SebastiÃ¡n E Collins

List of Publications by Year
in descending order

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62	2,564	172457	189892
papers	citations	29 h-index	50 g-index

63	63	63	3010
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An infrared study of the intermediates of methanol synthesis from carbon dioxide over Pd/-GaO. Journal of Catalysis, 2004, 226, 410-421.	6.2	232
2	Understanding the Role of Oxygen Vacancies in the Water Gas Shift Reaction on Ceria-Supported Platinum Catalysts. ACS Catalysis, 2014, 4, 2088-2096.	11.2	176
3	Infrared Spectroscopic Study of the Carbon Dioxide Adsorption on the Surface of Ga2O3Polymorphs. Journal of Physical Chemistry B, 2006, 110, 5498-5507.	2.6	147
4	The role of Pdâ€“Ga bimetallic particles in the bifunctional mechanism of selective methanol synthesis via CO2 hydrogenation on a Pd/Ga2O3 catalyst. Journal of Catalysis, 2012, 292, 90-98.	6.2	136
5	Controlling CO₂ Hydrogenation Selectivity by Metalâ€Supported Electron Transfer. Angewandte Chemie - International Edition, 2020, 59, 19983-19989.	13.8	114
6	Hydrogen Chemisorption on Gallium Oxide Polymorphs. Langmuir, 2005, 21, 962-970.	3.5	102
7	Methanol synthesis from CO2/H2 using Ga2O3â€“Pd/silica catalysts: Kinetic modeling. Chemical Engineering Journal, 2009, 150, 204-212.	12.7	100
8	Hydrogen Spillover in Ga2O3â€“Pd/SiO2 Catalysts for Methanol Synthesis from CO2/H2. Catalysis Letters, 2005, 103, 83-88.	2.6	97
9	Galliumâ€“Hydrogen Bond Formation on Gallium and Galliumâ€“Palladium Silica-Supported Catalysts. Journal of Catalysis, 2002, 211, 252-264.	6.2	80
10	Hydrogen Interaction with a Ceriaâ^'Zirconia Supported Gold Catalyst. Influence of CO Co-adsorption and Pretreatment Conditions. Journal of Physical Chemistry C, 2007, 111, 14371-14379.	3.1	65
11	Promoted ceria catalysts for alkyne semi-hydrogenation. Journal of Catalysis, 2015, 324, 69-78.	6.2	65
12	Stability of formate species on Î²-Ga2O3. Physical Chemistry Chemical Physics, 2009, 11, 1397.	2.8	58
13	Photocatalytic hydrogen production by Auâ€“MxOy (M Ag, Cu, Ni) catalysts supported on TiO2. Catalysis Communications, 2014, 47, 1-6.	3.3	58
14	Galliumâ€“Hydrogen Bond Formation on Gallium and Galliumâ€“Palladium Silica-Supported Catalysts. Journal of Catalysis, 2002, 211, 252-264.	6.2	57
15	Synergetic effect of bimetallic Au-Ru/TiO2 catalysts for complete oxidation of methanol. Applied Catalysis B: Environmental, 2017, 207, 79-92.	20.2	56
16	Critical Influence of Nanofaceting on the Preparation and Performance of Supported Gold Catalysts. ACS Catalysis, 2015, 5, 3504-3513.	11.2	53
17	Hydrogen adsorption on Î²-Ga2O3(100) surface containing oxygen vacancies. Surface Science, 2005, 575, 171-180.	1.9	49
18	Infrared spectroscopic study of carbon dioxide adsorption on the surface of ceriumâ€“gallium mixed oxides. Catalysis Today, 2012, 180, 9-18.	4.4	45

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19	Reversible deactivation of a Au/Ce0.62Zr0.38O2 catalyst in CO oxidation: A systematic study of CO2-triggered carbonate inhibition. Journal of Catalysis, 2014, 316, 210-218.	6.2	45
20	Mechanism of the decomposition of adsorbed methanol over a Pd/Î±,Î²-Ga2O3 catalyst. Applied Catalysis A: General, 2005, 295, 126-133.	4.3	42
21	Fully Reversible Metal Deactivation Effects in Gold/Ceriaâ€“Zirconia Catalysts: Role of the Redox State of the Support. Angewandte Chemie - International Edition, 2010, 49, 9744-9748.	13.8	42
22	Selective detection of reaction intermediates using concentration-modulation excitation DRIFT spectroscopy. Catalysis Today, 2013, 205, 34-40.	4.4	42
23	Adsorption and Decomposition of Methanol on Gallium Oxide Polymorphs. Journal of Physical Chemistry C, 2008, 112, 14988-15000.	3.1	40
24	FTIR-ATR characterization of free Rhizomucor meihei lipase (RML), Lipozyme RM IM and chitosan-immobilized RML. Journal of Molecular Catalysis B: Enzymatic, 2011, 72, 220-228.	1.8	40
25	Effect of gallia doping on the acidâ€“base and redox properties of ceria. Applied Catalysis A: General, 2010, 388, 202-210.	4.3	36
26	Surface Reduction Mechanism of Ceriumâ€“Gallium Mixed Oxides with Enhanced Redox Properties. Journal of Physical Chemistry C, 2013, 117, 8822-8831.	3.1	33
27	Insights on hydride formation over cerium-gallium mixed oxides: A mechanistic study for efficient H2 dissociation. Journal of Catalysis, 2017, 345, 258-269.	6.2	32
28	CO2 hydrogenation to methanol on Ga2O3-Pd/SiO2 catalysts: Dual oxide-metal sites or (bi)metallic surface sites?. Catalysis Today, 2021, 381, 154-162.	4.4	32
29	Gold Catalysts Supported on Ceriumâ€“Gallium Mixed Oxide for the Carbon Monoxide Oxidation and Water Gas Shift Reaction. Topics in Catalysis, 2011, 54, 201-209.	2.8	31
30	Design and operational limits of an ATR-FTIR spectroscopic microreactor for investigating reactions at liquidâ€“solid interface. Chemical Engineering Journal, 2014, 243, 197-206.	12.7	31
31	Methanol Adsorption on the Î²-Ga2O3Surface with Oxygen Vacancies:Â Theoretical and Experimental Approach. Journal of Physical Chemistry B, 2006, 110, 11847-11853.	2.6	29
32	Controlled selectivity for ethanol steam reforming reaction over doped CeO2 surfaces: The role of gallium. Applied Catalysis B: Environmental, 2020, 277, 119103.	20.2	29
33	In situ FTIR and Raman study on the distribution and reactivity of surface vanadia species in V 2 O 5 /CeO 2 catalysts. Journal of Molecular Catalysis A, 2015, 408, 75-84.	4.8	25
34	Investigation of the structure and proteolytic activity of papain in aqueous miscible organic media. Process Biochemistry, 2012, 47, 47-56.	3.7	24
35	CO Oxidation Activity of a Au/Ceria-Zirconia Catalyst Prepared by Depositionâ€“Precipitation with Urea. Topics in Catalysis, 2011, 54, 931-940.	2.8	23
36	In-Situ DRIFT Study of Auâ€“Ir/Ceria Catalysts: Activity and Stability for CO Oxidation. Topics in Catalysis, 2016, 59, 347-356.	2.8	23

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37	Influence of {111} nanofaceting on the dynamics of CO adsorption and oxidation over Au supported on CeO2 nanocubes: An operando DRIFT insight. Catalysis Today, 2019, 336, 90-98.	4.4	22
38	Esterification of R/S-ketoprofen with 2-propanol as reactant and solvent catalyzed by NovozymÂ® 435 at selected conditions. Journal of Molecular Catalysis B: Enzymatic, 2012, 83, 108-119.	1.8	20
39	Identification of key reaction intermediates during toluene combustion on a Pd/CeO2 catalyst using operando modulated DRIFT spectroscopy. Catalysis Today, 2022, 394-396, 225-234.	4.4	19
40	Towards a green enantiomeric esterification of R/S-ketoprofen: A theoretical and experimental investigation. Journal of Molecular Catalysis B: Enzymatic, 2015, 118, 52-61.	1.8	18
41	Acylating Capacity of the Phosphotungstic Wellsâ^'Dawson Heteropoly Acid: Intermediate Reactive Species. Journal of Physical Chemistry C, 2011, 115, 700-709.	3.1	15
42	ATR-FTIR Study of the Decomposition of Acetic Anhydride on Fosfotungstic Wellsâ€“Dawson Heteropoly Acid Using Concentration-Modulation Excitation Spectroscopy. Topics in Catalysis, 2011, 54, 229-235.	2.8	15
43	Crosslinkable acrylic-melamine latex produced by miniemulsion polymerization. Progress in Organic Coatings, 2018, 118, 82-90.	3.9	15
44	Tailored BrÃ¸nsted and Lewis surface acid sites of the phosphotungstic Wells Dawson heteropoly-acid. Applied Surface Science, 2019, 495, 143565.	6.1	15
45	Insight into the mechanism of acetonitrile hydrogenation in liquid phase on Pt/Al2O3 by ATR-FTIR. Catalysis Today, 2019, 336, 22-32.	4.4	15
46	ATR-FTIR spectrokinetic analysis of the CO adsorption and oxidation at water/platinum interface. Catalysis Today, 2017, 283, 127-133.	4.4	14
47	Resolution of intermediate surface species by combining modulated infrared spectroscopy and chemometrics. Analytica Chimica Acta, 2019, 1049, 38-46.	5.4	14
48	Heats of adsorption and activation energies of surface processes measured by infrared spectroscopy. Journal of Molecular Catalysis A, 2008, 281, 73-78.	4.8	13
49	Molecular recognition of an acylâ€“enzyme intermediate on the lipase B from Candida antarctica. Catalysis Science and Technology, 2017, 7, 1953-1964.	4.1	12
50	Theoretical and FTIR Investigations of the Acetonitrile Hydrogenation Pathways on Platinum. Topics in Catalysis, 2019, 62, 1076-1085.	2.8	11
51	Gold Stabilized with Iridium on Ceriaâ€“Niobia Catalyst: Activity and Stability for CO Oxidation. Topics in Catalysis, 2019, 62, 977-988.	2.8	9
52	Catalytic and molecular insights of the esterification of ibuprofen and ketoprofen with glycerol. Molecular Catalysis, 2021, 513, 111811.	2.0	9
53	Influence of Water on Enzymatic Esterification of Racemic Ketoprofen with Ethanol in a Solvent-Free System. Topics in Catalysis, 2019, 62, 968-976.	2.8	7
54	Design of an optimized DRIFT cell/microreactor for spectrokinetic investigations of surface reaction mechanisms. Molecular Catalysis, 2020, 481, 100628.	2.0	6

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55	Highly disperse CeO2 nanoparticles on MgO hexagonal plates as oxidation catalyst. Applied Catalysis A: General, 2021, 623, 118282.	4.3	6
56	Molecular structure and thermal stability of the oxide-supported phosphotungstic Wellsâ€“Dawson heteropolyacid. Physical Chemistry Chemical Physics, 2015, 17, 8097-8105.	2.8	5
57	ROS-generating rare-earth coordination networks for photodynamic inactivation of Candida albicans. Dalton Transactions, 2021, 50, 5853-5864.	3.3	4
58	Bio-paraffin from Soybean Oil as Eco-friendly Alternative to Mineral Waxes. Industrial & Engineering Chemistry Research, 2021, 60, 5364-5373.	3.7	3
59	Infrared and Raman Investigation of Supported Phosphotungstic Wells- Dawson Heteropolyacid. Current Catalysis, 2014, 3, 199-205.	0.5	3
60	Toluene Adsorption on CeO2 (111) Studied by FTIR and DFT. Topics in Catalysis, 2022, 65, 934-943.	2.8	3
61	6th San Luis Conference on Surfaces, Interfaces and Catalysis. Topics in Catalysis, 2019, 62, 805-807.	2.8	0
62	Lipase-Catalyzed Interesterification of Fully and Partially Hydrogenated Soybean Oil Blends for Bioparaffin Production. Industrial & Engineering Chemistry Research, 2022, 61, 3254-3262.	3.7	0