Israel E Wachs

List of Publications by Year in Descending Order

343 papers	29,590 citations	99 h-index	158 g-index
363 ext. papers	31,881 ext. citations	7.8 avg, IF	7.46 L-index

#	Paper	IF	Citations
343	Number of surface sites and turnover frequencies for oxide catalysts. *Journal of Catalysis*, **2022**, 405, 462-472	7.3	1
342	The effect of non-redox promoters (AlOx, POx, SiOx and ZrOx) and surface sulfates on supported V2O5-WO3/TiO2 catalysts in selective catalytic reduction of NO with NH3. *Applied Catalysis B: Environmental*, **2022**, 306, 121128	21.8	0
341	Effect of redox promoters (CeOx and CuOx) and surface sulfates on the selective catalytic reduction (SCR) of NO with NH3 by supported V2O5-WO3/TiO2 catalysts. *Applied Catalysis B: Environmental*, **2022**, 306, 121108	21.8	4
340	Molecular Design of Supported MoOx Catalysts with Surface TaOx Promotion for Olefin Metathesis. *ACS Catalysis*, **2022**, 12, 3226-3237	13.1	1
339	Redox Dynamics of Active VO Sites Promoted by TiO during Oxidative Dehydrogenation of Ethanol Detected by Quick XAS.. *Jacs Au*, **2022**, 2, 762-776		4
338	A combined computational and experimental study of methane activation during oxidative coupling of methane (OCM) by surface metal oxide catalysts. *Chemical Science*, **2021**, 12, 14143-14158	9.4	1
337	Role of chromium in CrFe oxide catalysts for high temperature water-gas shift reaction A DFT study. *International Journal of Hydrogen Energy*, **2021**, 46, 17154-17162	6.7	2
336	Experimental methods in chemical engineering: Temperature programmed surface reaction spectroscopyTPSR. *Canadian Journal of Chemical Engineering*, **2021**, 99, 423-434	2.3	2
335	Identifying the Catalytic Active Site for Propylene Metathesis by Supported ReOx Catalysts. *ACS Catalysis*, **2021**, 11, 1962-1976	13.1	3
334	Tuning the Number of Active Sites and Turnover Frequencies by Surface Modification of Supported ReO4/(SiO2Al2O3) Catalysts for Olefin Metathesis. *ACS Catalysis*, **2021**, 11, 2412-2421	13.1	4
333	Impact of Hydration on Supported V2O5/TiO2 Catalysts as Explored by Magnetic Resonance Spectroscopy. *Journal of Physical Chemistry C*, **2021**, 125, 16766-16775	3.8	1
332	Elucidating the Effects of Mn Promotion on SiO2-Supported Na-Promoted Tungsten Oxide Catalysts for Oxidative Coupling of Methane (OCM). *ACS Catalysis*, **2021**, 11, 10131-10137	13.1	7
331	New Mechanistic and Reaction Pathway Insights for Oxidative Coupling of Methane (OCM) over Supported Na WO /SiO Catalysts. *Angewandte Chemie - International Edition*, **2021**, 60, 21502-21511	16.4	12
330	New Mechanistic and Reaction Pathway Insights for Oxidative Coupling of Methane (OCM) over Supported Na2WO4/SiO2 Catalysts. *Angewandte Chemie*, **2021**, 133, 21672-21681	3.6	1
329	Formation and influence of surface hydroxyls on product selectivity during CO2 hydrogenation by Ni/SiO2 catalysts. *Journal of Catalysis*, **2021**, 400, 228-233	7.3	4
328	Resolving the Types and Origin of Active Oxygen Species Present in Supported Mn-Na2WO4/SiO2 Catalysts for Oxidative Coupling of Methane. *ACS Catalysis*, **2021**, 11, 10288-10293	13.1	9
327	StructureActivity Relationships of Hydrothermally Aged Titania-Supported VanadiumTungsten Oxide Catalysts for SCR of NOx Emissions with NH3. *ACS Catalysis*, **2021**, 11, 12096-12111	13.1	4

326	Methane activation by ZSM-5-supported transition metal centers. *Chemical Society Reviews*, **2021**, 50, 1251-1268	58.5	34
325	Nature of Reactive Oxygen Intermediates on Copper-Promoted Iron□Chromium Oxide Catalysts during CO2 Activation. *ACS Catalysis*, **2020**, 10, 7857-7863	13.1	25
324	Existence and Properties of Isolated Catalytic Sites on the Surface of □-Cristobalite-Supported, Doped Tungsten Oxide Catalysts (WOx/□SiO2, Na-WOx/□SiO2, Mn-WOx/□SiO2) for Oxidative Coupling of Methane (OCM): A Combined Periodic DFT and Experimental Study. *ACS Catalysis*, **2020**, 10, 4580-4592	13.1	22
323	Probing the surface of promoted CuO-Cr2O3-Fe2O3 catalysts during CO2 activation. *Applied Catalysis B: Environmental*, **2020**, 271, 118943	21.8	11
322	Synthesis and molecular structure of model silica-supported tungsten oxide catalysts for oxidative coupling of methane (OCM). *Catalysis Science and Technology*, **2020**, 10, 3334-3345	5.5	22
321	Role of Local Structure on Catalytic Reactivity: Comparison of Methanol Oxidation by Aqueous Bioinorganic Enzyme Mimic (Vanadium Haloperoxidase) and Vanadia-Based Heterogeneous Catalyst (Supported VO4/SiO2). *ACS Catalysis*, **2020**, 10, 1566-1574	13.1	3
320	Initial Steps in the Selective Catalytic Reduction of NO with NH3 by TiO2-Supported Vanadium Oxides. *ACS Catalysis*, **2020**, 10, 13918-13931	13.1	10
319	Activation and deactivation of the commercial-type CuO□Cr2O3□Fe2O3 high temperature shift catalyst. *AICHE Journal*, **2020**, 66, e16846	3.6	9
318	Cr-Free, Cu Promoted Fe Oxide-Based Catalysts for High-Temperature Water-Gas Shift (HT-WGS) Reaction. *Catalysts*, **2020**, 10, 305	4	6
317	Innenr□cktitelbild: Mechanism by which Tungsten Oxide Promotes the Activity of Supported V2O5/TiO2 Catalysts for NOX Abatement: Structural Effects Revealed by 51V MAS NMR Spectroscopy (Angew. Chem. 36/2019). *Angewandte Chemie*, **2019**, 131, 12847-12847	3.6	0
316	Oxidative Coupling of Methane (OCM) by SiO2-Supported Tungsten Oxide Catalysts Promoted with Mn and Na. *ACS Catalysis*, **2019**, 9, 5912-5928	13.1	86
315	Strong Metal-Support Interactions between Copper and Iron Oxide during the High-Temperature Water-Gas Shift Reaction. *Angewandte Chemie - International Edition*, **2019**, 58, 9083-9087	16.4	50
314	Strong Metal□Support Interactions between Copper and Iron Oxide during the High-Temperature Water-Gas Shift Reaction. *Angewandte Chemie*, **2019**, 131, 9181-9185	3.6	12
313	Activation Mechanism and Surface Intermediates during Olefin Metathesis by Supported MoOx/Al2O3 Catalysts. *Journal of Physical Chemistry C*, **2019**, 123, 12367-12375	3.8	8
312	Elucidation of the Reaction Mechanism for High-Temperature Water Gas Shift over an Industrial-Type Copper-Chromium-Iron Oxide Catalyst. *Journal of the American Chemical Society*, **2019**, 141, 7990-7999	16.4	33
311	Molybdenum Oxide, Oxycarbide, and Carbide: Controlling the Dynamic Composition, Size, and Catalytic Activity of Zeolite-Supported Nanostructures. *Journal of Physical Chemistry C*, **2019**, 123, 22281-22292	3.8	24
310	Mechanism by which Tungsten Oxide Promotes the Activity of Supported V O /TiO Catalysts for NO Abatement: Structural Effects Revealed by V MAS NMR Spectroscopy. *Angewandte Chemie - International Edition*, **2019**, 58, 12609-12616	16.4	48
309	Mechanism by which Tungsten Oxide Promotes the Activity of Supported V2O5/TiO2 Catalysts for NOX Abatement: Structural Effects Revealed by 51V MAS NMR Spectroscopy. *Angewandte Chemie*, **2019**, 131, 12739-12746	3.6	30

308	Overview of Selective Oxidation of Ethylene to Ethylene Oxide by Ag Catalysts. *ACS Catalysis*, **2019**, 9, 10727-10750	13.1	52
307	Critical review on the active site structure of sulfated zirconia catalysts and prospects in fuel production. *Applied Catalysis A: General*, **2019**, 572, 210-225	5.1	39
306	Proof of Equivalent Catalytic Functionality upon Photon-Induced and Thermal Activation of Supported Isolated Vanadia Species in Methanol Oxidation. *ChemCatChem*, **2018**, 10, 2360-2364	5.2	9
305	Molecular StructureReactivity Relationships for Olefin Metathesis by Al2O3-Supported Surface MoOx Sites. *ACS Catalysis*, **2018**, 8, 949-959	13.1	37
304	Molecular structure and sour gas surface chemistry of supported K2O/WO3/Al2O3 catalysts. *Applied Catalysis B: Environmental*, **2018**, 232, 146-154	21.8	17
303	Revealing structure-activity relationships in chromium free high temperature shift catalysts promoted by earth abundant elements. *Applied Catalysis B: Environmental*, **2018**, 232, 205-212	21.8	18
302	A perspective on chromium-Free iron oxide-based catalysts for high temperature water-gas shift reaction. *Catalysis Today*, **2018**, 311, 2-7	5.3	16
301	Nature of surface oxygen intermediates on TiO2 during photocatalytic splitting of water. *Chinese Chemical Letters*, **2018**, 29, 769-772	8.1	12
300	Photocatalytic Methanol Oxidation by Supported Vanadium Oxide Species: Influence of Support and Degree of Oligomerization. *European Journal of Inorganic Chemistry*, **2018**, 2018, 3725-3735	2.3	8
299	A Perspective on the Selective Catalytic Reduction (SCR) of NO with NH3 by Supported V2O5WO3/TiO2 Catalysts. *ACS Catalysis*, **2018**, 8, 6537-6551	13.1	197
298	Proof of Equivalent Catalytic Functionality upon Photon-Induced and Thermal Activation of Supported Isolated Vanadia Species in Methanol Oxidation. *ChemCatChem*, **2018**, 10, 2325-2325	5.2	
297	Anatomy of a Visible Light Activated Photocatalyst for Water Splitting. *ACS Catalysis*, **2018**, 8, 6650-6658	13.1	19
296	Formation of N2O greenhouse gas during SCR of NO with NH3 by supported vanadium oxide catalysts. *Applied Catalysis B: Environmental*, **2018**, 224, 836-840	21.8	39
295	Pyrolysis of the Cellulose Fraction of Biomass in the Presence of Solid Acid Catalysts: An Operando Spectroscopy and Theoretical Investigation. *ChemSusChem*, **2018**, 11, 4044-4059	8.3	5
294	Investigation of Silica-Supported Vanadium Oxide Catalysts by High-Field 51V Magic-Angle Spinning NMR. *Journal of Physical Chemistry C*, **2017**, 121, 6246-6254	3.8	28
293	Nature of Catalytically Active Sites in the Supported WO3/ZrO2 Solid Acid System: A Current Perspective. *ACS Catalysis*, **2017**, 7, 2181-2198	13.1	54
292	Catalyst Activation and Kinetics for Propylene Metathesis by Supported WOx/SiO2 Catalysts. *ACS Catalysis*, **2017**, 7, 573-580	13.1	25
291	A decade+ of operando spectroscopy studies. *Catalysis Today*, **2017**, 283, 27-53	5.3	90

290	Nature of Active Sites and Surface Intermediates during SCR of NO with NH by Supported V-WO/TiO Catalysts. *Journal of the American Chemical Society*, **2017**, 139, 15624-15627	16.4	155
289	Vibrational Spectroscopy of Oxide Overlayers. *Topics in Catalysis*, **2017**, 60, 1577-1617	2.3	31
288	Reaction Pathways and Kinetics for Selective Catalytic Reduction (SCR) of Acidic NOx Emissions from Power Plants with NH3. *ACS Catalysis*, **2017**, 7, 8358-8361	13.1	49
287	Surface Structure and Photocatalytic Properties of Bi2WO6 Nanoplatelets Modified by Molybdena Islands from Chemical Vapor Deposition. *Journal of Physical Chemistry C*, **2016**, 120, 18191-18200	3.8	20
286	Promotion Mechanisms of Iron Oxide-Based High Temperature Water-Gas Shift Catalysts by Chromium and Copper. *ACS Catalysis*, **2016**, 6, 4455-4464	13.1	74
285	Dynamics of CrO3-Fe2O3 Catalysts during the High-Temperature Water-Gas Shift Reaction: Molecular Structures and Reactivity. *ACS Catalysis*, **2016**, 6, 4786-4798	13.1	55
284	Iron-Based Catalysts for the High-Temperature Water-Gas Shift (HT-WGS) Reaction: A Review. *ACS Catalysis*, **2016**, 6, 722-732	13.1	181
283	Reaction Mechanism and Kinetics of Olefin Metathesis by Supported ReOx/Al2O3 Catalysts. *ACS Catalysis*, **2016**, 6, 272-278	13.1	16
282	Revisiting formic acid decomposition on metallic powder catalysts: Exploding the HCOOH decomposition volcano curve. *Surface Science*, **2016**, 650, 103-110	1.8	34
281	Selective catalytic reduction of NO by NH3 with WO3-TiO2 catalysts: Influence of catalyst synthesis method. *Applied Catalysis B: Environmental*, **2016**, 188, 123-133	21.8	43
280	Determining Number of Active Sites and TOF for the High-Temperature Water Gas Shift Reaction by Iron Oxide-Based Catalysts. *ACS Catalysis*, **2016**, 6, 1764-1767	13.1	26
279	Analysis of corrosion layers in ancient Roman silver coins with high resolution surface spectroscopic techniques. *Applied Surface Science*, **2016**, 376, 241-251	6.7	15
278	Resolving the Reaction Mechanism for H2 Formation from High-Temperature Water-Gas Shift by Chromium-Iron Oxide Catalysts. *ACS Catalysis*, **2016**, 6, 2827-2830	13.1	32
277	Operando Molecular Spectroscopy During Ethylene Polymerization by Supported CrO x /SiO2 Catalysts: Active Sites, Reaction Intermediates, and Structure-Activity Relationship. *Topics in Catalysis*, **2016**, 59, 725-739	2.3	43
276	Nature of WOx Sites on SiO2 and Their Molecular Structure-Reactivity/Selectivity Relationships for Propylene Metathesis. *ACS Catalysis*, **2016**, 6, 3061-3071	13.1	66
275	Influence of catalyst synthesis method on selective catalytic reduction (SCR) of NO by NH3 with V2O5-WO3/TiO2 catalysts. *Applied Catalysis B: Environmental*, **2016**, 193, 141-150	21.8	93
274	Catalysis by Mixed Oxides. *Catalysis Today*, **2016**, 277, 201	5.3	2
273	Spectroscopic and Computational Study of Cr Oxide Structures and Their Anchoring Sites on ZSM-5 Zeolites. *ACS Catalysis*, **2015**, 5, 3078-3092	13.1	55

272	The Nature of Surface CrOx Sites on SiO2 in Different Environments. *Catalysis Letters*, **2015**, 145, 985-994	2.8	32
271	Catalysis. Identification of molybdenum oxide nanostructures on zeolites for natural gas conversion. *Science*, **2015**, 348, 686-90	33.3	242
270	Activation of Surface ReOx Sites on Al2O3 Catalysts for Olefin Metathesis. *ACS Catalysis*, **2015**, 5, 6807-6814	13.1	22
269	Determination of Number of Activated Sites Present during Olefin Metathesis by Supported ReOx/Al2O3 Catalysts. *ACS Catalysis*, **2015**, 5, 6823-6827	13.1	10
268	Surface ReOx Sites on Al2O3 and Their Molecular Structure–Reactivity Relationships for Olefin Metathesis. *ACS Catalysis*, **2015**, 5, 1432-1444	13.1	53
267	Monitoring solid oxide CO2 capture sorbents in action. *ChemSusChem*, **2014**, 7, 3459-66	8.3	32
266	Olefin Metathesis by Supported Metal Oxide Catalysts. *ACS Catalysis*, **2014**, 4, 2505-2520	13.1	187
265	Critical Literature Review of the Kinetics for the Oxidative Dehydrogenation of Propane over Well-Defined Supported Vanadium Oxide Catalysts. *ACS Catalysis*, **2014**, 4, 3357-3380	13.1	343
264	Structure of Mo2Cx and Mo4Cx Molybdenum Carbide Nanoparticles and Their Anchoring Sites on ZSM-5 Zeolites. *Journal of Physical Chemistry C*, **2014**, 118, 4670-4679	3.8	67
263	In Situ and Operando Raman Spectroscopy of Oxidation Catalysts **2014**, 420-446		2
262	How strain affects the reactivity of surface metal oxide catalysts. *Angewandte Chemie - International Edition*, **2013**, 52, 13553-7	16.4	107
261	Reporting of Reactivity for Heterogeneous Photocatalysis. *ACS Catalysis*, **2013**, 3, 2606-2611	13.1	42
260	Catalysis science of supported vanadium oxide catalysts. *Dalton Transactions*, **2013**, 42, 11762-9	4.3	255
259	Anomalous reactivity of supported V2O5 nanoparticles for propane oxidative dehydrogenation: influence of the vanadium oxide precursor. *Dalton Transactions*, **2013**, 42, 12644-53	4.3	81
258	Nature of Catalytic Active Sites Present on the Surface of Advanced Bulk Tantalum Mixed Oxide Photocatalysts. *ACS Catalysis*, **2013**, 3, 2920-2929	13.1	49
257	Fundamental Bulk/Surface Structure–Photoactivity Relationships of Supported (Rh2−yCryO3)/GaN Photocatalysts. *Journal of Physical Chemistry Letters*, **2013**, 4, 3719-3724	6.4	27
256	Der Einfluss von strukturellen Spannungen auf die Reaktivität von getragenen Metalloxidkatalysatoren. *Angewandte Chemie*, **2013**, 125, 13796-13800	3.6	20
255	Nanostructural and chemical characterization of supported metal oxide catalysts by aberration corrected analytical electron microscopy. *Current Opinion in Solid State and Materials Science*, **2012**, 16, 10-22	12	52

254	Spectroscopic Characterization of Mixed Fe□Ni Oxide Electrocatalysts for the Oxygen Evolution Reaction in Alkaline Electrolytes. *ACS Catalysis*, **2012**, 2, 1793-1801	13.1	362
253	Catalysis Science of Bulk Mixed Oxides. *ACS Catalysis*, **2012**, 2, 1235-1246	13.1	157
252	Catalysis Science of Methanol Oxidation over Iron Vanadate Catalysts: Nature of the Catalytic Active Sites. *ACS Catalysis*, **2011**, 1, 54-66	13.1	107
251	Aberration-corrected Analytical Microscopy Characterization of Double-Supported WO3/TiO2/SiO2 Solid Acid Catalysts. *ChemCatChem*, **2011**, 3, 1045-1050	5.2	4
250	Dynamic Surface Structures and Reactivity of Vanadium-Containing Molybdophosphoric Acid (H3+xPMo12□VxO40) Keggin Catalysts during Methanol Oxidation and Dehydration. *ACS Catalysis*, **2011**, 1, 1536-1548	13.1	45
249	The generality of surface vanadium oxide phases in mixed oxide catalysts. *Applied Catalysis A: General*, **2011**, 391, 36-42	5.1	60
248	Characterization of Hydrothermally Prepared Titanate Nanotube Powders by Ambient and In Situ Raman Spectroscopy. *Journal of Physical Chemistry Letters*, **2010**, 1, 130-135	6.4	57
247	Presence of surface vanadium peroxo-oxo umbrella structures in supported vanadium oxide catalysts: fact or fiction?. *Journal of the American Chemical Society*, **2010**, 132, 12559-61	16.4	48
246	Relating n-pentane isomerization activity to the tungsten surface density of WO(x)/ZrO2. *Journal of the American Chemical Society*, **2010**, 132, 13462-71	16.4	84
245	Molecular Structural Determination of Molybdena in Different Environments: Aqueous Solutions, Bulk Mixed Oxides, and Supported MoO3 Catalysts. *Journal of Physical Chemistry C*, **2010**, 114, 14110-14120	3.8	115
244	Monitoring surface metal oxide catalytic active sites with Raman spectroscopy. *Chemical Society Reviews*, **2010**, 39, 5002-17	58.5	226
243	Raman Spectroscopy of Catalysts **2010**,		1
242	Origin of the synergistic interaction between MoO3 and iron molybdate for the selective oxidation of methanol to formaldehyde. *Journal of Catalysis*, **2010**, 275, 84-98	7.3	96
241	Anomale Oberfl□henzusammensetzung st□hiometrischer Mischoxid-Verbindungen. *Angewandte Chemie*, **2010**, 122, 8212-8216	3.6	4
240	Anomalous surface compositions of stoichiometric mixed oxide compounds. *Angewandte Chemie - International Edition*, **2010**, 49, 8037-41	16.4	35
239	Tuning the electronic and molecular structures of catalytic active sites with titania nanoligands. *Journal of the American Chemical Society*, **2009**, 131, 680-7	16.4	41
238	Identification of active Zr-WO(x) clusters on a ZrO2 support for solid acid catalysts. *Nature Chemistry*, **2009**, 1, 722-8	17.6	123
237	Applications of High Sensitivity-Low Energy Ion Scattering (HS-LEIS) in heterogeneous catalysis. *Catalysis Today*, **2009**, 140, 197-201	5.3	62

236	Insights into Oxygen Exchange Between Gaseous O2 and Supported Vanadium Oxide Catalysts via 17O NMR. *Chemistry of Materials*, **2009**, 21, 4127-4134	9.6	12
235	Surface and bulk aspects of mixed oxide catalytic nanoparticles: oxidation and dehydration of CH(3)OH by polyoxometallates. *Journal of the American Chemical Society*, **2009**, 131, 15544-54	16.4	75
234	Microstructural Development of Supported Pt/ZrO2/SiO2 Catalysts: The Effect of ZrO2 Nanoligands. *Microscopy and Microanalysis*, **2009**, 15, 1414-1415	0.5	
233	CH3OH oxidation over well-defined supported V2O5/Al2O3 catalysts: Influence of vanadium oxide loading and surface vanadium-oxygen functionalities. *Journal of Catalysis*, **2008**, 255, 197-205	7.3	104
232	New insights into the nature of the acidic catalytic active sites present in ZrO2-supported tungsten oxide catalysts. *Journal of Catalysis*, **2008**, 256, 108-125	7.3	176
231	Is there a relationship between the MO bond length (strength) of bulk mixed metal oxides and their catalytic activity?. *Journal of Catalysis*, **2008**, 256, 145-153	7.3	39
230	Selective oxidation of propylene over model supported V2O5 catalysts: Influence of surface vanadia coverage and oxide support. *Journal of Catalysis*, **2008**, 257, 181-189	7.3	54
229	Surface chemistry and reactivity of well-defined multilayered supported M1Ox/M2Ox/SiO2 catalysts. *Journal of Catalysis*, **2008**, 258, 103-110	7.3	25
228	Structural Characterization of WO3/ZrO2 Catalysts using HAADF Imaging. *Microscopy and Microanalysis*, **2008**, 14, 1350-1351	0.5	3
227	In Situ Raman Spectroscopy of SiO2-Supported Transition Metal Oxide Catalysts: An Isotopic 18O-16O Exchange Study. *Journal of Physical Chemistry C*, **2008**, 112, 6487-6498	3.8	154
226	Influence of Vanadium Location in Titania Supported Vanadomolybdophosphoric Acid Catalysts and Its Effect on the Oxidation and Ammoxidation Functionalities. *Journal of Physical Chemistry C*, **2008**, 112, 8294-8300	3.8	29
225	Molecular Design and In Situ Spectroscopic Investigation of Multilayered Supported M1Ox/M2Ox/SiO2 Catalysts. *Journal of Physical Chemistry C*, **2008**, 112, 20418-20428	3.8	46
224	Probing Metal-Support Interactions under Oxidizing and Reducing Conditions: In Situ Raman and Infrared Spectroscopic and Scanning Transmission Electron Microscopic-X-ray Energy-Dispersive Spectroscopic Investigation of Supported Platinum Catalysts. *Journal of Physical Chemistry C*, **2008**, 112, 5942-5951	3.8	93
223	An Operando Raman, IR, and TPSR Spectroscopic Investigation of the Selective Oxidation of Propylene to Acrolein over a Model Supported Vanadium Oxide Monolayer Catalyst. *Journal of Physical Chemistry C*, **2008**, 112, 11363-11372	3.8	51
222	Nature of Catalytic Active Sites for Sb-V-O Mixed Metal Oxides. *Journal of Physical Chemistry C*, **2008**, 112, 16858-16863	3.8	19
221	Study on the Reaction Mechanism for Soot Oxidation Over TiO2 or ZrO2-supported Vanadium Oxide Catalysts by Means of In-situ UV-Raman. *Catalysis Letters*, **2008**, 120, 148-153	2.8	21
220	In-situ UV-Raman study on soot combustion over TiO2 or ZrO2-supported vanadium oxide catalysts. *Science in China Series B: Chemistry*, **2008**, 51, 551-561		7
219	Photocatalytic Activity of Vanadium-Substituted ETS-10. *Journal of Physical Chemistry C*, **2007**, 111, 7029-7037	3.8	39

218	Structural characteristics and reactivity properties of the tantalum modified mesoporous silicalite (MCM-41) catalysts. *Microporous and Mesoporous Materials*, **2007**, 99, 299-307	5.3	14
217	Molecular/electronic structure–surface acidity relationships of model-supported tungsten oxide catalysts. *Journal of Catalysis*, **2007**, 246, 370-381	7.3	139
216	In Situ Spectroscopic Investigation of the Molecular and Electronic Structures of SiO2 Supported Surface Metal Oxides. *Journal of Physical Chemistry C*, **2007**, 111, 14410-14425	3.8	234
215	Structural Determination of Bulk and Surface Tungsten Oxides with UV–vis Diffuse Reflectance Spectroscopy and Raman Spectroscopy. *Journal of Physical Chemistry C*, **2007**, 111, 15089-15099	3.8	285
214	Oxidative dehydrogenation of ethane to ethylene over alumina-supported vanadium oxide catalysts: Relationship between molecular structures and chemical reactivity. *Catalysis Today*, **2006**, 118, 279-287	5.3	148
213	Promotion of the propane ODH reaction over supported V2O5/Al2O3 catalyst with secondary surface metal oxide additives. *Journal of Catalysis*, **2006**, 240, 151-159	7.3	47
212	Synthesis and characterization of Ni–Mo bimetallic nitride from the mixture of nitrogen and hydrogen. *Materials Research Bulletin*, **2006**, 41, 2334-2340	5.1	7
211	Quantitative determination of the speciation of surface vanadium oxides and their catalytic activity. *Journal of Physical Chemistry B*, **2006**, 110, 9593-600	3.4	178
210	Catalysis science of the solid acidity of model supported tungsten oxide catalysts. *Catalysis Today*, **2006**, 116, 162-168	5.3	136
209	Selective oxidation of propylene to acrolein over supported V2O5/Nb2O5 catalysts: An in situ Raman, IR, TPSR and kinetic study. *Catalysis Today*, **2006**, 118, 332-343	5.3	72
208	Effects of alkali metal cations on the structures, physico-chemical properties and catalytic behaviors of silica-supported vanadium oxide catalysts for the selective oxidation of ethane and the complete oxidation of diesel soot. *Topics in Catalysis*, **2006**, 38, 309-325	2.3	17
207	Determination of the chemical nature of active surface sites present on bulk mixed metal oxide catalysts. *Journal of Physical Chemistry B*, **2005**, 109, 2275-84	3.4	99
206	Comparison of UV and visible Raman spectroscopy of bulk metal molybdate and metal vanadate catalysts. *Journal of Physical Chemistry B*, **2005**, 109, 23491-9	3.4	119
205	Comparison of alcohol and alkane oxidative dehydrogenation reactions over supported vanadium oxide catalysts: in situ infrared, Raman and UV–vis spectroscopic studies of surface alkoxide intermediates and of their surface chemistry. *Catalysis Today*, **2005**, 99, 105-114	5.3	48
204	Recent conceptual advances in the catalysis science of mixed metal oxide catalytic materials. *Catalysis Today*, **2005**, 100, 79-94	5.3	445
203	Oxidative dehydrogenation of propane over V/MCM-41 catalysts: comparison of O2 and N2O as oxidants. *Journal of Catalysis*, **2005**, 234, 131-142	7.3	123
202	Designing the activity/selectivity of surface acidic, basic and redox active sites in the supported K2O–V2O5/Al2O3 catalytic system. *Catalysis Today*, **2004**, 96, 211-222	5.3	42
201	Methodical aspects in the surface analysis of supported molybdena catalysts. *Surface and Interface Analysis*, **2004**, 36, 238-245	1.5	19

200	Surface-Analytical Studies of Supported Vanadium Oxide Monolayer Catalysts. *Journal of Physical Chemistry B*, **2004**, 108, 4823-4830	3.4	46
199	In situ UV-vis-NIR diffuse reflectance and Raman spectroscopy and catalytic activity studies of propane oxidative dehydrogenation over supported CrO3/ZrO2 catalysts. *Langmuir*, **2004**, 20, 7159-65	4	39
198	Tantalum oxide-supported metal oxide (Re2O7, CrO3, MoO3, WO3, V2O5, and Nb2O5) catalysts: synthesis, Raman characterization and chemically probed by methanol oxidation. *Journal of Catalysis*, **2003**, 217, 468-477	7.3	38
197	Extending surface science studies to industrial reaction conditions: mechanism and kinetics of methanol oxidation over silver surfaces. *Surface Science*, **2003**, 544, 1-4	1.8	41
196	Catalytic synthesis of methanethiol from hydrogen sulfide and carbon monoxide over vanadium-based catalysts. *Catalysis Today*, **2003**, 78, 327-337	5.3	31
195	Molecular structure and reactivity of the Group V metal oxides. *Catalysis Today*, **2003**, 78, 13-24	5.3	171
194	Quantitative determination of the number of surface active sites and the turnover frequency for methanol oxidation over bulk metal vanadates. *Catalysis Today*, **2003**, 78, 257-268	5.3	81
193	International Congress on Operando Spectroscopy: Fundamental and technical aspects of spectroscopy of catalysts under working conditions Lunteren, The Netherlands (March 26, 2003). *Catalysis Communications*, **2003**, 4, 567-570	3.2	13
192	Comparative Study of Bulk and Supported V-Mo-Te-Nb-O Mixed Metal Oxide Catalysts for Oxidative Dehydrogenation of Propane to Propylene. *Journal of Physical Chemistry B*, **2003**, 107, 6333-6342	3.4	45
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