

Kannan Balasubramanian

List of Publications by Citations

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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.

62

papers

4,668

citations

29

h-index

68

g-index

68

ext. papers

4,985

ext. citations

7.7

avg, IF

5.75

L-index

#	Paper	IF	Citations
62	Chemically functionalized carbon nanotubes. <i>Small</i> , 2005 , 1, 180-92	11	1351
61	Contact and edge effects in graphene devices. <i>Nature Nanotechnology</i> , 2008 , 3, 486-90	28.7	595
60	Biosensors based on carbon nanotubes. <i>Analytical and Bioanalytical Chemistry</i> , 2006 , 385, 452-68	4.4	585
59	Electrochemical Modification of Graphene. <i>Advanced Materials</i> , 2008 , 20, 3050-3053	24	257
58	Photoelectronic transport imaging of individual semiconducting carbon nanotubes. <i>Applied Physics Letters</i> , 2004 , 84, 2400-2402	3.4	107
57	A Selective Electrochemical Approach to Carbon Nanotube Field-Effect Transistors. <i>Nano Letters</i> , 2004 , 4, 827-830	11.5	107
56	Photocurrent imaging of charge transport barriers in carbon nanotube devices. <i>Nano Letters</i> , 2005 , 5, 507-10	11.5	96
55	Electrochemically functionalized carbon nanotubes for device applications. <i>Journal of Materials Chemistry</i> , 2008 , 18, 3071		87
54	Enzyme-free sugar sensing in microfluidic channels with an affinity-based single-wall carbon nanotube sensor. <i>Analytical Chemistry</i> , 2010 , 82, 6090-7	7.8	86
53	Label-free detection of few copies of DNA with carbon nanotube impedance biosensors. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 3710-4	16.4	81
52	Electrical Transport and Confocal Raman Studies of Electrochemically Modified Individual Carbon Nanotubes. <i>Advanced Materials</i> , 2003 , 15, 1515-1518	24	69
51	25th anniversary article: label-free electrical biodetection using carbon nanostructures. <i>Advanced Materials</i> , 2014 , 26, 1154-75	24	68
50	Challenges in the use of 1D nanostructures for on-chip biosensing and diagnostics: a review. <i>Biosensors and Bioelectronics</i> , 2010 , 26, 1195-204	11.8	68
49	Chemical vapor deposition of graphene on a "peeled-off" epitaxial Cu(111) foil: a simple approach to improved properties. <i>ACS Nano</i> , 2014 , 8, 8636-43	16.7	56
48	Functionalized metallic carbon nanotube devices for pH sensing. <i>ChemPhysChem</i> , 2007 , 8, 220-3	3.2	56
47	Surface Enhanced Raman Scattering of Carbon Nanotubes Decorated by Individual Fluorescent Gold Particles. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 391-396	3.8	55
46	Carbon nanotube transistors [Chemical functionalization and device characterization. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2008 , 205, 633-646	1.6	51

45	Applications of the static quenching of rhodamine B by carbon nanotubes. <i>ChemPhysChem</i> , 2009 , 10, 2251-5	3.2	50
44	Coulomb blockade phenomena in electromigration break junctions. <i>Applied Physics Letters</i> , 2005 , 87, 013106	3.4	50
43	Electrochemically decorated carbon nanotubes for hydrogen sensing. <i>Applied Surface Science</i> , 2007 , 253, 8394-8397	6.7	45
42	Selective enhancement of carbon nanotube photoluminescence by resonant energy transfer. <i>ChemPhysChem</i> , 2009 , 10, 905-9	3.2	43
41	Site-specific self-assembled liquid-gated ZnO nanowire transistors for sensing applications. <i>Small</i> , 2010 , 6, 589-94	11	40
40	Tuning the isoelectric point of graphene by electrochemical functionalization. <i>Scientific Reports</i> , 2015 , 5, 11794	4.9	39
39	Electronic-band-structure mapping of nanotube transistors by scanning photocurrent microscopy. <i>Small</i> , 2007 , 3, 2038-42	11	38
38	Real-Time Label-Free Direct Electronic Monitoring of Topoisomerase Enzyme Binding Kinetics on Graphene. <i>ACS Nano</i> , 2015 , 9, 11166-76	16.7	35
37	Self-assembled electrical biodetector based on reduced graphene oxide. <i>ACS Nano</i> , 2012 , 6, 5514-20	16.7	35
36	Bioelectronics and Interfaces Using Monolayer Graphene. <i>ChemElectroChem</i> , 2019 , 6, 31-59	4.3	32
35	Tunable Enhancement of Raman Scattering in Graphene-Nanoparticle Hybrids. <i>Advanced Functional Materials</i> , 2014 , 24, 6348-6358	15.6	29
34	Raman properties of gold nanoparticle-decorated individual carbon nanotubes. <i>Applied Physics Letters</i> , 2007 , 90, 173109	3.4	29
33	Enhancing the Electrochemical and Electronic Performance of CVD-Grown Graphene by Minimizing Trace Metal Impurities. <i>ChemElectroChem</i> , 2014 , 1, 2070-2074	4.3	28
32	Interplay of non-uniform charge distribution on the electrochemical modification of graphene. <i>Nanoscale</i> , 2018 , 10, 15048-15057	7.7	23
31	Exclusive-OR gate with a single carbon nanotube. <i>Applied Physics Letters</i> , 2006 , 88, 053119	3.4	23
30	Towards in vitro molecular diagnostics using nanostructures. <i>Cellular and Molecular Life Sciences</i> , 2012 , 69, 373-88	10.3	22
29	Spatially Resolved Potential Distribution in Carbon Nanotube Cross-Junction Devices. <i>Advanced Materials</i> , 2009 , 21, 2720-2724	24	21
28	Tuning the functional interface of carbon nanotubes by electrochemistry: Toward nanoscale chemical sensors and biosensors. <i>Journal of Materials Research</i> , 2012 , 27, 391-402	2.5	20

27	Effect of stacking order on the electric-field induced carrier modulation in graphene bilayers. <i>Nano Letters</i> , 2009 , 9, 3124-8	11.5	19
26	Vertical arrays of nanofluidic channels fabricated without nanolithography. <i>Lab on A Chip</i> , 2009 , 9, 1556-60	6.0	19
25	Field-effect-based chemical sensing using nanowire-nanoparticle hybrids: The ion-sensitive metal-semiconductor field-effect transistor. <i>Applied Physics Letters</i> , 2013 , 102, 023501	3.4	18
24	Chemically exfoliated large-area two-dimensional flakes of molybdenum disulfide for device applications. <i>APL Materials</i> , 2013 , 1, 032102	5.7	18
23	Linear and nonlinear iterative scalar inversion of multi-frequency multi-bistatic experimental electromagnetic scattering data. <i>Inverse Problems</i> , 2001 , 17, 1597-1610	2.3	18
22	Selective electrochemical functionalization of the graphene edge. <i>Chemical Science</i> , 2019 , 10, 936-942	9.4	17
21	Effect of the electronic structure of carbon nanotubes on the selectivity of electrochemical functionalization. <i>Physical Chemistry Chemical Physics</i> , 2008 , 10, 2256-62	3.6	16
20	Identifying chemical functionalization on individual carbon nanotubes and graphene by local vibrational fingerprinting. <i>ACS Nano</i> , 2015 , 9, 3314-23	16.7	15
19	Marker-free on-the-fly fabrication of graphene devices based on fluorescence quenching. <i>Nanotechnology</i> , 2010 , 21, 015303	3.4	15
18	Selective Functionalization of Graphene Peripheries by using Bipolar Electrochemistry. <i>ChemElectroChem</i> , 2016 , 3, 372-377	4.3	15
17	Spatially resolved photocurrents in graphene nanoribbon devices. <i>Applied Physics Letters</i> , 2013 , 102, 043106	3.4	14
16	A primary battery-on-a-chip using monolayer graphene. <i>Nanotechnology</i> , 2016 , 27, 29LT01	3.4	12
15	Binding Kinetics of Methylene Blue on Monolayer Graphene Investigated by Multiparameter Surface Plasmon Resonance. <i>ACS Omega</i> , 2018 , 3, 7133-7140	3.9	10
14	Template-free self-assembly of hierarchical ZnO structures from nanoscale building blocks. <i>Chemical Physics Letters</i> , 2010 , 498, 317-322	2.5	10
13	Electrochemically modified single-walled carbon nanotubes. <i>Physica Status Solidi (B): Basic Research</i> , 2007 , 244, 4021-4025	1.3	9
12	Funktionalisierte Kohlenstoff-Nanoröhren: Nanozylinder mit hohem Anwendungspotential. <i>Chemie in Unserer Zeit</i> , 2005 , 39, 16-25	0.2	9
11	Label-free indicator-free nucleic acid biosensors using carbon nanotubes. <i>Engineering in Life Sciences</i> , 2012 , 12, 121-130	3.4	8
10	Polymer-electrolyte gated graphene transistors for analog and digital phase detection. <i>Applied Physics Letters</i> , 2011 , 99, 043307	3.4	8

9	Chemie des Graphens. <i>Chemie in Unserer Zeit</i> , 2011 , 45, 240-249	0.2	7
8	Fast Electron Transfer Kinetics at an Isolated Graphene Edge Nanoelectrode with and without Nanoparticles: Implications for Sensing Electroactive Species. <i>ACS Applied Nano Materials</i> , 2020 , 3, 11725-11735	5.6	6
7	Label-Free Detection of Few Copies of DNA with Carbon Nanotube Impedance Biosensors. <i>Angewandte Chemie</i> , 2011 , 123, 3794-3798	3.6	6
6	pH sensitivity of interfacial electron transfer at a supported graphene monolayer. <i>Nanoscale</i> , 2019 , 11, 14742-14756	7.7	5
5	Rolling circle amplification-based detection of human topoisomerase I activity on magnetic beads. <i>Analytical Biochemistry</i> , 2014 , 451, 42-4	3.1	5
4	Charge transport through carbon nanotubes interacting with light. <i>Semiconductor Science and Technology</i> , 2006 , 21, S22-S32	1.8	5
3	Faradaic effects in electrochemically gated graphene sensors in the presence of redox active molecules. <i>Nanotechnology</i> , 2020 , 31, 405201	3.4	3
2	Electric field effect in graphite crystallites. <i>Applied Physics Letters</i> , 2012 , 100, 203116	3.4	3
1	Graphene-Mercury-Graphene Sandwich Electrode for Electroanalysis. <i>ChemElectroChem</i> , 2021 , 8, 4277	4.3	0