

# Aravind Vijayaraghavan

## 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.

102  
papers

4,103  
citations

37  
h-index

62  
g-index

109  
ext. papers

4,645  
ext. citations

7.8  
avg, IF

5.42  
L-index

#	Paper	IF	Citations
102	Protein spot arrays on graphene oxide coatings for efficient single-cell capture.. <i>Scientific Reports</i> , <b>2022</b> , 12, 3895	4.9	0
101	On the biocompatibility of graphene oxide towards vascular smooth muscle cells. <i>Nanotechnology</i> , <b>2021</b> , 32, 055101	3.4	6
100	Graphene Oxide Substrate Promotes Neurotrophic Factor Secretion and Survival of Human Schwann-Like Adipose Mesenchymal Stromal Cells. <i>Advanced Biology</i> , <b>2021</b> , 5, e2000271		2
99	Development of an open-source thermally stabilized quartz crystal microbalance instrument for biomolecule-substrate binding assays on gold and graphene. <i>Analytica Chimica Acta</i> , <b>2021</b> , 1156, 338329	6.6	2
98	High-grip and hard-wearing graphene reinforced polyurethane coatings. <i>Composites Part B: Engineering</i> , <b>2021</b> , 213, 108727	10	2
97	Fabrication and electrochemical response of pristine graphene ultramicroelectrodes. <i>Carbon</i> , <b>2021</b> , 177, 207-215	10.4	4
96	TGF- $\beta$ -loaded graphene oxide - self-assembling peptide hybrid hydrogels as functional 3D scaffolds for the regeneration of the nucleus pulposus. <i>Acta Biomaterialia</i> , <b>2021</b> , 127, 116-130	10.8	8
95	Gas separation performance of MMMs containing (PIM-1)-functionalized GO derivatives. <i>Journal of Membrane Science</i> , <b>2021</b> , 623, 118902	9.6	18
94	Hybrid molecular/mineral lyotropic liquid crystal system of CTAB and graphene oxide in water. <i>Carbon</i> , <b>2021</b> , 173, 105-114	10.4	2
93	Elastic flow instabilities and macroscopic textures in graphene oxide lyotropic liquid crystals. <i>Npj 2D Materials and Applications</i> , <b>2021</b> , 5,	8.8	7
92	Biochemical functionalization of graphene oxide for directing stem cell differentiation. <i>Journal of Molecular Structure</i> , <b>2021</b> , 1249, 131578	3.4	
91	Graphene and water-based elastomer nanocomposites - a review. <i>Nanoscale</i> , <b>2021</b> , 13, 9505-9540	7.7	4
90	Protein interactions and conformations on graphene-based materials mapped using a quartz-crystal microbalance with dissipation monitoring (QCM-D). <i>Carbon</i> , <b>2020</b> , 165, 317-327	10.4	27
89	A Point-of-Care Immunosensor Based on a Quartz Crystal Microbalance with Graphene Biointerface for Antibody Assay. <i>ACS Sensors</i> , <b>2020</b> , 5, 3520-3532	9.2	15
88	Polyethersulfone membranes: From ultrafiltration to nanofiltration via the incorporation of APTS functionalized-graphene oxide. <i>Separation and Purification Technology</i> , <b>2020</b> , 230, 115836	8.3	41
87	Initial Studies Directed toward the Rational Design of Aqueous Graphene Dispersants. <i>ACS Omega</i> , <b>2019</b> , 4, 1969-1981	3.9	12
86	Graphene oxide containing self-assembling peptide hybrid hydrogels as a potential 3D injectable cell delivery platform for intervertebral disc repair applications. <i>Acta Biomaterialia</i> , <b>2019</b> , 92, 92-103	10.8	48

85	Resonant, Plasmonic Raman Enhancement of $\beta$ T Molecules Encapsulated in Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 10578-10585	3.8	6
84	Nanometre electron beam sculpting of suspended graphene and hexagonal boron nitride heterostructures. <i>2D Materials</i> , <b>2019</b> , 6, 025032	5.9	4
83	PVDF membranes containing reduced graphene oxide: Effect of degree of reduction on membrane distillation performance. <i>Desalination</i> , <b>2019</b> , 452, 196-207	10.3	60
82	Designing Peptide/Graphene Hybrid Hydrogels through Fine-Tuning of Molecular Interactions. <i>Biomacromolecules</i> , <b>2018</b> , 19, 2731-2741	6.9	44
81	Adsorption and binding dynamics of graphene-supported phospholipid membranes using the QCM-D technique. <i>Nanoscale</i> , <b>2018</b> , 10, 2555-2567	7.7	19
80	Improving the glial differentiation of human Schwann-like adipose-derived stem cells with graphene oxide substrates. <i>Interface Focus</i> , <b>2018</b> , 8, 20180002	3.9	13
79	Flux-enhanced PVDF mixed matrix membranes incorporating APTS-functionalized graphene oxide for membrane distillation. <i>Journal of Membrane Science</i> , <b>2018</b> , 554, 309-323	9.6	97
78	High flux and fouling resistant flat sheet polyethersulfone membranes incorporated with graphene oxide for ultrafiltration applications. <i>Chemical Engineering Journal</i> , <b>2018</b> , 334, 789-799	14.7	134
77	Evaluating arbitrary strain configurations and doping in graphene with Raman spectroscopy. <i>2D Materials</i> , <b>2018</b> , 5, 015016	5.9	71
76	Touch-mode capacitive pressure sensor with graphene-polymer heterostructure membrane. <i>2D Materials</i> , <b>2018</b> , 5, 015025	5.9	14
75	Graphene oxide films for field effect surface passivation of silicon for solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2018</b> , 187, 189-193	6.4	44
74	Ternary nanocomposites of reduced graphene oxide, polyaniline and hexaniobate: hierarchical architecture and high polaron formation. <i>Beilstein Journal of Nanotechnology</i> , <b>2018</b> , 9, 2936-2946	3	3
73	Probing hotspots of plasmon-enhanced Raman scattering by nanomanipulation of carbon nanotubes. <i>Nanotechnology</i> , <b>2018</b> , 29, 465710	3.4	5
72	Study on the formation of thin film nanocomposite (TFN) membranes of polymers of intrinsic microporosity and graphene-like fillers: Effect of lateral flake size and chemical functionalization. <i>Journal of Membrane Science</i> , <b>2018</b> , 565, 390-401	9.6	28
71	Impeded physical aging in PIM-1 membranes containing graphene-like fillers. <i>Journal of Membrane Science</i> , <b>2018</b> , 563, 513-520	9.6	44
70	Nanoscale infrared identification and mapping of chemical functional groups on graphene. <i>Carbon</i> , <b>2018</b> , 139, 317-324	10.4	28
69	Biomimetic Phospholipid Membrane Organization on Graphene and Graphene Oxide Surfaces: A Molecular Dynamics Simulation Study. <i>ACS Nano</i> , <b>2017</b> , 11, 1613-1625	16.7	54
68	Enhanced organophilic separations with mixed matrix membranes of polymers of intrinsic microporosity and graphene-like fillers. <i>Journal of Membrane Science</i> , <b>2017</b> , 526, 437-449	9.6	41

67	Raman Mapping Analysis of Graphene-Integrated Silicon Micro-Ring Resonators. <i>Nanoscale Research Letters</i> , <b>2017</b> , 12, 600	5	7
66	Confinement effects on lyotropic nematic liquid crystal phases of graphene oxide dispersions. <i>2D Materials</i> , <b>2017</b> , 4, 041004	5.9	18
65	Graphene. <i>Springer Handbooks</i> , <b>2017</b> , 363-391	1.3	2
64	Capacitive pressure sensing with suspended graphene-polymer heterostructure membranes. <i>Nanoscale</i> , <b>2017</b> , 9, 17439-17449	7.7	34
63	Plasmonic enhancement of SERS measured on molecules in carbon nanotubes. <i>Faraday Discussions</i> , <b>2017</b> , 205, 85-103	3.6	12
62	Confinement effects on lyotropic nematic liquid crystal phases of graphene oxide dispersions. <i>2D Materials</i> , <b>2017</b> , 4,	5.9	1
61	Graphene Oxide promotes embryonic stem cell differentiation to haematopoietic lineage. <i>Scientific Reports</i> , <b>2016</b> , 6, 25917	4.9	52
60	Dielectric spectroscopy of isotropic liquids and liquid crystal phases with dispersed graphene oxide. <i>Scientific Reports</i> , <b>2016</b> , 6, 31885	4.9	35
59	Attoliter Chemistry for Nanoscale Functionalization of Graphene. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 33371-33376	9.5	13
58	Fabrication and modelling of fractal, biomimetic, micro and nano-topographical surfaces. <i>Bioinspiration and Biomimetics</i> , <b>2016</b> , 11, 046009	2.6	
57	Graphene and water-based elastomers thin-film composites by dip-moulding. <i>Carbon</i> , <b>2016</b> , 106, 228-232	10.4	19
56	Ultra-thin graphene-polymer heterostructure membranes. <i>Nanoscale</i> , <b>2016</b> , 8, 17928-17939	7.7	18
55	Self-limiting multiplexed assembly of lipid membranes on large-area graphene sensor arrays. <i>Nanoscale</i> , <b>2016</b> , 8, 15147-51	7.7	19
54	Properties of a Thermotropic Nematic Liquid Crystal Doped with Graphene Oxide. <i>Advanced Optical Materials</i> , <b>2016</b> , 4, 1541-1548	8.1	45
53	Stokes and anti-Stokes Raman spectra of the high-energy C-C stretching modes in graphene and diamond. <i>Physica Status Solidi (B): Basic Research</i> , <b>2015</b> , 252, 2380-2384	1.3	13
52	Scalable bottom-up assembly of suspended carbon nanotube and graphene devices by dielectrophoresis. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2015</b> , 9, 539-543	2.5	3
51	Graphene oxide selectively targets cancer stem cells, across multiple tumor types: implications for non-toxic cancer treatment, via "differentiation-based nano-therapy". <i>Oncotarget</i> , <b>2015</b> , 6, 3553-62	3.3	150
50	Plasmon-enhanced Raman scattering by suspended carbon nanotubes. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2014</b> , 08, 785-789	2.5	6

49	Optical-phonon resonances with saddle-point excitons in twisted-bilayer graphene. <i>Nano Letters</i> , <b>2014</b> , 14, 5687-92	11.5	34
48	Plasmon-enhanced Raman scattering by carbon nanotubes optically coupled with near-field cavities. <i>Nano Letters</i> , <b>2014</b> , 14, 1762-8	11.5	47
47	Engaging a wider audience. <i>Nature Nanotechnology</i> , <b>2014</b> , 9, 868	28.7	1
46	Self-assembly of one dimensional DNA-templated structures. <i>Journal of Materials Chemistry C</i> , <b>2014</b> , 2, 6895-6920	7.1	12
45	Multiplexed Biomimetic Lipid Membranes on Graphene by Dip-Pen Nanolithography. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 2058-2059	0.5	1
44	Determination of the quasi-TE mode (in-plane) graphene linear absorption coefficient via integration with silicon-on-insulator racetrack cavity resonators. <i>Optics Express</i> , <b>2014</b> , 22, 18625-32	3.3	5
43	Bottom-up assembly of nano-carbon devices by dielectrophoresis. <i>Physica Status Solidi (B): Basic Research</i> , <b>2013</b> , 250, 2505-2517	1.3	7
42	Graphene [Properties and Characterization <b>2013</b> , 39-82		5
41	Self assembled monolayers (SAMs) on metallic surfaces (gold and graphene) for electronic applications. <i>Journal of Materials Chemistry C</i> , <b>2013</b> , 1, 376-393	7.1	72
40	Catalytic subsurface etching of nanoscale channels in graphite. <i>Nature Communications</i> , <b>2013</b> , 4, 1379	17.4	40
39	Charge transfer at junctions of a single layer of graphene and a metallic single walled carbon nanotube. <i>Small</i> , <b>2013</b> , 9, 1954-63	11	16
38	Polarized plasmonic enhancement by Au nanostructures probed through Raman scattering of suspended graphene. <i>Nano Letters</i> , <b>2013</b> , 13, 301-8	11.5	123
37	Directed self-assembly of block copolymers for use in bit patterned media fabrication. <i>Journal Physics D: Applied Physics</i> , <b>2013</b> , 46, 503001	3	63
36	Multiplexed biomimetic lipid membranes on graphene by dip-pen nanolithography. <i>Nature Communications</i> , <b>2013</b> , 4, 2591	17.4	80
35	Strained graphene as a local probe for plasmon-enhanced Raman scattering by gold nanostructures. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2013</b> , 7, 1067-1070	2.5	10
34	Ultrafast quantitative nanomechanical mapping of suspended graphene. <i>Physica Status Solidi (B): Basic Research</i> , <b>2013</b> , 250, 2672-2677	1.3	14
33	Growth, dispersion, and electronic devices of nitrogen-doped single-wall carbon nanotubes. <i>Physica Status Solidi (B): Basic Research</i> , <b>2012</b> , 249, 2416-2419	1.3	6
32	Anisotropic organization and microscopic manipulation of self-assembling synthetic porphyrin microrods that mimic chlorosomes: bacterial light-harvesting systems. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 944-54	16.4	50

31	Applications of chirality-sorted individual single-wall carbon nanotube devices. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 7083		12
30	A Chemists Method for Making Pure Clean Graphene. <i>Carbon Nanostructures</i> , <b>2012</b> , 129-136	0.6	
29	Hydrogen sensing with diameter- and chirality-sorted carbon nanotubes. <i>ACS Nano</i> , <b>2011</b> , 5, 1670-6	16.7	49
28	Graphene Sensors. <i>IEEE Sensors Journal</i> , <b>2011</b> , 11, 3161-3170	4	290
27	Bi- and trilayer graphene solutions. <i>Nature Nanotechnology</i> , <b>2011</b> , 6, 439-45	28.7	304
26	A scalable, CMOS-compatible assembly of ambipolar semiconducting single-walled carbon nanotube devices. <i>Advanced Materials</i> , <b>2011</b> , 23, 1734-8	24	31
25	Imaging conduction pathways in carbon nanotube network transistors by voltage-contrast scanning electron microscopy. <i>Nanotechnology</i> , <b>2011</b> , 22, 265715	3.4	9
24	High purity graphenes prepared by a chemical intercalation method. <i>Nanoscale</i> , <b>2010</b> , 2, 2139-43	7.7	56
23	Phonon-assisted electroluminescence from metallic carbon nanotubes and graphene. <i>Nano Letters</i> , <b>2010</b> , 10, 1589-94	11.5	71
22	Synthesis of Atomically Thin WO <sub>3</sub> Sheets from Hydrated Tungsten Trioxide. <i>Chemistry of Materials</i> , <b>2010</b> , 22, 5660-5666	9.6	187
21	Toward single-chirality carbon nanotube device arrays. <i>ACS Nano</i> , <b>2010</b> , 4, 2748-54	16.7	62
20	Imaging defects and junctions in single-walled carbon nanotubes by voltage-contrast scanning electron microscopy. <i>Carbon</i> , <b>2010</b> , 48, 494-500	10.4	19
19	Dielectrophoretic assembly of high-density arrays of individual graphene devices for rapid screening. <i>ACS Nano</i> , <b>2009</b> , 3, 1729-34	16.7	69
18	Reversible metal-insulator transitions in metallic single-walled carbon nanotubes. <i>Nano Letters</i> , <b>2008</b> , 8, 2767-72	11.5	22
17	Imaging electronic structure of carbon nanotubes by voltage-contrast scanning electron microscopy. <i>Nano Research</i> , <b>2008</b> , 1, 321-332	10	28
16	Influence of structural and dielectric anisotropy on the dielectrophoresis of single-walled carbon nanotubes. <i>Nano Letters</i> , <b>2007</b> , 7, 1960-6	11.5	39
15	Mechanism of metal-semiconductor transition in electric properties of single-walled carbon nanotubes induced by low-energy electron irradiation. <i>Journal of Applied Physics</i> , <b>2007</b> , 101, 034317	2.5	26
14	Ultra-large-scale directed assembly of single-walled carbon nanotube devices. <i>Nano Letters</i> , <b>2007</b> , 7, 1556-60	11.5	269

13	Ionic liquid-derived blood-compatible composite membranes for kidney dialysis. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , <b>2006</b> , 79, 298-304	3.5	32
12	Charge-injection-induced dynamic screening and origin of hysteresis in field-modulated transport in single-wall carbon nanotubes. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 162108	3.4	59
11	Quantitative analysis of hysteresis in carbon nanotube field-effect devices. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 132118	3.4	48
10	Effect of ambient pressure on resistance and resistance fluctuations in single-wall carbon nanotube devices. <i>Journal of Applied Physics</i> , <b>2006</b> , 100, 024315	2.5	15
9	In vitro transcription and protein translation from carbon nanotube-DNA assemblies. <i>Small</i> , <b>2006</b> , 2, 718-722	11	19
8	Synthesis and Characterization of Thickness-Aligned Carbon Nanotube Polymer Composite Films. <i>Chemistry of Materials</i> , <b>2005</b> , 17, 974-983	9.6	140
7	Metal-semiconductor transition in single-walled carbon nanotubes induced by low-energy electron irradiation. <i>Nano Letters</i> , <b>2005</b> , 5, 1575-9	11.5	81
6	Room-temperature resonant tunneling of electrons in carbon nanotube junction quantum wells. <i>Applied Physics Letters</i> , <b>2005</b> , 86, 183101	3.4	18
5	Embedded carbon-nanotube-stiffened polymer surfaces. <i>Small</i> , <b>2005</b> , 1, 317-20	11	23
4	Ordered Ni nanowire tip arrays sticking out of the anodic aluminum oxide template. <i>Journal of Applied Physics</i> , <b>2005</b> , 97, 064303	2.5	56
3	Functionalization of carbon nanotubes using phenosafranin. <i>Journal of Chemical Physics</i> , <b>2004</b> , 120, 4886-9	3.9	37
2	Magnetic properties of Co nanocolumns fabricated by oblique-angle deposition. <i>Journal of Applied Physics</i> , <b>2003</b> , 93, 4194-4200	2.5	63
1	Unique structure/properties of chemical vapor deposited parylene E. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2002</b> , 20, 1445-1449	2.9	17