Evgeny A Pidko

List of Publications by Year
in descending order

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		13827	24915
251	14,773	67	109
papers	citations	h-index	g-index

281	281	281	13431
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Single-site trinuclear copper oxygen clusters in mordenite for selective conversion of methane to methanol. Nature Communications, 2015, 6, 7546.	5.8	623
2	Catalytic (de)hydrogenation promoted by non-precious metals â€“ Co, Fe and Mn: recent advances in an emerging field. Chemical Society Reviews, 2018, 47, 1459-1483.	18.7	511
3	Strategies for the Direct Catalytic Valorization of Methane Using Heterogeneous Catalysis: Challenges and Opportunities. ACS Catalysis, 2016, 6, 2965-2981.	5.5	438
4	Heterogeneous and homogeneous catalysis for the hydrogenation of carboxylic acid derivatives: history, advances and future directions. Chemical Society Reviews, 2015, 44, 3808-3833.	18.7	395
5	Highly Efficient Reversible Hydrogenation of Carbon Dioxide to Formates Using a Ruthenium PNPâ€Pincer Catalyst. ChemCatChem, 2014, 6, 1526-1530.	1.8	283
6	Complexity behind CO₂ Capture on NH₂-MIL-53(Al). Langmuir, 2011, 27, 3970-3976.	1.6	274
7	Understanding the Anomalous Alkane Selectivity of ZIFâ€7 in the Separation of Light Alkane/Alkene Mixtures. Chemistry - A European Journal, 2011, 17, 8832-8840.	1.7	274
8	Computational Approach to Molecular Catalysis by 3d Transition Metals: Challenges and Opportunities. Chemical Reviews, 2019, 119, 2453-2523.	23.0	260
9	Engineering of Transition Metal Catalysts Confined in Zeolites. Chemistry of Materials, 2018, 30, 3177-3198.	3.2	232
10	Intrinsic Facetâ€Dependent Reactivity of Wellâ€Defined BiOBr Nanosheets on Photocatalytic Water Splitting. Angewandte Chemie - International Edition, 2020, 59, 6590-6595.	7.2	231
11	Mechanism of BrÃ¸nsted acid-catalyzed conversion of carbohydrates. Journal of Catalysis, 2012, 295, 122-132.	3.1	221
12	Stability and reactivity of copper oxo-clusters in ZSM-5 zeolite for selective methane oxidation to methanol. Journal of Catalysis, 2016, 338, 305-312.	3.1	217
13	Structure and Reactivity of Zn-Modified ZSM-5 Zeolites: The Importance of Clustered Cationic Zn Complexes. ACS Catalysis, 2012, 2, 71-83.	5.5	214
14	Isolated Fe Sites in Metal Organic Frameworks Catalyze the Direct Conversion of Methane to Methanol. ACS Catalysis, 2018, 8, 5542-5548.	5.5	200
15	Hydrodeoxygenation of mono- and dimeric lignin model compounds on noble metal catalysts. Catalysis Today, 2014, 233, 83-91.	2.2	170
16	Nonâ€Pincerâ€Type Manganese Complexes as Efficient Catalysts for the Hydrogenation of Esters. Angewandte Chemie - International Edition, 2017, 56, 7531-7534.	7.2	169
17	Towards operando computational modeling in heterogeneous catalysis. Chemical Society Reviews, 2018, 47, 8307-8348.	18.7	169
18	Glucose Activation by Transient Cr²⁺ Dimers. Angewandte Chemie - International Edition, 2010, 49, 2530-2534.	7.2	150

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19	Influence of steaming on the acidity and the methanol conversion reaction of HZSM-5 zeolite. Journal of Catalysis, 2013, 307, 194-203.	3.1	149
20	Stable Mo/HZSM-5 methane dehydroaromatization catalysts optimized for high-temperature calcination-regeneration. Journal of Catalysis, 2017, 346, 125-133.	3.1	147
21	Highly Active and Recyclable Snâ€MWW Zeolite Catalyst for Sugar Conversion to Methyl Lactate and Lactic Acid. ChemSusChem, 2013, 6, 1352-1356.	3.6	140
22	The impact of Metalâ€“Ligand Cooperation in Hydrogenation of Carbon Dioxide Catalyzed by Ruthenium PNP Pincer. ACS Catalysis, 2013, 3, 2522-2526.	5.5	136
23	DRIFT study of molecular and dissociative adsorption of light paraffins by HZSM-5 zeolite modified with zinc ions: methane adsorption. Journal of Catalysis, 2004, 225, 369-373.	3.1	129
24	Confined Carbon Mediating Dehydroaromatization of Methane over Mo/ZSMâ€5. Angewandte Chemie - International Edition, 2018, 57, 1016-1020.	7.2	128
25	Activation of Light Alkanes over Zinc Species Stabilized in ZSM-5 Zeolite:â€‰ A Comprehensive DFT Study. Journal of Physical Chemistry C, 2007, 111, 2643-2655.	1.5	126
26	On the activity of supported Au catalysts in the liquid phase hydrogenation of CO2 to formates. Journal of Catalysis, 2016, 343, 97-105.	3.1	126
27	Modeling the electrical double layer to understand the reaction environment in a CO₂electrocatalytic system. Energy and Environmental Science, 2019, 12, 3380-3389.	15.6	125
28	Efficient Base-Metal NiMn/TiO₂ Catalyst for CO₂ Methanation. ACS Catalysis, 2019, 9, 7823-7839.	5.5	124
29	Hydrocarbon Synthesis via Photoenzymatic Decarboxylation of Carboxylic Acids. Journal of the American Chemical Society, 2019, 141, 3116-3120.	6.6	123
30	The Mechanism of Glucose Isomerization to Fructose over Snâ€BEA Zeolite: A Periodic Density Functional Theory Study. ChemSusChem, 2013, 6, 1688-1696.	3.6	122
31	Understanding Cooperativity in Hydrogen-Bond-Induced Supramolecular Polymerization: A Density Functional Theory Study. Journal of Physical Chemistry B, 2010, 114, 13667-13674.	1.2	119
32	Robust and efficient hydrogenation of carbonyl compounds catalysed by mixed donor Mn(I) pincer complexes. Nature Communications, 2021, 12, 12.	5.8	118
33	Synergy between Lewis acid sites and hydroxyl groups for the isomerization of glucose to fructose over Sn-containing zeolites: a theoretical perspective. Catalysis Science and Technology, 2014, 4, 2241-2250.	2.1	117
34	Intensities of IR Stretching Bands as a Criterion of Polarization and Initial Chemical Activation of Adsorbed Molecules in Acid Catalysis. Ethane Adsorption and Dehydrogenation by Zinc Ions in ZnZSM-5 Zeoliteâ€. Journal of Physical Chemistry B, 2005, 109, 2103-2108.	1.2	115
35	Mechanism of CO₂hydrogenation to formates by homogeneous Ru-PNP pincer catalyst: from a theoretical description to performance optimization. Catalysis Science and Technology, 2014, 4, 3474-3485.	2.1	112
36	Molecular Aspects of Glucose Dehydration by Chromium Chlorides in Ionic Liquids. Chemistry - A European Journal, 2011, 17, 5281-5288.	1.7	109

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37	Catalytic Hydrogenation of CO₂ to Formates by a Lutidine-Derived Ruâ€“CNC Pincer Complex: Theoretical Insight into the Unrealized Potential. ACS Catalysis, 2015, 5, 1145-1154.	5.5	109
38	Nature and Location of Cationic Lanthanum Species in High Alumina Containing Faujasite Type Zeolites. Journal of Physical Chemistry C, 2011, 115, 21763-21776.	1.5	105
39	Synthesis of Snâ€Beta with Exclusive and High Framework Sn Content. ChemCatChem, 2015, 7, 1152-1160.	1.8	105
40	Lutidine-Derived Ru-CNC Hydrogenation Pincer Catalysts with Versatile Coordination Properties. ACS Catalysis, 2014, 4, 2667-2671.	5.5	104
41	Understanding the Effect of Crystalline Structural Transformation for Leadâ€Free Inorganic Halide Perovskites. Advanced Materials, 2020, 32, e2002137.	11.1	101
42	A comprehensive density functional theory study of ethane dehydrogenation over reduced extra-framework gallium species in ZSM-5 zeolite. Journal of Catalysis, 2006, 240, 73-84.	3.1	99
43	Influence of Extraframework Aluminum on the BrÃ¸nsted Acidity and Catalytic Reactivity of Faujasite Zeolite. ChemCatChem, 2013, 5, 452-466.	1.8	98
44	Structure, Stability, and Lewis Acidity of Mono and Double Ti, Zr, and Sn Framework Substitutions in BEA Zeolites: A Periodic Density Functional Theory Study. Journal of Physical Chemistry C, 2013, 117, 3976-3986.	1.5	98
45	Mechanistic Complexity of Methane Oxidation with H₂O₂ by Single-Site Fe/ZSM-5 Catalyst. ACS Catalysis, 2018, 8, 7961-7972.	5.5	98
46	The Nature and Catalytic Function of Cation Sites in Zeolites: a Computational Perspective. ChemCatChem, 2019, 11, 134-156.	1.8	96
47	Dynamic Supramolecular Polymers Based on Benzeneâ€1,3,5â€tricarboxamides: The Influence of Amide Connectivity on Aggregate Stability and Amplification of Chirality. Chemistry - A European Journal, 2010, 16, 810-821.	1.7	93
48	Lateral Adsorbate Interactions Inhibit HCOO^{â¯} while Promoting CO Selectivity for CO₂ Electrocatalysis on Silver. Angewandte Chemie - International Edition, 2019, 58, 1345-1349.	7.2	93
49	Nature and Catalytic Role of Extraframework Aluminum in Faujasite Zeolite: A Theoretical Perspective. ACS Catalysis, 2015, 5, 7024-7033.	5.5	92
50	Catalytic Formation of Acrylate from Carbon Dioxide and Ethene. Chemistry - A European Journal, 2014, 20, 12037-12040.	1.7	91
51	Dehydration of Different Ketoses and Aldoses to 5â€Hydroxymethylfurfural. ChemSusChem, 2013, 6, 1681-1687.	3.6	90
52	Bis-N-heterocyclic Carbene Aminopincer Ligands Enable High Activity in Ru-Catalyzed Ester Hydrogenation. Journal of the American Chemical Society, 2015, 137, 7620-7623.	6.6	90
53	Dehydrogenation of Light Alkanes over Isolated Gallyl Ions in Ga/ZSM-5 Zeolites. Journal of Physical Chemistry C, 2007, 111, 13068-13075.	1.5	87
54	Donor-Functionalized Polydentate Pyrylium Salts and Phosphinines: Synthesis, Structural Characterization, and Photophysical Properties. Chemistry - A European Journal, 2007, 13, 4548-4559.	1.7	87

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55	Lewis-acid catalyzed depolymerization of Protobind lignin in supercritical water and ethanol. Catalysis Today, 2016, 259, 460-466.	2.2	87
56	Cu^I Complexes with a Noninnocent PNP Ligand: Selective Dearomatization and Electrophilic Addition Reactivity. Inorganic Chemistry, 2009, 48, 7513-7515.	1.9	83
57	Waterâ€Promoted Hydrocarbon Activation Catalyzed by Binuclear Gallium Sites in ZSMâ€5 Zeolite. Angewandte Chemie - International Edition, 2007, 46, 7273-7276.	7.2	78
58	Fuelling the hydrogen economy: Scale-up of an integrated formic acid-to-power system. International Journal of Hydrogen Energy, 2019, 44, 28533-28541.	3.8	78
59	T-Shaped Cationic Cu^I Complexes with Hemilabile PNP-Type Ligands. Inorganic Chemistry, 2008, 47, 4442-4444.	1.9	76
60	Stability of Extraframework Iron-Containing Complexes in ZSM-5 Zeolite. Journal of Physical Chemistry C, 2013, 117, 413-426.	1.5	75
61	Cationic and neutral Ni^{II}complexes containing a non-innocent PNP ligand: formation of alkyl and thiolate species. Dalton Transactions, 2009, , 1016-1023.	1.6	74
62	Scaling Relations for Acidity and Reactivity of Zeolites. Journal of Physical Chemistry C, 2017, 121, 23520-23530.	1.5	74
63	Electronic Structure of the [Cu₃(Î¼-O)₃]²⁺ Cluster in Mordenite Zeolite and Its Effects on the Methane to Methanol Oxidation. Journal of Physical Chemistry C, 2017, 121, 22295-22302.	1.5	74
64	Self-organization of extraframework cations in zeolites. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 2070-2086.	1.0	73
65	Relationship between acidity and catalytic reactivity of faujasite zeolite: A periodic DFT study. Journal of Catalysis, 2016, 344, 570-577.	3.1	72
66	Ni-Mn catalysts on silica-modified alumina for CO2 methanation. Journal of Catalysis, 2020, 382, 358-371.	3.1	70
67	Aromatization of ethylene over zeolite-based catalysts. Catalysis Science and Technology, 2020, 10, 2774-2785.	2.1	70
68	Stability and reactivity of active sites for direct benzene oxidation to phenol in Fe/ZSM-5: A comprehensive periodic DFT study. Journal of Catalysis, 2011, 284, 194-206.	3.1	69
69	Gallium-promoted HZSM-5 zeolites as efficient catalysts for the aromatization of biomass-derived furans. Chemical Engineering Science, 2019, 198, 305-316.	1.9	68
70	van der Waals Metalâ€Organic Framework as an Excitonic Material for Advanced Photonics. Advanced Materials, 2017, 29, 1606034.	11.1	67
71	Unraveling reaction networks behind the catalytic oxidation of methane with H₂O₂ over a mixed-metal MIL-53(Al,Fe) MOF catalyst. Chemical Science, 2018, 9, 6765-6773.	3.7	67
72	On the Mechanism of Lewis Acid Catalyzed Glucose Transformations in Ionic Liquids. ChemCatChem, 2012, 4, 1263-1271.	1.8	66

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73	Enhancement of Catalyst Performance in the Direct Propene Epoxidation: A Study into Goldâ€“Titanium Synergy. ChemCatChem, 2013, 5, 467-478.	1.8	66
74	Diphosphinine Derivatives of Terpyridine: A New Class of Neutral Ï€â€Accepting PNPâ€Pincer Ligands. Chemistry - A European Journal, 2008, 14, 8803-8807.	1.7	65
75	The framework basicity of zeolites. Journal of Materials Chemistry, 2012, 22, 18705.	6.7	64
76	Dehydration of Glucose to 5â€Hydroxymethylfurfural Using Nbâ€doped Tungstite. ChemSusChem, 2016, 9, 2421-2429.	3.6	64
77	Coordination Properties of Ionic Liquid-Mediated Chromium(II) and Copper(II) Chlorides and Their Complexes with Glucose. Inorganic Chemistry, 2010, 49, 10081-10091.	1.9	61
78	Toward the Balance between the Reductionist and Systems Approaches in Computational Catalysis: Model versus Method Accuracy for the Description of Catalytic Systems. ACS Catalysis, 2017, 7, 4230-4234.	5.5	61
79	Stability of functionalized activated carbon in hot liquid water. Carbon, 2014, 77, 143-154.	5.4	60
80	Formation of Active Cu-oxo Clusters for Methane Oxidation in Cu-Exchanged Mordenite. Journal of Physical Chemistry C, 2019, 123, 8759-8769.	1.5	60
81	Dinuclear Copper(I) Thiolate Complexes with a Bridging Noninnocent PNP Ligand. Chemistry - A European Journal, 2011, 17, 3850-3854.	1.7	59
82	Towards a Selective Heterogeneous Catalyst for Glucose Dehydration to 5â€Hydroxymethylfurfural in Water: CrCl₂ Catalysis in a Thin Immobilized Ionic Liquid Layer. ChemCatChem, 2011, 3, 969-972.	1.8	58
83	Hydrogenation of levulinic acid to Î³-valerolactone over Fe-Re/TiO2 catalysts. Applied Catalysis B: Environmental, 2020, 278, 119314.	10.8	57
84	Propane Dehydrogenation on Ga₂O₃-Based Catalysts: Contrasting Performance with Coordination Environment and Acidity of Surface Sites. ACS Catalysis, 2021, 11, 907-924.	5.5	55
85	An Active Alkali-Exchanged Faujasite Catalyst for p-Xylene Production via the One-Pot Dielsâ€“Alder Cycloaddition/Dehydration Reaction of 2,5-Dimethylfuran with Ethylene. ACS Catalysis, 2018, 8, 760-769.	5.5	54
86	Efficient and Practical Transfer Hydrogenation of Ketones Catalyzed by a Simple Bidentate Mnâ^'NHC Complex. ChemCatChem, 2019, 11, 5232-5235.	1.8	54
87	Structure and Reactivity of the Mo/ZSM-5 Dehydroaromatization Catalyst: An Operando Computational Study. ACS Catalysis, 2019, 9, 8731-8737.	5.5	52
88	Activity Descriptors Derived from Comparison of Mo and Fe as Active Metal for Methane Conversion to Aromatics. Journal of the American Chemical Society, 2019, 141, 18814-18824.	6.6	52
89	Developing a New Class of Axial Chiral Phosphorus Ligands: Preparation and Characterization of Enantiopure Atropisomeric Phosphinines. Chemistry - A European Journal, 2008, 14, 4899-4905.	1.7	51
90	Lewis acid-catalyzed depolymerization of soda lignin in supercritical ethanol/water mixtures. Catalysis Today, 2016, 269, 9-20.	2.2	51

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91	Multinuclear gallium-oxide cations in high-silica zeolites. Physical Chemistry Chemical Physics, 2009, 11, 2893.	1.3	50
92	MoO₃â€“TiO₂ synergy in oxidative dehydrogenation of lactic acid to pyruvic acid. Green Chemistry, 2017, 19, 3014-3022.	4.6	50
93	Correlations between Density-Based Bond Orders and Orbital-Based Bond Energies for Chemical Bonding Analysis. Journal of Physical Chemistry C, 2019, 123, 2843-2854.	1.5	50
94	Unfolding and Mechanochemical Scission of Supramolecular Polymers Containing a Metalâ€“Ligand Coordination Bond. Macromolecules, 2011, 44, 9187-9195.	2.2	49
95	Molecular Promoting of Aluminum Metalâ€“Organic Framework Topology MIL-101 by N,N-Dimethylformamide. Inorganic Chemistry, 2014, 53, 882-887.	1.9	49
96	Hydride Transfer versus Deprotonation Kinetics in the Isobutaneâ€“Propene Alkylation Reaction: A Computational Study. ACS Catalysis, 2017, 7, 8613-8627.	5.5	49
97	Interplay of Bonding and Geometry of the Adsorption Complexes of Light Alkanes within Cationic Faujasites. Combined Spectroscopic and Computational Study. Journal of Physical Chemistry B, 2006, 110, 22618-22627.	1.2	48
98	The Molecular Pathway to ZIFâ€7 Microrods Revealed by In Situ Timeâ€Resolved Smallâ€•and Wideâ€Angle Xâ€Ray Scattering, Quickâ€Scanning Extended Xâ€Ray Absorption Spectroscopy, and DFT Calculations. Chemistry - A European Journal, 2013, 19, 7809-7816.	1.7	47
99	Intrinsic Facetâ€Dependent Reactivity of Wellâ€Defined BiOBr Nanosheets on Photocatalytic Water Splitting. Angewandte Chemie, 2020, 132, 6652-6657.	1.6	46
100	A Periodic DFT Study of Glucose to Fructose Isomerization on Tungstite (WO₃Â·H₂O): Influence of Group IVâ€“VI Dopants and Cooperativity with Hydroxyl Groups. ACS Catalysis, 2016, 6, 4162-4169.	5.5	45
101	Identifying Sn Site Heterogeneities Prevalent Among Snâ€Beta Zeolites. Helvetica Chimica Acta, 2016, 99, 916-927.	1.0	44
102	Breaking Linear Scaling Relationships with Secondary Interactions in Confined Space: A Case Study of Methane Oxidation by Fe/ZSM-5 Zeolite. ACS Catalysis, 2019, 9, 9276-9284.	5.5	44
103	Catalytic properties of extraframework iron-containing species in ZSM-5 for N2O decomposition. Journal of Catalysis, 2013, 308, 386-397.	3.1	43
104	Photocatalytic decarboxylation of lactic acid by Pt/TiO₂. Chemical Communications, 2016, 52, 11634-11637.	2.2	43
105	Styrene oligomerization as a molecular probe reaction for zeolite acidity: a UV-Vis spectroscopy and DFT study. Physical Chemistry Chemical Physics, 2010, 12, 7032.	1.3	42
106	Supported nickelâ€“rhenium catalysts for selective hydrogenation of methyl esters to alcohols. Chemical Communications, 2017, 53, 9761-9764.	2.2	42
107	2â€(Trimethylsilyl)â€Î»³â€Phosphinine: Synthesis, Coordination Chemistry, and Reactivity. Chemistry - A European Journal, 2018, 24, 944-952.	1.7	42
108	Catalytic conversion of furanic compounds over Ga-modified ZSM-5 zeolites as a route to biomass-derived aromatics. Green Chemistry, 2018, 20, 3818-3827.	4.6	42

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109	A new insight in the unusual adsorption properties of Cu+ cations in Cu-ZSM-5 zeolite. Catalysis Today, 2005, 110, 281-293.	2.2	41
110	Atropisomeric phosphinines: design and synthesis. Dalton Transactions, 2007, , 5372.	1.6	40
111	Nonâ€Pincerâ€Type Manganese Complexes as Efficient Catalysts for the Hydrogenation of Esters. Angewandte Chemie, 2017, 129, 7639-7642.	1.6	40
112	Influence of pore topology on synthesis and reactivity of Sn-modified zeolite catalysts for carbohydrate conversions. Catalysis Science and Technology, 2017, 7, 3151-3162.	2.1	40
113	A site-sensitive quasi-in situ strategy to characterize Mo/HZSM-5 during activation. Journal of Catalysis, 2019, 370, 321-331.	3.1	40
114	The Conformations of Alkanes Adsorbed on Zeolitic Cations. ChemPhysChem, 2006, 7, 1657-1660.	1.0	39
115	Revisiting van der Waals Radii: From Comprehensive Structural Analysis to Knowledgeâ€Based Classification of Interatomic Contacts. ChemPhysChem, 2020, 21, 370-376.	1.0	39
116	Pd^{II} and Pt^{II} Complexes of 2â€(2â€²â€Pyridyl)â€4,6â€diphenylphosphinine: Synthesis, Structure, and Reactivity. Chemistry - A European Journal, 2011, 17, 2510-2517.	1.7	38
117	Tuning the electronic effects of aromatic phosphorus heterocycles: an unprecedented phosphinine with significant P(Ï€)-donor properties. Chemical Communications, 2014, 50, 8842-8844.	2.2	38
118	Tracking Local Mechanical Impact in Heterogeneous Polymers with Direct Optical Imaging. Angewandte Chemie - International Edition, 2018, 57, 16385-16390.	7.2	38
119	Mechanistic Complexity of Asymmetric Transfer Hydrogenation with Simple Mnâ€“Diamine Catalysts. Organometallics, 2019, 38, 3187-3196.	1.1	38
120	Nature of the Surface Intermediates Formed from Methane on Cu-ZSM-5 Zeolite: A Combined Solid-State Nuclear Magnetic Resonance and Density Functional Theory Study. Journal of Physical Chemistry C, 2020, 124, 6242-6252.	1.5	38
121	Photochromic Free MOFâ€Based Nearâ€Infrared Optical Switch. Angewandte Chemie - International Edition, 2020, 59, 15522-15526.	7.2	38
122	Direct Dielsâ€“Alder reactions of furfural derivatives with maleimides. Green Chemistry, 2021, 23, 367-373.	4.6	38
123	A Periodic DFT Study of N₂O₄ Disproportionation on Alkali-Exchanged Zeolites X. Journal of Physical Chemistry C, 2008, 112, 5510-5519.	1.5	37
124	Phosphorescent Iridium(III) Complexes with Acyclic Diaminocarbene Ligands as Chemosensors for Mercury. Inorganic Chemistry, 2020, 59, 2209-2222.	1.9	37
125	2-(2â€²-Pyridyl)-4,6-diphenylphosphinine versus 2-(2â€²-pyridyl)-4,6-diphenylpyridine: an evaluation of their coordination chemistry towards Rh(i). New Journal of Chemistry, 2010, 34, 1547.	1.4	36
126	Bulky Phosphinines: From a Molecular Design to an Application in Homogeneous Catalysis. Chemistry - A European Journal, 2013, 19, 8991-9004.	1.7	36

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127	Competitive Adsorption of Substrate and Solvent in Snâ€Beta Zeolite During Sugar Isomerization. ChemSusChem, 2016, 9, 3145-3149.	3.6	36
128	Computational insights into the catalytic role of the base promoters in ester hydrogenation with homogeneous non-pincer-based Mn-P,N catalyst. Journal of Catalysis, 2018, 363, 136-143.	3.1	35
129	Non-localized charge compensation in zeolites: A periodic DFT study of cationic gallium-oxide clusters in mordenite. Journal of Catalysis, 2008, 255, 139-143.	3.1	34
130	Composites based on heparin and MIL-101(Fe): the drug releasing depot for anticoagulant therapy and advanced medical nanofabrication. Journal of Materials Chemistry B, 2018, 6, 2450-2459.	2.9	34
131	Diphenylalanine-Based Microribbons for Piezoelectric Applications via Inkjet Printing. ACS Applied Materials & Interfaces, 2018, 10, 10543-10551.	4.0	34
132	Dinuclear Palladium Complexes with Two Ligandâ€Centered Radicals and a Single Bridging Ligand: Subtle Tuning of Magnetic Properties. Chemistry - A European Journal, 2015, 21, 5879-5886.	1.7	33
133	Supported Pt-Re catalysts for the selective hydrogenation of methyl and ethyl esters to alcohols. Catalysis Today, 2017, 279, 10-18.	2.2	33
134	Structureâ^'Reactivity Relationship for Catalytic Activity of Gallium Oxide and Sulfide Clusters in Zeolite. Journal of Physical Chemistry C, 2009, 113, 4246-4249.	1.5	32
135	Reactions of Pyridylâ€Functionalized, Chelating Î»³â€Phosphinines in the Coordination Environment of Rh^{III} and Ir^{III}. Chemistry - A European Journal, 2013, 19, 7523-7531.	1.7	32
136	High balanced ambipolar charge carrier mobility in benzodipyrrolidone conjugated polymers. Journal of Materials Chemistry C, 2014, 2, 731-735.	2.7	32
137	Stability and catalytic properties of porous acidic (organo)silica materials for conversion of carbohydrates. Journal of Molecular Catalysis A, 2014, 388-389, 81-89.	4.8	31
138	Deactivation of Sn-Beta during carbohydrate conversion. Applied Catalysis A: General, 2018, 564, 113-122.	2.2	31
139	Tunable colloidal Ni nanoparticles confined and redistributed in mesoporous silica for CO₂ methanation. Catalysis Science and Technology, 2019, 9, 2578-2591.	2.1	31
140	Ultrafast Melting of Metalâ€“Organic Frameworks for Advanced Nanophotonics. Advanced Functional Materials, 2020, 30, 1908292.	7.8	31
141	Importance of Methane Chemical Potential for Its Conversion to Methanol on Cuâ€Exchanged Mordenite. Chemistry - A European Journal, 2020, 26, 7563-7567.	1.7	31
142	Understanding the Reactivity and Basicity of Zeolites: A Periodic DFT Study of the Disproportionation of N₂O₄ on Alkaliâ€Cationâ€Exchanged Zeolite Y. Chemistry - A European Journal, 2008, 14, 5168-5177.	1.7	30
143	Ceriaâ€“zirconia encapsulated Ni nanoparticles for CO₂ methanation. Catalysis Science and Technology, 2019, 9, 5001-5010.	2.1	30
144	Ïƒ-Type ethane adsorption complexes with Cu+ions in Cu(i)-ZSM-5 zeolite. Combined DRIFTS and DFT study. Physical Chemistry Chemical Physics, 2005, 7, 1939-1944.	1.3	29

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145	Lewis Acid Controlled Regioselectivity in Styrene Hydrocyanation. Chemistry - A European Journal, 2009, 15, 8768-8778.	1.7	29
146	Co-Aromatization of Furan and Methanol over ZSM-5â€"A Pathway to Bio-Aromatics. ACS Catalysis, 2019, 9, 8547-8554.	5.5	29
147	How metallic is gold in the direct epoxidation of propene: an FTIR study. Catalysis Science and Technology, 2013, 3, 3042.	2.1	28
148	Multicolor Organometallic Mechanophores for Polymer Imaging Driven by Exciplex Level Interactions. Journal of the American Chemical Society, 2019, 141, 9687-9692.	6.6	28
149	Nature of Enhanced BrÃ¸nsted Acidity Induced by Extraframework Aluminum in an Ultrastabilized Faujasite Zeolite: An In Situ NMR Study. Journal of Physical Chemistry C, 2021, 125, 9050-9059.	1.5	28
150	High Stability of Methanol to Aromatic Conversion over Bimetallic Ca,Ga-Modified ZSM-5. ACS Catalysis, 2022, 12, 3189-3200.	5.5	28
151	A Density Functional Theory Study of the Mechanism of Direct Glucose Dehydration to 5â€Hydroxymethylfurfural on Anatase Titania. ChemCatChem, 2018, 10, 4084-4089.	1.8	27
152	Impact of small promoter amounts on coke structure in dry reforming of methane over Ni/ZrO₂. Catalysis Science and Technology, 2020, 10, 3965-3974.	2.1	27
153	Anionic Oligomerization of Ethylene over Ga/ZSM-5 Zeolite: A Theoretical Study. Journal of Physical Chemistry C, 2008, 112, 19604-19611.	1.5	26
154	Detection of Carbocationic Species in Zeolites: Large Crystals Pave the Way. Chemistry - A European Journal, 2010, 16, 9340-9348.	1.7	26
155	A DFT Study of Direct Oxidation of Benzene to Phenol by N₂O over [Fe(Î¼-O)Fe]²⁺ Complexes in ZSM-5 Zeolite. Journal of Physical Chemistry C, 2011, 115, 9668-9680.	1.5	26
156	Towards rational design of metal-organic framework-based drug delivery systems. Russian Chemical Reviews, 2018, 87, 831-858.	2.5	26
157	Basic Promotors Impact Thermodynamics and Catalyst Speciation in Homogeneous Carbonyl Hydrogenation. Journal of the American Chemical Society, 2022, 144, 8129-8137.	6.6	26
158	Lateral Adsorbate Interactions Inhibit HCOO^{â¯} while Promoting CO Selectivity for CO₂ Electrocatalysis on Silver. Angewandte Chemie, 2019, 131, 1359-1363.	1.6	25
159	Decomposition of lignin model compounds by Lewis acid catalysts in water and ethanol. Journal of Molecular Catalysis A, 2015, 410, 89-99.	4.8	24
160	Highly dispersed Cd cluster supported on TiO2 as an efficient catalyst for CO2 hydrogenation to methanol. Chinese Journal of Catalysis, 2022, 43, 761-770.	6.9	24
161	A Mechanistic Study of Niâ€catalyzed Carbon Dioxide Coupling with Ethylene towards the Manufacture of Acrylic Acid. ChemCatChem, 2014, 6, 800-807.	1.8	23
162	Bent Carbon Surface Moieties as Active Sites on Carbon Catalysts for Phosgene Synthesis. Angewandte Chemie - International Edition, 2016, 55, 1728-1732.	7.2	23

#	Article	IF	Citations
163	Adsorption of CO₂ on MIL-53(Al): FTIR evidence of the formation of dimeric CO₂ species. Chemical Communications, 2016, 52, 1494-1497.	2.2	23
164	Electronic Structure Analysis of the Dielsâ€“Alder Cycloaddition Catalyzed by Alkali-Exchanged Faujasites. Journal of Physical Chemistry C, 2018, 122, 14733-14743.	1.5	23
165	Mechanistic Insight into the [4 + 2] Dielsâ€“Alder Cycloaddition over First Row d-Block Cation-Exchanged Faujasites. ACS Catalysis, 2019, 9, 376-391.	5.5	23
166	Chemical Vapor Deposition of Trimethylaluminum on Dealuminated Faujasite Zeolite. ACS Catalysis, 2013, 3, 1504-1517.	5.5	22
167	Catalytic conversion of pure glycerol over an un-modified H-ZSM-5 zeolite to bio-based aromatics. Applied Catalysis B: Environmental, 2021, 281, 119467.	10.8	22
168	Multiâ€site Cooperativity in Alkaliâ€Metalâ€Exchanged Faujasites for the Production of Biomassâ€Derived Aromatics. ChemPhysChem, 2018, 19, 446-458.	1.0	21
169	Propertyâ€“Activity Relations for Methane Activation by Dualâ€Metal Cuâ€“Oxo Trimers in ZSMâ€5 Zeolite. Small Methods, 2018, 2, 1800266.	4.6	21
170	Active Sites in a Heterogeneous Organometallic Catalyst for the Polymerization of Ethylene. ACS Central Science, 2021, 7, 1225-1231.	5.3	21
171	Confined Space-Controlled Olefinâ^'Oxygen Charge Transfer in Zeolites. Journal of Physical Chemistry B, 2006, 110, 2963-2967.	1.2	19
172	Confined Carbon Mediating Dehydroaromatization of Methane over Mo/ZSMâ€5. Angewandte Chemie, 2018, 130, 1028-1032.	1.6	18
173	Gold and Silver-Catalyzed Reductive Amination of Aromatic Carboxylic Acids to Benzylic Amines. ACS Catalysis, 2021, 11, 7672-7684.	5.5	18
174	Challenges for the utilization of methane as a chemical feedstock. Mendeleev Communications, 2021, 31, 584-592.	0.6	18
175	Bulk and surface transformations of Ga2O3 nanoparticle catalysts for propane dehydrogenation induced by a H2 treatment. Journal of Catalysis, 2022, 408, 155-164.	3.1	18
176	A DFT Study of CO₂ Hydrogenation on Faujasiteâ€Supported Ir₄ Clusters: on the Role of Water for Selectivity Control. ChemCatChem, 2016, 8, 2500-2507.	1.8	17
177	Hydrogenation of Lactic Acid to 1,2â€Propanediol over Ruâ€Based Catalysts. ChemCatChem, 2018, 10, 810-817.	1.8	17
178	Efficient extraction of multivalent cations from aqueous solutions into sitinakite-based sorbents. Chemical Engineering Journal, 2018, 354, 727-739.	6.6	17
179	Dry reforming of methane to test passivation stability of Ni/ Al2O3 catalysts. Applied Catalysis A: General, 2021, 612, 117987.	2.2	17
180	2,4,6â€Triarylphosphinines versus 2,4,6â€Triarylpyridines: An Investigation of the Differences in Reactivity between Structurally Related Aromatic Phosphorus and Nitrogen Heterocycles. Chemistry - A European Journal, 2013, 19, 14458-14469.	1.7	16

#	Article	IF	Citations
181	Accurate and rapid prediction of pK_a of transition metal complexes: semiempirical quantum chemistry with a data-augmented approach. Physical Chemistry Chemical Physics, 2021, 23, 2557-2567.	1.3	16
182	Inkjet printing of TiO2/AlOOH heterostructures for the formation of interference color images with high optical visibility. Scientific Reports, 2016, 6, 37090.	1.6	15
183	Reversible solâ€“gelâ€“sol medium for enzymatic optical biosensors. Journal of Materials Chemistry B, 2017, 5, 85-91.	2.9	15
184	The nature of strong BrÃ¸nsted acidity of Ni-SMM clay. Applied Catalysis B: Environmental, 2016, 191, 62-75.	10.8	14
185	Catalytic conversion of glycerol to bio-based aromatics using H-ZSM-5 in combination with various binders. Fuel Processing Technology, 2021, 221, 106944.	3.7	14
186	Polymer Modification of Surface Electronic Properties of Electrocatalysts. ACS Energy Letters, 2022, 7, 1586-1593.	8.8	13
187	Supported Ru Metalloporphyrins for Electrocatalytic CO₂ Conversion. ChemCatChem, 2018, 10, 1814-1820.	1.8	12
188	The accuracy challenge of the DFT-based molecular assignment of 13C MAS NMR characterization of surface intermediates in zeolite catalysis. Physical Chemistry Chemical Physics, 2020, 22, 24004-24013.	1.3	11
189	Impact of Promoter Addition on the Regeneration of Ni/Al₂O₃ Dry Reforming Catalysts. ChemCatChem, 2021, 13, 5034-5046.	1.8	11
190	Solvent-mediated outer-sphere CO₂ electro-reduction mechanism over the Ag111 surface. Chemical Science, 2022, 13, 3803-3808.	3.7	11
191	Computational modeling of catalytic reactivity. Molecular Simulation, 2007, 33, 327-336.	0.9	10
192	Molecular recognition in cationâ€exchanged zeolites. International Journal of Quantum Chemistry, 2010, 110, 210-220.	1.0	10
193	UV-curable hybrid organicâ€“inorganic composite inks with a high refractive index for printing interference images and holograms. Journal of Materials Chemistry C, 2017, 5, 5487-5493.	2.7	10
194	Degradation paths of manganese-based MOF materials in a model oxidative environment: a computational study. Physical Chemistry Chemical Physics, 2018, 20, 20785-20795.	1.3	10
195	Operando Modeling of Multicomponent Reactive Solutions in Homogeneous Catalysis: from Nonâ€standard Free Energies to Reaction Network Control. ChemCatChem, 2020, 12, 795-802.	1.8	10
196	Structure and Basicity of Microporous Titanosilicate ETS-10 and Vanadium-Containing ETS-10. Journal of Physical Chemistry C, 2012, 116, 17124-17133.	1.5	9
197	Embryonic zeolites for highly efficient synthesis of dimethyl ether from syngas. Microporous and Mesoporous Materials, 2021, 322, 111138.	2.2	9
198	Improved catalyst formulations for the conversion of glycerol to bio-based aromatics. Applied Catalysis A: General, 2022, 629, 118393.	2.2	9

#	Article	IF	Citations
199	IR Spectra of Ethane Adsorbed on the Hydrogen, Sodium, and Zinc Forms of a Y-Type Zeolite: Interpretation Using ab initio Quantum Chemical Calculations. Kinetics and Catalysis, 2005, 46, 407-413.	0.3	8
200	Activation of light alkanes over Cd2+ ions in ZSM-5 zeolite: a theoretical study. Mendeleev Communications, 2007, 17, 68-70.	0.6	8
201	â€œExtractingâ€•the Key Fragment in ETSâ€10 Crystallization and Its Application in AMâ€6 Assembly. Chemistry - A European Journal, 2012, 18, 12078-12084.	1.7	8
202	Origin of enhanced BrÃ¸nsted acidity of NiF-modified synthetic micaâ€“montmorillonite clay. Catalysis Science and Technology, 2018, 8, 244-251.	2.1	8
203	Intermetallic species in the Negishi coupling and their involvement in inhibition pathways. Catalysis Science and Technology, 2019, 9, 4561-4572.	2.1	8
204	Single-Atom Pt⁺ Derived from the Laser Dissociation of a Platinum Cluster: Insights into Nonoxidative Alkane Conversion. Journal of Physical Chemistry Letters, 2020, 11, 5987-5991.	2.1	8
205	Unraveling the Nature of Extraframework Catalytic Ensembles in Zeolites: Flexibility and Dynamics of the Copper-Oxo Trimers in Mordenite. Journal of Physical Chemistry Letters, 2021, 12, 10906-10913.	2.1	8
206	Selective Dimerization of Ethene to 2-Butene on Zn²⁺-Modified ZSM-5 Zeolite. Journal of Physical Chemistry C, 2022, 126, 6570-6577.	1.5	8
207	Solvent-Assisted Ketone Reduction by a Homogeneous Mn Catalyst. Organometallics, 2022, 41, 1829-1835.	1.1	8
208	Modification of BrÃ¸nsted acidity of zeolites by Ga+, GaO+ and AlO+: comparison for alkane activation. Studies in Surface Science and Catalysis, 2007, 170, 1182-1189.	1.5	7
209	Substituent effects in pyridyl-functionalized pyrylium salts, pyridines and Î»³,Ïƒ²-phosphinines: a fundamental and systematic study. Dalton Transactions, 2018, 47, 9355-9366.	1.6	7
210	Composition- and Condition-Dependent Kinetics of Homogeneous Ester Hydrogenation by a Mn-Based Catalyst. Journal of Physical Chemistry C, 2020, 124, 26990-26998.	1.5	7
211	Photochromic Free MOFâ€Based Nearâ€Infrared Optical Switch. Angewandte Chemie, 2020, 132, 15652-15656.	1.6	7
212	In Silico Screening of Zeolites for High-Pressure Hydrogen Drying. ACS Applied Materials & Interfaces, 2021, 13, 8383-8394.	4.0	7
213	Homogeneous hydrogenation of saturated bicarbonate slurry to formates using multiphase catalysis. Green Chemistry, 2021, 23, 8848-8852.	4.6	7
214	Manganese-Mediated Câ€“C Bond Formation: Alkoxycarbonylation of Organoboranes. Organometallics, 2021, 40, 674-681.	1.1	6
215	Towards Understanding Afghanistan Pea Symbiotic Phenotype Through the Molecular Modeling of the Interaction Between LykX-Sym10 Receptor Heterodimer and Nod Factors. Frontiers in Plant Science, 2021, 12, 642591.	1.7	6
216	The Impact of Computational Uncertainties on the Enantioselectivity Predictions: A Microkinetic Modeling of Ketone Transfer Hydrogenation with a Noyoriâ€type Mnâ€diamine Catalyst. ChemCatChem, 2021, 13, 3517-3524.	1.8	6

#	Article	IF	Citations
217	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.	6.9	6
218	DFT Study on mechanochemical bond breaking in COGEF and Molecular Dynamics simulations. Procedia Computer Science, 2011, 4, 1167-1176.	1.2	5
219	Inside Cover: Molecular Aspects of Glucose Dehydration by Chromium Chlorides in Ionic Liquids (Chem. Eur. J. 19/2011). Chemistry - A European Journal, 2011, 17, 5210-5210.	1.7	5
220	Bent Carbon Surface Moieties as Active Sites on Carbon Catalysts for Phosgene Synthesis. Angewandte Chemie, 2016, 128, 1760-1764.	1.6	5
221	Inkjet printing of transparent sol-gel computer generated holograms. Optical Materials Express, 2016, 6, 3794.	1.6	5
222	Utilizing Design of Experiments Approach to Assess Kinetic Parameters for a Mn Homogeneous Hydrogenation Catalyst. ChemCatChem, 2021, 13, 4886-4896.	1.8	5
223	Inkjet Printing of Sc-Doped TiO2 with Enhanced Photoactivity. Coatings, 2019, 9, 78.	1.2	5
224	ChemSpaX: exploration of chemical space by automated functionalization of molecular scaffold. , 2022, 1, 8-25.		5
225	Two step activation of Ru-PN³P pincer catalysts for CO₂ hydrogenation. Catalysis Science and Technology, 2022, 12, 2972-2977.	2.1	5
226	Propertyâ€“activity relations of multifunctional reactive ensembles in cation-exchanged zeolites: a case study of methane activation on Zn²⁺-modified zeolite BEA. Physical Chemistry Chemical Physics, 2022, 24, 6492-6504.	1.3	5
227	Diffuse Reflectance IR Spectra of Molecular Hydrogen and Deuterium Adsorbed on Zinc Oxide. Kinetics and Catalysis, 2002, 43, 567-572.	0.3	4
228	Highly Efficient Reversible Hydrogenation of Carbon Dioxide to Formates Using a Ruthenium PNPâ€Pincer Catalyst. ChemCatChem, 2014, 6, 1485-1485.	1.8	4
229	Tracking Local Mechanical Impact in Heterogeneous Polymers with Direct Optical Imaging. Angewandte Chemie, 2018, 130, 16623-16628.	1.6	4
230	Revisiting van der Waals Radii: From Comprehensive Structural Analysis to Knowledgeâ€Based Classification of Interatomic Contacts. ChemPhysChem, 2020, 21, 359-359.	1.0	4
231	Metalâ€ligand cooperative activation of HX (X=H, Br, OR) bond on Mn based pincer complexes. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2021, 647, 1486-1494.	0.6	4
232	Automation and Microfluidics for the Efficient, Fast, and Focused Reaction Development of Asymmetric Hydrogenation Catalysis. ChemSusChem, 2022, 15, .	3.6	4
233	Nickel-catalyzed isomerization of 2-methyl-3-butenenitrile to 3-pentenenitrile: A kinetic study using in situ FTIR-ATR spectroscopy. Catalysis Today, 2010, 155, 271-278.	2.2	3
234	The origin of isotope-induced helical-sense bias in supramolecular polymers of benzene-1,3,5-tricarboxamides. Physical Chemistry Chemical Physics, 2012, 14, 13997.	1.3	3

#	Article	IF	Citations
235	CHAPTER 6. Computational Approach to Chemical Reactivity of MOFs. RSC Catalysis Series, 0, , 209-234.	0.1	3
236	Computational Chemistry of Zeolite Catalysis. , 2016, , 111-135.		3
237	Response to Comment â€œOn the Existence of Excitonic Signatures in the Optical Response of Metalâ€“Organic Frameworksâ€• Advanced Materials, 2017, 29, 1705261.	11.1	3
238	Lewis Acid Catalysis by Zeolites * *These authors contributed equally.. , 2018, , 229-263.		3
239	Importance of Methane Chemical Potential for Its Conversion to Methanol on Cuâ€exchanged Mordenite. Chemistry - A European Journal, 2020, 26, 7515-7515.	1.7	3
240	Zeolite Catalysis for Biomass Conversion. Green Chemistry and Sustainable Technology, 2016, , 347-372.	0.4	2
241	Nano-architecture of metal-organic frameworks. AIP Conference Proceedings, 2017, , .	0.3	2
242	Mechanistic investigation of benzene esterification by K2CO3/TiO2: the catalytic role of the multifunctional interface. Chemical Communications, 2021, 57, 7890-7893.	2.2	2
243	Metal Containing Nanoclusters in Zeolites. , 2021, , .		1
244	Automated high-resolution sampling and multi-mode operando spectroscopy of (bio-)chemical reactions for kinetic analysis, reaction characterization, and quality control. , 2021, 1, 100002.		1
245	CO 2 Hydrogenation to Methanol over Cd 4 /TiO 2 Catalyst: Insight into Multifunctional Interface. ChemCatChem, 0, , .	1.8	1
246	Virtual Special Issue on Catalysis in The Netherlands. ACS Catalysis, 2016, 6, 6006-6007.	5.5	0
247	Computational Chemistry of Catalytic Biomass Conversion. Green Chemistry and Sustainable Technology, 2016, , 63-104.	0.4	0
248	InnenrÃ¼cktitelbild: Nonâ€Pincerâ€Type Manganese Complexes as Efficient Catalysts for the Hydrogenation of Esters (Angew. Chem. 26/2017). Angewandte Chemie, 2017, 129, 7787-7787.	1.6	0
249	Innentitelbild: Confined Carbon Mediating Dehydroaromatization of Methane over Mo/ZSMâ€5 (Angew.) Tj ETQq1 1 0.784314 rgBT /	1.6	0
250	RÃ¼cktitelbild: Lateral Adsorbate Interactions Inhibit HCOO^{â^’} while Promoting CO Selectivity for CO₂ Electrocatalysis on Silver (Angew. Chem. 5/2019). Angewandte Chemie, 2019, 131, 1534-1534.	1.6	0
251	Computational Approach in Zeolite Science. , 2009, , 223-250.		0