Jeffrey A Fagan

List of Publications by Year
in descending order

93 papers	4,107 citations	94433 37 h-index	118850 62 g-index
95 all docs	95 docs citations	95 times ranked	4587 citing authors

#	Article	IF	Citations
1	Spontaneous Partition of Carbon Nanotubes in Polymer-Modified Aqueous Phases. Journal of the American Chemical Society, 2013, 135, 6822-6825.	13.7	292
2	Comparison of the Quality of Aqueous Dispersions of Single Wall Carbon Nanotubes Using Surfactants and Biomolecules. Langmuir, 2008, 24, 5070-5078.	3.5	225
3	Isolation of Specific Smallâ€Diameter Singleâ€Wall Carbon Nanotube Species via Aqueous Twoâ€Phase Extraction. Advanced Materials, 2014, 26, 2800-2804.	21.0	215
4	Relationship between dispersion metric and properties of PMMA/SWNT nanocomposites. Polymer, 2007, 48, 4855-4866.	3.8	162
5	Length Fractionation of Carbon Nanotubes Using Centrifugation. Advanced Materials, 2008, 20, 1609-1613.	21.0	160
6	Differentiating Left- and Right-Handed Carbon Nanotubes by DNA. Journal of the American Chemical Society, 2016, 138, 16677-16685.	13.7	160
7	Length-Dependent Optical Effects in Single-Wall Carbon Nanotubes. Journal of the American Chemical Society, 2007, 129, 10607-10612.	13.7	138
8	Isolation of >1 nm Diameter Single-Wall Carbon Nanotube Species Using Aqueous Two-Phase Extraction. ACS Nano, 2015, 9, 5377-5390.	14.6	137
9	Influence of Nanotube Length on the Optical and Conductivity Properties of Thin Single-Wall Carbon Nanotube Networks. ACS Nano, 2008, 2, 1879-1884.	14.6	121
10	Quantification of Carbon Nanotubes in Environmental Matrices: Current Capabilities, Case Studies, and Future Prospects. Environmental Science & Technology, 2016, 50, 4587-4605.	10.0	104
11	DNA-directed nanofabrication of high-performance carbon nanotube field-effect transistors. Science, 2020, 368, 878-881.	12.6	99
12	Precise pitch-scaling of carbon nanotube arrays within three-dimensional DNA nanotrenches. Science, 2020, 368, 874-877.	12.6	97
13	Measuring Agglomerate Size Distribution and Dependence of Localized Surface Plasmon Resonance Absorbance on Gold Nanoparticle Agglomerate Size Using Analytical Ultracentrifugation. ACS Nano, 2011, 5, 8070-8079.	14.6	96
14	Redox Sorting of Carbon Nanotubes. Nano Letters, 2015, 15, 1642-1646.	9.1	85
15	Analyzing Surfactant Structures on Length and Chirality Resolved (6,5) Single-Wall Carbon Nanotubes by Analytical Ultracentrifugation. ACS Nano, 2013, 7, 3373-3387.	14.6	82
16	Centrifugal Length Separation of Carbon Nanotubes. Langmuir, 2008, 24, 13880-13889.	3.5	81
17	Size Separation of Single-Wall Carbon Nanotubes by Flow-Field Flow Fractionation. Analytical Chemistry, 2008, 80, 2514-2523.	6.5	78
18	Separation of Specific Single-Enantiomer Single-Wall Carbon Nanotubes in the Large-Diameter Regime. ACS Nano, 2020, 14, 948-963.	14.6	75

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19	Evidence of Multiple Electrohydrodynamic Forces Acting on a Colloidal Particle near an Electrode Due to an Alternating Current Electric Field. Langmuir, 2005, 21, 1784-1794.	3.5	71
20	A Multilaboratory Comparison of Calibration Accuracy and the Performance of External References in Analytical Ultracentrifugation. PLoS ONE, 2015, 10, e0126420.	2.5	71
21	Nanoparticle Manufacturing â€“ Heterogeneity through Processes to Products. ACS Applied Nano Materials, 2018, 1, 4358-4385.	5.0	68
22	Separation of Empty and Water-Filled Single-Wall Carbon Nanotubes. ACS Nano, 2011, 5, 3943-3953.	14.6	65
23	Tailored Distribution of Single-Wall Carbon Nanotubes from Arc Plasma Synthesis Using Magnetic Fields. ACS Nano, 2010, 4, 5187-5192.	14.6	60
24	Aqueous two-polymer phase extraction of single-wall carbon nanotubes using surfactants. Nanoscale Advances, 2019, 1, 3307-3324.	4.6	58
25	Vertical Motion of a Charged Colloidal Particle near an AC Polarized Electrode with a Nonuniform Potential Distribution:Â Theory and Experimental Evidence. Langmuir, 2004, 20, 4823-4834.	3.5	57
26	Measurement of Single-Wall Nanotube Dispersion by Size Exclusion Chromatographyâ€. Journal of Physical Chemistry C, 2007, 111, 17914-17918.	3.1	51
27	High-Resolution Length Fractionation of Surfactant-Dispersed Carbon Nanotubes. Analytical Chemistry, 2013, 85, 1382-1388.	6.5	51
28	Enhancing single-wall carbon nanotube properties through controlled endohedral filling. Nanoscale Horizons, 2016, 1, 317-324.	8.0	50
29	Vertical Oscillatory Motion of a Single Colloidal Particle Adjacent to an Electrode in an ac Electric Field. Langmuir, 2002, 18, 7810-7820.	3.5	48
30	Intensity Ratio of Resonant Raman Modes for (<i>n</i>,<i>m</i>) Enriched Semiconducting Carbon Nanotubes. ACS Nano, 2016, 10, 5252-5259.	14.6	48
31	Single-Step Total Fractionation of Single-Wall Carbon Nanotubes by Countercurrent Chromatography. Analytical Chemistry, 2014, 86, 3980-3984.	6.5	47
32	Electronic Durability of Flexible Transparent Films from Type-Specific Single-Wall Carbon Nanotubes. ACS Nano, 2012, 6, 881-887.	14.6	45
33	Carbon Nanotubes: Measuring Dispersion and Length. Advanced Materials, 2011, 23, 338-348.	21.0	44
34	Bright Silicon Nanocrystals from a Liquid Precursor: Quasi-Direct Recombination with High Quantum Yield. ACS Nano, 2020, 14, 3858-3867.	14.6	43
35	Mechanism of Rectified Lateral Motion of Particles near Electrodes in Alternating Electric Fields below 1 kHz. Langmuir, 2006, 22, 9846-9852.	3.5	42
36	Rod Hydrodynamics and Length Distributions of Single-Wall Carbon Nanotubes Using Analytical Ultracentrifugation. Langmuir, 2014, 30, 4895-4904.	3.5	40

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37	A Low Energy Route to DNA-Wrapped Carbon Nanotubes via Replacement of Bile Salt Surfactants. Analytical Chemistry, 2017, 89, 10496-10503.	6.5	40
38	Chromatographic Fractionation of SWNT/DNA Dispersions with On-Line Multi-Angle Light Scattering. Journal of Physical Chemistry C, 2008, 112, 1842-1850.	3.1	39
39	Waterâ€Soluble DNAâ€Wrapped Singleâ€Walled Carbonâ€Nanotube/Quantumâ€Dot Complexes. Small, 2009, 5, 2149-2155.	10.0	38
40	A facile and low-cost length sorting of single-wall carbon nanotubes by precipitation and applications for thin-film transistors. Nanoscale, 2016, 8, 3467-3473.	5.6	32
41	Elasticity and rigidity percolation in flexible carbon nanotube films on PDMS substrates. Soft Matter, 2013, 9, 11568.	2.7	31
42	Nature of Record Efficiency Fluid-Processed Nanotubeâ€"Silicon Heterojunctions. Journal of Physical Chemistry C, 2015, 119, 10295-10303.	3.1	31
43	Impact of SWCNT processing on nanotube-silicon heterojunctions. Nanoscale, 2016, 8, 7969-7977.	5.6	29
44	Salt-specific effects in aqueous dispersions of carbon nanotubes. Soft Matter, 2013, 9, 3712.	2.7	28
45	Size and density measurement of coreâ€"shell Si nanoparticles by analytical ultracentrifugation. Nanotechnology, 2013, 24, 155701.	2.6	27
46	Microscale Polymerâ^'Nanotube Composites. ACS Applied Materials & Interfaces, 2009, 1, 1561-1566.	8.0	25
47	Self-Assembly of Ordered Nanowires in Biological Suspensions of Single-Wall Carbon Nanotubes. ACS Nano, 2009, 3, 189-196.	14.6	24
48	Asymmetric excitation profiles in the resonance Raman response of armchair carbon nanotubes. Physical Review B, 2015, 91, .	3.2	24
49	Optical Property Tuning of Single-Wall Carbon Nanotubes by Endohedral Encapsulation of a Wide Variety of Dielectric Molecules. ACS Nano, 2021, 15, 2301-2317.	14.6	24
50	Concentration Measurement of Length-Fractionated Colloidal Single-Wall Carbon Nanotubes. Analytical Chemistry, 2012, 84, 8733-8739.	6.5	22
51	Selective filling of n-hexane in a tight nanopore. Nature Communications, 2021, 12, 310.	12.8	21
52	Phonon dephasing and population decay dynamics of the G-band of semiconducting single-wall carbon nanotubes. Physical Review B, 2010, 82, .	3.2	20
53	Characterizing the Effect of Salt and Surfactant Concentration on the Counterion Atmosphere around Surfactant Stabilized SWCNTs Using Analytical Ultracentrifugation. Langmuir, 2016, 32, 3926-3936.	3.5	20
54	Structural Stability of Transparent Conducting Films Assembled from Length Purified Single-Wall Carbon Nanotubes. Journal of Physical Chemistry C, 2011, 115, 3973-3981.	3.1	19

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55	Self-assembly and soluble aggregate behavior of computationally designed coiled-coil peptide bundles. Soft Matter, 2018, 14, 5488-5496.	2.7	19
56	Separation and Characterization of Double-Wall Carbon Nanotube Subpopulations. Journal of Physical Chemistry C, 2010, 114, 11343-11351.	3.1	18
57	Global Alignment of Solution-Based Single-Wall Carbon Nanotube Films via Machine-Vision Controlled Filtration. Nano Letters, 2019, 19, 7256-7264.	9.1	18
58	Calculation of ac Electric Field Effects on the Average Height of a Charged Colloid:Â Effects of Electrophoretic and Brownian Motions. Langmuir, 2003, 19, 6627-6632.	3.5	17
59	Determination of moisture content of single-wall carbon nanotubes. Analytical and Bioanalytical Chemistry, 2012, 402, 429-438.	3.7	17
60	Versailles project on advanced materials and standards (VAMAS) interlaboratory study on measuring the number concentration of colloidal gold nanoparticles. Nanoscale, 2022, 14, 4690-4704.	5.6	15
61	Brightly Luminescent CsPbBr₃ Nanocrystals through Ultracentrifugation. Journal of Physical Chemistry Letters, 2020, 11, 7133-7140.	4.6	13
62	Near-infrared fluorescence as a method for determining single-wall carbon nanotube extraction conditions in aqueous two polymer phase extraction. Carbon, 2020, 165, 196-203.	10.3	12
63	Surfactant chemistry and polymer choice affect single-wall carbon nanotube extraction conditions in aqueous two-polymer phase extraction. Carbon, 2022, 191, 215-226.	10.3	12
64	Analysis of Hydrogen Trapping in Palladium by Modulated Permeation Spectroscopy. Journal of the Electrochemical Society, 2000, 147, 3456.	2.9	11
65	Effects of gamma irradiation for sterilization on aqueous dispersions of length sorted carbon nanotubes. Nano Research, 2011, 4, 393-404.	10.4	11
66	Alkane Encapsulation Induces Strain in Small-Diameter Single-Wall Carbon Nanotubes. Journal of Physical Chemistry C, 2018, 122, 11577-11585.	3.1	11
67	SPR imaging study of DNA wrapped single wall carbon nanotube (ssDNA-SWCNT) adsorption on a model biological (collagen) substrate. Soft Matter, 2010, 6, 5581.	2.7	9
68	Use of neutron activation analysis for the characterization of single-wall carbon nanotube materials. Journal of Radioanalytical and Nuclear Chemistry, 2012, 291, 561-567.	1.5	9
69	Structural insights into DNA-stabilized silver clusters. Soft Matter, 2019, 15, 4284-4293.	2.7	9
70	A radial calibration window for analytical ultracentrifugation. PLoS ONE, 2018, 13, e0201529.	2.5	8
71	Diameter dependence of TO phonon frequencies and the Kohn anomaly in armchair single-wall carbon nanotubes. Physical Review B, 2014, 90, .	3.2	5
72	Dependence of Singleâ€Wall Carbon Nanotube Alignment on the Filter Membrane Interface in Slow Vacuum Filtration. Small, 2022, 18, e2105619.	10.0	5

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73	Effect of Sorted Metallic and Semiconducting Single-Walled Carbon Nanotubes on LiFePO₄Cathode Material for Lithium Ion Batteries. ECS Transactions, 2017, 80, 267-274.	0.5	4
74	Defect Evolution of Ion-Exposed Single-Wall Carbon Nanotubes. Journal of Physical Chemistry C, 2019, 123, 2496-2505.	3.1	4
75	Improved Electrophoretic Deposition of Vertical Single Wall Carbon Nanotubes with Nanoscopic Electrostatic Lenses. Micromachines, 2020, 11, 324.	2.9	4
76	Colloid-like solution behavior of computationally designed coiled coil bundlemers. Journal of Colloid and Interface Science, 2022, 606, 1974-1982.	9.4	3
77	Computational Design of Homotetrameric Peptide Bundle Variants Spanning a Wide Range of Charge States. Biomacromolecules, 2022, 23, 1652-1661.	5.4	3
78	Polyvinyl acetate-based polymer host for optical and far-infrared spectroscopy of individualized nanoparticles. Journal of Applied Physics, 2021, 129, 034701.	2.5	2
79	Tuning Net Charge in Aliphatic Polycarbonates Alters Solubility and Protein Complexation Behavior. ACS Omega, 2021, 6, 22589-22602.	3.5	2
80	Chromatographic Separation of Single Wall Carbon Nanotubes. Materials Research Society Symposia Proceedings, 2006, 922, 1.	0.1	1
81	Methods for TEM analysis of NIST's single-walled carbon nanotube Standard Reference Material. Proceedings of SPIE, 2009, , .	0.8	1
82	(Invited) Controlling the Inner Dielectric Environment of Carbon Nanotubes to Tune Their Optical Properties. ECS Meeting Abstracts, 2019, , .	0.0	1
83	Carbon Nanomaterials Standards Efforts at NIST. ECS Transactions, 2009, 19, 153-159.	0.5	0
84	(Invited) Determining Surfactant Concentrations for Separation of (n,m) Chirality Swcnts in ATPE via Fluorescence Detection. ECS Meeting Abstracts, 2021, MA2021-01, 544-544.	0.0	0
85	(Invited) Molecularly Selective Filling of a Tight Nanotube Pore. ECS Meeting Abstracts, 2021, MA2021-01, 590-590.	0.0	0
86	(Invited) Modulation of Nanotube Optical Properties By Controlling the Dielectric Environment inside of Single-Wall Carbon Nanotubes. ECS Meeting Abstracts, 2017, , .	0.0	0
87	Effect of Sorted Single-Walled Carbon Nanotubes on Rate Capability of Lithium-Ion Battery Cathodes. ECS Meeting Abstracts, 2017, , .	0.0	0
88	(Invited) Endohedral Filling Effects for Single-Wall Carbon Nanotubes As a Function of Filler Molecule and Nanotube Size. ECS Meeting Abstracts, 2018, , .	0.0	0
89	Performance Study of Free-Standing Cathode Made with LiFePO4 and Sorted Single-Walled Carbon Nanotubes Composite Material. ECS Meeting Abstracts, 2018, , .	0.0	0
90	(Invited) Purification Using Atpe to Single (n,m) Species in the Large Diameter Single-Wall Carbon Nanotube Limit. ECS Meeting Abstracts, 2019, , .	0.0	0

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91	(Invited) DNA-Directed High-Precision Assembly of CNT FETs. ECS Meeting Abstracts, 2020, MA2020-01, 685-685.	0.0	0
92	(Invited) Determining SWCNT Partition Conditions in Aqueous Two-Polymer Phase Extraction Via Near-Infrared Fluorescence Spectroscopy. ECS Meeting Abstracts, 2020, MA2020-01, 665-665.	0.0	0
93	(Invited, Digital Presentation) Determining Surfactant Layer Composition on an (n,m) SWCNT at Extraction Conditions in Aqueous Two-Phase Extraction. ECS Meeting Abstracts, 2022, MA2022-01, 735-735.	0.0	0