Jose A Rodriguez

List of Publications by Year
in descending order

422 papers	33,782 citations	2544 96 h-index	5394 164 g-index
451 all docs	451 docs citations	451 times ranked	23627 citing authors

#	Article	IF	Citations
1	Active sites for CO ₂ hydrogenation to methanol on Cu/ZnO catalysts. Science, 2017, 355, 1296-1299.	12.6	1,180
2	Highly active copper-ceria and copper-ceria-titania catalysts for methanol synthesis from CO ₂. Science, 2014, 345, 546-550.	12.6	1,114
3	Catalysts for Hydrogen Evolution from the [NiFe] Hydrogenase to the Ni2P(001) Surface:Â The Importance of Ensemble Effect. Journal of the American Chemical Society, 2005, 127, 14871-14878.	13.7	1,029
4	Nanostructured Oxides in Chemistry:â€‰ Characterization and Properties. Chemical Reviews, 2004, 104, 4063-4104.	47.7	909
5	Activity of CeO _{<i>x</i>} and TiO _{<i>x</i>} Nanoparticles Grown on Au(111) in the Water-Gas Shift Reaction. Science, 2007, 318, 1757-1760.	12.6	906
6	A New Type of Strong Metalâ€"Support Interaction and the Production of H₂ through the Transformation of Water on Pt/CeO₂(111) and Pt/CeO_{<i>x</i>}/TiO₂(110) Catalysts. Journal of the American Chemical Society, 2012, 134, 8968-8974.	13.7	682
7	Atomic-layered Au clusters on Î±-MoC as catalysts for the low-temperature water-gas shift reaction. Science, 2017, 357, 389-393.	12.6	534
8	Reduction of CuO and Cu2O with H2: H Embedding and Kinetic Effects in the Formation of Suboxides. Journal of the American Chemical Society, 2003, 125, 10684-10692.	13.7	490
9	Water Gas Shift Reaction on Cu and Au Nanoparticles Supported on CeO2(111) and ZnO(000): Intrinsic Activity and Importance of Support Interactions. Angewandte Chemie - International Edition, 2007, 46, 1329-1332.	13.8	447
10	Fundamental studies of methanol synthesis from CO2 hydrogenation on Cu(111), Cu clusters, and Cu/ZnO(0001Ì„). Physical Chemistry Chemical Physics, 2010, 12, 9909.	2.8	442
11	In Situ Studies of the Active Sites for the Water Gas Shift Reaction over Cuâ`'CeO2Catalysts:Â Complex Interaction between Metallic Copper and Oxygen Vacancies of Ceria. Journal of Physical Chemistry B, 2006, 110, 428-434.	2.6	415
12	Hydrogenation of CO₂ to Methanol: Importance of Metalâ€"Oxide and Metalâ€"Carbide Interfaces in the Activation of CO₂. ACS Catalysis, 2015, 5, 6696-6706.	11.2	374
13	Reaction of NO2 with Zn and ZnO:â€‰ Photoemission, XANES, and Density Functional Studies on the Formation of NO3. Journal of Physical Chemistry B, 2000, 104, 319-328.	2.6	371
14	Experimental and Theoretical Studies on the Reaction of H2 with NiO:â€‰ Role of O Vacancies and Mechanism for Oxide Reduction. Journal of the American Chemical Society, 2002, 124, 346-354.	13.7	322
15	Ceria-based model catalysts: fundamental studies on the importance of the metalâ€"ceria interface in CO oxidation, the waterâ€"gas shift, CO₂hydrogenation, and methane and alcohol reforming. Chemical Society Reviews, 2017, 46, 1824-1841.	38.1	311
16	Desulfurization Reactions on Ni2P(001) and Î±-Mo2C(001) Surfaces:Â Complex Role of P and C Sites. Journal of Physical Chemistry B, 2005, 109, 4575-4583.	2.6	290
17	Importance of the Metalâ€"Oxide Interface in Catalysis: In Situ Studies of the Waterâ€"Gas Shift Reaction by Ambientâ€Pressure Xâ€ray Photoelectron Spectroscopy. Angewandte Chemie - International Edition, 2013, 52, 5101-5105.	13.8	280
18	Inverse CeO₂/CuO Catalyst As an Alternative to Classical Direct Configurations for Preferential Oxidation of CO in Hydrogen-Rich Stream. Journal of the American Chemical Society, 2010, 132, 34-35.	13.7	278

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19	Dry Reforming of Methane on a Highlyâ€Active Niâ€CeO₂ Catalyst: Effects of Metalâ€Support Interactions on Câˆ’H Bond Breaking. Angewandte Chemie - International Edition, 2016, 55, 7455-7459.	13.8	276
20	Interaction of Sulfur with Well-Defined Metal and Oxide Surfaces:â€‰ Unraveling the Mysteries behind Catalyst Poisoning and Desulfurization. Accounts of Chemical Research, 1999, 32, 719-728.	15.6	265
21	Unusual Physical and Chemical Properties of Cu in Ce1-xCuxO2Oxides. Journal of Physical Chemistry B, 2005, 109, 19595-19603.	2.6	262
22	Waterâ€Gas Shift Reaction on a Highly Active Inverse CeO_{<i>x</i>}/Cu(111) Catalyst: Unique Role of Ceria Nanoparticles. Angewandte Chemie - International Edition, 2009, 48, 8047-8050.	13.8	262
23	High catalytic activity of Au/CeO _x /TiO ₂ (110) controlled by the nature of the mixed-metal oxide at the nanometer level. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 4975-4980.	7.1	257
24	Gold, Copper, and Platinum Nanoparticles Dispersed on CeO_{<i>x</i>}/TiO₂(110) Surfaces: High Water-Gas Shift Activity and the Nature of the Mixed-Metal Oxide at the Nanometer Level. Journal of the American Chemical Society, 2010, 132, 356-363.	13.7	247
25	Activation of Gold on Titania:Â Adsorption and Reaction of SO2on Au/TiO2(110). Journal of the American Chemical Society, 2002, 124, 5242-5250.	13.7	242
26	CO Oxidation on Inverse CeO_{<i>x</i>}/Cu(111) Catalysts: High Catalytic Activity and Ceria-Promoted Dissociation of O₂. Journal of the American Chemical Society, 2011, 133, 3444-3451.	13.7	241
27	Reduction of CuO in H2: In Situ Time-Resolved XRD Studies. Catalysis Letters, 2003, 85, 247-254.	2.6	228
28	Chemistry of NO2on Oxide Surfaces:Â Formation of NO3on TiO2(110) and NO2â†”O Vacancy Interactions. Journal of the American Chemical Society, 2001, 123, 9597-9605.	13.7	226
29	High Waterâˆ’Gas Shift Activity in TiO₂(110) Supported Cu and Au Nanoparticles: Role of the Oxide and Metal Particle Size. Journal of Physical Chemistry C, 2009, 113, 7364-7370.	3.1	223
30	Water-gas-shift reaction on metal nanoparticles and surfaces. Journal of Chemical Physics, 2007, 126, 164705.	3.0	216
31	CO2 hydrogenation on Au/TiC, Cu/TiC, and Ni/TiC catalysts: Production of CO, methanol, and methane. Journal of Catalysis, 2013, 307, 162-169.	6.2	214
32	Steam Reforming of Ethanol on Ni/CeO₂: Reaction Pathway and Interaction between Ni and the CeO₂ Support. ACS Catalysis, 2013, 3, 975-984.	11.2	210
33	In Situ and Theoretical Studies for the Dissociation of Water on an Active Ni/CeO₂ Catalyst: Importance of Strong Metalâ€“Support Interactions for the Cleavage of Oâ€“H Bonds. Angewandte Chemie - International Edition, 2015, 54, 3917-3921.	13.8	205
34	Water-Gas-Shift Reaction on Molybdenum Carbide Surfaces:â€‰ Essential Role of the Oxycarbide. Journal of Physical Chemistry B, 2006, 110, 19418-19425.	2.6	202
35	Low Pressure CO₂ Hydrogenation to Methanol over Gold Nanoparticles Activated on a CeO_{<i>x</i>}/TiO₂ Interface. Journal of the American Chemical Society, 2015, 137, 10104-10107.	13.7	200
36	Properties of CeO2and Ce1-xZrxO2Nanoparticles:Â X-ray Absorption Near-Edge Spectroscopy, Density Functional, and Time-Resolved X-ray Diffraction Studies. Journal of Physical Chemistry B, 2003, 107, 3535-3543.	2.6	199

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37	Physical and Chemical Properties of MoP, Ni2P, and MoNiP Hydrodesulfurization Catalysts:Â Time-Resolved X-ray Diffraction, Density Functional, and Hydrodesulfurization Activity Studies. Journal of Physical Chemistry B, 2003, 107, 6276-6285.	2.6	198
38	Unique Properties of Ceria Nanoparticles Supported on Metals: Novel Inverse Ceria/Copper Catalysts for CO Oxidation and the Water-Gas Shift Reaction. Accounts of Chemical Research, 2013, 46, 1702-1711.	15.6	198
39	Inverse ZrO2/Cu as a highly efficient methanol synthesis catalyst from CO2 hydrogenation. Nature Communications, 2020, 11, 5767.	12.8	197
40	Atomic and electronic structure of molybdenum carbide phases: bulk and low Miller-index surfaces. Physical Chemistry Chemical Physics, 2013, 15, 12617.	2.8	189
41	Time-resolved Studies for the Mechanism of Reduction of Copper Oxides with Carbon Monoxide:Â Complex Behavior of Lattice Oxygen and the Formation of Suboxides. Journal of Physical Chemistry B, 2004, 108, 13667-13673.	2.6	187
42	SnO2 Nanoribbons as NO2 Sensors:â€‰ Insights from First Principles Calculations. Nano Letters, 2003, 3, 1025-1028.	9.1	186
43	Water-promoted interfacial pathways in methane oxidation to methanol on a CeO ₂ -Cu ₂ O catalyst. Science, 2020, 368, 513-517.	12.6	182
44	A systematic density functional theory study of the electronic structure of bulk and (001) surface of transition-metals carbides. Journal of Chemical Physics, 2005, 122, 174709.	3.0	180
45	Coverage Effects and the Nature of the Metalâˆ’Sulfur Bond in S/Au(111):Â High-Resolution Photoemission and Density-Functional Studies. Journal of the American Chemical Society, 2003, 125, 276-285.	13.7	179
46	The bending machine: CO₂ activation and hydrogenation on Î´-MoC(001) and Î²-Mo₂C(001) surfaces. Physical Chemistry Chemical Physics, 2014, 16, 14912-14921.	2.8	175
47	Adsorption and Decomposition of H2S on MgO(100), NiMgO(100), and ZnO(0001) Surfaces:Â A First-Principles Density Functional Study. Journal of Physical Chemistry B, 2000, 104, 3630-3638.	2.6	159
48	Surface-Structure Sensitivity of CeO₂ Nanocrystals in Photocatalysis and Enhancing the Reactivity with Nanogold. ACS Catalysis, 2015, 5, 4385-4393.	11.2	158
49	Hydrogenation of CO₂ to Methanol on CeO_{<i>x</i>}/Cu(111) and ZnO/Cu(111) Catalysts: Role of the Metalâ€“Oxide Interface and Importance of Ce³⁺ Sites. Journal of Physical Chemistry C, 2016, 120, 1778-1784.	3.1	156
50	Highly active Ni/CeO2 catalyst for CO2 methanation: Preparation and characterization. Applied Catalysis B: Environmental, 2021, 282, 119581.	20.2	154
51	Unusual Physical and Chemical Properties of Ni in Ce_{1âˆ’<i>x</i>}Ni_{<i>x</i>}O_{2âˆ’<i>y</i>} Oxides: Structural Characterization and Catalytic Activity for the Water Gas Shift Reaction. Journal of Physical Chemistry C, 2010, 114, 12689-12697.	3.1	151
52	Room-Temperature Activation of Methane and Dry Re-forming with CO₂ on Ni-CeO₂(111) Surfaces: Effect of Ce³⁺ Sites and Metalâ€“Support Interactions on Câ€“H Bond Cleavage. ACS Catalysis, 2016, 6, 8184-8191.	11.2	146
53	Reaction of NH3 with Titania:â€‰ N-Doping of the Oxide and TiN Formation. Journal of Physical Chemistry C, 2007, 111, 1366-1372.	3.1	145
54	In Situ Characterization of Cu/CeO₂ Nanocatalysts for CO₂ Hydrogenation: Morphological Effects of Nanostructured Ceria on the Catalytic Activity. Journal of Physical Chemistry C, 2018, 122, 12934-12943.	3.1	145

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55	Reaction of H2S and S2 with Metal/Oxide Surfaces:â€‰ Band-Gap Size and Chemical Reactivity. Journal of Physical Chemistry B, 1998, 102, 5511-5519.	2.6	143
56	Morphological effects of the nanostructured ceria support on the activity and stability of CuO/CeO₂ catalysts for the water-gas shift reaction. Physical Chemistry Chemical Physics, 2014, 16, 17183-17195.	2.8	143
57	Hydrogenation of CO₂ to Methanol on a Au^{Î´+}â€“In₂O_{3â€“<i>x</i>} Catalyst. ACS Catalysis, 2020, 10, 11307-11317.	11.2	142
58	Direct Conversion of Methane to Methanol on Ni-Ceria Surfaces: Metalâ€“Support Interactions and Water-Enabled Catalytic Conversion by Site Blocking. Journal of the American Chemical Society, 2018, 140, 7681-7687.	13.7	141
59	Highly Active Au/Î´-MoC and Cu/Î´-MoC Catalysts for the Conversion of CO₂: The Metal/C Ratio as a Key Factor Defining Activity, Selectivity, and Stability. Journal of the American Chemical Society, 2016, 138, 8269-8278.	13.7	140
60	Electronic Properties and Phase Transformations in CoMoO4and NiMoO4:Â XANES and Time-Resolved Synchrotron XRD Studies. Journal of Physical Chemistry B, 1998, 102, 1347-1355.	2.6	138
61	Inverse oxide/metal catalysts: A versatile approach for activity tests and mechanistic studies. Surface Science, 2010, 604, 241-244.	1.9	135
62	Highly Active Ceria-Supported Ru Catalyst for the Dry Reforming of Methane: In Situ Identification of Ru^{Î´+}â€“Ce³⁺ Interactions for Enhanced Conversion. ACS Catalysis, 2019, 9, 3349-3359.	11.2	135
63	Chemistry of sulfur-containing molecules on Au(): thiophene, sulfur dioxide, and methanethiol adsorption. Surface Science, 2002, 505, 295-307.	1.9	133
64	In Situ Characterization of CuFe₂O₄ and Cu/Fe₃O₄ Waterâˆ'Gas Shift Catalysts. Journal of Physical Chemistry C, 2009, 113, 14411-14417.	3.1	133
65	In situ studies of CeO2-supported Pt, Ru, and Ptâ€“Ru alloy catalysts for the waterâ€“gas shift reaction: Active phases and reaction intermediates. Journal of Catalysis, 2012, 291, 117-126.	6.2	133
66	Catalytic Properties of Molybdenum Carbide, Nitride and Phosphide: A Theoretical Study. Catalysis Letters, 2003, 91, 247-252.	2.6	129
67	CO₂ Activation and Methanol Synthesis on Novel Au/TiC and Cu/TiC Catalysts. Journal of Physical Chemistry Letters, 2012, 3, 2275-2280.	4.6	129
68	Hydrogenation of CO₂ on ZnO/Cu(100) and ZnO/Cu(111) Catalysts: Role of Copper Structure and Metalâ€“Oxide Interface in Methanol Synthesis. Journal of Physical Chemistry B, 2018, 122, 794-800.	2.6	129
69	Unraveling the Dynamic Nature of a CuO/CeO₂ Catalyst for CO Oxidation in <i>Operando</i>: A Combined Study of XANES (Fluorescence) and DRIFTS. ACS Catalysis, 2014, 4, 1650-1661.	11.2	128
70	N doping of TiO2(110): Photoemission and density-functional studies. Journal of Chemical Physics, 2006, 125, 094706.	3.0	127
71	Low-Temperature Conversion of Methane to Methanol on CeO_{<i>x</i>}/Cu₂O Catalysts: Water Controlled Activation of the Câ€“H Bond. Journal of the American Chemical Society, 2016, 138, 13810-13813.	13.7	125
72	Adsorption of carbon monoxide carbon dioxide on clean and cesium-covered copper(110). The Journal of Physical Chemistry, 1989, 93, 5238-5248.	2.9	123

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73	Interaction of SO2 with CeO2 and Cu/CeO2 catalysts: photoemission, XANES and TPD studies. Catalysis Letters, 1999, 62, 113-119.	2.6	123
74	Inverse Oxide/Metal Catalysts in Fundamental Studies and Practical Applications: A Perspective of Recent Developments. Journal of Physical Chemistry Letters, 2016, 7, 2627-2639.	4.6	120
75	Inâ€…Situ Investigation of Methane Dry Reforming on Metal/Ceria(111) Surfaces: Metalâ€“Support Interactions and Câˆ’H Bond Activation at Low Temperature. Angewandte Chemie - International Edition, 2017, 56, 13041-13046.	13.8	120
76	Electronic and Chemical Properties of Ce0.8Zr0.2O2(111) Surfaces:Â Photoemission, XANES, Density-Functional, and NO2Adsorption Studies. Journal of Physical Chemistry B, 2001, 105, 7762-7770.	2.6	118
77	Gold-based catalysts for the waterâ€“gas shift reaction: Active sites and reaction mechanismâ˜†. Catalysis Today, 2011, 160, 3-10.	4.4	118
78	Platinum-Modulated Cobalt Nanocatalysts for Low-Temperature Aqueous-Phase Fischerâ€“Tropsch Synthesis. Journal of the American Chemical Society, 2013, 135, 4149-4158.	13.7	116
79	In situtime-resolved characterization of Auâ€“CeO2 and AuOxâ€“CeO2 catalysts during the water-gas shift reaction: Presence of Au and O vacancies in the active phase. Journal of Chemical Physics, 2005, 123, 221101.	3.0	115
80	Au â†” N Synergy and N-Doping of Metal Oxide-Based Photocatalysts. Journal of the American Chemical Society, 2008, 130, 12056-12063.	13.7	115
81	A density functional theory study of the dissociation of H2 on gold clusters: Importance of fluxionality and ensemble effects. Journal of Chemical Physics, 2006, 125, 164715.	3.0	114
82	The behavior of mixed-metal oxides: Physical and chemical properties of bulk Ce1âˆ’xTbxO2 and nanoparticles of Ce1âˆ’xTbxOy. Journal of Chemical Physics, 2004, 121, 5434-5444.	3.0	113
83	The behavior of mixed-metal oxides: Structural and electronic properties of Ce1âˆ’xCaxO2 and Ce1âˆ’xCaxO2âˆ’x. Journal of Chemical Physics, 2003, 119, 5659-5669.	3.0	112
84	Phase transformations and electronic properties in mixed-metal oxides: Experimental and theoretical studies on the behavior of NiMoO4 and MgMoO4. Journal of Chemical Physics, 2000, 112, 935-945.	3.0	111
85	Reaction of H2and H2S with CoMoO4and NiMoO4:Â TPR, XANES, Time-Resolved XRD, and Molecular-Orbital Studies. Journal of Physical Chemistry B, 1999, 103, 770-781.	2.6	110
86	Probing the reaction intermediates for the waterâ€“gas shift over inverse CeOx/Au(111) catalysts. Journal of Catalysis, 2010, 271, 392-400.	6.2	110
87	Waterâ€“Gas Shift and CO Methanation Reactions over Niâ€“CeO2(111) Catalysts. Topics in Catalysis, 2011, 54, 34-41.	2.8	109
88	High Activity of Ce_{1âˆ’<i>x</i>}Ni_{<i>x</i>}O_{2âˆ’<i>y</i>} for H₂ Production through Ethanol Steam Reforming: Tuning Catalytic Performance through Metalâ€“Oxide Interactions. Angewandte Chemie - International Edition, 2010, 49, 9680-9684.	13.8	108
89	N Doping of Rutile TiO₂ (110) Surface. A Theoretical DFT Study. Journal of Physical Chemistry C, 2008, 112, 2624-2631.	3.1	107
90	Waterâ€“gas-shift reaction on a Ni2P(001) catalyst: Formation of oxy-phosphides and highly active reaction sites. Journal of Catalysis, 2009, 262, 294-303.	6.2	107

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91	Synchrotron Techniques for In Situ Catalytic Studies: Capabilities, Challenges, and Opportunities. ACS Catalysis, 2012, 2, 2269-2280.	11.2	107
92	Effects of Zr Doping into Ceria for the Dry Reforming of Methane over Ni/CeZrO₂ Catalysts: In Situ Studies with XRD, XAFS, and AP-XPS. ACS Catalysis, 2020, 10, 3274-3284.	11.2	107
93	Chemistry of NO2 on CeO2 and MgO: Experimental and theoretical studies on the formation of NO3. Journal of Chemical Physics, 2000, 112, 9929-9939.	3.0	104
94	Effects of carbon on the stability and chemical performance of transition metal carbides:â€‚A density functional study. Journal of Chemical Physics, 2004, 120, 5414-5423.	3.0	102
95	The conversion of CO₂ to methanol on orthorhombic Î²-Mo₂C and Cu/Î²-Mo₂C catalysts: mechanism for admetal induced change in the selectivity and activity. Catalysis Science and Technology, 2016, 6, 6766-6777.	4.1	101
96	Theoretical Studies of the Adsorption of CO and C on Ni(111) and Ni/CeO₂(111): Evidence of a Strong Metalâ€"Support Interaction. Journal of Physical Chemistry C, 2013, 117, 8241-8250.	3.1	100
97	Interaction of CO with OH on Au(111): HCOO, CO₃, and HOCO as Key Intermediates in the Water-Gas Shift Reaction. Journal of Physical Chemistry C, 2009, 113, 19536-19544.	3.1	93
98	A theoretical insight into the catalytic effect of a mixed-metal oxide at the nanometer level: The case of the highly active metal/CeOx/TiO2(110) catalysts. Journal of Chemical Physics, 2010, 132, 104703.	3.0	93
99	Combining X-ray Absorption and X-ray Diffraction Techniques for in Situ Studies of Chemical Transformations in Heterogeneous Catalysis: Advantages and Limitations. Journal of Physical Chemistry C, 2011, 115, 17884-17890.	3.1	92
100	Activation of noble metals on metal-carbide surfaces: novel catalysts for CO oxidation, desulfurization and hydrogenation reactions. Physical Chemistry Chemical Physics, 2012, 14, 427-438.	2.8	89
101	Role of Auâˆ'C Interactions on the Catalytic Activity of Au Nanoparticles Supported on TiC(001) toward Molecular Oxygen Dissociation. Journal of the American Chemical Society, 2010, 132, 3177-3186.	13.7	88
102	The Activation of Gold and the Waterâ€"Gas Shift Reaction: Insights from Studies with Model Catalysts. Accounts of Chemical Research, 2014, 47, 773-782.	15.6	87
103	Surface Chemistry of SO2on Sn and Sn/Pt(111) Alloys:Â Effects of Metalâˆ'Metal Bonding on Reactivity toward Sulfur. Journal of the American Chemical Society, 1998, 120, 11149-11157.	13.7	86
104	Gold nanoparticles on ceria: importance of O vacancies in the activation of gold. Topics in Catalysis, 2007, 44, 73-81.	2.8	85
105	Autocatalytic Reduction of a Cu₂O/Cu(111) Surface by CO: STM, XPS, and DFT Studies. Journal of Physical Chemistry C, 2010, 114, 17042-17050.	3.1	84
106	Ambient pressure XPS and IRRAS investigation of ethanol steam reforming on Niâ€"CeO₂(111) catalysts: an in situ study of Câ€"C and Oâ€"H bond scission. Physical Chemistry Chemical Physics, 2016, 18, 16621-16628.	2.8	83
107	Reactivity of Transition Metals (Pd, Pt, Cu, Ag, Au) toward Molecular Hydrogen Dissociation: Extended Surfaces versus Particles Supported on TiC(001) or Small Is Not Always Better and Large Is Not Always Bad. Journal of Physical Chemistry C, 2011, 115, 11666-11672.	3.1	82
108	Molecular Level Study of the Formation and the Spread of MoO3on Au (111) by Scanning Tunneling Microscopy and X-ray Photoelectron Spectroscopy. Journal of the American Chemical Society, 2003, 125, 8059-8066.	13.7	81

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109	Catalyst size matters: Tuning the molecular mechanism of the waterâ€“gas shift reaction on titanium carbide based compounds. Journal of Catalysis, 2008, 260, 103-112.	6.2	81
110	Does CO2dissociatively adsorb on Cu surfaces?. Journal of Physics Condensed Matter, 1989, 1, SB149-SB160.	1.8	80
111	Interaction of Hydrogen and Thiophene with Ni/MoS2and Zn/MoS2Surfaces:Â A Molecular Orbital Study. Journal of Physical Chemistry B, 1997, 101, 7524-7534.	2.6	80
112	Identification of 5â€“7 Defects in a Copper Oxide Surface. Journal of the American Chemical Society, 2011, 133, 11474-11477.	13.7	80
113	In situ/operando studies for the production of hydrogen through the water-gas shift on metal oxide catalysts. Physical Chemistry Chemical Physics, 2013, 15, 12004.	2.8	80
114	In Situ Elucidation of the Active State of Coâ€“CeO_{<i>x</i>} Catalysts in the Dry Reforming of Methane: The Important Role of the Reducible Oxide Support and Interactions with Cobalt. ACS Catalysis, 2018, 8, 3550-3560.	11.2	80
115	Reaction of SO2 with ZnO(0001Ì„)â€“O and ZnO powders: photoemission and XANES studies on the formation of SO3 and SO4. Surface Science, 1999, 442, 400-412.	1.9	78
116	Reaction of H2S with MgO(100) and Cu/MgO(100) surfaces: Band-gap size and chemical reactivity. Journal of Chemical Physics, 1999, 111, 8077-8087.	3.0	77
117	Interaction of SO2with MgO(100) and Cu/MgO(100):Â Decomposition Reactions and the Formation of SO3and SO4. Journal of Physical Chemistry B, 2000, 104, 7439-7448.	2.6	77
118	The chemical properties of bimetallic surfaces: Importance of ensemble and electronic effects in the adsorption of sulfur and SO2. Progress in Surface Science, 2006, 81, 141-189.	8.3	77
119	Fundamental Studies of Well-Defined Surfaces of Mixed-Metal Oxides: Special Properties of MO_x/TiO₂(110) {M = V, Ru, Ce, or W}. Chemical Reviews, 2013, 113, 4373-4390.	47.7	77
120	The bonding of sulfur to a Pt(111) surface: photoemission and molecular orbital studies. Chemical Physics Letters, 1996, 251, 13-19.	2.6	76
121	Studies on the Behavior of Mixed-Metal Oxides and Desulfurization:Â Reaction of H2S and SO2with Cr2O3(0001), MgO(100), and CrxMg1-xO(100). Journal of the American Chemical Society, 2000, 122, 12362-12370.	13.7	75
122	Effects of Hydrogen on the Reactivity of O₂ toward Gold Nanoparticles and Surfaces. Journal of Physical Chemistry C, 2007, 111, 19001-19008.	3.1	75
123	Synthesis of Î±-MoC1-x and Î²-MoCy Catalysts for CO2 Hydrogenation by Thermal Carburization of Mo-oxide in Hydrocarbon and Hydrogen Mixtures. Catalysis Letters, 2014, 144, 1418-1424.	2.6	75
124	<i>In Situ</i> Imaging of Cu₂O under Reducing Conditions: Formation of Metallic Fronts by Mass Transfer. Journal of the American Chemical Society, 2013, 135, 16781-16784.	13.7	74
125	Nature of the Mixed-Oxide Interface in Ceriaâ€“Titania Catalysts: Clusters, Chains, and Nanoparticles. Journal of Physical Chemistry C, 2013, 117, 14463-14471.	3.1	73
126	Desulfurization of SO2and Thiophene on Surfaces and Nanoparticles of Molybdenum Carbide:Â Unexpected Ligand and Steric Effects. Journal of Physical Chemistry B, 2004, 108, 15662-15670.	2.6	72

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127	Adsorbate-Driven Morphological Changes of a Gold Surface at Low Temperatures. Journal of the American Chemical Society, 2008, 130, 17272-17273.	13.7	72
128	Unraveling the Active Site in Copperâˆ’Ceria Systems for the Waterâˆ’Gas Shift Reaction: In Situ Characterization of an Inverse Powder CeO_{2âˆ’<i>x</i>}/CuOâˆ’Cu Catalyst. Journal of Physical Chemistry C, 2010, 114, 3580-3587.	3.1	71
129	In Situ XRD Studies of ZnO/GaN Mixtures at High Pressure and High Temperature: Synthesis of Zn-Rich (Ga_{1âˆ’<i>x</i>}Zn_{<i>x</i>})(N_{1âˆ’<i>x</i>}O_{<i>x</i>}) Photocatalysts. Journal of Physical Chemistry C, 2010, 114, 1809-1814.	3.1	71
130	Visible Light-Driven H₂ Production over Highly Dispersed Ruthenia on Rutile TiO₂ Nanorods. ACS Catalysis, 2016, 6, 407-417.	11.2	71
131	Desulfurization of Thiophene on Au/TiC(001): Auâˆ’C Interactions and Charge Polarization. Journal of the American Chemical Society, 2009, 131, 8595-8602.	13.7	70
132	Dissociation of SO₂ on Au/TiC(001): Effects of Auâ€“C Interactions and Charge Polarization. Angewandte Chemie - International Edition, 2008, 47, 6685-6689.	13.8	69
133	Exploring the Structural and Electronic Properties of Pt/Ceria-Modified TiO₂ and Its Photocatalytic Activity for Water Splitting under Visible Light. Journal of Physical Chemistry C, 2012, 116, 14062-14070.	3.1	69
134	One-Dimensional Ceria as Catalyst for the Low-Temperature Waterâˆ’Gas Shift Reaction. Journal of Physical Chemistry C, 2009, 113, 21949-21955.	3.1	68
135	Charge Polarization at a Auâ€“TiC Interface and the Generation of Highly Active and Selective Catalysts for the Lowâ€Temperature Waterâ€“Gas Shift Reaction. Angewandte Chemie - International Edition, 2014, 53, 11270-11274.	13.8	67
136	Chemical and electronic properties of Pt in bimetallic surfaces: Photoemission and COâ€chemisorption studies for Zn/Pt(111). Journal of Chemical Physics, 1995, 102, 4279-4289.	3.0	66
137	Density Functional Study of the Adsorption of Atomic Oxygen on the (001) Surface of Early Transition-Metal Carbides. Journal of Physical Chemistry C, 2007, 111, 1307-1314.	3.1	66
138	Adsorption of gold on TiC(001): Auâ€“C interactions and charge polarization. Journal of Chemical Physics, 2007, 127, 211102.	3.0	66
139	Insights into the structureâ€“photoreactivity relationships in well-defined perovskite ferroelectric KNbO₃ nanowires. Chemical Science, 2015, 6, 4118-4123.	7.4	66
140	Low Temperature Activation of Methane on Metal-Oxides and Complex Interfaces: Insights from Surface Science. Accounts of Chemical Research, 2020, 53, 1488-1497.	15.6	66
141	Unravelling the Origin of the High-Catalytic Activity of Supported Au:Â A Density-Functional Theory-Based Interpretation. Journal of the American Chemical Society, 2006, 128, 15600-15601.	13.7	65
142	Surface Chemistry of SO2 on Zn and ZnO:â€‰ Photoemission and Molecular Orbital Studies. Journal of Physical Chemistry B, 1998, 102, 7033-7043.	2.6	64
143	Adsorption of NO2 on Rh(111) and Pd/Rh(111): photoemission studies. Surface Science, 1999, 436, L683-L690.	1.9	64
144	Chemistry of SO2, H2S, and CH3SH on Carbide-Modified Mo(110) and Mo2C Powders:Â Photoemission and XANES Studies. Journal of Physical Chemistry B, 2000, 104, 11515-11521.	2.6	64

#	Article	IF	Citations
145	Catalysis and the nature of mixed-metal oxides at the nanometer level: special properties of MOx/TiO2(110) {M= V, W, Ce} surfaces. Physical Chemistry Chemical Physics, 2010, 12, 9557.	2.8	64
146	Fundamentals of Methanol Synthesis on Metal Carbide Based Catalysts: Activation of CO2 and H2. Topics in Catalysis, 2015, 58, 159-173.	2.8	64
147	Interaction of Silver, Cesium, and Zinc with Alumina Surfaces:Â Thermal Desorption and Photoemission Studies. The Journal of Physical Chemistry, 1996, 100, 18240-18248.	2.9	63
148	Structural and electronic properties of PbTiO3, PbZrO3, and PbZr0.5Ti0.5O3: First-principles density-functional studies. Journal of Chemical Physics, 2002, 117, 2699-2709.	3.0	63
149	Preparation of (Ga_{1â^'<i>x</i>}Zn_{<i>x</i>})(N_{1â^'<i>x</i>}O_{<i>x</i>}) Photocatalysts from the Reaction of NH₃ with Ga₂O₃/ZnO and ZnGa₂O₄: In Situ Time-Resolved XRD and XAFS Studies. Journal of Physical Chemistry C, 2009, 113, 3650-3659.	3.1	63
150	Direct Epoxidation of Propylene over Stabilized Cu⁺ Surface Sites on Titaniumâ€Modified Cu₂O. Angewandte Chemie - International Edition, 2015, 54, 11946-11951.	13.8	62
151	CO Oxidation on Gold-Supported Iron Oxides: New Insights into Strong Oxideâ€"Metal Interactions. Journal of Physical Chemistry C, 2015, 119, 16614-16622.	3.1	62
152	Effect of Ceria on Goldâ€"Titania Catalysts for the Waterâ€"Gas Shift Reaction: Fundamental Studies for Au/CeO_{<i>x</i>}/TiO₂(110) and Au/CeO_{<i>x</i>}/TiO₂ Powders. Journal of Physical Chemistry C, 2012, 116, 23547-23555.	3.1	61
153	Methane oxidation activity and nanoscale characterization of Pd/CeO2 catalysts prepared by dry milling Pd acetate and ceria. Applied Catalysis B: Environmental, 2021, 282, 119567.	20.2	61
154	Adsorption and reaction of HCOOH on doped Cu(110): coadsorption with cesium, oxygen, and Csa + Oa. Surface Science, 1990, 236, 282-312.	1.9	60
155	Infrared vibrational studies of CO adsorption on Cu/Pt(111) and CuPt(111) surfaces. Journal of Chemical Physics, 1992, 96, 7814-7825.	3.0	60
156	Orbital-band interactions and the reactivity of molecules on oxide surfaces: from explanations to predictions. Theoretical Chemistry Accounts, 2002, 107, 117-129.	1.4	60
157	A Systematic Density Functional Study of Molecular Oxygen Adsorption and Dissociation on the (001) Surface of Group IVâ^'VI Transition Metal Carbides. Journal of Physical Chemistry C, 2007, 111, 16982-16989.	3.1	60
158	The interaction of oxygen with TiC(001): Photoemission and first-principles studies. Journal of Chemical Physics, 2004, 121, 465.	3.0	58
159	Reversing sintering effect of Ni particles on Î³-Mo2N via strong metal support interaction. Nature Communications, 2021, 12, 6978.	12.8	58
160	Reaction of water with Ceâ€"Au(111) and CeOx/Au(111) surfaces: Photoemission and STM studies. Surface Science, 2007, 601, 2445-2452.	1.9	57
161	Electronic Metalâ€"Support Interactions and the Production of Hydrogen Through the Water-Gas Shift Reaction and Ethanol Steam Reforming: Fundamental Studies with Well-Defined Model Catalysts. Topics in Catalysis, 2013, 56, 1488-1498.	2.8	57
162	Room Temperature Methane Capture and Activation by Ni Clusters Supported on TiC(001): Effects of Metalâ€"Carbide Interactions on the Cleavage of the Câ€"H Bond. Journal of the American Chemical Society, 2019, 141, 5303-5313.	13.7	57

#	Article	IF	Citations
163	Interaction of Zinc with Transition-Metal Surfaces:Â Electronic and Chemical Perturbations Induced by Bimetallic Bonding. The Journal of Physical Chemistry, 1996, 100, 381-389.	2.9	56
164	Three-dimensional ruthenium-doped TiO₂ sea urchins for enhanced visible-light-responsive H₂ production. Physical Chemistry Chemical Physics, 2016, 18, 15972-15979.	2.8	56
165	Morphological and Structural Changes during the Reduction and Reoxidation of CuO/CeO₂and Ce_{1â€“<i>x</i>}Cu_{<i>x</i>}O₂Nanocatalysts:<i>In Situ</i>Studies with Environmental TEM, XRD, and XAS. Journal of Physical Chemistry C, 2011, 115, 13851-13859.	3.1	55
166	Chemistry of thiophene on Mo(110), MoCx and MoSx surfaces: photoemission studies. Surface Science, 2000, 457, L413-L420.	1.9	54
167	Importance of O vacancies in the behavior of oxide surfaces: Adsorption of sulfur onTiO2(110). Physical Review B, 2002, 65, .	3.2	54
168	Reaction of S2 with ZnO and Cu/ZnO Surfaces:â€‰ Photoemission and Molecular Orbital Studies. Journal of Physical Chemistry B, 1997, 101, 10860-10869.	2.6	53
169	Chemical reactivity of metcar Ti8C12, nanocrystal Ti14C13 and a bulk TiC(001) surface: A density functional study. Journal of Chemical Physics, 2003, 118, 7737-7740.	3.0	53
170	STM study of the growth of cerium oxide nanoparticles on Au(111). Surface Science, 2008, 602, 3272-3278.	1.9	52
171	Hierarchical Heterogeneity at the CeO_{<i>x</i>}â€“TiO₂ Interface: Electronic and Geometric Structural Influence on the Photocatalytic Activity of Oxide on Oxide Nanostructures. Journal of Physical Chemistry C, 2015, 119, 2669-2679.	3.1	52
172	The Carburization of Transition Metal Molybdates (MxMoO4, MÂ=ÂCu, Ni or Co) and the Generation of Highly Active Metal/Carbide Catalysts for CO2 Hydrogenation. Catalysis Letters, 2015, 145, 1365-1373.	2.6	52
173	Interaction of NO and NO2 with MgO(1 0 0): photoemission and density-functional studies. Chemical Physics Letters, 2000, 330, 475-483.	2.6	51
174	Density functional studies on the adsorption and decomposition of SO2 on Cu(100). Journal of Chemical Physics, 2001, 115, 454-465.	3.0	51
175	Interaction of oxygen with TiN(001):Nâ†”O exchange and oxidation process. Journal of Chemical Physics, 2007, 126, 244713.	3.0	51
176	Stabilization of Catalytically Active Cu⁺ Surface Sites on Titaniumâ€“Copper Mixedâ€Oxide Films. Angewandte Chemie - International Edition, 2014, 53, 5336-5340.	13.8	51
177	Methanol steam reforming over Ni-CeO2 model and powder catalysts: Pathways to high stability and selectivity for H2/CO2 production. Catalysis Today, 2018, 311, 74-80.	4.4	51
178	Insights into the methanol synthesis mechanism via CO2 hydrogenation over Cu-ZnO-ZrO2 catalysts: Effects of surfactant/Cu-Zn-Zr molar ratio. Journal of CO2 Utilization, 2020, 41, 101215.	6.8	51
179	Effect of Ni particle size on the production of renewable methane from CO2 over Ni/CeO2 catalyst. Journal of Energy Chemistry, 2021, 61, 602-611.	12.9	51
180	Interaction of sulfur with Pt(111) and Sn/Pt(111): Effects of coverage and metalâ€“metal bonding on reactivity toward sulfur. Journal of Chemical Physics, 2000, 113, 11284-11292.	3.0	50

#	Article	IF	Citations
181	Interaction of oxygen with ZrC(001) and VC(001): Photoemission and first-principles studies. Physical Review B, 2005, 72, .	3.2	50
182	Organic Pollutant Photodecomposition by Ag/KNbO₃ Nanocomposites: A Combined Experimental and Theoretical Study. Journal of Physical Chemistry C, 2016, 120, 2777-2786.	3.1	50
183	Adsorption and dissociation of molecular hydrogen on orthorhombic Î²-Mo2C and cubic Î´-MoC (001) surfaces. Surface Science, 2017, 656, 24-32.	1.9	50
184	Exploring Metalâ€“Support Interactions To Immobilize Subnanometer Co Clusters on Î³â€“Mo₂N: A Highly Selective and Stable Catalyst for CO₂ Activation. ACS Catalysis, 2019, 9, 9087-9097.	11.2	50
185	Chemistry of Thiophene on ZnO, S/ZnO, and Cs/ZnO Surfaces:â€‰ Effects of Cesium on Desulfurization Processes. Journal of Physical Chemistry B, 1999, 103, 5550-5559.	2.6	49
186	Studies on the Behavior of Mixed-Metal Oxides:Â Structural, Electronic, and Chemical Properties of Î²-FeMoO4. Journal of Physical Chemistry B, 2000, 104, 8145-8152.	2.6	49
187	Ca Doping of Nanosize Ceâˆ’Zr and Ceâˆ’Tb Solid Solutions:Â Structural and Electronic Effects. Chemistry of Materials, 2005, 17, 4181-4193.	6.7	49
188	First-principles study of the adsorption of sulfur on Pt(111): S core-level shifts and the nature of the Pt-S bond. Physical Review B, 2002, 65, .	3.2	48
189	Interaction of thiophene with stoichiometric and reduced rutile TiO2(1 1 0) surfaces: role of Ti3+ sites in desulfurization activity. Journal of Molecular Catalysis A, 2003, 202, 215-227.	4.8	48
190	Reaction of SO2 with Auâˆ•CeO2(111): Importance of O vacancies in the activation of gold. Journal of Chemical Physics, 2005, 122, 241101.	3.0	48
191	Determining the Behavior of RuO_{<i>x</i>} Nanoparticles in Mixedâ€Metal Oxides: Structural and Catalytic Properties of RuO₂/TiO₂(110) Surfaces. Angewandte Chemie - International Edition, 2011, 50, 10198-10202.	13.8	48
192	Water-Gas Shift Reaction on Niâ€“Wâ€“Ce Catalysts: Catalytic Activity and Structural Characterization. Journal of Physical Chemistry C, 2014, 118, 2528-2538.	3.1	48
193	Reaction of SO2 with pure and metal-doped MgO: Basic principles for the cleavage of Sâ€“O bonds. Journal of Chemical Physics, 2001, 115, 10914-10926.	3.0	47
194	Superior performance of Niâ€“Wâ€“Ce mixed-metal oxide catalysts for ethanol steam reforming: Synergistic effects of W- and Ni-dopants. Journal of Catalysis, 2015, 321, 90-99.	6.2	47
195	Cesium-Induced Active Sites for Câ€“C Coupling and Ethanol Synthesis from CO₂ Hydrogenation on Cu/ZnO(0001Ì…) Surfaces. Journal of the American Chemical Society, 2021, 143, 13103-13112.	13.7	47
196	Chemistry of NO2 on Mo(110): decomposition reactions and formation of MoO2. Surface Science, 2000, 457, 254-266.	1.9	46
197	Interaction of sulfur with TiO2(1 1 0): photoemission and density-functional studies. Chemical Physics Letters, 2001, 336, 377-384.	2.6	46
198	Studies on the behavior of mixed-metal oxides: Adsorption of CO and NO on MgO(100), NixMg1âˆ’xO(100), and CrxMg1âˆ’xO(100). Journal of Chemical Physics, 2001, 114, 4186-4195.	3.0	45

#	Article	IF	Citations
199	Sulfur adsorption and sulfidation of transition metal carbides as hydrotreating catalysts. Journal of Molecular Catalysis A, 2005, 239, 116-124.	4.8	45
200	CO oxidation on inverse Fe2O3/Au(111) model catalysts. Journal of Catalysis, 2012, 294, 216-222.	6.2	45
201	Decomposition of NO2 on metal surfaces: Oxidation of Ag, Zn, and Cu films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1994, 12, 2140-2144.	2.1	44
202	H2S adsorption on chromium, chromia, and gold/chromia surfaces: Photoemission studies. Journal of Chemical Physics, 1997, 107, 9146-9156.	3.0	44
203	Reaction of S2 and SO2 with Pd/Rh(111) surfaces: Effects of metalâ€"metal bonding on sulfur poisoning. Journal of Chemical Physics, 1999, 110, 3138-3147.	3.0	44
204	Reduction of CoMoO4 and NiMoO4: in situ Time-Resolved XRD Studies. Catalysis Letters, 2002, 82, 103-109.	2.6	44
205	CeO₂ â†" CuO_{<i>x</i>} Interactions and the Controlled Assembly of CeO₂(111) and CeO₂(100) Nanoparticles on an Oxidized Cu(111) Substrate. Journal of Physical Chemistry C, 2011, 115, 23062-23066.	3.1	44
206	Reaction of S2 and H2S with Sn/Pt(111) surface alloys: Effects of metalâ€"metal bonding on reactivity towards sulfur. Journal of Chemical Physics, 1998, 109, 4052-4062.	3.0	43
207	Cu Deposited on CeOx-Modified TiO₂(110): Synergistic Effects at the Metalâ€"Oxide Interface and the Mechanism of the WGS Reaction. ACS Catalysis, 2016, 6, 4608-4615.	11.2	43
208	XANES Characterization of Extremely Nanosized Metal-Carbonyl Subspecies (Me = Cr, Mn, Fe, and Co) Confined into the Mesopores of MCM-41 Materials. Journal of Physical Chemistry B, 2004, 108, 20005-20010.	2.6	42
209	Electron donorâ€"electron acceptor interactions in surface metalâ€"metal bonds: The Cu/Re(0001) and Pd/Re(0001) systems. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1992, 10, 2540-2545.	2.1	41
210	Title is missing!. Catalysis Letters, 1998, 51, 85-93.	2.6	41
211	Formation of Mo and MoSx nanoparticles on Au(111) from Mo(CO)6 and S2 precursors: electronic and chemical properties. Surface Science, 2001, 490, 315-326.	1.9	41
212	DeNOxReactions on MgO(100), ZnxMg1-xO(100), CrxMg1-xO(100), and Cr2O3(0001):Â Correlation between Electronic and Chemical Properties of Mixed-Metal Oxides. Journal of Physical Chemistry B, 2001, 105, 5497-5505.	2.6	41
213	Adsorption of Methanethiol on Stoichiometric and Defective TiO2(110) Surfaces:Â A Combined Experimental and Theoretical Study. Journal of Physical Chemistry B, 2002, 106, 9883-9891.	2.6	41
214	Interfaces in heterogeneous catalytic reactions: Ambient pressure XPS as a tool to unravel surface chemistry. Journal of Electron Spectroscopy and Related Phenomena, 2017, 221, 28-43.	1.7	41
215	Selective Methane Oxidation to Methanol on ZnO/Cu₂O/Cu(111) Catalysts: Multiple Site-Dependent Behaviors. Journal of the American Chemical Society, 2021, 143, 19018-19032.	13.7	41
216	Fundamental studies of desulfurization processes: reaction of methanethiol on ZnO and Cs/ZnO. Surface Science, 2001, 479, 155-168.	1.9	40

#	ARTICLE	IF	CITATIONS
217	A Novel Growth Mode of Mo on Au (111) from a Mo(CO)6Precursor:Â An STM Study. Journal of Physical Chemistry B, 2003, 107, 1036-1043.	2.6	40
218	Electronic and chemical properties of mixed-metal oxides: Adsorption and reaction of NO on SrTiO3(100). Journal of Chemical Physics, 2003, 118, 6562-6571.	3.0	39
219	Adsorption and Reaction of SO2on Model Ce1Â-ÂxZrxO2(111) Catalysts. Journal of Physical Chemistry B, 2004, 108, 2931-2938.	2.6	39
220	Hydrogenation Reactions on Au/TiC(001): Effects of Auï£¿C Interactions on the Dissociation of H₂. ChemCatChem, 2010, 2, 1219-1222.	3.7	39
221	Highly active Au/Î´-MoC and Au/Î²-Mo₂C catalysts for the low-temperature water gas shift reaction: effects of the carbide metal/carbon ratio on the catalyst performance. Catalysis Science and Technology, 2017, 7, 5332-5342.	4.1	39
222	Deciphering Dynamic Structural and Mechanistic Complexity in Cu/CeO₂/ZSM-5 Catalysts for the Reverse Water-Gas Shift Reaction. ACS Catalysis, 2020, 10, 10216-10228.	11.2	39
223	Reaction Pathway for Coke-Free Methane Steam Reforming on a Ni/CeO₂ Catalyst: Active Sites and the Role of Metalâ€“Support Interactions. ACS Catalysis, 2021, 11, 8327-8337.	11.2	39
224	Metalâ€“Support Interactions and C1 Chemistry: Transforming Pt-CeO₂ into a Highly Active and Stable Catalyst for the Conversion of Carbon Dioxide and Methane. ACS Catalysis, 2021, 11, 1613-1623.	11.2	39
225	Electronic interactions in bimetallic systems: Coreâ€level binding energy shifts. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1991, 9, 1698-1702.	2.1	38
226	Chemistry of SO2 and NO2 on ZnO(0001)-Zn and ZnO powders: changes in reactivity with surface structure and composition. Journal of Molecular Catalysis A, 2001, 167, 47-57.	4.8	38
227	Nanopattering in CeO_{<i>x</i>}/Cu(111): A New Type of Surface Reconstruction and Enhancement of Catalytic Activity. Journal of Physical Chemistry Letters, 2012, 3, 839-843.	4.6	38
228	Elucidating the interaction between Ni and CeOx in ethanol steam reforming catalysts: A perspective of recent studies over model and powder systems. Applied Catalysis B: Environmental, 2016, 197, 184-197.	20.2	38
229	Waterâ€“Gas Shift Reaction on K/Cu(111) and Cu/K/TiO₂(110) Surfaces: Alkali Promotion of Water Dissociation and Production of H₂. ACS Catalysis, 2019, 9, 10751-10760.	11.2	38
230	Electronic and chemical properties of mixed-metal oxides: basic principles for the design of DeNOx and DeSOx catalysts. Catalysis Today, 2003, 85, 177-192.	4.4	37
231	Interaction of CO, O, and S with metal nanoparticles on Au(111): A theoretical study. Physical Review B, 2003, 67, .	3.2	37
232	Theoretical Studies of Manganese and Iron Superoxide Dismutases:Â Superoxide Binding and Superoxide Oxidation. Journal of Physical Chemistry B, 2005, 109, 24502-24509.	2.6	37
233	Sequential transformations in assemblies based on octamolybdate clusters and 1,2-bis(4-pyridyl)ethane. New Journal of Chemistry, 2007, 31, 33-38.	2.8	37
234	Ceria-based Catalysts for the Production of H2 Through the Water-gas-shift Reaction: Time-resolved XRD and XAFS Studies. Topics in Catalysis, 2008, 49, 81-88.	2.8	37

#	Article	IF	Citations
235	Novel Auâ€“TiC catalysts for CO oxidation and desulfurization processes. Catalysis Today, 2011, 166, 2-9.	4.4	37
236	Mechanistic Insights of Ethanol Steam Reforming over Niâ€“CeO_{<i>x</i>}(111): The Importance of Hydroxyl Groups for Suppressing Coke Formation. Journal of Physical Chemistry C, 2015, 119, 18248-18256.	3.1	37
237	Response to Comment on â€œActive sites for CO ₂ hydrogenation to methanol on Cu/ZnO catalystsâ€. Science, 2017, 357, .	12.6	37
238	Chemistry of SO2 on Mo(110), MoO2/Mo(110) and Cs/Mo(110) surfaces: effects of O and Cs on the formation of SO3 and SO4 species. Surface Science, 1999, 426, 319-335.	1.9	36
239	Reaction of S2 with NM/Mo(110) (NM = Cu or Ag) Surfaces: Poisoning of Bimetallic Bonding and Noble-Metal-Promoted Sulfidation of Mo. The Journal of Physical Chemistry, 1995, 99, 9567-9575.	2.9	35
240	Interaction of Sulfur with Au/Pt(111) and Ag/Pt(111) Surfaces:Â Photoemission Studies. The Journal of Physical Chemistry, 1996, 100, 15494-15502.	2.9	35
241	Dry Reforming of Methane on a Highlyâ€Active Niâ€CeO₂ Catalyst: Effects of Metalâ€Support Interactions on Câˆ’H Bond Breaking. Angewandte Chemie, 2016, 128, 7581-7585.	2.0	35
242	Metalâ€“metal bonding on surfaces: Znâ€“Au on Ru(001). Journal of Chemical Physics, 1992, 97, 9427-9439.	3.0	34
243	In situ characterization of Ptcatalysts supported on ceria modified TiO2 for the WGS reaction: influence of ceria loading. Physical Chemistry Chemical Physics, 2012, 14, 2192-2202.	2.8	34
244	Assisted deprotonation of formic acid on Cu(111) and self-assembly of 1D chains. Physical Chemistry Chemical Physics, 2013, 15, 12291.	2.8	34
245	Ethanol Photoreaction on RuO_{<i>x</i>}/Ru-Modified TiO₂(110). Journal of Physical Chemistry C, 2013, 117, 11149-11158.	3.1	34
246	Improving the CO-PROX Performance of Inverse CeO₂/CuO Catalysts: Doping of the CuO Component with Zn. Journal of Physical Chemistry C, 2014, 118, 9030-9041.	3.1	34
247	Unraveling the Nature of the Oxideâ€“Metal Interaction in Ceria-Based Noble Metal Inverse Catalysts. Journal of Physical Chemistry C, 2014, 118, 26931-26938.	3.1	33
248	The structural and electronic properties of nanostructured Ce1âˆ’xâˆ’yZrxTbyO2 ternary oxides: Unusual concentration of Tb3+ and metalâ†”oxygenâ†”metal interactions. Journal of Chemical Physics, 2005, 122, 154711.	3.0	32
249	In-situ characterization of waterâ€“gas shift catalysts using time-resolved X-ray diffraction. Catalysis Today, 2009, 145, 188-194.	4.4	32
250	In situ characterization of iron-promoted ceriaâ€“alumina gold catalysts during the water-gas shift reaction. Catalysis Today, 2013, 205, 41-48.	4.4	32
251	Inverse Catalysts for CO Oxidation: Enhanced Oxideâ€“Metal Interactions in MgO/Au(111), CeO₂/Au(111), and TiO₂/Au(111). ACS Sustainable Chemistry and Engineering, 2017, 5, 10783-10791.	6.7	32
252	Preparation and Structural Characterization of RuS2Nanoislands on Au(111). Journal of the American Chemical Society, 2004, 126, 8886-8887.	13.7	31

#	Article	IF	Citations
253	InÂsitu time-resolved characterization of novel Cuâ€“MoO2 catalysts during the waterâ€“gas shift reaction. Catalysis Letters, 2007, 113, 1-6.	2.6	31
254	On the dissociation of molecular hydrogen by Au supported on transition metal carbides: choice of the most active support. Physical Chemistry Chemical Physics, 2011, 13, 6865.	2.8	31
255	Au and Pt Remain Unoxidized on a CeO₂-Based Catalyst during the Waterâ€“Gas Shift Reaction. Journal of the American Chemical Society, 2022, 144, 446-453.	13.7	31
256	Interaction of sulfur dioxide with titaniumâ€“carbide nanoparticles and surfaces: A density functional study. Journal of Chemical Physics, 2003, 119, 10895-10903.	3.0	30
257	Adsorption of sulfur onTiC(001):â€ƒPhotoemission and first-principles studies. Physical Review B, 2004, 69, .	3.2	30
258	Destruction of SO₂on Au and Cu Nanoparticles Dispersed on MgO(100) and CeO₂(111). Journal of Physical Chemistry A, 2010, 114, 3802-3810.	2.5	30
259	Au and Pt nanoparticle supported catalysts tailored for H2 production: From models to powder catalysts. Applied Catalysis A: General, 2016, 518, 18-47.	4.3	30
260	Kinetic Monte Carlo Simulations Unveil Synergic Effects at Work on Bifunctional Catalysts. ACS Catalysis, 2019, 9, 9117-9126.	11.2	30
261	CO, CO2, and H2 Interactions with (0001) and (001) Tungsten Carbide Surfaces: Importance of Carbon and Metal Sites. Journal of Physical Chemistry C, 2019, 123, 8871-8883.	3.1	30
262	Repulsive Interactions between Au and S on Mo(110) and Rh(111):Â An Experimental and Theoretical Study. The Journal of Physical Chemistry, 1996, 100, 3799-3808.	2.9	29
263	A Prelude to Surface Chemical Reaction:â€‰ Imaging the Induction Period of Sulfur Interaction with a Strained Cu Layer. Journal of Physical Chemistry B, 1999, 103, 10557-10561.	2.6	29
264	Computational Study of the Geometry and Properties of the Metcars Ti8C12and Mo8C12. Journal of Physical Chemistry A, 2003, 107, 9344-9356.	2.5	29
265	Supported Molybdenum Carbide Nanoparticles as an Excellent Catalyst for CO₂ Hydrogenation. ACS Catalysis, 2021, 11, 9679-9687.	11.2	29
266	Effect of operating parameters on H2/CO2 conversion to methanol over Cu-Zn oxide supported on ZrO2 polymorph catalysts: Characterization and kinetics. Chemical Engineering Journal, 2022, 427, 130947.	12.7	29
267	Chemistry of SO2 on Ru(001): formation of SO3 and SO4. Surface Science, 1998, 418, 8-21.	1.9	28
268	The Ti8C12Metcar:Â A New Model Catalyst for Hydrodesulfurization. Journal of Physical Chemistry B, 2004, 108, 18796-18798.	2.6	28
269	Effect of the Support on the Electronic Structure of Au Nanoparticles Supported on Transition Metal Carbides: Choice of the Best Substrate for Au Activation. Journal of Physical Chemistry C, 2009, 113, 19994-20001.	3.1	28
270	Interaction of SO2 with Cu/TiC(001) and Au/TiC(001): Toward a new family of DeSOx catalysts. Journal of Catalysis, 2011, 279, 352-360.	6.2	28

#	ARTICLE	IF	CITATIONS
271	New In-Situ and Operando Facilities for Catalysis Science at NSLS-II: The Deployment of Real-Time, Chemical, and Structure-Sensitive X-ray Probes. Synchrotron Radiation News, 2017, 30, 30-37.	0.8	28
272	Highly active Pt/MoC and Pt/TiC catalysts for the low-temperature water-gas shift reaction: Effects of the carbide metal/carbon ratio on the catalyst performance. Catalysis Today, 2017, 289, 47-52.	4.4	28
273	<i>In Situ</i> Characterization of Mesoporous Co/CeO₂ Catalysts for the High-Temperature Water-Gas Shift. Journal of Physical Chemistry C, 2018, 122, 8998-9008.	3.1	28
274	Conversion of CO₂ on a highly active and stable Cu/FeO_x/CeO₂ catalyst: tuning catalytic performance by oxide-oxide interactions. Catalysis Science and Technology, 2019, 9, 3735-3742.	4.1	28
275	Desulfurization Reactions on Surfaces of Metal Carbides: Photoemission and Densityâ€“Functional Studies. Topics in Catalysis, 2010, 53, 393-402.	2.8	27
276	The behavior of inverse oxide/metal catalysts: CO oxidation and water-gas shift reactions over ZnO/Cu(111) surfaces. Surface Science, 2019, 681, 116-121.	1.9	27
277	Breaking Simple Scaling Relations through Metalâ€“Oxide Interactions: Understanding Room-Temperature Activation of Methane on M/CeO₂ (M = Pt, Ni, or Co) Interfaces. Journal of Physical Chemistry Letters, 2020, 11, 9131-9137.	4.6	27
278	Active gold-ceria and gold-ceria/titania catalysts for CO oxidation: From single-crystal model catalysts to powder catalysts. Catalysis Today, 2015, 240, 229-235.	4.4	26
279	Reaction of SO2with Cesium and Cesium-Promoted ZnO and MoO2. Journal of Physical Chemistry B, 1999, 103, 1966-1976.	2.6	25
280	Reaction of CuO with hydrogen studied by using synchrotron-based x-ray diffraction. Journal of Physics Condensed Matter, 2004, 16, S3479-S3484.	1.8	25
281	Photoemission study of glycine adsorption on Cu/Au(111) interfaces. Surface Science, 2006, 600, 2113-2121.	1.9	25
282	Theoretical Analysis of the Adsorption of Late Transition-Metal Atoms on the (001) Surface of Early Transition-Metal Carbides. Journal of Physical Chemistry C, 2010, 114, 1622-1626.	3.1	25
283	Special Chemical Properties of RuO_{<i>x</i>} Nanowires in RuO_{<i>x</i>}/TiO₂(110): Dissociation of Water and Hydrogen Production. Journal of Physical Chemistry C, 2012, 116, 4767-4773.	3.1	25
284	Structure and electronic properties of Cu nanoclusters supported on Mo2C(001) and MoC(001) surfaces. Journal of Chemical Physics, 2015, 143, 114704.	3.0	25
285	Cu supported on mesoporous ceria: water gas shift activity at low Cu loadings through metalâ€“support interactions. Physical Chemistry Chemical Physics, 2017, 19, 17708-17717.	2.8	25
286	The adsorption of sulfur on Rh(111) and Cu/Rh(111) surfaces. Journal of Chemical Physics, 1998, 108, 3064-3073.	3.0	24
287	STM and XPS Study of Growth of Ce on Au(111). Journal of Physical Chemistry C, 2007, 111, 3685-3691.	3.1	24
288	Gas-phase Interaction of Thiophene with the Ti8C12+and Ti8C12Met-Car Clusters. Journal of Physical Chemistry B, 2006, 110, 7449-7455.	2.6	23

#	Article	IF	Citations
289	Tungsten as an interface agent leading to highly active and stable copperâ€“ceria water gas shift catalyst. Applied Catalysis B: Environmental, 2013, 132-133, 423-432.	20.2	23
290	Enhanced, robust light-driven H₂ generation by gallium-doped titania nanoparticles. Physical Chemistry Chemical Physics, 2018, 20, 2104-2112.	2.8	23
291	Nucleation and Initial Stages of Growth during the Atomic Layer Deposition of Titanium Oxide on Mesoporous Silica. Nano Letters, 2020, 20, 6884-6890.	9.1	23
292	Studies of CO₂ hydrogenation over cobalt/ceria catalysts with <i>in situ</i> characterization: the effect of cobalt loading and metalâ€“support interactions on the catalytic activity. Catalysis Science and Technology, 2020, 10, 6468-6482.	4.1	23
293	Synthesis, electronic and chemical properties of MoOx clusters on Au(111). Surface Science, 2002, 512, L353-L360.	1.9	22
294	The deposition of Mo nanoparticles on Au(111) from a Mo(CO)6 precursor: effects of CO on Moâ€“Au intermixing. Surface Science, 2003, 530, L313-L321.	1.9	22
295	The chemical activity of metal compound nanoparticles: Importance of electronic and steric effects in M8C12 (M=Ti, V, Mo) metcars. Journal of Chemical Physics, 2004, 121, 10321-10324.	3.0	22
296	In situ time-resolved X-ray diffraction study of the synthesis of Mo₂C with different carburization agents. Canadian Journal of Chemistry, 2013, 91, 573-582.	1.1	22
297	The Unique Properties of the Oxide-Metal Interface: Reaction of Ethanol on an Inverse Model CeO_{<i>x</i>}â€“Au(111) Catalyst. Journal of Physical Chemistry C, 2014, 118, 25057-25064.	3.1	22
298	Acetylene and Ethylene Adsorption on a Î²-Mo₂C(100) Surface: A Periodic DFT Study on the Role of C- and Mo-Terminations for Bonding and Hydrogenation Reactions. Journal of Physical Chemistry C, 2017, 121, 19786-19795.	3.1	22
299	High Activity of Au/K/TiO₂(110) for CO Oxidation: Alkali-Metal-Enhanced Dispersion of Au and Bonding of CO. Journal of Physical Chemistry C, 2018, 122, 4324-4330.	3.1	22
300	Growth, Structure, and Catalytic Properties of ZnO<i>_x</i> Grown on CuO<i>_x</i>/Cu(111) Surfaces. Journal of Physical Chemistry C, 2018, 122, 26554-26562.	3.1	22
301	Combining Theory and Experiment for Multitechnique Characterization of Activated CO₂ on Transition Metal Carbide (001) Surfaces. Journal of Physical Chemistry C, 2019, 123, 7567-7576.	3.1	22
302	Critical Hydrogen Coverage Effect on the Hydrogenation of Ethylene Catalyzed by Î´-MoC(001): An Ab Initio Thermodynamic and Kinetic Study. ACS Catalysis, 2020, 10, 6213-6222.	11.2	21
303	Understanding Methanol Synthesis on Inverse ZnO/CuO_{<i>x</i>}/Cu Catalysts: Stability of CH₃O Species and Dynamic Nature of the Surface. Journal of Physical Chemistry C, 2021, 125, 6673-6683.	3.1	21
304	The interaction of sulfur with Cu/Pt(111) and Zn/Pt(111) surfaces: copper-promoted sulfidation of platinum. Catalysis Letters, 1995, 32, 345-355.	2.6	20
305	Potassium-Promoted Reduction of Cu₂O/Cu(111) by CO. Journal of Physical Chemistry C, 2019, 123, 8057-8066.	3.1	20
306	The decomposition and chemistry of Ru3(CO)12 on TiO2(110) studied with X-ray photoelectron spectroscopy and temperature programmed desorption. Surface Science, 2005, 575, 115-124.	1.9	19

#	Article	IF	Citations
307	Characterization of NOx species in dehydrated and hydrated Na- and Ba-Y, FAU zeolites formed in NO2 adsorption. Journal of Electron Spectroscopy and Related Phenomena, 2006, 150, 164-170.	1.7	19
308	Systematic Theoretical Study of Ethylene Adsorption on Î´-MoC(001), TiC(001), and ZrC(001) Surfaces. Journal of Physical Chemistry C, 2016, 120, 13531-13540.	3.1	19
309	Chemical Activity of Iron in [2Fe-2S]-Protein Centers and FeS2(100) Surfaces. Journal of Physical Chemistry B, 2005, 109, 2754-2762.	2.6	18
310	In Situ Time-Resolved Characterization of Niâˆ’MoO₂ Catalysts for the Waterâˆ’Gas Shift Reaction. Journal of Physical Chemistry C, 2008, 112, 2121-2128.	3.1	18
311	Structure and special chemical reactivity of interface-stabilized cerium oxide nanolayers on TiO₂(110). Nanoscale, 2014, 6, 800-810.	5.6	18
312	Boosting the activity of transition metal carbides towards methane activation by nanostructuring. Physical Chemistry Chemical Physics, 2020, 22, 7110-7118.	2.8	18
313	<i>In Situ</i> Studies of Methanol Decomposition Over Cu(111) and Cu₂O/Cu(111): Effects of Reactant Pressure, Surface Morphology, and Hot Spots of Active Sites. Journal of Physical Chemistry C, 2021, 125, 558-571.	3.1	18
314	Adsorption and diffusion of Au atoms on the (001) surface of Ti, Zr, Hf, V, Nb, Ta, and Mo carbides. Journal of Chemical Physics, 2009, 130, 244706.	3.0	17
315	Theoretical Study of the Interaction of CO on TiC(001) and Au Nanoparticles Supported on TiC(001): Probing the Nature of the Au/TiC Interface. Journal of Physical Chemistry C, 2011, 115, 22495-22504.	3.1	17
316	Exploring the activity of a novel Au/TiC(001) model catalyst towards CO and CO2 hydrogenation. Surface Science, 2015, 640, 141-149.	1.9	17
317	Importance of Low Dimensional CeOx Nanostructures in Pt/CeOxâ€“TiO2 Catalysts for the Waterâ€“Gas Shift Reaction. Journal of Physical Chemistry C, 2017, 121, 6635-6642.	3.1	17
318	Diversity of Adsorbed Hydrogen on the TiC(001) Surface at High Coverages. Journal of Physical Chemistry C, 2018, 122, 28013-28020.	3.1	17
319	A comparison of the reaction of S2 with metallic copper, Cu2O and Cu/ZnO: electronic properties and reactivity of copper. Surface Science, 1998, 415, L1065-L1073.	1.9	16
320	Characterization of Metal-Oxide Catalysts in Operando Conditions by Combining X-ray Absorption and Raman Spectroscopies in the Same Experiment. Topics in Catalysis, 2013, 56, 896-904.	2.8	16
321	Unraveling the Hydrogenation of TiO₂ and Graphene Oxide/TiO₂ Composites in Real Time by in Situ Synchrotron X-ray Powder Diffraction and Pair Distribution Function Analysis. Journal of Physical Chemistry C, 2016, 120, 3472-3482.	3.1	16
322	Structure and Chemical State of Cesium on Well-Defined Cu(111) and Cu₂O/Cu(111) Surfaces. Journal of Physical Chemistry C, 2020, 124, 3107-3121.	3.1	16
323	Promoting effect of tungsten carbide on the catalytic activity of Cu for CO₂ reduction. Physical Chemistry Chemical Physics, 2020, 22, 13666-13679.	2.8	16
324	CO₂ Hydrogenation on ZrO₂/Cu(111) Surfaces: Production of Methane and Methanol. Industrial & Engineering Chemistry Research, 2021, 60, 18900-18906.	3.7	16

#	Article	IF	Citations
325	Intermediates Arising from the Waterâ€“Gas Shift Reaction over Cu Surfaces: From UHV to Near Atmospheric Pressures. Topics in Catalysis, 2015, 58, 271-280.	2.8	15
326	Elucidation of Active Sites for the Reaction of Ethanol on TiO₂/Au(111). Journal of Physical Chemistry C, 2017, 121, 7794-7802.	3.1	15
327	Reaction of Methane with MO<i>_x</i>/CeO₂ (M = Fe, Ni, and Cu) Catalysts: In Situ Studies with Time-Resolved X-ray Diffraction. Journal of Physical Chemistry C, 2018, 122, 28739-28747.	3.1	15
328	Assessing the Activity of Ni Clusters Supported on TiC(001) toward CO₂ and H₂ Dissociation. Journal of Physical Chemistry C, 2021, 125, 12019-12027.	3.1	15
329	Chemistry of NO2and SO2on Ice Layers and H2O/Zn Interfaces:Â Photoemission Studies on the Formation of Acid Water and Metal Corrosion. Langmuir, 2000, 16, 10287-10293.	3.5	14
330	Potassium and Water Coadsorption on TiO₂(110): OH-Induced Anchoring of Potassium and the Generation of Single-Site Catalysts. Journal of Physical Chemistry Letters, 2016, 7, 3866-3872.	4.6	14
331	Location and chemical speciation of Cu in ZSM-5 during the water-gas shift reaction. Catalysis Today, 2019, 323, 216-224.	4.4	14
332	Photoemission studies of zincâ€noble metal alloys: Znâ€“Cu, Znâ€“Ag, and Znâ€“Au films on Ru(001). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1993, 11, 1998-2002.	2.1	13
333	Adsorption of sulfur on bimetallic surfaces: Formation of copper sulfides on Pt(111) and Ru(001). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1995, 13, 1569-1573.	2.1	13
334	Thermal Stability of Ultrathin Cr Films on Pt(111). Journal of Physical Chemistry B, 1997, 101, 4588-4596.	2.6	13
335	Adsorption of Sulfur on Ag/Al2O3 and Zn/Al2O3 Surfaces:â€‰ Thermal Desorption, Photoemission, and Molecular Orbital Studies. Journal of Physical Chemistry B, 1997, 101, 3187-3195.	2.6	13
336	New Insights into the Structure of the C-Terminated Î²-Mo₂C (001) Surface from First-Principles Calculations. Journal of Physical Chemistry C, 2014, 118, 19224-19231.	3.1	13
337	Waterâ€Gasâ€Shift over Metalâ€Free Nanocrystalline Ceria: An Experimental and Theoretical Study. ChemCatChem, 2017, 9, 1373-1377.	3.7	13
338	Acetylene adsorption on Î´-MoC(001), TiC(001) and ZrC(001) surfaces: a comprehensive periodic DFT study. Physical Chemistry Chemical Physics, 2017, 19, 1571-1579.	2.8	13
339	Catalysts for the Steam Reforming of Ethanol and Other Alcohols. , 2019, , 133-158.		13
340	Sulfur Adsorption and Reaction with a TiO2(110) Surface: Oâ†”S Exchange and Sulfide Formation. Collection of Czechoslovak Chemical Communications, 2001, 66, 1149-1163.	1.0	12
341	Preparation and Structural Characterization of ZrO₂/CuO<i>_x</i>/Cu(111) Inverse Model Catalysts. Journal of Physical Chemistry C, 2020, 124, 10502-10508.	3.1	12
342	Synthesis of Metal-Oxide Nanoparticles: Liquid-Solid Transformations. , 2006, , 81-117.		11

#	Article	IF	Citations
343	How to stabilize highly active Cu+ cations in a mixed-oxide catalyst. Catalysis Today, 2016, 263, 4-10.	4.4	11
344	Modulation of the Effective Metalâ€Support Interactions for the Selectivity of Ceria Supported Noble Metal Nanoclusters in Atmospheric CO₂ Hydrogenation. ChemCatChem, 2021, 13, 874-881.	3.7	11
345	Supported Molybdenum Carbide Nanoparticles as Hot Hydrogen Reservoirs for Catalytic Applications. Journal of Physical Chemistry Letters, 2020, 11, 8437-8441.	4.6	11
346	Structural and chemical state of doped and impregnated mesoporous Ni/CeO2 catalysts for the water-gas shift. Applied Catalysis A: General, 2018, 567, 1-11.	4.3	10
347	Activation of Gold on Metal Carbides: Novel Catalysts for C1 Chemistry. Frontiers in Chemistry, 2020, 7, 875.	3.6	10
348	Optimized Microwave-Based Synthesis of Thermally Stable Inverse Catalytic Coreâ€“shell Motifs for CO2 Hydrogenation. ACS Applied Materials & Interfaces, 2020, 12, 32591-32603.	8.0	10
349	Surface characterization and methane activation on SnO_{<i>x</i>}/Cu₂O/Cu(111) inverse oxide/metal catalysts. Physical Chemistry Chemical Physics, 2021, 23, 17186-17196.	2.8	10
350	Spot the difference: hydrogen adsorption and dissociation on unsupported platinum and platinum-coated transition metal carbides. Physical Chemistry Chemical Physics, 2021, 23, 20255-20267.	2.8	10
351	Interaction of sulfur and bimetallic surfaces: Feâ€promoted sulfidation of Mo(110). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1996, 14, 1609-1613.	2.1	9
352	Pulse Studies to Decipher the Role of Surface Morphology in CuO/CeO2 Nanocatalysts for the Water Gas Shift Reaction. Catalysis Letters, 2015, 145, 808-815.	2.6	9
353	Inâ€…Situ Investigation of Methane Dry Reforming on Metal/Ceria(111) Surfaces: Metalâ€“Support Interactions and Câˆ'H Bond Activation at Low Temperature. Angewandte Chemie, 2017, 129, 13221-13226.	2.0	9
354	Imaging the ordering of a weakly adsorbed two-dimensional condensate: ambient-pressure microscopy and spectroscopy of CO₂ molecules on rutile TiO₂(110). Physical Chemistry Chemical Physics, 2018, 20, 13122-13126.	2.8	9
355	Binding and activation of ethylene on tungsten carbide and platinum surfaces. Physical Chemistry Chemical Physics, 2019, 21, 17332-17342.	2.8	9
356	Not all platinum surfaces are the same: Effect of the support on fundamental properties of platinum adlayer and its implications for the activity toward hydrogen evolution reaction. Electrochimica Acta, 2021, 368, 137598.	5.2	9
357	Nanostructured Oxides in Photo-Catalysis. , 2006, , 491-562.		8
358	Hydroxylation of ZnO/Cu(1â€‰1â€‰1) inverse catalysts under ambient water vapor and the waterâ€“gas shift reaction. Journal Physics D: Applied Physics, 2019, 52, 454001.	2.8	8
359	Understanding the Photocatalytic Properties of Pt/CeO_{<i>x</i>}/TiO₂: Structural Effects on Electronic and Optical Properties. ChemPhysChem, 2019, 20, 1624-1629.	2.1	8
360	Structural, electronic, and magnetic properties of Ni nanoparticles supported on the TiC(001) surface. Physical Chemistry Chemical Physics, 2020, 22, 26145-26154.	2.8	8

#	Article	IF	Citations
361	Morphology and chemical behavior of model CsOx/Cu2O/Cu(111) nanocatalysts for methanol synthesis: Reaction with CO2 and H2. Journal of Chemical Physics, 2020, 152, 044701.	3.0	8
362	In Situ Studies of Methane Activation Using Synchrotron-Based Techniques: Guiding the Conversion of Câ€"H Bonds. ACS Catalysis, 2022, 12, 5470-5488.	11.2	8
363	Interactions between sulfur and platinum in bimetallic surfaces: Reaction of S2 with Ptâ€"Al alloys. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1997, 15, 1608-1612.	2.1	7
364	Characterization of oxide catalysts using time-resolved XRD and XANES: Properties of pure and sulfided CoMoO4 and NiMoO4. Studies in Surface Science and Catalysis, 2000, , 2795-2800.	1.5	7
365	Pushing Cu uphill of the volcano curve: Impact of a WC support on the catalytic activity of copper toward the hydrogen evolution reaction. International Journal of Hydrogen Energy, 2021, 46, 25092-25102.	7.1	7
366	Microwave-Assisted Synthesis of Cu@IrO₂ Core-Shell Nanowires for Low-Temperature Methane Conversion. ACS Applied Nano Materials, 2021, 4, 11145-11158.	5.0	7
367	Effect of nanostructuring on the activation of CO₂ on molybdenum carbide nanoparticles. Physical Chemistry Chemical Physics, 0, , .	2.8	7
368	Technologies for control of sulfur and nitrogen compounds and particulates in coal combustion and gasification. , 2019, , 141-173.		6
369	Growth and structural studies of In/Au(111) alloys and InOx/Au(111) inverse oxide/metal model catalysts. Journal of Chemical Physics, 2020, 152, 054702.	3.0	6
370	A theoretical catalytic mechanism for methanol reforming in CeO2 vs Ni/CeO2 by energy transition states profiles. Catalysis Today, 2022, 392-393, 146-153.	4.4	6
371	Lithium-Ion Battery Materials as Tunable, â€œRedox Non-Innocentâ€•Catalyst Supports. ACS Catalysis, 0, , 7233-7242.	11.2	6
372	Tuning Selectivity in the Direct Conversion of Methane to Methanol: Bimetallic Synergistic Effects on the Cleavage of Câ€"H and Oâ€"H Bonds over NiCu/CeO₂ Catalysts. Journal of Physical Chemistry Letters, 2022, 13, 5589-5596.	4.6	6
373	Synthesis of boron nitride ultrathin films: The bonding and chemistry of ammonia and hydrazine on Ru(0001) and B/Ru(0001) surfaces. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1992, 10, 955-959.	2.1	5
374	Theory of Size, Confinement, and Oxidation Effects. , 2006, , 7-47.		5
375	Preface: 5th San Luis Pan-American Conference on Surfaces, Interfaces and Catalysis. Topics in Catalysis, 2011, 54, 1-3.	2.8	5
376	When reconstruction comes around: Ni, Cu, and Au adatoms on Î´-MoC(001). Surface Science, 2014, 624, 32-36.	1.9	5
377	Size and Stoichiometry Effects on the Reactivity of MoC_{<i>y</i>} Nanoparticles toward Ethylene. Journal of Physical Chemistry C, 2021, 125, 6287-6297.	3.1	5
378	Adsorption and activation of CO2 on Pt/CeOx/TiO2(110): Role of the Pt-CeOx interface. Surface Science, 2021, 710, 121852.	1.9	5

#	Article	IF	Citations
379	Understanding the Surface Structure and Catalytic Activity of SnO_{<i>x</i>}/Au(111) Inverse Catalysts for CO₂ and H₂ Activation. Journal of Physical Chemistry C, 2022, 126, 4862-4870.	3.1	5
380	Electronic and chemical interactions between boron and carbon monoxide on Ru(0001). Journal of Chemical Physics, 1992, 96, 740-747.	3.0	4
381	Gas Sensors. , 2006, , 411-450.		4
382	Frontiers in Catalysis and Energy Science. ChemCatChem, 2011, 3, 1661-1662.	3.7	4
383	Chemical properties of Zn on Ru(001): Coadsorption with Cs, O, Cu, and Au. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1994, 12, 2153-2158.	2.1	3
384	Experimental Investigations of the Interaction of SO2 with MgO. Materials Research Society Symposia Proceedings, 1999, 590, 189.	0.1	3
385	Activation of Gold Nanoparticles on Titania: A Novel DeSOx Catalyst. ACS Symposium Series, 2004, , 205-209.	0.5	3
386	Adsorbents. , 2006, , 381-410.		3
387	Photovoltaic, Photoelectronic, and Electrochemical Devices Based on Metal-Oxide Nanoparticles and Nanostructures. , 2006, , 451-490.		3
388	Introduction the World of Oxide Nanomaterials. , 2006, , 1-5.		3
389	Role of C and P Sites on the Chemical Activity of Metal Carbides and Phosphides: From Clusters to Single-Crystal Surfaces. , 2010, , 117-132.		3
390	Surface Science Studies of DeNOx Catalysts. , 2005, , 211-232.		3
391	Chemical Properties of Oxide Nanoparticles: Surface Adsorption Studies from Gas- and Liquid-Phase Environments. , 2006, , 335-351.		2
392	Transport Properties and Oxygen Handling. , 2006, , 353-377.		2
393	Virtual Special Issue on Catalysis at the U.S. Department of Energyâ€™s National Laboratories. ACS Catalysis, 2016, 6, 3227-3235.	11.2	2
394	Methane activation and conversion on well-defined metal-oxide Surfaces: <i>in situ</i> studies with synchrotron-based techniques. Catalysis, 2019, , 198-215.	1.0	2
395	Interaction of sulphur with bimetallic surfaces: Effects of structural, electronic and chemical properties. Chemical Physics of Solid Surfaces, 2002, 10, 466-494.	0.3	1
396	Synthesis of Metal-Oxide Nanoparticles: Gas-Solid Transformations. , 2006, , 119-134.		1

#	Article	IF	Citations
397	H2 Production and Fuel Cells. , 2006, , 651-681.		1
398	Frontispiece: Direct Epoxidation of Propylene over Stabilized Cu+Surface Sites on Titanium-Modified Cu2O. Angewandte Chemie - International Edition, 2015, 54, n/a-n/a.	13.8	1
399	Synchrotron Consortia for Catalysis and Electrocatalysis Research. Synchrotron Radiation News, 2020, 33, 2-3.	0.8	1
400	Investigating the Elusive Nature of Atomic O from CO₂ Dissociation on Pd(111): The Role of Surface Hydrogen. Journal of Physical Chemistry C, 2022, 126, 7870-7879.	3.1	1
401	Molecular Precursors to Boron Nitride then Films: the Reactions of Diborane with Ammonia and with Hydrazine on Ru(0001). Materials Research Society Symposia Proceedings, 1991, 250, 131.	0.1	0
402	Properties of Pure and Sulfided NiMoO4 and CoMoO4 Catalysts: Tpr, Xanes and Time-Resolved XRD Studdzs. Materials Research Society Symposia Proceedings, 1997, 497, 41.	0.1	0
403	Characterization of Mixed-Metal Oxides Using Synchrotron-Based Time-Resolved x-ray Diffraction and x-ray Absorption Spectroscopy. Materials Research Society Symposia Proceedings, 1999, 590, 113.	0.1	0
404	Parametric Quantum Methods in Modeling Metal Oxide Nanoclusters and Surfaces. , 2006, , 217-245.		0
405	Oxide Nanomaterials in Ceramics. , 2006, , 683-713.		0
406	On Aqueous Interfacial Thermodynamics and the Design of Metal-Oxide Nanostructures. , 2006, , 49-78.		0
407	Adsorption of Probe Molecules on Nanostructured Oxides. , 2006, , 311-334.		0
408	Oxide Nanomaterials for the Catalytic Combustion of Hydrocarbons. , 2006, , 563-601.		0
409	Chemistry of SO2 and DeSOx Processes on Oxide Nanoparticles. , 2006, , 633-650.		0
410	Techniques for the Study of the Electronic Properties. , 2006, , 165-183.		0
411	Post Hartree-Fock and Density Functional Theory Formalisms. , 2006, , 185-215.		0
412	Atomistic Models and Molecular Dynamics. , 2006, , 247-286.		0
413	Theoretical Aspects of Oxide Particle Stability and Chemical Reactivity. , 2006, , 289-309.		0
414	Nanostructured Oxides in DeNOx Technologies. , 2006, , 603-632.		0

#	Article	IF	Citations
415	Techniques for the Study of the Structural Properties. , 2006, , 137-164.		0
416	Supported Gold in CO Oxidation, the Water-Gas Shift, and DeSOx Reactions. Catalytic Science Series, 2011, , 217-245.	0.0	0
417	DESIGN AND MODELING OF ACTIVE SITES IN METALâ€"CERIA CATALYSTS FOR THE WATER GAS SHIFT REACTION AND RELATED CHEMICAL PROCESSES. Catalytic Science Series, 2013, , 465-495.	0.0	0
418	Gold-Based Catalysts for CO Oxidation, the Water-Gas Shift, and Desulfurization Processes. , 2013, , 1-20.		0
419	Frontispiz: Direct Epoxidation of Propylene over Stabilized Cu+Surface Sites on Titanium-Modified Cu2O. Angewandte Chemie, 2015, 127, n/a-n/a.	2.0	0
420	When ruthenia met titania: achieving extraordinary catalytic activity at low temperature by nanostructuring of oxides. Physical Chemistry Chemical Physics, 2015, 17, 26813-26818.	2.8	0
421	Template-free fabrication of fractal porous Y2O3 monolithic foam and its functional modification by Ni-doping. Science China Materials, 2020, 63, 1842-1847.	6.3	0
422	Infrared reflection absorption spectroscopy and temperature-programmed desorption studies of CO adsorption on Ni/CeO2(111) thin films: The role of the ceria support. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, 013209.	2.1	0