

Bert M Weckhuysen

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.

773 papers	45,394 citations	103 h-index	180 g-index
879 ext. papers	51,297 ext. citations	9 avg, IF	8.05 L-index

#	Paper	IF	Citations
773	Dual Fluorescence in Glutathione-Derived Carbon Dots Revisited.. <i>Journal of Physical Chemistry C</i> , 2022 , 126, 2720-2727	3.8	1
772	The concept of active site in heterogeneous catalysis. <i>Nature Reviews Chemistry</i> , 2022 , 6, 89-111	34.6	17
771	Enhanced Catalytic Performance through In Situ Encapsulation of Ultrafine Ru Clusters within a High-Aluminum Zeolite. <i>ACS Catalysis</i> , 2022 , 12, 1847-1856	13.1	3
770	Uncovering the reaction mechanism behind CoO as active phase for CO hydrogenation.. <i>Nature Communications</i> , 2022 , 13, 324	17.4	9
769	Tandem catalysis with double-shelled hollow spheres.. <i>Nature Materials</i> , 2022 ,	27	6
768	Mechanistic Characterization of Zeolite-Catalyzed Aromatic Electrophilic Substitution at Realistic Operating Conditions.. <i>Jacs Au</i> , 2022 , 2, 502-514		1
767	Nano-scale insights regarding coke formation in zeolite SSZ-13 subject to the methanol-to-hydrocarbons reaction.. <i>Catalysis Science and Technology</i> , 2022 , 12, 1220-1228	5.5	2
766	Using Biomass Gasification Mineral Residue as Catalyst to Produce Light Olefins from CO, CO ₂ , and H ₂ Mixtures.. <i>ChemSusChem</i> , 2022 , e202200436	8.3	
765	Favoring the Methane Oxychlorination Reaction over EuOCl by Synergistic Effects with Lanthanum.. <i>ACS Catalysis</i> , 2022 , 12, 5698-5710	13.1	0
764	Hole Dynamics in Photoexcited Hematite Studied with Femtosecond Oxygen K-edge X-ray Absorption Spectroscopy.. <i>Journal of Physical Chemistry Letters</i> , 2022 , 4207-4214	6.4	
763	Using Biomass Gasification Mineral Residue as Catalyst to Produce Light Olefins from CO, CO ₂ , and H ₂ Mixtures.. <i>ChemSusChem</i> , 2022 , e202200851	8.3	
762	An integrated approach to the key parameters in methanol-to-olefins reaction catalyzed by MFI/MEL zeolite materials. <i>Chinese Journal of Catalysis</i> , 2022 , 43, 1879-1893	11.3	1
761	Classification-based motion analysis of single-molecule trajectories using DiffusionLab. <i>Scientific Reports</i> , 2022 , 12,	4.9	1
760	Elucidation of the pre-nucleation phase directing metal-organic framework formation. <i>Cell Reports Physical Science</i> , 2021 , 2, 100680	6.1	2
759	X-ray nanotomography uncovers morphological heterogeneity in a polymerization catalyst at multiple reaction stages. <i>Chem Catalysis</i> , 2021 , 1, 1413-1413		0
758	Monitoring Molecular Weight Changes during Technical Lignin Depolymerization by Operando Attenuated Total Reflectance Infrared Spectroscopy and Chemometrics. <i>ChemSusChem</i> , 2021 , 14, 5517	8.3	1
757	Correlating the Morphological Evolution of Individual Catalyst Particles to the Kinetic Behavior of Metallocene-Based Ethylene Polymerization Catalysts.. <i>Jacs Au</i> , 2021 , 1, 1996-2008		2

756	Deactivation and regeneration of solid acid and base catalyst bodies used in cascade for bio-oil synthesis and upgrading. <i>Journal of Catalysis</i> , 2021 , 405, 641-641	7.3	0
755	Influence of Pore Structure and Metal-Node Geometry on the Polymerization of Ethylene over Cr-Based Metal-Organic Frameworks. <i>Chemistry - A European Journal</i> , 2021 , 27, 5769-5781	4.8	1
754	Reactivity of Single Transition Metal Atoms on a Hydroxylated Amorphous Silica Surface: A Periodic Conceptual DFT Investigation. <i>Chemistry - A European Journal</i> , 2021 , 27, 6050-6063	4.8	4
753	3-D X-ray Nanotomography Reveals Different Carbon Deposition Mechanisms in a Single Catalyst Particle. <i>ChemCatChem</i> , 2021 , 13, 2494-2507	5.2	9
752	Single Trap States in Single CdSe Nanoplatelets. <i>ACS Nano</i> , 2021 , 15, 7216-7225	16.7	11
751	Femtosecond Charge Density Modulations in Photoexcited CuWO. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 7329-7336	3.8	2
750	Mapping Elevated Temperatures with a Micrometer Resolution Using the Luminescence of Chemically Stable Upconversion Nanoparticles. <i>ACS Applied Nano Materials</i> , 2021 , 4, 4208-4215	5.6	20
749	Transforming inactive coke molecules into active intermediates in zeolites. <i>Joule</i> , 2021 , 5, 757-759	27.8	
748	Unravelling the effect of impurities on the methanol-to-olefins process in waste-derived zeolites ZSM-5. <i>Journal of Catalysis</i> , 2021 , 396, 136-147	7.3	4
747	Innentitelbild: Chemical Imaging of Hierarchical Porosity Formation within a Zeolite Crystal Visualized by Small-Angle X-Ray Scattering and In-Situ Fluorescence Microscopy (Angew. Chem. 25/2021). <i>Angewandte Chemie</i> , 2021 , 133, 13802-13802	3.6	
746	Chemical targets to deactivate biological and chemical toxins using surfaces and fabrics. <i>Nature Reviews Chemistry</i> , 2021 , 1-18	34.6	14
745	Chemical Imaging of Hierarchical Porosity Formation within a Zeolite Crystal Visualized by Small-Angle X-Ray Scattering and In-Situ Fluorescence Microscopy. <i>Angewandte Chemie</i> , 2021 , 133, 13922-13925	3.6	2
744	Chemical Imaging of Hierarchical Porosity Formation within a Zeolite Crystal Visualized by Small-Angle X-Ray Scattering and In-Situ Fluorescence Microscopy. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 13803-13806	16.4	2
743	Photoinduced Force Microscopy as an Efficient Method Towards the Detection of Nanoplastics. <i>Chemistry Methods</i> , 2021 , 1, 205-209		3
742	Crystal Phase Effects on the Gas-Phase Ketonization of Small Carboxylic Acids over TiO Catalysts. <i>ChemSusChem</i> , 2021 , 14, 2710-2720	8.3	6
741	Efficient Synthesis of Monomeric Fe Species in Zeolite ZSM-5 for the Low-Temperature Oxidation of Methane. <i>ChemCatChem</i> , 2021 , 13, 2766-2770	5.2	7
740	Heterogeneity in the Fragmentation of Ziegler Catalyst Particles during Ethylene Polymerization Quantified by X-ray Nanotomography. <i>JACS Au</i> , 2021 , 1, 852-864		6
739	Highly Selective Oxidation of Methane into Methanol over Cu-Promoted Monomeric Fe/ZSM-5. <i>ACS Catalysis</i> , 2021 , 11, 6684-6691	13.1	17

- 738 Separation and Purification of Hydrocarbons with Porous Materials. *Angewandte Chemie - International Edition*, **2021**, 60, 18930-18949 16.4 23
- 737 Photoinduced Force Microscopy as an Efficient Method Towards the Detection of Nanoplastics. *Chemistry Methods*, **2021**, 1, 204-204
- 736 Separation and Purification of Hydrocarbons with Porous Materials. *Angewandte Chemie*, **2021**, 133, 19078-19097 3.6 1
- 735 Crystal Phase Effects on the Gas-Phase Ketonization of Small Carboxylic Acids over TiO Catalysts. *ChemSusChem*, **2021**, 14, 2634 8.3
- 734 Sub-Second Time-Resolved Surface-Enhanced Raman Spectroscopy Reveals Dynamic CO Intermediates during Electrochemical CO₂ Reduction on Copper. *Angewandte Chemie*, **2021**, 133, 16712-16720 3.6 8
- 733 Sub-Second Time-Resolved Surface-Enhanced Raman Spectroscopy Reveals Dynamic CO Intermediates during Electrochemical CO Reduction on Copper. *Angewandte Chemie - International Edition*, **2021**, 60, 16576-16584 16.4 37
- 732 Plastic Waste Conversion over a Refinery Waste Catalyst. *Angewandte Chemie - International Edition*, **2021**, 60, 16101-16108 16.4 14
- 731 Plastic Waste Conversion over a Refinery Waste Catalyst. *Angewandte Chemie*, **2021**, 133, 16237-16244 3.6 1
- 730 Water-Active site interactions in zeolites and their relevance in catalysis. *Trends in Chemistry*, **2021**, 3, 456-468 14.8 13
- 729 Operando Shell-Isolated Nanoparticle-Enhanced Raman Spectroscopy of the NO Reduction Reaction over Rhodium-Based Catalysts. *ChemPhysChem*, **2021**, 22, 1595-1602 3.2 3
- 728 Nanoscale Chemical Imaging in Zeolite Catalysts by Atom Probe Tomography. *Microscopy and Microanalysis*, **2021**, 27, 984-985 0.5
- 727 Single catalyst particle diagnostics in a microreactor for performing multiphase hydrogenation reactions. *Faraday Discussions*, **2021**, 229, 267-280 3.6 1
- 726 Reaction Mechanism of Pd-Catalyzed "CO-Free" Carbonylation Reaction Uncovered by In Situ Spectroscopy: The Formyl Mechanism. *Angewandte Chemie - International Edition*, **2021**, 60, 3422-3427 16.4 5
- 725 In situ Nanoscale Infrared Spectroscopy of Water Adsorption on Nanoislands of Surface-Anchored Metal-Organic Frameworks. *Angewandte Chemie - International Edition*, **2021**, 60, 1620-1624 16.4 13
- 724 Effect of Mesoporosity, Acidity and Crystal Size of Zeolite ZSM-5 on Catalytic Performance during the Ex-situ Catalytic Fast Pyrolysis of Biomass. *ChemCatChem*, **2021**, 13, 1207-1219 5.2 6
- 723 The nanogeochemistry of abiotic carbonaceous matter in serpentinites from the Yap Trench, western Pacific Ocean. *Geology*, **2021**, 49, 330-334 5 4
- 722 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 8.3 19
- 721 Reaction Mechanism of Pd-Catalyzed "CO-Free" Carbonylation Reaction Uncovered by In Situ Spectroscopy: The Formyl Mechanism. *Angewandte Chemie*, **2021**, 133, 3464-3469 3.6 2

720	In situ Nanoscale Infrared Spectroscopy of Water Adsorption on Nanoislands of Surface-Anchored Metal-Organic Frameworks. <i>Angewandte Chemie</i> , 2021 , 133, 1644-1648	3.6	4
719	Influence of Metal-Alkyls on Early-Stage Ethylene Polymerization over a Cr/SiO Phillips Catalyst: A Bulk Characterization and X-ray Chemical Imaging Study. <i>Chemistry - A European Journal</i> , 2021 , 27, 1688-1699	4.8	3
718	In Situ X-ray Raman Scattering Spectroscopy of the Formation of Cobalt Carbides in a Co/TiO ₂ Fischer-Tropsch Synthesis Catalyst. <i>ACS Catalysis</i> , 2021 , 11, 809-819	13.1	5
717	Visualizing defects and pore connectivity within metal-organic frameworks by X-ray transmission tomography. <i>Chemical Science</i> , 2021 , 12, 8458-8467	9.4	2
716	Rapid fabrication of MOF-based mixed matrix membranes through digital light processing. <i>Materials Advances</i> , 2021 , 2, 2739-2749	3.3	4
715	Identification of Photoexcited Electron Relaxation in a Cobalt Phosphide Modified Carbon Nitride Photocatalyst. <i>ChemPhotoChem</i> , 2021 , 5, 330-334	3.3	6
714	5-Hydroxy-2-Methylfurfural from Sugar Beet Thick Juice: Kinetic and Modeling Studies. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 2626-2638	8.3	2
713	On the Cobalt Carbide Formation in a Co/TiO Fischer-Tropsch Synthesis Catalyst as Studied by High-Pressure, Long-Term X-ray Absorption and Diffraction. <i>ACS Catalysis</i> , 2021 , 11, 2956-2967	13.1	7
712	Upscaling Effects on Alkali Metal-Grafted Ultrastable Y Zeolite Extrudates for Modeled Catalytic Deoxygenation of Bio-oils. <i>ChemCatChem</i> , 2021 , 13, 1951-1965	5.2	3
711	Single-molecule observation of diffusion and catalysis in nanoporous solids. <i>Adsorption</i> , 2021 , 27, 423-452	13.6	13
710	The active phase in cobalt-based Fischer-Tropsch synthesis. <i>Chem Catalysis</i> , 2021 , 1, 339-363		7
709	Calcination temperature effects on Pd/alumina catalysts: Particle size, surface species and activity in methane combustion. <i>Catalysis Today</i> , 2021 , 382, 120-120	5.3	5
708	Mechanistic Insights into the Lanthanide-Catalyzed Oxychlorination of Methane as Revealed by Spectroscopy. <i>ACS Catalysis</i> , 2021 , 11, 10574-10588	13.1	2
707	Crowded catalyst, better catalyst. <i>National Science Review</i> , 2021 , 8, nwab141	10.8	2
706	Zeolite-Tailored Active Site Proximity for the Efficient Production of Pentanoic Biofuels. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 23713-23721	16.4	9
705	Detection of Spontaneous FeOOH Formation at the Hematite/Ni(Fe)OOH Interface During Photoelectrochemical Water Splitting by Operando X-ray Absorption Spectroscopy. <i>ACS Catalysis</i> , 2021 , 11, 12324-12335	13.1	2
704	Understanding Water-Zeolite Interactions: On the Accuracy of Density Functionals. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 20261-20274	3.8	2
703	Propane to olefins tandem catalysis: a selective route towards light olefins production. <i>Chemical Society Reviews</i> , 2021 , 50, 11503-11529	58.5	15

702	New insights into the biphasic CO-free Pauson-Khand cyclisation reaction through combined in situ spectroscopy and multiple linear regression modelling. <i>Catalysis Science and Technology</i> , 2021 , 11, 1626-1636	5.5	1
701	Stabilization effects in binary colloidal Cu and Ag nanoparticle electrodes under electrochemical CO reduction conditions. <i>Nanoscale</i> , 2021 , 13, 4835-4844	7.7	11
700	Identifying key mononuclear Fe species for low-temperature methane oxidation. <i>Chemical Science</i> , 2021 , 12, 3152-3160	9.4	18
699	High-throughput activity screening and sorting of single catalyst particles with a droplet microreactor using dielectrophoresis. <i>Nature Catalysis</i> , 2021 , 4, 1070-1079	36.5	0
698	Dynamic restructuring of supported metal nanoparticles and its implications for structure insensitive catalysis. <i>Nature Communications</i> , 2021 , 12, 7096	17.4	5
697	Unravelling Channel Structure-Diffusivity Relationships in Zeolite ZSM-5 at the Single-Molecule Level. <i>Angewandte Chemie - International Edition</i> , 2021 ,	16.4	3
696	Disk-Shaped Cobalt Nanocrystals as Fischer-Tropsch Synthesis Catalysts Under Industrially Relevant Conditions. <i>Topics in Catalysis</i> , 2020 , 63, 1398-1411	2.3	1
695	Tuning the Redox Chemistry of a Cr/SiO ₂ Phillips Catalyst for Controlling Activity, Induction Period and Polymer Properties. <i>ChemPhysChem</i> , 2020 , 21, 1665-1674	3.2	2
694	In Situ Spectroscopy of Calcium Fluoride Anchored Metal-Organic Framework Thin Films during Gas Sorption. <i>Angewandte Chemie</i> , 2020 , 132, 19713-19720	3.6	4
693	In Situ Spectroscopy of Calcium Fluoride Anchored Metal-Organic Framework Thin Films during Gas Sorption. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 19545-19552	16.4	10
692	Beyond Mechanical Recycling: Giving New Life to Plastic Waste. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 15402-15423	16.4	265
691	Catalytic Hydrogenation of Renewable Levulinic Acid to γ -Valerolactone: Insights into the Influence of Feed Impurities on Catalyst Performance in Batch and Flow Reactors. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 5903-5919	8.3	18
690	Die nächste Generation des Recyclings [neues Leben für Kunststoffmüll]. <i>Angewandte Chemie</i> , 2020 , 132, 15524-15548	3.6	29
689	Single Particle Assays to Determine Heterogeneities within Fluid Catalytic Cracking Catalysts. <i>Chemistry - A European Journal</i> , 2020 , 26, 8482	4.8	
688	Role of Rare Earth Ions in the Prevention of Dealumination of Zeolite Y for Fluid Cracking Catalysts. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 4626-4636	3.8	17
687	In Situ Shell-Isolated Nanoparticle-Enhanced Raman Spectroscopy of Nickel-Catalyzed Hydrogenation Reactions. <i>ChemPhysChem</i> , 2020 , 21, 625-632	3.2	11
686	Alkali Promotion in the Formation of CH ₄ from CO ₂ and Renewably Produced H ₂ over Supported Ni Catalysts. <i>ChemCatChem</i> , 2020 , 12, 2792-2800	5.2	12
685	Matrix Effects in a Fluid Catalytic Cracking Catalyst Particle: Influence on Structure, Acidity, and Accessibility. <i>Chemistry - A European Journal</i> , 2020 , 26, 11995-12009	4.8	9

684	Single Particle Assays to Determine Heterogeneities within Fluid Catalytic Cracking Catalysts. <i>Chemistry - A European Journal</i> , 2020 , 26, 8546-8554	4.8	4
683	Controlling the Depolymerization of Paraformaldehyde with Pd-Phosphine Complexes. <i>Chemistry - A European Journal</i> , 2020 , 26, 5297-5302	4.8	5
682	Correlated X-ray Ptychography and Fluorescence Nano-Tomography on the Fragmentation Behavior of an Individual Catalyst Particle during the Early Stages of Olefin Polymerization. <i>Journal of the American Chemical Society</i> , 2020 , 142, 3691-3695	16.4	20
681	Basicity and Electrolyte Composition Dependent Stability of Ni-Fe-S and Ni-Mo Electrodes during Water Splitting. <i>ChemPhysChem</i> , 2020 , 21, 518-524	3.2	4
680	Multi-Spectroscopic Interrogation of the Spatial Linker Distribution in Defect-Engineered Metal-Organic Framework Crystals: The [Cu (btc) (cydc)] Showcase. <i>Chemistry - A European Journal</i> , 2020 , 26, 3614-3625	4.8	10
679	Cobalt nanocrystals on carbon nanotubes in the Fischer-Tropsch synthesis: Impact of support oxidation. <i>Applied Catalysis A: General</i> , 2020 , 593, 117441	5.1	17
678	Disentangling Reaction Processes of Zeolites within Single-Oriented Channels. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 15502-15506	16.4	17
677	Deactivation of Cu-Exchanged Automotive-Emission NH ₃ -SCR Catalysts Elucidated with Nanoscale Resolution Using Scanning Transmission X-ray Microscopy. <i>Angewandte Chemie</i> , 2020 , 132, 15740-15747 ^{3.6}	3.6	6
676	Disentangling Reaction Processes of Zeolites within Single-Oriented Channels. <i>Angewandte Chemie</i> , 2020 , 132, 15632-15636	3.6	6
675	In Situ Study on Ni-Mo Stability in a Water-Splitting Device: Effect of Catalyst Substrate and Electric Potential. <i>ChemSusChem</i> , 2020 , 13, 3172-3179	8.3	7
674	Carbon Pathways, Sodium-Sulphur Promotion and Identification of Iron Carbides in Iron-based Fischer-Tropsch Synthesis. <i>ChemCatChem</i> , 2020 , 12, 4202-4223	5.2	14
673	Tandem catalytic aromatization of volatile fatty acids. <i>Green Chemistry</i> , 2020 , 22, 3229-3238	10	12
672	Nanoweb Surface-Mounted Metal-Organic Framework Films with Tunable Amounts of Acid Sites as Tailored Catalysts. <i>Chemistry - A European Journal</i> , 2020 , 26, 691-698	4.8	10
671	Synthesis of Hexane-Tetrols and -Triols with Fixed Hydroxyl Group Positions and Stereochemistry from Methyl Glycosides over Supported Metal Catalysts. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 800-805	8.3	3
670	Melamine-Based Microporous Organic Framework Thin Films on an Alumina Membrane for High-Flux Organic Solvent Nanofiltration. <i>ChemSusChem</i> , 2020 , 13, 136-140	8.3	9
669	Direct observation of the electronic states of photoexcited hematite with ultrafast 2p3d X-ray absorption spectroscopy and resonant inelastic X-ray scattering. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 2685-2692	3.6	18
668	Nickel Poisoning of a Cracking Catalyst Unravelling by Single-Particle X-ray Fluorescence-Diffraction-Absorption Tomography. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 3922-3927	16.4	16
667	Nickel Poisoning of a Cracking Catalyst Unravelling by Single-Particle X-ray Fluorescence-Diffraction-Absorption Tomography. <i>Angewandte Chemie</i> , 2020 , 132, 3950-3955	3.6	4

666	Structure Sensitivity in Steam and Dry Methane Reforming over Nickel: Activity and Carbon Formation. <i>ACS Catalysis</i> , 2020 , 10, 1428-1438	13.1	56
665	Creating value from plastic waste. <i>Science</i> , 2020 , 370, 400-401	33.3	21
664	Identification of Iron Carbides in Fe(NaB)/Al ₂ O ₃ Fischer-Tropsch Synthesis Catalysts with X-ray Powder Diffractometry and Mössbauer Absorption Spectroscopy. <i>ChemCatChem</i> , 2020 , 12, 5121-5139	5.2	7
663	Two-in-One Catalyst Turns Carbon Dioxide in Base Chemicals. <i>Chem</i> , 2020 , 6, 3167-3169	16.2	1
662	Titelbild: Elucidating Zeolite Channel Geometry-Reaction Intermediate Relationships for the Methanol-to-Hydrocarbon Process (Angew. Chem. 45/2020). <i>Angewandte Chemie</i> , 2020 , 132, 19893-19893	3.6	6
661	Elucidating Zeolite Channel Geometry-Reaction Intermediate Relationships for the Methanol-to-Hydrocarbon Process. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 20024-20030	16.4	8
660	Finned zeolite catalysts. <i>Nature Materials</i> , 2020 , 19, 1074-1080	27	45
659	Continuous Flow Pickering Emulsion Catalysis in Droplet Microfluidics Studied with In Situ Raman Microscopy. <i>Chemistry - A European Journal</i> , 2020 , 26, 15099-15102	4.8	7
658	High-Pressure Operando UV-Vis Micro-Spectroscopy of Coke Formation in Zeolite-based Catalyst Extrudates during the Transalkylation of Aromatics. <i>ChemCatChem</i> , 2020 , 12, 5465-5475	5.2	8
657	Mechanistic Insights into the Conversion of Biorenewable Levoglucosan to Dideoxysugars. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 16339-16349	8.3	1
656	Elucidating Zeolite Channel Geometry-Reaction Intermediate Relationships for the Methanol-to-Hydrocarbon Process. <i>Angewandte Chemie</i> , 2020 , 132, 20199-20205	3.6	1
655	Toward Catalytic Ketonization of Volatile Fatty Acids Extracted from Fermented Wastewater by Adsorption. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 11292-11298	8.3	11
654	Spectroscopy, microscopy, diffraction and scattering of archetypal MOFs: formation, metal sites in catalysis and thin films. <i>Chemical Society Reviews</i> , 2020 , 49, 6694-6732	58.5	26
653	Combined In Situ X-ray Powder Diffractometry/Raman Spectroscopy of Iron Carbide and Carbon Species Evolution in Fe(NaB)/Al ₂ O ₃ Catalysts during Fischer-Tropsch Synthesis. <i>ACS Catalysis</i> , 2020 , 10, 9837-9855	13.1	18
652	Stable niobia-supported nickel catalysts for the hydrogenation of carbon monoxide to hydrocarbons. <i>Catalysis Today</i> , 2020 , 343, 56-62	5.3	8
651	Nanoscale Sensors in Catalysis: All Eyes on Catalyst Particles. <i>ACS Nano</i> , 2020 , 14, 3725-3735	16.7	36
650	Deactivation of Cu-Exchanged Automotive-Emission NH ₃ -SCR Catalysts Elucidated with Nanoscale Resolution Using Scanning Transmission X-ray Microscopy. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 15610-15617	16.4	18
649	In Situ Local Temperature Mapping in Microscopy Nano-Reactors with Luminescence Thermometry. <i>ChemCatChem</i> , 2019 , 11, 5505-5512	5.2	30

648	Template-Free Nanostructured Fluorine-Doped Tin Oxide Scaffolds for Photoelectrochemical Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 36485-36496	9.5	7
647	Microfluidics and catalyst particles. <i>Lab on A Chip</i> , 2019 , 19, 3575-3601	7.2	18
646	In Situ Shell-Isolated Nanoparticle-Enhanced Raman Spectroscopy to Unravel Sequential Hydrogenation of Phenylacetylene over Platinum Nanoparticles. <i>ACS Catalysis</i> , 2019 , 9, 10794-10802	13.1	19
645	Unraveling the Homologation Reaction Sequence of the Zeolite-Catalyzed Ethanol-to-Hydrocarbons Process. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 3908-3912	16.4	20
644	Unraveling the Homologation Reaction Sequence of the Zeolite-Catalyzed Ethanol-to-Hydrocarbons Process. <i>Angewandte Chemie</i> , 2019 , 131, 3948-3952	3.6	5
643	X-Ray Absorption Near Edge Structure Spectroscopy of a Solid Catalyst using a Laboratory-Based Set-up. <i>ChemCatChem</i> , 2019 , 11, 1039-1044	5.2	22
642	Probing the Effect of Chemical Dopant Phase on Photoluminescence of Monolayer MoS ₂ Using in Situ Raman Microspectroscopy. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 15738-15743	3.8	7
641	Elucidating the K-Edge X-Ray Absorption Near-Edge Structure of Cobalt Carbide. <i>ChemCatChem</i> , 2019 , 11, 3042-3045	5.2	10
640	Synthesis and Characterization of Ru-Loaded Anodized Aluminum Oxide for Hydrogenation Catalysis. <i>ChemistryOpen</i> , 2019 , 8, 532-538	2.3	3
639	Electrolyte Effects on the Stability of Ni-Mo Cathodes for the Hydrogen Evolution Reaction. <i>ChemSusChem</i> , 2019 , 12, 3491-3500	8.3	20
638	Isotherms of individual pores by gas adsorption crystallography. <i>Nature Chemistry</i> , 2019 , 11, 562-570	17.6	64
637	Cooperative Role of Water Molecules during the Initial Stage of Water-Induced Zeolite Dealumination. <i>ACS Catalysis</i> , 2019 , 9, 5119-5135	13.1	35
636	Multiscale Mechanistic Insights of Shaped Catalyst Body Formulations and Their Impact on Catalytic Properties. <i>ACS Catalysis</i> , 2019 , 9, 4792-4803	13.1	33
635	Recovery and conversion of acetic acid from a phosphonium phosphinate ionic liquid to enable valorization of fermented wastewater. <i>Green Chemistry</i> , 2019 , 21, 2023-2034	10	26
634	Nanoscale chemical imaging using tip-enhanced Raman spectroscopy. <i>Nature Protocols</i> , 2019 , 14, 1169-1188	18.8	50
633	Geminal Diol of Dihydrolevoglucosenone as a Switchable Hydrotrope: A Continuum of Green Nanostructured Solvents. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 7878-7883	8.3	25
632	3D Raman Spectroscopy of Large Zeolite ZSM-5 Crystals. <i>Chemistry - A European Journal</i> , 2019 , 25, 7158-7167	4.867	11
631	Vibrational Fingerprinting of Defects Sites in Thin Films of Zeolitic Imidazolate Frameworks. <i>Chemistry - A European Journal</i> , 2019 , 25, 8070-8084	4.8	13

630	Scaling-Up of Bio-Oil Upgrading during Biomass Pyrolysis over ZrO /ZSM-5-Attapulgit. <i>ChemSusChem</i> , 2019 , 12, 2428-2438	8.3	13
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