

# Sharon J Mitchell

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

114  
papers

5,841  
citations

42  
h-index

74  
g-index

134  
ext. papers

7,318  
ext. citations

11.5  
avg, IF

6.31  
L-index

#	Paper	IF	Citations
114	Redispersion strategy for high-loading carbon-supported metal catalysts with controlled nuclearity.. <i>Journal of Materials Chemistry A</i> , <b>2022</b> , 10, 5953-5961	13	1
113	Natural Wood-Based Catalytic Membrane Microreactors for Continuous Hydrogen Generation.. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2022</b> ,	9.5	2
112	Automated Image Analysis for Single-Atom Detection in Catalytic Materials by Transmission Electron Microscopy.. <i>Journal of the American Chemical Society</i> , <b>2022</b> ,	16.4	4
111	Single-atom heterogeneous catalysts for sustainable organic synthesis. <i>Trends in Chemistry</i> , <b>2022</b> , 4, 264-276	14.6	1
110	Scalable two-step annealing method for preparing ultra-high-density single-atom catalyst libraries. <i>Nature Nanotechnology</i> , <b>2021</b> ,	28.7	40
109	Impact of Heteroatom Speciation on the Activity and Stability of Carbon-Based Catalysts for Propane Dehydrogenation. <i>ChemCatChem</i> , <b>2021</b> , 13, 2599-2608	5.2	4
108	Precursor Nuclearity and Ligand Effects in Atomically-Dispersed Heterogeneous Iron Catalysts for Alkyne Semi-Hydrogenation. <i>ChemCatChem</i> , <b>2021</b> , 13, 3247-3256	5.2	7
107	Design of Local Atomic Environments in Single-Atom Electrocatalysts for Renewable Energy Conversions. <i>Advanced Materials</i> , <b>2021</b> , 33, e2003075	24	73
106	Nanoscale engineering of catalytic materials for sustainable technologies. <i>Nature Nanotechnology</i> , <b>2021</b> , 16, 129-139	28.7	62
105	Substrate substitution effects in the Fries rearrangement of aryl esters over zeolite catalysts. <i>Catalysis Science and Technology</i> , <b>2020</b> , 10, 4282-4292	5.5	2
104	Carrier-Induced Modification of Palladium Nanoparticles on Porous Boron Nitride for Alkyne Semi-Hydrogenation. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 19639-19644	16.4	17
103	Structure Sensitivity and Evolution of Nickel-Bearing Nitrogen-Doped Carbons in the Electrochemical Reduction of CO <sub>2</sub> . <i>ACS Catalysis</i> , <b>2020</b> , 10, 3444-3454	13.1	14
102	Dual catalyst system for selective vinyl chloride production via ethene oxychlorination. <i>Catalysis Science and Technology</i> , <b>2020</b> , 10, 560-575	5.5	3
101	Nitrogen-Doped Carbons with Hierarchical Porosity via Chemical Blowing Towards Long-Lived Metal-Free Catalysts for Acetylene Hydrochlorination. <i>ChemCatChem</i> , <b>2020</b> , 12, 1922-1925	5.2	6
100	Aluminum Redistribution in ZSM-5 Zeolite upon Interaction with Gaseous Halogens and Hydrogen Halides and Implications in Catalysis. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 722-733	3.8	2
99	Epitaxially Directed Iridium Nanostructures on Titanium Dioxide for the Selective Hydrodechlorination of Dichloromethane. <i>ACS Catalysis</i> , <b>2020</b> , 10, 528-542	13.1	15
98	Single-Atom Catalysts across the Periodic Table. <i>Chemical Reviews</i> , <b>2020</b> , 120, 11703-11809	68.1	237

97	Carrier-Induced Modification of Palladium Nanoparticles on Porous Boron Nitride for Alkyne Semi-Hydrogenation. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 19807-19812	3.6	7
96	Single atom catalysis: a decade of stunning progress and the promise for a bright future. <i>Nature Communications</i> , <b>2020</b> , 11, 4302	17.4	67
95	Activation of Copper Species on Carbon Nitride for Enhanced Activity in the Arylation of Amines. <i>ACS Catalysis</i> , <b>2020</b> , 10, 11069-11080	13.1	12
94	Tunability and Scalability of Single-Atom Catalysts Based on Carbon Nitride. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2019</b> , 7, 5223-5230	8.3	17
93	Controlling the speciation and reactivity of carbon-supported gold nanostructures for catalysed acetylene hydrochlorination. <i>Chemical Science</i> , <b>2019</b> , 10, 359-369	9.4	48
92	Atom-by-Atom Resolution of Structure-Function Relations over Low-Nuclearity Metal Catalysts. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 8816-8821	3.6	11
91	Tailoring Nitrogen-Doped Carbons as Hosts for Single-Atom Catalysts. <i>ChemCatChem</i> , <b>2019</b> , 11, 2812-2820	3.0	26
90	Atom-by-Atom Resolution of Structure-Function Relations over Low-Nuclearity Metal Catalysts. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 8724-8729	16.4	64
89	Impact of carrier acidity on the conversion of syngas to higher alcohols over zeolite-supported copper-iron catalysts. <i>Journal of Catalysis</i> , <b>2019</b> , 371, 116-125	7.3	11
88	Ensemble Design in Nickel Phosphide Catalysts for Alkyne Semi-Hydrogenation. <i>ChemCatChem</i> , <b>2019</b> , 11, 457-464	5.2	16
87	Single-atom heterogeneous catalysts based on distinct carbon nitride scaffolds. <i>National Science Review</i> , <b>2018</b> , 5, 642-652	10.8	82
86	Acidity Effects in Positron Annihilation Lifetime Spectroscopy of Zeolites. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 3443-3453	3.8	4
85	Selective ensembles in supported palladium sulfide nanoparticles for alkyne semi-hydrogenation. <i>Nature Communications</i> , <b>2018</b> , 9, 2634	17.4	110
84	An Activated TiCBiC Composite for Natural Gas Upgrading via Catalytic Oxyhalogenation. <i>ChemCatChem</i> , <b>2018</b> , 10, 1282-1290	5.2	9
83	Elucidating the Distribution and Speciation of Boron and Cesium in BCsX Zeolite Catalysts for Styrene Production. <i>ChemPhysChem</i> , <b>2018</b> , 19, 437-445	3.2	10
82	Selective Methane Oxybromination over Nanostructured Ceria Catalysts. <i>ACS Catalysis</i> , <b>2018</b> , 8, 291-303	13.1	16
81	Die facettenreiche Reaktivität heterogener Einzelatom-Katalysatoren. <i>Angewandte Chemie</i> , <b>2018</b> , 130, 15538-15552	3.6	29
80	Positron Annihilation Spectroscopy: Shedding New Light on Nanostructured Catalysts with Positron Annihilation Spectroscopy (Small Methods 12/2018). <i>Small Methods</i> , <b>2018</b> , 2, 1800060	12.8	1

79	Hydrotalcite-Derived Mixed Oxides for the Synthesis of a Key Vitamin A Intermediate Reducing Waste. <i>ACS Omega</i> , <b>2018</b> , 3, 15293-15301	3.9	2
78	Shedding New Light on Nanostructured Catalysts with Positron Annihilation Spectroscopy. <i>Small Methods</i> , <b>2018</b> , 2, 1800268	12.8	5
77	The Multifaceted Reactivity of Single-Atom Heterogeneous Catalysts. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 15316-15329	16.4	179
76	Role of Carbonaceous Supports and Potassium Promoter on Higher Alcohols Synthesis over Copper/Iron Catalysts. <i>ACS Catalysis</i> , <b>2018</b> , 8, 9604-9618	13.1	40
75	Structure-performance descriptors and the role of Lewis acidity in the methanol-to-propylene process. <i>Nature Chemistry</i> , <b>2018</b> , 10, 804-812	17.6	145
74	A heterogeneous single-atom palladium catalyst surpassing homogeneous systems for Suzuki coupling. <i>Nature Nanotechnology</i> , <b>2018</b> , 13, 702-707	28.7	316
73	Stabilization of Single Metal Atoms on Graphitic Carbon Nitride. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1605785	15.6	172
72	Catalysts: Stabilization of Single Metal Atoms on Graphitic Carbon Nitride (Adv. Funct. Mater. 8/2017). <i>Advanced Functional Materials</i> , <b>2017</b> , 27,	15.6	2
71	Pore Topology Effects in Positron Annihilation Spectroscopy of Zeolites. <i>ChemPhysChem</i> , <b>2017</b> , 18, 428-428	3.6	7
70	Design of a technical Mg/Al mixed oxide catalyst for the continuous manufacture of glycerol carbonate. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 16200-16211	13	33
69	Europium Oxybromide Catalysts for Efficient Bromine Looping in Natural Gas Valorization. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 9923-9927	3.6	7
68	Europium Oxybromide Catalysts for Efficient Bromine Looping in Natural Gas Valorization. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 9791-9795	16.4	23
67	Visualising compositional heterogeneity during the scale up of multicomponent zeolite bodies. <i>Materials Horizons</i> , <b>2017</b> , 4, 857-861	14.4	12
66	Tailoring the framework composition of carbon nitride to improve the catalytic efficiency of the stabilised palladium atoms. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 16393-16403	13	57
65	Mapping the Birth and Evolution of Pores upon Thermal Activation of Layered Hydroxides. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 4052-4062	9.6	18
64	Pore Topology Effects in Positron Annihilation Spectroscopy of Zeolites. <i>ChemPhysChem</i> , <b>2017</b> , 18, 470-479	3.6	7
63	Semihydrogenation of Acetylene on Indium Oxide: Proposed Single-Ensemble Catalysis. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 10895-10900	3.6	13
62	Semihydrogenation of Acetylene on Indium Oxide: Proposed Single-Ensemble Catalysis. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 10755-10760	16.4	58

61	Engineering of ZSM-5 zeolite crystals for enhanced lifetime in the production of light olefins via 2-methyl-2-butene cracking. <i>Catalysis Science and Technology</i> , <b>2017</b> , 7, 64-74	5.5	36
60	Interfacial acidity in ligand-modified ruthenium nanoparticles boosts the hydrogenation of levulinic acid to gamma-valerolactone. <i>Green Chemistry</i> , <b>2017</b> , 19, 2361-2370	10	48
59	Mechanochemically Activated, Calcium Oxide-Based, Magnesium Oxide-Stabilized Carbon Dioxide Sorbents. <i>ChemSusChem</i> , <b>2016</b> , 9, 2380-90	8.3	27
58	Structuring hybrid palladium nanoparticles in metallic monolithic reactors for continuous-flow three-phase alkyne hydrogenation. <i>Reaction Chemistry and Engineering</i> , <b>2016</b> , 1, 454-462	4.9	14
57	Hierarchical Structures: Quantifying the Complex Pore Architecture of Hierarchical Faujasite Zeolites and the Impact on Diffusion (Adv. Funct. Mater. 31/2016). <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 5768-5768	15.6	
56	Lanthanide compounds as catalysts for the one-step synthesis of vinyl chloride from ethylene. <i>Journal of Catalysis</i> , <b>2016</b> , 344, 524-534	7.3	28
55	Insights into the Mechanism of Zeolite Detemplation by Positron Annihilation Lifetime Spectroscopy. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 25451-25461	3.8	14
54	Indium Oxide as a Superior Catalyst for Methanol Synthesis by CO <sub>2</sub> Hydrogenation. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 6261-5	16.4	486
53	Synergistic effects in silver/indium electrocatalysts for carbon dioxide reduction. <i>Journal of Catalysis</i> , <b>2016</b> , 343, 266-277	7.3	54
52	Ligand ordering determines the catalytic response of hybrid palladium nanoparticles in hydrogenation. <i>Catalysis Science and Technology</i> , <b>2016</b> , 6, 1621-1631	5.5	41
51	Deoxygenation of bio-oil over solid base catalysts: From model to realistic feeds. <i>Applied Catalysis B: Environmental</i> , <b>2016</b> , 184, 77-86	21.8	51
50	Deactivation mechanisms of tin-zeolites in biomass conversions. <i>Green Chemistry</i> , <b>2016</b> , 18, 1249-1260	10	72
49	Indium Oxide as a Superior Catalyst for Methanol Synthesis by CO <sub>2</sub> Hydrogenation. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 6369-6373	3.6	50
48	Titelbild: Indium Oxide as a Superior Catalyst for Methanol Synthesis by CO <sub>2</sub> Hydrogenation (Angew. Chem. 21/2016). <i>Angewandte Chemie</i> , <b>2016</b> , 128, 6215-6215	3.6	
47	Quantifying the Complex Pore Architecture of Hierarchical Faujasite Zeolites and the Impact on Diffusion. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 5621-5630	15.6	44
46	Structural analysis of IPC zeolites and related materials using positron annihilation spectroscopy and high-resolution argon adsorption. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 15269-77	3.6	17
45	The assessment of pore connectivity in hierarchical zeolites using positron annihilation lifetime spectroscopy: instrumental and morphological aspects. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 9211-9	3.6	21
44	Enhanced Reduction of CO <sub>2</sub> to CO over Cu <sup>I</sup> Electrocatalysts: Catalyst Evolution Is the Key. <i>ACS Catalysis</i> , <b>2016</b> , 6, 6265-6274	13.1	114

43	Design of Base Zeolite Catalysts by Alkali-Metal Grafting in Alcoholic Media. <i>ACS Catalysis</i> , <b>2015</b> , 5, 5388-5396	3.6	33
42	Structural analysis of hierarchically organized zeolites. <i>Nature Communications</i> , <b>2015</b> , 6, 8633	17.4	168
41	Impact of pore connectivity on the design of long-lived zeolite catalysts. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 1591-4	16.4	76
40	Räktitelbild: Impact of Pore Connectivity on the Design of Long-Lived Zeolite Catalysts (Angew. Chem. 5/2015). <i>Angewandte Chemie</i> , <b>2015</b> , 127, 1698-1698	3.6	
39	Impact of Pore Connectivity on the Design of Long-Lived Zeolite Catalysts. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 1611-1614	3.6	13
38	Hierarchically Structured MnO <sub>2</sub> -Co/C Nanocomposites: Highly Efficient and Magnetically Recyclable Catalysts for the Aerobic Oxidation of Alcohols. <i>ChemCatChem</i> , <b>2015</b> , 7, 2585-2589	5.2	4
37	Aluminum Redistribution during the Preparation of Hierarchical Zeolites by Desilication. <i>Chemistry - A European Journal</i> , <b>2015</b> , 21, 14156-64	4.8	37
36	Porosity-Acidity Interplay in Hierarchical ZSM-5 Zeolites for Pyrolysis Oil Valorization to Aromatics. <i>ChemSusChem</i> , <b>2015</b> , 8, 3283-93	8.3	86
35	Structure analysis of a BEC-type germanosilicate zeolite including the location of the flexible organic cations in the channels. <i>CrystEngComm</i> , <b>2015</b> , 17, 4865-4870	3.3	7
34	Structuring zeolite bodies for enhanced heat-transfer properties. <i>Microporous and Mesoporous Materials</i> , <b>2015</b> , 208, 196-202	5.3	14
33	Unified method for the total pore volume and pore size distribution of hierarchical zeolites from argon adsorption and mercury intrusion. <i>Langmuir</i> , <b>2015</b> , 31, 1242-7	4	35
32	Bifunctional Cu/H-ZSM-5 zeolite with hierarchical porosity for hydrocarbon abatement under cold-start conditions. <i>Applied Catalysis B: Environmental</i> , <b>2014</b> , 154-155, 161-170	21.8	49
31	Rediscovering zeolite mechanochemistry   A pathway beyond current synthesis and modification boundaries. <i>Microporous and Mesoporous Materials</i> , <b>2014</b> , 194, 106-114	5.3	33
30	Prospectives for bio-oil upgrading via esterification over zeolite catalysts. <i>Catalysis Today</i> , <b>2014</b> , 235, 176-183	5.3	73
29	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. <i>Chemistry - A European Journal</i> , <b>2014</b> , 20, 5926-37	4.8	120
28	Zeolites: Superior Mass Transfer Properties of Technical Zeolite Bodies with Hierarchical Porosity (Adv. Funct. Mater. 2/2014). <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 174-174	15.6	
27	Mesopore quality determines the lifetime of hierarchically structured zeolite catalysts. <i>Nature Communications</i> , <b>2014</b> , 5,	17.4	221
26	Design of hydrothermally-stable dawsonite-based sorbents in technical form for CO <sub>2</sub> capture. <i>Energy and Environmental Science</i> , <b>2014</b> , 7, 3640-3650	35.4	3

25	Hydroxyapatite, an exceptional catalyst for the gas-phase deoxygenation of bio-oil by aldol condensation. <i>Green Chemistry</i> , <b>2014</b> , 16, 4870-4874	10	40
24	Effects of Binders on the Performance of Shaped Hierarchical MFI Zeolites in Methanol-to-Hydrocarbons. <i>ACS Catalysis</i> , <b>2014</b> , 4, 2409-2417	13.1	118
23	Superior Mass Transfer Properties of Technical Zeolite Bodies with Hierarchical Porosity. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 209-219	15.6	91
22	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. <i>Chemistry - A European Journal</i> , <b>2014</b> , 20, 5849-5849	4.8	4
21	Hierarchical Zeolites by Desilication: Occurrence and Catalytic Impact of Recrystallization and Restructuring. <i>Crystal Growth and Design</i> , <b>2013</b> , 13, 5025-5035	3.5	64
20	Interdependence between porosity, acidity, and catalytic performance in hierarchical ZSM-5 zeolites prepared by post-synthetic modification. <i>Journal of Catalysis</i> , <b>2013</b> , 308, 398-407	7.3	82
19	Hierarchical FAU- and LTA-Type Zeolites by Post-Synthetic Design: A New Generation of Highly Efficient Base Catalysts. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 1923-1934	15.6	101
18	From powder to technical body: the undervalued science of catalyst scale up. <i>Chemical Society Reviews</i> , <b>2013</b> , 42, 6094-112	58.5	170
17	Advanced visualization strategies bridge the multidimensional complexity of technical catalysts. <i>Current Opinion in Chemical Engineering</i> , <b>2013</b> , 2, 304-311	5.4	17
16	Hierarchical zeolites overcome all obstacles: next stop industrial implementation. <i>Chimia</i> , <b>2013</b> , 67, 327-332	23	
15	Visualization of hierarchically structured zeolite bodies from macro to nano length scales. <i>Nature Chemistry</i> , <b>2012</b> , 4, 825-31	17.6	200
14	Decoupling porosity and compositional effects on desilicated ZSM-5 zeolites for optimal alkylation performance. <i>Catalysis Science and Technology</i> , <b>2012</b> , 2, 759	5.5	55
13	Surface and Pore Structure Assessment of Hierarchical MFI Zeolites by Advanced Water and Argon Sorption Studies. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 18816-18823	3.8	80
12	Hierarchically Structured Zeolite Bodies: Assembling Micro-, Meso-, and Macroporosity Levels in Complex Materials with Enhanced Properties. <i>Advanced Functional Materials</i> , <b>2012</b> , 22, 2509-2518	15.6	33
11	Towards more efficient monodimensional zeolite catalysts: n-alkane hydro-isomerisation on hierarchical ZSM-22. <i>Catalysis Science and Technology</i> , <b>2011</b> , 1, 1331	5.5	61
10	Full Compositional Flexibility in the Preparation of Mesoporous MFI Zeolites by Desilication. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 14193-14203	3.8	189
9	Preparation of organic-functionalized mesoporous ZSM-5 zeolites by consecutive desilication and silanization. <i>Materials Chemistry and Physics</i> , <b>2011</b> , 127, 278-284	4.4	21
8	Expanding the Horizons of Hierarchical Zeolites: Beyond Laboratory Curiosity towards Industrial Realization. <i>ChemCatChem</i> , <b>2011</b> , 3, 1731-1734	5.2	78



7	Mesoporous zeolites as enzyme carriers: Synthesis, characterization, and application in biocatalysis. <i>Catalysis Today</i> , <b>2011</b> , 168, 28-37	5-3	74
6	Perturbing the properties of layered double hydroxides by continuous coprecipitation with short residence time. <i>Journal of Materials Chemistry</i> , <b>2010</b> , 20, 5878		20
5	Comparative study of the synthesis of layered transition metal molybdates. <i>Journal of Solid State Chemistry</i> , <b>2010</b> , 183, 198-207	3-3	13
4	The application of focused microwave irradiation coupled with freeze drying to investigate the reaction of MgO and Al <sub>2</sub> O <sub>3</sub> slurries in the formation of layered double hydroxides. <i>Green Chemistry</i> , <b>2008</b> , 10, 629	10	7
3	A synchrotron radiation study of the hydrothermal synthesis of layered double hydroxides from MgO and Al <sub>2</sub> O <sub>3</sub> slurries. <i>Green Chemistry</i> , <b>2007</b> , 9, 373	10	29
2	Carbon-Supported Bimetallic Ruthenium-Iridium Catalysts for Selective and Stable Hydrodebromination of Dibromomethane. <i>ChemCatChem</i> ,	5-2	1
1	Atomically precise control in the design of low-nuclearity supported metal catalysts. <i>Nature Reviews Materials</i> ,	73-3	17