Chaiwat Engtrakul

List of Publications by Year
in descending order

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67 papers	2,537 citations	159585 30 h-index	189892 50 g-index
69 all docs	69 docs citations	69 times ranked	3926 citing authors

#	Article	IF	Citations
1	Kinetics of PL Quenching during Single-Walled Carbon Nanotube Rebundling and Diameter-Dependent Surfactant Interactionsâ€. Journal of Physical Chemistry B, 2006, 110, 25339-25346.	2.6	125
2	Near-perfect conduction through a ferrocene-based molecular wire. Physical Review B, 2005, 71, .	3.2	121
3	n-Type Transparent Conducting Films of Small Molecule and Polymer Amine Doped Single-Walled Carbon Nanotubes. ACS Nano, 2011, 5, 3714-3723.	14.6	109
4	Hole Doping in Al-Containing Nickel Oxide Materials To Improve Electrochromic Performance. ACS Applied Materials & Interfaces, 2013, 5, 301-309.	8.0	109
5	Arenethiols Form Ordered and Incommensurate Self-Assembled Monolayers on Au(111) Surfaces. Journal of Physical Chemistry B, 2000, 104, 9059-9062.	2.6	108
6	Effect of ZSM-5 acidity on aromatic product selectivity during upgrading of pine pyrolysis vapors. Catalysis Today, 2016, 269, 175-181.	4.4	105
7	Carbon nanotube modified air-cathodes for electricity production in microbial fuel cells. Journal of Power Sources, 2011, 196, 7465-7469.	7.8	102
8	Analysis of photoluminescence from solubilized single-walled carbon nanotubes. Physical Review B, 2005, 71, .	3.2	95
9	Ferrocene-Based Nanoelectronics:â€‰ 2,5-Diethynylpyridine as a Reversible Switching Element. Nano Letters, 2001, 1, 541-549.	9.1	83
10	In situ crystallization of high performing WO3-based electrochromic materials and the importance for durability and switching kinetics. Journal of Materials Chemistry, 2012, 22, 16817.	6.7	77
11	Single-wall carbon nanotube coating on a pyroelectric detector. Applied Optics, 2005, 44, 483.	2.1	75
12	Origin of Electrochromism in High-Performing Nanocomposite Nickel Oxide. ACS Applied Materials & Interfaces, 2013, 5, 3643-3649.	8.0	73
13	Protonation of Carbon Single-Walled Nanotubes Studied Using13C and1Hâ^'13C Cross Polarization Nuclear Magnetic Resonance and Raman Spectroscopies. Journal of the American Chemical Society, 2005, 127, 17548-17555.	13.7	69
14	Synthesis and Characterization of Boron-Doped Single-Wall Carbon Nanotubes Produced by the Laser Vaporization Technique. Chemistry of Materials, 2006, 18, 2558-2566.	6.7	69
15	Direct synthesis of thermochromic VO2 through hydrothermal reaction. Journal of Solid State Chemistry, 2014, 212, 237-241.	2.9	62
16	Hydroxide based Benzyltrimethylammonium Degradation: Quantification of Rates and Degradation Technique Development. Journal of the Electrochemical Society, 2015, 162, F366-F372.	2.9	62
17	Lithiation of silica through partial reduction. Applied Physics Letters, 2012, 100, .	3.3	57
18	Aligned carbon nanotube array functionalization for enhanced atomic layer deposition of platinum electrocatalysts. Applied Surface Science, 2012, 258, 5212-5221.	6.1	52

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19	Soiling and cleaning: Initial observations from 5-year photovoltaic glass coating durability study. Solar Energy Materials and Solar Cells, 2018, 185, 375-384.	6.2	51
20	Nitrogen-doped nickel oxide thin films for enhanced electrochromic applications. Thin Solid Films, 2013, 527, 26-30.	1.8	48
21	Low-Lying Exciton States Determine the Photophysics of Semiconducting Single Wall Carbon Nanotubes. Journal of Physical Chemistry C, 2007, 111, 11139-11149.	3.1	45
22	Intrinsic and Extrinsic Effects in the Temperature-Dependent Photoluminescence of Semiconducting Carbon Nanotubes. Physical Review Letters, 2006, 96, 106805.	7.8	44
23	Protonation Effects on the Branching Ratio in Photoexcited Single-Walled Carbon Nanotube Dispersions. Nano Letters, 2008, 8, 1047-1054.	9.1	42
24	Ferrocene-Based Nanoelectronics: Regioselective Syntheses and Electrochemical Characterization of Î±-Monothiol and Î±,Ï‰-Dithiol, Phenylethynyl-Conjugated, 2,5-Diethynylpyridyl- and Pyridinium-Linked Diferrocene Frameworks Having an End-to-End Distance of â¼4 nm. Organometallics, 2008, 27, 927-937.	2.3	41
25	The influence of solâ€“gel processing on the electrochromic properties of mesoporous WO3 films produced by ultrasonic spray deposition. Solar Energy Materials and Solar Cells, 2014, 121, 163-170.	6.2	41
26	Effects of Surfactant and Boron Doping on the BWF Feature in the Raman Spectrum of Single-Wall Carbon Nanotube Aqueous Dispersionsâ€. Journal of Physical Chemistry B, 2006, 110, 25551-25558.	2.6	40
27	Evaluation of Soiling and Potential Mitigation Approaches on Photovoltaic Glass. IEEE Journal of Photovoltaics, 2019, 9, 233-239.	2.5	38
28	Extrinsic and Intrinsic Effects on the Excited-State Kinetics of Single-Walled Carbon Nanotubes. Nano Letters, 2007, 7, 300-306.	9.1	36
29	Hot-wire chemical vapor synthesis for a variety of nano-materials with novel applications. Thin Solid Films, 2006, 501, 216-220.	1.8	34
30	Low-temperature ozone exposure technique to modulate the stoichiometry of WO_xnanorods and optimize the electrochromic performance. Nanotechnology, 2012, 23, 255601.	2.6	33
31	Enhancing the Electrocatalysis of LiNi_{0.5}Co_{0.2}Mn_{0.3}O₂by Introducing Lithium Deficiency for Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2020, 12, 10496-10502.	8.0	33
32	Spectroscopic Identification of Hydrogen Spillover Species in Ruthenium-Modified High Surface Area Carbons by Diffuse Reflectance Infrared Fourier Transform Spectroscopy. Journal of Physical Chemistry C, 2012, 116, 26744-26755.	3.1	32
33	Understanding Degradation at the Lithium-Ion Battery Cathode/Electrolyte Interface: Connecting Transition-Metal Dissolution Mechanisms to Electrolyte Composition. ACS Applied Materials & Interfaces, 2021, 13, 11930-11939.	8.0	31
34	Scalable synthesis of improved nanocrystalline, mesoporous tungsten oxide films with exceptional electrochromic performance. Solar Energy Materials and Solar Cells, 2015, 132, 6-14.	6.2	30
35	Chemistry of Electrolyte Reduction on Lithium Silicide. Journal of Physical Chemistry C, 2019, 123, 13219-13224.	3.1	29
36	Solid-State ¹³C NMR Assignment of Carbon Resonances on Metallic and Semiconducting Single-Walled Carbon Nanotubes. Journal of the American Chemical Society, 2010, 132, 9956-9957.	13.7	28

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37	Synthesis of a Clathrochelate Complex with an Appended Pyridine and Its Coordination to a Cobaloxime Complex. Inorganic Chemistry, 2000, 39, 5161-5163.	4.0	26
38	Ultrafast photoresponse of metallic and semiconducting single-wall carbon nanotubes. Physical Review B, 2005, 71, .	3.2	26
39	Self-Assembly of Linear Arrays of Semiconductor Nanoparticles on Carbon Single-Walled Nanotubesâ€. Journal of Physical Chemistry B, 2006, 110, 25153-25157.	2.6	26
40	Ultrasonic spray deposition of high performance WO3 films using template-assisted solâ€“gel chemistry. Electrochemistry Communications, 2012, 25, 62-65.	4.7	22
41	Temperature-Dependent Excitonic Decay and Multiple States in Single-Wall Carbon Nanotubes. Journal of Physical Chemistry C, 2007, 111, 3601-3606.	3.1	21
42	Electrochromic performance of nanocomposite nickel oxide counter electrodes containing lithium and zirconium. Solar Energy Materials and Solar Cells, 2014, 126, 206-212.	6.2	20
43	Near-infrared Fourier transform photoluminescence spectrometer with tunable excitation for the study of single-walled carbon nanotubes. Review of Scientific Instruments, 2006, 77, 053104.	1.3	19
44	Graphene as an Efficient Interfacial Layer for Electrochromic Devices. ACS Applied Materials & Interfaces, 2015, 7, 11330-11336.	8.0	19
45	The Abrasion of Photovoltaic Glass: A Comparison of the Effects of Natural and Artificial Aging. IEEE Journal of Photovoltaics, 2020, 10, 173-180.	2.5	19
46	Unraveling the ¹³C NMR Chemical Shifts in Single-Walled Carbon Nanotubes: Dependence on Diameter and Electronic Structure. Journal of the American Chemical Society, 2012, 134, 4850-4856.	13.7	18
47	Method To Determine MgO and MgOHCl in Chloride Molten Salts. Analytical Chemistry, 2020, 92, 3598-3604.	6.5	15
48	Catalytic Hot-Gas Filtration with a Supported Heteropolyacid Catalyst for Preconditioning Biomass Pyrolysis Vapors. ACS Sustainable Chemistry and Engineering, 2019, 7, 14941-14952.	6.7	12
49	Surface-Engineered Inorganic Nanoporous Membranes for Vapor and Pervaporative Separations of Waterâ€“Ethanol Mixtures. Membranes, 2018, 8, 95.	3.0	11
50	Novel organometallic fullerene complexes for vehicular hydrogen storage. Physica Status Solidi (B): Basic Research, 2007, 244, 4319-4322.	1.5	9
51	Superhydrophobic and superhydrophilic surface-enhanced separation performance of porous inorganic membranes for biomass-to-biofuel conversion applications. Separation Science and Technology, 2017, 52, 528-543.	2.5	8
52	Manipulation of Hydrogen Binding Energy and Desorption Kinetics by Boron Doping of High Surface Area Carbon. Journal of Physical Chemistry C, 2012, 116, 26138-26143.	3.1	7
53	Solidâ€State Conversion Reaction to Enhance Charge Transfer in Electrochromic Materials. Advanced Materials Interfaces, 2015, 2, 1400523.	3.7	7
54	Optimization of Biomass Pyrolysis Vapor Upgrading Using a Laminar Entrained-Flow Reactor System. Energy & Fuels, 2020, 34, 6030-6040.	5.1	6

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55	Surface-Enhanced Separation of Water from Hydrocarbons: Potential Dewatering Membranes for the Catalytic Fast Pyrolysis of Pine Biomass. Energy & Fuels, 2016, 30, 8343-8348.	5.1	5
56	Atomic Layer Deposition of Platinum onto Functionalized Aligned MWNT Arrays for Fuel Cell Application. ECS Transactions, 2010, 33, 89-96.	0.5	3
57	Baseline BTMA Degradation as a Standard for Cationic Degradation in AEMFCs. ECS Transactions, 2014, 64, 1201-1209.	0.5	3
58	Reactions and reversible hydrogenation of single-walled carbon nanotube anions. Journal of Materials Research, 2012, 27, 2806-2811.	2.6	2
59	Optical Microscopy Study of Soiling on Photovoltaic Glass: Evaluation of Mitigation Strategies. , 2018, , .		2
60	The Influence of Surfaces and Deposition Processes on Pt Structure and Properties. ECS Transactions, 2010, 33, 221-228.	0.5	1
61	Characterization of Cathode/Electrolyte Interfacial Processes By Scanning Electrochemical Microscopy. ECS Meeting Abstracts, 2020, MA2020-02, 159-159.	0.0	1
62	Effect of removal and change of surfactant upon the photoluminescence of carbon nanotubes. , 2005, 5929, 169.		0
63	Investigation of the electronic structure of carbon single wall nanotube hybrid nanostructures. , 2005, 5929, 123.		0
64	Hydrogen Storage in Novel Carbon-Based Nanostructured Materials. Materials Research Society Symposia Proceedings, 2006, 927, 1.	0.1	0
65	Novel Organometallic Fullerene Complexes for Vehicular Hydrogen Storage. Materials Research Society Symposia Proceedings, 2007, 1041, 1.	0.1	0
66	Mechanism of Hydrogen Storage on Reduced Carbon Single-Walled Nanotubes. Materials Research Society Symposia Proceedings, 2008, 1098, 1.	0.1	0
67	High-Capacity and High-Rate Anodes for Li-Ion Batteries. ECS Meeting Abstracts, 2010, , .	0.0	0