

# Francisco Lemos

## List of Publications by Year in descending order

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127  
papers

2,852  
citations

218677

26  
h-index

214800

47  
g-index

134  
all docs

134  
docs citations

134  
times ranked

3076  
citing authors

#	ARTICLE	IF	CITATIONS
1	Novel Modified Recycled Mastic for Demanding and Sustainable Asphalt Mixtures. RILEM Bookseries, 2022, , 1415-1421.	0.4	1
2	A catalytic reactive distillation approach to high density polyethylene pyrolysis â€œ Part 2 â€œ Middle olefin production. Catalysis Today, 2021, 379, 212-221.	4.4	9
3	Kinetic analysis of the degradation of HDPE+PP polymer mixtures. International Journal of Chemical Kinetics, 2021, 53, 660-674.	1.6	14
4	Development of a model for an industrial acetylene hydrogenation reactor using plant data â€œ Part I. Chemical Engineering Journal, 2020, 379, 122390.	12.7	5
5	Pyrolysis kinetics and estimation of chemical composition of Quercus cerris cork. Biomass Conversion and Biorefinery, 2020, , 1.	4.6	6
6	A catalytic reactive distillation approach to high density polyethylene pyrolysis â€œ Part 1 â€œ Light olefin production. Chemical Engineering Journal, 2019, 378, 122077.	12.7	42
7	Synthesis and bactericide activity of nanofiltration composite membranes â€œ Cellulose acetate/silver nanoparticles and cellulose acetate/silver ion exchanged zeolites. Water Research, 2019, 149, 225-231.	11.3	61
8	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. Organometallics, 2019, 38, 614-625.	2.3	25
9	New phenylâ€œnickel complexes of bulky 2-iminopyrrolyl chelates: synthesis, characterisation and application as aluminium-free catalysts for the production of hyperbranched polyethylene. Dalton Transactions, 2018, 47, 15857-15872.	3.3	19
10	Properties of chars from the gasification and pyrolysis of rice waste streams towards their valorisation as adsorbent materials. Waste Management, 2017, 65, 186-194.	7.4	32
11	Coprocessing of Waste Plastic and Hydrocarbons over MFI (HZSM-5). International Journal of Chemical Kinetics, 2016, 48, 329-336.	1.6	5
12	High efficacy on diclofenac removal by activated carbon produced from potato peel waste. International Journal of Environmental Science and Technology, 2016, 13, 1989-2000.	3.5	70
13	Interactions of H <sub>2</sub> on the Isobutane Adsorption over Bifunctional Catalyst PtHBEA Revealed by Reversed-Flow Inverse Gas Chromatography. Journal of Physical Chemistry C, 2015, 119, 1791-1799.	3.1	6
14	Hydrodesulfurization and hydrodemetallization of different origin vacuum residues: New modeling approach. Fuel, 2014, 129, 267-277.	6.4	9
15	Kinetic model for the esterification of ethyl caproate for reaction optimization. Journal of Molecular Catalysis B: Enzymatic, 2014, 101, 16-22.	1.8	9
16	Modeling and control of an exothermal reaction. Chemical Engineering Journal, 2014, 238, 93-99.	12.7	8
17	Structure, morphology and interfacial behaviour of ethylene/methacrylate copolymers. Journal of Polymer Research, 2013, 20, 1.	2.4	1
18	1-Butene oligomerization over ZSM-5 zeolite: Part 1 â€œ Effect of reaction conditions. Fuel, 2013, 111, 449-460.	6.4	78

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19	Sodium exchange over H-EU-1 zeolite. Part I: Physicochemical characterization. <i>Microporous and Mesoporous Materials</i> , 2013, 171, 230-237.	4.4	10
20	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
21	BEA zeolite nanocrystals dispersed over alumina for n-hexadecane hydroisomerization. <i>Microporous and Mesoporous Materials</i> , 2013, 166, 161-166.	4.4	29
22	Sodium exchange over H-EU-1 zeolite. Part II: Catalytic properties. <i>Microporous and Mesoporous Materials</i> , 2013, 171, 238-245.	4.4	13
23	Copolymerization of ethylene with unsaturated alcohols and methylmethacrylate using a silylated $\beta$ -diimine nickel catalyst: Molecular modeling and photodegradation studies. <i>Journal of Applied Polymer Science</i> , 2013, 129, 1820-1832.	2.6	10
24	Hydrodesulfurization and hydrodemetallization of different origin vacuum residues: Characterization and reactivity. <i>Fuel</i> , 2012, 98, 218-228.	6.4	26
25	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
26	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
27	Olefins production from cracking of a Fischer-Tropsch naphtha. <i>Fuel</i> , 2012, 95, 183-189.	6.4	15
28	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
29	Fernando Manuel Ramalho Cardoso Ribeiro, 1945-2011. <i>Applied Catalysis A: General</i> , 2011, 409-410, 1-2.	4.3	0
30	Kinetics and mechanism of the cutinase-catalyzed transesterification of oils in AOT reversed micellar system. <i>Bioprocess and Biosystems Engineering</i> , 2011, 34, 1133-1142.	3.4	9
31	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
32	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
33	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
34	Heterogeneization of alpha diimines nickel catalysts for the polymerization of ethylene and methylmethacrylate. <i>E-Polymers</i> , 2010, 10, .	3.0	0
35	Transesterification of oil mixtures catalyzed by microencapsulated cutinase in reversed micelles. <i>Biotechnology Letters</i> , 2010, 32, 399-403.	2.2	19
36	Influence of acidity on the H-Y zeolite performance in n-decane catalytic cracking: evidence of a series/parallel mechanism. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2010, 100, 249.	1.7	8

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37	Kinetic cutinase-catalyzed esterification of caproic acid in organic solvent system. Journal of Molecular Catalysis B: Enzymatic, 2010, 66, 285-293.	1.8	17
38	Assessing the use of cutinase reversed micellar catalytic system for the production of biodiesel from triglycerides. Journal of Chemical Technology and Biotechnology, 2010, 85, 993-998.	3.2	11
39	Catalytic degradation of low and high density polyethylenes using ethylene polymerization catalysts: Kinetic studies using simultaneous TG/DSC analysis. Applied Catalysis A: General, 2010, 374, 170-179.	4.3	21
40	Light olefin transformation over ZSM-5 zeolites with different acid strengths – A kinetic model. Applied Catalysis A: General, 2010, 384, 177-185.	4.3	48
41	Modeling residue hydrotreating. Chemical Engineering Science, 2010, 65, 322-329.	3.8	20
42	Enhancing the thermal stability of lipases through mutagenesis and immobilization on zeolites. Bioprocess and Biosystems Engineering, 2009, 32, 53-61.	3.4	20
43	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
44	Contributions for the study of the acid transformation of hydrocarbons over zeolites. Journal of Molecular Catalysis A, 2009, 305, 60-68.	4.8	10
45	Modulating the acid strength of zeolite H-ZSM-5 to increase the selectivity in the racemization of 1-phenylethanol. Applied Catalysis A: General, 2009, 354, 33-37.	4.3	11
46	Comparing the effect of immobilization methods on the activity of lipase biocatalysts in ester hydrolysis. Bioprocess and Biosystems Engineering, 2008, 31, 323-327.	3.4	12
47	Zeolite screening for the racemization of 1-phenylethanol. Catalysis Today, 2008, 133-135, 625-631.	4.4	11
48	Liquid Phase hydrogenation of nitrobenzene over an industrial Ni/SiO <sub>2</sub> supported catalyst. Catalysis Today, 2008, 133-135, 828-835.	4.4	41
49	Electro-oxidation of phenol on zeolite/graphite composite electrodes. Catalysis Today, 2008, 133-135, 855-862.	4.4	4
50	Recombination frequency in plasmid DNA containing direct repeats – predictive correlation with repeat and intervening sequence length. Plasmid, 2008, 60, 159-165.	1.4	21
51	Following Multi-Component Reactions in Liquid Medium Using Spectral Band-Fitting Techniques. Applied Spectroscopy, 2008, 62, 932-935.	2.2	3
52	Using Digital Simulation to Study Hydroquinone Oxidation on Porous Electrodes by Cyclic Voltammetry. AIP Conference Proceedings, 2007, , .	0.4	0
53	Light olefin transformation over ZSM-5 zeolites – A kinetic model for olefin consumption. Applied Catalysis A: General, 2007, 324, 20-29.	4.3	59
54	Kinetics of soluble and immobilized horseradish peroxidase-mediated oxidation of phenolic compounds. Biochemical Engineering Journal, 2007, 35, 126-135.	3.6	30

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55	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
56	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
57	Zirconium-Substituted Isopolytungstates: Structural Models for Zirconia-Supported Tungsten Catalysts. <i>Inorganic Chemistry</i> , 2006, 45, 1915-1923.	4.0	61
58	Ethylene Polymerization over Transition Metal Supported Catalysts. III. Vanadium. <i>E-Polymers</i> , 2006, 6, .	3.0	1
59	Electro-oxidation of phenol on zeolite/graphite composite electrodes. <i>Journal of Molecular Catalysis A</i> , 2006, 248, 48-52.	4.8	22
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	Electro-oxidation of phenol on zeolite/graphite composite electrodes. <i>Journal of Molecular Catalysis A</i> , 2006, 253, 170-175.	4.8	10
62	Activation of C <sub>2</sub> -C <sub>4</sub> alkanes over acid and bifunctional zeolite catalysts. <i>Journal of Molecular Catalysis A</i> , 2006, 255, 131-158.	4.8	222
63	Kinetic modelling of phenol co-oxidation using horseradish peroxidase. <i>Bioprocess and Biosystems Engineering</i> , 2006, 29, 99-108.	3.4	20
64	Kinetic Analysis of the ex vivo Expansion of Human Hematopoietic Stem/Progenitor Cells. <i>Biotechnology Letters</i> , 2006, 28, 335-340.	2.2	8
65	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
66	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
67	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
68	Conversion of Gas Condensate over Metal-Containing MFI Catalysts. , 2005, , 351-357.		0
69	Acidity, Activity and Micro-Kinetics Studies in an H-ZSM5. , 2005, , 321-326.		0
70	Microkinetic Model for Propane Activation over H-ZSM5. , 2005, , 327-332.		0
71	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
72	Propane conversion over a H-ZSM5 acid catalyst. <i>Journal of Molecular Catalysis A</i> , 2004, 216, 131-137.	4.8	32

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73	Kinetic modeling studies of ethylene polymerization reactions using supported chromium catalysts. Journal of Polymer Science Part A, 2004, 42, 3464-3472.	2.3	8
74	Synthesis and Characterization of Zr(IV) Polyoxotungstates as Molecular Analogues of Zirconia-Supported Tungsten Catalysts.. ChemInform, 2004, 35, no.	0.0	0
75	Transient microkinetic modelling of n-heptane catalytic cracking over H-USY zeolite. Chemical Engineering Science, 2004, 59, 1221-1232.	3.8	15
76	Kinetic modelling of the catalytic cracking of n-hexane and n-heptane over a zeolite catalyst. Applied Catalysis A: General, 2004, 272, 23-28.	4.3	15
77	Synthesis and Characterization of Zr(IV) Polyoxotungstates as Molecular Analogues of Zirconia-Supported Tungsten Catalysts. Journal of Physical Chemistry B, 2004, 108, 12465-12471.	2.6	50
78	Modelling of ex vivo expansion/maintenance of hematopoietic stem cells. Bioprocess and Biosystems Engineering, 2003, 25, 365-369.	3.4	22
79	Ethylene polymerization over transition-metal supported catalysts. II. Cr on zeolite, silica, and charcoal: Characterization and activity studies. Journal of Polymer Science Part A, 2003, 41, 3768-3780.	2.3	14
80	Stability of a recombinant cutinase immobilized on zeolites. Enzyme and Microbial Technology, 2002, 31, 29-34.	3.2	24
81	Analysis and Modelling of Multi-Site Acid Catalysts. , 2002, , 217-243.		2
82	Kinetics of Ethylene Polymerisation over CrY Zeolites. Studies in Surface Science and Catalysis, 2001, 133, 173-180.	1.5	3
83	Temperature dependence of the USHY+HZSM-5 mixing effect on the n-heptane transformation. Catalysis Today, 2001, 65, 143-148.	4.4	5
84	Conformational changes induced by immobilization of a recombinant cutinase on zeolites. Catalysis Letters, 2001, 73, 63-66.	2.6	14
85	Kinetics and modelling of an alcoholysis reaction catalyzed by cutinase immobilized on NaY zeolite. Journal of Molecular Catalysis B: Enzymatic, 2001, 11, 713-718.	1.8	17
86	Activity-Acidity Relationships in Solid Acid Catalysis â€“ A Quantum Chemical Study. Studies in Surface Science and Catalysis, 2001, , 501-506.	1.5	6
87	Activityâ€“acidity relationship in zeolite ZSM-5. Application of BrÃ¶nsted-type equations. Journal of Molecular Catalysis A, 2000, 154, 193-201.	4.8	100
88	Titanosilicates as Supports for an Enzymatic Alcoholysis Reaction. Reaction Kinetics and Catalysis Letters, 2000, 69, 217-222.	0.6	7
89	Title is missing!. Reaction Kinetics and Catalysis Letters, 2000, 69, 39-46.	0.6	1
90	Modelling Complex Kinetic Systems. , 2000, , 205-238.		0

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91	Modelling Complex Kinetic Systems. , 2000, , 175-204.		0
92	Activityâ€“acidity relationship in zeolite Y. Journal of Molecular Catalysis A, 1999, 144, 207-220.	4.8	19
93	Activityâ€“acidity relationship in zeolite Y. Journal of Molecular Catalysis A, 1999, 144, 221-231.	4.8	43
94	Activityâ€“acidity relationship in zeolite Y. Journal of Molecular Catalysis A, 1999, 144, 233-238.	4.8	18
95	Mixing effect of USHY+HZSM-5 for different catalyst ratios on the n-heptane transformation. Applied Catalysis A: General, 1999, 176, 239-250.	4.3	17
96	Transformation of light alkenes over templated and non-templated ZSM-5 zeolites. Applied Catalysis A: General, 1999, 177, 245-255.	4.3	11
97	Dynamic modelling and network simulation of n-heptane catalytic cracking: influence of kinetic parameters. Chemical Engineering Science, 1999, 54, 1735-1750.	3.8	10
98	Modelling the dynamics of the surface of a carbon. Studies in Surface Science and Catalysis, 1999, 122, 459-462.	1.5	0
99	Modelling the voltammetric behaviour of cobalt cations inside zeolites. Studies in Surface Science and Catalysis, 1999, , 443-446.	1.5	8
100	Preparation of HNaY zeolite by ion exchange under microwave treatment. A preliminary study. Catalysis Letters, 1998, 53, 103-106.	2.6	16
101	Zeolites as supports for an enzymatic alcoholysis reaction. Journal of Molecular Catalysis B: Enzymatic, 1998, 4, 303-311.	1.8	63
102	Network simulation of catalytic cracking reactions. Studies in Surface Science and Catalysis, 1997, , 529-534.	1.5	2
103	Non-catalytic carbon gasification modelling. Studies in Surface Science and Catalysis, 1997, , 535-540.	1.5	2
104	Acidity-activity relationship in zeolite Y. A preliminary study for n-heptane transformation. Catalysis Letters, 1997, 44, 255-257.	2.6	17
105	A kinetic approach to homogeneous Ziegler type polymerization. Steady state. Reaction Kinetics and Catalysis Letters, 1997, 62, 9-15.	0.6	5
106	A kinetic approach to homogeneous Ziegler type polymerization. Transient state. Reaction Kinetics and Catalysis Letters, 1997, 62, 17-22.	0.6	2
107	Effect of the immobilization support on the hydrolytic activity of a cutinase from <i>Fusarium solani</i> pisi. Enzyme and Microbial Technology, 1997, 20, 93-101.	3.2	43
108	Homogeneous Ziegler-Natta Polymerisation: a Kinetic Approach1. Steady-State Kinetics. Polymer International, 1997, 43, 77-85.	3.1	19

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109	Homogeneous Ziegler-Natta Polymerisation: a Kinetic Approach 2. Transient-State Kinetics. <i>Polymer International</i> , 1997, 43, 86-96.	3.1	10
110	Study of low catalytic activity systems (biscyclopentadienyl complexes-aluminoxane) on olefin polymerization. <i>Polymer International</i> , 1997, 44, 517-522.	3.1	4
111	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
112	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
113	Kinetics and Stability of Cutinase Immobilized in Reversed Micelles and Zeolites. , 1996, , 297-327.		4
114	Structure-activity relationship in zeolites. <i>Journal of Molecular Catalysis A</i> , 1995, 96, 245-270.	4.8	87
115	Hydrothermal stability and vanadium tolerance of ZSM-20 and Y zeolites. <i>Applied Catalysis A: General</i> , 1994, 119, 139-151.	4.3	7
116	Reactions of mixtures of light alkenes and n-heptane over USHY zeolite. <i>Applied Catalysis A: General</i> , 1994, 108, 107-114.	4.3	0
117	Coke deposition on H-ZSM-20 and USHY zeolites. <i>Applied Catalysis A: General</i> , 1994, 114, 161-172.	4.3	15
118	Modeling lipolysis in a reversed micellar system: Part I. Conventional batch reactor. <i>Biotechnology and Bioengineering</i> , 1993, 42, 759-764.	3.3	23
119	Modeling lipolysis in a reversed micellar system: Part II?membrane reactor. <i>Biotechnology and Bioengineering</i> , 1993, 42, 765-771.	3.3	14
120	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
121	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
122	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
123	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
124	Comparison of catalytic properties of zeolites HZSM-20 and HY in the cracking of n-heptane. <i>Journal of Molecular Catalysis</i> , 1988, 48, 373-379.	1.2	10
125	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
126	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



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127	Influence of the cerium content of CeHY catalysts on their physicochemical and catalytic properties. Applied Catalysis, 1987, 29, 43-54.	0.8	55