Alan W Weimer

List of Publications by Year
in descending order

208 papers	10,041 citations	19657 61 h-index	45317 90 g-index
211 all docs	211 docs citations	211 times ranked	7695 citing authors

#	Article	IF	Citations
1	A thermochemical study of iron aluminate-based materials: a preferred class for isothermal water splitting. Energy and Environmental Science, 2022, 15, 806-821.	30.8	23
2	Optimization of Extended-Surface PtNi Nanowire Oxygen Reduction Electrocatalysts Produced via Atomic Layer Deposition. ACS Applied Energy Materials, 2022, 5, 4587-4602.	5.1	7
3	Ab initio screening of refractory nitrides and carbides for high temperature hydrogen permeation barriers. Journal of Nuclear Materials, 2022, 563, 153611.	2.7	3
4	Solar thermochemical fuels: Present status and future prospects. Solar Compass, 2022, 1, 100010.	1.6	7
5	Aeration and cohesive effects on flowability in a vibrating powder conveyor. Powder Technology, 2022, 408, 117724.	4.2	9
6	Flash sintering of yttriaâ€stabilized zirconia powders coated with nanoscale films of alumina by atomic layer deposition. Journal of the American Ceramic Society, 2021, 104, 2472-2482.	3.8	2
7	Solar Thermal Processing to Disinfect Human Waste. Sustainability, 2021, 13, 4935.	3.2	4
8	DEM modeling of fine powder convection in a continuous vibrating bed reactor. Powder Technology, 2021, 386, 209-220.	4.2	10
9	Atomic layer deposited boron nitride nanoscale films act as high temperature hydrogen barriers. Applied Surface Science, 2021, 565, 150428.	6.1	9
10	Amine-functionalized fumed silica for CO2 capture through particle molecular layer deposition. Chemical Engineering Science, 2021, 245, 116954.	3.8	3
11	Liquid fuel productionviasupercritical water gasification of algae: a role for solar heat integration?. Sustainable Energy and Fuels, 2021, 5, 6269-6297.	4.9	6
12	Atomic layer deposition of tungsten nitride films as protective barriers to hydrogen. Applied Surface Science, 2020, 507, 145019.	6.1	5
13	Investigation of Zr, Gd/Zr, and Pr/Zr â€“ doped ceria for the redox splitting of water. International Journal of Hydrogen Energy, 2020, 45, 160-174.	7.1	37
14	Water management implications for ALD-modified polymer electrolyte membrane fuel cell catalysts. Journal of Nanoparticle Research, 2020, 22, 1.	1.9	5
15	Microscopy-based Multi-technique, Multi-scale Characterization of Polymer Electrolyte Membrane Devices. Microscopy and Microanalysis, 2020, 26, 772-774.	0.4	0
16	Reversible Molten Catalytic Methane Cracking Applied to Commercial Solar-Thermal Receivers. Energies, 2020, 13, 6229.	3.1	3
17	Oxidation kinetics of hercynite spinels for solar thermochemical fuel production. Chemical Engineering Journal, 2020, 401, 126015.	12.7	17
18	Solidâ€state sintering of coreâ€shell ceramic powders fabricated by particle atomic layer deposition. Journal of the American Ceramic Society, 2020, 103, 4101-4109.	3.8	1

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19	Highly dispersed Co deposited on Al₂O₃ particles via CoCp₂ + H₂ ALD. Nanotechnology, 2020, 31, 175703.	2.6	4
20	Reduction kinetics of hercynite redox materials for solar thermochemical water splitting. Chemical Engineering Journal, 2020, 389, 124429.	12.7	13
21	Reduction of ironâ€“manganese oxide particles in a lab-scale packed-bed reactor for thermochemical energy storage. Chemical Engineering Science, 2020, 221, 115700.	3.8	19
22	Effective thermal conductivity of a bed packed with granular ironâ€“manganese oxide for thermochemical energy storage. Chemical Engineering Science, 2019, 207, 490-494.	3.8	14
23	Nonuniform Growth of Sub-2 Nanometer Atomic Layer Deposited Alumina Films on Lithium Nickel Manganese Cobalt Oxide Cathode Battery Materials. ACS Applied Nano Materials, 2019, 2, 6989-6997.	5.0	23
24	The role of decomposition reactions in assessing first-principles predictions of solid stability. Npj Computational Materials, 2019, 5, .	8.7	63
25	Continuous on-sun solar thermochemical hydrogen production via an isothermal redox cycle. Applied Energy, 2019, 249, 368-376.	10.1	49
26	Improved durability and activity of Pt/C catalysts through atomic layer deposition of tungsten nitride and subsequent thermal treatment. Applied Catalysis B: Environmental, 2019, 254, 587-593.	20.2	33
27	High-Throughput Equilibrium Analysis of Active Materials for Solar Thermochemical Ammonia Synthesis. ACS Applied Materials & Interfaces, 2019, 11, 24850-24858.	8.0	21
28	Particle design and oxidation kinetics of iron-manganese oxide redox materials for thermochemical energy storage. Solar Energy, 2019, 183, 17-29.	6.1	28
29	The effect of ultrathin ALD films on the oxidation kinetics of SiC in high-temperature steam. Chemical Engineering Science, 2019, 201, 230-236.	3.8	5
30	Reduction kinetics for large spherical 2:1 ironâ€“manganese oxide redox materials for thermochemical energy storage. Chemical Engineering Science, 2019, 201, 74-81.	3.8	22
31	Particle atomic layer deposition of alumina for sintering yttriaâ€stabilized cubic zirconia. Journal of the American Ceramic Society, 2019, 102, 2283-2293.	3.8	8
32	Characterization of products derived from the high temperature flash pyrolysis of microalgae and rice hulls. Chemical Engineering Science, 2019, 196, 527-537.	3.8	15
33	Particle atomic layer deposition. Journal of Nanoparticle Research, 2019, 21, 9.	1.9	77
34	Kinetics and mechanism of solar-thermochemical H2 and CO production by oxidation of reduced CeO2. Solar Energy, 2018, 160, 178-185.	6.1	43
35	Nanostructured mullite steam oxidation resistant coatings for silicon carbide deposited via atomic layer deposition. Journal of the American Ceramic Society, 2018, 101, 2493-2505.	3.8	11
36	Helium interactions with alumina formed by atomic layer deposition show potential for mitigating problems with excess helium in spent nuclear fuel. Journal of Nuclear Materials, 2018, 499, 301-311.	2.7	8

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37	Fecal sludge as a fuel: characterization, cofire limits, and evaluation of quality improvement measures. Water Science and Technology, 2018, 78, 2437-2448.	2.5	11
38	Nowcasting, predictive control, and feedback control for temperature regulation in a novel hybrid solar-electric reactor for continuous solar-thermal chemical processing. Solar Energy, 2018, 174, 474-488.	6.1	30
39	Extended Thin-Film Electrocatalyst Structures via Pt Atomic Layer Deposition. ACS Applied Nano Materials, 2018, 1, 6150-6158.	5.0	7
40	Physical descriptor for the Gibbs energy of inorganic crystalline solids and temperature-dependent materials chemistry. Nature Communications, 2018, 9, 4168.	12.8	152
41	Partial flocculation for spray drying of spherical mixed metal oxide particles. Journal of the American Ceramic Society, 2018, 101, 4452-4457.	3.8	6
42	Pyrolysis of human feces: Gas yield analysis and kinetic modeling. Waste Management, 2018, 79, 214-222.	7.4	31
43	Design and Fabrication of Pellets for Magnesium Production by Carbothermal Reduction. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2018, 49, 2209-2218.	2.1	12
44	Atomic layer deposition of TiO2 for stabilization of Pt nanoparticle oxygen reduction reaction catalysts. Journal of Applied Electrochemistry, 2018, 48, 973-984.	2.9	16
45	Proton Exchange Membrane Fuel Cell Flooding Caused by Residual Functional Groups after Platinum Atomic Layer Deposition. Electrochimica Acta, 2017, 237, 192-198.	5.2	8
46	Isothermal redox for H 2 O and CO 2 splitting â€“ A review and perspective. Solar Energy, 2017, 156, 21-29.	6.1	58
47	Enhancing the Rate of Magnesium Oxide Carbothermal Reduction by Catalysis, Milling, and Vacuum Operation. Industrial & Engineering Chemistry Research, 2017, 56, 13602-13609.	3.7	21
48	Experimental evidence of an observer effect in high-flux solar simulators. Solar Energy, 2017, 158, 889-897.	6.1	13
49	Comparison of Nickel and Cobalt Mixedâ€Metal Ferrites for Hydrogen Production using Chemical Looping. Energy Technology, 2016, 4, 1188-1199.	3.8	5
50	A review and perspective of efficient hydrogen generation via solar thermal water splitting. Wiley Interdisciplinary Reviews: Energy and Environment, 2016, 5, 261-287.	4.1	168
51	A novel experimental method to study metal vapor condensation/oxidation: Mg in CO and CO2 at reduced pressures. Solar Energy, 2016, 139, 389-397.	6.1	24
52	Pressure dependent kinetics of magnesium oxide carbothermal reduction. Thermochimica Acta, 2016, 636, 23-32.	2.7	30
53	System efficiency for two-step metal oxide solar thermochemical hydrogen production â€“ Part 1: Thermodynamic model and impact of oxidation kinetics. International Journal of Hydrogen Energy, 2016, 41, 19881-19893.	7.1	66
54	System efficiency for two-step metal oxide solar thermochemical hydrogen production â€“ Part 2: Impact of gas heat recuperation and separation temperatures. International Journal of Hydrogen Energy, 2016, 41, 19894-19903.	7.1	35

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55	System efficiency for two-step metal oxide solar thermochemical hydrogen production â€“ Part 3: Various methods for achieving low oxygen partial pressures in the reduction reaction. International Journal of Hydrogen Energy, 2016, 41, 19904-19914.	7.1	45
56	Hybrid radiation modeling for multi-phase solar-thermal reactor systems operated at high-temperature. Solar Energy, 2016, 140, 130-140.	6.1	12
57	Aluminum Nitride Hydrolysis Enabled by Hydroxyl-Mediated Surface Proton Hopping. ACS Applied Materials & Interfaces, 2016, 8, 18550-18559.	8.0	21
58	First-Principles Analysis of Cation Diffusion in Mixed Metal Ferrite Spinels. Chemistry of Materials, 2016, 28, 214-226.	6.7	80
59	Electrochemical hydrogen pumping using a platinum catalyst made in a fluidized bed via atomic layer deposition. Powder Technology, 2016, 296, 72-78.	4.2	12
60	A systemâ€size independent validation of CFDâ€DEM for noncohesive particles. AICHE Journal, 2015, 61, 4051-4058.	3.6	30
61	Enhanced dry reforming of methane on Ni and Ni-Pt catalysts synthesized by atomic layer deposition. Applied Catalysis A: General, 2015, 492, 107-116.	4.3	89
62	Controlling Nanoscale Properties of Supported Platinum Catalysts through Atomic Layer Deposition. ACS Catalysis, 2015, 5, 1344-1352.	11.2	59
63	Heat transfer-limited flash pyrolysis of woody biomass: Overall reaction rate and time analysis using an integral model with experimental support. Journal of Analytical and Applied Pyrolysis, 2015, 113, 474-482.	5.5	3
64	Solvent Control of Surface Plasmon-Mediated Chemical Deposition of Au Nanoparticles from Alkylgold Phosphine Complexes. ACS Applied Materials & Interfaces, 2015, 7, 13384-13394.	8.0	8
65	An overview of highly porous oxide films with tunable thickness prepared by molecular layer deposition. Current Opinion in Solid State and Materials Science, 2015, 19, 115-125.	11.5	25
66	Mechanistic studies for depositing highly dispersed Pt nanoparticles on carbon by use of trimethyl(methylcyclopentadienyl)platinum(IV) reactions with O2 and H2. Journal of Nanoparticle Research, 2015, 17, 1.	1.9	28
67	Worst-case losses from a cylindrical calorimeter for solar simulator calibration. Optics Express, 2015, 23, A1309.	3.4	14
68	Predicting the solar thermochemical water splitting ability and reaction mechanism of metal oxides: a case study of the hercynite family of water splitting cycles. Energy and Environmental Science, 2015, 8, 3687-3699.	30.8	68
69	Using atomic layer deposited tungsten to increase thermal conductivity of a packed bed. Applied Physics Letters, 2015, 106, 153102.	3.3	6
70	High temperature thermochemical processing of biomass and methane for high conversion and selectivity to H2-enriched syngas. Applied Energy, 2015, 157, 13-24.	10.1	32
71	Extracting Kinetic Information from Complex Gasâ€“Solid Reaction Data. Industrial & Engineering Chemistry Research, 2015, 54, 4113-4122.	3.7	26
72	Use of Image-Based Direct Normal Irradiance Forecasts in the Model Predictive Control of a Solar-Thermal Reactor. Journal of Solar Energy Engineering, Transactions of the ASME, 2014, 136, .	1.8	6

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73	Model predictive control of a solar-thermal reactor. Solar Energy, 2014, 102, 31-44.	6.1	32
74	Increasing the Photocatalytic Activity of Anatase TiO₂ through B, C, and N Doping. Journal of Physical Chemistry C, 2014, 118, 27415-27427.	3.1	55
75	Stabilizing Ni Catalysts by Molecular Layer Deposition for Harsh, Dry Reforming Conditions. ACS Catalysis, 2014, 4, 2714-2717.	11.2	150
76	Transient simulation of a tubular packed bed solar receiver for hydrogen generation via metal oxide thermochemical cycles. Solar Energy, 2014, 105, 613-631.	6.1	13
77	Thermochemical Cycle of a Mixed Metal Oxide for Augmentation of Thermal Energy Storage in Solid Particles. Energy Procedia, 2014, 49, 762-771.	1.8	21
78	Surface Modification of Graphite Particles Coated by Atomic Layer Deposition and Advances in Ceramic Composites. International Journal of Applied Ceramic Technology, 2013, 10, 257-265.	2.1	16
79	Efficient Generation of H ₂ by Splitting Water with an Isothermal Redox Cycle. Science, 2013, 341, 540-542.	12.6	296
80	Investigation of novel mixed metal ferrites for pure H2 and CO2 production using chemical looping. International Journal of Hydrogen Energy, 2013, 38, 9085-9096.	7.1	57
81	Co-processing methane in high temperature steam gasification of biomass. Bioresource Technology, 2013, 128, 553-559.	9.6	13
82	Design considerations for a multiple tube solar reactor. Solar Energy, 2013, 90, 68-83.	6.1	29
83	Synthesis of supported Ni catalysts by atomic layer deposition. Journal of Catalysis, 2013, 303, 9-15.	6.2	69
84	The Effect of N and B Doping on Graphene and the Adsorption and Migration Behavior of Pt Atoms. Journal of Physical Chemistry C, 2013, 117, 10523-10535.	3.1	71
85	Evaluation of finite volume solutions for radiative heat transfer in a closed cavity solar receiver for high temperature solar thermal processes. International Journal of Heat and Mass Transfer, 2013, 58, 585-596.	4.8	22
86	Kinetics and mechanism of solar-thermochemical H2 production by oxidation of a cobalt ferriteâ€“zirconia composite. Energy and Environmental Science, 2013, 6, 963.	30.8	123
87	A novel technique for measuring the kinetics of high-temperature gasification of biomass char with steam. Fuel, 2013, 103, 749-757.	6.4	22
88	Ultrathin highly porous alumina films prepared by alucone ABC molecular layer deposition (MLD). Microporous and Mesoporous Materials, 2013, 168, 178-182.	4.4	39
89	Nanocoating zinc alkoxide (zincone) hybrid polymer films on particles using a fluidized bed reactor. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	2.1	19
90	CoFe2O4 on a porous Al2O3 nanostructure for solar thermochemical CO2 splitting. Energy and Environmental Science, 2012, 5, 9438.	30.8	107

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91	Dynamics of a solar-thermal transport-tube reactor. Chemical Engineering Journal, 2012, 213, 272-285.	12.7	12
92	Growth of Pt Particles on the Anatase TiO₂ (101) Surface. Journal of Physical Chemistry C, 2012, 116, 12114-12123.	3.1	63
93	A novel brush feeder for the pneumatic delivery of dispersed small particles at steady feed rates. Powder Technology, 2012, 229, 45-50.	4.2	12
94	Computational modeling and on-sun model validation for a multiple tube solar reactor with specularly reflective cavity walls. Part 1: Heat transfer model. Chemical Engineering Science, 2012, 81, 298-310.	3.8	29
95	Computational modeling of a multiple tube solar reactor with specularly reflective cavity walls. Part 2: Steam gasification of carbon. Chemical Engineering Science, 2012, 81, 285-297.	3.8	26
96	Atomic layer deposited thin film metal oxides for fuel production in a solar cavity reactor. International Journal of Hydrogen Energy, 2012, 37, 16888-16894.	7.1	36
97	Solarthermal chemical processing challenges and commercial path forward. Current Opinion in Chemical Engineering, 2012, 1, 211-217.	7.8	17
98	Effect of Surface Deposited Pt on the Photoactivity of TiO₂. Journal of Physical Chemistry C, 2012, 116, 10138-10149.	3.1	92
99	Scalable synthesis of palladium nanoparticle catalysts by atomic layer deposition. Journal of Nanoparticle Research, 2012, 14, 1.	1.9	43
100	Template-directed synthesis of porous alumina particles with precise wall thickness control via atomic layer deposition. Microporous and Mesoporous Materials, 2012, 149, 106-110.	4.4	22
101	Functionalization of fine particles using atomic and molecular layer deposition. Powder Technology, 2012, 221, 13-25.	4.2	76
102	Atomic layer deposition of solid lubricating coatings on particles. Powder Technology, 2012, 221, 26-35.	4.2	32
103	Solar-driven gasification of carbonaceous feedstockâ€"a review. Energy and Environmental Science, 2011, 4, 73-82.	30.8	204
104	Stabilization of Supported Metal Nanoparticles Using an Ultrathin Porous Shell. ACS Catalysis, 2011, 1, 1162-1165.	11.2	106
105	Hydrogen Production via Chemical Looping Redox Cycles Using Atomic Layer Deposition-Synthesized Iron Oxide and Cobalt Ferrites. Chemistry of Materials, 2011, 23, 2030-2038.	6.7	153
106	Reaction mechanism studies for platinum nanoparticle growth by atomic layer deposition. Journal of Nanoparticle Research, 2011, 13, 3781-3788.	1.9	40
107	Manganese oxide based thermochemical hydrogen production cycle. International Journal of Hydrogen Energy, 2011, 36, 7028-7037.	7.1	32
108	Considerations for the Design of Solar-Thermal Chemical Processes. Journal of Solar Energy Engineering, Transactions of the ASME, 2010, 132, .	1.8	10

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109	Manganese oxide dissociation kinetics for the Mn2O3 thermochemical water-splitting cycle. Part 2: CFD model. Chemical Engineering Science, 2010, 65, 4397-4410.	3.8	4
110	An investigation of a fluidized bed solids feeder for an aerosol flow reactor. Powder Technology, 2010, 199, 70-76.	4.2	10
111	Photoactivity passivation of TiO2 nanoparticles using molecular layer deposited (MLD) polymer films. Journal of Nanoparticle Research, 2010, 12, 135-142.	1.9	43
112	Modification of nanoporous supported lyotropic liquid crystal polymer membranes by atomic layer deposition. Journal of Membrane Science, 2010, 349, 1-5.	8.2	20
113	A spinel ferrite/hercynite water-splitting redox cycle. International Journal of Hydrogen Energy, 2010, 35, 3333-3340.	7.1	210
114	Highly dispersed Pt nanoparticle catalyst prepared by atomic layer deposition. Applied Catalysis B: Environmental, 2010, 97, 220-226.	20.2	117
115	Optimal preparation of Pt/TiO2 photocatalysts using atomic layer deposition. Applied Catalysis B: Environmental, 2010, 101, 54-60.	20.2	102
116	Manganese oxide dissociation kinetics for the Mn2O3 thermochemical water-splitting cycle. Part 1: Experimental. Chemical Engineering Science, 2010, 65, 3709-3717.	3.8	34
117	Rapid High Temperature Solar Thermal Biomass Gasification in a Prototype Cavity Reactor. Journal of Solar Energy Engineering, Transactions of the ASME, 2010, 132, .	1.8	85
118	Synthesis of Photoactive Magnetic Nanoparticles with Atomic Layer Deposition. Industrial & Engineering Chemistry Research, 2010, 49, 6964-6971.	3.7	22
119	Rapid Silica Atomic Layer Deposition on Large Quantities of Cohesive Nanoparticles. ACS Applied Materials & Interfaces, 2010, 2, 2248-2253.	8.0	33
120	Thermochemical Production of Fuels with Concentrated Solar Energy. Optics Express, 2010, 18, A100.	3.4	42
121	Thermochemical production of fuels with concentrated solar energy. Optics Express, 2010, 18, A100-11.	3.4	0
122	Rapid High Temperature Solar Thermal Biomass Gasification in a Prototype Cavity Reactor. , 2009, , .		0
123	Atomic layer deposition on gram quantities of multi-walled carbon nanotubes. Nanotechnology, 2009, 20, 255602.	2.6	94
124	Nanocoating hybrid polymer films on large quantities of cohesive nanoparticles by molecular layer deposition. AICHE Journal, 2009, 55, 1030-1039.	3.6	55
125	Solarâ€thermal production of renewable hydrogen. AICHE Journal, 2009, 55, 286-293.	3.6	119
126	Atomic layer deposition of iron(III) oxide on zirconia nanoparticles in a fluidized bed reactor using ferrocene and oxygen. Thin Solid Films, 2009, 517, 1874-1879.	1.8	103

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127	Lowâ€Temperature Atomic Layerâ€Deposited TiO₂ Films with Low Photoactivity. Journal of the American Ceramic Society, 2009, 92, 649-654.	3.8	25
128	Solar-driven biochar gasification in a particle-flow reactor. Chemical Engineering and Processing: Process Intensification, 2009, 48, 1279-1287.	3.6	106
129	Crystal Phase Evolution in Quantum Confined ZnO Domains on Particles via Atomic Layer Deposition. Crystal Growth and Design, 2009, 9, 2828-2834.	3.0	12
130	Biocompatible Interface Films Deposited within Porous Polymers by Atomic Layer Deposition (ALD). ACS Applied Materials & Interfaces, 2009, 1, 1988-1995.	8.0	42
131	In situ synthesis of TiO₂-functionalized metal nanoparticles. Industrial & Engineering Chemistry Research, 2009, 48, 352-360.	3.7	19
132	Ultra-thin microporousâ€“mesoporous metal oxide films prepared by molecular layer deposition (MLD). Chemical Communications, 2009, , 7140.	4.1	105
133	Atomic layer deposition of quantum-confined ZnO nanostructures. Nanotechnology, 2009, 20, 195401.	2.6	23
134	Thermal ZnO dissociation in a rapid aerosol reactor as part of a solar hydrogen production cycle. International Journal of Hydrogen Energy, 2008, 33, 499-510.	7.1	95
135	A cavity-receiver containing a tubular absorber for high-temperature thermochemical processing using concentrated solar energy. International Journal of Thermal Sciences, 2008, 47, 1496-1503.	4.9	98
136	Atomic Layer Deposition of UVâ€Absorbing ZnO Films on SiO₂ and TiO₂ Nanoparticles Using a Fluidized Bed Reactor. Advanced Functional Materials, 2008, 18, 607-615.	14.9	81
137	Atomic layer deposition of TiO2 films on particles in a fluidized bed reactor. Powder Technology, 2008, 183, 356-363.	4.2	85
138	Barrier properties of polymer/alumina nanocomposite membranes fabricated by atomic layer deposition. Journal of Membrane Science, 2008, 322, 105-112.	8.2	43
139	Tungsten atomic layer deposition on polymers. Thin Solid Films, 2008, 516, 6175-6185.	1.8	64
140	Low-temperature atomic layer deposition of ZnO films on particles in a fluidized bed reactor. Thin Solid Films, 2008, 516, 8517-8523.	1.8	41
141	Hydrogen generation by hydrolysis of zinc powder aerosol. International Journal of Hydrogen Energy, 2008, 33, 1127-1134.	7.1	72
142	Atomic Layer Deposition on Bulk Quantities of Surfactantâ€Modified Singleâ€Walled Carbon Nanotubes. Journal of the American Ceramic Society, 2008, 91, 831-835.	3.8	27
143	Passivation of pigment-grade TiO₂particles by nanothick atomic layer deposited SiO₂films. Nanotechnology, 2008, 19, 255604.	2.6	48
144	Alumina atomic layer deposition nanocoatings on primary diamond particles using a fluidized bed reactor. Diamond and Related Materials, 2008, 17, 185-189.	3.9	40

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145	Quantum confinement in amorphous TiO₂films studied via atomic layer deposition. Nanotechnology, 2008, 19, 445401.	2.6	69
146	The Role of Surface Basal Planes of Layered Mixed Metal Oxides in Selective Transformation of Lower Alkanes: Propane Ammoxidation over Surface ab Planes of Moâ^'Vâ^'Teâ^'Nbâ^'O M1 Phase. Journal of the American Chemical Society, 2008, 130, 5850-5851.	13.7	67
147	Novel ultrafast varistor materials for the suppression of fast rise-time transients. , 2008, , .		1
148	Theory of conduction in ultrafast metal-insulator varistors. Journal of Applied Physics, 2008, 104, .	2.5	7
149	Ultrafast metal-insulator varistors based on tunable Al2O3 tunnel junctions. Applied Physics Letters, 2008, 92, .	3.3	13
150	Computational Fluid Dynamics Simulation of a Tubular Aerosol Reactor for Solar Thermal ZnO Decomposition. Journal of Solar Energy Engineering, Transactions of the ASME, 2007, 129, 391-404.	1.8	11
151	Atomic Layer Deposition on Quantities of Multiwalled Carbon Nanotubes. Materials Research Society Symposia Proceedings, 2007, 1054, 10.	0.1	0
152	Rapid Solar-thermal Decarbonization of Methane in a Fluid-wall Aerosol Flow Reactor -- Fundamentals and Application. International Journal of Chemical Reactor Engineering, 2007, 5, .	1.1	18
153	Modeling of a Multi-Tube Solar Reactor for Hydrogen Production at High Temperatures. , 2007, , 903.		0
154	Synthesis of a Novel Porous Polymer/Ceramic Composite Material by Low-Temperature Atomic Layer Deposition. Chemistry of Materials, 2007, 19, 5388-5394.	6.7	62
155	Synthesis of oxidation-resistant metal nanoparticles via atomic layer deposition. Nanotechnology, 2007, 18, 345603.	2.6	57
156	Nanoparticle Coating for Advanced Optical, Mechanical and Rheological Properties. Advanced Functional Materials, 2007, 17, 3175-3181.	14.9	63
157	Fluid-wall effectiveness for preventing oxidation in solar-thermal ZnO reactors. AICHE Journal, 2007, 53, 1830-1844.	3.6	8
158	Analysis of Al₂O₃ Atomic Layer Deposition on ZrO₂ Nanoparticles in a Rotary Reactor. Chemical Vapor Deposition, 2007, 13, 491-498.	1.3	63
159	Atomic layer deposition on particles using a fluidized bed reactor with in situ mass spectrometry. Surface and Coatings Technology, 2007, 201, 9163-9171.	4.8	172
160	Determination of aerosol kinetics of thermal ZnO dissociation by thermogravimetry. Chemical Engineering Science, 2007, 62, 5952-5962.	3.8	43
161	Novel Processing to Produce Polymer/Ceramic Nanocomposites by Atomic Layer Deposition. Journal of the American Ceramic Society, 2007, 90, 57-63.	3.8	99
162	Modification of interparticle forces for nanoparticles using atomic layer deposition. Chemical Engineering Science, 2007, 62, 6199-6211.	3.8	44

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163	Thermophoretic deposition of aerosol particles in laminar tube flow with mixed convection. Journal of Aerosol Science, 2006, 37, 715-734.	3.8	33
164	Surface Modification of Titania Nanoparticles Using Ultrathin Ceramic Films. Journal of the American Ceramic Society, 2006, 89, 3070-3075.	3.8	42
165	Rapid nickel oxalate thermal decomposition for producing fine nickel metal powders. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 431, 13-25.	5.6	5
166	Rapid nickel oxalate thermal decomposition for producing fine porous nickel metal powders. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 431, 26-40.	5.6	7
167	Spinning wheel powder feeding device â€" fundamentals and applications. Powder Technology, 2006, 170, 36-44.	4.2	10
168	Rapid nickel oxalate thermal decomposition for producing fine porous nickel metal powders. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 431, 1-12.	5.6	51
169	SnO2 atomic layer deposition on ZrO2 and Al nanoparticles: Pathway to enhanced thermite materials. Powder Technology, 2005, 156, 154-163.	4.2	71
170	Aggregation behavior of nanoparticles in fluidized beds. Powder Technology, 2005, 160, 149-160.	4.2	213
171	Nanocoating Individual Silica Nanoparticles by Atomic Layer Deposition in a Fluidized Bed Reactor. Chemical Vapor Deposition, 2005, 11, 420-425.	1.3	111
172	Conformal nanocoating of zirconia nanoparticles by atomic layer deposition in a fluidized bed reactor. Nanotechnology, 2005, 16, S375-S381.	2.6	101
173	Two-Dimensional Axi-Symmetric Model of a Solar-Thermal Fluid-Wall Aerosol Flow Reactor. Journal of Solar Energy Engineering, Transactions of the ASME, 2005, 127, 76-85.	1.8	8
174	Coating Fine Nickel Particles with Al₂O₃ Utilizing an Atomic Layer Depositionâ€Fluidized Bed Reactor (ALDâ€"FBR). Journal of the American Ceramic Society, 2004, 87, 762-765.	3.8	80
175	Nanocoating individual cohesive boron nitride particles in a fluidized bed by ALD. Powder Technology, 2004, 142, 59-69.	4.2	104
176	Sensitivity analysis of the rapid decomposition of methane in an aerosol flow reactor. International Journal of Hydrogen Energy, 2004, 29, 57-65.	7.1	21
177	Rapid solar-thermal dissociation of natural gas in an aerosol flow reactor. Energy, 2004, 29, 715-725.	8.8	80
178	Solar-thermal dissociation of methane in a fluid-wall aerosol flow reactor. International Journal of Hydrogen Energy, 2004, 29, 725-736.	7.1	128
179	Likely near-term solar-thermal water splitting technologies. International Journal of Hydrogen Energy, 2004, 29, 1587-1599.	7.1	226
180	TiO2 atomic layer deposition on ZrO2 particles using alternating exposures of TiCl4 and H2O. Applied Surface Science, 2004, 226, 393-404.	6.1	84

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