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Academic (Teaching & Research) Reader
Materials Engineering
National Graphene Institute



Qualifications

Rensselaer Polytechnic Institute
2002 → 2005

Rensselaer Polytechnic Institute
2000 → 2002

Indian Institute of Technology - Madras
1996 → 2000

Employment

Reader

Academic (Teaching & Research) Reader
Materials Engineering
The University of Manchester
1 Aug 2019 → present

Reader in Nanomaterials

Academic (Teaching & Research) Reader
Materials Engineering
The University of Manchester
1 Aug 2013 → 31 Jul 2019

National Graphene Institute

The University of Manchester
1 Aug 2013 → present

Senior post-doctoral research associate

Massachusetts Institute of Technology
Cambridge, United States
1 Oct 2009 → 1 Sep 2010

Research output

Graphene oxide containing self-assembling peptide hybrid hydrogels as a potential 3D injectable cell delivery platform for intervertebral disc repair applications.

Ligorio, C., Zhou, M., Wychowanec, J., Zhu, X., Bartlam, C., Miller, A. F., Vijayaraghavan, A., Hoyland, J. & Saiani, A., 12 May 2019, In : Acta Biomaterialia.
DOI: 10.1016/j.actbio.2019.05.004

PVDF membranes containing reduced graphene oxide: effect of degree of reduction on membrane distillation performance

Abdel-karim, A., Luque-Alled, J. M., Leaper, S., Alberto, M., Fan, X., Vijayaraghavan, A., Gad-Allah, T. A., El-Kalliny, A. S., Szekely, G., Ahmed, S. I. A., Holmes, S. & Gorgojo, P., 15 Feb 2019, In : Desalination. 452, p. 196-207 11 p.
DOI: 10.1016/j.desal.2018.11.014

Initial Studies Directed toward the Rational Design of Aqueous Graphene Dispersants

Heard, K. W. J., Bartlam, C., Williams, C. D., Zhang, J., Alwattar, A. A., Little, M. S., Parry, A. V. S., Porter, F. M., Vincent, M. A., Hillier, I. H., Siperstein, F. R., Vijayaraghavan, A., Yeates, S. G. & Quayle, P., 31 Jan 2019, In : ACS Omega. 4, 1,

p. 1969-1981 13 p.
DOI: 10.1021/acsomega.8b03147

Nanometre electron beam sculpting of suspended graphene and hexagonal boron nitride heterostructures

Clark, N., Lewis, E., Haigh, S. & Vijayaraghavan, A., 2019, In : 2D Materials.
DOI: 10.1088/2053-1583/ab09a0

Polyethersulfone membranes: from ultrafiltration to nanofiltration via the incorporation of APTS functionalized-graphene oxide

Luque-Alled, J. M., Abdel-karim, A., Alberto, M., Leaper, S., Perez-page, M., Huang, K., Vijayaraghavan, A., El-kalliny, A. S., Holmes, S. M. & Gorgojo, P., 2019, In : Separation and Purification Technology. p. 115836
DOI: 10.1016/j.seppur.2019.115836

Resonant, Plasmonic Raman Enhancement of α -6T Molecules Encapsulated in Carbon Nanotubes

Wasserroth, S., Heeg, S., Mueller, N. S., Kusch, P., Huebner, U., Gaufres, E., Tang, N. Y., Martel, R., Vijayaraghavan, A. & Reich, S., 2019, In : The Journal of Physical Chemistry C.
DOI: 10.1021/acs.jpcc.9b01600

Graphene oxide films for field effect surface passivation of silicon for solar cells

Vaqueiro-Contreras, M., Bartlam, C., Bonilla, R. S., Markevich, V. P., Halsall, M. P., Vijayaraghavan, A. & Peaker, A. R., 1 Dec 2018, In : Solar Energy Materials and Solar Cells. 187, p. 189-193 5 p.
DOI: 10.1016/j.solmat.2018.08.002

Probing hotspots of plasmon-enhanced Raman scattering by nanomanipulation of carbon nanotubes

Heeg, S., Clark, N. & Vijayaraghavan, A., 16 Nov 2018, In : Nanotechnology. 29, 46, p. 465710
DOI: 10.1088/1361-6528/aaded9

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

Alberto, M., Bhavsar, R., Luque-Alled, J. M., Prestat, E., Gao, L., Budd, M., Vijayaraghavan, A., Szekely, G., Holmes, S. & Gorgojo, P., 1 Nov 2018, In : Journal of Membrane Science. 565, p. 390-401
DOI: 10.1016/j.memsci.2018.08.050

Nanoscale Infrared Identification and Mapping of Chemical Functional Groups on Graphene

Bartlam, C., Morsch, S., Heard, K., Quayle, P., Yeates, S. & Vijayaraghavan, A., Nov 2018, In : Carbon. 139
DOI: 10.1016/j.carbon.2018.06.061

Impeded physical aging in PIM-1 membranes containing graphene-like fillers

Alberto, M., Bhavsar, R., Luque-Alled, J. M., Vijayaraghavan, A., Budd, P. & Gorgojo, P., 1 Oct 2018, In : Journal of Membrane Science. 563, p. 513-520 7 p.
DOI: 10.1016/j.memsci.2018.06.026

Adsorption and binding dynamics of graphene-supported phospholipid membranes using the QCM-D technique

Meléndrez Armada, D., Jowitt, T., Iliut, M., Verre, A. F., Goodwin, S. & Vijayaraghavan, A., 2018, In : Nanoscale.
DOI: 10.1039/C7NR05639G

Designing peptide / graphene hybrid hydrogels through fine tuning of molecular interactions

Wychowaniec, J., Iliut, M., Zhou, M., Moffat, J., Elsayy, M., Anacleto Pinheiro, W., Hoyland, J., Miller, A., Vijayaraghavan, A. & Saiani, A., 2018, In : Biomacromolecules.
DOI: 10.1021/acs.biomac.8b00333

Flux-enhanced PVDF mixed matrix membranes incorporating APTS-functionalized graphene oxide for membrane distillation

Leaper, S., Ahmed Abdelkarim, A., Faki, B., Luque-Alled, J. M., Alberto, M., Vijayaraghavan, A., Holmes, S., Szekely, G., Badawy, M. I., Shokri, N. & Gorgojo, P., 2018, In : Journal of Membrane Science.
DOI: 10.1016/j.memsci.2018.03.013

Improving the glial differentiation of human Schwann-like adipose-derived stem cells with graphene oxide substrates
Verre, A. F., Faroni, A., Iliut, M., Silva, C., Muryn, C., Reid, A. & Vijayaraghavan, A., 2018, In : Interface Focus.
DOI: 10.1098/rsfs.2018.0002

Ternary nanocomposites of reduced graphene oxide, polyaniline and hexaniobate: hierarchical architecture and high polaron formation

Silva, C. H. B., Iliut, M., Muryn, C., Berger, C., Coldrick, Z., Constantino, V. R. L., Temperini, M. L. A. & Vijayaraghavan, A., 2018, In : Beilstein Journal of Nanotechnology. 9, p. 2936-2946
DOI: 10.3762/bjnano.9.272

Capacitive pressure sensing with suspended graphene-polymer heterostructure membranes

Berger, C., Phillips, R., Centeno, A., Zurutuza, A. & Vijayaraghavan, A., 6 Dec 2017, In : Nanoscale.
DOI: 10.1039/C7NR04621A

Touch-mode capacitive pressure sensor with graphene-polymer heterostructure membrane

Berger, C., Phillips, R., Pasternak, I., Sobieski, J., Strupinski, W. & Vijayaraghavan, A., 30 Nov 2017, In : 2 D Materials.
DOI: 10.1088/2053-1583/aa8c8a

Evaluating arbitrary strain configurations and doping in graphene with Raman spectroscopy

Mueller, N. S., Heeg, S., Pena Alvarez, M., Kusch, P., Wasseroth, S., Clark, N., Schedin, B., Parthenios, J., Papagelis, K., Galiotis, C., Kalbac, M., Vijayaraghavan, A., Huebner, U., Gorbachev, R., Frank, O. & Reich, S., 6 Nov 2017, In : 2D Materials. 5, 1
DOI: 10.1088/2053-1583/aa90b3

High flux and fouling resistant flat sheet polyethersulfone membranes incorporated with graphene oxide for ultrafiltration applications

Leeper, S., Alberto, M., Vijayaraghavan, A., Holmes, S., Souaya, E. R., Badawy, M. I., Gorgojo, P. & Ahmed Abdelkarim, A., 16 Oct 2017, In : Chemical Engineering Journal. 334, p. 789-799 11 p.
DOI: 10.1016/j.cej.2017.10.069

Biomimetic Phospholipid Membrane Organization on Graphene and Graphene Oxide Surfaces: A Molecular Dynamics Simulation Study

Willems, N., Urtizbera, A., Verre, A. F., Iliut, M., Lelimosin, M., Hirtz, M., Vijayaraghavan, A. & Sansom, M. S. P., 6 Feb 2017, In : ACS Nano. 11, 2, p. 1613-1625 13 p.
DOI: 10.1021/acsnano.6b07352

Confinement effects on lyotropic nematic liquid crystal phases of graphene oxide dispersions

Al-Zangana, S., Iliut, M., Turner, M., Vijayaraghavan, A. & Dierking, I., 2017, In : 2 D Materials.
DOI: 10.1088/2053-1583/aa843a

Enhanced organophilic separations with mixed matrix membranes of polymers of intrinsic microporosity and graphene-like fillers

Alberto, M., Luque-Alled, J. M., Gao, L., Iliut, M., Prestat, E., Newman, L., Haigh, S., Vijayaraghavan, A., Budd, P. & Gorgojo, P., 2017, In : Journal of Membrane Science. 526
DOI: 10.1016/j.memsci.2016.12.061

Plasmonic enhancement of SERS measured on molecules in carbon nanotubes

Mueller, N. S., Heeg, S., Kusch, P., Gaufres, E., Tang, N. Y. W., Hübner, U., Martel, R., Vijayaraghavan, A. & Reich, S., 2017, In : Faraday Discussions. 205, p. 85-103 19 p.
DOI: 10.1039/c7fd00127d

Raman mapping analysis of graphene integrated silicon micro-ring resonators

Hussein, S. M. A., Crowe, I., Clark, N., Milosevic, M., Vijayaraghavan, A., Gardes, F. Y., Mashanovich, G. Z. & Halsall, M., 2017, In : Nanoscale Research Letters. 12, 600
DOI: 10.1186/s11671-017-2374-4

Attoliter Chemistry for Nano-Scale Functionalization of Graphene

Hirtz, M., Varey, S., Fuchs, H. & Vijayaraghavan, A., 14 Dec 2016, In : ACS Applied Materials and Interfaces. p. 33371-33376 6 p.

DOI: 10.1021/acsami.6b06065

Properties of a Thermotropic Nematic Liquid Crystal Doped with Graphene Oxide

Al-Zangana, S., Iliut, M., Turner, M., Vijayaraghavan, A. & Dierking, I., Oct 2016, In : Advanced Optical Materials. 4, 10, p. 1541-1548 8 p.

DOI: 10.1002/adom.201600351

Graphene and water-based elastomers thin-film composites by dip-moulding

Iliut, M., Silva, C., Herrick, S., McGlothlin, M. & Vijayaraghavan, A., Sep 2016, In : Carbon. 106, p. 228-232 5 p.

DOI: 10.1016/j.carbon.2016.05.032

Dielectric spectroscopy of isotropic liquids and liquid crystal phases with dispersed graphene oxide

Al-Zangana, S., Iliut, M., Boran, G., Turner, M., Vijayaraghavan, A. & Dierking, I., 24 Aug 2016, In : Scientific Reports. 6, 31885.

DOI: 10.1038/srep31885

Fabrication and modelling of fractal, biomimetic, micro and nano-topographical surfaces

Kyle, D., Oikonomou, A., Hill, E., Vijayaraghavan, A. & Bayat, A., 2016, In : Bioinspiration & Biomimetics. 11, 4, 046009.

DOI: 10.1088/1748-3190/11/4/046009

Graphene Oxide promotes embryonic stem cell differentiation to haematopoietic lineage

Garcia Alegria, E., Iliut, M., Stefanska, M., Silva, C., Heeg, S., Kimber, S., Kouskoff, V., Lacaud, G., Vijayaraghavan, A. & Batta, K., 2016, In : Scientific Reports. 6, 25917.

DOI: 10.1038/srep25917

Self-limiting Multiplexed Assembly of Lipid Membranes on Large-area Graphene Sensor Arrays

Hirtz, M., Oikonomou, A., Clark, N., Kim, Y. J., Fuchs, H. & Vijayaraghavan, A., 2016, In : Nanoscale. 8, p. 15147-15151 5 p.

DOI: 10.1039/C6NR04615K

Ultra-thin graphene-polymer heterostructure membranes

Berger, C., Dirschka, M. & Vijayaraghavan, A., 2016, In : Nanoscale.

DOI: 10.1039/C6NR06316K

Stokes and anti-Stokes Raman spectra of the high-energy C-C stretching modes in graphene and diamond

Jorio, A., Kasperczyk, M., Clark, N., Neu, E., Maletinsky, P., Vijayaraghavan, A. & Novotny, L., Nov 2015, In : Physica Status Solidi. B: Basic Research. 252, 11, p. 2380-2384 4 p.

DOI: 10.1002/pssb.201552224

Graphene oxide selectively targets cancer stem cells, across multiple tumor types: implications for non-toxic cancer treatment, via "differentiation-based nano-therapy".

Fiorillo, M., Verre, A. F., Iliut, M., Peiris Pages, M., Ozsvari, B., Gandara, R., Cappello, A. R., Sotgia, F., Vijayaraghavan, A. & Lisanti, M. P., 28 Feb 2015, In : Oncotarget. 6, 6

DOI: 10.18632/oncotarget.3348

Scalable bottom-up assembly of suspended carbon nanotube and graphene devices by dielectrophoresis

Oikonomou, A., Clark, N., Heeg, S., Kretinin, A., Varey, S., Yu, G. & Vijayaraghavan, A., 2015, In : physica status solidi (RRL) – Rapid Research Letters. 9999, 9999, p. 539-543 5 p.

DOI: 10.1002/pssr.201510177

Plasmon-enhanced Raman scattering by carbon nanotubes optically coupled with near-field cavities

Heeg, S., Oikonomou, A., Fernandez-Garcia, R., Lehmann, C., Maier, S. A., Vijayaraghavan, A. & Reich, S., 9 Apr 2014, In : Nano Letters. 14, 4, p. 1762-1768 6 p.
DOI: 10.1021/nl404229w

Determination of the quasi-TE mode (in-plane) graphene linear absorption coefficient via integration with silicon-on-insulator racetrack cavity resonators

Crowe, I. F., Clark, N., Hussein, S., Towlson, B., Whittaker, E., Milosevic, M. M., Gardes, F. Y., Mashanovich, G. Z., Halsall, M. P., Vijayaraghavan, A. & Vijayaraghavan, A., 2014, In : Optics Express. 22, 15, p. 18625-18632 7 p.
DOI: 10.1364/OE.22.018625

Engaging a wider audience.

Vijayaraghavan, A., 2014, In : Nature Nanotechnology. 9
DOI: 10.1038/nnano.2014.223

Multiplexed Biomimetic Lipid Membranes on Graphene by Dip-Pen Nanolithography

Hirtz, M., Oikonomou, A., Varey, S., Fuchs, H. & Vijayaraghavan, A., 2014, In : Microscopy and Microanalysis. 20, S3, p. 2058-2059 2 p.
DOI: 10.1017/S1431927614012021

Optical-Phonon Resonances with Saddle-Point Excitons in Twisted-Bilayer Graphene

Jorio, A., Kasperczyk, M., Clark, N., Neu, E., Maletinsky, P., Vijayaraghavan, A. & Novotny, L., 2014, In : Nano Letters. 14, 10, p. 5687-5692 6 p.
DOI: 10.1021/nl502412g

Plasmon-enhanced Raman scattering by suspended carbon nanotubes

Heeg, S., Clark, N., Oikonomou, A., Vijayaraghavan, A., Reich, S. & Clark, N., 2014, In : physica status solidi (RRL) - Rapid Research Letters. 08, 9999, p. 785-789 5 p.
DOI: 10.1002/pssr.201409253

Self-assembly of one dimensional DNA-templated structures

Catherall, T., Huskisson, D., McAdams, S. & Vijayaraghavan, A., 2014, In : Journal of Materials Chemistry C. 2
DOI: 10.1039/C4TC00460D

Strained graphene as a local probe for plasmon-enhanced Raman scattering by gold nanostructures

Heeg, S., Oikonomou, A., Garcia, R. F., Maier, S. A., Vijayaraghavan, A. & Reich, S., Dec 2013, In : Physica Status Solidi - Rapid Research Letters. 7, 12, p. 1067-1070 3 p.
DOI: 10.1002/pssr.201308145

Ultrafast quantitative nanomechanical mapping of suspended graphene

Clark, N., Oikonomou, A. & Vijayaraghavan, A., Dec 2013, In : Physica Status Solidi (B) Basic Research. 250, 12, p. 2672-2677 5 p.
DOI: 10.1002/pssb.201300137

Polarized plasmonic enhancement by Au nanostructures probed through raman scattering of suspended graphene

Heeg, S., Fernandez-Garcia, R., Oikonomou, A., Schedin, F., Narula, R., Maier, S. A., Vijayaraghavan, A. & Reich, S., 9 Jan 2013, In : Nano Letters. 13, 1, p. 301-308 7 p.
DOI: 10.1021/nl3041542

Bottom-up assembly of nano-carbon devices by dielectrophoresis

Vijayaraghavan, A., 2013, In : Physica Status Solidi (B) Basic Research. 250, p. 2505-2517 13 p.
DOI: 10.1002/pssb.201300565

Catalytic subsurface etching of nanoscale channels in graphite.

Lukas, M., Meded, V., Vijayaraghavan, A., Song, L., Ajayan, P. M., Fink, K., Wenzel, W. & Krupke, R., 2013, In : Nature Communications. 4, p. 1379

DOI: 10.1038/ncomms2399

Charge transfer at junctions of a single layer of graphene and a metallic single walled carbon nanotube.

Paulus, G. L. C., Wang, Q. H., Ulissi, Z. W., McNicholas, T. P., Vijayaraghavan, A., Shih, C.-J., Jin, Z. & Strano, M. S., 2013, In : *Small*. 9, p. 1954-63 1890 p.

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Directed self-assembly of block copolymers for use in bit patterned media fabrication

Griffiths, R. A., Williams, A., Oakland, C., Roberts, J., Vijayaraghavan, A. & Thomson, T., 2013, In : *Journal of Physics D: Applied Physics*. 46, 50, 503001.

DOI: 10.1088/0022-3727/46/50/503001

Multiplexed biomimetic lipid membranes on graphene by dip-pen nanolithography.

Hirtz, M., Oikonomou, A., Georgiou, T., Fuchs, H. & Vijayaraghavan, A., 2013, In : *Nature Communications*. 4, 2591.

DOI: 10.1038/ncomms3591

Self assembled monolayers (SAMs) on metallic surfaces (gold and graphene) for electronic applications

Newton, L., Slater, T., Clark, N. & Vijayaraghavan, A., 2013, In : *Journal of Materials Chemistry C*. 1, 3, p. 376-393 18 p.

DOI: 10.1039/c2tc00146b

Applications of chirality-sorted individual single-wall carbon nanotube devices

Vijayaraghavan, A., 21 Apr 2012, In : *Journal of Materials Chemistry*. 22, 15, p. 7083-7087 4 p.

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Anisotropic organization and microscopic manipulation of self-assembling synthetic porphyrin microrods that mimic chlorosomes: Bacterial light-harvesting systems

Chappaz-Gillot, C., Marek, P. L., Blaive, B. J., Canard, G., Bürck, J., Garab, G., Hahn, H., Jávorfí, T., Kelemen, L., Krupke, R., Mössinger, D., Ormos, P., Reddy, C. M., Roussel, C., Steinbach, G., Szabó, M., Ulrich, A. S., Vanthuyne, N., Vijayaraghavan, A., Zupcanova, A. & 1 others, Balaban, T. S., 18 Jan 2012, In : *Journal of the American Chemical Society*. 134, 2, p. 944-954 10 p.

DOI: 10.1021/ja203838p

A Chemists Method for Making Pure Clean Graphene

Vijayaraghavan, A., Malik, S., Ernie, R., Ariga, K., Khalakan, I., Hill, J. P., Ottaviano, L. (ed.) & Morandi, V. (ed.), 2012, *GraphITA 2011*. p. 129-136

Growth, dispersion, and electronic devices of nitrogen-doped single-wall carbon nanotubes

Oikonomou, A., Susi, T., Kauppinen, E. I. & Vijayaraghavan, A., 2012, In : *Physica Status Solidi (B)*. 249, 12, p. 2416-2419 4 p.

DOI: 10.1002/pssb.201200146

Bi- and trilayer graphene solutions

Shih, C.-J., Vijayaraghavan, A., Krishnan, R., Sharma, R., Han, J., Ham, M.-H., Jin, Z., Lin, S., Paulus, G. L. C., Reuel, N. F., Hua, Q., Blankschtein, D., Strano, M. S. & Wang, Q. H., Jul 2011, In : *Nature Nanotechnology*. 6, 7, p. 439-445 7 p.

DOI: 10.1038/nnano.2011.94 <http://www.nature.com/nnano/journal/v6/n7/abs/nnano.2011.94.html#supplementary-information>

A scalable, CMOS-compatible assembly of ambipolar semiconducting single-walled carbon nanotube devices.

Ganzhorn, M., Vijayaraghavan, A., Green, A. A., Dehm, S., Voigt, A., Rapp, M., Hersam, M. C. & Krupke, R., 2011, In : *Advanced Materials*. 23, 15, p. 1734-8 1725 p.

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Graphene sensors

Hill, E. W., Vijayaraghavan, A. & Novoselov, K., 2011, In : *IEEE Sensors Journal*. 11, 12, p. 3161-3170 9 p., 6016205.

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Hydrogen sensing with diameter- and chirality-sorted carbon nanotubes.

Ganzhorn, M., Vijayaraghavan, A., Dehm, S., Hennrich, F., Green, A. A., Fichtner, M., Voigt, A., Rapp, M., von Löhneysen, H., Hersam, M. C., Kappes, M. M. & Krupke, R., 2011, In : ACS Nano. 5, 3, p. 1670-6 1663 p.
DOI: 10.1021/nn101992g

Imaging conduction pathways in carbon nanotube network transistors by voltage-contrast scanning electron microscopy

Vijayaraghavan, A., Timmermans, M. Y., Grigoras, K., Nasibulin, A. G., Kauppinen, E. I. & Krupke, R., 2011, In : Nanotechnology. 22, 26, 265715.
DOI: 10.1088/0957-4484/22/26/265715

High purity graphenes prepared by a chemical intercalation method

Malik, S., Vijayaraghavan, A., Erni, R., Ariga, K., Khalakhan, I. & Hill, J. P., Oct 2010, In : Nanoscale. 2, 10, p. 2139-2143 4 p.
DOI: 10.1039/c0nr00248h

Toward single-chirality carbon nanotube device arrays

Vijayaraghavan, A., Hennrich, F., Stürzl, N., Engel, M., Ganzhorn, M., Oron-Carl, M., Marquardt, C. W., Dehm, S., Lebedkin, S., Kappes, M. M. & Krupke, R., 25 May 2010, In : ACS Nano. 4, 5, p. 2748-2754 6 p.
DOI: 10.1021/nn100337t

Imaging defects and junctions in single-walled carbon nanotubes by voltage-contrast scanning electron microscopy

Vijayaraghavan, A., Marquardt, C. W., Dehm, S., Hennrich, F. & Krupke, R., Feb 2010, In : Carbon. 48, 2, p. 494-500 6 p.
DOI: 10.1016/j.carbon.2009.09.067

Phonon-assisted electroluminescence from metallic carbon nanotubes and graphene.

Essig, S., Marquardt, C. W., Vijayaraghavan, A., Ganzhorn, M., Dehm, S., Hennrich, F., Ou, F., Green, A. A., Sciascia, C., Bonaccorso, F., Bohnen, K-P. K-P., Löhneysen, H. V., Kappes, M. M., Ajayan, P. M., Hersam, M. C., Ferrari, A. C., Krupke, R. & Löhneysen, H. V., 2010, In : Nano Letters. 10, 5, p. 1589-94 1494 p.
DOI: 10.1021/nl9039795

Synthesis of Atomically Thin WO₃ Sheets from Hydrated Tungsten Trioxide

Kalantar-zadeh, K., Vijayaraghavan, A., Ham, M-H., Zheng, H., Breedon, M. & Strano, M. S., 2010, In : Chemistry of Materials. 22, 19, p. 5660-5666 7 p.
DOI: 10.1021/cm1019603

Dielectrophoretic Assembly of High-Density Arrays of Individual Graphene Devices for Rapid Screening

Vijayaraghavan, A., Sciascia, C., Dehm, S., Lombardo, A., Bonetti, A., Ferrari, A. C. & Krupke, R., 2009, In : ACS Nano. 3, 7, p. 1729-1734 6 p.
DOI: 10.1021/nn900288d

Reversible metal-insulator transitions in metallic single-walled carbon nanotubes

Marquardt, C. W., Dehm, S., Vijayaraghavan, A., Blatt, S., Hennrich, F. & Krupke, R., Sep 2008, In : Nano Letters. 8, 9, p. 2767-2772 5 p.
DOI: 10.1021/nl801288d

Imaging electronic structure of carbon nanotubes by voltage-contrast scanning electron microscopy

Vijayaraghavan, A., Blatt, S., Marquardt, C., Dehm, S., Wahi, R., Hennrich, F. & Krupke, R., 2008, In : Nano Research. 1, 4, p. 321-332 12 p.
DOI: 10.1007/s12274-008-8034-3

Influence of structural and dielectric anisotropy on the dielectrophoresis of single-walled carbon nanotubes

Blatt, S., Hennrich, F., V. Löhneysen, H., Kappes, M. M., Vijayaraghavan, A. & Krupke, R., Jul 2007, In : Nano Letters. 7, 7, p. 1960-1966 6 p.
DOI: 10.1021/nl0706751

Ultra-large-scale directed assembly of single-walled carbon nanotube devices

Vijayaraghavan, A., Blatt, S., Weissenberger, D., Oron-Carl, M., Hennrich, F., Gerthsen, D., Hahn, H. & Krupke, R., Jun 2007, In : Nano Letters. 7, 6, p. 1556-1560 4 p.
DOI: 10.1021/nl0703727

Mechanism of metal-semiconductor transition in electric properties of single-walled carbon nanotubes induced by low-energy electron irradiation

Kanzaki, K., Suzuki, S., Inokawa, H., Ono, Y., Vijayaraghavan, A. & Kobayashi, Y., 2007, In : Journal of Applied Physics. 101, 3, 034317.
DOI: 10.1063/1.2434822

Ionic liquid-derived blood-compatible composite membranes for kidney dialysis

Murugesan, S., Mousa, S., Vijayaraghavan, A., Ajayan, P. M. & Linhardt, R. J., Nov 2006, In : Journal of Biomedical Materials Research - Part B Applied Biomaterials. 79, 2, p. 298-304 6 p.
DOI: 10.1002/jbm.b.30542

In vitro transcription and protein translation from carbon nanotube-DNA assemblies

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Activities