Mark E Bussell

List of Publications by Year
in descending order

46 papers	3,787 citations	117625 34 h-index	233421 45 g-index
47 all docs	47 docs citations	47 times ranked	3155 citing authors

#	Article	IF	Citations
1	Synthesis and hydrodesulfurization properties of silica-supported nickel-ruthenium phosphide catalysts. Journal of Catalysis, 2021, 403, 173-180.	6.2	15
2	Hydrodesulfurization Properties of Nickel Phosphide on Boronâ€treated Alumina Supports. ChemCatChem, 2020, 12, 4939-4950.	3.7	16
3	Effect of Particle Size on the Deep HDS Properties of Ni₂P Catalysts. Journal of Physical Chemistry C, 2019, 123, 25701-25711.	3.1	21
4	New methods for the preparation of nanoscale nickel phosphide catalysts for heteroatom removal reactions. Reaction Chemistry and Engineering, 2017, 2, 628-635.	3.7	19
5	Highly-active nickel phosphide hydrotreating catalysts prepared in situ using nickel hypophosphite precursors. Journal of Catalysis, 2016, 335, 204-214.	6.2	56
6	Probing hydrodesulfurization over bimetallic phosphides using monodisperse Ni2-xMxP nanoparticles encapsulated in mesoporous silica. Surface Science, 2016, 648, 126-135.	1.9	21
7	Simultaneous Control of Composition, Size, and Morphology in Discrete Ni_{2â€“<i>x</i>}Co_{<i>x</i>}P Nanoparticles. Chemistry of Materials, 2015, 27, 4349-4357.	6.7	64
8	Carbazole hydrodenitrogenation over nickel phosphide and Ni-rich bimetallic phosphide catalysts. Applied Catalysis A: General, 2014, 482, 221-230.	4.3	40
9	Rational Design of Nickel Phosphide Hydrodesulfurization Catalysts: Controlling Particle Size and Preventing Sintering. Chemistry of Materials, 2013, 25, 825-833.	6.7	92
10	Mesoporous Matrix Encapsulation for the Synthesis of Monodisperse Pd₅P₂ Nanoparticle Hydrodesulfurization Catalysts. ACS Applied Materials & Interfaces, 2013, 5, 5403-5407.	8.0	44
11	Metal Phosphides: Preparation, Characterization and Catalytic Reactivity. Catalysis Letters, 2012, 142, 1413-1436.	2.6	369
12	Synthesis and Hydrodesulfurization Properties of Noble Metal Phosphides: Ruthenium and Palladium. Topics in Catalysis, 2012, 55, 999-1009.	2.8	41
13	Synthesis and Hydrodeoxygenation Properties of Ruthenium Phosphide Catalysts. ACS Catalysis, 2011, 1, 917-922.	11.2	81
14	MÃ¶ssbauer spectroscopy investigation and hydrodesulfurization properties of ironâ€“nickel phosphide catalysts. Journal of Catalysis, 2010, 272, 18-27.	6.2	59
15	Hydrodesulfurization properties of rhodium phosphide: Comparison with rhodium metal and sulfide catalysts. Journal of Catalysis, 2010, 276, 249-258.	6.2	81
16	Spongy chalcogels of non-platinum metals act as effective hydrodesulfurization catalysts. Nature Chemistry, 2009, 1, 217-224.	13.6	121
17	Understanding the relationship between composition and hydrodesulfurization properties for cobalt phosphide catalysts. Applied Catalysis A: General, 2008, 343, 68-76.	4.3	148
18	Hydrodesulfurization properties of cobaltâ€“nickel phosphide catalysts: Ni-rich materials are highly active. Journal of Catalysis, 2008, 260, 262-269.	6.2	103

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19	Synthesis and Characterization of Discrete Nickel Phosphide Nanoparticles: Effect of Surface Ligation Chemistry on Catalytic Hydrodesulfurization of Thiophene. Advanced Functional Materials, 2007, 17, 3933-3939.	14.9	112
20	Characterization and hydrodesulfurization properties of catalysts derived from amorphous metal-boron materials. Journal of Catalysis, 2007, 246, 277-292.	6.2	43
21	Thiophene hydrodesulfurization over nickel phosphide catalysts: effect of the precursor composition and support. Journal of Catalysis, 2005, 231, 300-313.	6.2	313
22	Infrared Spectroscopic Investigation of Thiophene Adsorption on Silica-Supported Nickel Phosphide Catalysts. Journal of Physical Chemistry B, 2004, 108, 15791-15802.	2.6	30
23	Infrared Spectroscopic Investigation of CO Adsorption on Silica-Supported Nickel Phosphide Catalysts. Journal of Physical Chemistry B, 2004, 108, 10930-10941.	2.6	140
24	Thiophene hydrodesulfurization over supported nickel phosphideÂcatalysts. Journal of Catalysis, 2003, 215, 208-219.	6.2	210
25	Synthesis of Bulk and Alumina-Supported Bimetallic Carbide and Nitride Catalysts.. ChemInform, 2003, 34, no-no.	0.0	0
26	Hydrodesulfurization over supported monometallic, bimetallic and promoted carbide and nitride catalysts. Catalysis Today, 2003, 86, 191-209.	4.4	81
27	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
28	Synthesis of Bulk and Alumina-Supported Bimetallic Carbide and Nitride Catalysts. Chemistry of Materials, 2002, 14, 4049-4058.	6.7	48
29	Synthesis, Characterization, and Hydrodesulfurization Properties of Silica-Supported Molybdenum Phosphide Catalysts. Journal of Catalysis, 2002, 207, 266-273.	6.2	257
30	Vibrational Study of Organometallic Complexes with Thiophene Ligands:â€‰ Models for Adsorbed Thiophene on Hydrodesulfurization Catalysts. Journal of Physical Chemistry A, 2001, 105, 4418-4429.	2.5	76
31	The role of fluorine, nickel and full sulfidation in the hydrodenitrogenation of o-toluidine over tungsten-based catalysts prepared from oxy- and thiosalts. Applied Catalysis A: General, 2001, 216, 103-115.	4.3	10
32	Investigation of the Adsorption and Reactions of Thiophene on Sulfided Cu, Mo, and Rh Catalystsâ€. Journal of Physical Chemistry B, 2000, 104, 3237-3249.	2.6	38
33	Thiophene hydrodesulfurization over bimetallic and promoted nitride catalysts. Catalysis Letters, 1998, 56, 165-171.	2.6	31
34	Identification of the Adsorption Mode of Thiophene on Sulfided Mo Catalysts. Journal of Physical Chemistry B, 1998, 102, 7845-7857.	2.6	53
35	Thiophene Hydrodesulfurization over Alumina-Supported Molybdenum Carbide and Nitride Catalysts: Effect of Mo Loading and Phase. Journal of Catalysis, 1997, 171, 255-267.	6.2	99
36	Infrared Spectroscopy and Temperature-Programmed Desorption Study of Adsorbed Thiophene on Î³-Al2O3. Langmuir, 1996, 12, 1500-1510.	3.5	35

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37	Thiophene Hydrodesulfurization over Alumina-Supported Molybdenum Carbide and Nitride Catalysts: Adsorption Sites, Catalytic Activities, and Nature of the Active Surface. Journal of Catalysis, 1996, 164, 109-121.	6.2	184
38	An infrared spectroscopy and temperature-programmed desorption study of carbon monoxide on molybdena/alumina catalysts: quantitation of the molybdena overlayer. The Journal of Physical Chemistry, 1993, 97, 470-477.	2.9	59
39	XPS study of the passive films formed on nitrogen-implanted austenitic stainless steels. Applied Surface Science, 1992, 59, 7-21.	6.1	116
40	A simple means for reproducibly dosing low vapor pressure and/or reactive gases to surfaces in ultrahigh vacuum. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1991, 9, 10-13.	2.1	16
41	Thiophene hydrodesulfurization over transition metal foils: Comparison with metal sulfides. Catalysis Letters, 1989, 3, 1-7.	2.6	9
42	Thiophene hydrodesulfurization over transition metal surfaces: Structure insensitive over molybdenum and structure sensitive over rhenium. Journal of Catalysis, 1988, 110, 423-426.	6.2	40
43	Atomic arrangement of sulfur adatoms on Mo(001) at atmospheric pressure: A scanning tunneling microscopy study. Physical Review Letters, 1988, 60, 1166-1169.	7.8	78
44	STM study of the structure of the sulphur (1Ã—2) overlayer on molybdenum (001) in air: ordered domains, phase boundaries and defects. Journal of Microscopy, 1988, 152, 427-439.	1.8	12
45	A radiotracer (14C) and catalytic study of thiophene hydrodesulfurization on the clean and carbided Mo(100) single-crystal surface. Journal of Catalysis, 1987, 106, 93-104.	6.2	45
46	Catalytic hydrodesulfurization over the Mo(100) single crystal surface II. The role of adsorbed sulfur and mechanism of the desulfurization step. Journal of Catalysis, 1987, 107, 103-113.	6.2	63