Vikas Berry

List of Publications by Year
in descending order

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49 papers	5,372 citations	201674 27 h-index	189892 50 g-index
50 all docs	50 docs citations	50 times ranked	10047 citing authors

#	Article	IF	Citations
1	Glucose measurement via Raman spectroscopy of graphene: Principles and operation. Nano Research, 2022, 15, 8697-8704.	10.4	6
2	Direct growth of tungsten disulfide on gallium nitride and the photovoltaic characteristics of the heterojunctions. Semiconductor Science and Technology, 2021, 36, 025016.	2.0	3
3	Highly Efficient Osmotic Energy Harvesting in Charged Boronâ€Nitrideâ€Nanopore Membranes. Advanced Functional Materials, 2021, 31, 2009586.	14.9	52
4	Phononics of Graphene Interfaced with Flowing Ionic Fluid: An Avenue for High Spatial Resolution Flow Sensor Applications. ACS Nano, 2021, 15, 6998-7005.	14.6	10
5	Induced conducting energy-levels in a boron nitride nano-framework for asymmetric supercapacitors in high charge-mobility ionic electrolytes. Composites Part B: Engineering, 2021, 212, 108728.	12.0	18
6	Defect guided conduction in graphene-derivatives and MoS2: Two-dimensional nanomaterial models. Applied Materials Today, 2021, 23, 101072.	4.3	10
7	COVID-19 Spike Protein Induced Phononic Modification in Antibody-Coupled Graphene for Viral Detection Application. ACS Nano, 2021, 15, 11743-11752.	14.6	48
8	Intraoperative imaging device for glioblastoma multiforme surgery: Review of Ramanâ€based intraoperative imaging and introduction of a novel handheld probe technology. Journal of Raman Spectroscopy, 2021, 52, 1228-1236.	2.5	2
9	Cellular nano-transistor: An electronic-interface between nanoscale semiconductors and biological cells. Materials Today Nano, 2020, 9, 100063.	4.6	9
10	Cuboctahedral stability in Titanium halide perovskites via machine learning. Computational Materials Science, 2020, 173, 109415.	3.0	23
11	3D-printed graphene/polymer structures for electron-tunneling based devices. Scientific Reports, 2020, 10, 11373.	3.3	9
12	Organophilicity of Graphene Oxide for Enhanced Wettability of ZnO Nanorods. ACS Applied Materials & Interfaces, 2020, 12, 39772-39780.	8.0	7
13	Temperature dependent device characteristics of graphene/h-BN/Si heterojunction. Semiconductor Science and Technology, 2020, 35, 075020.	2.0	12
14	Interface of Electrogenic Bacteria and Reduced Graphene Oxide: Energetics and Electron Transport. ACS Applied Electronic Materials, 2020, 2, 992-999.	4.3	5
15	Biomolecular photosensitizers for dye-sensitized solar cells: Recent developments and critical insights. Renewable and Sustainable Energy Reviews, 2020, 121, 109678.	16.4	91
16	Graphene Wrinkles Enable Spatially Defined Chemistry. Nano Letters, 2019, 19, 5640-5646.	9.1	39
17	Photo-organometallic, Nanoparticle Nucleation on Graphene for Cascaded Doping. ACS Nano, 2019, 13, 12929-12938.	14.6	5
18	Charged Layered Boron Nitrideâ€Nanoflake Membranes for Efficient Ion Separation and Water Purification. Small, 2019, 15, e1904590.	10.0	39

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19	Strain in a single wrinkle on an MoS₂ flake for in-plane realignment of band structure for enhanced photo-response. Nanoscale, 2019, 11, 504-511.	5.6	38
20	Grapheneâ€“semiconductor heterojunction sheds light on emerging photovoltaics. Nature Photonics, 2019, 13, 312-318.	31.4	94
21	Quantum Capacitance Based Amplified Graphene Phononics for Studying Neurodegenerative Diseases. ACS Applied Materials & Interfaces, 2019, 11, 169-175.	8.0	12
22	WS₂-induced enhanced optical absorption and efficiency in graphene/silicon heterojunction photovoltaic cells. Nanoscale, 2018, 10, 20218-20225.	5.6	17
23	Introduction of Protonated Sites on Exfoliated, Large-Area Sheets of Hexagonal Boron Nitride. ACS Nano, 2018, 12, 9931-9939.	14.6	48
24	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
25	Strain engineering in two-dimensional nanomaterials beyond graphene. Nano Today, 2018, 22, 14-35.	11.9	252
26	Adhesion Energy of MoS₂ Thin Films on Silicon-Based Substrates Determined via the Attributes of a Single MoS₂ Wrinkle. ACS Applied Materials & Interfaces, 2017, 9, 7812-7818.	8.0	72
27	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
28	WS2/Silicon Heterojunction Solar Cells: A CVD Process for the Fabrication of WS2 Films on p-Si Substrates for Photovoltaic and Spectral Responses. IEEE Nanotechnology Magazine, 2017, 11, 33-38.	1.3	21
29	Retained Carrier-Mobility and Enhanced Plasmonic-Photovoltaics of Graphene via ring-centered Î·⁶ Functionalization and Nanointerfacing. Nano Letters, 2017, 17, 4381-4389.	9.1	39
30	Confined, Oriented, and Electrically Anisotropic Graphene Wrinkles on Bacteria. ACS Nano, 2016, 10, 8403-8412.	14.6	35
31	Electrical Transport and Network Percolation in Graphene and Boron Nitride Mixed-Platelet Structures. ACS Applied Materials & Interfaces, 2016, 8, 8721-8727.	8.0	18
32	Cancer Cell Hyperactivity and Membrane Dipolarity Monitoring via Raman Mapping of Interfaced Graphene: Toward Non-Invasive Cancer Diagnostics. ACS Applied Materials & Interfaces, 2016, 8, 32717-32722.	8.0	32
33	Increased Hierarchical Wrinklons on Stiff Metal Thin Film on a Liquid Meniscus. ACS Applied Materials & Interfaces, 2016, 8, 24956-24961.	8.0	18
34	Wrinkled, rippled and crumpled graphene: an overview of formation mechanism, electronic properties, and applications. Materials Today, 2016, 19, 197-212.	14.2	771
35	Interfacial Nondegenerate Doping of MoS2and Other Two-Dimensional Semiconductors. ACS Nano, 2015, 9, 2227-2230.	14.6	29
36	Graphene Quantum Dots Interfaced with Single Bacterial Spore for Bio-Electromechanical Devices: A Graphene Cytobot. Scientific Reports, 2015, 5, 9138.	3.3	27

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37	Large-Area, Transfer-Free, Oxide-Assisted Synthesis of Hexagonal Boron Nitride Films and Their Heterostructures with MoS₂ and WS₂. Journal of the American Chemical Society, 2015, 137, 13060-13065.	13.7	110
38	Controlled, Defect-Guided, Metal-Nanoparticle Incorporation onto MoS₂ via Chemical and Microwave Routes: Electrical, Thermal, and Structural Properties. Nano Letters, 2013, 13, 4434-4441.	9.1	281
39	How Do the Electrical Properties of Graphene Change with its Functionalization?. Small, 2013, 9, 341-350.	10.0	287
40	Electron-Tunneling Modulation in Percolating Network of Graphene Quantum Dots: Fabrication, Phenomenological Understanding, and Humidity/Pressure Sensing Applications. Nano Letters, 2013, 13, 1757-1763.	9.1	126
41	Covalent Functionalization of Dipoleâ€Modulating Molecules on Trilayer Graphene: An Avenue for Grapheneâ€Interfaced Molecular Machines. Small, 2013, 9, 3823-3828.	10.0	24
42	Impermeability of graphene and its applications. Carbon, 2013, 62, 1-10.	10.3	593
43	Nanotomy-based production of transferable and dispersible graphene nanostructures of controlled shape and size. Nature Communications, 2012, 3, 844.	12.8	163
44	Graphene Interfaced with Biological Cells: Opportunities and Challenges. Journal of Physical Chemistry Letters, 2012, 3, 1024-1029.	4.6	113
45	Impermeable Graphenic Encasement of Bacteria. Nano Letters, 2011, 11, 1270-1275.	9.1	136
46	Modulation of Electron Tunneling in a Nanoparticle Array by Sound Waves: An Avenue to Highâ€Speed, Highâ€Sensitivity Sensors. Small, 2011, 7, 2485-2490.	10.0	5
47	Implantation and Growth of Dendritic Gold Nanostructures on Graphene Derivatives: Electrical Property Tailoring and Raman Enhancement. ACS Nano, 2009, 3, 2358-2366.	14.6	347
48	Graphene-Based Single-Bacterium Resolution Biodevice and DNA Transistor: Interfacing Graphene Derivatives with Nanoscale and Microscale Biocomponents. Nano Letters, 2008, 8, 4469-4476.	9.1	1,128
49	Self-Assembly of Nanoparticles on Live Bacterium: An Avenue to Fabricate Electronic Devices. Angewandte Chemie - International Edition, 2005, 44, 6668-6673.	13.8	106