Alan B Dalton

List of Publications by Year
in descending order

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140 papers	9,386 citations	61945 43 h-index	38368 95 g-index
142 all docs	142 docs citations	142 times ranked	10613 citing authors

#	Article	IF	Citations
1	Super-tough carbon-nanotube fibres. Nature, 2003, 423, 703-703.	13.7	1,394
2	Sensitive, High-Strain, High-Rate Bodily Motion Sensors Based on Grapheneâ€"Rubber Composites. ACS Nano, 2014, 8, 8819-8830.	7.3	708
3	A Composite from Poly(m-phenylenevinylene-co-2,5-dioctoxy-p-phenylenevinylene) and Carbon Nanotubes: A Novel Material for Molecular Optoelectronics. Advanced Materials, 1998, 10, 1091-1093.	11.1	601
4	Controlled Assembly of Carbon Nanotubes by Designed Amphiphilic Peptide Helices. Journal of the American Chemical Society, 2003, 125, 1770-1777.	6.6	481
5	Percolation-dominated conductivity in a conjugated-polymer-carbon-nanotube composite. Physical Review B, 1998, 58, R7492-R7495.	1.1	406
6	Stabilized Nanoporous Metals by Dealloying Ternary Alloy Precursors. Advanced Materials, 2008, 20, 4883-4886.	11.1	306
7	Preparation and Characterization of Individual Peptide-Wrapped Single-Walled Carbon Nanotubes. Journal of the American Chemical Society, 2004, 126, 7222-7227.	6.6	268
8	Electrospun MEH-PPV/SBA-15 Composite Nanofibers Using a Dual Syringe Method. Journal of the American Chemical Society, 2003, 125, 14531-14538.	6.6	259
9	Selective Interaction of a Semiconjugated Organic Polymer with Single-Wall Nanotubes. Journal of Physical Chemistry B, 2000, 104, 10012-10016.	1.2	254
10	Improving the mechanical properties of single-walled carbon nanotube sheets by intercalation of polymeric adhesives. Applied Physics Letters, 2003, 82, 1682-1684.	1.5	253
11	Continuous carbon nanotube composite fibers: properties, potential applications, and problemsElectronic supplementary information (ESI) available: frontispiece figure. See http://www.rsc.org/suppdata/jm/b3/b312092a/. Journal of Materials Chemistry, 2004, 14, 1.	6.7	247
12	A Microscopic and Spectroscopic Study of Interactions between Carbon Nanotubes and a Conjugated Polymer. Journal of Physical Chemistry B, 2002, 106, 2210-2216.	1.2	221
13	Phase Separation of Carbon Nanotubes and Turbostratic Graphite Using a Functional Organic Polymer. Advanced Materials, 2000, 12, 213-216.	11.1	185
14	Importance of Aromatic Content for Peptide/Single-Walled Carbon Nanotube Interactions. Journal of the American Chemical Society, 2005, 127, 12323-12328.	6.6	176
15	Are Carbon Nanotubes a Natural Solution? Applications in Biology and Medicine. ACS Applied Materials & Interfaces, 2013, 5, 1870-1891.	4.0	163
16	Diameter-Selective Solubilization of Single-Walled Carbon Nanotubes by Reversible Cyclic Peptides. Journal of the American Chemical Society, 2005, 127, 9512-9517.	6.6	157
17	Waterborne, Nanocomposite Pressure-Sensitive Adhesives with High Tack Energy, Optical Transparency, and Electrical Conductivity. Advanced Materials, 2006, 18, 2730-2734.	11.1	130
18	Selective Interaction in a Polymerâ^'Single-Wall Carbon Nanotube Composite. Journal of Physical Chemistry B, 2003, 107, 478-482.	1.2	128

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19	Highly Conducting Carbon Nanotube/Polyethyleneimine Composite Fibers. Advanced Materials, 2005, 17, 1064-1067.	11.1	120
20	Characterization of the Interaction of Gamma Cyclodextrin with Single-Walled Carbon Nanotubes. Nano Letters, 2003, 3, 843-846.	4.5	112
21	A soluble and highly functional polyanilineâ€"carbon nanotube composite. Nanotechnology, 2005, 16, S150-S154.	1.3	94
22	Physical Doping of a Conjugated Polymer with Carbon Nanotubes. Synthetic Metals, 1999, 102, 1174-1175.	2.1	93
23	Evolution and evaluation of the polymer/nanotube composite. Synthetic Metals, 1999, 103, 2559-2562.	2.1	92
24	Locking Carbon Nanotubes in Confined Lattice Geometries â˘ A Route to Low Percolation in Conducting Composites. Journal of Physical Chemistry B, 2011, 115, 6395-6400.	1.2	90
25	Effect of Electron-Donating and Electron-Withdrawing Groups on Peptide/Single-Walled Carbon Nanotube Interactions. Journal of the American Chemical Society, 2007, 129, 14724-14732.	6.6	87
26	Hierarchical Self-Assembly of Peptide-Coated Carbon Nanotubes. Advanced Functional Materials, 2004, 14, 1147-1151.	7.8	67
27	Direct x-ray detection with conjugated polymer devices. Applied Physics Letters, 2007, 91, .	1.5	67
28	Amphiphilic Helical Peptide Enhances the Uptake of Single-Walled Carbon Nanotubes by Living Cells. Experimental Biology and Medicine, 2007, 232, 1236-1244.	1.1	67
29	Ranking the affinity of aromatic residues for carbon nanotubes by using designed surfactant peptides. Journal of Peptide Science, 2008, 14, 139-151.	0.8	67
30	Microscopy studies of nanotube-conjugated polymer interactions. Synthetic Metals, 2001, 121, 1225-1226.	2.1	66
31	Influence of Acoustic Cavitation on the Controlled Ultrasonic Dispersion of Carbon Nanotubes. Journal of Physical Chemistry B, 2013, 117, 15141-15150.	1.2	60
32	Observation of site selective binding in a polymer nanotube composite. Journal of Materials Science Letters, 2000, 19, 2239-2241.	0.5	59
33	Carbon-Nanotube-Based Materials for Protein Crystallization. ACS Applied Materials & Interfaces, 2009, 1, 1203-1210.	4.0	59
34	Multifunctional Carbon Nanotube Composite Fibers. Advanced Engineering Materials, 2004, 6, 801-804.	1.6	57
35	Hexagonal Boron Nitride for Sulfur Corrosion Inhibition. ACS Nano, 2020, 14, 14809-14819.	7.3	56
36	Arbitrarily Shaped Fiber Assemblies from Spun Carbon Nanotube Gel Fibers. Advanced Functional Materials, 2007, 17, 2918-2924.	7.8	55

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37	A functional conjugated polymer to process, purify and selectively interact with single wall carbon nanotubes. Synthetic Metals, 2001, 121, 1217-1218.	2.1	52
38	Peptide cross-linking modulated stability and assembly of peptide-wrapped single-walled carbon nanotubes. Journal of Materials Chemistry, 2005, 15, 1734.	6.7	52
39	Optical Spectroscopy of Isolated and Aggregate Hexabenzocoronene Derivatives:Â A Study of Self-Assembling Molecular Nanowires. Journal of Physical Chemistry B, 2003, 107, 37-43.	1.2	49
40	Laser patterning of transparent conductive metal nanowire coatings: simulation and experiment. Nanoscale, 2014, 6, 946-952.	2.8	49
41	Mechanochromic and Thermochromic Sensors Based on Graphene Infused Polymer Opals. Advanced Functional Materials, 2020, 30, 2002473.	7.8	48
42	Structural Defects Modulate Electronic and Nanomechanical Properties of 2D Materials. ACS Nano, 2021, 15, 2520-2531.	7.3	46
43	Photoinduced charge transfer in poly(p-phenylene vinylene) derivatives and carbon nanotube/C60 composites. Physica B: Condensed Matter, 2003, 338, 366-369.	1.3	44
44	Exciton dynamics in single-walled nanotubes:â€ƒTransient photoinduced dichroism and polarized emission. Physical Review B, 2005, 71, .	1.1	44
45	The fine dispersion of functionalized carbon nanotubes in acrylic latex coatings. Progress in Organic Coatings, 2006, 57, 91-97.	1.9	44
46	Optical Absorption and Fluorescence of a Multi-walled Nanotube-Polymer Composite. Synthetic Metals, 1999, 102, 1176-1177.	2.1	40
47	Electron paramagnetic resonance as a quantitative tool for the study of multiwalled carbon nanotubes. Journal of Chemical Physics, 2000, 113, 9788-9793.	1.2	39
48	Controlling the optical properties of a conjugated co-polymer through variation of backbone isomerism and the introduction of carbon nanotubes. Journal of Photochemistry and Photobiology A: Chemistry, 2001, 144, 31-41.	2.0	39
49	Friction and Adhesion of Different Structural Defects of Graphene. ACS Applied Materials & Interfaces, 2018, 10, 44614-44623.	4.0	39
50	Complex nano-assemblies of polymers and carbon nanotubes. Nanotechnology, 2001, 12, 187-190.	1.3	38
51	Synthesis of SiC nanorods from sheets of single-walled carbon nanotubes. Chemical Physics Letters, 2002, 359, 397-402.	1.2	36
52	High performance transparent multi-touch sensors based on silver nanowires. Materials Today Communications, 2016, 7, 42-50.	0.9	36
53	Size selection of liquid-exfoliated 2D nanosheets. 2D Materials, 2019, 6, 031002.	2.0	36
54	A Molecular Mechanism for Toughening and Strengthening Waterborne Nanocomposites. Advanced Materials, 2008, 20, 90-94.	11.1	33

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55	Insulatorâ€Conductor Type Transitions in Grapheneâ€Modified Silver Nanowire Networks: A Route to Inexpensive Transparent Conductors. Advanced Functional Materials, 2014, 24, 7580-7587.	7.8	33
56	Considerations for spectroscopy of liquid-exfoliated 2D materials: emerging photoluminescence of N-methyl-2-pyrrolidone. Scientific Reports, 2017, 7, 16706.	1.6	33
57	Spontaneous Exfoliation of Single-Walled Carbon Nanotubes Dispersed Using a Designed Amphiphilic Peptide. Biomacromolecules, 2008, 9, 598-602.	2.6	32
58	Understanding Solvent Spreading for Langmuir Deposition of Nanomaterial Films: A Hansen Solubility Parameter Approach. Langmuir, 2017, 33, 14766-14771.	1.6	29
59	Importance of Molecular Friction in a Soft Polymerâˆ'Nanotube Nanocomposite. Macromolecules, 2008, 41, 7656-7661.	2.2	28
60	Spectroscopic investigation of conjugated polymer/single-walled carbon nanotube interactions. Chemical Physics Letters, 2001, 350, 27-32.	1.2	27
61	Electrochemically Tuned Properties for Electrolyteâ€Free Carbon Nanotube Sheets. Advanced Functional Materials, 2009, 19, 2266-2272.	7.8	27
62	Growth and Proliferation of Human Embryonic Stem Cells on Fully Synthetic Scaffolds Based on Carbon Nanotubes. ACS Applied Materials & Interfaces, 2014, 6, 2598-2603.	4.0	27
63	Primary Liver Cells Cultured on Carbon Nanotube Substrates for Liver Tissue Engineering and Drug Discovery Applications. ACS Applied Materials & Interfaces, 2014, 6, 10373-10380.	4.0	27
64	Largeâ€Scale Surfactant Exfoliation of Graphene and Conductivityâ€Optimized Graphite Enabling Wireless Connectivity. Advanced Materials Technologies, 2020, 5, 2000284.	3.0	27
65	Aligned, isotropic and patterned carbon nanotube substrates that control the growth and alignment of Chinese hamster ovary cells. Nanotechnology, 2011, 22, 205102.	1.3	26
66	Conjugated Polymer Nanoparticleâ€"Graphene Oxide Chargeâ€Transfer Complexes. Advanced Functional Materials, 2018, 28, 1707548.	7.8	26
67	Colloidâ€Assisted Selfâ€Assembly of Robust, Threeâ€Dimensional Networks of Carbon Nanotubes over Large Areas. Macromolecular Rapid Communications, 2010, 31, 609-615.	2.0	25
68	Multifunctional, biocompatible and pH-responsive carbon nanotube- and graphene oxide/tectomer hybrid composites and coatings. Nanoscale, 2017, 9, 7791-7804.	2.8	24
69	Density controlled conductivity of pristine graphene films. Carbon, 2013, 64, 435-443.	5.4	22
70	Predicting the optoelectronic properties of nanowire films based on control of length polydispersity. Scientific Reports, 2016, 6, 25365.	1.6	22
71	Silver Nanowires on Carbon Nanotube Aerogel Sheets for Flexible, Transparent Electrodes. ACS Applied Materials & Interfaces, 2019, 11, 32235-32243.	4.0	22
72	Cobalt-Based Superparamagnetic Nanorings. Nano Letters, 2004, 4, 1365-1371.	4.5	21

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73	Atomic Layers of Graphene for Microbial Corrosion Prevention. ACS Nano, 2021, 15, 447-454.	7.3	20
74	Systematic trends in the synthesis of (meta-phenylene vinylene) copolymers. Synthetic Metals, 2001, 119, 151-152.	2.1	18
75	Graphene-based printable conductors for cyclable strain sensors on elastomeric substrates. Carbon, 2020, 169, 25-31.	5.4	18
76	Measurement of nanotube content in pyrolytically generated carbon soot. Chemical Communications, 2000, , 2001-2002.	2.2	17
77	Biophysical interactions between pancreatic cancer cells and pristine carbon nanotube substrates: Potential application for pancreatic cancer tissue engineering. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 1637-1644.	1.6	17
78	Two-Dimensional, pH-Responsive Oligoglycine-Based Nanocarriers. ACS Applied Materials & Interfaces, 2016, 8, 1913-1921.	4.0	16
79	Graphene Confers Ultralow Friction on Nanogear Cogs. Small, 2021, 17, 2104487.	5.2	16
80	Polyazomethine/carbon nanotube composites. Materials Science and Engineering C, 2006, 26, 1198-1201.	3.8	15
81	Functional liquid structures by emulsification of graphene and other two-dimensional nanomaterials. Nanoscale, 2018, 10, 1582-1586.	2.8	15
82	Ultrasensitive Strain Gauges Enabled by Grapheneâ€Stabilized Silicone Emulsions. Advanced Functional Materials, 2020, 30, 2002433.	7.8	15
83	Controlled physical properties and growth mechanism of manganese silicide nanorods. Journal of Alloys and Compounds, 2021, 851, 156693.	2.8	14
84	Solubility and purity of nanotubes in arc discharge carbon powder. Synthetic Metals, 2001, 121, 1229-1230.	2.1	13
85	Carbon nanotubes buckypaper radiation studies for medical physics applications. Applied Radiation and Isotopes, 2016, 117, 106-110.	0.7	13
86	Pristine carbon nanotube scaffolds for the growth of chondrocytes. Journal of Materials Chemistry B, 2017, 5, 8178-8182.	2.9	13
87	Percolating Metallic Structures Templated on Laser-Deposited Carbon Nanofoams Derived from Graphene Oxide: Applications in Humidity Sensing. ACS Applied Nano Materials, 2018, 1, 1828-1835.	2.4	12
88	Selective Mechanical Transfer Deposition of Langmuir Graphene Films for High-Performance Silver Nanowire Hybrid Electrodes. Langmuir, 2017, 33, 12038-12045.	1.6	11
89	Laser-Based Texturing of Graphene to Locally Tune Electrical Potential and Surface Chemistry. ACS Omega, 2018, 3, 17000-17009.	1.6	11
90	Edge-Selective Gas Detection Using Langmuir Films of Graphene Platelets. ACS Applied Materials & Interfaces, 2018, 10, 21740-21745.	4.0	11

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91	Raman Metrics for Molybdenum Disulfide and Graphene Enable Statistical Mapping of Nanosheet Populations. Chemistry of Materials, 2020, 32, 6213-6221.	3.2	11
92	Finite-size scaling in silver nanowire films: design considerations for practical devices. Nanoscale, 2016, 8, 13701-13707.	2.8	9
93	Charge Transfer Hybrids of Graphene Oxide and the Intrinsically Microporous Polymer PIM-1. ACS Applied Materials & Interfaces, 2019, 11, 31191-31199.	4.0	9
94	Polymer of Intrinsic Microporosity (PIMâ€7) Coating Affects Triphasic Palladium Electrocatalysis. ChemElectroChem, 2019, 6, 4307-4317.	1.7	9
95	Importance of Capillary Forces in the Assembly of Carbon Nanotubes in a Polymer Colloid Lattice. Langmuir, 2012, 28, 8266-8274.	1.6	8
96	Nanosheet-Stabilized Emulsions: Near-Minimum Loading and Surface Energy Design of Conductive Networks. ACS Nano, 2022, 16, 1963-1973.	7.3	8
97	Enhanced Thermal Actuation in Thin Polymer Films Through Particle Nanoâ€Squeezing by Carbon Nanotube Belts. Advanced Materials, 2010, 22, 5310-5314.	11.1	7
98	Functionalization of Silver Nanowire Transparent Electrodes with Self-Assembled 2-Dimensional Tectomer Nanosheets. ACS Applied Nano Materials, 2018, 1, 3903-3912.	2.4	7
99	Free-Standing Graphene Oxide and Carbon Nanotube Hybrid Papers with Enhanced Electrical and Mechanical Performance and Their Synergy in Polymer Laminates. International Journal of Molecular Sciences, 2020, 21, 8585.	1.8	7
100	Laser-Deposited Carbon Aerogel Derived from Graphene Oxide Enables NO₂-Selective Parts-per-Billion Sensing. ACS Applied Materials & Interfaces, 2020, 12, 39541-39548.	4.0	7
101	Surfactant-free liquid-exfoliated copper hydroxide nanocuboids for non-enzymatic electrochemical glucose detection. Journal of Materials Chemistry B, 2020, 8, 7733-7739.	2.9	7
102	A Composite from Poly(m-phenylenevinylene-co-2,5-dioctoxy-p-phenylenevinylene) and Carbon Nanotubes: A Novel Material for Molecular Optoelectronics. Advanced Materials, 1998, 10, 1091-1093.	11.1	7
103	Radiation exposure in pediatric patients during micturating cystourethrography procedures. Applied Radiation and Isotopes, 2016, 117, 36-41.	0.7	6
104	Flexible, Air-Stable, High-Performance Heaters Based on Nanoscale-Thick Graphite Films. ACS Applied Materials & Interfaces, 2022, 14, 17899-17910.	4.0	6
105	Ultrafast exciton dynamics in isolated single-walled nanotubes. Synthetic Metals, 2005, 155, 254-257.	2.1	5
106	Nanotechnology meets bubbleology. Nature Nanotechnology, 2007, 2, 339-340.	15.6	5
107	Regenerated Silk and Carbon Nanotubes Dough as Masterbatch for High Content Filled Nanocomposites. Frontiers in Materials, 2019, 6, .	1.2	5
108	Cellâ€"Substrate Interactions Lead to Internalization and Localization of Layered MoS₂ Nanosheets. ACS Applied Nano Materials, 2021, 4, 2002-2010.	2.4	5

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109	Observation and identification of the molecular triplet in C60 thin films. Chemical Physics Letters, 2001, 345, 361-366.	1.2	4
110	Sonochemical edge functionalisation of molybdenum disulfide. Nanoscale, 2019, 11, 15550-15560.	2.8	4
111	AFM and Raman study of graphene deposited on silicon surfaces nanostructured by ion beam irradiation. Journal of Microscopy, 2020, 280, 183-193.	0.8	4
112	Size selection and thin-film assembly of MoS₂ elucidates thousandfold conductivity enhancement in few-layer nanosheet networks. Nanoscale, 2022, 14, 320-324.	2.8	4
113	Tuneable synthetic reduced graphene oxide scaffolds elicit high levels of three-dimensional glioblastoma interconnectivity <i>in vitro</i>. Journal of Materials Chemistry B, 2022, 10, 373-383.	2.9	4
114	Spectroscopic characterisation of the C60 photo-polymer produced from solution. Synthetic Metals, 2001, 121, 1111-1112.	2.1	3
115	Assessment of patient dose and radiogenic risks during endoscopic retrograde cholangiopancreatography. Applied Radiation and Isotopes, 2016, 117, 65-69.	0.7	3
116	Carbon Nanofoam Supercapacitor Electrodes with Enhanced Performance Using a Water-Transfer Process. ACS Omega, 2018, 3, 15134-15139.	1.6	3
117	Pyrene-functionalized tungsten disulfide as stable resistive photosensor. Materials Advances, 2020, 1, 2459-2466.	2.6	3
118	Extreme downsizing of spin crossover nanoparticles towards stable colloids in water: a detailed nano-topographic study. Journal of Materials Chemistry C, 2021, 9, 15671-15682.	2.7	3
119	Solvent effects on the luminescent properties of conjugated molecules. Synthetic Metals, 2001, 119, 555-556.	2.1	2
120	Configurational Effects on Strain and Doping at Graphene-Silver Nanowire Interfaces. Applied Sciences (Switzerland), 2020, 10, 5157.	1.3	2
121	Langmuir Films of Layered Nanomaterials: Edge Interactions and Cell Culture Applications. Journal of Physical Chemistry B, 2020, 124, 7184-7193.	1.2	2
122	Spectroscopic and structural analysis of precursors to hexagonal close packed phases in C60 thin films. Synthetic Metals, 2001, 121, 1145-1146.	2.1	1
123	Isomerism and inter-chain effects in a semi-conjugated co-polymer, poly(m-phenylenevinylene-co-2,5-dioctyloxy-p-phenylenevinylene). Synthetic Metals, 2001, 119, 557-558.	2.1	1
124	Single-wall carbon nanotubes as templates for organic molecules. , 2003, , .		1
125	Ultrafast spectroscopy of excitons in semiconducting carbon nanotubes. , 2005, , .		1
126	Purity and Solubility of Nanotubes in Arc Discharge Carbon Powder. Materials Research Society Symposia Proceedings, 2000, 633, 1361.	0.1	0

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127	<title>Purification and processing of carbon nanotubes using self-assembly and selective interaction with a semiconjugated polymer</title>. , 2001, 4468, 112.		0
128	Physical interactions between HiPco SWNTs and semiconjugated polymers. , 2003, 4876, 723.		0
129	Optical spectroscopy of single-molecule and aggregate hexabenzocoronene derivatives. , 2003, , .		0
130	Spectroscopic analysis of the intermolecular interactions of gamma cyclodextrin and carbon nanotubes. , 2003, , .		0
131	Electronic transfer studies of fullerene/polymer hybrids. , 2003, , .		0
132	Excited state properties of C 60 revisited: a Raman study. , 2003, , .		0
133	Mechanical properties of hybrid polymer nanotube systems. , 2003, , .		0
134	AFM Measurements of Long, Isolated Single-Walled Carbon Nanotubes Wrapped with Peptide. Microscopy and Microanalysis, 2004, 10, 138-139.	0.2	0
135	Conjugated polymer infiltrated silica opals and the effect of nano-confinement on the luminescent spectra. , 2005, , .		0
136	Electronic carbon-nanotube-based materials for protein crystallization. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s294-s294.	0.3	0
137	Transparent Conductors: Insulatorâ€Conductor Type Transitions in Grapheneâ€Modified Silver Nanowire Networks: A Route to Inexpensive Transparent Conductors (Adv. Funct. Mater. 48/2014). Advanced Functional Materials, 2014, 24, 7562-7562.	7.8	0
138	Carbon nanotubes: a promising tissue engineering approach for in vitro cultivation & differentiation of primary canine articular chondrocytes. BMC Musculoskeletal Disorders, 2015, 16, .	0.8	0
139	Surface-Field Terahertz Emission Enhancement via 2D-Materials. , 2019, , .		0
140	LANGMUIR-BLODGETT FILMS BASED ON SUPERHYDROPHOBIC SOOT. Series Chemistry and Technology, 2020, 4, 30-36.	0.1	0