Robert H Hurt

List of Publications by Year
in descending order

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77 papers	10,027 citations	76294 40 h-index	76872 74 g-index
81 all docs	81 docs citations	81 times ranked	15855 citing authors

#	Article	IF	Citations
1	Ion Release Kinetics and Particle Persistence in Aqueous Nano-Silver Colloids. Environmental Science & Technology, 2010, 44, 2169-2175.	4.6	1,451
2	Biological Interactions of Graphene-Family Nanomaterials: An Interdisciplinary Review. Chemical Research in Toxicology, 2012, 25, 15-34.	1.7	1,131
3	Controlled Release of Biologically Active Silver from Nanosilver Surfaces. ACS Nano, 2010, 4, 6903-6913.	7.3	938
4	Graphene microsheets enter cells through spontaneous membrane penetration at edge asperities and corner sites. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12295-12300.	3.3	665
5	Cell entry of one-dimensional nanomaterials occurs by tip recognition and rotation. Nature Nanotechnology, 2011, 6, 714-719.	15.6	416
6	Antioxidant chemistry of graphene-based materials and its role in oxidation protection technology. Nanoscale, 2014, 6, 11744-11755.	2.8	325
7	Chemical Transformations of Nanosilver in Biological Environments. ACS Nano, 2012, 6, 9887-9899.	7.3	292
8	Biological and Environmental Transformations of Copper-Based Nanomaterials. ACS Nano, 2013, 7, 8715-8727.	7.3	230
9	Kinetics and Mechanisms of Nanosilver Oxysulfidation. Environmental Science & Technology, 2011, 45, 7345-7353.	4.6	223
10	Biological and environmental interactions of emerging two-dimensional nanomaterials. Chemical Society Reviews, 2016, 45, 1750-1780.	18.7	216
11	Chemical Dissolution Pathways of MoS₂ Nanosheets in Biological and Environmental Media. Environmental Science & Technology, 2016, 50, 7208-7217.	4.6	207
12	Aerosol Synthesis of Cargo-Filled Graphene Nanosacks. Nano Letters, 2012, 12, 1996-2002.	4.5	178
13	Explosive thermal reduction of graphene oxide-based materials: Mechanism and safety implications. Carbon, 2014, 72, 215-223.	5.4	159
14	Biopersistence and potential adverse health impacts of fibrous nanomaterials: what have we learned from asbestos?. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2009, 1, 511-529.	3.3	155
15	Biodurability of single-walled carbon nanotubes depends on surface functionalization. Carbon, 2010, 48, 1961-1969.	5.4	152
16	Bioavailability, Intracellular Mobilization of Nickel, and HIF-1Î± Activation in Human Lung Epithelial Cells Exposed to Metallic Nickel and Nickel Oxide Nanoparticles. Toxicological Sciences, 2011, 124, 138-148.	1.4	142
17	Antioxidant Deactivation on Graphenic Nanocarbon Surfaces. Small, 2011, 7, 2775-2785.	5.2	133
18	Graphene-Based Environmental Barriers. Environmental Science & Technology, 2012, 46, 7717-7724.	4.6	123

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19	Porous structures in stacked, crumpled and pillared graphene-based 3D materials. Carbon, 2014, 66, 476-484.	5.4	113
20	Multiscale Graphene Topographies Programmed by Sequential Mechanical Deformation. Advanced Materials, 2016, 28, 3564-3571.	11.1	110
21	Nanomechanical mechanism for lipid bilayer damage induced by carbon nanotubes confined in intracellular vesicles. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 12374-12379.	3.3	109
22	Wrinkled, wavelength-tunable graphene-based surface topographies for directing cell alignment and morphology. Carbon, 2016, 97, 14-24.	5.4	101
23	Two-Dimensional Materials as Emulsion Stabilizers: Interfacial Thermodynamics and Molecular Barrier Properties. Langmuir, 2014, 30, 3687-3696.	1.6	95
24	Thermochemistry and kinetics of graphite oxide exothermic decomposition for safety in large-scale storage and processing. Carbon, 2016, 96, 20-28.	5.4	84
25	A carbon science perspective in 2018: Current achievements and future challenges. Carbon, 2018, 132, 785-801.	5.4	80
26	Opportunities for nanotechnology-enabled bioactive bone implants. Journal of Materials Chemistry, 2009, 19, 2653.	6.7	79
27	From Flatland to Spaceland: Higher Dimensional Patterning with Twoâ€Dimensional Materials. Advanced Materials, 2017, 29, 1605096.	11.1	76
28	Encapsulation of Particle Ensembles in Graphene Nanosacks as a New Route to Multifunctional Materials. ACS Nano, 2013, 7, 3744-3753.	7.3	70
29	The asbestos-carbon nanotube analogy: An update. Toxicology and Applied Pharmacology, 2018, 361, 68-80.	1.3	70
30	Effects of Carbon on Air Entrainment in Fly Ash Concrete:Â The Role of Soot and Carbon Black. Energy & Fuels, 1997, 11, 457-462.	2.5	68
31	Breathable Vapor Toxicant Barriers Based on Multilayer Graphene Oxide. ACS Nano, 2017, 11, 5670-5679.	7.3	67
32	Thermal Annealing of Chars from Diverse Organic Precursors under Combustion-like Conditions. Energy & Fuels, 2000, 14, 340-348.	2.5	66
33	The inhibition of neuronal calcium ion channels by trace levels of yttrium released from carbon nanotubes. Biomaterials, 2009, 30, 6351-6357.	5.7	66
34	Hierarchical Metal Oxide Topographies Replicated from Highly Textured Graphene Oxide by Intercalation Templating. ACS Nano, 2016, 10, 10869-10879.	7.3	55
35	Engineering of Graphene Layer Orientation to Attain High Rate Capability and Anisotropic Properties in Liâ€Ion Battery Electrodes. Advanced Functional Materials, 2013, 23, 2397-2404.	7.8	53
36	Controlling water contact angle on carbon surfaces from 5Â° to 167Â°. Carbon, 2006, 44, 3116-3120.	5.4	50

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37	Effects of Surface-Engineered Nanoparticle-Based Dispersants for Marine Oil Spills on the Model Organism Artemia franciscana. Environmental Science & Technology, 2014, 48, 6419-6427.	4.6	46
38	A 3-dimensional in vitro model of epithelioid granulomas induced by high aspect ratio nanomaterials. Particle and Fibre Toxicology, 2011, 8, 17.	2.8	44
39	Ultrastretchable Graphene-Based Molecular Barriers for Chemical Protection, Detection, and Actuation. ACS Nano, 2018, 12, 234-244.	7.3	43
40	Influence of external heating rate on the structure and porosity of thermally exfoliated graphite oxide. Carbon, 2017, 111, 651-657.	5.4	42
41	Degradation Products from Consumer Nanocomposites: A Case Study on Quantum Dot Lighting. Environmental Science & Technology, 2012, 46, 3220-3227.	4.6	41
42	Grapheneâ€Induced Adsorptive and Optical Artifacts During In Vitro Toxicology Assays. Small, 2013, 9, 1921-1927.	5.2	40
43	Controlling nanochannel orientation and dimensions in graphene-based nanofluidic membranes. Nature Communications, 2021, 12, 507.	5.8	38
44	Biological interactions and safety of graphene materials. MRS Bulletin, 2012, 37, 1307-1313.	1.7	36
45	Oxidation suppression during hydrothermal phase reversion allows synthesis of monolayer semiconducting MoS₂ in stable aqueous suspension. Nanoscale, 2017, 9, 5398-5403.	2.8	36
46	A novel human 3D lung microtissue model for nanoparticle-induced cell-matrix alterations. Particle and Fibre Toxicology, 2019, 16, 15.	2.8	29
47	Three-Dimensional Graphene-Based Microbarriers for Controlling Release and Reactivity in Colloidal Liquid Phases. ACS Nano, 2016, 10, 2268-2276.	7.3	26
48	Crumpled graphene nanoreactors. Nanoscale, 2015, 7, 10267-10278.	2.8	21
49	Graphene Inks as Versatile Templates for Printing Tiled Metal Oxide Crystalline Films. Advanced Materials, 2018, 30, 1705080.	11.1	20
50	Chemical and Colloidal Dynamics of MnO₂ Nanosheets in Biological Media Relevant for Nanosafety Assessment. Small, 2020, 16, e2000303.	5.2	20
51	Biodissolution and cellular response to MoO₃nanoribbons and a new framework for early hazard screening for 2D materials. Environmental Science: Nano, 2018, 5, 2545-2559.	2.2	17
52	A graphene-based hydrogel monolith with tailored surface chemistry for PFAS passive sampling. Environmental Science: Nano, 2021, 8, 2894-2907.	2.2	16
53	Novel application of magnetic nano-carbon composite as redox mediator in the reductive biodegradation of iopromide in anaerobic continuous systems. Applied Microbiology and Biotechnology, 2018, 102, 8951-8961.	1.7	15
54	Mosquito bite prevention through graphene barrier layers. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 18304-18309.	3.3	14

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55	Visualization of liquid crystal director fields within carbon nanotube cavities. Applied Physics Letters, 2006, 88, 163110.	1.5	12
56	A simple numerical model to estimate the effect of coal selection on pulverized fuel burnout. Combustion Science and Technology, 2003, 175, 1085-1108.	1.2	10
57	Pillared graphene oxide composite as an adsorbent of soluble hydrocarbons in water: pH and organic matter effects. Journal of Environmental Management, 2020, 259, 110044.	3.8	10
58	Shear failure in supported two-dimensional nanosheet van der Waals thin films. Carbon, 2021, 173, 410-418.	5.4	10
59	Mechanical behavior of anodic alumina coatings reinforced with carbon nanofibers. Journal of Materials Science, 2009, 44, 6020-6027.	1.7	9
60	Highly conductive graphene-based segregated composites prepared by particle templating. Journal of Materials Science, 2014, 49, 2567-2570.	1.7	9
61	Manganese dioxide nanosheets induce mitochondrial toxicity in fish gill epithelial cells. Nanotoxicology, 2021, 15, 400-417.	1.6	9
62	Controlling pore structure and conductivity in graphene nanosheet films through partial thermal exfoliation. Carbon, 2021, 174, 227-239.	5.4	8
63	Supramolecular Synthesis of Graphenic Mesogenic Materials. Macromolecular Chemistry and Physics, 2012, 213, 1164-1174.	1.1	7
64	Dry and Semi-Dry Methods for Removal of Ammonia from Pulverized Fuel Combustion Fly Ash. Energy & Fuels, 2002, 16, 1398-1404.	2.5	6
65	Graphene Topographies: Multiscale Graphene Topographies Programmed by Sequential Mechanical Deformation (Adv. Mater. 18/2016). Advanced Materials, 2016, 28, 3603-3603.	11.1	5
66	Impact of emerging, high-production-volume graphene-based materials on the bioavailability of benzo(a)pyrene to brine shrimp and fish liver cells. Environmental Science: Nano, 2018, 5, 2144-2161.	2.2	4
67	Improved reductive transformation of iopromide by magnetite containing reduced graphene oxide nanosacks as electron shuttles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 566, 188-195.	2.3	4
68	Controlled Release of Molecular Intercalants from Two-Dimensional Nanosheet Films. ACS Nano, 2021, 15, 20105-20115.	7.3	4
69	Novel Carbon Nanotubes Based on Disk-Rod Assemblies of Lyotropic Liquid Crystals. Molecular Crystals and Liquid Crystals, 2005, 435, 107/[767]-116/[776].	0.4	3
70	Development of an Evaluational Prediction Tool for Coal Combustion Histories. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2003, 82, 849-855.	0.2	3
71	Chemical degradation kinetics for two-dimensional materials in natural and biological environments â€“ a data-driven review. Environmental Science: Nano, 0, , .	2.2	3
72	25.4: Micro-Patterned Carbon Nanotube Arrays Using Pen-Writable Lyotropic Liquid Crystals. Digest of Technical Papers SID International Symposium, 2004, 35, 936.	0.1	1

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73	Liquid Crystals: Vertically Aligned Graphene Layer Arrays from Chromonic Liquid Crystal Precursors (Adv. Mater. 4/2011). Advanced Materials, 2011, 23, 436-436.	11.1	1
74	Systematic Molecular Control of Interfacial Structure in Nanoporous Carbons. Materials Research Society Symposia Proceedings, 2003, 788, 691.	0.1	0
75	Selenium nanocluster coatings for anti-cancer orthopedic applications. , 2009, , .		0
76	Cancer Therapeutics: Selenium-Carbon Bifunctional Nanoparticles for the Treatment of Malignant Mesothelioma (Adv. Mater. 45/2010). Advanced Materials, 2010, 22, 5072-5072.	11.1	0
77	An all-inorganic, fully dense, stretchable ceramic magnetic film. Nanoscale Advances, 2021, 3, 800-804.	2.2	0