Balaji Panchapakesan

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

70 papers	1,920 citations	24 h-index	42 g-index
80 ext. papers	2,220 ext. citations	3.7 avg, IF	5.12 L-index

#	Paper	IF	Citations
70	Two-dimensional PdPS and PdPSe nanosheets: Novel promising sensing platforms for harmful gas molecules. *Applied Surface Science*, **2022**, 579, 152115	6.7	7
69	First-principles insight into two-dimensional palladium phosphide tellurium (PdPTe) monolayer as a promising scavenger for detecting SF6 decompositions. *Journal of Materials Science*, **2022**, 57, 5497-5506	4.3	4
68	Green Phosphorene as a Promising Biosensor for Detection of Furan and p-Xylene as Biomarkers of Disease: A DFT Study.. *Sensors*, **2022**, 22,	3.8	2
67	CNT biodevices for early liver cancer diagnosis based on biomarkers detection- a promising platform.. *Journal of Molecular Graphics and Modelling*, **2022**, 114, 108208	2.8	3
66	Computational Study on Sensing Properties of Pd-Decorated Phosphorene for Detecting Acetone, Ethanol, Methanol, and Toluene—A Density Functional Theory Investigation. *Advanced Theory and Simulations*, **2021**, 4, 2100256	3.5	6
65	Experimental and Theoretical Advances in MXene-Based Gas Sensors. *ACS Omega*, **2021**, 6, 2450-2461	3.9	34
64	Outstanding Performance of Transition-Metal-Decorated Single-Layer Graphene-like BCN Nanosheets for Disease Biomarker Detection in Human Breath. *ACS Omega*, **2021**, 6, 4696-4707	3.9	24
63	A density functional theory study on the interaction of toluene with transition metal decorated carbon nanotubes: a promising platform for early detection of lung cancer from human breath. *Nanotechnology*, **2020**, 31, 415707	3.4	24
62	Pt-, Rh-, Ru-, and Cu-Single-Wall Carbon Nanotubes Are Exceptional Candidates for Design of Anti-Viral Surfaces: A Theoretical Study. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	27
61	Versatile high-performance inkjet-printed paper photo-actuators based on 2D materials. *Nanotechnology*, **2020**, 31, 025708	3.4	4
60	Liquid biopsy using the nanotube-CTC-chip: capture of invasive CTCs with high purity using preferential adherence in breast cancer patients. *Lab on A Chip*, **2019**, 19, 1899-1915	7.2	39
59	The Coupled Straintronic-Photothermic Effect. *Scientific Reports*, **2018**, 8, 64	4.9	7
58	Photomechanical Effects in Polymer Nanocomposites **2017**, 179-231		1
57	Exfoliated WS-Nafion Composite based Electromechanical Actuators. *Scientific Reports*, **2017**, 7, 14599	4.9	15
56	Ultrasensitive Label-Free Sensing of IL-6 Based on PASE Functionalized Carbon Nanotube Micro-Arrays with RNA-Aptamers as Molecular Recognition Elements. *Biosensors*, **2017**, 7,	5.9	35
55	Chromatic Mechanical Response in 2-D Layered Transition Metal Dichalcogenide (TMDs) based Nanocomposites. *Scientific Reports*, **2016**, 6, 34831	4.9	18
54	Label-free capture of breast cancer cells spiked in buffy coats using carbon nanotube antibody micro-arrays. *Nanotechnology*, **2016**, 27, 13LT02	3.4	11

53	Classification of biosensor time series using dynamic time warping: applications in screening cancer cells with characteristic biomarkers. *Open Access Medical Statistics*, **2016**, 2016, 21-29		1
52	Spatially Nonuniform Heating and the Nonlinear Transient Response of Elastomeric Photomechanical Actuators. *Actuators*, **2016**, 5, 16	2.4	1
51	A Thermoacoustic Model for High Aspect Ratio Nanostructures. *Actuators*, **2016**, 5, 23	2.4	1
50	Static micro-array isolation, dynamic time series classification, capture and enumeration of spiked breast cancer cells in blood: the nanotube-CTC chip. *Nanotechnology*, **2016**, 27, 44LT03	3.4	18
49	MoS2 actuators: reversible mechanical responses of MoS2-polymer nanocomposites to photons. *Nanotechnology*, **2015**, 26, 261001	3.4	35
48	Programmable Skins based on Core-Shell Microsphere/Nanotube/Polymer Composites. *Materials Research Society Symposia Proceedings*, **2015**, 1800, 1		
47	Nanotube liquid crystal elastomers: photomechanical response and flexible energy conversion of layered polymer composites. *Nanotechnology*, **2014**, 25, 355501	3.4	12
46	Vacuum filtration based formation of liquid crystal films of semiconducting carbon nanotubes and high performance transistor devices. *Nanotechnology*, **2014**, 25, 175201	3.4	22
45	Stimuli-responsive transformation in carbon nanotube/expanding microsphere-polymer composites. *Nanotechnology*, **2013**, 24, 185703	3.4	22
44	. *IEEE Nanotechnology Magazine*, **2013**, 7, 20-26	1.7	2
43	Graphene/elastomer composite-based photo-thermal nanopositioners. *Scientific Reports*, **2013**, 3, 1900	4.9	79
42	Synergism in Binary (MWNT, SLG) Nano-carbons in Polymer Nano-composites: A Raman Study. *Materials Research Society Symposia Proceedings*, **2013**, 1505, 1		
41	Synergy among binary (MWNT, SLG) nano-carbons in polymer nano-composites: a Raman study. *Nanotechnology*, **2012**, 23, 315706	3.4	19
40	Load transfer and mechanical properties of chemically reduced graphene reinforcements in polymer composites. *Nanotechnology*, **2012**, 23, 505713	3.4	39
39	Dimensional dependence of photomechanical response in carbon nanostructure composites: a case for carbon-based mixed-dimensional systems. *Nanotechnology*, **2012**, 23, 215501	3.4	25
38	Layer dependent mechanical responses of graphene composites to near-infrared light. *Applied Physics Letters*, **2012**, 100, 073108	3.4	46
37	Large photocurrents in single layer graphene thin films: effects of diffusion and drift. *Nanotechnology*, **2012**, 23, 265203	3.4	16
36	Photo-thermal polymerization of nanotube/polymer composites: Effects of load transfer and mechanical strength. *Applied Physics Letters*, **2012**, 100, 131907-1319075	3.4	9

35	Graphene-nanoplatelet-based photomechanical actuators. *Nanotechnology*, **2012**, 23, 045501	3.4	80
34	Electrical detection of specific versus non-specific binding events in breast cancer cells. *Proceedings of SPIE*, **2012**, 8460, 84600S	1.7	3
33	Science and Applications of Photomechanical Actuation of Carbon Nanostructures **2012**, 177-236		
32	Gold nanoprobes for theranostics. *Nanomedicine*, **2011**, 6, 1787-811	5.6	43
31	Micro- and nanotechnology approaches for capturing circulating tumor cells. *Cancer Nanotechnology*, **2010**, 1, 3-11	7.9	10
30	Alignment enhanced photoconductivity in single wall carbon nanotube films. *Nanotechnology*, **2009** , 20, 035203	3.4	15
29	Photo-mechanical actuation of carbon nanotubes: mechanisms and applications in micro and nano-devices. *Journal of Micro-Nano Mechatronics*, **2009**, 5, 29-41		18
28	Nanotube-antibody biosensor arrays for the detection of circulating breast cancer cells. *Nanotechnology*, **2008**, 19, 465101	3.4	57
27	Nanotube micro-opto-mechanical systems. *Nanotechnology*, **2007**, 18, 065501	3.4	37
26	Nanotechnology for sensing, imaging, and treating cancer. *Surgical Oncology Clinics of North America*, **2007**, 16, 293-305	2.7	17
25	All-Optical Micromirrors From Nanotube MOMS With Wavelength Selectivity. *Journal of Microelectromechanical Systems*, **2007**, 16, 1515-1523	2.5	18
24	Photomechanical responses of carbon nanotube/polymer actuators. *Nanotechnology*, **2007**, 18, 305502	3.4	61
23	Alignment dependent mechanical responses of carbon nanotubes to light. *Applied Physics Letters*, **2007**, 91, 103106	3.4	23
22	Carbon Nanotubes as Optical Materials. *Materials Research Society Symposia Proceedings*, **2007**, 1015, 1		
21	Sonochemical synthesis of platinum nanowires and their applications as electro-chemical actuators. *Journal of Nanoscience and Nanotechnology*, **2007**, 7, 2473-9	1.3	4
20	Integrated molecular targeting of IGF1R and HER2 surface receptors and destruction of breast cancer cells using single wall carbon nanotubes. *Nanotechnology*, **2007**, 18, 315101	3.4	130
19	Hybrid platinum/single-wall carbon nanotube nanowire actuators: metallic artificial muscles. *Nanotechnology*, **2006**, 17, 888-894	3.4	17
18	Photoconductivity in single wall carbon nanotube sheets. *Nanotechnology*, **2006**, 17, 1843-1850	3.4	112

17	Carbon Nanotube Micro-Opto-Mechanical Grippers. *Materials Research Society Symposia Proceedings*, **2006**, 947, 1		
16	Biomolecular Tuning of Electronic Transport Properties of Carbon Nanotubes via Antibody Functionalization. *IEEE Sensors Journal*, **2006**, 6, 1422-1428	4	17
15	Nanotube micro-optomechanical actuators. *Applied Physics Letters*, **2006**, 88, 253107	3.4	68
14	Sensitivity, selectivity and stability of tin oxide nanostructures on large area arrays of microhotplates. *Nanotechnology*, **2006**, 17, 415-425	3.4	23
13	Electric field-assisted deposition of nanowires on carbon nanotubes for nanoelectronics and sensor applications. *Journal of Nanoscience and Nanotechnology*, **2005**, 5, 313-8	1.3	6
12	Single-wall carbon nanotube nanobomb agents for killing breast cancer cells. *Nanobiotechnology*, **2005**, 1, 133-140		74
11	Applications of carbon nanotubes for cancer research. *Nanobiotechnology*, **2005**, 1, 171-182		24
10	Single-wall carbon nanotubes with adsorbed antibodies detect live breast cancer cells. *Nanobiotechnology*, **2005**, 1, 353-360		13
9	Optically driven nanotube actuators. *Nanotechnology*, **2005**, 16, 2548-2554	3.4	78
8	Surface Oriented Self-Assembly of Carbon Nanotubes. *Materials Research Society Symposia Proceedings*, **2004**, 818, 124		
7	Metallic and Semiconducting Nanowires from Single Wall Carbon Nanotubes. *Materials Research Society Symposia Proceedings*, **2004**, 818, 118		1
6	Spin-on nanoparticle tin oxide for microhotplate gas sensors. *Sensors and Actuators B: Chemical*, **2001**, 77, 145-154	8.5	42
5	Microhotplate platforms for chemical sensor research. *Sensors and Actuators B: Chemical*, **2001**, 77, 579-591	8.5	220
4	Nanoparticle engineering and control of tin oxide microstructures for chemical microsensor applications. *Nanotechnology*, **2001**, 12, 336-349	3.4	73
3	Micromachined silicon torsional resonator for magnetic anisotropy measurement. *Review of Scientific Instruments*, **1998**, 69, 3908-3912	1.7	14
2	Novel green phosphorene as a superior gas sensor for dissolved gas analysis in oil transformers: using DFT method. *Molecular Simulation*,1-10	2	3
1	Pt-decorated phosphorene as a propitious room temperature VOC gas sensor for sensitive and selective detection of alcohols. *Journal of Materials Chemistry C*,	7.1	11