Gideon S Grader

List of Publications by Year
in descending order

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122 papers	3,691 citations	186265 28 h-index	149698 56 g-index
128 all docs	128 docs citations	128 times ranked	3983 citing authors

#	Article	IF	Citations
1	New electrolyzer principles: decoupled water splitting. , 2022, , 407-454.		4
2	Metal nanoparticles entrapped in metal matrices. Nanoscale Advances, 2021, 3, 4597-4612.	4.6	7
3	High Performance Core/Shell Ni/Ni(OH)₂ Electrospun Nanofiber Anodes for Decoupled Water Splitting. Advanced Functional Materials, 2021, 31, 2008118.	14.9	32
4	Electrospun Ionomeric Fibers with Anion Conducting Properties. Advanced Functional Materials, 2020, 30, 1901733.	14.9	24
5	Decoupled Photoelectrochemical Water Splitting System for Centralized Hydrogen Production. Joule, 2020, 4, 448-471.	24.0	91
6	Electrospun Feâ€“Alâ€“O Nanobelts for Selective CO₂ Hydrogenation to Light Olefins. ACS Applied Materials & Interfaces, 2020, 12, 24855-24867.	8.0	31
7	Electrospun Anion-Conducting Ionomer Fibersâ€"Effect of Humidity on Final Properties. Polymers, 2020, 12, 1020.	4.5	12
8	Electrospun nanofibers with surface oriented lamellar patterns and their potential applications. Nanoscale, 2020, 12, 12993-13000.	5.6	6
9	Progress and Prospective of Nitrogen-Based Alternative Fuels. Chemical Reviews, 2020, 120, 5352-5436.	47.7	165
10	Ceria Entrapped Palladium Novel Composites for Hydrogen Oxidation Reaction in Alkaline Medium. Journal of the Electrochemical Society, 2020, 167, 054514.	2.9	15
11	Effect of pressure on the combustion of an aqueous urea and ammonium nitrate monofuel. Proceedings of the Combustion Institute, 2019, 37, 5663-5670.	3.9	1
12	Composite Materials with Combined Electronic and Ionic Properties. Matter, 2019, 1, 959-975.	10.0	32
13	Decoupled hydrogen and oxygen evolution by a two-step electrochemicalâ€“chemical cycle for efficient overall water splitting. Nature Energy, 2019, 4, 786-795.	39.5	296
14	Lamellar-like Electrospun Mesoporous Ti-Al-O Nanofibers. Materials, 2019, 12, 252.	2.9	7
15	Thermal Autoignition of Aqueous Urea Ammonium Nitrate as a Function of Equivalence Ratio, Water Content, and Nitrogen Pressure. Energy Technology, 2018, 6, 540-546.	3.8	2
16	Effect of equivalence ratio on the thermal autoignition of aqueous ammonia ammonium nitrate monofuel. Combustion and Flame, 2018, 188, 142-149.	5.2	8
17	Thermal shrinkage of electrospun PVP nanofibers. Journal of Polymer Science, Part B: Polymer Physics, 2018, 56, 248-254.	2.1	25
18	Effects of water content and diluent pressure on the ignition of aqueous ammonia/ammonium nitrate and urea/ammonium nitrate fuels. Applied Energy, 2018, 224, 300-308.	10.1	6

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19	Auto-ignition of a carbon-free aqueous ammonia/ammonium nitrate monofuel: A thermal and barometric analysis. Fuel Processing Technology, 2017, 159, 363-368.	7.2	10
20	Photoelectrochemical water splitting in separate oxygen and hydrogen cells. Nature Materials, 2017, 16, 646-651.	27.5	418
21	High-Temperature Corrosion of Stainless Steels and Ni Alloys During Combustion of Ureaâ€“Ammonium Nitrate (UAN) Fuel. Oxidation of Metals, 2017, 87, 39-56.	2.1	2
22	Pollutant Abatement of Nitrogen-Based Fuel Effluents over Mono- and Bimetallic Pt/Ru Catalysts. ACS Omega, 2017, 2, 8273-8281.	3.5	0
23	Formation of Coreâ€Shell Mesoporous Ceramic Fibers. Journal of the American Ceramic Society, 2017, 100, 3370-3374.	3.8	13
24	The nitrogen economy: Economic feasibility analysis of nitrogen-based fuels as energy carriers. Applied Energy, 2017, 185, 183-188.	10.1	50
25	Solvothermal synthesis of indium-doped zinc oxide TCO films. Journal of Sol-Gel Science and Technology, 2017, 81, 3-10.	2.4	7
26	The Nitrogen Economy: The Feasibility of Using Nitrogen-Based Alternative Fuels. Energy Procedia, 2017, 135, 3-13.	1.8	7
27	Effect of diluent pressure on the auto-ignition kinetics of a low-carbon urea ammonium nitrate monofuel. Energy Procedia, 2017, 142, 716-722.	1.8	0
28	Nitrogenâ€Based Fuels: A Powerâ€toâ€Fuelâ€toâ€Power Analysis. Angewandte Chemie - International Edition, 2016, 55, 8798-8805.	13.8	73
29	Stickstoffbasierte Kraftstoffe: eine â€œPowerâ€toâ€Fuelâ€toâ€Powerâ€â€Analyse. Angewandte Chemie, 2016, 128, 8942-8949.	2.0	5
30	Nitrogenâ€Based Alternative Fuels: Progress and Future Prospects. Energy Technology, 2016, 4, 7-18.	3.8	19
31	Auto ignition of a nitrogen-based monofuel as a function of pressure and concentration. Fuel, 2016, 181, 765-771.	6.4	5
32	Corrosion of aluminum alloys Al 6061 and Al 2024 in ammonium nitrateâ€urea solution. Materials and Corrosion - Werkstoffe Und Korrosion, 2016, 67, 387-395.	1.5	14
33	Deformation Control During Thermal Treatment of Electrospun PbZr_{0.52}Ti_{0.48}O₃ Nanofiber Mats. Journal of the American Ceramic Society, 2016, 99, 1550-1556.	3.8	8
34	Flow Reactor Combustion of Aqueous Urea Ammonium Nitrate Fuel. Energy & Fuels, 2016, 30, 2474-2477.	5.1	10
35	Combustion simulations of aqueous urea ammonium nitrate monofuel at high pressures. Combustion and Flame, 2016, 166, 295-306.	5.2	14
36	Mesoporous K/Feâ€“Alâ€“O nanofibers by electrospinning of solution precursors. Journal of Materials Research, 2015, 30, 3142-3150.	2.6	4

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37	Pressure effect on the combustion of aqueous urea ammonium nitrate alternative fuel. Fuel, 2015, 159, 500-507.	6.4	19
38	Nitrogenâ€Based Alternative Fuel: Safety Considerations. Energy Technology, 2015, 3, 976-981.	3.8	20
39	Rapid thermal processing of electrospun PbZr0.52Ti0.48O3 nanofibers. Thermochimica Acta, 2015, 605, 107-114.	2.7	5
40	Catalytic activity of electrospun Ag and Ag/carbon composite fibres in partial methanol oxidation. Catalysis Science and Technology, 2015, 5, 1153-1162.	4.1	22
41	Metal Corrosion Screening in a Nitrogen-Based Fuel at High Temperature and Pressure. Oxidation of Metals, 2014, 82, 491-508.	2.1	7
42	Branching effect and morphology control in electrospun PbZr_{0.52}Ti_{0.48}O₃ nanofibers. Journal of Materials Research, 2014, 29, 1721-1729.	2.6	21
43	Corrosion inhibition of carbon steel in aqueous solution of ammonium nitrate and urea. Materials and Corrosion - Werkstoffe Und Korrosion, 2014, 65, 626-636.	1.5	8
44	Nitrogen-based alternative fuel: an environmentally friendly combustion approach. RSC Advances, 2014, 4, 10051-10059.	3.6	25
45	Thermal analysis of aqueous urea ammonium nitrate alternative fuel. RSC Advances, 2014, 4, 34836-34848.	3.6	20
46	Playing Hardball with Hydrogen: Metastable Mechanochemical Hydrogenation of Magnesium Nitride. Journal of Physical Chemistry C, 2013, 117, 1237-1246.	3.1	11
47	Organically Doped Silver Nanoparticles Deposited on Titania Nanofibers: Enhanced Catalytic Methanol Oxidation. Journal of Physical Chemistry C, 2013, 117, 22325-22330.	3.1	28
48	Corrosion of aluminium, stainless steels and AISI 680 nickel alloy in nitrogenâ€based fuels. Materials and Corrosion - Werkstoffe Und Korrosion, 2012, 63, 571-579.	1.5	6
49	Structural and electrical properties of single Ga/ZnO nanofibers synthesized by electrospinning. Journal of Materials Research, 2012, 27, 1672-1679.	2.6	12
50	Activated organically doped silver: enhanced catalysis of methanol oxidation. Catalysis Science and Technology, 2011, 1, 1593.	4.1	11
51	Effect of solvents and stabilizers on solâ€"gel deposition of Ga-doped zinc oxide TCO films. Journal of Materials Research, 2011, 26, 1309-1315.	2.6	42
52	Crackâ€Free Drying of Ceramic Foams by the Use of Viscous Cosolvents. Journal of the American Ceramic Society, 2010, 93, 3632-3636.	3.8	14
53	Effect of LaNiO3 electrodes and lead oxide excess on chemical solution deposition derived Pb(Zrx,Ti1âˆ'x)O3 films. Thin Solid Films, 2009, 517, 2767-2774.	1.8	28
54	Uniformity, composition, and surface tension in solution deposited PbZrxTi1-xO3 films. Journal of Materials Research, 2007, 22, 103-112.	2.6	5

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55	Directional Growth and Oxide Electrodes in CSD-based PZT Films. Applications of Ferroelectrics, IEEE International Symposium on, 2007, , .	0.0	0
56	Organically Doped Metalsâ€"A New Approach to Metal Catalysis: Enhanced Ag-Catalyzed Oxidation of Methanol. Advanced Functional Materials, 2007, 17, 913-918.	14.9	44
57	Interrelation of Ferroelectricity, Morphology, and Thickness in Sol?Gel-Derived PbZrxTi1?xO3Films. Journal of the American Ceramic Society, 2007, 90, 77-83.	3.8	11
58	Surface Composition and Imprint in CSD-Based PZT Films. Journal of the American Ceramic Society, 2007, 90, 070922001308007-???.	3.8	5
59	Synthesis of tungsten bronze powder and determination of its composition. Journal of Materials Science, 2007, 42, 1010-1018.	3.7	13
60	Alumina Foam Coated with Nanostructured Chromia Aerogel:Â Efficient Catalytic Material for Complete Combustion of Chlorinated VOC. Industrial & Engineering Chemistry Research, 2006, 45, 7462-7469.	3.7	19
61	Controlled Elemental Depth Profile in Solâ€"Gel-Derived PZT Films. Journal of the American Ceramic Society, 2006, 89, 2387-2393.	3.8	29
62	Preparation of carbon coated ceramic foams by pyrolysis of polyurethane. Journal of Materials Science, 2006, 41, 6046-6055.	3.7	7
63	Thermal degradation of poly(acrylic acid) containing metal nitrates and the formation of YBa2Cu3O7?x. Journal of Polymer Science, Part B: Polymer Physics, 2005, 43, 1168-1176.	2.1	18
64	Deposition of inorganic bronze coatings over ceramic foams. Journal of Materials Research, 2005, 20, 1207-1215.	2.6	1
65	The variety ofTcvalues of the 1:2:3 superconductors (CaxLa1Âx)(La0.25+xBa1.75Âx)Cu3Oyhaving the same overall compositions (x,y). Superconductor Science and Technology, 2004, 17, 1389-1394.	3.5	3
66	Complex formation and degradation in poly(acrylonitrile-co-vinyl acetate) containing metal nitrates. Polymer, 2004, 45, 937-947.	3.8	13
67	Complex formation and degradation in poly(acrylonitrile-co-vinyl acetate) containing copper nitrate. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 1023-1032.	2.1	13
68	Thermal degradation of poly(acrylic acid) containing copper nitrate. Polymer Degradation and Stability, 2004, 86, 171-178.	5.8	161
69	Entrapment of Organic Molecules within Metals. 2. Polymers in Silver. Chemistry of Materials, 2004, 16, 3197-3202.	6.7	37
70	Comparison of n-Pentane Reforming Over Pt Supported on Amorphous and Î³-Al2O3. Catalysis Letters, 2003, 89, 169-178.	2.6	3
71	Synthesis and structural characterization of Pt/amorphous Al2O3 catalyst. Journal of Catalysis, 2003, 214, 146-152.	6.2	11
72	The effect of dehydroxylation/amorphization degree on pozzolanic activity of kaolinite. Cement and Concrete Research, 2003, 33, 405-416.	11.0	239

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73	Equilibrium of 1:2:3 CLBLCO superconductors with oxygen: effect of cooling upon the oxygen content and the homogeneity of its distribution. Journal of Physics and Chemistry of Solids, 2003, 64, 273-280.	4.0	10
74	Interrelation of preparation conditions, morphology, chemical reactivity and homogeneity of ceramic YBCO. Physica C: Superconductivity and Its Applications, 2003, 400, 25-35.	1.2	25
75	Morphological and phase composition changes during sintering of ultralight Al2O3TiO2 foams. Journal of Materials Research, 2002, 17, 831-837.	2.6	5
76	Influence of chemical and phase composition of mineral admixtures on their pozzolanic activity. Advances in Cement Research, 2002, 14, 35-41.	1.6	63
77	Thermal behavior of the phenolâ€“Pdâ€“ACC system. Carbon, 2002, 40, 2547-2557.	10.3	15
78	Effect of sintering on TiO2-impregnated alumina foams. Journal of Materials Science, 2002, 37, 4049-4055.	3.7	7
79	Polarities of Solâˆ'Gel-Derived Ormosils and of Their Interfaces with Solvents. Chemistry of Materials, 2001, 13, 3631-3634.	6.7	49
80	Transformation of Organosilicon-Loaded Alumina Gel to Homogeneous Alumino- silicates:â€‰ A Solid-State NMR Study. Chemistry of Materials, 2001, 13, 247-249.	6.7	4
81	Modification of Non-Hydrolytic Sol-Gel Derived Alumina by Solvent Treatments. Journal of Sol-Gel Science and Technology, 2001, 21, 157-165.	2.4	11
82	Entrapment of organosilicon molecules in nonhydrolytic alumina gels and thermal behavior of the resulting composite. Journal of Materials Research, 2001, 16, 1413-1419.	2.6	1
83	Novel Ceramic Foams from Crystals of AlCl3(Pri2O) complex. Journal of Materials Research, 1999, 14, 1485-1494.	2.6	25
84	Temperature effect on nonhydrolytic foaming process. Journal of Materials Research, 1999, 14, 4020-4024.	2.6	1
85	The Evolution of Microstructure in Nonhydrolytic Alumina Xerogels. Journal of Sol-Gel Science and Technology, 1999, 14, 233-247.	2.4	21
86	Effect of Aging on Alumina Gels Rheology and Aerogels Surface Area. Journal of Sol-Gel Science and Technology, 1999, 14, 131-136.	2.4	10
87	Surfactant-Induced Modification of Dopants Reactivity in Solâˆ'Gel Matrixes. Journal of the American Chemical Society, 1999, 121, 8533-8543.	13.7	177
88	Particle aggregation in alumina aerogels. Journal of Materials Research, 1997, 12, 430-433.	2.6	16
89	Heat Treatment of Alumina Aerogels. Chemistry of Materials, 1997, 9, 2464-2467.	6.7	75
90	Preparation of alumina aerogel films by low temperature CO2 supercritical drying process. Journal of Sol-Gel Science and Technology, 1997, 8, 825-829.	2.4	4

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91	Solâˆ'Gel Entrapment of ET(30) in Ormosils. Interfacial Polarityâˆ'Fractality Correlation. Langmuir, 1996, 12, 5505-5508.	3.5	86
92	Penetration dynamics of a magnetic field pulse into high- superconductors. Superconductor Science and Technology, 1996, 9, 1042-1047.	3.5	9
93	Effect of eutectic additions and sintering temperature on the microstructure, density and critical current of oxalate derived YBCO. Applied Superconductivity, 1995, 3, 229-235.	0.5	1
94	Interrelation of calcination temperature, surface area and densification of oxalate-derived YBCO. Applied Superconductivity, 1995, 3, 543-550.	0.5	14
95	Spray pyrolysis of YBCO precursors. Journal of Materials Research, 1994, 9, 2490-2500.	2.6	10
96	S-N transition of HIGH-Tc superconducting ring caused by induced current. Applied Superconductivity, 1994, 2, 123-126.	0.5	5
97	YBCO Oxalate Coprecipitation in Alcoholic Solutions. Journal of the American Ceramic Society, 1994, 77, 1436-1440.	3.8	27
98	Preparation of uncladded YBCO wires. Physica C: Superconductivity and Its Applications, 1993, 209, 273-276.	1.2	2
99	Experimental investigation of current-limiting device model based on high-Tc superconductors. Physica C: Superconductivity and Its Applications, 1993, 209, 277-280.	1.2	18
100	Tape Casting Slip Preparation by in Situ Polymerization. Journal of the American Ceramic Society, 1993, 76, 1809-1814.	3.8	25
101	Testing of an inductive current-limiting device based on high-T/sub c/ superconductors. IEEE Transactions on Applied Superconductivity, 1993, 3, 3033-3036.	1.7	10
102	Forming methods for high Tc superconductors. Thermochimica Acta, 1991, 174, 239-251.	2.7	1
103	Reduction of Ba2YCu3O7 and Y2Cu2O5 by H2. Thermochimica Acta, 1989, 137, 373-381.	2.7	15
104	Effect of starting particle size and vacuum processing on the yttrium barium copper oxide (YBa2Cu3Ox) phase formation. Chemistry of Materials, 1989, 1, 665-668.	6.7	16
105	Magnetization Measurements of 5Âµm Ba0.6K0.4BiO3 Crystals: Approach to Intrinsic Behavior with Decreasing Size. Materials Research Society Symposia Proceedings, 1989, 169, 1081.	0.1	1
106	Tl-Based Superconducting Films by Sputtering Using a Single Target. , 1989, , 229-236.		2
107	Critical Current Densities in Thin Ceramic Tapes of Superconducting Ba2YCu3O7. Journal of the American Ceramic Society, 1988, 71, C-291-C-293.	3.8	4
108	Some effects of CO2, CO and H2O upon the properties of Ba2YCu3O7. Materials Research Bulletin, 1988, 23, 1491-1499.	5.2	56

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109	Superconducting Tlâ€Baâ€Caâ€Cuâ€O films by sputtering. Applied Physics Letters, 1988, 53, 2102-2104.	3.3	48
110	Extraordinary Hall effect inYBa2Cu3O7â^'Î´superconductors. Physical Review B, 1988, 38, 9198-9200.	3.2	55
111	Crystallographic, thermodynamic, and transport properties of theBi2Sr3â^'xCaxCu2O8+Î´superconductor. Physical Review B, 1988, 38, 757-760.	3.2	87
112	Magnetization measurements of single levitated grains of Ba2YCu3O7. Applied Physics Letters, 1988, 53, 2238-2240.	3.3	13
113	Improved press forging of Ba2YCu3Oxsuperconductor. Applied Physics Letters, 1988, 52, 1831-1833.	3.3	44
114	Superconductivity at 121 K in a new bulk Tlâ€Baâ€Caâ€Cuâ€O compound. Applied Physics Letters, 1988, 53, 911-912.	3.3	7
115	Persistent currents in ceramic and evaporated thinâ€film toroids of Ba2YCu3O7. Applied Physics Letters, 1988, 52, 328-330.	3.3	25
116	Persistent currents in Tlâ€Baâ€Caâ€Cuâ€O superconductors. Applied Physics Letters, 1988, 53, 319-320.	3.3	8
117	Hall coefficient and oxygen stoichiometry inYBa2Cu3O7â^'Î´ceramics at elevated temperatures. Physical Review B, 1988, 38, 844-847.	3.2	40
118	Highâ€temperature resistivity of the Ba2YCu3Oxsuperconductor. Applied Physics Letters, 1987, 51, 1115-1117.	3.3	60
119	Fourier transform infrared spectrometer for a single aerosol particle. Review of Scientific Instruments, 1987, 58, 584-587.	1.3	19
120	Stress and field dependence of critical current in Ba2YCu3O7â^'Î´superconductors. Applied Physics Letters, 1987, 51, 855-857.	3.3	43
121	Condensation rate of water on aqueous droplets in the transition regime. Journal of Colloid and Interface Science, 1986, 113, 421-429.	9.4	42
122	Particle sizing in the electrodynamic balance. Review of Scientific Instruments, 1986, 57, 933-936.	1.3	25