Sharon J Mitchell

List of Publications by Year
in descending order

117 papers	8,988 citations	50276 46 h-index	42399 92 g-index
134 all docs	134 docs citations	134 times ranked	9015 citing authors

#	Article	IF	Citations
1	Hierarchical Zeolites Overcome all Obstacles: Next Stop Industrial Implementation. Chimia, 2022, 67, 327.	0.6	29
2	Scalable two-step annealing method for preparing ultra-high-density single-atom catalyst libraries. Nature Nanotechnology, 2022, 17, 174-181.	31.5	279
3	Redispersion strategy for high-loading carbon-supported metal catalysts with controlled nuclearity. Journal of Materials Chemistry A, 2022, 10, 5953-5961.	10.3	16
4	Natural Wood-Based Catalytic Membrane Microreactors for Continuous Hydrogen Generation. ACS Applied Materials & Interfaces, 2022, 14, 8417-8426.	8.0	16
5	Automated Image Analysis for Single-Atom Detection in Catalytic Materials by Transmission Electron Microscopy. Journal of the American Chemical Society, 2022, 144, 8018-8029.	13.7	33
6	Single-atom heterogeneous catalysts for sustainable organic synthesis. Trends in Chemistry, 2022, 4, 264-276.	8.5	27
7	Elucidation of Metal Local Environments in Singleâ€Atom Catalysts Based on Carbon Nitrides. Small, 2022, 18, .	10.0	15
8	Assessing the environmental benefit of palladium-based single-atom heterogeneous catalysts for Sonogashira coupling. Green Chemistry, 2022, 24, 6879-6888.	9.0	10
9	Elucidation of radical- and oxygenate-driven paths in zeolite-catalysed conversion of methanol and methyl chloride to hydrocarbons. Nature Catalysis, 2022, 5, 605-614.	34.4	32
10	Design of Local Atomic Environments in Singleâ€Atom Electrocatalysts for Renewable Energy Conversions. Advanced Materials, 2021, 33, e2003075.	21.0	187
11	Nanoscale engineering of catalytic materials for sustainable technologies. Nature Nanotechnology, 2021, 16, 129-139.	31.5	210
12	Impact of Heteroatom Speciation on the Activity and Stability of Carbonâ€Based Catalysts for Propane Dehydrogenation. ChemCatChem, 2021, 13, 2599-2608.	3.7	11
13	Precursor Nuclearity and Ligand Effects in Atomicallyâ€Dispersed Heterogeneous Iron Catalysts for Alkyne Semiâ€Hydrogenation. ChemCatChem, 2021, 13, 3247-3256.	3.7	11
14	Atomically precise control in the design of low-nuclearity supported metal catalysts. Nature Reviews Materials, 2021, 6, 969-985.	48.7	78
15	Dual catalyst system for selective vinyl chloride production <i>via</i> ethene oxychlorination. Catalysis Science and Technology, 2020, 10, 560-575.	4.1	4
16	Nitrogenâ€Doped Carbons with Hierarchical Porosity via Chemical Blowing Towards Longâ€Lived Metalâ€Free Catalysts for Acetylene Hydrochlorination. ChemCatChem, 2020, 12, 1922-1925.	3.7	10
17	Aluminum Redistribution in ZSM-5 Zeolite upon Interaction with Gaseous Halogens and Hydrogen Halides and Implications in Catalysis. Journal of Physical Chemistry C, 2020, 124, 722-733.	3.1	8
18	Epitaxially Directed Iridium Nanostructures on Titanium Dioxide for the Selective Hydrodechlorination of Dichloromethane. ACS Catalysis, 2020, 10, 528-542.	11.2	24

#	Article	IF	Citations
19	Single-Atom Catalysts across the Periodic Table. Chemical Reviews, 2020, 120, 11703-11809.	47.7	690
20	Carrierâ€Induced Modification of Palladium Nanoparticles on Porous Boron Nitride for Alkyne Semiâ€Hydrogenation. Angewandte Chemie, 2020, 132, 19807-19812.	2.0	11
21	Single atom catalysis: a decade of stunning progress and the promise for a bright future. Nature Communications, 2020, 11, 4302.	12.8	179
22	Activation of Copper Species on Carbon Nitride for Enhanced Activity in the Arylation of Amines. ACS Catalysis, 2020, 10, 11069-11080.	11.2	29
23	Substrate substitution effects in the Fries rearrangement of aryl esters over zeolite catalysts. Catalysis Science and Technology, 2020, 10, 4282-4292.	4.1	5
24	Carrierâ€Induced Modification of Palladium Nanoparticles on Porous Boron Nitride for Alkyne Semiâ€Hydrogenation. Angewandte Chemie - International Edition, 2020, 59, 19639-19644.	13.8	36
25	Structure Sensitivity and Evolution of Nickel-Bearing Nitrogen-Doped Carbons in the Electrochemical Reduction of CO₂. ACS Catalysis, 2020, 10, 3444-3454.	11.2	20
26	Tunability and Scalability of Single-Atom Catalysts Based on Carbon Nitride. ACS Sustainable Chemistry and Engineering, 2019, 7, 5223-5230.	6.7	31
27	Controlling the speciation and reactivity of carbon-supported gold nanostructures for catalysed acetylene hydrochlorination. Chemical Science, 2019, 10, 359-369.	7.4	76
28	Atomâ€byâ€Atom Resolution of Structureâ€“Function Relations over Lowâ€Nuclearity Metal Catalysts. Angewandte Chemie, 2019, 131, 8816-8821.	2.0	21
29	Tailoring Nitrogenâ€Doped Carbons as Hosts for Singleâ€Atom Catalysts. ChemCatChem, 2019, 11, 2812-2820.	3.7	40
30	Atomâ€byâ€Atom Resolution of Structureâ€“Function Relations over Lowâ€Nuclearity Metal Catalysts. Angewandte Chemie - International Edition, 2019, 58, 8724-8729.	13.8	108
31	Impact of carrier acidity on the conversion of syngas to higher alcohols over zeolite-supported copper-iron catalysts. Journal of Catalysis, 2019, 371, 116-125.	6.2	20
32	Ensemble Design in Nickel Phosphide Catalysts for Alkyne Semiâ€Hydrogenation. ChemCatChem, 2019, 11, 457-464.	3.7	25
33	Single-atom heterogeneous catalysts based on distinct carbon nitride scaffolds. National Science Review, 2018, 5, 642-652.	9.5	132
34	Acidity Effects in Positron Annihilation Lifetime Spectroscopy of Zeolites. Journal of Physical Chemistry C, 2018, 122, 3443-3453.	3.1	6
35	An Activated TiCâ€“SiC Composite for Natural Gas Upgrading via Catalytic Oxyhalogenation. ChemCatChem, 2018, 10, 1282-1290.	3.7	11
36	Elucidating the Distribution and Speciation of Boron and Cesium in BCsX Zeolite Catalysts for Styrene Production. ChemPhysChem, 2018, 19, 437-445.	2.1	12

#	Article	IF	Citations
37	Selective Methane Oxybromination over Nanostructured Ceria Catalysts. ACS Catalysis, 2018, 8, 291-303.	11.2	17
38	Die facettenreiche ReaktivitÃt heterogener Einzelatomâ€Katalysatoren. Angewandte Chemie, 2018, 130, 15538-15552.	2.0	36
39	Positron Annihilation Spectroscopy: Shedding New Light on Nanostructured Catalysts with Positron Annihilation Spectroscopy (Small Methods 12/2018). Small Methods, 2018, 2, 1800060.	8.6	1
40	Hydrotalcite-Derived Mixed Oxides for the Synthesis of a Key Vitamin A Intermediate Reducing Waste. ACS Omega, 2018, 3, 15293-15301.	3.5	4
41	Shedding New Light on Nanostructured Catalysts with Positron Annihilation Spectroscopy. Small Methods, 2018, 2, 1800268.	8.6	13
42	The Multifaceted Reactivity of Singleâ€Atom Heterogeneous Catalysts. Angewandte Chemie - International Edition, 2018, 57, 15316-15329.	13.8	261
43	Role of Carbonaceous Supports and Potassium Promoter on Higher Alcohols Synthesis over Copperâ€"Iron Catalysts. ACS Catalysis, 2018, 8, 9604-9618.	11.2	58
44	Structureâ€"performance descriptors and the role of Lewis acidity in the methanol-to-propylene process. Nature Chemistry, 2018, 10, 804-812.	13.6	221
45	A heterogeneous single-atom palladium catalyst surpassing homogeneous systems for Suzuki coupling. Nature Nanotechnology, 2018, 13, 702-707.	31.5	471
46	Selective ensembles in supported palladium sulfide nanoparticles for alkyne semi-hydrogenation. Nature Communications, 2018, 9, 2634.	12.8	180
47	Stabilization of Single Metal Atoms on Graphitic Carbon Nitride. Advanced Functional Materials, 2017, 27, 1605785.	14.9	249
48	Catalysts: Stabilization of Single Metal Atoms on Graphitic Carbon Nitride (Adv. Funct. Mater. 8/2017). Advanced Functional Materials, 2017, 27, .	14.9	2
49	Pore Topology Effects in Positron Annihilation Spectroscopy of Zeolites. ChemPhysChem, 2017, 18, 428-428.	2.1	0
50	Design of a technical Mgâ€"Al mixed oxide catalyst for the continuous manufacture of glycerol carbonate. Journal of Materials Chemistry A, 2017, 5, 16200-16211.	10.3	46
51	Europium Oxybromide Catalysts for Efficient Bromine Looping in Natural Gas Valorization. Angewandte Chemie, 2017, 129, 9923-9927.	2.0	10
52	Europium Oxybromide Catalysts for Efficient Bromine Looping in Natural Gas Valorization. Angewandte Chemie - International Edition, 2017, 56, 9791-9795.	13.8	27
53	Visualising compositional heterogeneity during the scale up of multicomponent zeolite bodies. Materials Horizons, 2017, 4, 857-861.	12.2	18
54	Tailoring the framework composition of carbon nitride to improve the catalytic efficiency of the stabilised palladium atoms. Journal of Materials Chemistry A, 2017, 5, 16393-16403.	10.3	83

#	Article	IF	Citations
55	Mapping the Birth and Evolution of Pores upon Thermal Activation of Layered Hydroxides. Chemistry of Materials, 2017, 29, 4052-4062.	6.7	18
56	Pore Topology Effects in Positron Annihilation Spectroscopy of Zeolites. ChemPhysChem, 2017, 18, 470-479.	2.1	9
57	Single atom catalysis. Catalysis Science and Technology, 2017, 7, 4248-4249.	4.1	34
58	Semihydrogenation of Acetylene on Indium Oxide: Proposed Singleâ€Ensemble Catalysis. Angewandte Chemie, 2017, 129, 10895-10900.	2.0	17
59	Semihydrogenation of Acetylene on Indium Oxide: Proposed Singleâ€Ensemble Catalysis. Angewandte Chemie - International Edition, 2017, 56, 10755-10760.	13.8	82
60	Engineering of ZSM-5 zeolite crystals for enhanced lifetime in the production of light olefins via 2-methyl-2-butene cracking. Catalysis Science and Technology, 2017, 7, 64-74.	4.1	40
61	Interfacial acidity in ligand-modified ruthenium nanoparticles boosts the hydrogenation of levulinic acid to gamma-valerolactone. Green Chemistry, 2017, 19, 2361-2370.	9.0	58
62	Indium Oxide as a Superior Catalyst for Methanol Synthesis by CO₂ Hydrogenation. Angewandte Chemie, 2016, 128, 6369-6373.	2.0	78
63	Titelbild: Indium Oxide as a Superior Catalyst for Methanol Synthesis by CO₂ Hydrogenation (Angew. Chem. 21/2016). Angewandte Chemie, 2016, 128, 6215-6215.	2.0	0
64	Quantifying the Complex Pore Architecture of Hierarchical Faujasite Zeolites and the Impact on Diffusion. Advanced Functional Materials, 2016, 26, 5621-5630.	14.9	61
65	Structural analysis of IPC zeolites and related materials using positron annihilation spectroscopy and high-resolution argon adsorption. Physical Chemistry Chemical Physics, 2016, 18, 15269-15277.	2.8	21
66	The assessment of pore connectivity in hierarchical zeolites using positron annihilation lifetime spectroscopy: instrumental and morphological aspects. Physical Chemistry Chemical Physics, 2016, 18, 9211-9219.	2.8	26
67	Enhanced Reduction of CO₂ to CO over Cuâ€“In Electrocatalysts: Catalyst Evolution Is the Key. ACS Catalysis, 2016, 6, 6265-6274.	11.2	170
68	Mechanochemically Activated, Calcium Oxideâ€Based, Magnesium Oxideâ€Stabilized Carbon Dioxide Sorbents. ChemSusChem, 2016, 9, 2380-2390.	6.8	40
69	Structuring hybrid palladium nanoparticles in metallic monolithic reactors for continuous-flow three-phase alkyne hydrogenation. Reaction Chemistry and Engineering, 2016, 1, 454-462.	3.7	18
70	Hierarchical Structures: Quantifying the Complex Pore Architecture of Hierarchical Faujasite Zeolites and the Impact on Diffusion (Adv. Funct. Mater. 31/2016). Advanced Functional Materials, 2016, 26, 5768-5768.	14.9	0
71	Lanthanide compounds as catalysts for the one-step synthesis of vinyl chloride from ethylene. Journal of Catalysis, 2016, 344, 524-534.	6.2	38
72	Insights into the Mechanism of Zeolite Detemplation by Positron Annihilation Lifetime Spectroscopy. Journal of Physical Chemistry C, 2016, 120, 25451-25461.	3.1	16

#	Article	IF	Citations
73	Indium Oxide as a Superior Catalyst for Methanol Synthesis by CO₂ Hydrogenation. Angewandte Chemie - International Edition, 2016, 55, 6261-6265.	13.8	769
74	Synergistic effects in silverâ€“indium electrocatalysts for carbon dioxide reduction. Journal of Catalysis, 2016, 343, 266-277.	6.2	73
75	Ligand ordering determines the catalytic response of hybrid palladium nanoparticles in hydrogenation. Catalysis Science and Technology, 2016, 6, 1621-1631.	4.1	45
76	Deoxygenation of bio-oil over solid base catalysts: From model to realistic feeds. Applied Catalysis B: Environmental, 2016, 184, 77-86.	20.2	59
77	Deactivation mechanisms of tin-zeolites in biomass conversions. Green Chemistry, 2016, 18, 1249-1260.	9.0	80
78	RÃ¼cktitelbild: Impact of Pore Connectivity on the Design of Long-Lived Zeolite Catalysts (Angew. Chem.) Tj ETQq0 0 0 rgBT /Overlock	2.0	0
79	Hierarchically Structured MnO₂â€Co/C Nanocomposites: Highly Efficient and Magnetically Recyclable Catalysts for the Aerobic Oxidation of Alcohols. ChemCatChem, 2015, 7, 2585-2589.	3.7	5
80	Aluminum Redistribution during the Preparation of Hierarchical Zeolites by Desilication. Chemistry - A European Journal, 2015, 21, 14156-14164.	3.3	44
81	Porosityâ€“Acidity Interplay in Hierarchical ZSMâ€5 Zeolites for Pyrolysis Oil Valorization to Aromatics. ChemSusChem, 2015, 8, 3283-3293.	6.8	105
82	Structure analysis of a BEC-type germanosilicate zeolite including the location of the flexible organic cations in the channels. CrystEngComm, 2015, 17, 4865-4870.	2.6	8
83	Structuring zeolite bodies for enhanced heat-transfer properties. Microporous and Mesoporous Materials, 2015, 208, 196-202.	4.4	16
84	Unified Method for the Total Pore Volume and Pore Size Distribution of Hierarchical Zeolites from Argon Adsorption and Mercury Intrusion. Langmuir, 2015, 31, 1242-1247.	3.5	41
85	Design of Base Zeolite Catalysts by Alkali-Metal Grafting in Alcoholic Media. ACS Catalysis, 2015, 5, 5388-5396.	11.2	40
86	Structural analysis of hierarchically organized zeolites. Nature Communications, 2015, 6, 8633.	12.8	206
87	Impact of Pore Connectivity on the Design of Longâ€Lived Zeolite Catalysts. Angewandte Chemie - International Edition, 2015, 54, 1591-1594.	13.8	84
88	From the Lindlar Catalyst to Supported Ligand-Modified Palladium Nanoparticles: Selectivity Patterns and Accessibility Constraints in the Continuous-Flow Three-Phase Hydrogenation of Acetylenic Compounds. Chemistry - A European Journal, 2014, 20, 5849-5849.	3.3	4
89	Bifunctional Cu/H-ZSM-5 zeolite with hierarchical porosity for hydrocarbon abatement under cold-start conditions. Applied Catalysis B: Environmental, 2014, 154-155, 161-170.	20.2	54
90	Rediscovering zeolite mechanochemistry â€“ A pathway beyond current synthesis and modification boundaries. Microporous and Mesoporous Materials, 2014, 194, 106-114.	4.4	45

#	Article	IF	Citations
91	Prospectives for bio-oil upgrading via esterification over zeolite catalysts. Catalysis Today, 2014, 235, 176-183.	4.4	83
92	From the Lindlar Catalyst to Supported Ligandâ€Modified Palladium Nanoparticles: Selectivity Patterns and Accessibility Constraints in the Continuousâ€Flow Threeâ€Phase Hydrogenation of Acetylenic Compounds. Chemistry - A European Journal, 2014, 20, 5926-5937.	3.3	141
93	Zeolites: Superior Mass Transfer Properties of Technical Zeolite Bodies with Hierarchical Porosity (Adv. Funct. Mater. 2/2014). Advanced Functional Materials, 2014, 24, 174-174.	14.9	0
94	Mesopore quality determines the lifetime of hierarchically structured zeolite catalysts. Nature Communications, 2014, 5, .	12.8	270
95	Design of hydrothermally-stable dawsonite-based sorbents in technical form for CO₂capture. Energy and Environmental Science, 2014, 7, 3640-3650.	30.8	3
96	Hydroxyapatite, an exceptional catalyst for the gas-phase deoxygenation of bio-oil by aldol condensation. Green Chemistry, 2014, 16, 4870-4874.	9.0	47
97	Effects of Binders on the Performance of Shaped Hierarchical MFI Zeolites in Methanol-to-Hydrocarbons. ACS Catalysis, 2014, 4, 2409-2417.	11.2	163
98	Superior Mass Transfer Properties of Technical Zeolite Bodies with Hierarchical Porosity. Advanced Functional Materials, 2014, 24, 209-219.	14.9	108
99	Hierarchical Zeolites by Desilication: Occurrence and Catalytic Impact of Recrystallization and Restructuring. Crystal Growth and Design, 2013, 13, 5025-5035.	3.0	74
100	Interdependence between porosity, acidity, and catalytic performance in hierarchical ZSM-5 zeolites prepared by post-synthetic modification. Journal of Catalysis, 2013, 308, 398-407.	6.2	99
101	Hierarchical FAUâ€•and LTAâ€Type Zeolites by Postâ€Synthetic Design: A New Generation of Highly Efficient Base Catalysts. Advanced Functional Materials, 2013, 23, 1923-1934.	14.9	125
102	From powder to technical body: the undervalued science of catalyst scale up. Chemical Society Reviews, 2013, 42, 6094.	38.1	244
103	Advanced visualization strategies bridge the multidimensional complexity of technical catalysts. Current Opinion in Chemical Engineering, 2013, 2, 304-311.	7.8	20
104	Visualization of hierarchically structured zeolite bodies from macro to nano length scales. Nature Chemistry, 2012, 4, 825-831.	13.6	234
105	Decoupling porosity and compositional effects on desilicated ZSM-5 zeolites for optimal alkylation performance. Catalysis Science and Technology, 2012, 2, 759.	4.1	64
106	Surface and Pore Structure Assessment of Hierarchical MFI Zeolites by Advanced Water and Argon Sorption Studies. Journal of Physical Chemistry C, 2012, 116, 18816-18823.	3.1	94
107	Hierarchically Structured Zeolite Bodies: Assembling Microâ€, Mesoâ€, and Macroporosity Levels in Complex Materials with Enhanced Properties. Advanced Functional Materials, 2012, 22, 2509-2518.	14.9	38
108	Towards more efficient monodimensional zeolite catalysts: n-alkane hydro-isomerisation on hierarchical ZSM-22. Catalysis Science and Technology, 2011, 1, 1331.	4.1	72

#	Article	IF	Citations
109	Full Compositional Flexibility in the Preparation of Mesoporous MFI Zeolites by Desilication. Journal of Physical Chemistry C, 2011, 115, 14193-14203.	3.1	230
110	Preparation of organic-functionalized mesoporous ZSM-5 zeolites by consecutive desilication and silanization. Materials Chemistry and Physics, 2011, 127, 278-284.	4.0	25
111	Expanding the Horizons of Hierarchical Zeolites: Beyond Laboratory Curiosity towards Industrial Realization. ChemCatChem, 2011, 3, 1731-1734.	3.7	84
112	Mesoporous zeolites as enzyme carriers: Synthesis, characterization, and application in biocatalysis. Catalysis Today, 2011, 168, 28-37.	4.4	84
113	Comparative study of the synthesis of layered transition metal molybdates. Journal of Solid State Chemistry, 2010, 183, 198-207.	2.9	19
114	Perturbing the properties of layered double hydroxides by continuous coprecipitation with short residence time. Journal of Materials Chemistry, 2010, 20, 5878.	6.7	23
115	The application of focused microwave irradiation coupled with freeze drying to investigate the reaction of MgO and Al2O3 slurries in the formation of layered double hydroxides. Green Chemistry, 2008, 10, 629.	9.0	8
116	A synchrotron radiation study of the hydrothermal synthesis of layered double hydroxides from MgO and Al2O3 slurries. Green Chemistry, 2007, 9, 373.	9.0	35
117	Carbonâ€Supported Bimetallic Rutheniumâ€Iridium Catalysts for Selective and Stable Hydrodebromination of Dibromomethane. ChemCatChem, 0, , .	3.7	5