Bert M Weckhuysen

List of Publications by Year
in descending order

860	61,012	737 117	1646 208
papers	citations	h-index	g-index

947	947	947	34611
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Visualizing the Structure, Composition and Activity of Single Catalyst Particles for Olefin Polymerization and Polyolefin Decomposition. Angewandte Chemie, 2024, 136, .	2.1	0
2	Visualizing the Structure, Composition and Activity of Single Catalyst Particles for Olefin Polymerization and Polyolefin Decomposition. Angewandte Chemie - International Edition, 2024, 63, .	14.7	2
3	Molecular Accessibility and Diffusion of Resorufin in Zeolite Crystals. Chemistry - A European Journal, 2024, 30, .	3.9	1
4	Oxidative Conversion of Polyethylene Towards Diâ€Carboxylic Acids: A Multiâ€Analytical Approach. ChemSusChem, 2024, 17, .	7.4	1
5	Stabilizing Pdâ€“cerium oxideâ€“aluminum oxide catalysts for methane oxidation by reduction pretreatments. Catalysis Science and Technology, 2024, 14, 153-163.	4.2	0
6	Fluorescentâ€Probe Characterization for Poreâ€Space Mapping with Singleâ€Particle Tracking. Angewandte Chemie, 2024, 136, .	2.1	0
7	Fluorescentâ€Probe Characterization for Poreâ€Space Mapping with Singleâ€Particle Tracking. Angewandte Chemie - International Edition, 2024, 63, .	14.7	0
8	Mechanistic Insights in the Catalytic Hydrogenation of CO₂ over Pt Nanoparticles in UiO-67 Metalâ€“Organic Frameworks. ACS Catalysis, 2024, 14, 382-394.	11.7	1
9	Unravelling potential reaction intermediates during catalytic pyrolysis of polypropylene with microscopy and spectroscopy. Catalysis Science and Technology, 2024, 14, 894-902.	4.2	0
10	Green Additives in Chitosanâ€based Bioplastic Films: Longâ€term Stability Assessment and Aging Effects. ChemSusChem, 2024, 17, .	7.4	0
11	Molecular structure and composition elucidation of an industrial humin and its fractions. Green Chemistry, 2024, 26, 7739-7751.	9.3	1
12	Alternative nano-lithographic tools for shell-isolated nanoparticle enhanced Raman spectroscopy substrates. Nanoscale, 2024, 16, 7582-7593.	5.8	0
13	The refinery of the future. Nature, 2024, 629, 295-306.	36.3	7
14	A Janus dual-atom catalyst for electrocatalytic oxygen reduction and evolution. Nature Synthesis, 2024, 3, 878-890.	10.3	0
15	Operando UVâ€“Vis diffuse reflectance spectroscopy insights into the methane dehydroaromatization reaction over Mo/H-ZSM-5 catalysts. Journal of Catalysis, 2024, 436, 115619.	6.5	0
16	Ethylene Polymerization over Metalâ€“Organic Framework-Supported Zirconocene Complexes. ACS Catalysis, 2024, 14, 9093-9103.	11.7	0
17	Anchoring PdOx clusters on defective alumina for improved catalytic methane oxidation. Nature Communications, 2024, 15, .	13.2	0
18	Alumina binder effects on the hydrothermal stability of shaped zeolite-based catalyst bodies. Catalysis Science and Technology, 2023, 13, 862-873.	4.2	3

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19	Elucidating polymer growth and fragmentation behavior of MOFs in ethylene polymerization by MOF thin films. Cell Reports Physical Science, 2023, 4, 101206.	5.8	1
20	The Growth of Metalâ€“Organic Framework Films on Calcium Fluoride and Their Interaction With Reactive Molecules. Advanced Materials Interfaces, 2023, 10, .	4.1	3
21	Structure sensitivity in gas sorption and conversion on metal-organic frameworks. Nature Communications, 2023, 14, .	13.2	10
22	New Editor-in-Chief for Catalysis Science & Technology. Catalysis Science and Technology, 2023, 13, 938-939.	4.2	0
23	Elucidating the Roles of Nafion/Solvent Formulations in Copper-Catalyzed CO₂ Electrolysis. ACS Catalysis, 2023, 13, 5336-5347.	11.7	18
24	Origin of active sites on silicaâ€“magnesia catalysts and control of reactive environment in the one-step ethanol-to-butadiene process. Nature Catalysis, 2023, 6, 363-376.	28.3	17
25	Addition of Pore-Forming Agents and Their Effect on the Pore Architecture and Catalytic Behavior of Shaped Zeolite-Based Catalyst Bodies. , 2023, 1, 40-48.		2
26	Elemental zoning enhances mass transport in zeolite catalysts for methanol to hydrocarbons. Nature Catalysis, 2023, 6, 254-265.	28.3	15
27	Impact of the location of magnesium in zeolite-based shaped catalyst bodies on the methanol-to-hydrocarbons process. Microporous and Mesoporous Materials, 2023, 354, 112553.	4.5	1
28	Silicalite-1 Layer Secures the Bifunctional Nature of a CO₂ Hydrogenation Catalyst. Jacs Au, 2023, 3, 1029-1038.	8.3	12
29	Role of Titanium in Ti/SiO₂â€Supported Metalloceneâ€based Olefin Polymerization Catalysts. Partâ€…2: Particle Fragmentation. ChemCatChem, 2023, 15, .	3.8	5
30	Carbon Deposit Analysis in Catalyst Deactivation, Regeneration, and Rejuvenation. Angewandte Chemie - International Edition, 2023, 62, .	14.7	37
31	Europiumâ€“Magnesiumâ€“Aluminum-Based Mixed-Metal Oxides as Highly Active Methane Oxychlorination Catalysts. ACS Catalysis, 2023, 13, 5147-5158.	11.7	1
32	Silica-magnesium-titanium Zieglerâ€“Natta catalysts. Part II. Properties of the active sites and fragmentation behaviour. Journal of Catalysis, 2023, 423, 10-18.	6.5	7
33	Ultraviolet-Visible (UV-Vis) Spectroscopy. Springer Handbooks, 2023, , 237-264.	0.0	2
34	Time-Resolved X-Ray Absorption Spectroscopy (XAS). Springer Handbooks, 2023, , 601-623.	0.0	0
35	How Temperature Affects the Selectivity of the Electrochemical CO₂ Reduction on Copper. ACS Catalysis, 2023, 13, 8080-8091.	11.7	49
36	Spatiotemporal Mapping of Local Heterogeneities during Electrochemical Carbon Dioxide Reduction. Jacs Au, 2023, 3, 1890-1901.	8.3	1

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37	The Role of Water in Carbon Dioxide Adsorption in Porphyrinic Metalâ€Organic Frameworks. ChemCatChem, 2023, 15, .	3.8	3
38	Elucidating the Structure and Composition of Individual Bimetallic Nanoparticles in Supported Catalysts by Atom Probe Tomography. Journal of the American Chemical Society, 2023, 145, 17299-17308.	14.6	6
39	Green Additives in Chitosanâ€Based Bioplastic Films: Physical, Mechanical, and Chemical Properties. ChemSusChem, 2023, 16, .	7.4	3
40	Transport limitations in polyolefin cracking at the single catalyst particle level. Chemical Science, 2023, 14, 10068-10080.	7.8	10
41	Halide-guided active site exposure in bismuth electrocatalysts for selective CO2 conversion into formic acid. Nature Catalysis, 2023, 6, 796-806.	28.3	63
42	A sustainable alternative to bisphenol A. Nature Sustainability, 2023, 6, 1516-1517.	21.0	5
43	Operando time-gated Raman spectroscopy of solid catalysts. Catalysis Science and Technology, 2023, 13, 6366-6376.	4.2	1
44	Probing nearby molecular vibrations with lanthanide-doped nanocrystals. Nanoscale, 2023, 15, 16601-16611.	5.8	0
45	Mapping Temperature Heterogeneities during Catalytic CO₂ Methanation with Operando Luminescence Thermometry. ACS Nano, 2023, 17, 20053-20061.	15.2	7
46	Green Additives in Chitosanâ€Based Bioplastic Films: Physical, Mechanical, and Chemical Properties. ChemSusChem, 2023, 16, .	7.4	0
47	Deactivation and regeneration of solid acid and base catalyst bodies used in cascade for bio-oil synthesis and upgrading. Journal of Catalysis, 2022, 405, 641-651.	6.5	5
48	Unravelling Channel Structureâ€“Diffusivity Relationships in Zeolite ZSMâ€5 at the Singleâ€Molecule Level. Angewandte Chemie, 2022, 134, .	2.1	6
49	Understanding the Effects of Binders in Gas Sorption and Acidity of Aluminium Fumarate Extrudates. Chemistry - A European Journal, 2022, 28, .	3.9	6
50	Nano-scale insights regarding coke formation in zeolite SSZ-13 subject to the methanol-to-hydrocarbons reaction. Catalysis Science and Technology, 2022, 12, 1220-1228.	4.2	15
51	Dual Fluorescence in Glutathione-Derived Carbon Dots Revisited. Journal of Physical Chemistry C, 2022, 126, 2720-2727.	3.3	12
52	The concept of active site in heterogeneous catalysis. Nature Reviews Chemistry, 2022, 6, 89-111.	22.6	297
53	Structureâ€Activity Relationships in Highly Active Platinumâ€Tin MFIâ€type Zeolite Catalysts for Propane Dehydrogenation. ChemCatChem, 2022, 14, .	3.8	18
54	Enhanced Catalytic Performance through In Situ Encapsulation of Ultrafine Ru Clusters within a High-Aluminum Zeolite. ACS Catalysis, 2022, 12, 1847-1856.	11.7	45

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55	Uncovering the reaction mechanism behind CoO as active phase for CO2 hydrogenation. Nature Communications, 2022, 13, 324.	13.2	96
56	Tandem catalysis with double-shelled hollow spheres. Nature Materials, 2022, 21, 572-579.	26.7	90
57	Mechanistic Characterization of Zeolite-Catalyzed Aromatic Electrophilic Substitution at Realistic Operating Conditions. Jacs Au, 2022, 2, 502-514.	8.3	21
58	New insights into the NH₃-selective catalytic reduction of NO over Cu-ZSM-5 as revealed by operando spectroscopy. Catalysis Science and Technology, 2022, 12, 2589-2603.	4.2	13
59	Using Biomass Gasification Mineral Residue as Catalyst to Produce Light Olefins from CO, CO₂, and H₂ Mixtures. ChemSusChem, 2022, 15, e202200436.	7.4	2
60	Emerging analytical methods to characterize zeolite-based materials. National Science Review, 2022, 9, .	9.5	12
61	RÃ¼cktitelbild: Unravelling Channel Structureâ€“Diffusivity Relationships in Zeolite ZSMâ€5 at the Singleâ€Molecule Level (Angew. Chem. 5/2022). Angewandte Chemie, 2022, 134, .	2.1	0
62	Unravelling Channel Structureâ€“Diffusivity Relationships in Zeolite ZSMâ€5 at the Singleâ€Molecule Level. Angewandte Chemie - International Edition, 2022, 61, .	14.7	22
63	Favoring the Methane Oxychlorination Reaction over EuOCl by Synergistic Effects with Lanthanum. ACS Catalysis, 2022, 12, 5698-5710.	11.7	5
64	Hole Dynamics in Photoexcited Hematite Studied with Femtosecond Oxygen K-edge X-ray Absorption Spectroscopy. Journal of Physical Chemistry Letters, 2022, 13, 4207-4214.	4.9	7
65	An integrated approach to the key parameters in methanol-to-olefins reaction catalyzed by MFI/MEL zeolite materials. Chinese Journal of Catalysis, 2022, 43, 1879-1893.	14.6	9
66	Classification-based motion analysis of single-molecule trajectories using DiffusionLab. Scientific Reports, 2022, 12, .	3.5	7
67	Wasteâ€Derived Copperâ€Lead Electrocatalysts for CO₂ Reduction. ChemCatChem, 2022, 14, .	3.8	9
68	Giving oxygenates a new spin. Nature Catalysis, 2022, 5, 584-585.	28.3	3
69	Probing the Dynamics of Low-Overpotential CO₂-to-CO Activation on Copper Electrodes with Time-Resolved Raman Spectroscopy. Journal of the American Chemical Society, 2022, 144, 15047-15058.	14.6	43
70	Elucidating the Sectioning Fragmentation Mechanism in Silicaâ€Supported Olefin Polymerization Catalysts with Laboratoryâ€Based Xâ€Ray and Electron Microscopy. ChemCatChem, 2022, 14, .	3.8	5
71	A Ziegler-type spherical cap model reveals early stage ethylene polymerization growth versus catalyst fragmentation relationships. Nature Communications, 2022, 13, .	13.2	6
72	Probing coke formation during the methanol-to-hydrocarbon reaction on zeolite ZSM-5 catalyst at the nanoscale using tip-enhanced fluorescence microscopy. Catalysis Science and Technology, 2022, 12, 5795-5801.	4.2	6

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73	Operando Laboratoryâ€Based Multiâ€Edge Xâ€Ray Absorption Nearâ€Edge Spectroscopy of Solid Catalysts. Angewandte Chemie - International Edition, 2022, 61, .	14.7	9
74	Operando Laboratoryâ€Based Multiâ€Edge Xâ€Ray Absorption Nearâ€Edge Spectroscopy of Solid Catalysts. Angewandte Chemie, 2022, 134, .	2.1	1
75	Cover Feature: Elucidating the Sectioning Fragmentation Mechanism in Silicaâ€Supported Olefin Polymerization Catalysts with Laboratoryâ€Based Xâ€Ray and Electron Microscopy (ChemCatChem) Tj ETQq1 1 0.784314 rgBT /Over	3.8	0
76	Detecting Cage Crossing and Filling Clusters of Magnesium and Carbon Atoms in Zeolite SSZ-13 with Atom Probe Tomography. Jacs Au, 2022, 2, 2501-2513.	8.3	4
77	Structure Sensitivity of CO₂ Conversion over Nickel Metal Nanoparticles Explained by Micro-Kinetics Simulations. Jacs Au, 2022, 2, 2714-2730.	8.3	40
78	Bifunctional Europium for Operando Catalyst Thermometry in an Exothermic Chemical Reaction. Angewandte Chemie, 2022, 134, .	2.1	0
79	Bifunctional Europium for Operando Catalyst Thermometry in an Exothermic Chemical Reaction. Angewandte Chemie - International Edition, 2022, 61, .	14.7	12
80	Advancing the Compositional Analysis of Olefin Polymerization Catalysts with High-Throughput Fluorescence Microscopy. Journal of the American Chemical Society, 2022, 144, 21287-21294.	14.6	3
81	Near-Unity Electrochemical CO₂ to CO Conversion over Sn-Doped Copper Oxide Nanoparticles. ACS Catalysis, 2022, 12, 15146-15156.	11.7	24
82	Single catalyst particle diagnostics in a microreactor for performing multiphase hydrogenation reactions. Faraday Discussions, 2021, 229, 267-280.	3.7	6
83	Reaction Mechanism of Pdâ€Catalyzed â€œCOâ€Freeâ€•Carbonylation Reaction Uncovered by In Situ Spectroscopy: The Formyl Mechanism. Angewandte Chemie - International Edition, 2021, 60, 3422-3427.	14.7	9
84	In situ Nanoscale Infrared Spectroscopy of Water Adsorption on Nanoislands of Surfaceâ€Anchored Metalâ€Organic Frameworks. Angewandte Chemie - International Edition, 2021, 60, 1620-1624.	14.7	31
85	Effect of Mesoporosity, Acidity and Crystal Size of Zeolite ZSMâ€5â€‰on Catalytic Performance during the Exâ€situ Catalytic Fast Pyrolysis of Biomass. ChemCatChem, 2021, 13, 1207-1219.	3.8	17
86	The nanogeochemistry of abiotic carbonaceous matter in serpentinites from the Yap Trench, western Pacific Ocean. Geology, 2021, 49, 330-334.	4.4	17
87	Catalytic Fast Pyrolysis of Biomass: Catalyst Characterization Reveals the Feed-Dependent Deactivation of a Technical ZSM-5-Based Catalyst. ACS Sustainable Chemistry and Engineering, 2021, 9, 291-304.	6.9	64
88	Reaction Mechanism of Pdâ€Catalyzed â€œCOâ€Freeâ€•Carbonylation Reaction Uncovered by In Situ Spectroscopy: The Formyl Mechanism. Angewandte Chemie, 2021, 133, 3464-3469.	2.1	3
89	In situ Nanoscale Infrared Spectroscopy of Water Adsorption on Nanoislands of Surfaceâ€Anchored Metalâ€Organic Frameworks. Angewandte Chemie, 2021, 133, 1644-1648.	2.1	5
90	Influence of Metalâ€Alkyls on Earlyâ€Stage Ethylene Polymerization over a Cr/SiO₂ Phillips Catalyst: A Bulk Characterization and Xâ€ray Chemical Imaging Study. Chemistry - A European Journal, 2021, 27, 1688-1699.	3.9	11

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91	In Situ X-ray Raman Scattering Spectroscopy of the Formation of Cobalt Carbides in a Co/TiO₂ Fischerâ€“Tropsch Synthesis Catalyst. ACS Catalysis, 2021, 11, 809-819.	11.7	24
92	THEORETICAL MODELLING OF FUNCTIONAL MATERIALS. , 2021, , .		0
93	Visualizing defects and pore connectivity within metalâ€“organic frameworks by X-ray transmission tomography. Chemical Science, 2021, 12, 8458-8467.	7.8	12
94	Rapid fabrication of MOF-based mixed matrix membranes through digital light processing. Materials Advances, 2021, 2, 2739-2749.	5.2	15
95	Early-stage particle fragmentation behavior of a commercial silica-supported metallocene catalyst. Catalysis Science and Technology, 2021, 11, 5335-5348.	4.2	18
96	Advanced approaches: general discussion. Faraday Discussions, 2021, 229, 378-421.	3.7	1
97	Identification of Photoexcited Electron Relaxation in a Cobalt Phosphide Modified Carbon Nitride Photocatalyst. ChemPhotoChem, 2021, 5, 330-334.	3.3	8
98	TOWARDS IN-SILICO DESIGN OF FUNCTIONAL MATERIALS. , 2021, , .		0
99	5-Hydroxy-2-Methylfurfural from Sugar Beet Thick Juice: Kinetic and Modeling Studies. ACS Sustainable Chemistry and Engineering, 2021, 9, 2626-2638.	6.9	5
100	On the Cobalt Carbide Formation in a Co/TiO₂ Fischerâ€“Tropsch Synthesis Catalyst as Studied by High-Pressure, Long-Term Operando X-ray Absorption and Diffraction. ACS Catalysis, 2021, 11, 2956-2967.	11.7	37
101	Upscaling Effects on Alkali Metalâ€Grafted Ultrastable Y Zeolite Extrudates for Modeled Catalytic Deoxygenation of Bioâ€oils. ChemCatChem, 2021, 13, 1951-1965.	3.8	8
102	Single-molecule observation of diffusion and catalysis in nanoporous solids. Adsorption, 2021, 27, 423-452.	3.0	31
103	Influence of Pore Structure and Metalâ€Node Geometry on the Polymerization of Ethylene over Crâ€Based Metalâ€“Organic Frameworks. Chemistry - A European Journal, 2021, 27, 5769-5781.	3.9	6
104	Reactivity of Single Transition Metal Atoms on a Hydroxylated Amorphous Silica Surface: A Periodic Conceptual DFT Investigation. Chemistry - A European Journal, 2021, 27, 6050-6063.	3.9	11
105	3â€D Xâ€ray Nanotomography Reveals Different Carbon Deposition Mechanisms in a Single Catalyst Particle. ChemCatChem, 2021, 13, 2494-2507.	3.8	25
106	Single Trap States in Single CdSe Nanoplatelets. ACS Nano, 2021, 15, 7216-7225.	15.2	34
107	Femtosecond Charge Density Modulations in Photoexcited CuWO₄. Journal of Physical Chemistry C, 2021, 125, 7329-7336.	3.3	7
108	Mapping Elevated Temperatures with a Micrometer Resolution Using the Luminescence of Chemically Stable Upconversion Nanoparticles. ACS Applied Nano Materials, 2021, 4, 4208-4215.	5.2	61

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109	Transforming inactive coke molecules into active intermediates in zeolites. Joule, 2021, 5, 757-759.	24.7	2
110	Unravelling the effect of impurities on the methanol-to-olefins process in waste-derived zeolites ZSM-5. Journal of Catalysis, 2021, 396, 136-147.	6.5	16
111	Innentitelbild: Chemical Imaging of Hierarchical Porosity Formation within a Zeolite Crystal Visualized by Smallâ€Angle Xâ€Ray Scattering and Inâ€Situ Fluorescence Microscopy (Angew. Chem. 25/2021). Angewandte Chemie, 2021, 133, 13802-13802.	2.1	0
112	Chemical targets to deactivate biological and chemical toxins using surfaces and fabrics. Nature Reviews Chemistry, 2021, 5, 370-387.	22.6	53
113	Chemical Imaging of Hierarchical Porosity Formation within a Zeolite Crystal Visualized by Smallâ€Angle Xâ€Ray Scattering and Inâ€Situ Fluorescence Microscopy. Angewandte Chemie, 2021, 133, 13922-13925.	2.1	2
114	Chemical Imaging of Hierarchical Porosity Formation within a Zeolite Crystal Visualized by Smallâ€Angle Xâ€Ray Scattering and Inâ€Situ Fluorescence Microscopy. Angewandte Chemie - International Edition, 2021, 60, 13803-13806.	14.7	10
115	Photoinduced Force Microscopy as an Efficient Method Towards the Detection of Nanoplastics. Chemistry Methods, 2021, 1, 205-209.	4.8	12
116	Crystal Phase Effects on the Gasâ€Phase Ketonization of Small Carboxylic Acids over TiO₂ Catalysts. ChemSusChem, 2021, 14, 2710-2720.	7.4	17
117	Efficient Synthesis of Monomeric Fe Species in Zeolite ZSMâ€5 for the Lowâ€Temperature Oxidation of Methane. ChemCatChem, 2021, 13, 2766-2770.	3.8	17
118	Heterogeneity in the Fragmentation of Ziegler Catalyst Particles during Ethylene Polymerization Quantified by X-ray Nanotomography. Jacs Au, 2021, 1, 852-864.	8.3	22
119	Highly Selective Oxidation of Methane into Methanol over Cu-Promoted Monomeric Fe/ZSM-5. ACS Catalysis, 2021, 11, 6684-6691.	11.7	86
120	Separation and Purification of Hydrocarbons with Porous Materials. Angewandte Chemie - International Edition, 2021, 60, 18930-18949.	14.7	141
121	Separation and Purification of Hydrocarbons with Porous Materials. Angewandte Chemie, 2021, 133, 19078-19097.	2.1	2
122	Subâ€Second Timeâ€Resolved Surfaceâ€Enhanced Raman Spectroscopy Reveals Dynamic CO Intermediates during Electrochemical CO₂ Reduction on Copper. Angewandte Chemie, 2021, 133, 16712-16720.	2.1	17
123	Subâ€Second Timeâ€Resolved Surfaceâ€Enhanced Raman Spectroscopy Reveals Dynamic CO Intermediates during Electrochemical CO₂ Reduction on Copper. Angewandte Chemie - International Edition, 2021, 60, 16576-16584.	14.7	172
124	Plastic Waste Conversion over a Refinery Waste Catalyst. Angewandte Chemie - International Edition, 2021, 60, 16101-16108.	14.7	95
125	Plastic Waste Conversion over a Refinery Waste Catalyst. Angewandte Chemie, 2021, 133, 16237-16244.	2.1	8
126	Waterâ€“active site interactions in zeolites and their relevance in catalysis. Trends in Chemistry, 2021, 3, 456-468.	9.0	36

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127	Operando Shellâ€Isolated Nanoparticleâ€Enhanced Raman Spectroscopy of the NO Reduction Reaction over Rhodiumâ€Based Catalysts. ChemPhysChem, 2021, 22, 1595-1602.	2.3	6
128	Nanoscale Chemical Imaging in Zeolite Catalysts by Atom Probe Tomography. Microscopy and Microanalysis, 2021, 27, 984-985.	0.4	0
129	The active phase in cobalt-based Fischer-Tropsch synthesis. Chem Catalysis, 2021, 1, 339-363.	6.4	55
130	Calcination temperature effects on Pd/alumina catalysts: Particle size, surface species and activity in methane combustion. Catalysis Today, 2021, 382, 120-129.	4.9	25
131	Mechanistic Insights into the Lanthanide-Catalyzed Oxychlorination of Methane as Revealed by Operando Spectroscopy. ACS Catalysis, 2021, 11, 10574-10588.	11.7	8
132	Crowded catalyst, better catalyst. National Science Review, 2021, 8, nwab141.	9.5	3
133	Zeoliteâ€Tailored Active Site Proximity for the Efficient Production of Pentanoic Biofuels. Angewandte Chemie - International Edition, 2021, 60, 23713-23721.	14.7	51
134	Zeoliteâ€Tailored Active Site Proximity for the Efficient Production of Pentanoic Biofuels. Angewandte Chemie, 2021, 133, 23906-23914.	2.1	11
135	Detection of Spontaneous FeOOH Formation at the Hematite/Ni(Fe)OOH Interface During Photoelectrochemical Water Splitting by Operando X-ray Absorption Spectroscopy. ACS Catalysis, 2021, 11, 12324-12335.	11.7	21
136	Monitoring Aqueous Phase Reactions by Operando ATRâ€IR Spectroscopy at High Temperature and Pressure: A Biomass Conversion Showcase. Chemistry Methods, 2021, 1, 468-476.	4.8	2
137	Understanding Waterâ€“Zeolite Interactions: On the Accuracy of Density Functionals. Journal of Physical Chemistry C, 2021, 125, 20261-20274.	3.3	15
138	Propane to olefins tandem catalysis: a selective route towards light olefins production. Chemical Society Reviews, 2021, 50, 11503-11529.	40.3	133
139	New insights into the biphasic â€œCO-freeâ€•Pausonâ€“Khand cyclisation reaction through combinedin situspectroscopy and multiple linear regression modelling. Catalysis Science and Technology, 2021, 11, 1626-1636.	4.2	1
140	Stabilization effects in binary colloidal Cu and Ag nanoparticle electrodes under electrochemical CO₂ reduction conditions. Nanoscale, 2021, 13, 4835-4844.	5.8	34
141	Identifying key mononuclear Fe species for low-temperature methane oxidation. Chemical Science, 2021, 12, 3152-3160.	7.8	57
142	Mimicking industrial aging in fluid catalytic cracking: A correlative microscopy approach to unravel inter-particle heterogeneities. Journal of Catalysis, 2021, 404, 634-646.	6.5	5
143	Correlating the Morphological Evolution of Individual Catalyst Particles to the Kinetic Behavior of Metallocene-Based Ethylene Polymerization Catalysts. Jacs Au, 2021, 1, 1996-2008.	8.3	17
144	X-ray nanotomography uncovers morphological heterogeneity in a polymerization catalyst at multiple reaction stages. Chem Catalysis, 2021, 1, 1413-1426.	6.4	6

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145	Production of Hexane-1,2,5,6-tetrol from Biorenewable Levoglucosanol over Pt-WO_x/TiO₂. ACS Sustainable Chemistry and Engineering, 2021, 9, 16123-16132.	6.9	4
146	Monitoring Molecular Weight Changes during Technical Lignin Depolymerization by Operando Attenuated Total Reflectance Infrared Spectroscopy and Chemometrics. ChemSusChem, 2021, 14, 5517-5524.	7.4	11
147	Toward an e-chemistree: Materials for electrification of the chemical industry. MRS Bulletin, 2021, 46, 1187-1196.	4.2	35
148	Elucidation of the pre-nucleation phase directing metal-organic framework formation. Cell Reports Physical Science, 2021, 2, 100680.	5.8	15
149	High-throughput activity screening and sorting of single catalyst particles with a droplet microreactor using dielectrophoresis. Nature Catalysis, 2021, 4, 1070-1079.	28.3	26
150	Dynamic restructuring of supported metal nanoparticles and its implications for structure insensitive catalysis. Nature Communications, 2021, 12, 7096.	13.2	43
151	Stable niobia-supported nickel catalysts for the hydrogenation of carbon monoxide to hydrocarbons. Catalysis Today, 2020, 343, 56-62.	4.9	20
152	Nanoweb Surfaceâ€Mounted Metalâ€“Organic Framework Films with Tunable Amounts of Acid Sites as Tailored Catalysts. Chemistry - A European Journal, 2020, 26, 691-698.	3.9	12
153	Synthesis of Hexane-Tetrols and -Triols with Fixed Hydroxyl Group Positions and Stereochemistry from Methyl Glycosides over Supported Metal Catalysts. ACS Sustainable Chemistry and Engineering, 2020, 8, 800-805.	6.9	14
154	Melamineâ€Based Microporous Organic Framework Thin Films on an Alumina Membrane for Highâ€Flux Organic Solvent Nanofiltration. ChemSusChem, 2020, 13, 136-140.	7.4	16
155	Direct observation of the electronic states of photoexcited hematite with ultrafast 2p3d X-ray absorption spectroscopy and resonant inelastic X-ray scattering. Physical Chemistry Chemical Physics, 2020, 22, 2685-2692.	2.9	29
156	Nickel Poisoning of a Cracking Catalyst Unravelled by Singleâ€Particle Xâ€ray Fluorescenceâ€Diffractionâ€Absorption Tomography. Angewandte Chemie - International Edition, 2020, 59, 3922-3927.	14.7	37
157	Nickel Poisoning of a Cracking Catalyst Unravelled by Singleâ€Particle Xâ€ray Fluorescenceâ€Diffractionâ€Absorption Tomography. Angewandte Chemie, 2020, 132, 3950-3955.	2.1	5
158	Structure Sensitivity in Steam and Dry Methane Reforming over Nickel: Activity and Carbon Formation. ACS Catalysis, 2020, 10, 1428-1438.	11.7	128
159	Creating value from plastic waste. Science, 2020, 370, 400-401.	13.9	81
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