

# Prabhakar Bandaru

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9334996/publications.pdf>

Version: 2024-02-01

91  
papers

3,332  
citations

218381

26  
h-index

143772

57  
g-index

92  
all docs

92  
docs citations

92  
times ranked

5320  
citing authors

#	ARTICLE	IF	CITATIONS
1	Advances in Metasurfaces: Topology, Chirality, Patterning, and Time Modulation. IEEE Antennas and Propagation Magazine, 2022, 64, 51-62.	1.2	2
2	Finite Element Simulation of Potential-Induced Degradation Kinetics in p-Type Silicon Solar Modules. IEEE Journal of Photovoltaics, 2022, 12, 45-52.	1.5	2
3	Experimental Investigations of Majorana Modes and Majorana-Bound States (MBS)., 2022, , 27-83.		0
4	Sub-Nanometer Interfacial Oxides on Highly Oriented Pyrolytic Graphite and Carbon Nanotubes Enabled by Lateral Oxide Growth. ACS Applied Materials & Interfaces, 2022, 14, 11873-11882.	4.0	10
5	A Poisson-Nernst-Planck Model of Ion Transport and Interface Segregation in Metal-Insulator-Semiconductor Structures and Solar Cells. Physica Status Solidi (B): Basic Research, 2022, 259, .	0.7	0
6	Confining and channeling sound through coupled resonators. Journal of Applied Physics, 2021, 129, 095103.	1.1	2
7	Influence of Surface Texture on the Variation of Electrokinetic Streaming Potentials. Langmuir, 2021, 37, 6736-6743.	1.6	4
8	Enhancement of photoelectron emission efficiency from quantum dot solids, through electrical field biasing of interfaces. Applied Physics Letters, 2021, 118, 263104.	1.5	0
9	Photonic Topological Insulators: A Beginner's Introduction [Electromagnetic Perspectives]. IEEE Antennas and Propagation Magazine, 2021, 63, 112-124.	1.2	19
10	Recent Advances in Thermal Metamaterials and Their Future Applications for Electronics Packaging. Journal of Electronic Packaging, Transactions of the ASME, 2021, 143, .	1.2	33
11	Possibility of Obtaining Two Orders of Magnitude Larger Electrokinetic Streaming Potentials, through Liquid Infiltrated Surfaces. Langmuir, 2020, 36, 10238-10243.	1.6	7
12	Direct DNA Methylation Profiling with an Electric Biosensor. ACS Nano, 2020, 14, 6743-6751.	7.3	23
13	Quantification of Sodium-Ion Migration in Silicon Nitride by Flatband-Potential Monitoring at Device-Operating Temperatures. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000212.	0.8	2
14	Iron redox pathway revealed in ferritin via electron transfer analysis. Scientific Reports, 2020, 10, 4033.	1.6	13
15	Enhanced Dynamic Charging Characteristics through Nanoscale Fuzzy Tungsten Surfaces. Journal of the Electrochemical Society, 2020, 167, 116515.	1.3	0
16	Tensorial Modulation of Electrokinetic Streaming Potentials on Air and Liquid Filled Surfaces. Langmuir, 2019, 35, 14812-14817.	1.6	9
17	Modulation of the Streaming Potential and Slip Characteristics in Electrolyte Flow over Liquid-Filled Surfaces. Langmuir, 2019, 35, 6203-6210.	1.6	17
18	Emergence of Novel Multipactor Modes Under Standing Wave Conditions in a Coaxial Line With an RF Window. IEEE Transactions on Plasma Science, 2019, 47, 1526-1533.	0.6	2

#	ARTICLE	IF	CITATIONS
19	Electron tunneling in nanoscale electrodes for battery applications. <i>Chemical Physics Letters</i> , 2018, 695, 24-27.	1.2	2
20	Light induced reversible and irreversible mechanical responses in nanotube-polymer composites. <i>Composites Part B: Engineering</i> , 2018, 134, 39-45.	5.9	11
21	Enhanced voltage generation through electrolyte flow on liquid-filled surfaces. <i>Nature Communications</i> , 2018, 9, 4050.	5.8	49
22	Enhanced Environmental Stability Coupled with a 12.5% Power Conversion Efficiency in an Aluminum Oxide-Encapsulated n-Graphene/p-Silicon Solar Cell. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 37181-37187.	4.0	13
23	Enhanced Solar Thermal Evaporation of Ethanol-Water Mixtures, through the Use of Porous Media. <i>Langmuir</i> , 2018, 34, 10523-10528.	1.6	13
24	Hierarchically structured, oxygen deficient, tungsten oxide morphologies for enhanced photoelectrochemical charge transfer and stability. <i>Journal of Materials Chemistry A</i> , 2017, 5, 14898-14905.	5.2	33
25	Electrochemical kinetics and dimensional considerations at the nanoscale: the influence of the density of states. <i>MRS Communications</i> , 2017, 7, 651-657.	0.8	3
26	Dimensionality-Dependent Electrochemical Kinetics at the Single-Layer Graphene-Electrolyte Interface. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 4004-4008.	2.1	15
27	Anisotropy in the hydrophobic and oleophilic characteristics of patterned surfaces. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	5
28	Ag nanowire coated reduced graphene oxide/n-silicon Schottky junction based solar cell. , 2016, , .		5
29	Enhanced quantum efficiency of photoelectron emission, through surface textured metal electrodes. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2016, 34, .	0.9	5
30	Dynamic superhydrophobic behavior in scalable random textured polymeric surfaces. <i>Journal of Applied Physics</i> , 2016, 119, .	1.1	11
31	Enhanced solar evaporation of water from porous media, through capillary mediated forces and surface treatment. <i>AIP Advances</i> , 2016, 6, .	0.6	29
32	Photoresponse of a Single Y-Junction Carbon Nanotube. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 19024-19030.	4.0	8
33	Electrochemical kinetics and dimensional considerations, at the nanoscale. <i>AIP Advances</i> , 2016, 6, .	0.6	10
34	An approach towards a perfect thermal diffuser. <i>Scientific Reports</i> , 2016, 6, 29649.	1.6	10
35	Enhanced Power Conversion Efficiency of Graphene/Silicon Heterojunction Solar Cells Through NiO Induced Doping. <i>Journal of Nanoscience and Nanotechnology</i> , 2016, 16, 1190-1193.	0.9	7
36	Graphene oxide as a p-dopant and an anti-reflection coating layer, in graphene/silicon solar cells. <i>Nanoscale</i> , 2016, 8, 6473-6478.	2.8	56

#	ARTICLE	IF	CITATIONS
37	Electrochemical charge storage in hierarchical carbon manifolds. Carbon, 2016, 99, 267-271.	5.4	12
38	Increasing Energy Storage in Activated Carbon based Electrical Double Layer Capacitors through Plasma Processing. Materials Research Society Symposia Proceedings, 2015, 1773, 15-20.	0.1	1
39	Spreading of triboelectrically charged granular matter. Scientific Reports, 2015, 4, 5275.	1.6	6
40	Bioinspired superhydrophobic surfaces, fabricated through simple and scalable roll-to-roll processing. Scientific Reports, 2015, 5, 15430.	1.6	27
41	Thermal transport in laminar flow over superhydrophobic surfaces, utilizing an effective medium approach. Physics of Fluids, 2015, 27, .	1.6	12
42	Layered thermal metamaterials for the directing and harvesting of conductive heat. AIP Advances, 2015, 5, .	0.6	33
43	Modulation of the Electrostatic and Quantum Capacitances of Few Layered Graphenes through Plasma Processing. Nano Letters, 2015, 15, 3067-3072.	4.5	58
44	High Rate Capacity through Redox Electrolytes Confined in Macroporous Electrodes. Journal of the Electrochemical Society, 2015, 162, A86-A91.	1.3	23
45	Anomalous decrease of the specific heat capacity at the electrical and thermal conductivity percolation threshold in nanocomposites. Applied Physics Letters, 2014, 105, .	1.5	9
46	Enhanced electrical current densities in electrochemical systems through the use of nanostructured electrodes. Applied Physics Letters, 2014, 104, .	1.5	9
47	Reduced electrical impedance of SiO <sub>2</sub> , deposited through focused ion beam based systems, due to impurity percolation. Journal of Applied Physics, 2014, 116, 204301.	1.1	5
48	Heat flux concentration through polymeric thermal lenses. Applied Physics Letters, 2014, 105, .	1.5	31
49	Percolation of gallium dominates the electrical resistance of focused ion beam deposited metals. Applied Physics Letters, 2014, 104, .	1.5	4
50	Evidence of percolation related power law behavior in the thermal conductivity of nanotube/polymer composites. Applied Physics Letters, 2013, 102, .	1.5	27
51	Limits to the magnitude of capacitance in carbon nanotube array electrode based electrochemical capacitors. Applied Physics Letters, 2013, 102, 173113.	1.5	25
52	High Energy Density, High Operating Frequency and Energy Efficient On-Chip Inductors based on Coiled Carbon Nanotubes (CCNTs). Materials Research Society Symposia Proceedings, 2013, 1551, 41-46.	0.1	0
53	Geometrical considerations in the control and manipulation of conductive heat flux in multilayered thermal metamaterials. Applied Physics Letters, 2013, 103, .	1.5	73
54	Modeling High Energy Density Electrical Inductors Operating at THz Frequencies Based on Coiled Carbon Nanotubes. IEEE Electron Device Letters, 2013, 34, 807-809.	2.2	7

#	ARTICLE	IF	CITATIONS
55	Feasibility of enhancing the thermoelectric power factor in GaN. $\chi$ As $\hat{a}^x$ . Physical Review B, 2012, 86, .	1.1	12
56	In-plane thermal conductivity determination through thermoreflectance analysis and measurements. Journal of Applied Physics, 2011, 110, 084313.	1.1	20
57	The influence of dopant type and carrier concentration on the effective mass and Seebeck coefficient of GaN <sub>x</sub> As <sub>1-x</sub> thin films. Applied Physics Letters, 2011, 99, 072114.	1.5	10
58	Elastic Response of Carbon Nanotube Forests to Aerodynamic Stresses. Physical Review Letters, 2010, 105, 144504.	2.9	37
59	Toxicity issues in the application of carbon nanotubes to biological systems. Nanomedicine: Nanotechnology, Biology, and Medicine, 2010, 6, 245-256.	1.7	481
60	Nanostructured thermoelectrics. Materials Science and Engineering Reports, 2010, 67, 19-63.	14.8	486
61	Direct Measurement of the Absolute Seebeck Coefficient for Pb and Cu at 300 K to 450 K. Materials Research Society Symposia Proceedings, 2010, 1267, 1.	0.1	0
62	The influence of coiled nanostructure on the enhancement of dielectric constants and electromagnetic shielding efficiency in polymer composites. Applied Physics Letters, 2010, 96, 043115.	1.5	29
63	Analysis of electrical percolation thresholds in carbon nanotube networks using the Weibull probability distribution. Journal of Applied Physics, 2010, 108, .	1.1	30
64	Carbon nanotube based coils and helices: (Synthesis and applications in electronic, electromagnetic,) Tj ETQq0 0 0 rgBT /Over\lock 10 Tf		
65	Enhanced Electromagnetic Interference Shielding Through the Use of Functionalized Carbon-Nanotube-Reactive Polymer Composites. IEEE Nanotechnology Magazine, 2010, 9, 464-469.	1.1	109
66	Enhanced dielectric constants and shielding effectiveness of, uniformly dispersed, functionalized carbon nanotube composites. Applied Physics Letters, 2009, 94, .	1.5	95
67	Determination and enhancement of the capacitance contributions in carbon nanotube based electrode systems. Applied Physics Letters, 2009, 95, 183108.	1.5	47
68	The response of carbon nanotube ensembles to fluid flow: Applications to mechanical property measurement and diagnostics. Journal of Applied Physics, 2009, 106, .	1.1	15
69	Determination of Thermal Parameters of Nanostructures Exhibiting One-Dimensional Heat Flow Through a Thermal Transient Method. Materials Research Society Symposia Proceedings, 2009, 1172, 54.	0.1	0
70	Determination of thermal parameters of one-dimensional nanostructures through a thermal transient method. Journal of Thermal Analysis and Calorimetry, 2009, 97, 1023-1026.	2.0	4
71	The optimal Seebeck coefficient for obtaining the maximum power factor in thermoelectrics. Applied Physics Letters, 2009, 94, .	1.5	51
72	Localization in silicon nanophotonic slow-light waveguides. Nature Photonics, 2008, 2, 90-93.	15.6	120

#	ARTICLE	IF	CITATIONS
73	Tailoring the Electrochemical Behavior of Multiwalled Carbon Nanotubes Through Argon and Hydrogen Ion Irradiation. <i>Electrochemical and Solid-State Letters</i> , 2008, 11, K35.	2.2	9
74	MORPHOLOGY CONTROL OF CARBON NANOTUBES THROUGH FOCUSED ION BEAMS. <i>Nano</i> , 2008, 03, 449-454.	0.5	5
75	Modification of the electrical characteristics of single wall carbon nanotubes through selective functionalization. <i>Applied Physics Letters</i> , 2008, 93, 243113.	1.5	17
76	Multi-slot silicon optical waveguides. , 2008, , .		0
77	Electrical Properties and Applications of Carbon Nanotube Structures. <i>Journal of Nanoscience and Nanotechnology</i> , 2007, 7, 1239-1267.	0.9	475
78	Artificial introduction of defects into vertically aligned multiwalled carbon nanotube ensembles: Application to electrochemical sensors. <i>Journal of Applied Physics</i> , 2007, 102, .	1.1	46
79	A plausible mechanism for the evolution of helical forms in nanostructure growth. <i>Journal of Applied Physics</i> , 2007, 101, 094307.	1.1	56
80	Electrical characterization of carbon nanotube Y-junctions: a foundation for new nanoelectronics. <i>Journal of Materials Science</i> , 2007, 42, 1809-1818.	1.7	25
81	Electrical applications for novel carbon nanotube morphologies: Does function follow shape?. <i>Jom</i> , 2007, 59, 33-38.	0.9	4
82	Three-way electrical gating characteristics of metallic Y-junction carbon nanotubes. <i>Applied Physics Letters</i> , 2006, 88, 243113.	1.5	18
83	Electrical Transport in Carbon Nanotube Y-junctions- a Paradigm for Novel Functionality at the Nanoscale. <i>Materials Research Society Symposia Proceedings</i> , 2006, 922, 1.	0.1	0
84	Novel electrical switching behaviour and logic in carbon nanotube Y-junctions. <i>Nature Materials</i> , 2005, 4, 663-666.	13.3	220
85	Carbon nanotube based nonvolatile memory. <i>Applied Physics Letters</i> , 2005, 87, 233115.	1.5	19
86	Investigation of magnetic properties in Mn incorporated InSb, InP, and GaAs, synthesized through controlled-ambient annealing. <i>Materials Research Society Symposia Proceedings</i> , 2004, 825, G2.1.1.	0.1	0
87	Single photoelectron trapping, storage, and detection in a field effect transistor. <i>Physical Review B</i> , 2003, 67, .	1.1	47
88	The fabrication of p-Ge/n-Si photodetectors, compatible with back-end Si CMOS processing, by low temperature (< 400 Å°C) molecular beam epitaxy and electron-beam evaporation. <i>Materials Research Society Symposia Proceedings</i> , 2003, 796, 67.	0.1	1
89	Semiconductor surface “ molecule interactions: a case study in the wet etching of InP by ±-hydroxy acids. <i>Materials Research Society Symposia Proceedings</i> , 2003, 782, 1.	0.1	1
90	Photoconductance quantization in a single-photon detector. <i>Physical Review B</i> , 2002, 65, .	1.1	28

#	ARTICLE	IF	CITATIONS
91	Decoupling the structural and magnetic phase transformations in magneto-optic MnBi thin films by the partial substitution of Cr for Mn. Applied Physics Letters, 1998, 72, 2337-2339.	1.5	23