

Brian G Trewyn

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9109466/publications.pdf>

Version: 2024-02-01

78
papers

12,812
citations

76326

40
h-index

79698

73
g-index

84
all docs

84
docs citations

84
times ranked

14426
citing authors

#	ARTICLE	IF	CITATIONS
1	A Mesoporous Silica Nanosphere-Based Carrier System with Chemically Removable CdS Nanoparticle Caps for Stimuli-Responsive Controlled Release of Neurotransmitters and Drug Molecules. <i>Journal of the American Chemical Society</i> , 2003, 125, 4451-4459.	13.7	1,618
2	Mesoporous silica nanoparticles deliver DNA and chemicals into plants. <i>Nature Nanotechnology</i> , 2007, 2, 295-300.	31.5	1,242
3	Synthesis and Functionalization of a Mesoporous Silica Nanoparticle Based on the Sol-Gel Process and Applications in Controlled Release. <i>Accounts of Chemical Research</i> , 2007, 40, 846-853.	15.6	1,027
4	Stimuli-Responsive Controlled-Release Delivery System Based on Mesoporous Silica Nanorods Capped with Magnetic Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2005, 44, 5038-5044.	13.8	938
5	Mesoporous Silica Nanoparticles for Intracellular Controlled Drug Delivery. <i>Small</i> , 2010, 6, 1952-1967.	10.0	907
6	Effect of Surface Functionalization of MCM-41-Type Mesoporous Silica Nanoparticles on the Endocytosis by Human Cancer Cells. <i>Journal of the American Chemical Society</i> , 2006, 128, 14792-14793.	13.7	779
7	Mesoporous Silica Nanoparticles for Intracellular Delivery of Membrane-Impermeable Proteins. <i>Journal of the American Chemical Society</i> , 2007, 129, 8845-8849.	13.7	734
8	Mesoporous Silica Nanoparticle-Based Double Drug Delivery System for Glucose-Responsive Controlled Release of Insulin and Cyclic AMP. <i>Journal of the American Chemical Society</i> , 2009, 131, 8398-8400.	13.7	707
9	Mesoporous silica nanoparticle based controlled release, drug delivery, and biosensor systems. <i>Chemical Communications</i> , 2007, , 3236.	4.1	532
10	Interaction of Mesoporous Silica Nanoparticles with Human Red Blood Cell Membranes: Size and Surface Effects. <i>ACS Nano</i> , 2011, 5, 1366-1375.	14.6	493
11	Morphological Control of Room-Temperature Ionic Liquid Templated Mesoporous Silica Nanoparticles for Controlled Release of Antibacterial Agents. <i>Nano Letters</i> , 2004, 4, 2139-2143.	9.1	413
12	Mesoporous silica nanoparticles: structural design and applications. <i>Journal of Materials Chemistry</i> , 2010, 20, 7924.	6.7	363
13	Aerobic oxidation of amines to imines catalyzed by bulk gold powder and by alumina-supported gold. <i>Journal of Catalysis</i> , 2008, 260, 1-6.	6.2	200
14	Mesoporous Silica Nanoparticle-Mediated Intracellular Cre Protein Delivery for Maize Genome Editing via <i>loxP</i> Site Excision. <i>Plant Physiology</i> , 2014, 164, 537-547.	4.8	190
15	Capped mesoporous silica nanoparticles as stimuli-responsive controlled release systems for intracellular drug/gene delivery. <i>Expert Opinion on Drug Delivery</i> , 2010, 7, 1013-1029.	5.0	157
16	Mesoporous silica nanomaterial-based biotechnological and biomedical delivery systems. <i>Nanomedicine</i> , 2007, 2, 99-111.	3.3	146
17	Gold Functionalized Mesoporous Silica Nanoparticle Mediated Protein and DNA Codelivery to Plant Cells Via the Biolistic Method. <i>Advanced Functional Materials</i> , 2012, 22, 3576-3582.	14.9	137
18	Light- and pH-Responsive Release of Doxorubicin from a Mesoporous Silica-Based Nanocarrier. <i>Chemistry - A European Journal</i> , 2011, 17, 3338-3342.	3.3	118

#	ARTICLE	IF	CITATIONS
19	Encapsulation, stabilization, and release of BSA-FITC from polyanhydride microspheres. <i>Journal of Controlled Release</i> , 2004, 100, 97-109.	9.9	114
20	Hybrid Mesoporous Silica/Noble-Metal Nanoparticle Materials—Synthesis and Catalytic Applications. <i>ACS Applied Nano Materials</i> , 2018, 1, 4386-4400.	5.0	103
21	Polymer-based stimuli-responsive nanosystems for biomedical applications. <i>Biotechnology Journal</i> , 2013, 8, 931-945.	3.5	88
22	Luciferase and Luciferin Co-immobilized Mesoporous Silica Nanoparticle Materials for Intracellular Biocatalysis. <i>Journal of the American Chemical Society</i> , 2011, 133, 18554-18557.	13.7	86
23	Exocytosis of Mesoporous Silica Nanoparticles from Mammalian Cells: From Asymmetric Cell-to-Cell Transfer to Protein Harvesting. <i>Small</i> , 2011, 7, 1526-1532.	10.0	84
24	Catalytic Reactions of Carbene Precursors on Bulk Gold Metal. <i>Journal of the American Chemical Society</i> , 2009, 131, 11734-11743.	13.7	83
25	Controlled release and intracellular protein delivery from mesoporous silica nanoparticles. <i>Biotechnology Journal</i> , 2017, 12, 1600408.	3.5	81
26	Substrate inhibition in the heterogeneous catalyzed aldol condensation: A mechanistic study of supported organocatalysts. <i>Journal of Catalysis</i> , 2012, 291, 63-68.	6.2	76
27	Endocytosis of a single mesoporous silica nanoparticle into a human lung cancer cell observed by differential interference contrast microscopy. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 391, 2119-2125.	3.7	75
28	Surfactant-assisted controlled release of hydrophobic drugs using anionic surfactant templated mesoporous silica nanoparticles. <i>Biomaterials</i> , 2011, 32, 6234-6244.	11.4	74
29	Parameters Affecting the Efficient Delivery of Mesoporous Silica Nanoparticle Materials and Gold Nanorods into Plant Tissues by the Biolistic Method. <i>Small</i> , 2012, 8, 413-422.	10.0	64
30	One-pot reaction cascades catalyzed by base- and acid-functionalized mesoporous silica nanoparticles. <i>New Journal of Chemistry</i> , 2008, 32, 1311.	2.8	62
31	Solvent-Induced Reversal of Activities between Two Closely Related Heterogeneous Catalysts in the Aldol Reaction. <i>ACS Catalysis</i> , 2013, 3, 265-271.	11.2	54
32	Chemically Reducible Lipid Bilayer Coated Mesoporous Silica Nanoparticles Demonstrating Controlled Release and HeLa and Normal Mouse Liver Cell Biocompatibility and Cellular Internalization. <i>Molecular Pharmaceutics</i> , 2012, 9, 2770-2777.	4.6	52
33	Review of the harvesting and extraction program within the National Alliance for Advanced Biofuels and Bioproducts. <i>Algal Research</i> , 2018, 33, 470-485.	4.6	50
34	Ligand Conformation Dictates Membrane and Endosomal Trafficking of Arginine-Glycine-Aspartate (RGD)-Functionalized Mesoporous Silica Nanoparticles. <i>Chemistry - A European Journal</i> , 2012, 18, 7787-7792.	3.3	48
35	Urea and Thiourea-Functionalized Mesoporous Silica Nanoparticle Catalysts with Enhanced Catalytic Activity for Diels-Alder Reaction. <i>Topics in Catalysis</i> , 2010, 53, 187-191.	2.8	47
36	Interaction effects of mesoporous silica nanoparticles with different morphologies on human red blood cells. <i>RSC Advances</i> , 2013, 3, 2454.	3.6	45

#	ARTICLE	IF	CITATIONS
37	Molybdenum incorporated mesoporous silica catalyst for production of biofuels and value-added chemicals via catalytic fast pyrolysis. <i>Green Chemistry</i> , 2015, 17, 3035-3046.	9.0	45
38	Deactivation of Multilayered MFI Nanosheet Zeolite during Upgrading of Biomass Pyrolysis Vapors. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 5477-5484.	6.7	44
39	Solid-State ¹³ C NMR Characterization of Carbon-Modified TiO ₂ . <i>Chemistry of Materials</i> , 2009, 21, 1187-1197.	6.7	42
40	Application of Mesoporous Silica Nanoparticles in Intracellular Delivery of Molecules and Proteins. <i>Methods in Enzymology</i> , 2012, 508, 41-59.	1.0	42
41	Poly(lactic acid)-coated mesoporous silica nanosphere for controlled release of venlafaxine. <i>Journal of Colloid and Interface Science</i> , 2011, 360, 488-496.	9.4	41
42	Functional Mesoporous Silica Nanoparticles for the Selective Sequestration of Free Fatty Acids from Microalgal Oil. <i>ACS Applied Materials & Interfaces</i> , 2012, 4, 1003-1009.	8.0	36
43	Organometallic Complexes Anchored to Conductive Carbon for Electrocatalytic Oxidation of Methane at Low Temperature. <i>Journal of the American Chemical Society</i> , 2016, 138, 116-125.	13.7	34
44	Mimicking Red Blood Cell Lipid Membrane To Enhance the Hemocompatibility of Large-Pore Mesoporous Silica. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 1675-1681.	8.0	30
45	Mesoporous Silica Nanoparticle-Stabilized and Manganese-Modified Rhodium Nanoparticles as Catalysts for Highly Selective Synthesis of Ethanol and Acetaldehyde from Syngas. <i>ChemCatChem</i> , 2012, 4, 674-680.	3.7	28
46	Aerobic Epoxidation of Olefin by Platinum Catalysts Supported on Mesoporous Silica Nanoparticles. <i>ACS Catalysis</i> , 2016, 6, 4584-4593.	11.2	28
47	Mesoporous Silica-Supported Uranyl(V) Synthesis and Photoreactivity. <i>Inorganic Chemistry</i> , 2005, 44, 5641-5648.	4.0	24
48	Aerobic oxidative esterification of primary alcohols over Pd-Au bimetallic catalysts supported on mesoporous silica nanoparticles. <i>Catalysis Today</i> , 2018, 306, 81-88.	4.4	24
49	Palladium Intercalated into the Walls of Mesoporous Silica as Robust and Regenerable Catalysts for Hydrodeoxygenation of Phenolic Compounds. <i>ACS Omega</i> , 2018, 3, 7681-7691.	3.5	23
50	Elucidating Zeolite Deactivation Mechanisms During Biomass Catalytic Fast Pyrolysis from Model Reactions and Zeolite Syntheses. <i>Topics in Catalysis</i> , 2016, 59, 73-85.	2.8	19
51	Direct synthesis of silver nanoparticles modified spherical mesoporous silica as efficient antibacterial materials. <i>Microporous and Mesoporous Materials</i> , 2021, 313, 110824.	4.4	19
52	Tandem Catalytic Systems Integrating Biocatalysts and Inorganic Catalysts Using Functionalized Porous Materials. <i>ACS Catalysis</i> , 2021, 11, 110-122.	11.2	19
53	In-Situ Formation of Metal Carbide Catalysts. <i>ChemCatChem</i> , 2017, 9, 3090-3101.	3.7	18
54	Microcolumn lanthanide separation using bis-(2-ethylhexyl) phosphoric acid functionalized ordered mesoporous carbon materials. <i>Journal of Chromatography A</i> , 2019, 1595, 248-256.	3.7	17

#	ARTICLE	IF	CITATIONS
55	Mesoporous Aluminum Silicate Catalyst with Single-Type Active Sites: Characterization by Solid-State NMR and Studies of Reactivity for Claisen Rearrangement Reactions. <i>Journal of Physical Chemistry C</i> , 2007, 111, 1480-1486.	3.1	16
56	MESOPOROUS SILICA NANOPARTICLES: SYNTHESIS AND APPLICATIONS. <i>Annual Review of Nano Research</i> , 2009, , 191-231.	0.2	16
57	Universal and Versatile Route for Selective Covalent Tethering of Single-Site Catalysts and Functional Groups on the Surface of Ordered Mesoporous Carbons. <i>Chemistry of Materials</i> , 2014, 26, 2873-2882.	6.7	16
58	High-Throughput Analysis of Algal Crude Oils Using High Resolution Mass Spectrometry. <i>Lipids</i> , 2013, 48, 297-305.	1.7	13
59	Breaking the fibrinolytic speed limit with microwheel co-delivery of tissue plasminogen activator and plasminogen. <i>Journal of Thrombosis and Haemostasis</i> , 2022, 20, 486-497.	3.8	13
60	Enhanced metal loading in SBA-15-type catalysts facilitated by salt addition: Synthesis, characterization and catalytic epoxide alcoholysis activity of molybdenum incorporated porous silica. <i>Applied Catalysis A: General</i> , 2014, 475, 469-476.	4.3	12
61	Electrochemical reduction of europium(III) using tetra-n-octyl diglycolamide functionalized ordered mesoporous carbon microelectrodes. <i>Journal of Materials Chemistry C</i> , 2020, 8, 6689-6700.	5.5	11
62	Direct synthesis of Fe rich SBA-15 at low pH by in-situ formation of iron phosphate phase. <i>Microporous and Mesoporous Materials</i> , 2019, 276, 270-279.	4.4	10
63	Synthesis of nanotubes via cationic polymerization of styrene and divinylbenzene. <i>Polymer Chemistry</i> , 2010, 1, 1427.	3.9	9
64	Decarboxylation of stearic acid over Ni/MOR catalysts. <i>Journal of Chemical Technology and Biotechnology</i> , 2020, 95, 102-110.	3.2	9
65	Best Practices in the Characterization of MOF@MSN Composites. <i>Inorganic Chemistry</i> , 2022, 61, 4219-4234.	4.0	7
66	Monitoring the Stimulated Uncapping Process of Gold-Capped Mesoporous Silica Nanoparticles. <i>Analytical Chemistry</i> , 2018, 90, 3183-3188.	6.5	6
67	Conserved Activity of Reassociated Homotetrameric Protein Subunits Released from Mesoporous Silica Nanoparticles. <i>Langmuir</i> , 2018, 34, 228-233.	3.5	6
68	Vacancy Healing as a Desorption Tool: Oxygen Triggered Removal of Stored Ammonia from NiO _{1-x} /MOR Validated by Experiments and Simulations. <i>ACS Applied Energy Materials</i> , 2020, 3, 8233-8239.	5.1	6
69	Nanoparticle-Mediated Recombinase Delivery into Maize. <i>Methods in Molecular Biology</i> , 2017, 1642, 169-180.	0.9	5
70	Strategies for post-synthetic functionalization of mesoporous carbon nanomaterial surfaces. <i>Microporous and Mesoporous Materials</i> , 2022, 329, 111453.	4.4	5
71	Multiscale investigations of europium(III) complexation with tetra-n-octyl diglycolamide confined in porous solid supports. <i>CrystEngComm</i> , 2020, 22, 6886-6899.	2.6	3
72	Surface-Functionalized Nanoporous Catalysts for Renewable Chemistry. , 0, , 15-47.		2

#	ARTICLE	IF	CITATIONS
73	Surface-Functionalized Nanoporous Catalysts towards Biofuel Applications. , 0, , 319-357.		1
74	MgO(111) Nanocatalyst for Biomass Conversion: A Study of Carbon Coating Effects on Catalyst Faceting and Performance. Catalysis Letters, 0, , 1.	2.6	1
75	Drug Delivery: Exocytosis of Mesoporous Silica Nanoparticles from Mammalian Cells: From Asymmetric Cell-to-Cell Transfer to Protein Harvesting (Small 11/2011). Small, 2011, 7, 1498-1498.	10.0	0
76	Chemistry in Confined Pore Domains. World Scientific Series in Nanoscience and Nanotechnology, 2015, , 435-456.	0.1	0
77	Electroreduction as a facile method for one-pot synthesis of CuZSM-5 nanostructures. Nano Structures Nano Objects, 2018, 16, 354-362.	3.5	0
78	Targeted Catalyst Design to Combat Deactivation in the Liquid Phase. ACS Symposium Series, 2020, , 267-293.	0.5	0