

# Francisco Lemos

## List of Publications by Year in descending order

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214800

47  
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134  
all docs

134  
docs citations

134  
times ranked

3076  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Acidity of Zeolites: Concepts, Measurements and Relation to Catalysis: A Review on Experimental and Theoretical Methods for the Study of Zeolite Acidity. <i>Catalysis Reviews - Science and Engineering</i> , 2013, 55, 454-515.	12.9	262
2	Activation of C2–C4 alkanes over acid and bifunctional zeolite catalysts. <i>Journal of Molecular Catalysis A</i> , 2006, 255, 131-158.	4.8	222
3	Activity–acidity relationship in zeolite ZSM-5. Application of Brønsted-type equations. <i>Journal of Molecular Catalysis A</i> , 2000, 154, 193-201.	4.8	100
4	Structure-activity relationship in zeolites. <i>Journal of Molecular Catalysis A</i> , 1995, 96, 245-270.	4.8	87
5	1-Butene oligomerization over ZSM-5 zeolite: Part 1 – Effect of reaction conditions. <i>Fuel</i> , 2013, 111, 449-460.	6.4	78
6	The effect of ZSM-5 zeolite acidity on the catalytic degradation of high-density polyethylene using simultaneous DSC/TG analysis. <i>Applied Catalysis A: General</i> , 2012, 413-414, 183-191.	4.3	74
7	Zeolites as supports for enzymatic hydrolysis reactions. Comparative study of several zeolites. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 1996, 1, 53-60.	1.8	71
8	High efficacy on diclofenac removal by activated carbon produced from potato peel waste. <i>International Journal of Environmental Science and Technology</i> , 2016, 13, 1989-2000.	3.5	70
9	Activity–acidity relationship for alkane cracking over zeolites: n-hexane cracking over HZSM-5. <i>Journal of Molecular Catalysis A</i> , 2005, 229, 127-135.	4.8	64
10	Zeolites as supports for an enzymatic alcoholysis reaction. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 1998, 4, 303-311.	1.8	63
11	Zirconium-Substituted Isopolytungstates: Structural Models for Zirconia-Supported Tungsten Catalysts. <i>Inorganic Chemistry</i> , 2006, 45, 1915-1923.	4.0	61
12	Synthesis and bactericide activity of nanofiltration composite membranes – Cellulose acetate/silver nanoparticles and cellulose acetate/silver ion exchanged zeolites. <i>Water Research</i> , 2019, 149, 225-231.	11.3	61
13	Light olefin transformation over ZSM-5 zeolites: A kinetic model for olefin consumption. <i>Applied Catalysis A: General</i> , 2007, 324, 20-29.	4.3	59
14	Correlating NH <sub>3</sub> -TPD and <sup>1</sup> H MAS NMR measurements of zeolite acidity: proposal of an acidity scale. <i>Applied Catalysis A: General</i> , 2005, 284, 39-46.	4.3	56
15	Influence of the cerium content of CeHY catalysts on their physicochemical and catalytic properties. <i>Applied Catalysis</i> , 1987, 29, 43-54.	0.8	55
16	Influence of lanthanum content of LaHY catalysts on their physico-chemical and catalytic properties. <i>Applied Catalysis</i> , 1988, 39, 227-237.	0.8	53
17	Synthesis and Characterization of Zr(IV) Polyoxotungstates as Molecular Analogues of Zirconia-Supported Tungsten Catalysts. <i>Journal of Physical Chemistry B</i> , 2004, 108, 12465-12471.	2.6	50
18	Light olefin transformation over ZSM-5 zeolites with different acid strengths – A kinetic model. <i>Applied Catalysis A: General</i> , 2010, 384, 177-185.	4.3	48

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19	Effect of the immobilization support on the hydrolytic activity of a cutinase from <i>Fusarium solani</i> pisi. <i>Enzyme and Microbial Technology</i> , 1997, 20, 93-101.	3.2	43
20	Activity-acidity relationship in zeolite Y. <i>Journal of Molecular Catalysis A</i> , 1999, 144, 221-231.	4.8	43
21	A catalytic reactive distillation approach to high density polyethylene pyrolysis - Part 1 - Light olefin production. <i>Chemical Engineering Journal</i> , 2019, 378, 122077.	12.7	42
22	Liquid Phase hydrogenation of nitrobenzene over an industrial Ni/SiO <sub>2</sub> supported catalyst. <i>Catalysis Today</i> , 2008, 133-135, 828-835.	4.4	41
23	Propane conversion over a H-ZSM5 acid catalyst. <i>Journal of Molecular Catalysis A</i> , 2004, 216, 131-137.	4.8	32
24	Properties of chars from the gasification and pyrolysis of rice waste streams towards their valorisation as adsorbent materials. <i>Waste Management</i> , 2017, 65, 186-194.	7.4	32
25	Kinetics of soluble and immobilized horseradish peroxidase-mediated oxidation of phenolic compounds. <i>Biochemical Engineering Journal</i> , 2007, 35, 126-135.	3.6	30
26	BEA zeolite nanocrystals dispersed over alumina for n-hexadecane hydroisomerization. <i>Microporous and Mesoporous Materials</i> , 2013, 166, 161-166.	4.4	29
27	Hydrodesulfurization and hydrodemetallization of different origin vacuum residues: Characterization and reactivity. <i>Fuel</i> , 2012, 98, 218-228.	6.4	26
28	Neutral Mono(5-aryl-2-iminopyrrolyl)nickel(II) Complexes as Precatalysts for the Synthesis of Highly Branched Ethylene Oligomers: Preparation, Molecular Characterization, and Catalytic Studies. <i>Organometallics</i> , 2019, 38, 614-625.	2.3	25
29	Stability of a recombinant cutinase immobilized on zeolites. <i>Enzyme and Microbial Technology</i> , 2002, 31, 29-34.	3.2	24
30	Modeling lipolysis in a reversed micellar system: Part I. Conventional batch reactor. <i>Biotechnology and Bioengineering</i> , 1993, 42, 759-764.	3.3	23
31	Modelling of ex vivo expansion/maintenance of hematopoietic stem cells. <i>Bioprocess and Biosystems Engineering</i> , 2003, 25, 365-369.	3.4	22
32	Electro-oxidation of phenol on zeolite/graphite composite electrodes. <i>Journal of Molecular Catalysis A</i> , 2006, 248, 48-52.	4.8	22
33	Recombination frequency in plasmid DNA containing direct repeats - predictive correlation with repeat and intervening sequence length. <i>Plasmid</i> , 2008, 60, 159-165.	1.4	21
34	Catalytic degradation of low and high density polyethylenes using ethylene polymerization catalysts: Kinetic studies using simultaneous TG/DSC analysis. <i>Applied Catalysis A: General</i> , 2010, 374, 170-179.	4.3	21
35	Kinetic modelling of phenol co-oxidation using horseradish peroxidase. <i>Bioprocess and Biosystems Engineering</i> , 2006, 29, 99-108.	3.4	20
36	Enhancing the thermal stability of lipases through mutagenesis and immobilization on zeolites. <i>Bioprocess and Biosystems Engineering</i> , 2009, 32, 53-61.	3.4	20

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37	Modeling residue hydrotreating. <i>Chemical Engineering Science</i> , 2010, 65, 322-329.	3.8	20
38	Performance of a cutinase membrane reactor for the production of biodiesel in organic media. <i>Biotechnology and Bioengineering</i> , 2011, 108, 1279-1289.	3.3	20
39	Homogeneous Ziegler-Natta Polymerisation: a Kinetic Approach1. Steady-State Kinetics. <i>Polymer International</i> , 1997, 43, 77-85.	3.1	19
40	Activity-acidity relationship in zeolite Y. <i>Journal of Molecular Catalysis A</i> , 1999, 144, 207-220.	4.8	19
41	Transesterification of oil mixtures catalyzed by microencapsulated cutinase in reversed micelles. <i>Biotechnology Letters</i> , 2010, 32, 399-403.	2.2	19
42	New phenyl-nickel complexes of bulky 2-iminopyrrolyl chelates: synthesis, characterisation and application as aluminium-free catalysts for the production of hyperbranched polyethylene. <i>Dalton Transactions</i> , 2018, 47, 15857-15872.	3.3	19
43	Influence of cerium on the catalytic properties of ZSM-20 zeolite in the cracking of n-heptane: Comparison with rare earth Y zeolites. <i>Applied Catalysis</i> , 1989, 49, 175-181.	0.8	18
44	Activity-acidity relationship in zeolite Y. <i>Journal of Molecular Catalysis A</i> , 1999, 144, 233-238.	4.8	18
45	Copolymerization of ethylene/unsaturated alcohols using nickel catalysts: effect of the ligand on the activity and comonomer incorporation. <i>Journal of Organometallic Chemistry</i> , 2005, 690, 895-909.	1.8	18
46	Acidity-activity relationship in zeolite Y. A preliminary study for n-heptane transformation. <i>Catalysis Letters</i> , 1997, 44, 255-257.	2.6	17
47	Mixing effect of USHY+HZSM-5 for different catalyst ratios on the n-heptane transformation. <i>Applied Catalysis A: General</i> , 1999, 176, 239-250.	4.3	17
48	Kinetics and modelling of an alcoholysis reaction catalyzed by cutinase immobilized on NaY zeolite. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2001, 11, 713-718.	1.8	17
49	Kinetic cutinase-catalyzed esterification of caproic acid in organic solvent system. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2010, 66, 285-293.	1.8	17
50	Preparation of HNaY zeolite by ion exchange under microwave treatment. A preliminary study. <i>Catalysis Letters</i> , 1998, 53, 103-106.	2.6	16
51	Coke deposition on H-ZSM-20 and USHY zeolites. <i>Applied Catalysis A: General</i> , 1994, 114, 161-172.	4.3	15
52	Transient microkinetic modelling of n-heptane catalytic cracking over H-USY zeolite. <i>Chemical Engineering Science</i> , 2004, 59, 1221-1232.	3.8	15
53	Kinetic modelling of the catalytic cracking of n-hexane and n-heptane over a zeolite catalyst. <i>Applied Catalysis A: General</i> , 2004, 272, 23-28.	4.3	15
54	Polymerisation of Norbornene Catalysed by Highly Active Tetradentate Chelated $\beta$ -diimine Nickel Complexes. <i>Macromolecular Chemistry and Physics</i> , 2011, 212, 367-374.	2.2	15

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55	Comparison of the performances of Pt/HBEA nano dispersed over alumina and Pt/ZSM-22 catalysts in n-hexadecane hydroisomerization. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2012, 107, 285-294.	1.7	15
56	Olefins production from cracking of a Fischer-Tropsch naphtha. <i>Fuel</i> , 2012, 95, 183-189.	6.4	15
57	Modeling lipolysis in a reversed micellar system: Part II?membrane reactor. <i>Biotechnology and Bioengineering</i> , 1993, 42, 765-771.	3.3	14
58	Conformational changes induced by immobilization of a recombinant cutinase on zeolites. <i>Catalysis Letters</i> , 2001, 73, 63-66.	2.6	14
59	Ethylene polymerization over transition-metal supported catalysts. II. Cr on zeolite, silica, and charcoal: Characterization and activity studies. <i>Journal of Polymer Science Part A</i> , 2003, 41, 3768-3780.	2.3	14
60	Kinetic modeling of the methylcyclohexane transformation over H-USY: Deactivating effect of coke and nitrogen basic compounds. <i>Journal of Molecular Catalysis A</i> , 2006, 249, 149-157.	4.8	14
61	Kinetic analysis of the degradation of HDPE+PP polymer mixtures. <i>International Journal of Chemical Kinetics</i> , 2021, 53, 660-674.	1.6	14
62	Influence of cation content on the catalytic properties of PrHNaY zeolites in the cracking of n-heptane. <i>Journal of Molecular Catalysis</i> , 1989, 53, 265-273.	1.2	13
63	Electro-oxidation of phenol on a new type of zeolite/graphite biocomposite electrode with horseradish peroxidase. <i>Journal of Molecular Catalysis A</i> , 2007, 278, 47-52.	4.8	13
64	Influence of the presence of NaY zeolite on the activity of horseradish peroxidase in the oxidation of phenol. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2007, 44, 39-47.	1.8	13
65	Impact of the BEA zeolite morphology on isobutane adsorption followed by Reversed-Flow Inverse Gas Chromatography. <i>Journal of Chromatography A</i> , 2012, 1260, 206-214.	3.7	13
66	Sodium exchange over H-EU-1 zeolite. Part II: Catalytic properties. <i>Microporous and Mesoporous Materials</i> , 2013, 171, 238-245.	4.4	13
67	Application of factorial design to the study of an alcoholysis transformation promoted by cutinase immobilized on NaY zeolite and Accurel PA6. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2004, 27, 19-27.	1.8	12
68	Comparing the effect of immobilization methods on the activity of lipase biocatalysts in ester hydrolysis. <i>Bioprocess and Biosystems Engineering</i> , 2008, 31, 323-327.	3.4	12
69	Transformation of light alkenes over templated and non-templated ZSM-5 zeolites. <i>Applied Catalysis A: General</i> , 1999, 177, 245-255.	4.3	11
70	Zeolite screening for the racemization of 1-phenylethanol. <i>Catalysis Today</i> , 2008, 133-135, 625-631.	4.4	11
71	Modulating the acid strength of zeolite H-ZSM-5 to increase the selectivity in the racemization of 1-phenylethanol. <i>Applied Catalysis A: General</i> , 2009, 354, 33-37.	4.3	11
72	Assessing the use of cutinase reversed micellar catalytic system for the production of biodiesel from triglycerides. <i>Journal of Chemical Technology and Biotechnology</i> , 2010, 85, 993-998.	3.2	11

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73	Comparison of catalytic properties of zeolites HZSM-20 and HY in the cracking of n-heptane. Journal of Molecular Catalysis, 1988, 48, 373-379.	1.2	10
74	Homogeneous Ziegler-Natta Polymerisation: a Kinetic Approach 2. Transient-State Kinetics. Polymer International, 1997, 43, 86-96.	3.1	10
75	Dynamic modelling and network simulation of n-heptane catalytic cracking: influence of kinetic parameters. Chemical Engineering Science, 1999, 54, 1735-1750.	3.8	10
76	Electro-oxidation of phenol on zeolite/graphite composite electrodes. Journal of Molecular Catalysis A, 2006, 253, 170-175.	4.8	10
77	Contributions for the study of the acid transformation of hydrocarbons over zeolites. Journal of Molecular Catalysis A, 2009, 305, 60-68.	4.8	10
78	Sodium exchange over H-EU-1 zeolite. Part I: Physicochemical characterization. Microporous and Mesoporous Materials, 2013, 171, 230-237.	4.4	10
79	Copolymerization of ethylene with unsaturated alcohols and methylmethacrylate using a silylated $\beta$ -diimine nickel catalyst: Molecular modeling and photodegradation studies. Journal of Applied Polymer Science, 2013, 129, 1820-1832.	2.6	10
80	Kinetics and mechanism of the cutinase-catalyzed transesterification of oils in AOT reversed micellar system. Bioprocess and Biosystems Engineering, 2011, 34, 1133-1142.	3.4	9
81	Hydrodesulfurization and hydrodemetallization of different origin vacuum residues: New modeling approach. Fuel, 2014, 129, 267-277.	6.4	9
82	Kinetic model for the esterification of ethyl caproate for reaction optimization. Journal of Molecular Catalysis B: Enzymatic, 2014, 101, 16-22.	1.8	9
83	A catalytic reactive distillation approach to high density polyethylene pyrolysis – Part 2 – Middle olefin production. Catalysis Today, 2021, 379, 212-221.	4.4	9
84	Modelling the voltammetric behaviour of cobalt cations inside zeolites. Studies in Surface Science and Catalysis, 1999, , 443-446.	1.5	8
85	Kinetic modeling studies of ethylene polymerization reactions using supported chromium catalysts. Journal of Polymer Science Part A, 2004, 42, 3464-3472.	2.3	8
86	Kinetic Analysis of the ex vivo Expansion of Human Hematopoietic Stem/Progenitor Cells. Biotechnology Letters, 2006, 28, 335-340.	2.2	8
87	Influence of acidity on the H-Y zeolite performance in n-decane catalytic cracking: evidence of a series/parallel mechanism. Reaction Kinetics, Mechanisms and Catalysis, 2010, 100, 249.	1.7	8
88	Modeling and control of an exothermal reaction. Chemical Engineering Journal, 2014, 238, 93-99.	12.7	8
89	Hydrothermal stability and vanadium tolerance of ZSM-20 and Y zeolites. Applied Catalysis A: General, 1994, 119, 139-151.	4.3	7
90	Titanosilicates as Supports for an Enzymatic Alcoholysis Reaction. Reaction Kinetics and Catalysis Letters, 2000, 69, 217-222.	0.6	7

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91	Stability of cutinase, wild type and mutants, in AOT reversed micellar system—effect of mixture components of alkyl esters production. <i>Journal of Chemical Technology and Biotechnology</i> , 2011, 86, 34-41.	3.2	7
92	Influence of cerium and lanthanum cations on the thermal stability of HY zeolite. Characterization of the zeolitic structure by nitrogen adsorption. <i>Reaction Kinetics and Catalysis Letters</i> , 1988, 37, 49-55.	0.6	6
93	Activity-Acidity Relationships in Solid Acid Catalysis – A Quantum Chemical Study. <i>Studies in Surface Science and Catalysis</i> , 2001, , 501-506.	1.5	6
94	Interactions of H <sub>2</sub> on the Isobutane Adsorption over Bifunctional Catalyst PtHBEA Revealed by Reversed-Flow Inverse Gas Chromatography. <i>Journal of Physical Chemistry C</i> , 2015, 119, 1791-1799.	3.1	6
95	Pyrolysis kinetics and estimation of chemical composition of <i>Quercus cerris</i> cork. <i>Biomass Conversion and Biorefinery</i> , 2020, , 1.	4.6	6
96	A Comparison of the Catalytic Properties of Sapo-37 and Hy Zeolite in the Cracking of N-Heptane and 2,2,4-Trimethylpentane. <i>Studies in Surface Science and Catalysis</i> , 1991, 69, 365-372.	1.5	5
97	A kinetic approach to homogeneous Ziegler type polymerization. Steady state. <i>Reaction Kinetics and Catalysis Letters</i> , 1997, 62, 9-15.	0.6	5
98	Temperature dependence of the USHY+HZSM-5 mixing effect on the n-heptane transformation. <i>Catalysis Today</i> , 2001, 65, 143-148.	4.4	5
99	Coprocessing of Waste Plastic and Hydrocarbons over MFI (HZSM-5). <i>International Journal of Chemical Kinetics</i> , 2016, 48, 329-336.	1.6	5
100	Development of a model for an industrial acetylene hydrogenation reactor using plant data – Part I. <i>Chemical Engineering Journal</i> , 2020, 379, 122390.	12.7	5
101	Study of low catalytic activity systems (biscyclopentadienyl complexes-aluminoxane) on olefin polymerization. <i>Polymer International</i> , 1997, 44, 517-522.	3.1	4
102	Electro-oxidation of phenol on zeolite/graphite composite electrodes. <i>Catalysis Today</i> , 2008, 133-135, 855-862.	4.4	4
103	Kinetics and Stability of Cutinase Immobilized in Reversed Micelles and Zeolites. , 1996, , 297-327.		4
104	Influence of neodymium content on the catalytic properties of zeolite NDHNaY. <i>Reaction Kinetics and Catalysis Letters</i> , 1990, 41, 351-355.	0.6	3
105	Sodium removal and catalytic properties of HNaZSM-20 zeolite. Comparison with Y zeolite. <i>Reaction Kinetics and Catalysis Letters</i> , 1996, 58, 33-38.	0.6	3
106	Kinetics of Ethylene Polymerisation over CrY Zeolites. <i>Studies in Surface Science and Catalysis</i> , 2001, 133, 173-180.	1.5	3
107	Following Multi-Component Reactions in Liquid Medium Using Spectral Band-Fitting Techniques. <i>Applied Spectroscopy</i> , 2008, 62, 932-935.	2.2	3
108	Network simulation of catalytic cracking reactions. <i>Studies in Surface Science and Catalysis</i> , 1997, , 529-534.	1.5	2

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109	Non-catalytic carbon gasification modelling. Studies in Surface Science and Catalysis, 1997, , 535-540.	1.5	2
110	A kinetic approach to homogeneous Ziegler type polymerization. Transient state. Reaction Kinetics and Catalysis Letters, 1997, 62, 17-22.	0.6	2
111	Analysis and Modelling of Multi-Site Acid Catalysts. , 2002, , 217-243.		2
112	Title is missing!. Reaction Kinetics and Catalysis Letters, 2000, 69, 39-46.	0.6	1
113	Ethylene Polymerization over Transition Metal Supported Catalysts. III. Vanadium. E-Polymers, 2006, 6, .	3.0	1
114	Using simultaneous DSC/TG to analyze the kinetics of polyethylene degradation” catalytic cracking using HY and HZSM-5 zeolites. Reaction Kinetics, Mechanisms and Catalysis, 2009, 99, 5.	1.7	1
115	Structure, morphology and interfacial behaviour of ethylene/methacrylate copolymers. Journal of Polymer Research, 2013, 20, 1.	2.4	1
116	Novel Modified Recycled Mastic for Demanding and Sustainable Asphalt Mixtures. RILEM Bookseries, 2022, , 1415-1421.	0.4	1
117	Reactions of mixtures of light alkenes and n-heptane over USHY zeolite. Applied Catalysis A: General, 1994, 108, 107-114.	4.3	0
118	Modelling the dynamics of the surface of a carbon. Studies in Surface Science and Catalysis, 1999, 122, 459-462.	1.5	0
119	Synthesis and Characterization of Zr(IV) Polyoxotungstates as Molecular Analogues of Zirconia-Supported Tungsten Catalysts.. ChemInform, 2004, 35, no.	0.0	0
120	Conversion of Gas Condensate over Metal-Containing MFI Catalysts. , 2005, , 351-357.		0
121	Using Digital Simulation to Study Hydroquinone Oxidation on Porous Electrodes by Cyclic Voltammetry. AIP Conference Proceedings, 2007, , .	0.4	0
122	Heterogeneization of alpha diimines nickel catalysts for the polymerization of ethylene and methylmethacrylate. E-Polymers, 2010, 10, .	3.0	0
123	Fernando Manuel Ramãa Cardoso Ribeiro, 1945”2011. Applied Catalysis A: General, 2011, 409-410, 1-2.	4.3	0
124	Modelling Complex Kinetic Systems. , 2000, , 205-238.		0
125	Modelling Complex Kinetic Systems. , 2000, , 175-204.		0
126	Acidity, Activity and Micro-Kinetics Studies in an H-ZSM5. , 2005, , 321-326.		0



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127	Microkinetic Model for Propane Activation over H-ZSM5. , 2005, , 327-332.		0