John M Vohs

List of Publications by Citations

189 papers	12,614 citations	62 h-index	108 g-index
198 ext. papers	13,437 ext. citations	6 avg, IF	6.56 L-index

#	Paper	IF	Citations
189	Direct oxidation of hydrocarbons in a solid-oxide fuel cell. *Nature*, **2000**, 404, 265-7	50.4	1528
188	High-Performance SOFC Cathodes Prepared by Infiltration. *Advanced Materials*, **2009**, 21, 943-956	24	532
187	Nano-socketed nickel particles with enhanced coking resistance grown in situ by redox exsolution. *Nature Communications*, **2015**, 6, 8120	17.4	438
186	Cu-Ni Cermet Anodes for Direct Oxidation of Methane in Solid-Oxide Fuel Cells. *Journal of the Electrochemical Society*, **2002**, 149, A247	3.9	290
185	Novel SOFC anodes for the direct electrochemical oxidation of hydrocarbon. *Journal of Power Sources*, **2002**, 106, 10-15	8.9	219
184	Novel SOFC anodes for the direct electrochemical oxidation of hydrocarbons. *Journal of Catalysis*, **2003**, 216, 477-486	7.3	216
183	Direct Oxidation of Hydrocarbons in a Solid Oxide Fuel Cell: I. Methane Oxidation. *Journal of the Electrochemical Society*, **1999**, 146, 3603-3605	3.9	212
182	Nanostructured anodes for solid oxide fuel cells. *Current Opinion in Colloid and Interface Science*, **2009**, 14, 236-244	7.6	192
181	Direct Oxidation of Liquid Fuels in a Solid Oxide Fuel Cell. *Journal of the Electrochemical Society*, **2001**, 148, A693	3.9	185
180	Synthesis of Highly Porous Yttria-Stabilized Zirconia by Tape-Casting Methods. *Journal of the American Ceramic Society*, **2003**, 86, 395-400	3.8	182
179	Efficient Reduction of CO[sub 2] in a Solid Oxide Electrolyzer. *Electrochemical and Solid-State Letters*, **2008**, 11, B167		174
178	Comparison of the performance of Cu□CeO2▽SZ and Ni▽SZ composite SOFC anodes with H2, CO, and syngas. *Journal of Power Sources*, **2005**, 141, 241-249	8.9	153
177	A study of carbon formation and prevention in hydrocarbon-fueled SOFC. *Journal of Power Sources*, **2006**, 155, 231-238	8.9	152
176	Evidence for Oxidation of Ceria by CO2. *Journal of Catalysis*, **2000**, 190, 199-204	7.3	151
175	Influence of composition and Cu impregnation method on the performance of Cu/CeO2/YSZ SOFC anodes. *Journal of Power Sources*, **2006**, 154, 42-50	8.9	147
174	Recent progress in SOFC anodes for direct utilization of hydrocarbons. *Journal of Materials Chemistry*, **2007**, 17, 3071		146
173	Highly Sulfur Tolerant Cu-Ceria Anodes for SOFCs. *Electrochemical and Solid-State Letters*, **2005**, 8, A279		139

172	Role of Hydrocarbon Deposits in the Enhanced Performance of Direct-Oxidation SOFCs. *Journal of the Electrochemical Society*, **2003**, 150, A470	3.9	139
171	Fabrication of Sr-Doped LaFeO[sub 3] YSZ Composite Cathodes. *Journal of the Electrochemical Society*, **2004**, 151, A646	3.9	139
170	The Stability of LSF-YSZ Electrodes Prepared by Infiltration. *Journal of the Electrochemical Society*, **2007**, 154, B439	3.9	135
169	Investigation of the Structural and Catalytic Requirements for High-Performance SOFC Anodes Formed by Infiltration of LSCM. *Electrochemical and Solid-State Letters*, **2009**, 12, B48		132
168	A Study of SOFC Anodes Based on Cu-Ni and Cu-Co Bimetallics in CeO[sub 2]-YSZ. *Journal of the Electrochemical Society*, **2004**, 151, A1319	3.9	127
167	Tape Cast Solid-Oxide Fuel Cells for the Direct Oxidation of Hydrocarbons. *Journal of the Electrochemical Society*, **2001**, 148, A443	3.9	122
166	Characterization of LSM-YSZ Composites Prepared by Impregnation Methods. *Journal of the Electrochemical Society*, **2005**, 152, A1347	3.9	119
165	A Comparison of LSM, LSF, and LSCo for Solid Oxide Electrolyzer Anodes. *Journal of the Electrochemical Society*, **2006**, 153, A2066	3.9	117
164	SOFC Anodes Based on Infiltration of La[sub 0.3]Sr[sub 0.7]TiO[sub 3]. *Journal of the Electrochemical Society*, **2008**, 155, B1179	3.9	115
163	First Synthesis, Experimental and Theoretical Vibrational Spectra of an Oxametallacycle on a Metal Surface. *Journal of the American Chemical Society*, **1998**, 120, 3196-3204	16.4	114
162	Applications of heterogeneous catalysis in the direct oxidation of hydrocarbons in a solid-oxide fuel cell. *Applied Catalysis A: General*, **2000**, 200, 55-61	5.1	114
161	Ceria-Based Anodes for the Direct Oxidation of Methane in Solid Oxide Fuel Cells. *Langmuir*, **1995**, 11, 4832-4837	4	114
160	Characterization of Sr-Doped LaCoO[sub 3]-YSZ Composites Prepared by Impregnation Methods. *Journal of the Electrochemical Society*, **2004**, 151, A1592	3.9	111
159	Adsorption and Reaction of Aldehydes on Pd Surfaces. *Journal of Physical Chemistry B*, **1997**, 101, 7939-7951	3.4	109
158	A Novel Method for Preparing Anode Cermets for Solid Oxide Fuel Cells. *Journal of the Electrochemical Society*, **1999**, 146, 4019-4022	3.9	108
157	Effect of Precious-Metal Dopants on SOFC Anodes for Direct Utilization of Hydrocarbons. *Electrochemical and Solid-State Letters*, **2003**, 6, A240		106
156	Recent developments on anodes for direct fuel utilization in SOFC. *Solid State Ionics*, **2004**, 175, 1-6	3.3	105
155	Evidence and Model for Strain-Driven Release of Metal Nanocatalysts from Perovskites during Exsolution. *Journal of Physical Chemistry Letters*, **2015**, 6, 5106-10	6.4	103

154	Impedance Spectroscopy for the Characterization of Cu-Ceria-YSZ Anodes for SOFCs. *Journal of the Electrochemical Society*, **2003**, 150, A1305	3.9	100
153	The Effect of Ca, Sr, and Ba Doping on the Ionic Conductivity and Cathode Performance of LaFeO[sub 3]. *Journal of the Electrochemical Society*, **2008**, 155, B660	3.9	96
152	An examination of lanthanide additives on the performance of Cu□YSZ cermet anodes. *Electrochimica Acta*, **2002**, 47, 3815-3821	6.7	96
151	A Strategy for Achieving High Performance with SOFC Ceramic Anodes. *Electrochemical and Solid-State Letters*, **2007**, 10, B65		94
150	SOFCs for Direct Oxidation of Hydrocarbon Fuels with Samaria-Doped Ceria Electrolyte. *Journal of the Electrochemical Society*, **2003**, 150, A354	3.9	94
149	An Examination of Sulfur Poisoning on Pd/Ceria Catalysts. *Journal of Catalysis*, **2002**, 210, 397-404	7.3	94
148	An Examination of SOFC Anode Functional Layers Based on Ceria in YSZ. *Journal of the Electrochemical Society*, **2007**, 154, B694	3.9	92
147	Ceria films on zirconia substrates: models for understanding oxygen-storage properties. *Catalysis Today*, **1999**, 50, 343-352	5.3	92
146	Effect of Polarization on and Implications for Characterization of LSM-YSZ Composite Cathodes. *Electrochemical and Solid-State Letters*, **2004**, 7, A111		91
145	Exceptional thermal stability of Pd@CeO2 core-shell catalyst nanostructures grafted onto an oxide surface. *Nano Letters*, **2013**, 13, 2252-7	11.5	90
144	Dopants to enhance SOFC cathodes based on Sr-doped LaFeO3 and LaMnO3. *Journal of Power Sources*, **2010**, 195, 720-728	8.9	89
143	Bisphosphonate-mediated gene vector delivery from the metal surfaces of stents. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 159-64	11.5	85
142	SOFC Cathodes Prepared by Infiltration with Various LSM Precursors. *Electrochemical and Solid-State Letters*, **2006**, 9, A237		83
141	Synthesis and Stability of [email□protected]2 Core□Shell Catalyst Films in Solid Oxide Fuel Cell Anodes. *ACS Catalysis*, **2013**, 3, 1801-1809	13.1	82
140	Site requirements for the adsorption and reaction of oxygenates on metal oxide surfaces. *Chemical Reviews*, **2013**, 113, 4136-63	68.1	81
139	A direct carbon fuel cell with a molten antimony anode. *Energy and Environmental Science*, **2011**, 4, 4133	35.4	81
138	A Comparison of Cu-Ceria-SDC and Au-Ceria-SDC Composites for SOFC Anodes. *Journal of the Electrochemical Society*, **2003**, 150, A1357	3.9	80
137	Low-Temperature Fabrication of Oxide Composites for Solid-Oxide Fuel Cells. *Journal of the American Ceramic Society*, **2004**, 87, 331-336	3.8	79

136	A TPD study of the partial oxidation of methanol to formaldehyde on CeO2-supported vanadium oxide. *Journal of Catalysis*, **2004**, 221, 619-629	7.3	74
135	Reaction of ethanol on oxidized and metallic cobalt surfaces. *Surface Science*, **2011**, 605, 383-389	1.8	72
134	Thermodynamic Investigation of the Redox Properties of Ceria□Zirconia Solid Solutions. *Industrial & Engineering Chemistry Research*, **2006**, 45, 5561-5565	3.9	72
133	Effect of Synthesis Conditions on the Performance of Cu-CeO[sub 2]-YSZ Anodes in SOFCs. *Journal of the Electrochemical Society*, **2003**, 150, A1470	3.9	70
132	A study of thermal stability and methane tolerance of Cu-based SOFC anodes with electrodeposited Co. *Electrochimica Acta*, **2007**, 52, 1951-1957	6.7	69
131	An Examination of Carbonaceous Deposits in Direct-Utilization SOFC Anodes. *Journal of the Electrochemical Society*, **2004**, 151, A604	3.9	69
130	Zn modification of the reactivity of Pd(111) toward methanol and formaldehyde. *Journal of the American Chemical Society*, **2008**, 130, 10199-207	16.4	66
129	Deoxygenation of Biomass-Derived Oxygenates: Reaction of Furfural on Zn-Modified Pt(111). *ACS Catalysis*, **2015**, 5, 2177-2183	13.1	62
128	A study of the methane tolerance of LSCM□YSZ composite anodes with Pt, Ni, Pd and ceria catalysts. *Scripta Materialia*, **2011**, 65, 90-95	5.6	62
127	Effect of ferroelectric polarization on the adsorption and reaction of ethanol on BaTiO3. *Surface Science*, **2008**, 602, 2849-2855	1.8	62
126	Transition metal-doped rare earth vanadates: a regenerable catalytic material for SOFC anodes. *Journal of Materials Chemistry*, **2012**, 22, 11396		61
125	Direct oxidation of sulfur-containing fuels in a solid oxide fuel cell. *Chemical Communications*, **2001**, 2334-5	5.3	61
124	Fabrication of Highly Porous Yttria-Stabilized Zirconia by Acid Leaching Nickel from a Nickel-Yttria-Stabilized Zirconia Cermet. *Journal of the American Ceramic Society*, **2002**, 85, 1473-1476	3.8	60
123	Interaction of CO with surface PdZn alloys. *Surface Science*, **2007**, 601, 5546-5554	1.8	59
122	Characterization of YSZ?YST composites for SOFC anodes. *Solid State Ionics*, **2004**, 175, 171-176	3.3	59
121	Mechanistic Study of the Direct Hydrodeoxygenation of m-Cresol over WOx-Decorated Pt/C Catalysts. *ACS Catalysis*, **2018**, 8, 7749-7759	13.1	58
120	Support effects in cobalt-based ethanol steam reforming catalysts: Reaction of ethanol on Co/CeO2/YSZ(1 0 0) model catalysts. *Journal of Catalysis*, **2012**, 291, 79-86	7.3	58
119	Determining the Ce2O2S□CeOx phase boundary for conditions relevant to adsorption and catalysis. *Applied Catalysis B: Environmental*, **2003**, 43, 273-280	21.8	56

118	Cu-Co Bimetallic Anodes for Direct Utilization of Methane in SOFCs. *Electrochemical and Solid-State Letters*, **2005**, 8, A48		54
117	An Examination of LSM-LSCo Mixtures for Use in SOFC Cathodes. *Journal of the Electrochemical Society*, **2006**, 153, A951	3.9	52
116	Reaction pathways for ethanol on model Co/ZnO(0001) catalysts. *Physical Chemistry Chemical Physics*, **2011**, 13, 9880-6	3.6	49
115	Effect of reduction on the topographic and electronic structure of TiO2(110) surfaces. *Surface Science*, **1992**, 274, 35-43	1.8	49
114	Highly Active and Thermally Stable Core-Shell Catalysts for Solid Oxide Fuel Cells. *Journal of the Electrochemical Society*, **2011**, 158, B596	3.9	48
113	Oxidation of Methanol to Formaldehyde on Vanadia Films Supported on CeO2(111). *Journal of Physical Chemistry B*, **2002**, 106, 6451-6455	3.4	48
112	SOFC Anodes Based on LST YSZ Composites and on Y[sub 0.04]Ce[sub 0.48]Zr[sub 0.48]O[sub 2]. *Journal of the Electrochemical Society*, **2008**, 155, B360	3.9	47
111	Deactivation of ceria-based SOFC anodes in methanol. *Journal of Power Sources*, **2007**, 164, 42-48	8.9	47
110	Reactions of CH3SH and (CH3)2S2 on the (0001) and (000) Surfaces of ZnO. *Journal of Physical Chemistry B*, **2005**, 109, 23976-82	3.4	47
109	Oxametallacycle formation via ring-opening of 1-epoxy-3-butene on Ag(110): a combined experimental/theoretical approach. *Journal of Molecular Catalysis A*, **2000**, 163, 129-145		47
108	The use of bimetallics to control the selectivity for the upgrading of lignin-derived oxygenates: Reaction of anisole on Pt and PtZn catalysts. *Journal of Catalysis*, **2016**, 340, 219-226	7.3	45
107	An Investigation of Oxygen Reduction Kinetics in LSF Electrodes. *Journal of the Electrochemical Society*, **2013**, 160, F205-F211	3.9	45
106	Enhanced Thermal Stability of SOFC Anodes Made with CeO[sub 2]-ZrO[sub 2] Solutions. *Electrochemical and Solid-State Letters*, **2005**, 8, A414		42
105	A support layer for solid oxide fuel cells. *Ceramics International*, **2007**, 33, 1065-1070	5.1	41
104	Fabrication and Performance of Thin-Film YSZ Solid Oxide Fuel Cells. *Journal of the Electrochemical Society*, **2001**, 148, A864	3.9	41
103	Catalytic reactivity of face centered cubic PdZn for the steam reforming of methanol. *Journal of Catalysis*, **2012**, 291, 44-54	7.3	40
102	Evidence of surface-reaction rate limitations in SOFC composite cathodes. *Solid State Ionics*, **2012**, 225, 146-150	3.3	39
101	Electrodeposition of Cu into a Highly Porous Ni YSZ Cermet. *Journal of the Electrochemical Society*, **2006**, 153, A1539	3.9	39

100	Carbonaceous deposits in direct utilization hydrocarbon SOFC anode. *Journal of Power Sources*, **2005**, 144, 135-140	8.9	37
99	Deoxygenation of glycolaldehyde and furfural on Mo2C/Mo(100). *Surface Science*, **2014**, 630, 16-21	1.8	36
98	Modification of SOFC Cathodes by Atomic Layer Deposition. *Journal of the Electrochemical Society*, **2013**, 160, F1225-F1231	3.9	36
97	Restructuring Porous YSZ by Treatment in Hydrofluoric Acid for Use in SOFC Cathodes. *Journal of the American Ceramic Society*, **2011**, 94, 2220-2224	3.8	35
96	Effect of the Ionic Conductivity of the Electrolyte in Composite SOFC Cathodes. *Journal of the Electrochemical Society*, **2011**, 158, B743	3.9	35
95	Hydrogen Production Via CH4 and CO Assisted Steam Electrolysis. *Topics in Catalysis*, **2007**, 46, 380-385	2.3	35
94	Influence of ferroelectric polarization on the energetics of the reaction of 2-fluoroethanol on BaTiO3. *Surface Science*, **2009**, 603, 284-290	1.8	34
93	Reaction of CH3OH on Pd/ZnO(0001) and PdZn/ZnO(0001) Model Catalysts. *Journal of Physical Chemistry C*, **2007**, 111, 7049-7057	3.8	33
92	Active Sites for the Reaction of Ethanol to Acetaldehyde on Co/YSZ(100) Model Steam Reforming Catalysts. *ACS Catalysis*, **2011**, 1, 1414-1420	13.1	32
91	A Comparison of the Redox Properties of Vanadia-Based Mixed Oxides. *Journal of Physical Chemistry C*, **2008**, 112, 2613-2617	3.8	32
90	Temperature-programmed desorption study of the oxidation of methanol to formaldehyde on TiO2(110)-supported vanadia monolayers. *Surface Science*, **2000**, 452, L293-L297	1.8	32
89	Enhanced reducibility of ceria–YSZ composites in solid oxide electrodes. *Journal of Materials Chemistry*, **2008**, 18, 2386		31
88	Aerosol-Derived Bimetallic Alloy Powders: Bridging the Gap *Journal of Physical Chemistry C*, **2010**, 114, 17181-17190	3.8	30
87	Comparison of the reactivity of high-surface area, monolayer vanadia/ceria catalysts with vanadia/CeO2(1 1 1) model systems. *Catalysis Today*, **2003**, 85, 303-309	5.3	30
86	Highly active dry methane reforming catalysts with boosted in situ grown Ni-Fe nanoparticles on perovskite via atomic layer deposition. *Science Advances*, **2020**, 6, eabb1573	14.3	29
85	Reaction of Formic Acid on Zn-Modified Pd(111). *Catalysis Letters*, **2009**, 130, 271-277	2.8	27
84	Analysis of the performance of the electrodes in a natural gas assisted steam electrolysis cell. *Chemical Engineering Science*, **2008**, 63, 765-769	4.4	27
83	Selective Deoxygenation of Aldehydes: The Reaction of Acetaldehyde and Glycolaldehyde on Zn/Pt(111) Bimetallic Surfaces. *ACS Catalysis*, **2013**, 3, 1739-1750	13.1	26

82	A Comparison of the Reactivity of Pd Supported on ZnO(101 0) and ZnO(0001). *Journal of Physical Chemistry C*, **2009**, 113, 7251-7259	3.8	26
81	Enhanced Thermal Stability of Cu-Based SOFC Anodes by Electrodeposition of Cr. *Journal of the Electrochemical Society*, **2006**, 153, A1386	3.9	25
80	Preparation of SOFC Cathodes by Infiltration into LSF-YSZ Composite Scaffolds. *Journal of the Electrochemical Society*, **2016**, 163, F54-F58	3.9	23
79	Decreasing interfacial losses with catalysts in La0.9Ca0.1FeO3 membranes for syngas production. *Applied Catalysis A: General*, **2014**, 486, 259-265	5.1	23
78	Physical and electrochemical properties of alkaline earth doped, rare earth vanadates. *Journal of Solid State Chemistry*, **2012**, 190, 12-17	3.3	23
77	The stability of direct carbon fuel cells with molten Sb and SbBi alloy anodes. *AICHE Journal*, **2013**, 59, 3342-3348	3.6	23
76	Studies of the Structure and Interfacial Chemistry of Co Layers on ZnO(0001) *Journal of Physical Chemistry C*, **2010**, 114, 16892-16899	3.8	23
75	Structure and thermal stability of ceria films supported on YSZ(1 0 0) and Al2O3(0 0 0 1). *Surface Science*, **2005**, 592, 8-17	1.8	23
74	Thermal and photochemical reactions of methanol on nanocrystalline anatase TiO2 thin films. *Physical Chemistry Chemical Physics*, **2015**, 17, 17190-201	3.6	22
73	Exploring the Role of Zn in PdZn Reforming Catalysts: Adsorption and Reaction of Ethanol and Acetaldehyde on Two-dimensional PdZn Alloys. *Journal of Physical Chemistry C*, **2009**, 113, 1486-1494	3.8	21
72	Thermal and Photocatalytic Reactions of Methanol and Acetaldehyde on Pt-Modified Brookite TiO2 Nanorods. *ACS Catalysis*, **2018**, 8, 11834-11846	13.1	21
71	Shape-dependence of the thermal and photochemical reactions of methanol on nanocrystalline anatase TiO2. *Surface Science*, **2016**, 654, 1-7	1.8	20
70	SOFC anodes based on infiltration of tungsten bronzes. *International Journal of Hydrogen Energy*, **2011**, 36, 15722-15730	6.7	20
69	Polarization-Induced Hysteresis in CuCo-Doped Rare Earth Vanadates SOFC Anodes. *Journal of the Electrochemical Society*, **2012**, 159, F751-F756	3.9	20
68	Correlating the Surface Chemistry of C2 and C3 Aldoses with a C6 Sugar: Reaction of Glucose, Glyceraldehyde, and Glycolaldehyde on Pd(111). *Journal of Physical Chemistry C*, **2012**, 116, 18891-18898	3.8	19
67	The impact of redox properties on the reactivity of V2O5/Al2O3 catalysts. *Journal of Catalysis*, **2010**, 269, 397-403	7.3	19
66	The formation of diethyl ether via the reaction of iodoethane with atomic oxygen on the Ag(110) surface. *Surface Science*, **1999**, 420, 65-80	1.8	19
65	Ensemble vs. electronic effects on the reactivity of two-dimensional Pd alloys: a comparison of CO and CH3OH adsorption on Zn/Pd(111) and Cu/Pd(111). *Physical Chemistry Chemical Physics*, **2009**, 11, 10457-65	3.6	18

64	Thermal and Photochemical Reactions of Methanol, Acetaldehyde, and Acetic Acid on Brookite TiO2 Nanorods. *Journal of Physical Chemistry C*, **2017**, 121, 11488-11498	3.8	17
63	Enhancing Oxygen Exchange Activity by Tailoring Perovskite Surfaces. *Journal of Physical Chemistry Letters*, **2019**, 10, 4082-4088	6.4	17
62	The effect of support on redox properties and methanol-oxidation activity of vanadia catalysts. *Applied Catalysis A: General*, **2011**, 391, 86-91	5.1	17
61	TPD study of the reaction of CH3CH2SH and (CH3CH2)2S2 on ZnO(0001) and ZnO. *Catalysis Letters*, **2006**, 111, 1-4	2.8	17
60	Mechanism of Diethyl Ether Formation on Ag(110) and Its Dependence on Coadsorbed Oxygen Species. *Journal of Physical Chemistry B*, **1999**, 103, 1144-1151	3.4	17
59	Zirconia-Based Electrolyte Stability in Direct-Carbon Fuel Cells with Molten Sb Anodes. *Journal of the Electrochemical Society*, **2015**, 162, F567-F570	3.9	16
58	Self-reconstructed interlayer derived by in-situ Mn diffusion from La0.5Sr0.5MnO3 via atomic layer deposition for an efficient bi-functional electrocatalyst. *Nano Energy*, **2020**, 71, 104564	17.1	16
57	Local Structure of Defects on Hydrogen- and Vacuum-Reduced TiO2 Surfaces. *Journal of the American Ceramic Society*, **1993**, 76, 1137-1142	3.8	16
56	Infiltrated lanthanum strontium chromite anodes for solid oxide fuel cells: Structural and catalytic aspects. *Journal of Power Sources*, **2014**, 262, 207-212	8.9	15
55	Adsorption structure, energetics, and thermal reactions of vinyl chloride on Ag(). *Surface Science*, **2003**, 522, 90-104	1.8	15
54	Surface modification of SOFC cathodes by Co, Ni, and Pd oxides. *Solid State Ionics*, **2019**, 341, 115051	3.3	14
53	The effect of thermodynamic properties of zirconia-supported Fe3O4 on water-gas shift activity. *Applied Catalysis A: General*, **2009**, 356, 225-230	5.1	14
52	Redox Isotherms for Vanadia Supported on Zirconia. *Catalysis Letters*, **2008**, 125, 1-7	2.8	14
51	Reaction of glyceraldehyde and glucose on Zn-modified Pt(111) surfaces. *Catalysis Today*, **2014**, 237, 157-165	5.3	13
50	Site requirements for the reactions of CH3SH and (CH3)2S2 on ZnO(). *Surface Science*, **2008**, 602, 198-204	2.8	13
49	Reaction of CO, CH2O, CH3OH on Zn-Modified Pt(111) Surfaces. *Journal of Physical Chemistry C*, **2013**, 117, 6692-6701	3.8	12
48	Inexpensive ultrahigh vacuum heatable/coolable xyz-rotary motion sample manipulator. *Review of Scientific Instruments*, **1995**, 66, 3048-3050	1.7	12
47	Mechanism of ╫Hydrogen Abstraction from Adsorbed Alkoxides on Supported Metal Oxide Catalysts. *Journal of Physical Chemistry B*, **2004**, 108, 5647-5652	3.4	11

46	HREELS study of vapor-deposited polyaniline on Ag(110). *Surface Science*, **1999**, 420, L115-L121	1.8	11
45	Lignin-derived oxygenate reforming on a bimetallic surface: The reaction of benzaldehyde on Zn/Pt(111). *Surface Science*, **2016**, 650, 161-166	1.8	11
44	Effect of grain boundary diffusion on electrolyte stability in direct carbon fuel cells with antimony anodes. *Ceramics International*, **2017**, 43, 16575-16579	5.1	10
43	Probing local electrochemical activity within yttria-stabilized-zirconia via in situ high-temperature atomic force microscopy. *Journal of Materials Research*, **2015**, 30, 357-363	2.5	10
42	Biomass-derived oxygenate reforming on Pt(111): A demonstration of surface science using d-glucose and its model surrogate glycolaldehyde. *Surface Science*, **2012**, 606, L91-L94	1.8	10
41	Ferroelectric polarization dependent interactions at Pd□iNbO3(0001) interfaces. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2009**, 27, 1337-1342	2.9	10
40	Probing the effect of local structure on the thermodynamic redox properties of V(+5): a comparison of V2O5 and Mg3(VO4)2. *Journal of Physical Chemistry B*, **2007**, 111, 5680-3	3.4	10
39	Growth and structure of Pd films on ZnO(0001). *Journal of Chemical Physics*, **2006**, 125, 164713	3.9	10
38	Effects of Sputtering and Plasma Etching on the Surface Reactivity of Graphite. *Journal of the American Ceramic Society*, **1993**, 76, 279-283	3.8	10
37	TPD and HREELS study of the reaction of guaiacol on Zn-decorated Pt(111). *Catalysis Today*, **2018**, 302, 272-276	5.3	9
36	Fabrication of MnCo2O4-YSZ Composite Cathodes for Solid Oxide Fuel Cells by Electrodeposition. *Journal of the Electrochemical Society*, **2016**, 163, F863-F866	3.9	9
35	Effects of artificial protrusions of self-sustained thermal oscillations during hydrogen oxidation on nickel. *Industrial & Engineering Chemistry Fundamentals*, **1984**, 23, 19-24		9
34	An Investigation of LSF-YSZ Conductive Scaffolds for Infiltrated SOFC Cathodes. *Journal of the Electrochemical Society*, **2017**, 164, F525-F529	3.9	8
33	Metal Exsolution to Enhance the Catalytic Activity of Electrodes in Solid Oxide Fuel Cells. *Nanomaterials*, **2020**, 10,	5.4	8
32	A study of the redox properties and methanol oxidation rates for molybdenum-based mixed oxides. *Applied Catalysis A: General*, **2011**, 394, 287-293	5.1	8
31	Substrate-Mediated Spreading and Phase Segregation at LSM-Zirconia Interfaces. *Journal of the Electrochemical Society*, **2011**, 158, B79	3.9	8
30	The reactions of diethylselenium and diethylzinc on the surfaces of ZnSe thin films. *Surface Science*, **1994**, 301, 165-176	1.8	8
29	The Influence of Surface Platinum Deposits on the Photocatalytic Activity of Anatase TiO2 Nanocrystals. *Journal of Physical Chemistry C*, **2019**, 123, 10477-10486	3.8	7

28	Surface modification of La(0.8)Sr(0.2)CrO(3-δ)-YSZ dual-phase membranes for syngas production. *Faraday Discussions*, **2015**, 182, 213-25	3.6	7
27	Direct Hydrodeoxygenation of m-Cresol to Toluene over Bifunctional NbOx-Pt. *Journal of Physical Chemistry C*, **2020**, 124, 14253-14261	3.8	7
26	Endothermic reactions of 1-propanamine on a zirconia catalyst. *Applied Catalysis A: General*, **2020**, 590, 117372	5.1	7
25	Aldoses on Ni/Pd(1 1 1) surfaces: A TPD study. *Applied Surface Science*, **2013**, 271, 45-51	6.7	6
24	Active sites for the selective hydrodeoxygenation of m-cresol on WOx-modified Pt. *Surface Science*, **2019**, 689, 121457	1.8	5
23	Ultrathin-Body TiO2 Thin Film Transistors With Record On-Current Density, ON/OFF Current Ratio, and Subthreshold Swing via O2 Annealing. *IEEE Electron Device Letters*, **2019**, 40, 1463-1466	4.4	5
22	Dry reforming of methane over Ni supported on LaMnO3 thin films. *Catalysis Today*, **2021**, 382, 142-142	5.3	5
21	Mechanistic study of the hydrodeoxygenation of lignin-derived oxygenates on a CoPt bimetallic catalyst: reaction of anisole on Co-modified Pt(111). *JPhys Energy*, **2019**, 1, 015003	4.9	4
20	Morphological Dependence of the Thermal and Photochemical Reactions of Acetaldehyde on Anatase TiO2 Nanocrystals. *Topics in Catalysis*, **2018**, 61, 365-378	2.3	4
19	Electronic Structure of Defects on Reduced TiO2 (Rutile) Surfaces. *Materials Research Society Symposia Proceedings*, **1991**, 237, 453		3
18	WOx promoted nickel catalyst for hydrodeoxygenation of m-cresol. *Journal of Catalysis*, **2021**, 400, 294-300	7.3	3
17	Composite LSF-YSZ and LSCrF-YSZ Electrode Scaffolds for Infiltrated SOFC Cathodes. *ECS Transactions*, **2017**, 78, 729-740	1	2
16	Systematic Studies of the Cathode-Electrolyte Interface in SOFC Cathodes Prepared by Infiltration. *ECS Transactions*, **2011**, 35, 2085-2095	1	2
15	Application of Direct Oxidation of Liquid Hydrocarbon Fuels in Solid Oxide Fuel Cells to Automotive Auxiliary Power Units **2001**,		2
14	LaFeO3 films on SiO2 for supported-Pt catalysts. *International Journal of Green Energy*,1-9	3	2
13	Investigating the Catalytic Requirements of Perovskite Fuel Electrodes Using Ultra-Low Metal Loadings. *Journal of the Electrochemical Society*, **2021**, 168, 084502	3.9	2
12	Two-Dimensional Perovskite Crystals Formed by Atomic Layer Deposition of CaTiO on AlO. *Nanomaterials*, **2021**, 11,	5.4	2
11	Solid Oxide Fuel Cells for Direct Oxidation of Liquid Hydrocarbon Fuels in Automotive Auxiliary Power Units: Sulfur Tolerance and Operation on Gasoline **2002**,		1

10	Nanometer Scale Structures Resulting from Graphite Oxidation. *Materials Research Society Symposia Proceedings*, **1994**, 332, 519		1
9	Furfural Upgrading by Aldol Condensation with Ketones over Solid-Base Catalysts. *Catalysis Letters*,1	2.8	1
8	Liquid-Organic hydrogen carriers as endothermic fuels. *Fuel*, **2022**, 313, 123063	7.1	0
7	Thermodynamic Properties of Iron Oxide Thin-Film Oxygen Carriers Prepared by Atomic Layer Deposition. *Industrial & Engineering Chemistry Research*, **2021**, 60, 12228-12234	3.9	0
6	An Investigation of the Electrochemical Activity of (Ba/Sr)FeO3-y Anodes. *Journal of the Electrochemical Society*, **2022**, 169, 034525	3.9	0
5	Flexible atomic layer deposition system for coating porous materials. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2022**, 40, 032401	2.9	0
4	Understanding the competing factors that control the selectivity of alcohol oxidation on Au catalysts. *Surface Science*, **2012**, 606, 1127-1128	1.8	
3	Chlorine adsorption induced structure and energetics change of vinyl chloride physisorbed on Ag(1 1 1). *Chemical Physics Letters*, **2006**, 432, 431-435	2.5	
2	Fabrication of SOFC Electrodes by Impregnation Methods. *Ceramic Transactions*,121-130	0.1	
1	Insights into Proton Recombination in Ceramic Proton Conducting Electrodes. *Journal of the Electrochemical Society*, **2021**, 168, 044522	3.9	