Mohan S Rana

List of Publications by Year
in descending order

76 papers	5,539 citations	100601 38 h-index	87275 74 g-index
78 all docs	78 docs citations	78 times ranked	4379 citing authors

#	ARTICLE	IF	CITATIONS
1	Prospects of refinery switching from conventional to integrated: An opportunity for sustainable investment in the petrochemical industry. Fuel, 2022, 310, 122161.	3.4	29
2	Feasibility of bioleaching integrated with a chemical oxidation process for improved leaching of valuable metals from refinery spent hydroprocessing catalyst. Environmental Science and Pollution Research, 2022, 29, 34288-34301.	2.7	6
3	Guard-bed catalyst: Impact of textural properties on catalyst stability and deactivation rate. Molecular Catalysis, 2021, 502, 111375.	1.0	5
4	The Synergistic Character of Highly Nâ€ĐDoped Coconutâ€“Shell Activated Carbon for Efficient CO₂ Capture. ChemistrySelect, 2021, 6, 9149-9156.	0.7	10
5	An easy approach based on textural properties to evaluate catalyst deactivation during heavy oil hydrotreating. Catalysis Communications, 2020, 133, 105823.	1.6	15
6	Synthesis of large pore carbon-alumina supported catalysts for hydrodemetallization. Catalysis Today, 2020, 353, 204-212.	2.2	12
7	Effect of operating conditions on HDS of CGO blended middle distillate. Catalysis Today, 2020, 353, 47-52.	2.2	3
8	Synthesis of alumina support and effect of its properties on thiophene hydrodesulfurization. Reaction Kinetics, Mechanisms and Catalysis, 2020, 129, 297-313.	0.8	4
9	Pyrolysis of Asphaltenes Derived from Residual Oils and Their Thermally Treated Pitch. ACS Omega, 2020, 5, 24412-24421.	1.6	15
10	Changes in asphaltene surface topography with thermal treatment. Arabian Journal of Chemistry, 2020, 13, 5377-5389.	2.3	16
11	Hydroprocessing of heavy residual oil: Opportunities and challenges. Catalysis Today, 2019, 329, 125-134.	2.2	96
12	Effect of organic nitrogen compounds on deep hydrodesulfurization of middle distillate. Fuel Processing Technology, 2018, 177, 170-178.	3.7	35
13	Metal leaching from refinery waste hydroprocessing catalyst. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2018, 53, 951-959.	0.9	11
14	NMR Characterization of Asphaltene Derived from Residual Oils and Their Thermal Decomposition. Energy & Fuels, 2017, 31, 3812-3820.	2.5	52
15	Recent progress of fillers in mixed matrix membranes for CO 2 separation: A review. Separation and Purification Technology, 2017, 188, 431-450.	3.9	340
16	Sustainability Challenges in Oil and Gas Development in the Middle East and North Africa. Current Sustainable/Renewable Energy Reports, 2017, 4, 232-244.	1.2	14
17	Impact of Thermal Treatment on Asphaltene Functional Groups. Energy & Fuels, 2016, 30, 2892-2903.	2.5	39
18	Changes in asphaltene structure during thermal cracking of residual oils: XRD study. Fuel, 2015, 150, 558-564.	3.4	121

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19	Degradation of thermocouple in a temperature programmed sulphidation reactor. Engineering Failure Analysis, 2015, 55, 79-86.	1.8	5
20	Influence of support and supported phases on catalytic functionalities of hydrotreating catalysts. Fuel, 2014, 138, 104-110.	3.4	13
21	Carbon and metal deposition during the hydroprocessing of Maya crude oil. Catalysis Today, 2014, 220-222, 97-105.	2.2	57
22	The recovery of valuable metals and recycling of alumina from a waste spent hydroprocessing catalyst: extraction with Na salts. WIT Transactions on Ecology and the Environment, 2014, , .	0.0	2
23	Recycling and Recovery Routes for Spent Hydroprocessing Catalyst Waste. Industrial & Engineering Chemistry Research, 2013, 52, 12794-12801.	1.8	60
24	Worldwide Statistical Data on Proven Reserves, Production, and Refining Capacities of Crude Oil and Natural Gas. , 2013, , 33-78.		2
25	Hydrotreating catalysts on different supports and its acidâ€"base properties. Fuel, 2012, 100, 163-172.	3.4	27
26	Activity and surface properties of NiMo/SiO2â€"Al2O3 catalysts for hydroprocessing of heavy oils. Applied Catalysis A: General, 2012, 425-426, 1-12.	2.2	57
27	Utilization of waste spent hydroprocessing catalyst: development of a process for full recovery of deposited metals and alumina support. WIT Transactions on Ecology and the Environment, 2012, , .	0.0	4
28	Genesis of Acidâ˜'Base Support Properties with Variations of Preparation Conditions: Cumene Cracking and Its Kinetics. Industrial & Engineering Chemistry Research, 2011, 50, 2715-2725.	1.8	20
29	Thermogravimetric determination of coke from asphaltenes, resins and sediments and coking kinetics of heavy crude asphaltenes. Catalysis Today, 2010, 150, 272-278.	2.2	104
30	Recent advances in the science and technology of ultra low sulfur diesel (ULSD) production. Catalysis Today, 2010, 153, 1-68.	2.2	1,064
31	NiMo supported acidic catalysts for heavy oil hydroprocessing. Catalysis Today, 2009, 141, 168-175.	2.2	49
32	Structural Characterization of Asphaltenes Obtained from Hydroprocessed Crude Oils by SEM and TEM. Energy & Fuels, 2009, 23, 429-439.	2.5	103
33	Effect of the Incorporation of Al, Ti, and Zr on the Cracking and Hydrodesulfurization Activity of NiMo/SBA-15 Catalysts. Industrial & Engineering Chemistry Research, 2009, 48, 1242-1248.	1.8	51
34	Synthesis, characterization and catalytic properties of NiMo/Al2O3â€"MCM-41 catalyst for dibenzothiophene hydrodesulfurization. Catalysis Today, 2008, 130, 309-319.	2.2	30
35	Effect of preparation methods and content of phosphorus on hydrotreating activity. Catalysis Today, 2008, 130, 374-381.	2.2	39
36	CoMo/MgOâ€"Al2O3 supported catalysts: An alternative approach to prepare HDS catalysts. Catalysis Today, 2008, 130, 327-336.	2.2	70

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37	Heavy crude oil hydroprocessing: A zeolite-based CoMo catalyst and its spent catalyst characterization. Catalysis Today, 2008, 130, 411-420.	2.2	43
38	Effect of the preparation method on the structural stability and hydrodesulfurization activity of NiMo/SBA-15 catalysts. Catalysis Today, 2008, 130, 283-291.	2.2	40
39	Surface characterization of Al2O3â€“SiO2 supported NiMo catalysts: An effect of support composition. Catalysis Today, 2008, 130, 345-353.	2.2	48
40	Comparison between refinery processes for heavy oil upgrading: a future fuel demand. International Journal of Oil, Gas and Coal Technology, 2008, 1, 250.	0.1	23
41	Hydrotreating of Maya Crude Oil: I. Effect of Support Composition and Its Pore-diameter on Asphaltene Conversion. Petroleum Science and Technology, 2007, 25, 187-199.	0.7	25
42	On the Use of Acid-Base-Supported Catalysts for Hydroprocessing of Heavy Petroleum. Industrial & Engineering Chemistry Research, 2007, 46, 7448-7466.	1.8	81
43	Hydrotreating of Maya Crude Oil: II. Generalized Relationship between Hydrogenolysis and HDAs. Petroleum Science and Technology, 2007, 25, 201-213.	0.7	14
44	Hydrodesulfurization, Hydrodenitrogenation, Hydrodemetallization, and Hydrodeasphaltenization of Maya Crude over NiMo/Al2O3 Modified with Ti and P. Petroleum Science and Technology, 2007, 25, 215-229.	0.7	17
45	Effect of Asphaltene Contained in Feed on Deactivation of Maya Crude Hydrotreating Catalyst. Petroleum Science and Technology, 2007, 25, 241-249.	0.7	29
46	Catalyst Deactivation during Hydrotreating of Maya Crude in a Batch Reactor. Energy & Fuels, 2007, 21, 636-639.	2.5	31
47	A comparative study on the effect of promoter content of hydrodesulfurization catalysts at different evaluation scales. Fuel, 2007, 86, 1232-1239.	3.4	10
48	Heavy oil hydroprocessing over supported NiMo sulfided catalyst: An inhibition effect by added H2S. Fuel, 2007, 86, 1263-1269.	3.4	39
49	A review of recent advances on process technologies for upgrading of heavy oils and residua. Fuel, 2007, 86, 1216-1231.	3.4	794
50	Effect of catalyst preparation and support composition on hydrodesulfurization of dibenzothiophene and Maya crude oil. Fuel, 2007, 86, 1254-1262.	3.4	48
51	Support effects in CoMo hydrodesulfurization catalysts prepared with EDTA as a chelating agent. Journal of Catalysis, 2007, 246, 100-108.	3.1	102
52	Aluminaâˆ'Titania Mixed Oxide Used as Support for Hydrotreating Catalysts of Maya Heavy CrudeEffect of Support Preparation Methods. Energy & Fuels, 2006, 20, 427-431.	2.5	24
53	Characteristics of Maya crude hydrodemetallization and hydrodesulfurization catalysts. Catalysis Today, 2005, 104, 86-93.	2.2	62
54	Hydroprocessing of heavy oil fractions. Catalysis Today, 2005, 109, 1-2.	2.2	21

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55	A comparative study for heavy oil hydroprocessing catalysts at micro-flow and bench-scale reactors. Catalysis Today, 2005, 109, 24-32.	2.2	40
56	Maya crude hydrodemetallization and hydrodesulfurization catalysts: An effect of TiO2 incorporation in Al2O3. Catalysis Today, 2005, 109, 61-68.	2.2	50
57	Analysis of the hydrotreatment of Maya heavy crude with NiMo catalysts supported on TiO2-Al2O3 binary oxides. Catalysis Today, 2005, 109, 54-60.	2.2	44
58	Hydroprocessing of heavy petroleum feeds: Tutorial. Catalysis Today, 2005, 109, 3-15.	2.2	197
59	Effect of support composition on hydrogenolysis of thiophene and Maya crude. Catalysis Today, 2005, 107-108, 346-354.	2.2	39
60	Effect of phosphorus on activity of hydrotreating catalyst of Maya heavy crude. Catalysis Today, 2005, 109, 42-48.	2.2	37
61	Support Effects on Hydroprocessing of Maya Heavy Crude. Energy & Fuels, 2005, 19, 343-347.	2.5	27
62	MoCo(Ni)/ZrO2?SiO2 hydrotreating catalysts: physico-chemical characterization and activities studies. Applied Catalysis A: General, 2004, 268, 89-97.	2.2	43
63	Cumene cracking functionalities on sulfided Co(Ni)Mo/TiO2-SiO2 catalysts. Applied Catalysis A: General, 2004, 258, 215-225.	2.2	30
64	Competitive effects of nitrogen and sulfur content on activity of hydrotreating CoMo/Al2O3 catalysts: a batch reactor study. Catalysis Today, 2004, 98, 67-74.	2.2	54
65	Improved hydrogenolysis (Câ€“S, Câ€“M) function with basic supported hydrodesulfurization catalysts. Catalysis Today, 2004, 98, 91-98.	2.2	46
66	Effect of alumina preparation on hydrodemetallization and hydrodesulfurization of Maya crude. Catalysis Today, 2004, 98, 151-160.	2.2	70
67	Preparation, characterization and evaluation of Maya crude hydroprocessing catalysts. Catalysis Today, 2004, 98, 193-199.	2.2	17
68	Mixed oxide supported hydrodesulfurization catalystsâ€"a review. Catalysis Today, 2003, 86, 45-60.	2.2	281
69	TiO2â€“SiO2 supported hydrotreating catalysts: physico-chemical characterization and activities. Applied Catalysis A: General, 2003, 253, 165-176.	2.2	56
70	Physico-chemical characterization and catalysis on mesoporous Al-HMS supported molybdenum hydrotreating catalysts. Journal of Molecular Catalysis A, 2002, 181, 109-117.	4.8	59
71	Characterization and hydrodesulfurization catalysis on WS2 supported on mesoporous Alâ€“HMS material. Microporous and Mesoporous Materials, 2001, 44-45, 547-556.	2.2	45
72	Studies on physico-chemical characterization and catalysis on high surface area titania supported molybdenum hydrotreating catalysts. Applied Catalysis A: General, 2001, 205, 215-225.	2.2	92

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73	TiO2â€"ZrO2 mixed oxide as a support for hydrotreating catalyst. Catalysis Letters, 2001, 72, 115-119.	1.4	58
74	Characterization and evaluation of ZrO2 supported hydrotreating catalysts. Journal of Molecular Catalysis A, 2000, 153, 121-127.	4.8	126
75	Origin of Cracking Functionality of Sulfided (Ni) CoMo/SiO2â€"ZrO2 Catalysts. Journal of Catalysis, 2000, 195, 31-37.	3.1	85
76	Determination of asphaltene structural parameters by Raman spectroscopy. Journal of Raman Spectroscopy, 0, , .	1.2	6