Thomas Gennett

List of Publications by Year
in descending order

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Version: 2024-02-01

44 papers	1,767 citations	430874 18 h-index	315739 38 g-index
50 all docs	50 docs citations	50 times ranked	2787 citing authors

#	Article	IF	Citations
1	Enhancement of Pt and Pt-alloy fuel cell catalyst activity and durability via nitrogen-modified carbon supports. Energy and Environmental Science, 2010, 3, 1437.	30.8	586
2	Record High Hydrogen Storage Capacity in the Metalâ€“Organic Framework Ni₂(m-dobdc) at Near-Ambient Temperatures. Chemistry of Materials, 2018, 30, 8179-8189.	6.7	182
3	An assessment of strategies for the development of solid-state adsorbents for vehicular hydrogen storage. Energy and Environmental Science, 2018, 11, 2784-2812.	30.8	162
4	Nitrogen: unraveling the secret to stable carbon-supported Pt-alloy electrocatalysts. Energy and Environmental Science, 2013, 6, 2957.	30.8	99
5	Fine-Tuning a Robust Metalâ€“Organic Framework toward Enhanced Clean Energy Gas Storage. Journal of the American Chemical Society, 2021, 143, 18838-18843.	13.7	79
6	Tuning Carbon-Based Fuel Cell Catalyst Support Structures via Nitrogen Functionalization. I. Investigation of Structural and Compositional Modification of Highly Oriented Pyrolytic Graphite Model Catalyst Supports as a Function of Nitrogen Implantation Dose. Journal of Physical Chemistry C, 2011, 115, 13667-13675.	3.1	76
7	Tuning Carbon-Based Fuel Cell Catalyst Support Structures via Nitrogen Functionalization. II. Investigation of Durability of Ptâ€“Ru Nanoparticles Supported on Highly Oriented Pyrolytic Graphite Model Catalyst Supports As a Function of Nitrogen Implantation Dose. Journal of Physical Chemistry C, 2011, 115, 13676-13684.	3.1	54
8	Close Packing of Nitroxide Radicals in Stable Organic Radical Polymeric Materials. Journal of Physical Chemistry Letters, 2015, 6, 1414-1419.	4.6	44
9	Colloidal three-dimensional covalent organic frameworks and their application as porous liquids. Journal of Materials Chemistry A, 2020, 8, 23455-23462.	10.3	37
10	Ptâ€“Ru Alloyed Fuel Cell Catalysts Sputtered from a Single Alloyed Target. ACS Catalysis, 2011, 1, 1307-1315.	11.2	32
11	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
12	Observation of an Intermediate to H₂ Binding in a Metalâ€“Organic Framework. Journal of the American Chemical Society, 2021, 143, 14884-14894.	13.7	32
13	Hydrogen adsorption properties of platinum decorated hierarchically structured templated carbons. Microporous and Mesoporous Materials, 2013, 177, 66-74.	4.4	27
14	An International Laboratory Comparison Study of Volumetric and Gravimetric Hydrogen Adsorption Measurements. ChemPhysChem, 2019, 20, 1997-2009.	2.1	26
15	Recommended volumetric capacity definitions and protocols for accurate, standardized and unambiguous metrics for hydrogen storage materials. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	25
16	Molecular Dynamics Simulation Study of Solvent and State of Charge Effects on Solid-Phase Structure and Counterion Binding in a Nitroxide Radical Containing Polymer Energy Storage Material. Journal of Physical Chemistry C, 2016, 120, 25639-25646.	3.1	23
17	Thermal Activation of a Copper-Loaded Covalent Organic Framework for Near-Ambient Temperature Hydrogen Storage and Delivery. , 2020, 2, 227-232.		21
18	Fabrication, electrical and optical properties of silver, indium tin oxide (<scp>ITO</scp>), and indium zinc oxide (<scp>IZO</scp>) nanostructure arrays. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 831-838.	1.8	20

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19	An international multi-laboratory investigation of carbon-based hydrogen sorbent materials. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	20
20	Characterization of Complex Interactions at the Gasâ€“Solid Interface with in Situ Spectroscopy: The Case of Nitrogen-Functionalized Carbon. Journal of Physical Chemistry C, 2019, 123, 9074-9086.	3.1	17
21	Thermal Conversion of Unsolvated Mg(B₃H₈)₂ to BH₄^{â€“} in the Presence of MgH₂. ACS Applied Energy Materials, 2021, 4, 3737-3747.	5.1	17
22	Water-Mediated Cooperative Migration of Chemisorbed Hydrogen on Graphene. Physical Review Letters, 2014, 112, 076101.	7.8	16
23	Spectroscopic investigation of nitrogenâ€functionalized carbon materials. Surface and Interface Analysis, 2016, 48, 283-292.	1.8	16
24	Radio-frequency superimposed direct current magnetron sputtered Ga:ZnO transparent conducting thin films. Journal of Applied Physics, 2012, 111, .	2.5	13
25	The impact of radical loading and oxidation on the conformation of organic radical polymers by small angle neutron scattering. Journal of Materials Chemistry A, 2018, 6, 15659-15667.	10.3	13
26	Physi-Sorption of H2 on Pure and Boronâ€“Doped Graphene Monolayers: A Dispersionâ€“Corrected DFT Study. Journal of Carbon Research, 2020, 6, 15.	2.7	13
27	Al₂O₃ Atomic Layer Deposition on Nanostructured Î³-Mg(BH₄)₂ for H₂ Storage. ACS Applied Energy Materials, 2021, 4, 1150-1162.	5.1	13
28	In situ small-angle x-ray scattering analysis of improved catalystâ€”support interactions through nitrogen modification. MRS Communications, 2012, 2, 85-89.	1.8	10
29	Runaway Carbon Dioxide Conversion Leads to Enhanced Uptake in a Nanohybrid Form of Porous Magnesium Borohydride. Advanced Materials, 2019, 31, e1904252.	21.0	10
30	Confirmation of the Dominant Defect Mechanism in Amorphous Inâ€“Znâ€“O Through the Application of In Situ Brouwer Analysis. Journal of the American Ceramic Society, 2015, 98, 2099-2103.	3.8	8
31	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
32	Additive Destabilization of Porous Magnesium Borohydride Framework with Coreâ€Shell Structure. Small, 2021, 17, e2101989.	10.0	6
33	Mg(BH₄)₂-Based Hybrid Metalâ€“Organic Borohydride System Exhibiting Enhanced Chemical Stability in Melt. ACS Applied Energy Materials, 2021, 4, 1704-1713.	5.1	5
34	Reactive Vapor-Phase Additives toward Destabilizing Î³-Mg(BH₄)₂ for Improved Hydrogen Release. ACS Applied Energy Materials, 2022, 5, 1690-1700.	5.1	5
35	Fluorescent Probe of Aminopolymer Mobility in Bulk and in Nanoconfined Direct Air CO₂ Capture Supports. Journal of Physical Chemistry C, 2022, 126, 10419-10428.	3.1	5
36	Development of solution-processed nanowire composites for opto-electronics. MRS Communications, 2016, 6, 341-347.	1.8	3

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37	A core-level spectroscopic investigation of the preparation and electrochemical cycling of nitrogen-modified carbon as a model catalyst support. Journal of Materials Chemistry A, 2016, 4, 443-450.	10.3	3
38	Humidity-resistant high-conductivity amorphous-InZnO transparent conductors. , 2009, , .		2
39	Novel transparent conducting barriers for photovoltaics. , 2010, , .		2
40	Reactions and reversible hydrogenation of single-walled carbon nanotube anions. Journal of Materials Research, 2012, 27, 2806-2811.	2.6	2
41	Thermal stability and structural studies on the mixtures of Mg(BH₄)₂ and glymes. Dalton Transactions, 2022, 51, 7268-7273.	3.3	2
42	Excimer laser treatment of carbon nanotubes. , 2006, , .		0
43	Mechanism of Hydrogen Storage on Reduced Carbon Single-Walled Nanotubes. Materials Research Society Symposia Proceedings, 2008, 1098, 1.	0.1	0
44	Superimposed RF/DC magnetron sputtering of transparent Ga:ZnO with high conductivity for photovoltaic contacts applications. , 2010, , .		0