Susana Valencia

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/1033928/publications.pdf

Version: 2024-02-01

75 papers	7,034 citations	81839 39 h-index	76872 74 g-index
78 all docs	78 docs citations	78 times ranked	5585 citing authors

#	Article	IF	Citations
1	Sn-zeolite beta as a heterogeneous chemoselective catalyst for Baeyerâ€“Villiger oxidations. Nature, 2001, 412, 423-425.	13.7	917
2	Supramolecular self-assembled molecules as organic directing agent for synthesis of zeolites. Nature, 2004, 431, 287-290.	13.7	522
3	Water-resistant solid Lewis acid catalysts: Meerweinâ€“Ponndorfâ€“Verley and Oppenauer reactions catalyzed by tin-beta zeolite. Journal of Catalysis, 2003, 215, 294-304.	3.1	395
4	Al-Free Sn-Beta Zeolite as a Catalyst for the Selective Reduction of Carbonyl Compounds (Meerweinâ^'Ponndorfâ^'Verley Reaction). Journal of the American Chemical Society, 2002, 124, 3194-3195.	6.6	392
5	Natural gas treating by selective adsorption: Material science and chemical engineering interplay. Chemical Engineering Journal, 2009, 155, 553-566.	6.6	386
6	Control of zeolite framework flexibility and pore topology for separation of ethane and ethylene. Science, 2017, 358, 1068-1071.	6.0	304
7	Determination of the catalytically active oxidation Lewis acid sites in Sn-beta zeolites, and their optimisation by the combination of theoretical and experimental studies. Journal of Catalysis, 2005, 234, 111-118.	3.1	280
8	Pure Polymorph C of Zeolite Beta Synthesized by Using Framework Isomorphous Substitution as a Structure-Directing Mechanism. Angewandte Chemie - International Edition, 2001, 40, 2277-2280.	7.2	270
9	A zeolite with interconnected 8-, 10- and 12-ring pores and its unique catalytic selectivity. Nature Materials, 2003, 2, 493-497.	13.3	252
10	Spontaneous nucleation and growth of pure silica zeolite-? free of connectivity defects. Chemical Communications, 1996, , 2365.	2.2	251
11	New Insights on CO₂â^'Methane Separation Using LTA Zeolites with Different Si/Al Ratios and a First Comparison with MOFs. Langmuir, 2010, 26, 1910-1917.	1.6	244
12	Oxidation of Olefins with Hydrogen Peroxide and tert-Butyl Hydroperoxide on Ti-Beta Catalyst. Journal of Catalysis, 1995, 152, 18-24.	3.1	202
13	Uniform Catalytic Site in Sn-Î²-Zeolite Determined Using X-ray Absorption Fine Structure. Journal of the American Chemical Society, 2005, 127, 12924-12932.	6.6	147
14	Zeolite Rho: a highly selective adsorbent for CO₂/CH₄separation induced by a structural phase modification. Chemical Communications, 2012, 48, 215-217.	2.2	143
15	Synthesis and catalytic activity of aluminium-free zeolite Ti-Î² oxidation catalysts. Chemical Communications, 1996, , 1339-1340.	2.2	123
16	Water Resistant, Catalytically Active Nb and Ta Isolated Lewis Acid Sites, Homogeneously Distributed by Direct Synthesis in a Beta Zeolite. Journal of Physical Chemistry C, 2009, 113, 11306-11315.	1.5	110
17	Acylation of Toluene with Acetic Anhydride over Beta Zeolites: Influence of Reaction Conditions and Physicochemical Properties of the Catalyst. Journal of Catalysis, 2000, 195, 161-168.	3.1	107
18	Cation Gating and Relocation during the Highly Selective â€œTrapdoorâ€•Adsorption of CO₂ on Univalent Cation Forms of Zeolite Rho. Chemistry of Materials, 2014, 26, 2052-2061.	3.2	96

#	Article	IF	Citations
19	Pure silica ITQ-32 zeolite allows separation of linear olefins from paraffins. Chemical Communications, 2007, , 1233-1235.	2.2	85
20	Synthesis of pure polymorph C of Beta zeolite in a fluoride-free system. Chemical Communications, 2001, , 1486-1487.	2.2	83
21	Reactivity in the confined spaces of zeolites: the interplay between spectroscopy and theory to develop structureâ€“activity relationships for catalysis. Physical Chemistry Chemical Physics, 2009, 11, 2876.	1.3	81
22	Computational and Experimental Approach to the Role of Structure-Directing Agents in the Synthesis of Zeolites:Â The Case of Cyclohexyl Alkyl Pyrrolidinium Salts in the Synthesis of Ì², EU-1, ZSM-11, and ZSM-12 Zeolites. Journal of Physical Chemistry B, 2003, 107, 5432-5440.	1.2	80
23	Determination of the Pore Topology of Zeolite IM-5 by Means of Catalytic Test Reactions and Hydrocarbon Adsorption Measurements. Journal of Catalysis, 2000, 189, 382-394.	3.1	79
24	Direct synthesis of a 9Ã—10Ã—10 member ring zeolite (Al-ITQ-13): A highly shape-selective catalyst for catalytic cracking. Journal of Catalysis, 2006, 238, 79-87.	3.1	79
25	Synthesis and Structure of the Bidimensional Zeolite ITQ-32 with Small and Large Pores. Journal of the American Chemical Society, 2005, 127, 11560-11561.	6.6	72
26	IM-5: A Highly Thermal and Hydrothermal Shape-Selective Cracking Zeolite. Journal of Catalysis, 2002, 206, 125-133.	3.1	63
27	A New United Atom Force Field for Adsorption of Alkenes in Zeolites. Journal of Physical Chemistry C, 2008, 112, 2492-2498.	1.5	62
28	Titanium-Containing Zeolites and Microporous Molecular Sieves as Photovoltaic Solar Cells. ChemPhysChem, 2007, 8, 1115-1119.	1.0	56
29	Catalytic behavior of hybrid Co/SiO2-(medium-pore) zeolite catalysts during the one-stage conversion of syngas to gasoline. Applied Catalysis A: General, 2008, 346, 117-125.	2.2	55
30	The benefit of multipore zeolites: Catalytic behaviour of zeolites with intersecting channels of different sizes for alkylation reactions. Journal of Catalysis, 2009, 268, 9-17.	3.1	54
31	The impact of zeolite pore structure on the catalytic behavior of CuZnAl/zeolite hybrid catalysts for the direct DME synthesis. Applied Catalysis A: General, 2013, 468, 102-111.	2.2	53
32	Tuning the Adsorption Properties of Zeolites as Adsorbents for CO₂ Separation: Best Compromise between the Working Capacity and Selectivity. Industrial & Engineering Chemistry Research, 2014, 53, 9860-9874.	1.8	51
33	A highly stable and hierarchical tetrathiafulvalene-based metalâ€“organic framework with improved performance as a solid catalyst. Chemical Science, 2018, 9, 2413-2418.	3.7	50
34	On the researching of a new zeolite structure for the selective catalytic reduction of NO. Journal of Molecular Catalysis A, 2000, 162, 175-189.	4.8	49
35	Analysis of the ITQ-12 Zeolite Performance in Propaneâ^'Propylene Separations Using a Combination of Experiments and Molecular Simulations. Journal of Physical Chemistry C, 2010, 114, 14907-14914.	1.5	47
36	Synthesis of a Novel Zeolite through a Pressureâ€Induced Reconstructive Phase Transition Process. Angewandte Chemie - International Edition, 2013, 52, 10458-10462.	7.2	45

#	Article	IF	Citations
37	A new highly efficient method for the synthesis of Ti-Beta zeolite oxidation catalyst. Applied Catalysis A: General, 1995, 133, L185-L189.	2.2	44
38	Preparation of ITQ-29 (Al-free zeolite A) membranes. Microporous and Mesoporous Materials, 2008, 110, 303-309.	2.2	39
39	LTA/Poly(1â€trimethylsilylâ€1â€propyne) Mixedâ€Matrix Membranes for Highâ€Temperature CO₂/N₂ Separation. Chemical Engineering and Technology, 2015, 38, 658-666.	0.9	39
40	Preparation and characterization of ITQ-29/polysulfone mixed-matrix membranes for gas separation: Effect of zeolite composition and crystal size. Chemical Engineering Science, 2012, 73, 116-122.	1.9	38
41	Highly fluorescent C-dots obtained by pyrolysis of quaternary ammonium ions trapped in all-silica ITQ-29 zeolite. Nanoscale, 2015, 7, 1744-1752.	2.8	38
42	Permselectivity improvement in membranes for CO2/N2 separation. Separation and Purification Technology, 2016, 157, 102-111.	3.9	37
43	Structure-reactivity relationship for aromatics transalkylation and isomerization process with TNU-9, MCM-22 and ZSM-5 zeolites, and their industrial implications. Applied Catalysis A: General, 2011, 393, 257-268.	2.2	31
44	Oriented CoSAPOâ€5 Membranes by Microwaveâ€Enhanced Growth on TiO₂â€Coated Porous Alumina. Angewandte Chemie - International Edition, 2012, 51, 2470-2473.	7.2	30
45	Intensified Biobutanol Recovery by using Zeolites with Complementary Selectivity. ChemSusChem, 2017, 10, 2968-2977.	3.6	30
46	Selective hydration of dihydromyrcene to dihydromyrcenol over H-beta zeolite.. Applied Catalysis A: General, 2000, 203, 251-258.	2.2	28
47	Mixed Matrix Membranes for O2/N2 Separation: The Influence of Temperature. Membranes, 2016, 6, 28.	1.4	27
48	Inelastic Neutron Scattering Study on the Location of BrÃ¸nsted Acid Sites in High Silica LTA Zeolite. Journal of Physical Chemistry C, 2016, 120, 24904-24909.	1.5	25
49	Synthesis and structure determination via ultra-fast electron diffraction of the new microporous zeolitic germanosilicate ITQ-62. Chemical Communications, 2018, 54, 2122-2125.	2.2	23
50	A new synthesis method for the preparation of ITQ-7 zeolites and the characterisation of the resulting materials. Comptes Rendus Chimie, 2005, 8, 369-378.	0.2	22
51	Critical Role of Dynamic Flexibility in Geâ€Containing Zeolites: Impact on Diffusion. Chemistry - A European Journal, 2016, 22, 10036-10043.	1.7	22
52	Unusually Low Heat of Adsorption of CO2 on AlPO and SAPO Molecular Sieves. Frontiers in Chemistry, 2020, 8, 588712.	1.8	21
53	Study of Short-Chain Alcohol and Alcoholâ€“Water Adsorption in MEL and MFI Zeolites. Langmuir, 2018, 34, 12739-12750.	1.6	20
54	Influence of the solvent on the titanium beta catalyzed oxidation of phenylethylenes without carbon-carbon double bond cleavage. Applied Catalysis A: General, 1995, 128, L7-L11.	2.2	15

#	Article	IF	Citations
55	Gas confinement in compartmentalized coordination polymers for highly selective sorption. Chemical Science, 2017, 8, 3109-3120.	3.7	15
56	Influence of the Synthesis Procedure and Chemical Composition on the Activity of Titanium in Ti-Beta Catalysts. Studies in Surface Science and Catalysis, 1994, 82, 531-540.	1.5	14
57	A Career in Catalysis: Avelino Corma. ACS Catalysis, 2022, 12, 7054-7123.	5.5	14
58	Zeolites and Other Adsorbents. Green Energy and Technology, 2019, , 173-208.	0.4	13
59	Insights into Adsorption of Linear, Monobranched, and Dibranched Alkanes on Pure Silica STW Zeolite as a Promising Material for Their Separation. Journal of Physical Chemistry C, 2020, 124, 26821-26829.	1.5	11
60	Capturing renewable isobutanol from model vapor mixtures using an all-silica beta zeolite. Chemical Engineering Journal, 2021, 412, 128658.	6.6	9
61	Title is missing!. Topics in Catalysis, 2000, 11/12, 401-407.	1.3	8
62	Isostructural compartmentalized spin-crossover coordination polymers for gas confinement. Inorganic Chemistry Frontiers, 2016, 3, 808-813.	3.0	8
63	Estimating CO2/N2 Permselectivity through Si/Al = 5 Small-Pore Zeolites/PTMSP Mixed Matrix Membranes: Influence of Temperature and Topology. Membranes, 2018, 8, 32.	1.4	8
64	ITQâ€69: A Germaniumâ€Containing Zeolite and its Synthesis, Structure Determination, and Adsorption Properties. Angewandte Chemie - International Edition, 2021, 60, 11745-11750.	7.2	8
65	Charge matching between the occluded organic cations and zeolite framework as structure directing effect in zeolite synthesis. Studies in Surface Science and Catalysis, 2008, 174, 249-252.	1.5	7
66	Adsorption of Alkanes in Zeolites LTA and FAU: Quasi-Equilibrated Thermodesorption Supported by Molecular Simulations. Journal of Physical Chemistry C, 2019, 123, 29665-29678.	1.5	7
67	Synthesis of furan derivatives via cascade-type reactions catalyzed by solid acids. Catalysis Today, 2015, 257, 305-317.	2.2	6
68	Large pore ti-beta zeolite with very low aluminium content: An active and selective catalyst for oxidations using hydrogen peroxide. Industrial Chemistry Library, 1996, 8, 391-404.	0.1	5
69	Multiscale exploration of hydrocarbon adsorption and hopping through ZSM-5 channels â€“ from Monte Carlo modelling to experiment. Physical Chemistry Chemical Physics, 2021, 23, 2981-2990.	1.3	4
70	Preparation of Continuous Highly Hydrophobic Pure Silica ITQ-29 Zeolite Layers on Alumina Supports. Molecules, 2020, 25, 4150.	1.7	3
71	A new photochemical based route for the preparation of organic structure directing agents useful for zeolite synthesis. Studies in Surface Science and Catalysis, 2007, 170, 330-337.	1.5	2
72	ITQâ€69: A Germaniumâ€Containing Zeolite and its Synthesis, Structure Determination, and Adsorption Properties. Angewandte Chemie, 2021, 133, 11851-11856.	1.6	1

#	Article	IF	Citations
73	Supramolecular Self-Assembled Molecules as Organic Directing Agent for Synthesis of Zeolites.. ChemInform, 2004, 35, no.	0.1	0
74	Characterization of LTA- and CHA- type zeolites by means of solid state NMR. Studies in Surface Science and Catalysis, 2008, 174, 989-992.	1.5	0
75	A Multi-Nuclear MAS-NMR Study on the Structural Properties of Silicalite-1 Zeolite Synthesized Using N- and P-Based Organic Structure Directing Agents. Applied Sciences (Switzerland), 2021, 11, 6850.	1.3	0