

Reyes Mallada

List of Publications by Year in descending order

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97
papers

3,075
citations

109321

35
h-index

197818

49
g-index

100
all docs

100
docs citations

100
times ranked

3145
citing authors

#	ARTICLE	IF	CITATIONS
1	Continuous zeolite membrane reactor for esterification of ethanol and acetic acid. <i>Chemical Engineering Journal</i> , 2007, 131, 35-39.	12.7	122
2	Zeolite films and membranes. Emerging applications. <i>Microporous and Mesoporous Materials</i> , 2011, 144, 19-27.	4.4	115
3	Non-oxidative methane conversion in microwave-assisted structured reactors. <i>Chemical Engineering Journal</i> , 2019, 377, 119764.	12.7	85
4	Preparation and reactive applications of nanoporous silicon carbide membranes. <i>Chemical Engineering Science</i> , 2004, 59, 4957-4965.	3.8	80
5	Preparation of zeolite NaA membranes on the inner side of tubular supports by means of a controlled seeding technique. <i>Catalysis Today</i> , 2005, 104, 281-287.	4.4	77
6	Use of membrane reactors for the oxidation of butane to maleic anhydride under high butane concentrations. <i>Catalysis Today</i> , 2000, 56, 191-197.	4.4	68
7	Synthesis, characterization, and application of ruthenium-doped SrTiO ₃ perovskite catalysts for microwave-assisted methane dry reforming. <i>Chemical Engineering and Processing: Process Intensification</i> , 2018, 127, 178-190.	3.6	66
8	Escaping undesired gas-phase chemistry: Microwave-driven selectivity enhancement in heterogeneous catalytic reactors. <i>Science Advances</i> , 2019, 5, eaau9000.	10.3	66
9	Preparation, characterization and pervaporation performance of mordenite membranes. <i>Journal of Membrane Science</i> , 2003, 216, 135-147.	8.2	65
10	Plasmonic MOF Thin Films with Raman Internal Standard for Fast and Ultrasensitive SERS Detection of Chemical Warfare Agents in Ambient Air. <i>ACS Sensors</i> , 2021, 6, 2241-2251.	7.8	63
11	Synthesis and characterization of ZSM-5 coatings onto cordierite honeycomb supports. <i>Applied Catalysis A: General</i> , 2003, 253, 257-269.	4.3	62
12	Amine-functionalized mesoporous silica: A material capable of CO ₂ adsorption and fast regeneration by microwave heating. <i>AIChE Journal</i> , 2016, 62, 547-555.	3.6	62
13	Numerical analysis of microwave heating cavity: Combining electromagnetic energy, heat transfer and fluid dynamics for a NaY zeolite fixed-bed. <i>Applied Thermal Engineering</i> , 2019, 155, 226-238.	6.0	58
14	Microwave-assisted hydrothermal rapid synthesis of capillary MFI-type zeolite ceramic membranes for pervaporation application. <i>Journal of Membrane Science</i> , 2010, 355, 28-35.	8.2	56
15	Preparation of inner-side tubular zeolite NaA membranes in a semi-continuous synthesis system. <i>Journal of Membrane Science</i> , 2006, 278, 401-409.	8.2	53
16	Selective oxidations in micro-structured catalytic reactors For gas-phase reactions and specifically for fuel processing for fuel cells. <i>Catalysis Today</i> , 2007, 120, 2-20.	4.4	53
17	PVDF-MFI mixed matrix membranes as VOCs adsorbers. <i>Microporous and Mesoporous Materials</i> , 2015, 207, 126-133.	4.4	53
18	Study of different titanosilicate (TS-1 and ETS-10) as fillers for Mixed Matrix Membranes for CO ₂ /CH ₄ gas separation applications. <i>Journal of Membrane Science</i> , 2017, 523, 24-35.	8.2	53

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19	Preparation of Pt/ZSM-5 films on stainless steel microreactors. <i>Catalysis Today</i> , 2007, 125, 2-10.	4.4	52
20	In situ temperature measurements in microwave-heated gas-solid catalytic systems. Detection of hot spots and solid-fluid temperature gradients in the ethylene epoxidation reaction. <i>Chemical Engineering Journal</i> , 2017, 316, 50-60.	12.7	50
21	Preparation of mordenite membranes for pervaporation of water-ethanol mixtures. <i>Desalination</i> , 2002, 148, 25-29.	8.2	47
22	Glycerol upgrading by ketalization in a zeolite membrane reactor. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2009, 4, 279-284.	1.5	47
23	Microwave-Assisted Catalytic Combustion for the Efficient Continuous Cleaning of VOC-Containing Air Streams. <i>Environmental Science & Technology</i> , 2018, 52, 5892-5901.	10.0	47
24	Supercritical solvothermal synthesis under reducing conditions to increase stability and durability of Mo/ZSM-5 catalysts in methane dehydroaromatization. <i>Applied Catalysis B: Environmental</i> , 2020, 263, 118360.	20.2	47
25	Removal of VOCs at trace concentration levels from humid air by Microwave Swing Adsorption, kinetics and proper sorbent selection. <i>Separation and Purification Technology</i> , 2015, 151, 193-200.	7.9	46
26	Highly sensitive SERS quantification of organophosphorous chemical warfare agents: A major step towards the real time sensing in the gas phase. <i>Sensors and Actuators B: Chemical</i> , 2018, 267, 457-466.	7.8	43
27	A non-invasive optical method for mapping temperature polarization in direct contact membrane distillation. <i>Journal of Membrane Science</i> , 2017, 536, 156-166.	8.2	42
28	Microwave-activated structured reactors to maximize propylene selectivity in the oxidative dehydrogenation of propane. <i>Chemical Engineering Journal</i> , 2020, 393, 124746.	12.7	42
29	Preparation of zeolite films as catalytic coatings on microreactor channels. <i>Microporous and Mesoporous Materials</i> , 2008, 115, 147-155.	4.4	41
30	Selective oxidation of CO in the presence of H ₂ , CO ₂ and H ₂ O, on different zeolite-supported Pt catalysts. <i>Applied Catalysis A: General</i> , 2009, 366, 242-251.	4.3	41
31	In Situ Synthesis of SERS-Active Au@POM Nanostructures in a Microfluidic Device for Real-Time Detection of Water Pollutants. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 36458-36467.	8.0	41
32	Monoamine-grafted MCM-48: An efficient material for CO ₂ removal at low partial pressures. <i>Chemical Engineering Journal</i> , 2011, 175, 291-297.	12.7	40
33	Porous membranes from acid decorated block copolymer nano-objects via RAFT alcoholic dispersion polymerization. <i>Polymer Chemistry</i> , 2016, 7, 1899-1906.	3.9	38
34	Synthesis of Maleic Anhydride in an Inert Membrane Reactor. Effect of Reactor Configuration. <i>Industrial & Engineering Chemistry Research</i> , 2000, 39, 620-625.	3.7	36
35	Polyoxometalates as alternative Mo precursors for methane dehydroaromatization on Mo/ZSM-5 and Mo/MCM-22 catalysts. <i>Catalysis Science and Technology</i> , 2019, 9, 5927-5942.	4.1	36
36	The use of post-synthetic treatments to improve the pervaporation performance of mordenite membranes. <i>Journal of Membrane Science</i> , 2006, 270, 32-41.	8.2	35

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37	Experimental Evaluation of the Thermal Polarization in Direct Contact Membrane Distillation Using Electrospun Nanofiber Membranes Doped With Molecular Probes. <i>Molecules</i> , 2019, 24, 638.	3.8	33
38	Gas phase detection of chemical warfare agents CWAs with portable Raman. <i>Journal of Hazardous Materials</i> , 2020, 384, 121279.	12.4	33
39	Preparation of highly accessible mordenite coatings on ceramic monoliths at loadings exceeding 50% by weight. <i>Chemical Communications</i> , 2004, , 528-529.	4.1	32
40	Study on the reproducibility of mordenite tubular membranes used in the dehydration of ethanol. <i>Journal of Membrane Science</i> , 2007, 299, 166-173.	8.2	32
41	Overcoming Stability Problems in Microwave-Assisted Heterogeneous Catalytic Processes Affected by Catalyst Coking. <i>Catalysts</i> , 2019, 9, 867.	3.5	31
42	Nanostructured Mixed Matrix Membranes from Supramolecular Assembly of Block Copolymer Nanoparticles and Iron Oxide Nanoparticles. <i>Macromolecules</i> , 2016, 49, 7908-7916.	4.8	30
43	Use of a polyol liquid collection medium to obtain ultrasmall magnetic nanoparticles by laser pyrolysis. <i>Nanotechnology</i> , 2012, 23, 425605.	2.6	29
44	Constructing Straight Polyionic Liquid Microchannels for Fast Anhydrous Proton Transport. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 35377-35389.	8.0	29
45	A Nanoarchitecture Based on Silver and Copper Oxide with an Exceptional Response in the Chlorine-Promoted Epoxidation of Ethylene. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 11158-11161.	13.8	29
46	Synthesis and characterization of MCM-48 tubular membranes. <i>Journal of Membrane Science</i> , 2006, 280, 867-875.	8.2	28
47	Ethylene epoxidation in microwave heated structured reactors. <i>Catalysis Today</i> , 2016, 273, 99-105.	4.4	28
48	Experimental Study on the Oxidation of Butane to Maleic Anhydride in a Two-Zone Fluidized Bed Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2002, 41, 5181-5186.	3.7	26
49	Preparation and characterization of two-layered mordenite-ZSM-5 bi-functional membranes. <i>Microporous and Mesoporous Materials</i> , 2006, 93, 318-324.	4.4	26
50	Catalytic oxidation of butane to maleic anhydride enhanced yields in the presence of CO ₂ in the reactor feed. <i>Applied Catalysis A: General</i> , 2001, 210, 271-274.	4.3	25
51	Laser-driven direct synthesis of carbon nanodots and application as sensitizers for visible-light photocatalysis. <i>Carbon</i> , 2020, 156, 453-462.	10.3	25
52	Combustion of Volatile Organic Compounds at Trace Concentration Levels in Zeolite-Coated Microreactors. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 6941-6947.	3.7	24
53	Hierarchical Porous Polybenzimidazole Microsieves: An Efficient Architecture for Anhydrous Proton Transport via Polyionic Liquids. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 14844-14857.	8.0	24
54	110th Anniversary: Nucleation of Ag Nanoparticles in Helical Microfluidic Reactor. Comparison between Microwave and Conventional Heating. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 12702-12711.	3.7	24

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55	High-radiance LED-driven fluidized bed photoreactor for the complete oxidation of n-hexane in air. <i>Chemical Engineering Journal</i> , 2019, 358, 1363-1370.	12.7	24
56	Influence of the Reaction Atmosphere on the Characteristics and Performance of VPO Catalysts. <i>Journal of Catalysis</i> , 2000, 196, 1-7.	6.2	23
57	Ultra-Small Silver Nanoparticles Immobilized in Mesoporous SBA-15. Microwave-Assisted Synthesis and Catalytic Activity in the 4-Nitrophenol Reduction. <i>Catalysis Today</i> , 2021, 362, 81-89.	4.4	23
58	Simulation of an inert membrane reactor for the synthesis of maleic anhydride. <i>AIChE Journal</i> , 2000, 46, 2489-2498.	3.6	22
59	Nano-structured magneto-responsive membranes from block copolymers and iron oxide nanoparticles. <i>Polymer Chemistry</i> , 2017, 8, 605-614.	3.9	22
60	Development of fluorescent thermoresponsive nanoparticles for temperature monitoring on membrane surfaces. <i>Journal of Colloid and Interface Science</i> , 2017, 486, 144-152.	9.4	22
61	Continuous Microwave-Assisted Synthesis of Silver Nanoclusters Confined in Mesoporous SBA-15: Application in Alkyne Cyclizations. <i>Chemistry of Materials</i> , 2020, 32, 2874-2883.	6.7	22
62	Microreactors with Pt/zeolite catalytic films for the selective oxidation of CO in simulated reformer streams. <i>Catalysis Today</i> , 2009, 147, S10-S16.	4.4	21
63	Nano-heaters: New insights on the outstanding deposition of dielectric energy on perovskite nanoparticles. <i>Nano Energy</i> , 2016, 20, 20-28.	16.0	21
64	Microfluidic devices as gas "Ionic liquid membrane contactors for CO ₂ removal from anaesthesia gases. <i>Journal of Membrane Science</i> , 2018, 545, 107-115.	8.2	20
65	Preparation of stable MCM-48 tubular membranes. <i>Journal of Membrane Science</i> , 2009, 326, 137-144.	8.2	19
66	Laser-Assisted Production of Carbon-Encapsulated Pt-Co Alloy Nanoparticles for Preferential Oxidation of Carbon Monoxide. <i>Frontiers in Chemistry</i> , 2018, 6, 487.	3.6	19
67	From bench scale to pilot plant: A 150x scaled-up configuration of a microwave-driven structured reactor for methane dehydroaromatization. <i>Catalysis Today</i> , 2022, 383, 21-30.	4.4	19
68	Shift of Multiple Incompatible Equilibria by a Combination of Heterogeneous Catalysis and Membranes. <i>Chemistry - A European Journal</i> , 2010, 16, 3296-3299.	3.3	17
69	Pt-CoO _x nanoparticles supported on ETS-10 for preferential oxidation of CO reaction. <i>Applied Catalysis A: General</i> , 2016, 528, 86-92.	4.3	17
70	3D Fractals as SERS Active Platforms: Preparation and Evaluation for Gas Phase Detection of G-Nerve Agents. <i>Micromachines</i> , 2018, 9, 60.	2.9	17
71	Heating of Zeolites under Microwave Irradiation: A Density Functional Theory Approach to the Ion Movements Responsible of the Dielectric Loss in Na, K, and Ca A-Zeolites. <i>Journal of Physical Chemistry C</i> , 2013, 117, 15659-15666.	3.1	16
72	Continuous production of iron-based nanocrystals by laser pyrolysis. Effect of operating variables on size, composition and magnetic response. <i>Nanotechnology</i> , 2013, 24, 325603.	2.6	16

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73	Preparation of Silicalite Membranes on Stainless Steel Grid Supports. <i>Industrial & Engineering Chemistry Research</i> , 2005, 44, 7627-7632.	3.7	15
74	Synthesis of capillary titanosilicalite TS-1 ceramic membranes by MW-assisted hydrothermal heating for pervaporation application. <i>Separation and Purification Technology</i> , 2010, 75, 249-256.	7.9	15
75	Block Copolymer-Based Magnetic Mixed Matrix Membranes—Effect of Magnetic Field on Protein Permeation and Membrane Fouling. <i>Membranes</i> , 2021, 11, 105.	3.0	14
76	Unraveling the growth of vertically aligned multi-walled carbon nanotubes by chemical vapor deposition. <i>Materials Research Express</i> , 2014, 1, 045604.	1.6	13
77	Towards the reproducible fabrication of homogeneous SERS substrates by Langmuir-Schaefer technique: A low cost and scalable approach for practical SERS based sensing applications. <i>Applied Surface Science</i> , 2020, 506, 144663.	6.1	12
78	Facile production of stable silicon nanoparticles: laser chemistry coupled to in situ stabilization via room temperature hydrosilylation. <i>Nanoscale</i> , 2015, 7, 8566-8573.	5.6	10
79	Block copolymer based novel magnetic mixed matrix membranes-magnetic modulation of water permeation by irreversible structural changes. <i>Journal of Membrane Science</i> , 2018, 551, 273-282.	8.2	9
80	Enhanced Protein Crystallization on Nafion Membranes Modified by Low-Cost Surface Patterning Techniques. <i>Crystal Growth and Design</i> , 2020, 20, 2174-2186.	3.0	9
81	On the favourable effect of CO ₂ addition in the oxidation of butane to maleic anhydride using membrane reactors. <i>Applied Catalysis A: General</i> , 2002, 231, 109-116.	4.3	8
82	Selective separation of homogeneous catalysts using silicalite membranes. <i>Inorganica Chimica Acta</i> , 2004, 357, 4577-4581.	2.4	7
83	In-situ preparation of a highly accessible Pt/CNF catalytic layer on metallic microchannel reactors. Application to the SELOX reaction. <i>Applied Catalysis A: General</i> , 2015, 505, 193-199.	4.3	7
84	Preparation and characterization of Co mordenite coatings onto cordierite monoliths as structured catalysts. <i>Catalysis Today</i> , 2008, 133-135, 42-48.	4.4	6
85	Exploring the Gas-Permeation Properties of Proton-Conducting Membranes Based on Protic Imidazolium Ionic Liquids: Application in Natural Gas Processing. <i>Membranes</i> , 2018, 8, 75.	3.0	6
86	Three-Dimensional Fractal Geometry for Gas Permeation in Microchannels. <i>Micromachines</i> , 2018, 9, 45.	2.9	6
87	On the Improvement of Alveolar-Like Microfluidic Devices for Efficient Blood Oxygenation. <i>Advanced Materials Technologies</i> , 2021, 6, 2001027.	5.8	5
88	A Nanoarchitecture Based on Silver and Copper Oxide with an Exceptional Response in the Chlorine-Promoted Epoxidation of Ethylene. <i>Angewandte Chemie</i> , 2016, 128, 11324-11327.	2.0	4
89	Preparation of Cu cluster catalysts by simultaneous cooling—microwave heating: application in radical cascade annulation. <i>Nanoscale Advances</i> , 2021, 3, 1087-1095.	4.6	4
90	Evaluation of optical and dielectrical properties of the zeolites. <i>Desalination</i> , 2006, 200, 601-603.	8.2	3

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91	3D-fractal engineering based on oxide-only corner lithography. , 2016, , .		3
92	Easy Preparation of Tanninâ€Based Ag Catalysts for Ethylene Epoxidation. ChemistrySelect, 2017, 2, 8509-8516.	1.5	3
93	Protein Crystallization in a Microfluidic Contactor with NafionÂ®117 Membranes. Membranes, 2021, 11, 549.	3.0	3
94	Zeolite Membranes. , 2008, , 269-323.		2
95	Fast microwave synthesis of Pt-MFI zeolite coatings on silicon micromonoliths: application to VOC catalytic combustion. Green Processing and Synthesis, 2012, 1, .	3.4	0
96	Innentitelbild: A Nanoarchitecture Based on Silver and Copper Oxide with an Exceptional Response in the Chlorine-Promoted Epoxidation of Ethylene (Angew. Chem. 37/2016). Angewandte Chemie, 2016, 128, 11082-11082.	2.0	0
97	Mordenite Membrane. , 2014, , 1-3.		0