

# Rafael Molina

## List of Publications by Year in descending order

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87  
papers

3,561  
citations

126708

33  
h-index

143772

57  
g-index

89  
all docs

89  
docs citations

89  
times ranked

3080  
citing authors

#	ARTICLE	IF	CITATIONS
1	Cu-Mn and Co-Mn catalysts synthesized from hydrotalcites and their use in the oxidation of VOCs. <i>Applied Catalysis B: Environmental</i> , 2011, 104, 144-150.	10.8	219
2	High stability of Ce-promoted Ni/Mg-Al catalysts derived from hydrotalcites in dry reforming of methane. <i>Fuel</i> , 2010, 89, 592-603.	3.4	214
3	Heterogeneous photo-Fenton degradation of phenolic aqueous solutions over iron-containing SBA-15 catalyst. <i>Applied Catalysis B: Environmental</i> , 2005, 60, 181-190.	10.8	151
4	Al-Alumina-Supported Nickel Catalysts Prepared from Nickel Acetylacetonate: A TPR Study. <i>Journal of Catalysis</i> , 1998, 173, 257-267.	3.1	147
5	Cooperative effect of the Co-Mn mixed oxides for the catalytic oxidation of VOCs: Influence of the synthesis method. <i>Applied Catalysis A: General</i> , 2015, 492, 48-59.	2.2	130
6	CO <sub>2</sub> reforming of methane over Ni/Mg/Al/Ce mixed oxides. <i>Catalysis Today</i> , 2008, 133-135, 357-366.	2.2	125
7	Catalytic wet peroxide oxidation of phenol by pillared clays containing Al-Ce-Fe. <i>Water Research</i> , 2005, 39, 3891-3899.	5.3	124
8	Characterization of reduced Al-alumina-supported nickel catalysts by spectroscopic and chemisorption measurements. <i>Applied Catalysis A: General</i> , 2005, 288, 232-242.	2.2	123
9	Dry reforming of methane using Ni-Ce catalysts supported on a modified mineral clay. <i>Applied Catalysis A: General</i> , 2009, 364, 65-74.	2.2	100
10	Co-precipitated Ni-Mg-Al catalysts containing Ce for CO <sub>2</sub> reforming of methane. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 3886-3894.	3.8	93
11	Synthesis of pillared clays containing Al, Al-Fe or Al-Ce-Fe from a bentonite: Characterization and catalytic activity. <i>Catalysis Today</i> , 2005, 107-108, 126-132.	2.2	91
12	Effect of Fe and Ce on Al-pillared bentonite and their performance in catalytic oxidation reactions. <i>Applied Catalysis A: General</i> , 2007, 317, 120-128.	2.2	91
13	Hydrogenation of Benzene over Alumina-Supported Nickel Catalysts Prepared from Ni(II) Acetylacetonate. <i>Journal of Catalysis</i> , 2001, 199, 162-170.	3.1	83
14	Activity and resistance of iron-containing amorphous, zeolitic and mesostructured materials for wet peroxide oxidation of phenol. <i>Water Research</i> , 2005, 39, 1741-1750.	5.3	82
15	Syngas production from CO <sub>2</sub> reforming of methane using Ce-doped Ni-catalysts obtained from hydrotalcites by reconstruction method. <i>Applied Catalysis A: General</i> , 2010, 378, 125-133.	2.2	81
16	Pillared clays with Al-Fe and Al-Ce-Fe in concentrated medium: Synthesis and catalytic activity. <i>Applied Catalysis A: General</i> , 2009, 356, 243-249.	2.2	71
17	Al-, Al,Zr-, and Zr-Pillared Montmorillonites and Saponites: Preparation, Characterization, and Catalytic Activity in Heptane Hydroconversion. <i>Journal of Catalysis</i> , 1999, 182, 174-185.	3.1	68
18	Catalytic performance of Ni-Pr supported on delaminated clay in the dry reforming of methane. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 1540-1550.	3.8	64

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19	Synthesis of Ce and Pr-promoted Ni and Co catalysts from hydrotalcite type precursors by reconstruction method. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 18827-18842.	3.8	62
20	Transformation of m-Xylene over Al-Pillared Clays and Ultrastable Zeolite Y. <i>Journal of Catalysis</i> , 1994, 145, 79-85.	3.1	59
21	Hydroisomerization-Hydrocracking of Decane over Al- and Ga-Pillared Clays. <i>Journal of Catalysis</i> , 1994, 148, 304-314.	3.1	55
22	Catalytic activity of Co-Mg mixed oxides in the VOC oxidation: Effects of ultrasonic assisted in the synthesis. <i>Catalysis Today</i> , 2011, 176, 286-291.	2.2	49
23	Gold supported on Fe, Ce, and Al pillared bentonites for CO oxidation reaction. <i>Applied Catalysis B: Environmental</i> , 2007, 72, 157-165.	10.8	46
24	A study on Al and Al-Ce-Fe pillaring species and their catalytic potential as they are supported on a bentonite. <i>Applied Catalysis A: General</i> , 2008, 334, 168-172.	2.2	46
25	Hydroxy-Al Pillaring of Concentrated Clay Suspensions. <i>Clays and Clay Minerals</i> , 1992, 40, 480-482.	0.6	45
26	Reducibility of ruthenium in relation with zeolite structure. <i>Applied Surface Science</i> , 1999, 141, 164-176.	3.1	43
27	Al-Alumina-Supported Nickel Catalysts Prepared with Nickel Acetylacetonate. 2. A Study of the Thermolysis of the Metal Precursor. <i>Journal of Physical Chemistry B</i> , 1999, 103, 11290-11296.	1.2	40
28	Synthesis of pillared bentonite starting from the Al-Fe polymeric precursor in solid state, and its catalytic evaluation in the phenol oxidation reaction. <i>Catalysis Today</i> , 2008, 133-135, 530-533.	2.2	40
29	The effect of the absence of Ni, Co, and Ni-Co catalyst pretreatment on catalytic activity for hydrogen production via oxidative steam reforming of ethanol. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 10074-10089.	3.8	39
30	Catalytic oxidation of VOCs on MnMgAlO <sub>x</sub> mixed oxides obtained by auto-combustion. <i>Journal of Molecular Catalysis A</i> , 2015, 398, 358-367.	4.8	37
31	Synthesis of pillared clays with Al <sub>13</sub> -Fe and Al <sub>13</sub> -Fe-Ce polymers in solid state assisted by microwave and ultrasound: Characterization and catalytic activity. <i>Applied Catalysis A: General</i> , 2009, 370, 7-15.	2.2	35
32	Effects of the cobalt content of catalysts prepared from hydrotalcites synthesized by ultrasound-assisted coprecipitation on hydrogen production by oxidative steam reforming of ethanol (OSRE). <i>Fuel</i> , 2017, 194, 7-16.	3.4	35
33	Effect of Mg and Al on manganese oxides as catalysts for VOC oxidation. <i>Molecular Catalysis</i> , 2017, 443, 117-124.	1.0	35
34	Synthesis of pillared clays with aluminum by means of concentrated suspensions and microwave radiation. <i>Catalysis Communications</i> , 2009, 10, 697-701.	1.6	34
35	Nickel catalysts obtained from hydrotalcites by coprecipitation and urea hydrolysis for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 8225-8237.	3.8	34
36	Deposition of Al-Fe pillared bentonites and gold supported Al-Fe pillared bentonites on metallic monoliths for catalytic oxidation reactions. <i>Applied Catalysis A: General</i> , 2009, 364, 166-173.	2.2	30

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37	Mechanical and textural properties of extruded materials manufactured with AlFe and AlCeFe pillared bentonites. <i>Applied Clay Science</i> , 2010, 47, 283-289.	2.6	30
38	Cooperative effect of Ce and Pr in the catalytic combustion of ethanol in mixed Cu/CoMgAl oxides obtained from hydrotalcites. <i>Applied Catalysis A: General</i> , 2011, 408, 96-104.	2.2	29
39	Î±-Alumina-Supported Nickel Catalysts Prepared with Nickel Acetylacetonate. 1. Adsorption in the Liquid Phase. <i>Journal of Physical Chemistry B</i> , 1999, 103, 6036-6046.	1.2	28
40	Ce-incorporation in mixed oxides obtained by the self-combustion method for the preparation of high performance catalysts for the CO <sub>2</sub> reforming of methane. <i>Catalysis Communications</i> , 2010, 12, 173-179.	1.6	28
41	Promoting effect of Ce and Pr in Co catalysts for hydrogen production via oxidative steam reforming of ethanol. <i>Catalysis Today</i> , 2013, 213, 33-41.	2.2	28
42	Enhanced VOC oxidation over Ce/CoMgAl mixed oxides using a reconstruction method with EDTA precursors. <i>Applied Catalysis A: General</i> , 2014, 477, 109-116.	2.2	28
43	Promoter effect of Ce and Pr on the catalytic stability of the Ni-Co system for the oxidative steam reforming of ethanol. <i>Applied Catalysis A: General</i> , 2016, 526, 84-94.	2.2	28
44	The effect of ultrasound in the synthesis of clays used as catalysts in oxidation reactions. <i>Catalysis Today</i> , 2008, 133-135, 526-529.	2.2	27
45	Synthesis of pillared clays with Al-Fe and Al-Fe-Ce starting from concentrated suspensions of clay using microwaves or ultrasound, and their catalytic activity in the phenol oxidation reaction. <i>Applied Catalysis B: Environmental</i> , 2009, 93, 56-65.	10.8	27
46	Effect of Ultrasound on the Structural and Textural Properties of Al-Fe Pillared Clays in a Concentrated Medium. <i>Catalysis Letters</i> , 2009, 130, 664-671.	1.4	25
47	High-Stable Mesoporous Ni-Ce/Clay Catalysts for Syngas Production. <i>Catalysis Letters</i> , 2011, 141, 1037-1046.	1.4	25
48	Oxidative steam reforming of ethanol (OSRE) over stable NiCo-MgAl catalysts by microwave or sonication assisted coprecipitation. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 12284-12294.	3.8	24
49	Modified clays as catalysts for the catalytic oxidation of ethanol. <i>Applied Clay Science</i> , 2014, 95, 18-24.	2.6	23
50	Decane hydroconversion with Al-Zr, Al-Hf, Al-Ce-pillared vermiculites. <i>Applied Catalysis A: General</i> , 2008, 345, 112-118.	2.2	21
51	Mn-Co-Al-Mg mixed oxides by auto-combustion method and their use as catalysts in the total oxidation of toluene. <i>Journal of Molecular Catalysis A</i> , 2013, 370, 167-174.	4.8	21
52	Hydroconversion of <i>n</i> -Decane over Ni-Mo Supported on Modified Halloysite Catalysts. <i>Energy &amp; Fuels</i> , 2018, 32, 9782-9792.	2.5	21
53	Charge Reduction in a Vermiculite by Acid and Hydrothermal Methods: A Comparative Study. <i>Journal of Physical Chemistry B</i> , 2005, 109, 19026-19033.	1.2	18
54	Relationship between hydrothermal treatment parameters as a strategy to reduce layer charge in vermiculite, and its catalytic behavior. <i>Catalysis Today</i> , 2008, 133-135, 351-356.	2.2	18

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55	Stability of Ni <sup>2+</sup> /Ce Catalysts Supported over Al-PVA Modified Mineral Clay in Dry Reforming of Methane. <i>Energy &amp; Fuels</i> , 2009, 23, 3497-3509.	2.5	18
56	Heteropolyacids supported on clay minerals as bifunctional catalysts for the hydroconversion of decane. <i>Applied Catalysis B: Environmental</i> , 2021, 297, 120464.	10.8	18
57	Fractal dimension and energetic heterogeneity of gold-modified Al <sup>3+</sup> /Fe <sup>3+</sup> /Ce pillared <sup>TM</sup> s. <i>Applied Surface Science</i> , 2008, 255, 3354-3360.	3.1	17
58	Gold supported on pillared clays for CO oxidation reaction: Effect of the clay aggregate size. <i>Applied Clay Science</i> , 2012, 69, 22-29.	2.6	16
59	Oxygen Storage Capacity and Oxygen Mobility of Co-Mn-Mg-Al Mixed Oxides and Their Relation in the VOC Oxidation Reaction. <i>Catalysts</i> , 2015, 5, 905-925.	1.6	16
60	Potentialization of bentonite properties as support in acid catalysts. <i>Materials Research Bulletin</i> , 2020, 123, 110728.	2.7	15
61	Development of Pillared Clays for Wet Hydrogen Peroxide Oxidation of Phenol and Its Application in the Posttreatment of Coffee Wastewater. <i>International Journal of Photoenergy</i> , 2012, 2012, 1-17.	1.4	14
62	Storage capacity and oxygen mobility in mixed oxides from transition metals promoted by cerium. <i>Applied Surface Science</i> , 2016, 383, 42-48.	3.1	14
63	Incorporation of Ni and Mo on delaminated clay by auto-combustion and impregnation for obtaining decane hydroconversion catalysts. <i>Catalysis Today</i> , 2017, 296, 205-213.	2.2	14
64	Hydrocracking of 1-methylnaphtalene (1MN) over modified clays-supported NiMoS and NiWS catalyst. <i>Fuel</i> , 2021, 295, 120612.	3.4	14
65	Hydroconversion of heptane over a Colombian montmorillonite modified with mixed pillars of Al <sup>3+</sup> /Zr and Al <sup>3+</sup> /Si. <i>Catalysis Today</i> , 2005, 107-108, 426-430.	2.2	12
66	Mo or W catalysts promoted with Ni or Co supported on modified bentonite for decane hydroconversion. <i>New Journal of Chemistry</i> , 2020, 44, 2966-2979.	1.4	12
67	Oxygen mobility and its relationship with the oxidative steam reforming of ethanol (OSRE). <i>Applied Surface Science</i> , 2019, 485, 293-303.	3.1	10
68	Al-pillared hectorite and montmorillonite prepared from concentrated clay suspensions: structural, textural and catalytic properties. <i>Studies in Surface Science and Catalysis</i> , 2000, 130, 983-988.	1.5	9
69	Acidity characterization of a titanium and sulfate modified vermiculite. <i>Materials Research Bulletin</i> , 2008, 43, 1630-1640.	2.7	8
70	Modified Vermiculite for Hydrocracking of Athabasca Bitumen. <i>Energy &amp; Fuels</i> , 2019, 33, 5153-5161.	2.5	8
71	Pillarization in concentrated media with solid Al and Al-Zr polymers to obtain acid catalysts. <i>Catalysis Today</i> , 2020, 356, 284-291.	2.2	8
72	Hydroisomerization of decane on Pt/Al, Ce-pillared vermiculites. <i>Studies in Surface Science and Catalysis</i> , 2007, 170, 1405-1410.	1.5	7

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73	Ce - promoted catalyst from hydrotalcites for CO <sub>2</sub> reforming of methane: calcination temperature effect. <i>Quimica Nova</i> , 2012, 35, 1325-1328.	0.3	7
74	EDTA-Ce(III) Modified Pt Vulcan XC-72 Catalyst Synthesis for Methanol Oxidation in Acid Solution. <i>Electrocatalysis</i> , 2014, 5, 50-61.	1.5	7
75	Catalytic wet hydrogen peroxide oxidation of phenolic compounds in coffee wastewater using Al-Fe-pillared clay extrudates. <i>Desalination and Water Treatment</i> , 2015, 55, 647-654.	1.0	7
76	Relation between immersion enthalpy and the acidity of clay pillared minerals. <i>Journal of Thermal Analysis and Calorimetry</i> , 2008, 92, 899-904.	2.0	6
77	Comparison of the Catalytic Performance of Ni, Mo, and Ni-Mo Impregnated on Acid Halloysite Nanotubes in the n-Decane Hydroconversion. <i>Energy &amp; Fuels</i> , 2019, 33, 12647-12655.	2.5	6
78	Bifunctional catalysts supported on modified vermiculite for the hydroconversion of decane. Effect of the metal phase (Mo or W) and promoters (Ni or Co). <i>Catalysis Today</i> , 2020, 356, 271-283.	2.2	6
79	Mn, Mn-Cu and Mn-Co mixed oxides as catalysts synthesized from hydrotalcite type precursors for the total oxidation of ethanol. <i>Studies in Surface Science and Catalysis</i> , 2010, , 513-516.	1.5	5
80	CoMnMgAl mixed oxides prepared by a microwave assisted self-combustion synthesis for toluene total oxidation. <i>Molecular Catalysis</i> , 2020, 493, 111080.	1.0	5
81	Catalytic oxidation with Al-Ce-Fe-PILC as a post-treatment system for coffee wet processing wastewater. <i>Water Science and Technology</i> , 2012, 66, 1663-1668.	1.2	4
82	Modulation of the acidity of a vermiculite and its potential use as a catalytic support. <i>Journal of Materials Science</i> , 2020, 55, 6482-6501.	1.7	4
83	Catalizadores de manganeso sintetizados por autocombustión y coprecipitación y su empleo en la oxidación del 2-propanol. <i>Revista De La Academia Colombiana De Ciencias Exactas, Físicas Y Naturales</i> , 2015, 39, 26.	0.0	2
84	A X-ray photoelectron spectroscopy investigation of $\gamma$ -alumina-supported nickel catalysts prepared from nickel (II) acetylacetonate. <i>Studies in Surface Science and Catalysis</i> , 2000, , 3333-3338.	1.5	1
85	Approach to a Descriptive Model of Charge Reduction in Vermiculite by Hydrothermal Treatment. <i>Clays and Clay Minerals</i> , 2010, 58, 97-109.	0.6	1
86	Raschig Rings Based on Pillared Clays: Efficient Reusable Catalysts for Oxidation of Phenol. <i>Journal of Advanced Oxidation Technologies</i> , 2012, 15, .	0.5	0
87	Modifying bentonite with Al-Fe from concentrated clay suspensions. <i>Ingenieria E Investigacion</i> , 2005, 25, 49-57.	0.2	0