-sensitized Solar Cells with Integrated 3D Graphene-based Materials. <i>Chemistry in the Environment</i> , 2021, , 205-236.	0.4	1
9	Direct growth of hexagonal boron nitride on non-metallic substrates and its heterostructures with graphene. <i>IScience</i> , 2021, 24, 103374.	4.1	19
10	Electric-Field-Induced Phase Change in Copper Oxide Nanostructures. <i>ACS Omega</i> , 2021, 6, 33130-33140.	3.5	8
11	Cuboctahedral stability in Titanium halide perovskites via machine learning. <i>Computational Materials Science</i> , 2020, 173, 109415.	3.0	23
12	Organophilicity of Graphene Oxide for Enhanced Wettability of ZnO Nanorods. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 39772-39780.	8.0	7
13	Temperature dependent device characteristics of graphene/h-BN/Si heterojunction. <i>Semiconductor Science and Technology</i> , 2020, 35, 075020.	2.0	12
14	Biomolecular photosensitizers for dye-sensitized solar cells: Recent developments and critical insights. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 121, 109678.	16.4	91
15	Photo-organometallic, Nanoparticle Nucleation on Graphene for Cascaded Doping. <i>ACS Nano</i> , 2019, 13, 12929-12938.	14.6	5
16	Graphene "semiconductor heterojunction sheds light on emerging photovoltaics. <i>Nature Photonics</i> , 2019, 13, 312-318.	31.4	94
17	WS ₂ -induced enhanced optical absorption and efficiency in graphene/silicon heterojunction photovoltaic cells. <i>Nanoscale</i> , 2018, 10, 20218-20225.	5.6	17
18	Introduction of Protonated Sites on Exfoliated, Large-Area Sheets of Hexagonal Boron Nitride. <i>ACS Nano</i> , 2018, 12, 9931-9939.	14.6	48

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19	Intergrain Diffusion of Carbon Radical for Wafer-Scale, Direct Growth of Graphene on Silicon-Based Dielectrics. ACS Applied Materials & Interfaces, 2018, 10, 26517-26525.	8.0	11
20	Chemical Interaction-Guided, Metal-Free Growth of Large-Area Hexagonal Boron Nitride on Silicon-Based Substrates. ACS Nano, 2017, 11, 4985-4994.	14.6	30
21	WS ₂ /Silicon Heterojunction Solar Cells: A CVD Process for the Fabrication of WS ₂ Films on p-Si Substrates for Photovoltaic and Spectral Responses. IEEE Nanotechnology Magazine, 2017, 11, 33-38.	1.3	21
22	Photovoltaic and impedance spectroscopic characteristics of heterojunction of graphene-PEDOT:PSS composite and n-silicon prepared via solution-based process. Materials Research Innovations, 2017, 21, 263-268.	2.3	5
23	Retained Carrier-Mobility and Enhanced Plasmonic-Photovoltaics of Graphene via ring-centered Γ - ⁶ Functionalization and Nanointerfacing. Nano Letters, 2017, 17, 4381-4389.	9.1	39
24	Flexible polymer-multiwall carbon nanotubes composite developed by in situ polymerization technique. Polymer Composites, 2016, 37, 2860-2870.	4.6	6
25	Confined, Oriented, and Electrically Anisotropic Graphene Wrinkles on Bacteria. ACS Nano, 2016, 10, 8403-8412.	14.6	35
26	Electrical Transport and Network Percolation in Graphene and Boron Nitride Mixed-Platelet Structures. ACS Applied Materials & Interfaces, 2016, 8, 8721-8727.	8.0	18
27	Electrical Characteristics of Horizontally and Vertically Oriented Few-Layer Graphene on Si-Based Dielectrics. Journal of Nanoscience and Nanotechnology, 2016, 16, 6246-6251.	0.9	3
28	Chemical Vapor Deposited Few-Layer Graphene as an Electron Field Emitter. Journal of Nanoscience and Nanotechnology, 2016, 16, 287-295.	0.9	4
29	Graphene, conducting polymer and their composites as transparent and current spreading electrode in GaN solar cells. Superlattices and Microstructures, 2016, 92, 366-373.	3.1	17
30	p-GaN/i-In _x Ga _{1-x} N/n-GaN solar cell with indium compositional grading. Optical and Quantum Electronics, 2015, 47, 1117-1126.	3.3	5
31	Optimizing Performance Parameters of Chemically-Derived Graphene/p-Si Heterojunction Solar Cell. Journal of Nanoscience and Nanotechnology, 2015, 15, 4877-4882.	0.9	11
32	Metal/InGaN Schottky junction solar cells: an analytical approach. Applied Physics A: Materials Science and Processing, 2015, 118, 1459-1468.	2.3	13
33	Interfacial Nondegenerate Doping of MoS ₂ and Other Two-Dimensional Semiconductors. ACS Nano, 2015, 9, 2227-2230.	14.6	29
34	Large-Area, Transfer-Free, Oxide-Assisted Synthesis of Hexagonal Boron Nitride Films and Their Heterostructures with MoS ₂ and WS ₂ . Journal of the American Chemical Society, 2015, 137, 13060-13065.	18.7	110
35	Transparent Conductive Multiwall Carbon Nanotubes-Polymer Composite for Electrode Applications. Journal of Nanoscience and Nanotechnology, 2014, 14, 2816-2822.	0.9	5
36	Graphene as transparent and current spreading electrode in silicon solar cell. AIP Advances, 2014, 4, 117111.	1.3	7

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37	Catalyst-free synthesis of silicon nanowires by oxidation and reduction process. Journal of Materials Science, 2014, 49, 3592-3597.	3.7	7
38	Junction characteristics of chemically-derived graphene/p-Si heterojunction solar cell. Carbon, 2014, 67, 766-774.	10.3	58
39	Fabrication of Bi-Layer Graphene and Theoretical Simulation for Its Possible Application in Thin Film Solar Cell. Journal of Nanoscience and Nanotechnology, 2014, 14, 3022-3027.	0.9	9
40	A study on the 2D simulation of Pt/InGaN/GaN/metal Schottky junction solar cell. Semiconductor Science and Technology, 2013, 28, 055012.	2.0	6
41	Theoretical simulation of photovoltaic response of graphene-on-semiconductors. Applied Physics A: Materials Science and Processing, 2013, 111, 1159-1163.	2.3	16
42	Fabrication of multiple layer graphene films on Cu ²⁺ •SiO ₂ •Si substrate by hot-filament chemical vapor deposition. , 2013, , .		0
43	Vertically oriented few-layer graphene as an electron field-emitter. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 1817-1821.	1.8	22
44	The effect of indium composition on open-circuit voltage of InGaN thin-film solar cell: An analytical and computer simulation study. , 2012, , .		2
45	Anode supported solid oxide fuel cells (SOFC) by electrophoretic deposition. International Journal of Hydrogen Energy, 2011, 36, 14930-14935.	7.1	41