Robert SchlÃ¶gl

List of Publications by Year
in descending order

229 papers	20,233 citations	11651 70 h-index	11607 135 g-index
257 all docs	257 docs citations	257 times ranked	18791 citing authors

#	Article	IF	Citations
1	The Active Site of Methanol Synthesis over Cu/ZnO/Al ₂ O ₃ Industrial Catalysts. Science, 2012, 336, 893-897.	12.6	2,018
2	Catalytic Synthesis of Ammoniaâ€"A â€œNever-Ending Storyâ€?. Angewandte Chemie - International Edition, 2003, 42, 2004-2008.	13.8	956
3	Heterogeneous Catalysis. Angewandte Chemie - International Edition, 2015, 54, 3465-3520.	13.8	754
4	Methane Activation by Heterogeneous Catalysis. Catalysis Letters, 2015, 145, 23-39.	2.6	512
5	The Haberâ€"Bosch Process Revisited: On the Real Structure and Stability of â€œAmmonia Ironâ€•under Working Conditions. Angewandte Chemie - International Edition, 2013, 52, 12723-12726.	13.8	489
6	Nanocatalysis: Mature Science Revisited or Something Really New?. Angewandte Chemie - International Edition, 2004, 43, 1628-1637.	13.8	487
7	The Mechanism of CO and CO₂ Hydrogenation to Methanol over Cuâ€Based Catalysts. ChemCatChem, 2015, 7, 1105-1111.	3.7	424
8	A unique oxygen ligand environment facilitates water oxidation in hole-doped IrNiOx coreâ€"shell electrocatalysts. Nature Catalysis, 2018, 1, 841-851.	34.4	424
9	Formation of a ZnO Overlayer in Industrial Cu/ZnO/Al₂O₃ Catalysts Induced by Strong Metalâ€"Support Interactions. Angewandte Chemie - International Edition, 2015, 54, 4544-4548.	13.8	420
10	Ni Single Atom Catalysts for CO₂ Activation. Journal of the American Chemical Society, 2019, 141, 2451-2461.	13.7	291
11	The electronic structure of iridium and its oxides. Surface and Interface Analysis, 2016, 48, 261-273.	1.8	288
12	Self-Assembled Gold Nanoparticle/Alkanedithiol Films:Â Preparation, Electron Microscopy, XPS-Analysis, Charge Transport, and Vapor-Sensing Propertiesâ€. Journal of Physical Chemistry B, 2003, 107, 7406-7413.	2.6	285
13	Hierarchically aminated graphene honeycombs for electrochemical capacitive energy storage. Journal of Materials Chemistry, 2012, 22, 14076.	6.7	280
14	Palladiumâ€"gallium intermetallic compounds for the selective hydrogenation of acetylenePart I: Preparation and structural investigation under reaction conditions. Journal of Catalysis, 2008, 258, 210-218.	6.2	269
15	In situ observation of reactive oxygen species forming on oxygen-evolving iridium surfaces. Chemical Science, 2017, 8, 2143-2149.	7.4	258
16	Hydrogenation of CO2 to methanol and CO on Cu/ZnO/Al2O3: Is there a common intermediate or not?. Journal of Catalysis, 2015, 328, 43-48.	6.2	252
17	Observing Graphene Grow: Catalystâ€"Graphene Interactions during Scalable Graphene Growth on Polycrystalline Copper. Nano Letters, 2013, 13, 4769-4778.	9.1	231
18	Nanocarbon as Robust Catalyst: Mechanistic Insight into Carbonâ€Mediated Catalysis. Angewandte Chemie - International Edition, 2007, 46, 7319-7323.	13.8	226

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19	Role of Lattice Strain and Defects in Copper Particles on the Activity of Cu/ZnO/Al₂O₃ Catalysts for Methanol Synthesis. Angewandte Chemie - International Edition, 2007, 46, 7324-7327.	13.8	223
20	The Role of Chemistry in the Energy Challenge. ChemSusChem, 2010, 3, 209-222.	6.8	222
21	Promoting Strong Metal Support Interaction: Doping ZnO for Enhanced Activity of Cu/ZnO:M (M = Al,) Tj ETQq1 1 0.784314 rgBT /Ov	11.2	215
22	Carbocatalysis in Liquidâ€Phase Reactions. Angewandte Chemie - International Edition, 2017, 56, 936-964.	13.8	209
23	A Critical Assessment of Li/MgO-Based Catalysts for the Oxidative Coupling of Methane. Catalysis Reviews - Science and Engineering, 2011, 53, 424-514.	12.9	205
24	Relations between Synthesis and Microstructural Properties of Copper/Zinc Hydroxycarbonates. Chemistry - A European Journal, 2003, 9, 2039-2052.	3.3	202
25	Performance Improvement of Nanocatalysts by Promoter-Induced Defects in the Support Material: Methanol Synthesis over Cu/ZnO:Al. Journal of the American Chemical Society, 2013, 135, 6061-6068.	13.7	201
26	Electron Microscopy of Solid Catalystsâ€"Transforming from a Challenge to a Toolbox. Chemical Reviews, 2015, 115, 2818-2882.	47.7	200
27	<i>In Situ</i>X-Ray Photoelectron Spectroscopy Studies of Gas-Solid Interfaces at Near-Ambient Conditions. MRS Bulletin, 2007, 32, 1022-1030.	3.5	180
28	The Role of the Oxide Component in the Development of Copper Composite Catalysts for Methanol Synthesis. Angewandte Chemie - International Edition, 2013, 52, 6536-6540.	13.8	180
29	Identifying Key Structural Features of IrO_x Water Splitting Catalysts. Journal of the American Chemical Society, 2017, 139, 12093-12101.	13.7	179
30	Local Structure of Nanoscopic Materials:â€‰ V2O5 Nanorods and Nanowires. Nano Letters, 2003, 3, 1131-1134.	9.1	170
31	<i>In Situ</i> Observations of the Atomistic Mechanisms of Ni Catalyzed Low Temperature Graphene Growth. ACS Nano, 2013, 7, 7901-7912.	14.6	163
32	Is direct seawater splitting economically meaningful?. Energy and Environmental Science, 2021, 14, 3679-3685.	30.8	158
33	Reactive oxygen species in iridium-based OER catalysts. Chemical Science, 2016, 7, 6791-6795.	7.4	153
34	Operando Insights into CO Oxidation on Cobalt Oxide Catalysts by NAP-XPS, FTIR, and XRD. ACS Catalysis, 2018, 8, 8630-8641.	11.2	153
35	Katalytische Ammoniaksynthese â€“ eine â€œunendliche Geschichteâ€?. Angewandte Chemie, 2003, 115, 2050-2055.	2.0	152
36	How to Prepare a Good Cu/ZnO Catalyst or the Role of Solid State Chemistry for the Synthesis of Nanostructured Catalysts. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2013, 639, 2683-2695.	1.2	137

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37	Photoelectron Spectroscopy at the Grapheneâ€“Liquid Interface Reveals the Electronic Structure of an Electrodeposited Cobalt/Graphene Electrocatalyst. Angewandte Chemie - International Edition, 2015, 54, 14554-14558.	13.8	135
38	The Microstructure of Copper Zinc Oxide Catalysts: Bridging the Materials Gap. Angewandte Chemie - International Edition, 2005, 44, 4704-4707.	13.8	123
39	Operando Evidence for a Universal Oxygen Evolution Mechanism on Thermal and Electrochemical Iridium Oxides. Journal of Physical Chemistry Letters, 2018, 9, 3154-3160.	4.6	121
40	The Role of the Copper Oxidation State in the Electrocatalytic Reduction of CO₂ into Valuable Hydrocarbons. ACS Sustainable Chemistry and Engineering, 2019, 7, 1485-1492.	6.7	121
41	Commercial Fe- or Co-containing carbon nanotubes as catalysts for NH3decomposition. Chemical Communications, 2007, , 1916-1918.	4.1	119
42	Counting of Oxygen Defects versus Metal Surface Sites in Methanol Synthesis Catalysts by Different Probe Molecules. Angewandte Chemie - International Edition, 2014, 53, 7043-7047.	13.8	119
43	High-Temperature Stable Ni Nanoparticles for the Dry Reforming of Methane. ACS Catalysis, 2016, 6, 7238-7248.	11.2	116
44	Reactivity of mesoporous carbon against water â€“ An in-situ XPS study. Carbon, 2014, 77, 175-183.	10.3	114
45	Reverse water-gas shift reaction at the Cu/ZnO interface: Influence of the Cu/Zn ratio on structure-activity correlations. Applied Catalysis B: Environmental, 2016, 195, 104-111.	20.2	113
46	Bridging the Time Gap: A Copper/Zinc Oxide/Aluminum Oxide Catalyst for Methanol Synthesis Studied under Industrially Relevant Conditions and Time Scales. Angewandte Chemie - International Edition, 2016, 55, 12708-12712.	13.8	109
47	Methane Pyrolysis for CO₂â€Free H₂ Production: A Green Process to Overcome Renewable Energies Unsteadiness. Chemie-Ingenieur-Technik, 2020, 92, 1596-1609.	0.8	109
48	Minerals as Model Compounds for Cu/ZnO Catalyst Precursors: Structural and Thermal Properties and IR Spectra of Mineral and Synthetic (Zincian) Malachite, Rosasite and Aurichalcite and a Catalyst Precursor Mixture. European Journal of Inorganic Chemistry, 2009, 2009, 1347-1357.	2.0	108
49	The influence of intercalated oxygen on the properties of graphene on polycrystalline Cu under various environmental conditions. Physical Chemistry Chemical Physics, 2014, 16, 25989-26003.	2.8	108
50	Probing the Structure of a Water-Oxidizing Anodic Iridium Oxide Catalyst using Raman Spectroscopy. ACS Catalysis, 2016, 6, 8098-8105.	11.2	104
51	Methanol Synthesis from Industrial CO2 Sources: A Contribution to Chemical Energy Conversion. Catalysis Letters, 2017, 147, 416-427.	2.6	102
52	Promotion Mechanisms of Iron Oxide-Based High Temperature Waterâ€“Gas Shift Catalysts by Chromium and Copper. ACS Catalysis, 2016, 6, 4455-4464.	11.2	98
53	Surface Chemistry of Ag Particles: Identification of Oxide Species by Aberrationâ€Corrected TEM and by DFT Calculations. Angewandte Chemie - International Edition, 2008, 47, 5005-5008.	13.8	97
54	Synthesis and Characterisation of a Highly Active Cu/ZnO:Al Catalyst. ChemCatChem, 2014, 6, 2889-2897.	3.7	95

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55	Acidâ€“Base Properties of N-Doped Carbon Nanotubes: A Combined Temperature-Programmed Desorption, X-ray Photoelectron Spectroscopy, and 2-Propanol Reaction Investigation. Chemistry of Materials, 2016, 28, 6826-6839.	6.7	95
56	Oxidation Stability of Multiwalled Carbon Nanotubes for Catalytic Applications. Chemistry of Materials, 2010, 22, 4462-4470.	6.7	94
57	Dynamics of the MoVTeNb Oxide M1 Phase in Propane Oxidation. Journal of Physical Chemistry C, 2010, 114, 1912-1921.	3.1	92
58	Electrochemical Degradation of Multiwall Carbon Nanotubes at High Anodic Potential for Oxygen Evolution in Acidic Media. ChemElectroChem, 2015, 2, 1929-1937.	3.4	90
59	Eutectic Syntheses of Graphitic Carbon with High Pyrazinic Nitrogen Content. Advanced Materials, 2016, 28, 1287-1294.	21.0	90
60	IR-Spectroscopic Study on the Interface of Cu-Based Methanol Synthesis Catalysts: Evidence for the Formation of a ZnO Overlayer. Topics in Catalysis, 2017, 60, 1735-1743.	2.8	89
61	Continuous Coprecipitation of Catalysts in a Micromixer: Nanostructured Cu/ZnO Composite for the Synthesis of Methanol. Angewandte Chemie - International Edition, 2003, 42, 3815-3817.	13.8	84
62	Revealing the Active Phase of Copper during the Electroreduction of CO₂ in Aqueous Electrolyte by Correlating <i>In Situ</i> X-ray Spectroscopy and <i>In Situ</i> Electron Microscopy. ACS Energy Letters, 2020, 5, 2106-2111.	17.4	84
63	Hierarchically Structured Carbon: Synthesis of Carbon Nanofibers Nested inside or Immobilized onto Modified Activated Carbon. Angewandte Chemie - International Edition, 2005, 44, 5488-5492.	13.8	82
64	Active Sites for Propane Oxidation: Some Generic Considerations. Topics in Catalysis, 2011, 54, 627-638.	2.8	82
65	Strong Metalâ€“Support Interactions between Copper and Iron Oxide during the Highâ€Temperature Waterâ€Gas Shift Reaction. Angewandte Chemie - International Edition, 2019, 58, 9083-9087.	13.8	82
66	Oxidative Dehydrogenation on Nanocarbon: Intrinsic Catalytic Activity and Structureâ€“Function Relationships. Angewandte Chemie - International Edition, 2015, 54, 13682-13685.	13.8	76
67	Investigating dry reforming of methane with spatial reactor profiles and particleâ€resolved CFD simulations. AIChE Journal, 2016, 62, 4436-4452.	3.6	76
68	Standardized Benchmarking of Water Splitting Catalysts in a Combined Electrochemical Flow Cell/Inductively Coupled Plasmaâ€“Optical Emission Spectrometry (ICP-OES) Setup. ACS Catalysis, 2017, 7, 3768-3778.	11.2	73
69	Insights into the Electronic Structure of the Oxygen Species Active in Alkene Epoxidation on Silver. ACS Catalysis, 2015, 5, 5846-5850.	11.2	71
70	Thermolytic synthesis of graphitic boron carbon nitride from an ionic liquid precursor: mechanism, structure analysis and electronic properties. Journal of Materials Chemistry, 2012, 22, 23996.	6.7	69
71	Inâ€…Situ Study of Catalytic Processes: Neutron Diffraction of a Methanol Synthesis Catalyst at Industrially Relevant Pressure. Angewandte Chemie - International Edition, 2013, 52, 5166-5170.	13.8	68
72	Cu,Zn-based catalysts for methanol synthesis: On the effect of calcination conditions and the part of residual carbonates. Applied Catalysis A: General, 2016, 516, 117-126.	4.3	68

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73	Negative Charging of Au Nanoparticles during Methanol Synthesis from CO₂/H₂ on a Au/ZnO Catalyst: Insights from Operando IR and Nearâ€Ambientâ€Pressure XPS and XAS Measurements. Angewandte Chemie - International Edition, 2019, 58, 10325-10329.	13.8	67
74	Morphology and Microstructure of Li/MgO Catalysts for the Oxidative Coupling of Methane. ChemCatChem, 2011, 3, 949-959.	3.7	66
75	Chemistryâ€™s Role in Regenerative Energy. Angewandte Chemie - International Edition, 2011, 50, 6424-6426.	13.8	66
76	The effect of Al-doping on ZnO nanoparticles applied as catalyst support. Physical Chemistry Chemical Physics, 2013, 15, 1374-1381.	2.8	66
77	Highâ€Performance Supported Iridium Oxohydroxide Water Oxidation Electrocatalysts. ChemSusChem, 2017, 10, 1943-1957.	6.8	65
78	Knowledge-based development of a nitrate-free synthesis route for Cu/ZnO methanol synthesis catalysts via formate precursors. Chemical Communications, 2011, 47, 1701.	4.1	62
79	In Situ Graphene Growth Dynamics on Polycrystalline Catalyst Foils. Nano Letters, 2016, 16, 6196-6206.	9.1	62
80	The Selective Species in Ethylene Epoxidation on Silver. ACS Catalysis, 2018, 8, 3844-3852.	11.2	62
81	Surface Electron-Hole Rich Species Active in the Electrocatalytic Water Oxidation. Journal of the American Chemical Society, 2021, 143, 12524-12534.	13.7	62
82	The Project Carbon2ChemÂ®. Chemie-Ingenieur-Technik, 2018, 90, 1365-1368.	0.8	60
83	Facile Protocol for Alkaline Electrolyte Purification and Its Influence on a Niâ€“Co Oxide Catalyst for the Oxygen Evolution Reaction. ACS Catalysis, 2019, 9, 8165-8170.	11.2	59
84	Correlation Between Reactivity and Oxidation State of Cobalt Oxide Catalysts for CO Preferential Oxidation. ACS Catalysis, 2019, 9, 8325-8336.	11.2	58
85	The Revolution Continues: Energiewende 2.0. Angewandte Chemie - International Edition, 2015, 54, 4436-4439.	13.8	56
86	Strong metal-support interaction and alloying in Pd/ZnO catalysts for CO oxidation. Catalysis Today, 2016, 260, 21-31.	4.4	56
87	Methanol Synthesis from Steel Mill Exhaust Gases: Challenges for the Industrial Cu/ZnO/Al₂O₃ Catalyst. Chemie-Ingenieur-Technik, 2018, 90, 1419-1429.	0.8	56
88	Are multiple oxygen species selective in ethylene epoxidation on silver?. Chemical Science, 2018, 9, 990-998.	7.4	55
89	Carbonâ€Supported Gold Nanocatalysts: Shape Effect in the Selective Glycerol Oxidation. ChemCatChem, 2013, 5, 2717-2723.	3.7	54
90	The Impact of the Bulk Structure on Surface Dynamics of Complex Moâ€“V-based Oxide Catalysts. ACS Catalysis, 2017, 7, 3061-3071.	11.2	53

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91	Role of Nanoscale Inhomogeneities in Co₂FeO₄ Catalysts during the Oxygen Evolution Reaction. Journal of the American Chemical Society, 2022, 144, 12007-12019.	13.7	52
92	Imaging the dynamics of catalysed surface reactions by in situ scanning electron microscopy. Nature Catalysis, 2020, 3, 30-39.	34.4	51
93	Fluctuating Storage of the Active Phase in a Mnâ€Na₂WO₄/SiO₂ Catalyst for the Oxidative Coupling of Methane. Angewandte Chemie - International Edition, 2020, 59, 14921-14926.	13.8	50
94	The Potential of Microstructural Optimization in Metal/Oxide Catalysts: Higher Intrinsic Activity of Copper by Partial Embedding of Copper Nanoparticles. ChemCatChem, 2010, 2, 816-818.	3.7	49
95	Reactive Electrophilic O^{Iâˆ’} Species Evidenced in Highâ€Performance Iridium Oxohydroxide Water Oxidation Electrocatalysts. ChemSusChem, 2017, 10, 4786-4798.	6.8	49
96	Fuel for thought. Nature Materials, 2008, 7, 772-774.	27.5	47
97	A Novel Synthesis Route for Cu/ZnO/Al₂O₃ Catalysts used in Methanol Synthesis: Combining Continuous Consecutive Precipitation with Continuous Aging of the Precipitate. ChemCatChem, 2011, 3, 189-199.	3.7	47
98	In Situ X-ray Spectroscopy of the Electrochemical Development of Iridium Nanoparticles in Confined Electrolyte. Journal of Physical Chemistry C, 2019, 123, 9146-9152.	3.1	46
99	The Effect of Iron Impurities on Transition Metal Catalysts for the Oxygen Evolution Reaction in Alkaline Environment: Activity Mediators or Active Sites?. Catalysis Letters, 2021, 151, 1843-1856.	2.6	46
100	Synthesis of MoVTeNb Oxide Catalysts with Tunable Particle Dimensions. ChemCatChem, 2011, 3, 1597-1606.	3.7	45
101	CO₂ Hydrogenation with Cu/ZnO/Al₂O₃: A Benchmark Study. ChemCatChem, 2020, 12, 3216-3222.	3.7	45
102	Labeling and monitoring the distribution of anchoring sites on functionalized CNTs by atomic layer deposition. Journal of Materials Chemistry, 2012, 22, 7323.	6.7	44
103	Selective Oxidation: From a Still Immature Technology to the Roots of Catalysis Science. Topics in Catalysis, 2016, 59, 1461-1476.	2.8	44
104	Metastable Pd â†” PdO Structures During High Temperature Methane Oxidation. Catalysis Letters, 2017, 147, 1095-1103.	2.6	44
105	CO oxidation as a test reaction for strong metalâ€“support interaction in nanostructured Pd/FeO powder catalysts. Applied Catalysis A: General, 2015, 502, 8-17.	4.3	43
106	Ethylene Epoxidation at the Phase Transition of Copper Oxides. Journal of the American Chemical Society, 2017, 139, 11825-11832.	13.7	42
107	Influence of CO on the Activation, O-Vacancy Formation, and Performance of Au/ZnO Catalysts in CO₂ Hydrogenation to Methanol. Journal of Physical Chemistry Letters, 2019, 10, 3645-3653.	4.6	41
108	Supported Ag Nanoparticles and Clusters for CO Oxidation: Size Effects and Influence of the Silverâ€“Oxygen Interactions. ACS Applied Nano Materials, 2019, 2, 2909-2920.	5.0	40

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109	Preparation of Solid Solution and Layered IrO<i>_x</i>â€“Ni(OH)₂ Oxygen Evolution Catalysts: Toward Optimizing Iridium Efficiency for OER. ACS Catalysis, 2020, 10, 14640-14648.	11.2	40
110	Selective Alkane Oxidation by Manganese Oxide: Site Isolation of MnO_{<i>x</i>} Chains at the Surface of MnWO₄ Nanorods. Angewandte Chemie - International Edition, 2016, 55, 4092-4096.	13.8	39
111	Highly Dispersed Ni⁰/Ni_{<i>x</i>}Mg_{1â€“<i>x</i>}O Catalysts Derived from Solid Solutions: How Metal and Support Control the CO₂ Hydrogenation. ACS Catalysis, 2019, 9, 8534-8546.	11.2	39
112	Activating a Cu/ZnOâ€‰:â€‰Al Catalyst â€“ Much More than Reduction: Decomposition, Selfâ€Doping and Polymorphism. ChemCatChem, 2019, 11, 1587-1592.	3.7	39
113	On the Activity/Selectivity and Phase Stability of Thermally Grown Copper Oxides during the Electrocatalytic Reduction of CO₂. ACS Catalysis, 2020, 10, 11510-11518.	11.2	39
114	Quantitative High-Angle Annular Dark-Field Scanning Transmission Electron Microscope (HAADF-STEM) Tomography and High-Resolution Electron Microscopy of Unsupported Intermetallic GaPd₂ Catalysts. Journal of Physical Chemistry C, 2012, 116, 13343-13352.	3.1	38
115	Evolution of zincian malachite synthesis by low temperature co-precipitation and its catalytic impact on the methanol synthesis. Applied Catalysis B: Environmental, 2019, 249, 218-226.	20.2	38
116	A unified view on heterogeneous and homogeneous catalysts through a combination of spectroscopy and quantum chemistry. Faraday Discussions, 2016, 188, 181-197.	3.2	37
117	Carbokatalyse in FlÃ¼ssigphasenreaktionen. Angewandte Chemie, 2017, 129, 956-985.	2.0	37
118	In Situ Electrochemical Cells to Study the Oxygen Evolution Reaction by Near Ambient Pressure X-ray Photoelectron Spectroscopy. Topics in Catalysis, 2018, 61, 2064-2084.	2.8	37
119	Combined Experimental and Ab Initio Multireference Configuration Interaction Study of the Resonant Inelastic X-ray Scattering Spectrum of CO₂. Journal of Physical Chemistry C, 2014, 118, 20163-20175.	3.1	36
120	Bridging the Time Gap: A Copper/Zinc Oxide/Aluminum Oxide Catalyst for Methanol Synthesis Studied under Industrially Relevant Conditions and Time Scales. Angewandte Chemie, 2016, 128, 12900-12904.	2.0	36
121	Topology of silica supported vanadiumâ€“titanium oxide catalysts for oxidative dehydrogenation of propane. Catalysis Science and Technology, 2012, 2, 1346.	4.1	35
122	Atomicâ€Scale Observation of the Metalâ€“Promoter Interaction in Rhâ€Based Syngasâ€Upgrading Catalysts. Angewandte Chemie - International Edition, 2019, 58, 8709-8713.	13.8	35
123	The Coalescence Behavior of Two-Dimensional Materials Revealed by Multiscale <i>In Situ</i> Imaging during Chemical Vapor Deposition Growth. ACS Nano, 2020, 14, 1902-1918.	14.6	35
124	Phase Coexistence of Multiple Copper Oxides on AgCu Catalysts during Ethylene Epoxidation. ACS Catalysis, 2018, 8, 2286-2295.	11.2	34
125	Put the Sun in the Tank: Future Developments in Sustainable Energy Systems. Angewandte Chemie - International Edition, 2019, 58, 343-348.	13.8	34
126	Chemical energy storage enables the transformation of fossil energy systems to sustainability. Green Chemistry, 2021, 23, 1584-1593.	9.0	34

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127	Die Rolle der Oxidkomponente fÃ¼r die Entwicklung von Kupferâ€Kompositâ€Katalysatoren zur Synthese von Methanol. Angewandte Chemie, 2013, 125, 6664-6669.	2.0	33
128	Microstructural and Defect Analysis of Metal Nanoparticles in Functional Catalysts by Diffraction and Electron Microscopy: The Cu/ZnO Catalyst for Methanol Synthesis. Topics in Catalysis, 2014, 57, 188-206.	2.8	33
129	Graphene-Capped Liquid Thin Films for Electrochemical Operando X-ray Spectroscopy and Scanning Electron Microscopy. ACS Applied Materials & Interfaces, 2020, 12, 37680-37692.	8.0	33
130	Crystallographic shear defect in molybdenum oxides: Structure and TEM of molybdenum sub-oxides Mo18O52 and Mo8O23. Crystal Research and Technology, 2003, 38, 153-159.	1.3	32
131	A Study of the Influence of Composition on the Microstructural Properties of ZnO/Al₂O₃ Mixed Oxides. European Journal of Inorganic Chemistry, 2009, 2009, 910-921.	2.0	32
132	In Situ Quantification of Reaction Adsorbates in Low-Temperature Methanol Synthesis on a High-Performance Cu/ZnO:Al Catalyst. ACS Catalysis, 2019, 9, 5537-5544.	11.2	32
133	Electrochemical Surface Oxidation of Copper Studied by in Situ Grazing Incidence X-ray Diffraction. Journal of Physical Chemistry C, 2019, 123, 13253-13262.	3.1	32
134	Active Sites in Olefin Metathesis over Supported Molybdena Catalysts. ChemCatChem, 2015, 7, 4059-4065.	3.7	31
135	Towards Physical Descriptors of Active and Selective Catalysts for the Oxidation of <i>n</i>â€Butane to Maleic Anhydride. ChemCatChem, 2013, 5, 2318-2329.	3.7	29
136	Synthesis of novel 2-d carbon materials: sp²carbon nanoribbon packing to form well-defined nanosheets. Materials Horizons, 2016, 3, 214-219.	12.2	28
137	Evolution of Oxygenâ€"Metal Electron Transfer and Metal Electronic States During Manganese Oxide Catalyzed Water Oxidation Revealed with Inâ€…Situ Soft Xâ€Ray Spectroscopy. Angewandte Chemie, 2019, 131, 3464-3470.	2.0	28
138	How to control selectivity in alkane oxidation?. Chemical Science, 2019, 10, 2429-2443.	7.4	28
139	Single-Site Vanadyl Species Isolated within Molybdenum Oxide Monolayers in Propane Oxidation. ACS Catalysis, 2019, 9, 4875-4886.	11.2	28
140	Towards Experimental Handbooks in Catalysis. Topics in Catalysis, 2020, 63, 1683-1699.	2.8	28
141	In situ observation of oscillatory redox dynamics of copper. Nature Communications, 2020, 11, 3554.	12.8	27
142	Different routes to methanol: inelastic neutron scattering spectroscopy of adsorbates on supported copper catalysts. Physical Chemistry Chemical Physics, 2016, 18, 17253-17258.	2.8	26
143	The Electro-Deposition/Dissolution of CuSO₄ Aqueous Electrolyte Investigated by <i>In Situ</i> Soft X-ray Absorption Spectroscopy. Journal of Physical Chemistry B, 2018, 122, 780-787.	2.6	26
144	Die Rolle der Chemie bei der Energiewende. Angewandte Chemie, 2011, 123, 6550-6553.	2.0	25

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145	Direct Imaging of Octahedral Distortion in a Complex Molybdenum Vanadium Mixed Oxide. Angewandte Chemie - International Edition, 2015, 54, 6828-6831.	13.8	25
146	Eâ€Mobility and the Energy Transition. Angewandte Chemie - International Edition, 2017, 56, 11019-11022.	13.8	25
147	Ammonia Decomposition and Synthesis over Multinary Magnesioferrites: Promotional Effect of Ga on Fe Catalysts for the Decomposition Reaction. ChemCatChem, 2017, 9, 659-671.	3.7	23
148	Chemical Batteries with CO₂. Angewandte Chemie - International Edition, 2022, 61, .	13.8	23
149	Catalysisâ€…4.0. ChemCatChem, 2017, 9, 533-541.	3.7	22
150	Strong Metalâ€"Support Interactions between Copper and Iron Oxide during the Highâ€Temperature Waterâ€Gas Shift Reaction. Angewandte Chemie, 2019, 131, 9181-9185.	2.0	22
151	Modular Design of Highly Active Unitized Reversible Fuel Cell Electrocatalysts. ACS Energy Letters, 2021, 6, 177-183.	17.4	22
152	In situ and operando electron microscopy in heterogeneous catalysisâ€"insights into multi-scale chemical dynamics. Journal of Physics Condensed Matter, 2021, 33, 153001.	1.8	22
153	A Metalâ€Free Electrode: From Biomassâ€Derived Carbon to Hydrogen. ChemSusChem, 2020, 13, 4064-4068.	6.8	21
154	The Mechanism of Interfacial CO₂ Activation on Al Doped Cu/ZnO. ACS Catalysis, 2020, 10, 5672-5680.	11.2	21
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