Kirk J Ziegler

List of Publications by Year
in descending order

74 papers	3,539 citations	136950 32 h-index	133252 59 g-index
74 all docs	74 docs citations	74 times ranked	4914 citing authors

#	Article	IF	Citations
1	Iron nanoparticle surface treatment of carbon nanotubes to increase fatigue strength of steel composites. Nanocomposites, 2021, 7, 132-140.	4.2	3
2	Resistivity of mesopore-confined ionic liquid determined by electrochemical impedance spectroscopy. Electrochimica Acta, 2021, 378, 138112.	5.2	1
3	Isolation of competing morphological patterns during microfluidic electrodeposition: Experimental confirmation of theory. Electrochimica Acta, 2021, 398, 139205.	5.2	1
4	On the rate capability of supercapacitors characterized by a constant-phase element. Journal of Power Sources, 2021, 516, 230700.	7.8	4
5	Relationship between ethane and ethylene diffusion inside ZIF-11 crystals confined in polymers to form mixed-matrix membranes. Journal of Membrane Science, 2020, 593, 117440.	8.2	23
6	Single step bonding of thick anodized aluminum oxide templates to silicon wafers for enhanced system-on-a-chip performance. Journal of Power Sources, 2020, 474, 228643.	7.8	8
7	Ethylene diffusion in crystals of zeolitic imidazole Framework-11 embedded in polymers to form mixed-matrix membranes. Microporous and Mesoporous Materials, 2019, 274, 163-170.	4.4	17
8	Radio frequency heating of metallic and semiconducting single-walled carbon nanotubes. Nanoscale, 2019, 11, 9617-9625.	5.6	22
9	Possible role of molecular clustering in single-file diffusion of mixed and pure gases in dipeptide nanochannels. Microporous and Mesoporous Materials, 2018, 269, 83-87.	4.4	3
10	Controlling the Geometries of Si Nanowires through Tunable Nanosphere Lithography. ACS Applied Materials & Interfaces, 2017, 9, 7368-7375.	8.0	13
11	Strongly Bound Sodium Dodecyl Sulfate Surrounding Single-Wall Carbon Nanotubes. Langmuir, 2017, 33, 5006-5014.	3.5	26
12	Microscopic diffusion of pure and mixed methane and carbon dioxide in ZIF-11 by high field diffusion NMR. Microporous and Mesoporous Materials, 2017, 248, 158-163.	4.4	22
13	Boiling and quenching heat transfer advancement by nanoscale surface modification. Scientific Reports, 2017, 7, 6117.	3.3	39
14	A facile route to prepare reflective counter electrode for enhanced dye-sensitised solar cell efficiency. International Journal of Nano and Biomaterials, 2016, 6, 205.	0.1	0
15	Self-diffusion of heptane inside aggregates of porous alumina particles by pulsed field gradient NMR. Microporous and Mesoporous Materials, 2016, 229, 117-123.	4.4	12
16	Balancing surface area with electron recombination in nanowire-based dye-sensitized solar cells. Solar Energy, 2016, 132, 214-220.	6.1	15
17	Single-File Diffusion of Gas Mixtures in Nanochannels of the Dipeptide <scp>l</scp>-Ala-<scp>l</scp>-Val: High-Field Diffusion NMR Study. Journal of Physical Chemistry C, 2016, 120, 9914-9919.	3.1	9
18	Fabricating vertically aligned sub-20 nm Si nanowire arrays by chemical etching and thermal oxidation. Nanotechnology, 2016, 27, 165303.	2.6	15

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19	Selective desorption of high-purity (6,5) SWCNTs from hydrogels through surfactant modulation. Chemical Communications, 2016, 52, 2928-2931.	4.1	42
20	Improving Performance via Blocking Layers in Dye-Sensitized Solar Cells Based on Nanowire Photoanodes. ACS Applied Materials & Interfaces, 2015, 7, 12824-12831.	8.0	49
21	Controlled synthesis of tin-doped indium oxide (ITO) nanowires. Journal of Crystal Growth, 2015, 413, 31-36.	1.5	29
22	Unique Toxicological Behavior from Single-Wall Carbon Nanotubes Separated via Selective Adsorption on Hydrogels. Environmental Science & Technology, 2015, 49, 3913-3921.	10.0	10
23	Relationship between single-file diffusion of mixed and pure gases in dipeptide nanochannels by high field diffusion NMR. Chemical Communications, 2015, 51, 13346-13349.	4.1	9
24	Modification and enhancement of cryogenic quenching heat transfer by a nanoporous surface. International Journal of Heat and Mass Transfer, 2015, 80, 636-643.	4.8	51
25	Tin-Doped Indium Oxide-Titania Core-Shell Nanostructures for Dye-Sensitized Solar Cells. Advances in Condensed Matter Physics, 2014, 2014, 1-6.	1.1	8
26	Comparing Electron Recombination via Interfacial Modifications in Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 20978-20984.	8.0	41
27	Evaluation of Critical Parameters in the Separation of Single-Wall Carbon Nanotubes through Selective Adsorption onto Hydrogels. Journal of Physical Chemistry C, 2014, 118, 15495-15505.	3.1	18
28	Interactive Forces between Sodium Dodecyl Sulfate-Suspended Single-Walled Carbon Nanotubes and Agarose Gels. Journal of the American Chemical Society, 2013, 135, 17758-17767.	13.7	45
29	Mitigation of the impact of single-walled carbon nanotubes on a freshwater green algae:<i>Pseudokirchneriella subcapitata</i>. Nanotoxicology, 2012, 6, 161-172.	3.0	34
30	Conductive nanowires coated with a semiconductive shell as the photoanode in dye-sensitised solar cells. International Journal of Nano and Biomaterials, 2012, 4, 196.	0.1	3
31	Aqueous suspension methods of carbonâ€based nanomaterials and biological effects on model aquatic organisms. Environmental Toxicology and Chemistry, 2012, 31, 210-214.	4.3	22
32	Direct Fabrication of High-Aspect Ratio Anodic Aluminum Oxide with Continuous Pores on Conductive Glass. Journal of the Electrochemical Society, 2011, 158, E1.	2.9	19
33	A Mechanistic Study of the Selective Retention of SDS-Suspended Single-Wall Carbon Nanotubes on Agarose Gels. Journal of Physical Chemistry C, 2011, 115, 9361-9369.	3.1	43
34	Swelling the Hydrophobic Core of Surfactant-Suspended Single-Walled Carbon Nanotubes: A SANS Study. Langmuir, 2011, 27, 11372-11380.	3.5	14
35	An Interfacial and Bulk Charge Transport Model for Dye-Sensitized Solar Cells Based on Photoanodes Consisting of Coreâ€“Shell Nanowire Arrays. Journal of the American Chemical Society, 2011, 133, 18663-18672.	13.7	32
36	High mobility of SDBS-dispersed single-walled carbon nanotubes in saturated and unsaturated porous media. Journal of Hazardous Materials, 2011, 186, 1766-1772.	12.4	95

#	ARTICLE	IF	CITATIONS
37	Preparing thick, defect-free films of anatase titania for dye-sensitized solar cells. Thin Solid Films, 2011, 519, 6598-6604.	1.8	6
38	Transport of engineered nanoparticles in saturated porous media. Journal of Nanoparticle Research, 2010, 12, 2371-2380.	1.9	173
39	Eliminating Capillary Coalescence of Nanowire Arrays with Applied Electric Fields. ACS Applied Materials & Interfaces, 2010, 2, 1992-1998.	8.0	52
40	Solvatochromic shifts of single-walled carbon nanotubes in nonpolar microenvironments. Physical Chemistry Chemical Physics, 2010, 12, 6990.	2.8	72
41	Electron-induced cutting of single-walled carbon nanotubes. Carbon, 2009, 47, 178-185.	10.3	28
42	Alignment and Morphology Control of Ordered Mesoporous Silicas in Anodic Aluminum Oxide Channels by Electrophoretic Deposition. Chemistry of Materials, 2009, 21, 1841-1846.	6.7	17
43	Coating Individual Single-Walled Carbon Nanotubes with Nylon 6,10 through Emulsion Polymerization. ACS Applied Materials & Interfaces, 2009, 1, 1821-1826.	8.0	19
44	Single step synthesis of Geâ€"SiOx core-shell heterostructured nanowires. Journal of Materials Chemistry, 2009, 19, 954.	6.7	13
45	Long-Term Improvements to Photoluminescence and Dispersion Stability by Flowing SDS-SWNT Suspensions through Microfluidic Channels. Journal of the American Chemical Society, 2009, 131, 12721-12728.	13.7	23
46	Improving the Effectiveness of Interfacial Trapping in Removing Single-Walled Carbon Nanotube Bundles. Journal of the American Chemical Society, 2008, 130, 14721-14728.	13.7	40
47	Swelling the Micelle Core Surrounding Single-Walled Carbon Nanotubes with Water-Immiscible Organic Solvents. Journal of the American Chemical Society, 2008, 130, 16330-16337.	13.7	59
48	Statistically Accurate Length Measurements of Single-Walled Carbon Nanotubes. Journal of Nanoscience and Nanotechnology, 2007, 7, 2917-2921.	0.9	27
49	Interfacial Trapping of Single-Walled Carbon Nanotube Bundles. Journal of the American Chemical Society, 2007, 129, 15124-15125.	13.7	32
50	Cutting of Single-Walled Carbon Nanotubes by Ozonolysis. Journal of Physical Chemistry B, 2006, 110, 11624-11627.	2.6	67
51	Developing implantable optical biosensors. Trends in Biotechnology, 2005, 23, 440-444.	9.3	37
52	Controlled Oxidative Cutting of Single-Walled Carbon Nanotubes. Journal of the American Chemical Society, 2005, 127, 1541-1547.	13.7	354
53	Length-Dependent Extraction of Single-Walled Carbon Nanotubes. Nano Letters, 2005, 5, 2355-2359.	9.1	62
54	Pore Size Engineering in Mesoporous Silicas Using Supercritical CO2. Langmuir, 2005, 21, 4163-4167.	3.5	35

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55	Dielsâ€"Alder reactions between maleic anhydride and furan derivatives in supercritical CO2. Green Chemistry, 2005, 7, 105-110.	9.0	22
56	Cutting single-walled carbon nanotubes. Nanotechnology, 2005, 16, S539-S544.	2.6	101
57	Bistable nanoelectromechanical devices. Applied Physics Letters, 2004, 84, 4074-4076.	3.3	74
58	The synthesis of matrices of embedded semiconducting nanowires. Faraday Discussions, 2004, 125, 311.	3.2	12
59	Water-in-CO2Emulsions:Â Reaction Vessels for the Production of Tetra-Ethyl Pyrone. Langmuir, 2004, 20, 4386-4390.	3.5	13
60	Synthesis of Germanium Nanocrystals in High Temperature Supercritical Fluid Solvents. Nano Letters, 2004, 4, 969-974.	9.1	106
61	Conductive films of ordered nanowire arrays. Journal of Materials Chemistry, 2004, 14, 585.	6.7	52
62	Supercritical Fluid Synthesis of Metal and Semiconductor Nanomaterials. ChemInform, 2003, 34, no.	0.0	0
63	Supercritical Fluid Synthesis of Metal and Semiconductor Nanomaterials. Chemistry - A European Journal, 2003, 9, 2144-2150.	3.3	100
64	Producing â€˜pH switchesâ€™ in biphasic waterâ€"CO2 systems. Journal of Supercritical Fluids, 2003, 27, 109-117.	3.2	15
65	pH Switching for the Selective Extraction of Metal Ions into Supercritical CO2. Langmuir, 2003, 19, 3145-3150.	3.5	24
66	Synthesis of Metal and Metal Oxide Nanowire and Nanotube Arrays within a Mesoporous Silica Template. Chemistry of Materials, 2003, 15, 3518-3522.	6.7	190
67	Supercritical fluid preparation of copper nanotubes and nanowires using mesoporous templates. Journal of Physics Condensed Matter, 2003, 15, 8303-8314.	1.8	26
68	Anomalous Properties of Poly(methyl methacrylate) Thin Films in Supercritical Carbon Dioxide. Macromolecules, 2002, 35, 1928-1935.	4.8	66
69	Highly Luminescent Silicon Nanocrystals with Discrete Optical Transitions. Journal of the American Chemical Society, 2001, 123, 3743-3748.	13.7	466
70	Synthesis of Organic Monolayer-Stabilized Copper Nanocrystals in Supercritical Water. Journal of the American Chemical Society, 2001, 123, 7797-7803.	13.7	203
71	Optimization models for determining nitric acid equilibria in supercritical water. Computers & Chemistry, 1999, 23, 421-434.	1.2	8
72	Buffering the Aqueous Phase pH in Water-in-CO2Microemulsions. Journal of Physical Chemistry B, 1999, 103, 5703-5711.	2.6	94

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73	Nitric/Nitrous Acid Equilibria in Supercritical Water. Journal of Physical Chemistry A, 1999, 103, 1678-1688.	2.5	53
74	Artificial Atoms of Silicon. Materials Research Society Symposia Proceedings, 1999, 582, 62.	0.1	1