

# Simon R Bare

## List of Publications by Year in descending order

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140  
papers

6,922  
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53794

45  
h-index

64796

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g-index

148  
all docs

148  
docs citations

148  
times ranked

7019  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Structural evolution of atomically dispersed Pt catalysts dictates reactivity. <i>Nature Materials</i> , 2019, 18, 746-751.  | 27.5 | 404       |
| 2  | Surface Structures of Supported Molybdenum Oxide Catalysts: Characterization by Raman and Mo L3-Edge XANES. <i>The Journal of Physical Chemistry</i> , 1995, 99, 10897-10910.  | 2.9  | 358       |
| 3  | In Situ Spectroscopic Investigation of Molecular Structures of Highly Dispersed Vanadium Oxide on Silica under Various Conditions. <i>Journal of Physical Chemistry B</i> , 1998, 102, 10842-10852.                                    | 2.6  | 338       |
| 4  | Morphology-dependent zeolite intergrowth structures leading to distinct internal and outer-surface molecular diffusion barriers. <i>Nature Materials</i> , 2009, 8, 959-965.   | 27.5 | 251       |
| 5  | Identification of the active complex for CO oxidation over single-atom Ir-on-MgAl <sub>2</sub> O <sub>4</sub> catalysts. <i>Nature Catalysis</i> , 2019, 2, 149-156.   | 34.4 | 222       |
| 6  | Low-Temperature Restructuring of CeO <sub>2</sub> -Supported Ru Nanoparticles Determines Selectivity in CO <sub>2</sub> Catalytic Reduction. <i>Journal of the American Chemical Society</i> , 2018, 140, 13736-13745.                 | 13.7 | 210       |
| 7  | Catalyst deactivation via decomposition into single atoms and the role of metal loading. <i>Nature Catalysis</i> , 2019, 2, 748-755.   | 34.4 | 171       |
| 8  | Uniformity Is Key in Defining Structure-Function Relationships for Atomically Dispersed Metal Catalysts: The Case of Pt/CeO <sub>2</sub> . <i>Journal of the American Chemical Society</i> , 2020, 142, 169-184.                       | 13.7 | 170       |
| 9  | Uniform Catalytic Site in Sn- $\beta$ -Zeolite Determined Using X-ray Absorption Fine Structure. <i>Journal of the American Chemical Society</i> , 2005, 127, 12924-12932.   | 13.7 | 147       |
| 10 | Determining the location and nearest neighbours of aluminium in zeolites with atom probe tomography. <i>Nature Communications</i> , 2015, 6, 7589.   | 12.8 | 139       |
| 11 | Surface phase transitions in CO chemisorption on Pt{110}. <i>Surface Science</i> , 1982, 117, 245-256.   | 1.9  | 135       |
| 12 | Generation of atomic oxygen on Ag(111) and Ag(110) using NO <sub>2</sub> : a TPD, LEED, HREELS, XPS and NRA study. <i>Surface Science</i> , 1995, 342, 185-198.  | 1.9  | 128       |
| 13 | Sensitivity of Pt x-ray absorption near edge structure to the morphology of small Pt clusters. <i>Journal of Chemical Physics</i> , 2002, 116, 1911-1919.  | 3.0  | 128       |
| 14 | The chemisorption and decomposition of ethylene and acetylene on Ni(110). <i>Surface Science</i> , 1984, 148, 499-525.   | 1.9  | 126       |
| 15 | Uniform Pt/Pd Bimetallic Nanocrystals Demonstrate Platinum Effect on Palladium Methane Combustion Activity and Stability. <i>ACS Catalysis</i> , 2017, 7, 4372-4380.   | 11.2 | 124       |
| 16 | Structural Characteristics and Reactivity/Reducibility Properties of Dispersed and Bilayered V <sub>2</sub> O <sub>5</sub> /TiO <sub>2</sub> /SiO <sub>2</sub> Catalysts. <i>Journal of Physical Chemistry B</i> , 1999, 103, 618-629. | 2.6  | 117       |
| 17 | Vibrational studies of the surface phases of CO on Pt{110} at 300 K. <i>Surface Science</i> , 1984, 144, 347-369.  | 1.9  | 113       |
| 18 | Characterization of the adsorption and decomposition of methanol on Ni(110). <i>Surface Science</i> , 1985, 150, 399-418.  | 1.9  | 103       |

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|----|--|------|-----------|
| 19 | In-Situ XANES of Carbon-Supported Pt~Ru Anode Electrocatalyst for Reformate-Air Polymer Electrolyte Fuel Cells. <i>Journal of Physical Chemistry B</i> , 2002, 106, 3458-3465.   | 2.6  | 97        |
| 20 | Ammonia synthesis over iron single-crystal catalysts: the effects of alumina and potassium. <i>The Journal of Physical Chemistry</i> , 1986, 90, 4726-4729.  | 2.9  | 92        |
| 21 | Synthesis of Colloidal Pd/Au Dilute Alloy Nanocrystals and Their Potential for Selective Catalytic Oxidations. <i>Journal of the American Chemical Society</i> , 2018, 140, 12930-12939.   | 13.7 | 92        |
| 22 | Local site symmetry of dispersed molybdenum oxide catalysts: XANES at the Mo L <sub>2,3</sub> -edges. <i>The Journal of Physical Chemistry</i> , 1993, 97, 6048-6053.  | 2.9  | 87        |
| 23 | Effect of Hydrogen Adsorption on the X-Ray Absorption Spectra of Small Pt Clusters. <i>Physical Review Letters</i> , 2001, 86, 1642-1645.  | 7.8  | 86        |
| 24 | Observation of Structure-Induced Surface Vibrational Resonances on Metal Surfaces. <i>Physical Review Letters</i> , 1985, 54, 1428-1431.   | 7.8  | 83        |
| 25 | Experimental (XAS, STEM, TPR, and XPS) and Theoretical (DFT) Characterization of Supported Rhenium Catalysts. <i>Journal of Physical Chemistry C</i> , 2011, 115, 5740-5755.   | 3.1  | 83        |
| 26 | Directing reaction pathways via in situ control of active site geometries in PdAu single-atom alloy catalysts. <i>Nature Communications</i> , 2021, 12, 1549.  | 12.8 | 82        |
| 27 | Structure, Dynamics, and Reactivity for Light Alkane Oxidation of Fe(II) Sites Situated in the Nodes of a Metal-Organic Framework. <i>Journal of the American Chemical Society</i> , 2019, 141, 18142-18151.                     | 13.7 | 80        |
| 28 | Probing Atomic Distributions in Mono- and Bimetallic Nanoparticles by Supervised Machine Learning. <i>Nano Letters</i> , 2019, 19, 520-529.  | 9.1  | 80        |
| 29 | Electronic properties and charge transfer phenomena in Pt nanoparticles on $\gamma$ -Al <sub>2</sub> O <sub>3</sub> : size, shape, support, and adsorbate effects. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 11766. | 2.8  | 76        |
| 30 | Coke Formation in a Zeolite Crystal During the Methanol-to-Hydrocarbons Reaction as Studied with Atom Probe Tomography. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 11173-11177.                                | 13.8 | 74        |
| 31 | Reaction of methanol on Si(111)-7 $\times$ 7. <i>Surface Science</i> , 1985, 154, 35-51.   | 1.9  | 73        |
| 32 | Dynamic Reorganization and Confinement of Ti <sup>IV</sup> Active Sites Controls Olefin Epoxidation Catalysis on Two-Dimensional Zeotypes. <i>Journal of the American Chemical Society</i> , 2019, 141, 7090-7106.               | 13.7 | 68        |
| 33 | Transition state and product diffusion control by polymer-nanocrystal hybrid catalysts. <i>Nature Catalysis</i> , 2019, 2, 852-863.  | 34.4 | 64        |
| 34 | Angle-resolved thermal desorption of N <sub>2</sub> from W{310} and W{110}. <i>Vacuum</i> , 1981, 31, 503-506.   | 3.5  | 62        |
| 35 | Operando high-pressure investigation of size-controlled CuZn catalysts for the methanol synthesis reaction. <i>Nature Communications</i> , 2021, 12, 1435.   | 12.8 | 62        |
| 36 | Atomically Dispersed Reduced Graphene Aerogel-Supported Iridium Catalyst with an Iridium Loading of 14.8 wt %. <i>ACS Catalysis</i> , 2019, 9, 9905-9913.  | 11.2 | 55        |

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|----|---|------|-----------|
| 37 | Hybridization peaks in Pt <sup>L</sup> Cl XANES1Supported in part by the US DOE and by UOP LLC.1. Chemical Physics Letters, 2000, 316, 495-500.   | 2.6  | 54        |
| 38 | Interplay between nanoscale reactivity and bulk performance of H-ZSM-5 catalysts during the methanol-to-hydrocarbons reaction. Journal of Catalysis, 2013, 307, 185-193.  | 6.2  | 51        |
| 39 | Tuning the Selectivity of Single-Site Supported Metal Catalysts with Ionic Liquids. ACS Catalysis, 2017, 7, 6969-6972.  | 11.2 | 51        |
| 40 | Beyond Radical Rebound: Methane Oxidation to Methanol Catalyzed by Iron Species in Metal <sup>L</sup> Organic Framework Nodes. Journal of the American Chemical Society, 2021, 143, 12165-12174.  | 13.7 | 51        |
| 41 | Chapter 6 Characterization of Catalysts in Reactive Atmospheres by X <sup>L</sup> ray Absorption Spectroscopy. Advances in Catalysis, 2009, 52, 339-465.  | 0.2  | 49        |
| 42 | Engineering of Ruthenium <sup>L</sup> Iron Oxide Colloidal Heterostructures: Improved Yields in CO <sub>2</sub> Hydrogenation to Hydrocarbons. Angewandte Chemie - International Edition, 2019, 58, 17451-17457.  | 13.8 | 49        |
| 43 | A versatile approach for quantification of surface site fractions using reaction kinetics: The case of CO oxidation on supported Ir single atoms and nanoparticles. Journal of Catalysis, 2019, 378, 121-130.   | 6.2  | 49        |
| 44 | <i>In situ</i> observation of phase changes of a silica-supported cobalt catalyst for the Fischer <sup>L</sup> Tropsch process by the development of a synchrotron-compatible <i>in situ/operando</i> powder X-ray diffraction cell. Journal of Synchrotron Radiation, 2018, 25, 1673-1682. | 2.4  | 47        |
| 45 | Degradation of Multiply-Chlorinated Hydrocarbons on Cu(100). Langmuir, 1997, 13, 229-242.   | 3.5  | 46        |
| 46 | Pressure <sup>L</sup> Dependent Effect of Hydrogen Adsorption on Structural and Electronic Properties of Pt <sub>3</sub> Al <sub>2</sub> O <sub>3</sub> Nanoparticles. ChemCatChem, 2014, 6, 348-352.   | 3.7  | 46        |
| 47 | Structural characterization of Ni <sup>L</sup> W hydrocracking catalysts using <i>in situ</i> EXAFS and HRTEM. Journal of Catalysis, 2009, 263, 16-33.  | 6.2  | 45        |
| 48 | The influence of orientation on the H-D exchange reactions in chemisorbed aromatics: Benzene and pyridine adsorbed on Pt{110}. Surface Science, 1987, 179, 243-253.   | 1.9  | 44        |
| 49 | Design and operation of a high pressure reaction cell for <i>in situ</i> X-ray absorption spectroscopy. Catalysis Today, 2007, 126, 18-26.  | 4.4  | 43        |
| 50 | Supported VPO Catalysts for Selective Oxidation of Butane. II. Characterization of VPO/SiO <sub>2</sub> Catalysts. Journal of Physical Chemistry B, 1997, 101, 6895-6902.   | 2.6  | 42        |
| 51 | Manganese oxide catalyzed methane partial oxidation in trifluoroacetic acid: Catalysis and kinetic analysis. Catalysis Today, 2009, 140, 157-161.   | 4.4  | 42        |
| 52 | Expanding Beyond the Micropore: Active-Site Engineering in Hierarchical Architectures for Beckmann Rearrangement. ACS Catalysis, 2015, 5, 6587-6593.  | 11.2 | 41        |
| 53 | Understanding Structure <sup>L</sup> Property Relationships of MoO <sub>3</sub> -Promoted Rh Catalysts for Syngas Conversion to Alcohols. Journal of the American Chemical Society, 2019, 141, 19655-19668.   | 13.7 | 41        |
| 54 | Controlling catalytic activity and selectivity for partial hydrogenation by tuning the environment around active sites in iridium complexes bonded to supports. Chemical Science, 2019, 10, 2623-2632.  | 7.4  | 40        |

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|----|--|------|-----------|
| 55 | Direct characterization of a catalytic surface reaction step: Benzene-deuterium exchange on Pt{110}. Surface Science, 1983, 126, 349-358.  | 1.9  | 39        |
| 56 | Tunable Catalytic Performance of Palladium Nanoparticles for H <sub>2</sub> O Direct Synthesis via Surface-Bound Ligands. ACS Catalysis, 2020, 10, 5202-5207.  | 11.2 | 39        |
| 57 | Split-Pool Method for Synthesis of Solid-State Material Combinatorial Libraries. ACS Combinatorial Science, 2002, 4, 569-575.  | 3.3  | 36        |
| 58 | High-Resolution X-ray Absorption Spectroscopy for Identification of Reactive Surface Species on Supported Single-Site Iridium Catalysts. Chemistry - A European Journal, 2017, 23, 14760-14768.  | 3.3  | 35        |
| 59 | Chemistry of chloroethylenes on Cu(100): bonding and reactions. Surface Science, 1997, 380, 151-164.   | 1.9  | 34        |
| 60 | Comparison of ethylene oxide and propylene oxide chemisorbed on clean and oxygen precovered Ag(110). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1992, 10, 2336-2341.  | 2.1  | 33        |
| 61 | Operando Effects on the Structure and Dynamics of Pt <sub>n</sub> Sn <sub>m</sub> /Al <sub>2</sub> O <sub>3</sub> from Ab Initio Molecular Dynamics and X-ray Absorption Spectra. Journal of Physical Chemistry C, 2013, 117, 12446-12457. | 3.1  | 33        |
| 62 | Surface analysis of zeolites: An XPS, variable kinetic energy XPS, and low energy ion scattering study. Surface Science, 2016, 648, 376-382.   | 1.9  | 33        |
| 63 | On the Cobalt Carbide Formation in a Co/TiO <sub>2</sub> Fischer-Tropsch Synthesis Catalyst as Studied by High-Pressure, Long-Term Operando X-ray Absorption and Diffraction. ACS Catalysis, 2021, 11, 2956-2967.                          | 11.2 | 33        |
| 64 | Characterizing industrial catalysts using in situ XAFS under identical conditions. Physical Chemistry Chemical Physics, 2010, 12, 7702.  | 2.8  | 31        |
| 65 | Catalytic Performance and Near-Surface X-ray Characterization of Titanium Hydride Electrodes for the Electrochemical Nitrate Reduction Reaction. Journal of the American Chemical Society, 2022, 144, 5739-5744.                           | 13.7 | 31        |
| 66 | Generation and Reaction of Vinyl Groups on a Cu(100) Surface. The Journal of Physical Chemistry, 1996, 100, 12431-12439.   | 2.9  | 30        |
| 67 | Palladium oxidation leads to methane combustion activity: Effects of particle size and alloying with platinum. Journal of Chemical Physics, 2019, 151, 154703.   | 3.0  | 30        |
| 68 | The effects of preadsorbed oxygen on the adsorption and decomposition of methanol on Ni(110). Surface Science, 1985, 155, L281-L291.   | 1.9  | 29        |
| 69 | Aberration-Corrected Transmission Electron Microscopy and In-Situ XAFS Structural Characterization of Pt <sub>3</sub> Al <sub>2</sub> O <sub>3</sub> Nanoparticles. ChemCatChem, 2015, 7, 3779-3787.                                       | 3.7  | 29        |
| 70 | Characterization of Coke on a Pt-Re/Al <sub>2</sub> O <sub>3</sub> Re-Forming Catalyst: Experimental and Theoretical Study. ACS Catalysis, 2017, 7, 1452-1461.   | 11.2 | 29        |
| 71 | Core-shell and egg-shell zeolite catalysts for enhanced hydrocarbon processing. Journal of Catalysis, 2022, 405, 664-675.  | 6.2  | 29        |
| 72 | Surface Structure of Highly Dispersed MoO <sub>3</sub> on MgO Using in Situ Mo L3-Edge XANES. Langmuir, 1998, 14, 1500-1504.   | 3.5  | 28        |

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|----|--|------|-----------|
| 73 | A Theory-Guided X-ray Absorption Spectroscopy Approach for Identifying Active Sites in Atomically Dispersed Transition-Metal Catalysts. <i>Journal of the American Chemical Society</i> , 2021, 143, 20144-20156.                                  | 13.7 | 28        |
| 74 | Mechanistic and Electronic Insights into a Working NiAu Single-Atom Alloy Ethanol Dehydrogenation Catalyst. <i>Journal of the American Chemical Society</i> , 2021, 143, 21567-21579.  | 13.7 | 28        |
| 75 | Simple flow through reaction cells for in situ transmission and fluorescence x-ray-absorption spectroscopy of heterogeneous catalysts. <i>Review of Scientific Instruments</i> , 2006, 77, 023105.   | 1.3  | 27        |
| 76 | Fe Coordination Environment, Fe-Incorporated Ni(OH) <sub>2</sub> Phase, and Metallic Core Are Key Structural Components to Active and Stable Nanoparticle Catalysts for the Oxygen Evolution Reaction. <i>ACS Catalysis</i> , 2022, 12, 1992-2008. | 11.2 | 27        |
| 77 | Role of Co <sub>2</sub> C in ZnO-promoted Co Catalysts for Alcohol Synthesis from Syngas. <i>ChemCatChem</i> , 2019, 11, 799-809.  | 3.7  | 26        |
| 78 | An in situ x-ray absorption spectroscopic cell for high temperature gas-flow measurements. <i>Review of Scientific Instruments</i> , 1998, 69, 2618-2621.  | 1.3  | 24        |
| 79 | Transmission and fluorescence X-ray absorption spectroscopy cell/flow reactor for powder samples under vacuum or in reactive atmospheres. <i>Review of Scientific Instruments</i> , 2016, 87, 073108.  | 1.3  | 24        |
| 80 | Insights and comparison of structure-property relationships in propane and propene catalytic combustion on Pd- and Pt-based catalysts. <i>Journal of Catalysis</i> , 2021, 401, 89-101.  | 6.2  | 24        |
| 81 | Colloidal Platinum-Copper Nanocrystal Alloy Catalysts Surpass Platinum in Low-Temperature Propene Combustion. <i>Journal of the American Chemical Society</i> , 2022, 144, 1612-1621.  | 13.7 | 24        |
| 82 | Spectroscopic and Computational Insights on Catalytic Synergy in Bimetallic Aluminophosphate Catalysts. <i>Journal of the American Chemical Society</i> , 2015, 137, 8534-8540.  | 13.7 | 23        |
| 83 | Dynamic Surface Reconstruction Unifies the Electrocatalytic Oxygen Evolution Performance of Nonstoichiometric Mixed Metal Oxides. <i>Jacs Au</i> , 2021, 1, 2224-2241.   | 7.9  | 23        |
| 84 | Tilted CO chemisorbed on Pt {110}. <i>Vacuum</i> , 1981, 31, 463-465.  | 3.5  | 20        |
| 85 | Probing the Location and Speciation of Elements in Zeolites with Correlated Atom Probe Tomography and Scanning Transmission X-ray Microscopy. <i>ChemCatChem</i> , 2019, 11, 488-494.  | 3.7  | 19        |
| 86 | Unraveling the individual influences of supports and ionic liquid coatings on the catalytic properties of supported iridium complexes and iridium clusters. <i>Journal of Catalysis</i> , 2020, 387, 186-195.                                      | 6.2  | 18        |
| 87 | Characterization of the adsorption and decomposition of methanol on Ni(110). <i>Surface Science Letters</i> , 1985, 150, A51.  | 0.1  | 17        |
| 88 | Oxidation of cyclopropane with coadsorbed oxygen on Pt(111). <i>Surface Science</i> , 1997, 374, 162-168.  | 1.9  | 17        |
| 89 | Electronic Structure of Atomically Dispersed Supported Iridium Catalyst Controls Iridium Aggregation. <i>ACS Catalysis</i> , 2020, 10, 12354-12358.  | 11.2 | 17        |
| 90 | Coke Formation in a Zeolite Crystal During the Methanol-to-Hydrocarbons Reaction as Studied with Atom Probe Tomography. <i>Angewandte Chemie</i> , 2016, 128, 11339-11343.   | 2.0  | 16        |

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|-----|--|------|-----------|
| 91  | Revealing the structure of a catalytic combustion active-site ensemble combining uniform nanocrystal catalysts and theory insights. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 14721-14729. | 7.1  | 16        |
| 92  | Understanding Degradation Mechanisms in SrIrO <sub>3</sub> Oxygen Evolution Electrocatalysts: Chemical and Structural Microscopy at the Nanoscale. Advanced Functional Materials, 2021, 31, 2101542.   | 14.9 | 16        |
| 93  | Alumina-Supported Trirhenium Clusters: Stable High-Temperature Catalysts for Methylcyclohexane Conversion. Journal of Physical Chemistry C, 2008, 112, 3383-3391.  | 3.1  | 14        |
| 94  | Spatial intensity distributions from electron impact scattering modes: W{100}(1 Å <sup>-1</sup> )H. Journal of Electron Spectroscopy and Related Phenomena, 1983, 29, 265-272.   | 1.7  | 13        |
| 95  | Characterization of a Fluidized Catalytic Cracking Catalyst on Ensemble and Individual Particle Level by X-ray Micro- and Nanotomography, Micro-X-ray Fluorescence, and Micro-X-ray Diffraction. ChemCatChem, 2014, 6, 1427-1437.            | 3.7  | 13        |
| 96  | Catalytic CO Oxidation on MgAl <sub>2</sub> O <sub>4</sub> -Supported Iridium Single Atoms: Ligand Configuration and Site Geometry. Journal of Physical Chemistry C, 2021, 125, 11380-11390.   | 3.1  | 13        |
| 97  | Monolayer Support Control and Precise Colloidal Nanocrystals Demonstrate Metal-Support Interactions in Heterogeneous Catalysts. Advanced Materials, 2021, 33, e2104533.  | 21.0 | 13        |
| 98  | Steering CO <sub>2</sub> hydrogenation toward C-C coupling to hydrocarbons using porous organic polymer/metal interfaces. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .                      | 7.1  | 13        |
| 99  | Oxidative desulfurization of sulfur compounds: Oxidation of thiophene and derivatives with hydrogen peroxide using Ti-Beta catalyst. Studies in Surface Science and Catalysis, 2008, , 1017-1020.  | 1.5  | 12        |
| 100 | Science and Technology of Framework Metal-Containing Zeotype Catalysts. Advances in Catalysis, 2014, 57, 1-97.   | 0.2  | 12        |
| 101 | Enhanced alcohol production over binary Mo/Co carbide catalysts in syngas conversion. Journal of Catalysis, 2020, 391, 446-458.  | 6.2  | 12        |
| 102 | The reaction of propylene with ordered and disordered oxygen atoms adsorbed on the Ag(110) surface. Surface Science, 1997, 382, 266-274.   | 1.9  | 11        |
| 103 | The desorption of propylene oxide from oxygen atom and hydroxyl covered Ag(110). Surface Science, 1998, 401, 1-11.   | 1.9  | 11        |
| 104 | Directed-Sorting Method for Synthesis of Bead-Based Combinatorial Libraries of Heterogeneous Catalysts. ACS Combinatorial Science, 2006, 8, 199-212.   | 3.3  | 11        |
| 105 | Controlled one-step synthesis of hierarchically structured macroscopic silica spheres. Microporous and Mesoporous Materials, 2011, 146, 18-27.   | 4.4  | 10        |
| 106 | Operando IV. Catalysis Today, 2013, 205, 1-2.  | 4.4  | 10        |
| 107 | Insight into restructuring of Pd-Au nanoparticles using EXAFS. Radiation Physics and Chemistry, 2020, 175, 108304.   | 2.8  | 9         |
| 108 | Direct observation of the kinetics of gas-solid reactions using <i>in situ</i> kinetic and spectroscopic techniques. Reaction Chemistry and Engineering, 2018, 3, 668-675.   | 3.7  | 8         |



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|-----|--|------|-----------|
| 109 | Insights into Copper Sulfide Formation from Cu and S K edge XAS and DFT studies. <i>Inorganic Chemistry</i> , 2020, 59, 15276-15288.   | 4.0  | 8         |
| 110 | Engineering of Ruthenium–Iron Oxide Colloidal Heterostructures: Improved Yields in CO <sub>2</sub> Hydrogenation to Hydrocarbons. <i>Angewandte Chemie</i> , 2019, 131, 17612-17618.   | 2.0  | 7         |
| 111 | Reactivity of Pd–MO <sub>2</sub> encapsulated catalytic systems for CO oxidation. <i>Catalysis Science and Technology</i> , 2022, 12, 1476-1486.   | 4.1  | 7         |
| 112 | Atomically Dispersed Platinum in Surface and Subsurface Sites on MgO Have Contrasting Catalytic Properties for CO Oxidation. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 3896-3903.   | 4.6  | 7         |
| 113 | Impurity Control in Catalyst Design: The Role of Sodium in Promoting and Stabilizing Co and Co <sub>2</sub> C for Syngas Conversion. <i>ChemCatChem</i> , 2021, 13, 1186-1194.   | 3.7  | 6         |
| 114 | Nanoscale Chemical Imaging of Coking Mechanisms in a Zeolite ZSM-5 Crystal by Atom Probe Tomography. <i>Microscopy and Microanalysis</i> , 2017, 23, 674-675.  | 0.4  | 5         |
| 115 | Characterization of a Metal–Organic Framework Zr <sub>6</sub> O <sub>8</sub> Node-Supported Atomically Dispersed Iridium Catalyst for Ethylene Hydrogenation by X-ray Absorption Near-Edge Structure and Infrared Spectroscopies. <i>Journal of Physical Chemistry C</i> , 2021, 125, 16995-17007. | 3.1  | 5         |
| 116 | Surface Chemistry. , 2003, , 373-421.  |      | 5         |
| 117 | First-Principles Approach to Extracting Chemical Information from X-ray Absorption Near-Edge Spectra of Ga-Containing Materials. <i>Journal of Physical Chemistry C</i> , 2021, 125, 27901-27908.  | 3.1  | 5         |
| 118 | Understanding Support Effects of ZnO–Promoted Co Catalysts for Syngas Conversion to Alcohols Using Atomic Layer Deposition. <i>ChemCatChem</i> , 2021, 13, 770-781.  | 3.7  | 4         |
| 119 | CO oxidation on MgAl <sub>2</sub> O <sub>4</sub> supported Ir <sub>2</sub> : activation of lattice oxygen in the subnanometer regime and emergence of nuclearity-activity volcano. <i>Journal of Materials Chemistry A</i> , 2022, 10, 4266-4278.  | 10.3 | 4         |
| 120 | Summary Abstract: Isolation of a formate intermediate in the decomposition of methanol on Ni(110)–(2Å–1)O. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1985, 3, 1647-1648.   | 2.1  | 3         |
| 121 | In Situ X-ray Absorption Fine Structure (XAFS) Applied to Catalyst Characterization at UOP: Examples and Perspectives. <i>Synchrotron Radiation News</i> , 2011, 24, 12-17.  | 0.8  | 3         |
| 122 | The Consortium for Operando and Advanced Catalyst Characterization via Electronic Spectroscopy and Structure (Co-ACCESS) at Stanford Synchrotron Radiation Lightsource (SSRL). <i>Synchrotron Radiation News</i> , 2020, 33, 15-19.  | 0.8  | 3         |
| 123 | Lanthanum induced lattice strain improves hydrogen sulfide capacities of copper oxide adsorbents. <i>AIChE Journal</i> , 2021, 67, e17484.   | 3.6  | 3         |
| 124 | Iridium pair sites anchored to Zr <sub>6</sub> O <sub>8</sub> nodes of the metal–organic framework UiO-66 catalyze ethylene hydrogenation. <i>Journal of Catalysis</i> , 2022, 411, 177-186.   | 6.2  | 3         |
| 125 | Identifying higher oxygenate synthesis sites in Cu catalysts promoted and stabilized by atomic layer deposited Fe <sub>2</sub> O <sub>3</sub> . <i>Journal of Catalysis</i> , 2021, 404, 210-223.  | 6.2  | 2         |
| 126 | Transformation of reduced graphene aerogel-supported atomically dispersed iridium into stable clusters approximated as Ir <sub>6</sub> during ethylene hydrogenation catalysis. <i>Journal of Catalysis</i> , 2022, 413, 603-613.  | 6.2  | 2         |



| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 127 | In Situ XAS of Ni-W Hydrocracking Catalysts. AIP Conference Proceedings, 2007, , .   | 0.4 | 1         |
| 128 | Design and Operation of an In Situ High Pressure Reaction Cell for X-Ray Absorption Spectroscopy. AIP Conference Proceedings, 2007, , .  | 0.4 | 1         |
| 129 | The effects of preadsorbed oxygen on the adsorption and decomposition of methanol on Ni(110). Surface Science Letters, 1985, 155, L281-L291.   | 0.1 | 0         |
| 130 | Workshop on recent advances in the application of SR to catalysis. Synchrotron Radiation News, 1995, 8, 5-5.   | 0.8 | 0         |
| 131 | Workshop on <i>in situ</i> applications of x-ray absorption fine structure. Synchrotron Radiation News, 1996, 9, 9-9.  | 0.8 | 0         |
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