

Jose A Rodriguez

List of Publications by Year in descending order

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422
papers

33,782
citations

2538

96
h-index

5364

164
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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. <i>Science</i> , 2017, 355, 1296-1299.	6.0	1,180
2	Highly active copper-ceria and copper-ceria-titania catalysts for methanol synthesis from CO ₂ . <i>Science</i> , 2014, 345, 546-550.	6.0	1,114
3	Catalysts for Hydrogen Evolution from the [NiFe] Hydrogenase to the Ni ₂ P(001) Surface: The Importance of Ensemble Effect. <i>Journal of the American Chemical Society</i> , 2005, 127, 14871-14878.	6.6	1,029
4	Nanostructured Oxides in Chemistry: Characterization and Properties. <i>Chemical Reviews</i> , 2004, 104, 4063-4104.	23.0	909
5	Activity of CeO ₂ and TiO ₂ Nanoparticles Grown on Au(111) in the Water-Gas Shift Reaction. <i>Science</i> , 2007, 318, 1757-1760.	6.0	906
6	A New Type of Strong Metal-Support Interaction and the Production of H ₂ through the Transformation of Water on Pt/CeO ₂ (111) and Pt/CeO ₂ /TiO ₂ (110) Catalysts. <i>Journal of the American Chemical Society</i> , 2012, 134, 8968-8974.	6.6	682
7	Atomic-layered Au clusters on γ -MoC as catalysts for the low-temperature water-gas shift reaction. <i>Science</i> , 2017, 357, 389-393.	6.0	534
8	Reduction of CuO and Cu ₂ O with H ₂ : H Embedding and Kinetic Effects in the Formation of Suboxides. <i>Journal of the American Chemical Society</i> , 2003, 125, 10684-10692.	6.6	490
9	Water Gas Shift Reaction on Cu and Au Nanoparticles Supported on CeO ₂ (111) and ZnO(000): Intrinsic Activity and Importance of Support Interactions. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 1329-1332.	7.2	447
10	Fundamental studies of methanol synthesis from CO ₂ hydrogenation on Cu(111), Cu clusters, and Cu/ZnO(0001),. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 9909.	1.3	442
11	In Situ Studies of the Active Sites for the Water Gas Shift Reaction over Cu-CeO ₂ Catalysts: Complex Interaction between Metallic Copper and Oxygen Vacancies of Ceria. <i>Journal of Physical Chemistry B</i> , 2006, 110, 428-434.	1.2	415
12	Hydrogenation of CO ₂ to Methanol: Importance of Metal-Oxide and Metal-Carbide Interfaces in the Activation of CO ₂ . <i>ACS Catalysis</i> , 2015, 5, 6696-6706.	5.5	374
13	Reaction of NO ₂ with Zn and ZnO: Photoemission, XANES, and Density Functional Studies on the Formation of NO ₃ . <i>Journal of Physical Chemistry B</i> , 2000, 104, 319-328.	1.2	371
14	Experimental and Theoretical Studies on the Reaction of H ₂ with NiO: Role of O Vacancies and Mechanism for Oxide Reduction. <i>Journal of the American Chemical Society</i> , 2002, 124, 346-354.	6.6	322
15	Ceria-based model catalysts: fundamental studies on the importance of the metal-ceria interface in CO oxidation, the water-gas shift, CO ₂ hydrogenation, and methane and alcohol reforming. <i>Chemical Society Reviews</i> , 2017, 46, 1824-1841.	18.7	311
16	Desulfurization Reactions on Ni ₂ P(001) and γ -Mo ₂ C(001) Surfaces: Complex Role of P and C Sites. <i>Journal of Physical Chemistry B</i> , 2005, 109, 4575-4583.	1.2	290
17	Importance of the Metal-Oxide Interface in Catalysis: In Situ Studies of the Water-Gas Shift Reaction by Ambient-Pressure X-ray Photoelectron Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 5101-5105.	7.2	280
18	Inverse CeO ₂ /CuO Catalyst As an Alternative to Classical Direct Configurations for Preferential Oxidation of CO in Hydrogen-Rich Stream. <i>Journal of the American Chemical Society</i> , 2010, 132, 34-35.	6.6	278

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19	Dry Reforming of Methane on a Highly Active Ni/CeO ₂ Catalyst: Effects of Metal-Support Interactions on C-H Bond Breaking. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 7455-7459.	7.2	276
20	Interaction of Sulfur with Well-Defined Metal and Oxide Surfaces: Unraveling the Mysteries behind Catalyst Poisoning and Desulfurization. <i>Accounts of Chemical Research</i> , 1999, 32, 719-728.	7.6	265
21	Unusual Physical and Chemical Properties of Cu in Ce _{1-x} Cu _x O ₂ Oxides. <i>Journal of Physical Chemistry B</i> , 2005, 109, 19595-19603.	1.2	262
22	Water-Gas Shift Reaction on a Highly Active Inverse CeO ₂ /Cu(111) Catalyst: Unique Role of Ceria Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 8047-8050.	7.2	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. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 4975-4980.	3.3	257
24	Gold, Copper, and Platinum Nanoparticles Dispersed on CeO _x /TiO ₂ (110) Surfaces: High Water-Gas Shift Activity and the Nature of the Mixed-Metal Oxide at the Nanometer Level. <i>Journal of the American Chemical Society</i> , 2010, 132, 356-363.	6.6	247
25	Activation of Gold on Titania: Adsorption and Reaction of SO ₂ on Au/TiO ₂ (110). <i>Journal of the American Chemical Society</i> , 2002, 124, 5242-5250.	6.6	242
26	CO Oxidation on Inverse CeO _x /Cu(111) Catalysts: High Catalytic Activity and Ceria-Promoted Dissociation of O ₂ . <i>Journal of the American Chemical Society</i> , 2011, 133, 3444-3451.	6.6	241
27	Reduction of CuO in H ₂ : In Situ Time-Resolved XRD Studies. <i>Catalysis Letters</i> , 2003, 85, 247-254.	1.4	228
28	Chemistry of NO ₂ on Oxide Surfaces: Formation of NO ₃ on TiO ₂ (110) and NO ₂ +O Vacancy Interactions. <i>Journal of the American Chemical Society</i> , 2001, 123, 9597-9605.	6.6	226
29	High Water-Gas Shift Activity in TiO ₂ (110) Supported Cu and Au Nanoparticles: Role of the Oxide and Metal Particle Size. <i>Journal of Physical Chemistry C</i> , 2009, 113, 7364-7370.	1.5	223
30	Water-gas-shift reaction on metal nanoparticles and surfaces. <i>Journal of Chemical Physics</i> , 2007, 126, 164705.	1.2	216
31	CO ₂ hydrogenation on Au/TiC, Cu/TiC, and Ni/TiC catalysts: Production of CO, methanol, and methane. <i>Journal of Catalysis</i> , 2013, 307, 162-169.	3.1	214
32	Steam Reforming of Ethanol on Ni/CeO ₂ : Reaction Pathway and Interaction between Ni and the CeO ₂ Support. <i>ACS Catalysis</i> , 2013, 3, 975-984.	5.5	210
33	In Situ and Theoretical Studies for the Dissociation of Water on an Active Ni/CeO ₂ Catalyst: Importance of Strong Metal-Support Interactions for the Cleavage of O-H Bonds. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 3917-3921.	7.2	205
34	Water-Gas-Shift Reaction on Molybdenum Carbide Surfaces: Essential Role of the Oxycarbide. <i>Journal of Physical Chemistry B</i> , 2006, 110, 19418-19425.	1.2	202
35	Low Pressure CO ₂ Hydrogenation to Methanol over Gold Nanoparticles Activated on a CeO _x /TiO ₂ Interface. <i>Journal of the American Chemical Society</i> , 2015, 137, 10104-10107.	6.6	200
36	Properties of CeO ₂ and Ce _{1-x} Zr _x O ₂ Nanoparticles: X-ray Absorption Near-Edge Spectroscopy, Density Functional, and Time-Resolved X-ray Diffraction Studies. <i>Journal of Physical Chemistry B</i> , 2003, 107, 3535-3543.	1.2	199

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37	Physical and Chemical Properties of MoP, Ni ₂ P, and MoNiP Hydrodesulfurization Catalysts: A Time-Resolved X-ray Diffraction, Density Functional, and Hydrodesulfurization Activity Studies. <i>Journal of Physical Chemistry B</i> , 2003, 107, 6276-6285.	1.2	198
38	Unique Properties of Ceria Nanoparticles Supported on Metals: Novel Inverse Ceria/Copper Catalysts for CO Oxidation and the Water-Gas Shift Reaction. <i>Accounts of Chemical Research</i> , 2013, 46, 1702-1711.	7.6	198
39	Inverse ZrO ₂ /Cu as a highly efficient methanol synthesis catalyst from CO ₂ hydrogenation. <i>Nature Communications</i> , 2020, 11, 5767.	5.8	197
40	Atomic and electronic structure of molybdenum carbide phases: bulk and low Miller-index surfaces. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 12617.	1.3	189
41	Time-resolved Studies for the Mechanism of Reduction of Copper Oxides with Carbon Monoxide: A Complex Behavior of Lattice Oxygen and the Formation of Suboxides. <i>Journal of Physical Chemistry B</i> , 2004, 108, 13667-13673.	1.2	187
42	SnO ₂ Nanoribbons as NO ₂ Sensors: Insights from First Principles Calculations. <i>Nano Letters</i> , 2003, 3, 1025-1028.	4.5	186
43	Water-promoted interfacial pathways in methane oxidation to methanol on a CeO ₂ -Cu ₂ O catalyst. <i>Science</i> , 2020, 368, 513-517.	6.0	182
44	A systematic density functional theory study of the electronic structure of bulk and (001) surface of transition-metals carbides. <i>Journal of Chemical Physics</i> , 2005, 122, 174709.	1.2	180
45	Coverage Effects and the Nature of the Metal-Sulfur Bond in S/Au(111): A High-Resolution Photoemission and Density-Functional Studies. <i>Journal of the American Chemical Society</i> , 2003, 125, 276-285.	6.6	179
46	The bending machine: CO ₂ activation and hydrogenation on Î-MoC(001) and Î-Mo ₂ C(001) surfaces. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 14912-14921.	1.3	175
47	Adsorption and Decomposition of H ₂ S on MgO(100), NiMgO(100), and ZnO(0001) Surfaces: A First-Principles Density Functional Study. <i>Journal of Physical Chemistry B</i> , 2000, 104, 3630-3638.	1.2	159
48	Surface-Structure Sensitivity of CeO ₂ Nanocrystals in Photocatalysis and Enhancing the Reactivity with Nanogold. <i>ACS Catalysis</i> , 2015, 5, 4385-4393.	5.5	158
49	Hydrogenation of CO ₂ to Methanol on CeO ₂ /Cu(111) and ZnO/Cu(111) Catalysts: Role of the Metal-Oxide Interface and Importance of Ce ³⁺ Sites. <i>Journal of Physical Chemistry C</i> , 2016, 120, 1778-1784.	1.5	156
50	Highly active Ni/CeO ₂ catalyst for CO ₂ methanation: Preparation and characterization. <i>Applied Catalysis B: Environmental</i> , 2021, 282, 119581.	10.8	154
51	Unusual Physical and Chemical Properties of Ni in Ce _{1-x} Ni _x O _{2-y} Oxides: Structural Characterization and Catalytic Activity for the Water Gas Shift Reaction. <i>Journal of Physical Chemistry C</i> , 2010, 114, 12689-12697.	1.5	151
52	Room-Temperature Activation of Methane and Dry Re-forming with CO ₂ on Ni-CeO ₂ (111) Surfaces: Effect of Ce ³⁺ Sites and Metal-Support Interactions on C-H Bond Cleavage. <i>ACS Catalysis</i> , 2016, 6, 8184-8191.	5.5	146
53	Reaction of NH ₃ with Titania: N-Doping of the Oxide and TiN Formation. <i>Journal of Physical Chemistry C</i> , 2007, 111, 1366-1372.	1.5	145
54	In Situ Characterization of Cu/CeO ₂ Nanocatalysts for CO ₂ Hydrogenation: Morphological Effects of Nanostructured Ceria on the Catalytic Activity. <i>Journal of Physical Chemistry C</i> , 2018, 122, 12934-12943.	1.5	145

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55	Reaction of H ₂ S and S ₂ with Metal/Oxide Surfaces: Band-Gap Size and Chemical Reactivity. <i>Journal of Physical Chemistry B</i> , 1998, 102, 5511-5519.	1.2	143
56	Morphological effects of the nanostructured ceria support on the activity and stability of CuO/CeO ₂ catalysts for the water-gas shift reaction. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 17183-17195.	1.3	143
57	Hydrogenation of CO ₂ to Methanol on a Au ⁺ /In ₂ O ₃ Catalyst. <i>ACS Catalysis</i> , 2020, 10, 11307-11317. ^{5.5}		142
58	Direct Conversion of Methane to Methanol on Ni-Ceria Surfaces: Metal-Support Interactions and Water-Enabled Catalytic Conversion by Site Blocking. <i>Journal of the American Chemical Society</i> , 2018, 140, 7681-7687.	6.6	141
59	Highly Active Au ⁺ -MoC and Cu ⁺ -MoC Catalysts for the Conversion of CO ₂ : The Metal/C Ratio as a Key Factor Defining Activity, Selectivity, and Stability. <i>Journal of the American Chemical Society</i> , 2016, 138, 8269-8278.	6.6	140
60	Electronic Properties and Phase Transformations in CoMoO ₄ and NiMoO ₄ : XANES and Time-Resolved Synchrotron XRD Studies. <i>Journal of Physical Chemistry B</i> , 1998, 102, 1347-1355.	1.2	138
61	Inverse oxide/metal catalysts: A versatile approach for activity tests and mechanistic studies. <i>Surface Science</i> , 2010, 604, 241-244.	0.8	135
62	Highly Active Ceria-Supported Ru Catalyst for the Dry Reforming of Methane: In Situ Identification of Ru ⁺ /Ce ³⁺ Interactions for Enhanced Conversion. <i>ACS Catalysis</i> , 2019, 9, 3349-3359.	5.5	135
63	Chemistry of sulfur-containing molecules on Au(): thiophene, sulfur dioxide, and methanethiol adsorption. <i>Surface Science</i> , 2002, 505, 295-307.	0.8	133
64	In Situ Characterization of CuFe ₂ O ₄ and Cu/Fe ₃ O ₄ Water-Gas Shift Catalysts. <i>Journal of Physical Chemistry C</i> , 2009, 113, 14411-14417.	1.5	133
65	In situ studies of CeO ₂ -supported Pt, Ru, and Pt-Ru alloy catalysts for the water-gas shift reaction: Active phases and reaction intermediates. <i>Journal of Catalysis</i> , 2012, 291, 117-126.	3.1	133
66	Catalytic Properties of Molybdenum Carbide, Nitride and Phosphide: A Theoretical Study. <i>Catalysis Letters</i> , 2003, 91, 247-252.	1.4	129
67	CO ₂ Activation and Methanol Synthesis on Novel Au/TiC and Cu/TiC Catalysts. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 2275-2280.	2.1	129
68	Hydrogenation of CO ₂ on ZnO/Cu(100) and ZnO/Cu(111) Catalysts: Role of Copper Structure and Metal-Oxide Interface in Methanol Synthesis. <i>Journal of Physical Chemistry B</i> , 2018, 122, 794-800.	1.2	129
69	Unraveling the Dynamic Nature of a CuO/CeO ₂ Catalyst for CO Oxidation in Operando: A Combined Study of XANES (Fluorescence) and DRIFTS. <i>ACS Catalysis</i> , 2014, 4, 1650-1661.	5.5	128
70	N doping of TiO ₂ (110): Photoemission and density-functional studies. <i>Journal of Chemical Physics</i> , 2006, 125, 094706.	1.2	127
71	Low-Temperature Conversion of Methane to Methanol on CeO ₂ /Cu ₂ O Catalysts: Water Controlled Activation of the C-H Bond. <i>Journal of the American Chemical Society</i> , 2016, 138, 13810-13813.	6.6	125
72	Adsorption of carbon monoxide carbon dioxide on clean and cesium-covered copper(110). <i>The Journal of Physical Chemistry</i> , 1989, 93, 5238-5248.	2.9	123

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73	Interaction of SO ₂ with CeO ₂ and Cu/CeO ₂ catalysts: photoemission, XANES and TPD studies. <i>Catalysis Letters</i> , 1999, 62, 113-119.	1.4	123
74	Inverse Oxide/Metal Catalysts in Fundamental Studies and Practical Applications: A Perspective of Recent Developments. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 2627-2639.	2.1	120
75	In situ Investigation of Methane Dry Reforming on Metal/Ceria(111) Surfaces: Metal-Support Interactions and C-H Bond Activation at Low Temperature. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 13041-13046.	7.2	120
76	Electronic and Chemical Properties of Ce _{0.8} Zr _{0.2} O ₂ (111) Surfaces: Photoemission, XANES, Density-Functional, and NO ₂ Adsorption Studies. <i>Journal of Physical Chemistry B</i> , 2001, 105, 7762-7770.	1.2	118
77	Gold-based catalysts for the water-gas shift reaction: Active sites and reaction mechanism. <i>Catalysis Today</i> , 2011, 160, 3-10.	2.2	118
78	Platinum-Modulated Cobalt Nanocatalysts for Low-Temperature Aqueous-Phase Fischer-Tropsch Synthesis. <i>Journal of the American Chemical Society</i> , 2013, 135, 4149-4158.	6.6	116
79	In situ time-resolved characterization of Au-CeO ₂ and AuOx-CeO ₂ catalysts during the water-gas shift reaction: Presence of Au and O vacancies in the active phase. <i>Journal of Chemical Physics</i> , 2005, 123, 221101.	1.2	115
80	Au-N Synergy and N-Doping of Metal Oxide-Based Photocatalysts. <i>Journal of the American Chemical Society</i> , 2008, 130, 12056-12063.	6.6	115
81	A density functional theory study of the dissociation of H ₂ on gold clusters: Importance of fluxionality and ensemble effects. <i>Journal of Chemical Physics</i> , 2006, 125, 164715.	1.2	114
82	The behavior of mixed-metal oxides: Physical and chemical properties of bulk Ce _{1-x} TbxO ₂ and nanoparticles of Ce _{1-x} TbxO _y . <i>Journal of Chemical Physics</i> , 2004, 121, 5434-5444.	1.2	113
83	The behavior of mixed-metal oxides: Structural and electronic properties of Ce _{1-x} CaxO ₂ and Ce _{1-x} CaxO _{2-x} . <i>Journal of Chemical Physics</i> , 2003, 119, 5659-5669.	1.2	112
84	Phase transformations and electronic properties in mixed-metal oxides: Experimental and theoretical studies on the behavior of NiMoO ₄ and MgMoO ₄ . <i>Journal of Chemical Physics</i> , 2000, 112, 935-945.	1.2	111
85	Reaction of H ₂ and H ₂ S with CoMoO ₄ and NiMoO ₄ : TPR, XANES, Time-Resolved XRD, and Molecular-Orbital Studies. <i>Journal of Physical Chemistry B</i> , 1999, 103, 770-781.	1.2	110
86	Probing the reaction intermediates for the water-gas shift over inverse CeOx/Au(111) catalysts. <i>Journal of Catalysis</i> , 2010, 271, 392-400.	3.1	110
87	Water-Gas Shift and CO Methanation Reactions over Ni-CeO ₂ (111) Catalysts. <i>Topics in Catalysis</i> , 2011, 54, 34-41.	1.3	109
88	High Activity of Ce _{1-x} Ni _x O ₂ for H ₂ Production through Ethanol Steam Reforming: Tuning Catalytic Performance through Metal-Oxide Interactions. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 9680-9684.	7.2	108
89	N Doping of Rutile TiO ₂ (110) Surface. A Theoretical DFT Study. <i>Journal of Physical Chemistry C</i> , 2008, 112, 2624-2631.	1.5	107
90	Water-gas-shift reaction on a Ni ₂ P(001) catalyst: Formation of oxy-phosphides and highly active reaction sites. <i>Journal of Catalysis</i> , 2009, 262, 294-303.	3.1	107

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91	Synchrotron Techniques for In Situ Catalytic Studies: Capabilities, Challenges, and Opportunities. <i>ACS Catalysis</i> , 2012, 2, 2269-2280.	5.5	107
92	Effects of Zr Doping into Ceria for the Dry Reforming of Methane over Ni/CeZrO ₂ Catalysts: In Situ Studies with XRD, XAFS, and AP-XPS. <i>ACS Catalysis</i> , 2020, 10, 3274-3284.	5.5	107
93	Chemistry of NO ₂ on CeO ₂ and MgO: Experimental and theoretical studies on the formation of NO ₃ . <i>Journal of Chemical Physics</i> , 2000, 112, 9929-9939.	1.2	104
94	Effects of carbon on the stability and chemical performance of transition metal carbides: A density functional study. <i>Journal of Chemical Physics</i> , 2004, 120, 5414-5423.	1.2	102
95	The conversion of CO ₂ to methanol on orthorhombic β -Mo ₂ C and Cu/ β -Mo ₂ C catalysts: mechanism for admetal induced change in the selectivity and activity. <i>Catalysis Science and Technology</i> , 2016, 6, 6766-6777.	2.1	101
96	Theoretical Studies of the Adsorption of CO and C on Ni(111) and Ni/CeO ₂ (111): Evidence of a Strong Metal-Support Interaction. <i>Journal of Physical Chemistry C</i> , 2013, 117, 8241-8250.	1.5	100
97	Interaction of CO with OH on Au(111): HCOO, CO ₃ , and HOCO as Key Intermediates in the Water-Gas Shift Reaction. <i>Journal of Physical Chemistry C</i> , 2009, 113, 19536-19544.	1.5	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/CeO _x /TiO ₂ (110) catalysts. <i>Journal of Chemical Physics</i> , 2010, 132, 104703.	1.2	93
99	Combining X-ray Absorption and X-ray Diffraction Techniques for in Situ Studies of Chemical Transformations in Heterogeneous Catalysis: Advantages and Limitations. <i>Journal of Physical Chemistry C</i> , 2011, 115, 17884-17890.	1.5	92
100	Activation of noble metals on metal-carbide surfaces: novel catalysts for CO oxidation, desulfurization and hydrogenation reactions. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 427-438.	1.3	89
101	Role of Au-C Interactions on the Catalytic Activity of Au Nanoparticles Supported on TiC(001) toward Molecular Oxygen Dissociation. <i>Journal of the American Chemical Society</i> , 2010, 132, 3177-3186.	6.6	88
102	The Activation of Gold and the Water-Gas Shift Reaction: Insights from Studies with Model Catalysts. <i>Accounts of Chemical Research</i> , 2014, 47, 773-782.	7.6	87
103	Surface Chemistry of SO ₂ on Sn and Sn/Pt(111) Alloys: Effects of Metal-Metal Bonding on Reactivity toward Sulfur. <i>Journal of the American Chemical Society</i> , 1998, 120, 11149-11157.	6.6	86
104	Gold nanoparticles on ceria: importance of O vacancies in the activation of gold. <i>Topics in Catalysis</i> , 2007, 44, 73-81.	1.3	85
105	Autocatalytic Reduction of a Cu ₂ O/Cu(111) Surface by CO: STM, XPS, and DFT Studies. <i>Journal of Physical Chemistry C</i> , 2010, 114, 17042-17050.	1.5	84
106	Ambient pressure XPS and IRRAS investigation of ethanol steam reforming on Ni-CeO ₂ (111) catalysts: an in situ study of C-H and O-H bond scission. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 16621-16628.	1.3	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. <i>Journal of Physical Chemistry C</i> , 2011, 115, 11666-11672.	1.5	82
108	Molecular Level Study of the Formation and the Spread of MoO ₃ on Au (111) by Scanning Tunneling Microscopy and X-ray Photoelectron Spectroscopy. <i>Journal of the American Chemical Society</i> , 2003, 125, 8059-8066.	6.6	81

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109	Catalyst size matters: Tuning the molecular mechanism of the water-gas shift reaction on titanium carbide based compounds. <i>Journal of Catalysis</i> , 2008, 260, 103-112.	3.1	81
110	Does CO ₂ dissociatively adsorb on Cu surfaces?. <i>Journal of Physics Condensed Matter</i> , 1989, 1, SB149-SB160.	0.7	80
111	Interaction of Hydrogen and Thiophene with Ni/MoS ₂ and Zn/MoS ₂ Surfaces: A Molecular Orbital Study. <i>Journal of Physical Chemistry B</i> , 1997, 101, 7524-7534.	1.2	80
112	Identification of 5 ⁺ Defects in a Copper Oxide Surface. <i>Journal of the American Chemical Society</i> , 2011, 133, 11474-11477.	6.6	80
113	In situ/operando studies for the production of hydrogen through the water-gas shift on metal oxide catalysts. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 12004.	1.3	80
114	In Situ Elucidation of the Active State of Co-CeO _x Catalysts in the Dry Reforming of Methane: The Important Role of the Reducible Oxide Support and Interactions with Cobalt. <i>ACS Catalysis</i> , 2018, 8, 3550-3560.	5.5	80
115	Reaction of SO ₂ with ZnO(0001), O and ZnO powders: photoemission and XANES studies on the formation of SO ₃ and SO ₄ . <i>Surface Science</i> , 1999, 442, 400-412.	0.8	78
116	Reaction of H ₂ S with MgO(100) and Cu/MgO(100) surfaces: Band-gap size and chemical reactivity. <i>Journal of Chemical Physics</i> , 1999, 111, 8077-8087.	1.2	77
117	Interaction of SO ₂ with MgO(100) and Cu/MgO(100): Decomposition Reactions and the Formation of SO ₃ and SO ₄ . <i>Journal of Physical Chemistry B</i> , 2000, 104, 7439-7448.	1.2	77
118	The chemical properties of bimetallic surfaces: Importance of ensemble and electronic effects in the adsorption of sulfur and SO ₂ . <i>Progress in Surface Science</i> , 2006, 81, 141-189.	3.8	77
119	Fundamental Studies of Well-Defined Surfaces of Mixed-Metal Oxides: Special Properties of MO _x /TiO ₂ (110) {M = V, Ru, Ce, or W}. <i>Chemical Reviews</i> , 2013, 113, 4373-4390.	23.0	77
120	The bonding of sulfur to a Pt(111) surface: photoemission and molecular orbital studies. <i>Chemical Physics Letters</i> , 1996, 251, 13-19.	1.2	76
121	Studies on the Behavior of Mixed-Metal Oxides and Desulfurization: Reaction of H ₂ S and SO ₂ with Cr ₂ O ₃ (0001), MgO(100), and Cr _x Mg _{1-x} O(100). <i>Journal of the American Chemical Society</i> , 2000, 122, 12362-12370.	6.6	75
122	Effects of Hydrogen on the Reactivity of O ₂ toward Gold Nanoparticles and Surfaces. <i>Journal of Physical Chemistry C</i> , 2007, 111, 19001-19008.	1.5	75
123	Synthesis of δ -MoC _{1-x} and δ -MoC _y Catalysts for CO ₂ Hydrogenation by Thermal Carburization of Mo-oxide in Hydrocarbon and Hydrogen Mixtures. <i>Catalysis Letters</i> , 2014, 144, 1418-1424.	1.4	75
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