Aravind Vijayaraghavan

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/1575905/publications.pdf

Version: 2024-02-01

104 papers	5,142 citations	70961 41 h-index	91712 69 g-index
109 all docs	109 docs citations	109 times ranked	8644 citing authors

#	Article	IF	Citations
1	Graphene Sensors. IEEE Sensors Journal, 2011, 11, 3161-3170.	2.4	364
2	Bi- and trilayer graphene solutions. Nature Nanotechnology, 2011, 6, 439-445.	15.6	337
3	Ultra-Large-Scale Directed Assembly of Single-Walled Carbon Nanotube Devices. Nano Letters, 2007, 7, 1556-1560.	4.5	306
4	Synthesis of Atomically Thin WO₃ Sheets from Hydrated Tungsten Trioxide. Chemistry of Materials, 2010, 22, 5660-5666.	3.2	215
5	Graphene oxide selectively targets cancer stem cells, across multiple tumor types: Implications for non-toxic cancer treatment, via â€œdifferentiation-based nano-therapyâ€• Oncotarget, 2015, 6, 3553-3562.	0.8	192
6	High flux and fouling resistant flat sheet polyethersulfone membranes incorporated with graphene oxide for ultrafiltration applications. Chemical Engineering Journal, 2018, 334, 789-799.	6.6	183
7	Synthesis and Characterization of Thickness-Aligned Carbon Nanotubeâ^'Polymer Composite Films. Chemistry of Materials, 2005, 17, 974-983.	3.2	151
8	Flux-enhanced PVDF mixed matrix membranes incorporating APTS-functionalized graphene oxide for membrane distillation. Journal of Membrane Science, 2018, 554, 309-323.	4.1	144
9	Polarized Plasmonic Enhancement by Au Nanostructures Probed through Raman Scattering of Suspended Graphene. Nano Letters, 2013, 13, 301-308.	4.5	134
10	Evaluating arbitrary strain configurations and doping in graphene with Raman spectroscopy. 2D Materials, 2018, 5, 015016.	2.0	95
11	PVDF membranes containing reduced graphene oxide: Effect of degree of reduction on membrane distillation performance. Desalination, 2019, 452, 196-207.	4.0	92
12	Multiplexed biomimetic lipid membranes on graphene by dip-pen nanolithography. Nature Communications, 2013, 4, 2591.	5.8	90
13	Metalâ^'Semiconductor Transition in Single-Walled Carbon Nanotubes Induced by Low-Energy Electron Irradiation. Nano Letters, 2005, 5, 1575-1579.	4.5	87
14	Self assembled monolayers (SAMs) on metallic surfaces (gold and graphene) for electronic applications. Journal of Materials Chemistry C, 2013, 1, 376-393.	2.7	87
15	Directed self-assembly of block copolymers for use in bit patterned media fabrication. Journal Physics D: Applied Physics, 2013, 46, 503001.	1.3	87
16	Graphene oxide containing self-assembling peptide hybrid hydrogels as a potential 3D injectable cell delivery platform for intervertebral disc repair applications. Acta Biomaterialia, 2019, 92, 92-103.	4.1	81
17	Phonon-Assisted Electroluminescence from Metallic Carbon Nanotubes and Graphene. Nano Letters, 2010, 10, 1589-1594.	4.5	77
18	Dielectrophoretic Assembly of High-Density Arrays of Individual Graphene Devices for Rapid Screening. ACS Nano, 2009, 3, 1729-1734.	7.3	76

#	Article	IF	Citations
19	Polyethersulfone membranes: From ultrafiltration to nanofiltration via the incorporation of APTS functionalized-graphene oxide. Separation and Purification Technology, 2020, 230, 115836.	3.9	73
20	Magnetic properties of Co nanocolumns fabricated by oblique-angle deposition. Journal of Applied Physics, 2003, 93, 4194-4200.	1.1	67
21	Toward Single-Chirality Carbon Nanotube Device Arrays. ACS Nano, 2010, 4, 2748-2754.	7.3	67
22	Biomimetic Phospholipid Membrane Organization on Graphene and Graphene Oxide Surfaces: A Molecular Dynamics Simulation Study. ACS Nano, 2017, 11, 1613-1625.	7.3	66
23	Charge-injection-induced dynamic screening and origin of hysteresis in field-modulated transport in single-wall carbon nanotubes. Applied Physics Letters, 2006, 89, 162108.	1.5	65
24	Impeded physical aging in PIM-1 membranes containing graphene-like fillers. Journal of Membrane Science, 2018, 563, 513-520.	4.1	65
25	Designing Peptide/Graphene Hybrid Hydrogels through Fine-Tuning of Molecular Interactions. Biomacromolecules, 2018, 19, 2731-2741.	2.6	64
26	High purity graphenes prepared by a chemical intercalation method. Nanoscale, 2010, 2, 2139.	2.8	61
27	Hydrogen Sensing with Diameter- and Chirality-Sorted Carbon Nanotubes. ACS Nano, 2011, 5, 1670-1676.	7.3	60
28	Ordered Ni nanowire tip arrays sticking out of the anodic aluminum oxide template. Journal of Applied Physics, 2005, 97, 064303.	1.1	59
29	Graphene Oxide promotes embryonic stem cell differentiation to haematopoietic lineage. Scientific Reports, 2016, 6, 25917.	1.6	59
30	Enhanced organophilic separations with mixed matrix membranes of polymers of intrinsic microporosity and graphene-like fillers. Journal of Membrane Science, 2017, 526, 437-449.	4.1	57
31	Properties of a Thermotropic Nematic Liquid Crystal Doped with Graphene Oxide. Advanced Optical Materials, 2016, 4, 1541-1548.	3.6	56
32	Anisotropic Organization and Microscopic Manipulation of Self-Assembling Synthetic Porphyrin Microrods That Mimic Chlorosomes: Bacterial Light-Harvesting Systems. Journal of the American Chemical Society, 2012, 134, 944-954.	6.6	55
33	Graphene oxide films for field effect surface passivation of silicon for solar cells. Solar Energy Materials and Solar Cells, 2018, 187, 189-193.	3.0	54
34	Quantitative analysis of hysteresis in carbon nanotube field-effect devices. Applied Physics Letters, 2006, 89, 132118.	1.5	53
35	Protein interactions and conformations on graphene-based materials mapped using a quartz-crystal microbalance with dissipation monitoring (QCM-D). Carbon, 2020, 165, 317-327.	5.4	52
36	Plasmon-Enhanced Raman Scattering by Carbon Nanotubes Optically Coupled with Near-Field Cavities. Nano Letters, 2014, 14, 1762-1768.	4.5	50

#	Article	IF	Citations
37	Gas separation performance of MMMs containing (PIM-1)-functionalized GO derivatives. Journal of Membrane Science, 2021, 623, 118902.	4.1	48
38	Catalytic subsurface etching of nanoscale channels in graphite. Nature Communications, 2013, 4, 1379.	5.8	46
39	Dielectric spectroscopy of isotropic liquids and liquid crystal phases with dispersed graphene oxide. Scientific Reports, 2016, 6, 31885.	1.6	46
40	Optical-Phonon Resonances with Saddle-Point Excitons in Twisted-Bilayer Graphene. Nano Letters, 2014, 14, 5687-5692.	4.5	45
41	Capacitive pressure sensing with suspended grapheneâ€“polymer heterostructure membranes. Nanoscale, 2017, 9, 17439-17449.	2.8	45
42	Influence of Structural and Dielectric Anisotropy on the Dielectrophoresis of Single-Walled Carbon Nanotubes. Nano Letters, 2007, 7, 1960-1966.	4.5	41
43	Functionalization of carbon nanotubes using phenosafranin. Journal of Chemical Physics, 2004, 120, 4886-4889.	1.2	40
44	Nanoscale infrared identification and mapping of chemical functional groups on graphene. Carbon, 2018, 139, 317-324.	5.4	39
45	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. Journal of Membrane Science, 2018, 565, 390-401.	4.1	38
46	Ionic liquid-derived blood-compatible composite membranes for kidney dialysis. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2006, 79B, 298-304.	1.6	35
47	A Scalable, CMOSâ€Compatible Assembly of Ambipolar Semiconducting Singleâ€Walled Carbon Nanotube Devices. Advanced Materials, 2011, 23, 1734-1738.	11.1	34
48	Confinement effects on lyotropic nematic liquid crystal phases of graphene oxide dispersions. 2D Materials, 2017, 4, 041004.	2.0	34
49	TGF-Î²3-loaded graphene oxide - self-assembling peptide hybrid hydrogels as functional 3D scaffolds for the regeneration of the nucleus pulposus. Acta Biomaterialia, 2021, 127, 116-130.	4.1	34
50	A Point-of-Care Immunosensor Based on a Quartz Crystal Microbalance with Graphene Biointerface for Antibody Assay. ACS Sensors, 2020, 5, 3520-3532.	4.0	32
51	Imaging electronic structure of carbon nanotubes by voltage-contrast scanning electron microscopy. Nano Research, 2008, 1, 321-332.	5.8	29
52	Reversible Metalâ€'Insulator Transitions in Metallic Single-Walled Carbon Nanotubes. Nano Letters, 2008, 8, 2767-2772.	4.5	28
53	Adsorption and binding dynamics of graphene-supported phospholipid membranes using the QCM-D technique. Nanoscale, 2018, 10, 2555-2567.	2.8	28
54	Touch-mode capacitive pressure sensor with graphene-polymer heterostructure membrane. 2D Materials, 2018, 5, 015025.	2.0	28

#	Article	IF	Citations
55	Mechanism of metal-semiconductor transition in electric properties of single-walled carbon nanotubes induced by low-energy electron irradiation. Journal of Applied Physics, 2007, 101, 034317.	1.1	27
56	Charge Transfer at Junctions of a Single Layer of Graphene and a Metallic Single Walled Carbon Nanotube. Small, 2013, 9, 1954-1963.	5.2	24
57	Ultra-thin grapheneâ€“polymer heterostructure membranes. Nanoscale, 2016, 8, 17928-17939.	2.8	24
58	Embedded Carbon-Nanotube-Stiffened Polymer Surfaces. Small, 2005, 1, 317-320.	5.2	23
59	Self-limiting multiplexed assembly of lipid membranes on large-area graphene sensor arrays. Nanoscale, 2016, 8, 15147-15151.	2.8	23
60	Improving the glial differentiation of human Schwann-like adipose-derived stem cells with graphene oxide substrates. Interface Focus, 2018, 8, 20180002.	1.5	23
61	Graphene and water-based elastomers thin-film composites by dip-moulding. Carbon, 2016, 106, 228-232.	5.4	22
62	Room-temperature resonant tunneling of electrons in carbon nanotube junction quantum wells. Applied Physics Letters, 2005, 86, 183101.	1.5	21
63	Imaging defects and junctions in single-walled carbon nanotubes by voltage-contrast scanning electron microscopy. Carbon, 2010, 48, 494-500.	5.4	21
64	Unique structure/properties of chemical vapor deposited parylene E. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 1445-1449.	0.9	20
65	In Vitro Transcription and Protein Translation from Carbon Nanotubeâ€“DNA Assemblies. Small, 2006, 2, 718-722.	5.2	20
66	Elastic flow instabilities and macroscopic textures in graphene oxide lyotropic liquid crystals. Npj 2D Materials and Applications, 2021, 5, .	3.9	18
67	Effect of ambient pressure on resistance and resistance fluctuations in single-wall carbon nanotube devices. Journal of Applied Physics, 2006, 100, 024315.	1.1	17
68	Ultrafast quantitative nanomechanical mapping of suspended graphene. Physica Status Solidi (B): Basic Research, 2013, 250, 2672-2677.	0.7	17
69	Self-assembly of one dimensional DNA-templated structures. Journal of Materials Chemistry C, 2014, 2, 6895-6920.	2.7	17
70	Stokes and anti-Stokes Raman spectra of the high-energy C-C stretching modes in graphene and diamond. Physica Status Solidi (B): Basic Research, 2015, 252, 2380-2384.	0.7	17
71	Applications of chirality-sorted individual single-wall carbon nanotube devices. Journal of Materials Chemistry, 2012, 22, 7083.	6.7	15
72	Attoliter Chemistry for Nanoscale Functionalization of Graphene. ACS Applied Materials & Interfaces, 2016, 8, 33371-33376.	4.0	15

#	Article	IF	Citations
73	Initial Studies Directed toward the Rational Design of Aqueous Graphene Dispersants. ACS Omega, 2019, 4, 1969-1981.	1.6	14
74	Plasmonic enhancement of SERS measured on molecules in carbon nanotubes. Faraday Discussions, 2017, 205, 85-103.	1.6	13
75	High-grip and hard-wearing graphene reinforced polyurethane coatings. Composites Part B: Engineering, 2021, 213, 108727.	5.9	13
76	Acidic and basic self-assembling peptide and peptide-graphene oxide hydrogels: characterisation and effect on encapsulated nucleus pulposus cells. Acta Biomaterialia, 2022, , .	4.1	13
77	On the biocompatibility of graphene oxide towards vascular smooth muscle cells. Nanotechnology, 2021, 32, 055101.	1.3	12
78	Strained graphene as a local probe for plasmonâ€enhanced Raman scattering by gold nanostructures. Physica Status Solidi - Rapid Research Letters, 2013, 7, 1067-1070.	1.2	11
79	Fabrication and electrochemical response of pristine graphene ultramicroelectrodes. Carbon, 2021, 177, 207-215.	5.4	11
80	Imaging conduction pathways in carbon nanotube network transistors by voltage-contrast scanning electron microscopy. Nanotechnology, 2011, 22, 265715.	1.3	10
81	Nanometre electron beam sculpting of suspended graphene and hexagonal boron nitride heterostructures. 2D Materials, 2019, 6, 025032.	2.0	10
82	Graphene Oxide Substrate Promotes Neurotrophic Factor Secretion and Survival of Human Schwannâ€Like Adipose Mesenchymal Stromal Cells. Advanced Biology, 2021, 5, e2000271.	1.4	10
83	Graphene and water-based elastomer nanocomposites â€“ a review. Nanoscale, 2021, 13, 9505-9540.	2.8	10
84	Bottom-up assembly of nano-carbon devices by dielectrophoresis. Physica Status Solidi (B): Basic Research, 2013, 250, 2505-2517.	0.7	9
85	Raman Mapping Analysis of Graphene-Integrated Silicon Micro-Ring Resonators. Nanoscale Research Letters, 2017, 12, 600.	3.1	9
86	Determination of the quasi-TE mode (in-plane) graphene linear absorption coefficient via integration with silicon-on-insulator racetrack cavity resonators. Optics Express, 2014, 22, 18625.	1.7	8
87	Probing hotspots of plasmon-enhanced Raman scattering by nanomanipulation of carbon nanotubes. Nanotechnology, 2018, 29, 465710.	1.3	8
88	Graphene â€“ Properties and Characterization. , 2013, , 39-82.		7
89	Ternary nanocomposites of reduced graphene oxide, polyaniline and hexaniobate: hierarchical architecture and high polaron formation. Beilstein Journal of Nanotechnology, 2018, 9, 2936-2946.	1.5	7
90	Growth, dispersion, and electronic devices of nitrogenâ€doped singleâ€wall carbon nanotubes. Physica Status Solidi (B): Basic Research, 2012, 249, 2416-2419.	0.7	6

#	Article	IF	Citations
91	Plasmon-enhanced Raman scattering by suspended carbon nanotubes. Physica Status Solidi - Rapid Research Letters, 2014, 08, 785-789.	1.2	6
92	Resonant, Plasmonic Raman Enhancement of Î±-6T Molecules Encapsulated in Carbon Nanotubes. Journal of Physical Chemistry C, 2019, 123, 10578-10585.	1.5	6
93	Hybrid molecular/mineral lyotropic liquid crystal system of CTAB and graphene oxide in water. Carbon, 2021, 173, 105-114.	5.4	6
94	Scalable bottom-up assembly of suspended carbon nanotube and graphene devices by dielectrophoresis. Physica Status Solidi - Rapid Research Letters, 2015, 9, 539-543.	1.2	5
95	Development of an open-source thermally stabilized quartz crystal microbalance instrument for biomolecule-substrate binding assays on gold and graphene. Analytica Chimica Acta, 2021, 1156, 338329.	2.6	4
96	Graphene. Springer Handbooks, 2017, , 363-391.	0.3	2
97	Confinement effects on lyotropic nematic liquid crystal phases of graphene oxide dispersions. 2D Materials, 2017, 4, .	2.0	2
98	Engaging a wider audience. Nature Nanotechnology, 2014, 9, 868-868.	15.6	1
99	Multiplexed Biomimetic Lipid Membranes on Graphene by Dip-Pen Nanolithography. Microscopy and Microanalysis, 2014, 20, 2058-2059.	0.2	1
100	The surface passivation mechanism of graphene oxide for crystalline silicon. , 2019, , .		1
101	Biochemical functionalization of graphene oxide for directing stem cell differentiation. Journal of Molecular Structure, 2022, 1249, 131578.	1.8	1
102	Protein spot arrays on graphene oxide coatings for efficient single-cell capture. Scientific Reports, 2022, 12, 3895.	1.6	1
103	Fabrication and modelling of fractal, biomimetic, micro and nano-topographical surfaces. Bioinspiration and Biomimetics, 2016, 11, 046009.	1.5	0
104	A Chemists Method for Making Pure Clean Graphene. Carbon Nanostructures, 2012, , 129-136.	0.1	0