Jaime S Valente

List of Publications by Year
in descending order

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82 papers	3,377 citations	126907 33 h-index	149698 56 g-index
83 all docs	83 docs citations	83 times ranked	3351 citing authors

#	Article	IF	Citations
1	Activation of Mgâ€“Al Hydrotalcite Catalysts for Aldol Condensation Reactions. Journal of Catalysis, 1998, 173, 115-121.	6.2	313
2	Adsorption and photocatalytic degradation of phenol and 2,4 dichlorophenoxiacetic acid by Mgâ€“Znâ€“Al layered double hydroxides. Applied Catalysis B: Environmental, 2009, 90, 330-338.	20.2	232
3	Basic Properties of the Mixed Oxides Obtained by Thermal Decomposition of Hydrotalcites Containing Different Metallic Compositions. Journal of Catalysis, 2000, 189, 370-381.	6.2	173
4	Highly efficient photocatalytic elimination of phenol and chlorinated phenols by CeO2/MgAl layered double hydroxides. Applied Catalysis B: Environmental, 2011, 102, 276-285.	20.2	132
5	Meerweinâ€“Ponndorfâ€“Verley reduction of carbonyl compounds catalysed by Mgâ€“Al hydrotalcite. Chemical Communications, 1998, , 535-536.	4.1	103
6	Chemical, Structural, and Morphological Changes of a MoVTeNb Catalyst during Oxidative Dehydrogenation of Ethane. ACS Catalysis, 2014, 4, 1292-1301.	11.2	103
7	SOxRemoval by Calcined MgAlFe Hydrotalcite-like Materials:Â Effect of the Chemical Composition and the Cerium Incorporation Method. Environmental Science & Technology, 2005, 39, 9715-9720.	10.0	94
8	Crystallization of Solâ€“Gel Boehmite via Hydrothermal Annealing. Journal of Solid State Chemistry, 2002, 166, 182-190.	2.9	91
9	Method for Large-Scale Production of Multimetallic Layered Double Hydroxides: Formation Mechanism Discernment. Chemistry of Materials, 2009, 21, 5809-5818.	6.7	86
10	Reduction of aromatic nitro compounds with hydrazine hydrate in the presence of the iron(III) oxide-MgO catalyst prepared from a Mgî—‚Fe hydrotalcite precursor. Tetrahedron Letters, 1998, 39, 2573-2574.	1.4	81
11	Comprehending the Thermal Decomposition and Reconstruction Process of Solâ^'Gel MgAl Layered Double Hydroxides. Journal of Physical Chemistry C, 2010, 114, 2089-2099.	3.1	81
12	Mgâ€“Fe Hydrotalcite as a Catalyst for the Reduction of Aromatic Nitro Compounds with Hydrazine Hydrate. Journal of Catalysis, 2000, 191, 467-473.	6.2	79
13	Calcined layered double hydroxides Mgâ€“Meâ€“Al (Me: Cu, Fe, Ni, Zn) as bifunctional catalysts. Catalysis Today, 2010, 150, 340-345.	4.4	78
14	Proposed General Solâ^'Gel Method to Prepare Multimetallic Layered Double Hydroxides: Synthesis, Characterization, and Envisaged Application. Chemistry of Materials, 2009, 21, 5826-5835.	6.7	73
15	Cyanoethylation of alcohols by activated Mgâ€“Al layered double hydroxides: Influence of rehydration conditions and Mg/Al molar ratio on BrÃ¶nsted basicity. Journal of Catalysis, 2011, 279, 196-204.	6.2	73
16	Physicochemical and Catalytic Properties of Solâ^'Gel Aluminas Aged under Hydrothermal Conditions. Langmuir, 2003, 19, 3583-3588.	3.5	66
17	Kinetic modeling of the oxidative dehydrogenation of ethane to ethylene over a MoVTeNbO catalytic system. Chemical Engineering Journal, 2014, 252, 75-88.	12.7	66
18	Modified Mgâ€“Al hydrotalcite: a highly active heterogeneous base catalyst for cyanoethylation of alcohols. Chemical Communications, 1998, , 1091-1092.	4.1	62

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19	Photocatalytic degradation of phenol by semiconducting mixed oxides derived from Zn(Ga)Al layered double hydroxides. Applied Catalysis B: Environmental, 2015, 163, 352-360.	20.2	62
20	Synthesis and catalytic properties of nanostructured aluminas obtained by solâ€“gel method. Applied Catalysis A: General, 2004, 264, 175-181.	4.3	61
21	Preparation and Characterization of Solâ^'Gel MgAl Hydrotalcites with Nanocapsular Morphology. Journal of Physical Chemistry C, 2007, 111, 642-651.	3.1	57
22	Hydrogen Transfer Reduction of 4-tert-Butylcyclohexanone and Aldol Condensation of Benzaldehyde with Acetophenone on Basic Solids. Journal of Catalysis, 2002, 208, 30-37.	6.2	55
23	Low Concentration Fe-Doped Alumina Catalysts Using Sol-Gel and Impregnation Methods: The Synthesis, Characterization and Catalytic Performance during the Combustion of Trichloroethylene. Materials, 2014, 7, 2062-2086.	2.9	52
24	Thermal decomposition kinetics of MgAl layered double hydroxides. Materials Chemistry and Physics, 2012, 133, 621-629.	4.0	51
25	Kinetic Study of Oxidative Dehydrogenation of Ethane over MoVTeNb Mixed-Oxide Catalyst. Industrial & Engineering Chemistry Research, 2014, 53, 1775-1786.	3.7	51
26	Photocatalytically enhanced Cr(VI) removal by mixed oxides derived from MeAl (Me:Mg and/or Zn) layered double hydroxides. Applied Catalysis B: Environmental, 2013, 140-141, 546-551.	20.2	50
27	A Simple Environmentally Friendly Method to Prepare Versatile Hydrotalcite-like Compounds. Chemistry of Materials, 2008, 20, 1230-1232.	6.7	41
28	Isophorone Isomerization as Model Reaction for the Characterization of Solid Bases: Application to the Determination of the Number of Sites. Journal of Catalysis, 2002, 211, 144-149.	6.2	38
29	Dependence of chemical composition of calcined hydrotalcite-like compounds for SOx reduction. Catalysis Today, 2010, 150, 332-339.	4.4	38
30	Thermokinetic Study of the Rehydration Process of a Calcined MgAl-Layered Double Hydroxide. Langmuir, 2010, 26, 4074-4079.	3.5	38
31	Hydrated lime as an effective heterogeneous catalyst for the transesterification of castor oil and methanol. Fuel, 2013, 110, 54-62.	6.4	35
32	Synthesis and characterization of functionalized alumina catalysts with thiol and sulfonic groups and their performance in producing 5-hydroxymethylfurfural from fructose. Fuel, 2017, 198, 134-144.	6.4	35
33	Active sulfated alumina catalysts obtained by hydrothermal treatment. Journal of Catalysis, 2003, 220, 317-325.	6.2	33
34	Direct synthesis of calcium diglyceroxide from hydrated lime and glycerol and its evaluation in the transesterification reaction. Fuel, 2014, 138, 126-133.	6.4	32
35	Long-term evaluation of NiMo/aluminaâ€“carbon black composite catalysts in hydroconversion of Mexican 538Â°C+ vacuum residue. Catalysis Today, 2005, 109, 69-75.	4.4	30
36	4-Chlorophenol Oxidation Photocatalyzed by a Calcined Mgâ€“Alâ€“Zn Layered Double Hydroxide in a Co-current Downflow Bubble Column. Industrial & Engineering Chemistry Research, 2011, 50, 11544-11552.	3.7	30

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37	Fractal Geometry Approach to Describe Mesostructured Boehmite and Gammaâ€Alumina Nanorods. European Journal of Inorganic Chemistry, 2010, 2010, 1544-1551.	2.0	29
38	Selective Isobutene Oligomerization by Mesoporous MSU-S_{BEA} Catalysts. Journal of Physical Chemistry C, 2011, 115, 5809-5816.	3.1	28
39	Sulfur reduction in cracked naphtha by a commercial additive: effect of feed and catalyst properties. Applied Catalysis B: Environmental, 2001, 34, 137-148.	20.2	25
40	Isophorone Isomerization as Model Reaction for the Characterization of Solid Bases: Application to the Determination of the Number of Sites. Journal of Catalysis, 2002, 211, 144-149.	6.2	25
41	Physicochemical Study of Nanocapsular Layered Double Hydroxides Evolution. Journal of Physical Chemistry C, 2009, 113, 5547-5555.	3.1	25
42	CO₂ Capture at Low Temperatures (30â€“80 Â°C) and in the Presence of Water Vapor over a Thermally Activated Mgâ€“Al Layered Double Hydroxide. Journal of Physical Chemistry A, 2011, 115, 12243-12250.	2.5	25
43	Novel SOx removal catalysts for the FCC process: Manufacture method, characterization, and pilot-scale testing. Energy and Environmental Science, 2011, 4, 4096.	30.8	24
44	Understanding the kinetic behavior of a Moâ€“Vâ€“Teâ€“Nb mixed oxide in the oxydehydrogenation of ethane. Fuel, 2014, 138, 15-26.	6.4	24
45	Influence of Mg/Al Ratio on the Thermokinetic Rehydration of Calcined Mgâ^'Al Layered Double Hydroxides. Journal of Physical Chemistry C, 2010, 114, 8485-8492.	3.1	22
46	Effect of highly reactive sulfur species on sulfur reduction in cracking gasoline. Applied Catalysis B: Environmental, 2003, 42, 145-154.	20.2	19
47	Phosphating alumina: A way to tailor its surface properties. Microporous and Mesoporous Materials, 2006, 94, 277-282.	4.4	19
48	Y zeolite depolymerizationâ€“recrystallization: Simultaneous formation of hierarchical porosity and Na dislodging. Microporous and Mesoporous Materials, 2011, 143, 375-382.	4.4	17
49	Controlling the redox properties of nickel in NiO/ZrO₂ catalysts synthesized by solâ€“gel. Catalysis Science and Technology, 2018, 8, 4070-4082.	4.1	17
50	Synthesis and Characterization of Nanocapsules with Shells Made up of Al13Tridecamers. Journal of Physical Chemistry B, 2005, 109, 22222-22227.	2.6	16
51	Commercial Hydrated Lime as a Cost-Effective Solid Base for the Transesterification of Wasted Soybean Oil with Methanol for Biodiesel Production. Energy & Fuels, 2011, 25, 3275-3282.	5.1	16
52	Green synthesis of hydrocalumite-type compounds and their evaluation in the transesterification of castor bean oil and methanol. Fuel, 2013, 110, 23-31.	6.4	16
53	Title is missing!. Hyperfine Interactions, 2000, 131, 43-50.	0.5	15
54	New synthesis technique of supported ZSM-5 using organo-alumino-silicic gels. Microporous and Mesoporous Materials, 2007, 100, 70-76.	4.4	15

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55	Crystallization of faujasite Y from seeds dispersed on mesoporous materials. Microporous and Mesoporous Materials, 2010, 132, 363-374.	4.4	15
56	Thermochemical and Cyclability Analyses of the CO2 Absorption Process on a Ca/Al Layered Double Hydroxide. Journal of Environmental Engineering, ASCE, 2011, 137, 1058-1065.	1.4	15
57	Innovative method for hydrocalumite-like compounds' preparation and their evaluation in the transesterification reaction. Applied Clay Science, 2015, 114, 509-516.	5.2	15
58	Structural Evolution of Phosphated Alumina during Solâ^'Gel Synthesis. Journal of Physical Chemistry B, 2005, 109, 17435-17439.	2.6	14
59	On the role of oxidation states in the electronic structure via the formation of oxygen vacancies of a doped MoVTeNbOx in propylene oxidation. Applied Surface Science, 2022, 573, 151428.	6.1	13
60	Quantitative relationships between boehmite and Î³-alumina crystallite sizes. Journal of Materials Research, 2004, 19, 1499-1503.	2.6	12
61	Sulfate Ions and Boehmite Crystallization in a Sol Made with Aluminum Tri-sec-butoxide and 2-Propanol. Journal of Physical Chemistry C, 2007, 111, 103-107.	3.1	12
62	Synthesis of silicalite-1 from organo-silicic gels. Journal of Colloid and Interface Science, 2008, 323, 359-364.	9.4	12
63	Zinc-aluminates for an in situ sulfur reduction in cracked gasoline. Applied Catalysis B: Environmental, 2008, 81, 1-13.	20.2	12
64	Theoretical Study of the Catalytic Performance of Activated Layered Double Hydroxides in the Cyanoethylation of Alcohols. Journal of Physical Chemistry C, 2019, 123, 8777-8784.	3.1	12
65	Manganese cryptomelane-type oxides: A thermo-kinetic and morphological study. Applied Surface Science, 2008, 254, 3006-3013.	6.1	11
66	Sulfated Nanocapsular Aluminas: Controlling their BrÃ¶nsted and Lewis Acidity. Journal of Physical Chemistry C, 2009, 113, 16476-16484.	3.1	11
67	Discerning the Metal Doping Effect on Surface Redox and Acidic Properties in a MoVTeNbO_x for Propa(e)ne Oxidation. ACS Omega, 2021, 6, 15279-15291.	3.5	10
68	Selective Vanillin Hydrodeoxygenation on Synthetic Takovite Derived NiAlOx Mixed Oxide. Topics in Catalysis, 2020, 63, 428-436.	2.8	9
69	Synthesis and characterization of SnOx/Al2O3 derived gel catalysts. Reaction Kinetics and Catalysis Letters, 1996, 59, 247-251.	0.6	7
70	Electrochemical characterization of carbon paste electrodes modified with MgZnGa and ZnGaAl hydrotalcite-like compounds. Journal of Solid State Electrochemistry, 2013, 17, 3145-3152.	2.5	6
71	Synthesis and morphological modification of semiconducting Mg(Zn)Al(Ga)â€“LDH/ITO thin films. Materials Chemistry and Physics, 2014, 147, 339-348.	4.0	6
72	Dibenzothiophene Hydrodesulfurization over P-CoMo on Sol-Gel Alumina Modified by La Addition. Effect of Rare-Earth Content. Catalysts, 2019, 9, 359.	3.5	6

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73	On the simultaneous effect of temperature, pressure, water content and spaceâ€“time on acrylic acid production from propane. Fuel, 2020, 282, 118852.	6.4	6
74	Metal solution precursors: their role during the synthesis of MoVTeNb mixed oxide catalysts. Catalysis Science and Technology, 2018, 8, 3123-3132.	4.1	5
75	Effect of tetrabutyltin on the acidity and reducibility of platinum-tin alumina supported sol-gel catalysts. Reaction Kinetics and Catalysis Letters, 1997, 61, 49-55.	0.6	4
76	Dynamic water vapor sorption on Mg(Ga3+)O mixed oxides: Analysis of the LDH thermal regeneration process. Thermochimica Acta, 2013, 553, 49-53.	2.7	4
77	On the influence of particle shape and process conditions in the pressure drop and hydrodynamics in a wall-effect fixed bed. Chemical Engineering Communications, 2018, 205, 1323-1341.	2.6	4
78	Upcycling of Municipal Glass and Aluminum Wastes for Synthesis of Hierarchical ZSMâ€5. Clean - Soil, Air, Water, 2022, 50, 2100209.	1.1	2
79	On the effect of a high reactive sulfur species on sulfur reduction in gasoline. Studies in Surface Science and Catalysis, 2004, 149, 355-367.	1.5	1
80	Manufacture Process Scale-Up and Industrial Testing of Novel Catalysts for SOx-Emissions Control in FCC Units. Catalysis Letters, 2019, 149, 272-282.	2.6	1
81	Comparative Electrochemical Study of MgZnGa and ZnGaAl Hydrotalcites. ECS Transactions, 2011, 36, 247-256.	0.5	0
82	EFECTO DEL DOBLE PROCESO DE DESPOLIMERIZACION-RECRISTALIZACIO EN LAS PROPRIEDADES FISICOQUIMICAS DE LA FAUJASITA / EFEITO DO PROCESSO DE DESPOLIMERIZAÃ‡ÃƒO-CRISTALIZAÃ‡ÃƒO DUPLA SOBRE AS PROPRIEDADES FÃSICO-QUÃMICA DO FAUJASITA. Brazilian Journal of Development, 2020, 6, 75485-75495.	0.1	0