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	From bench scale to pilot plant: A 150x scaled-up configuration of a microwave-driven structured reactor for methane dehydroaromatization. Catalysis Today, 2022, 383, 21-30.	4.4	19
2	Ultra-Small Silver Nanoparticles Immobilized in Mesoporous SBA-15. Microwave-Assisted Synthesis and Catalytic Activity in the 4-Nitrophenol Reduction. Catalysis Today, 2021, 362, 81-89.	4.4	23
3	Preparation of Cu cluster catalysts by simultaneous coolingâ€“microwave heating: application in radical cascade annulation. Nanoscale Advances, 2021, 3, 1087-1095.	4.6	4
4	Block Copolymer-Based Magnetic Mixed Matrix Membranesâ€”Effect of Magnetic Field on Protein Permeation and Membrane Fouling. Membranes, 2021, 11, 105.	3.0	14
5	On the Improvement of Alveolarâ€Like Microfluidic Devices for Efficient Blood Oxygenation. Advanced Materials Technologies, 2021, 6, 2001027.	5.8	5
6	Plasmonic MOF Thin Films with Raman Internal Standard for Fast and Ultrasensitive SERS Detection of Chemical Warfare Agents in Ambient Air. ACS Sensors, 2021, 6, 2241-2251.	7.8	63
7	Protein Crystallization in a Microfluidic Contactor with NafionÂ®117 Membranes. Membranes, 2021, 11, 549.	3.0	3
8	Gas phase detection of chemical warfare agents CWAs with portable Raman. Journal of Hazardous Materials, 2020, 384, 121279.	12.4	33
9	Laser-driven direct synthesis of carbon nanodots and application as sensitizers for visible-light photocatalysis. Carbon, 2020, 156, 453-462.	10.3	25
10	Supercritical solvothermal synthesis under reducing conditions to increase stability and durability of Mo/ZSM-5 catalysts in methane dehydroaromatization. Applied Catalysis B: Environmental, 2020, 263, 118360.	20.2	47
11	Towards the reproducible fabrication of homogeneous SERS substrates by Langmuir-Schaefer technique: A low cost and scalable approach for practical SERS based sensing applications. Applied Surface Science, 2020, 506, 144663.	6.1	12
12	In Situ Synthesis of SERS-Active Au@POM Nanostructures in a Microfluidic Device for Real-Time Detection of Water Pollutants. ACS Applied Materials & Interfaces, 2020, 12, 36458-36467.	8.0	41
13	Enhanced Protein Crystallization on Nafion Membranes Modified by Low-Cost Surface Patterning Techniques. Crystal Growth and Design, 2020, 20, 2174-2186.	3.0	9
14	Continuous Microwave-Assisted Synthesis of Silver Nanoclusters Confined in Mesoporous SBA-15: Application in Alkyne Cyclizations. Chemistry of Materials, 2020, 32, 2874-2883.	6.7	22
15	Microwave-activated structured reactors to maximize propylene selectivity in the oxidative dehydrogenation of propane. Chemical Engineering Journal, 2020, 393, 124746.	12.7	42
16	Non-oxidative methane conversion in microwave-assisted structured reactors. Chemical Engineering Journal, 2019, 377, 119764.	12.7	85
17	Overcoming Stability Problems in Microwave-Assisted Heterogeneous Catalytic Processes Affected by Catalyst Coking. Catalysts, 2019, 9, 867.	3.5	31
18	110th Anniversary: Nucleation of Ag Nanoparticles in Helical Microfluidic Reactor. Comparison between Microwave and Conventional Heating. Industrial & Engineering Chemistry Research, 2019, 58, 12702-12711.	3.7	24

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19	Escaping undesired gas-phase chemistry: Microwave-driven selectivity enhancement in heterogeneous catalytic reactors. Science Advances, 2019, 5, eaau9000.	10.3	66
20	Numerical analysis of microwave heating cavity: Combining electromagnetic energy, heat transfer and fluid dynamics for a NaY zeolite fixed-bed. Applied Thermal Engineering, 2019, 155, 226-238.	6.0	58
21	Experimental Evaluation of the Thermal Polarization in Direct Contact Membrane Distillation Using Electrospun Nanofiber Membranes Doped With Molecular Probes. Molecules, 2019, 24, 638.	3.8	33
22	Polyoxometalates as alternative Mo precursors for methane dehydroaromatization on Mo/ZSM-5 and Mo/MCM-22 catalysts. Catalysis Science and Technology, 2019, 9, 5927-5942.	4.1	36
23	High-radiance LED-driven fluidized bed photoreactor for the complete oxidation of n-hexane in air. Chemical Engineering Journal, 2019, 358, 1363-1370.	12.7	24
24	Microwave-Assisted Catalytic Combustion for the Efficient Continuous Cleaning of VOC-Containing Air Streams. Environmental Science & Technology, 2018, 52, 5892-5901.	10.0	47
25	Highly sensitive SERS quantification of organophosphorous chemical warfare agents: A major step towards the real time sensing in the gas phase. Sensors and Actuators B: Chemical, 2018, 267, 457-466.	7.8	43
26	Block copolymer based novel magnetic mixed matrix membranes-magnetic modulation of water permeation by irreversible structural changes. Journal of Membrane Science, 2018, 551, 273-282.	8.2	9
27	Synthesis, characterization, and application of ruthenium-doped SrTiO 3 perovskite catalysts for microwave-assisted methane dry reforming. Chemical Engineering and Processing: Process Intensification, 2018, 127, 178-190.	3.6	66
28	Microfluidic devices as gas â€“ Ionic liquid membrane contactors for CO2 removal from anaesthesia gases. Journal of Membrane Science, 2018, 545, 107-115.	8.2	20
29	Exploring the Gas-Permeation Properties of Proton-Conducting Membranes Based on Protic Imidazolium Ionic Liquids: Application in Natural Gas Processing. Membranes, 2018, 8, 75.	3.0	6
30	Laser-Assisted Production of Carbon-Encapsulated Pt-Co Alloy Nanoparticles for Preferential Oxidation of Carbon Monoxide. Frontiers in Chemistry, 2018, 6, 487.	3.6	19
31	Three-Dimensional Fractal Geometry for Gas Permeation in Microchannels. Micromachines, 2018, 9, 45.	2.9	6
32	3D Fractals as SERS Active Platforms: Preparation and Evaluation for Gas Phase Detection of G-Nerve Agents. Micromachines, 2018, 9, 60.	2.9	17
33	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. Chemical Engineering Journal, 2017, 316, 50-60.	12.7	50
34	A non-invasive optical method for mapping temperature polarization in direct contact membrane distillation. Journal of Membrane Science, 2017, 536, 156-166.	8.2	42
35	Hierarchical Porous Polybenzimidazole Microsieves: An Efficient Architecture for Anhydrous Proton Transport via Polyionic Liquids. ACS Applied Materials & Interfaces, 2017, 9, 14844-14857.	8.0	24
36	Nano-structured magneto-responsive membranes from block copolymers and iron oxide nanoparticles. Polymer Chemistry, 2017, 8, 605-614.	3.9	22

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37	Easy Preparation of Tanninâ€Based Ag Catalysts for Ethylene Epoxidation. ChemistrySelect, 2017, 2, 8509-8516.	1.5	3
38	Study of different titanosilicate (TS-1 and ETS-10) as fillers for Mixed Matrix Membranes for CO2/CH4 gas separation applications. Journal of Membrane Science, 2017, 523, 24-35.	8.2	53
39	Development of fluorescent thermoresponsive nanoparticles for temperature monitoring on membrane surfaces. Journal of Colloid and Interface Science, 2017, 486, 144-152.	9.4	22
40	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
41	Constructing Straight Polyionic Liquid Microchannels for Fast Anhydrous Proton Transport. ACS Applied Materials & Interfaces, 2016, 8, 35377-35389.	8.0	29
42	A Nanoarchitecture Based on Silver and Copper Oxide with an Exceptional Response in the Chlorineâ€Promoted Epoxidation of Ethylene. Angewandte Chemie, 2016, 128, 11324-11327.	2.0	4
43	Pt-CoOx nanoparticles supported on ETS-10 for preferential oxidation of CO reaction. Applied Catalysis A: General, 2016, 528, 86-92.	4.3	17
44	Nanostructured Mixed Matrix Membranes from Supramolecular Assembly of Block Copolymer Nanoparticles and Iron Oxide Nanoparticles. Macromolecules, 2016, 49, 7908-7916.	4.8	30
45	A Nanoarchitecture Based on Silver and Copper Oxide with an Exceptional Response in the Chlorineâ€Promoted Epoxidation of Ethylene. Angewandte Chemie - International Edition, 2016, 55, 11158-11161.	13.8	29
46	3D-fractal engineering based on oxide-only corner lithography. , 2016, , .		3
47	Ethylene epoxidation in microwave heated structured reactors. Catalysis Today, 2016, 273, 99-105.	4.4	28
48	Porous membranes from acid decorated block copolymer nano-objects via RAFT alcoholic dispersion polymerization. Polymer Chemistry, 2016, 7, 1899-1906.	3.9	38
49	Nano-heaters: New insights on the outstanding deposition of dielectric energy on perovskite nanoparticles. Nano Energy, 2016, 20, 20-28.	16.0	21
50	Amineâ€functionalized mesoporous silica: A material capable of CO₂ adsorption and fast regeneration by microwave heating. AICHE Journal, 2016, 62, 547-555.	3.6	62
51	PVDF-MFI mixed matrix membranes as VOCs adsorbers. Microporous and Mesoporous Materials, 2015, 207, 126-133.	4.4	53
52	In-situ preparation of a highly accessible Pt/CNF catalytic layer on metallic microchannel reactors. Application to the SELOX reaction. Applied Catalysis A: General, 2015, 505, 193-199.	4.3	7
53	Removal of VOCs at trace concentration levels from humid air by Microwave Swing Adsorption, kinetics and proper sorbent selection. Separation and Purification Technology, 2015, 151, 193-200.	7.9	46
54	Facile production of stable silicon nanoparticles: laser chemistry coupled to in situ stabilization via room temperature hydrosilylation. Nanoscale, 2015, 7, 8566-8573.	5.6	10

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55	Unraveling the growth of vertically aligned multi-walled carbon nanotubes by chemical vapor deposition. Materials Research Express, 2014, 1, 045604.	1.6	13
56	Mordenite Membrane. , 2014, , 1-3.		0
57	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. Journal of Physical Chemistry C, 2013, 117, 15659-15666.	3.1	16
58	Continuous production of iron-based nanocrystals by laser pyrolysis. Effect of operating variables on size, composition and magnetic response. Nanotechnology, 2013, 24, 325603.	2.6	16
59	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
60	Use of a polyol liquid collection medium to obtain ultrasmall magnetic nanoparticles by laser pyrolysis. Nanotechnology, 2012, 23, 425605.	2.6	29
61	Monoamine-grafted MCM-48: An efficient material for CO2 removal at low partial pressures. Chemical Engineering Journal, 2011, 175, 291-297.	12.7	40
62	Zeolite films and membranes. Emerging applications. Microporous and Mesoporous Materials, 2011, 144, 19-27.	4.4	115
63	Microwave-assisted hydrothermal rapid synthesis of capillary MFI-type zeoliteâ€“ceramic membranes for pervaporation application. Journal of Membrane Science, 2010, 355, 28-35.	8.2	56
64	Shift of Multiple Incompatible Equilibriums by a Combination of Heterogeneous Catalysis and Membranes. Chemistry - A European Journal, 2010, 16, 3296-3299.	3.3	17
65	Synthesis of capillary titanosilicalite TS-1 ceramic membranes by MW-assisted hydrothermal heating for pervaporation application. Separation and Purification Technology, 2010, 75, 249-256.	7.9	15
66	Combustion of Volatile Organic Compounds at Trace Concentration Levels in Zeolite-Coated Microreactors. Industrial & Engineering Chemistry Research, 2010, 49, 6941-6947.	3.7	24
67	Preparation of stable MCM-48 tubular membranes. Journal of Membrane Science, 2009, 326, 137-144.	8.2	19
68	Microreactors with Pt/zeolite catalytic films for the selective oxidation of CO in simulated reformer streams. Catalysis Today, 2009, 147, S10-S16.	4.4	21
69	Selective oxidation of CO in the presence of H2, CO2 and H2O, on different zeolite-supported Pt catalysts. Applied Catalysis A: General, 2009, 366, 242-251.	4.3	41
70	Glycerol upgrading by ketalization in a zeolite membrane reactor. Asia-Pacific Journal of Chemical Engineering, 2009, 4, 279-284.	1.5	47
71	Preparation and characterization of Co mordenite coatings onto cordierite monoliths as structured catalysts. Catalysis Today, 2008, 133-135, 42-48.	4.4	6
72	Preparation of zeolite films as catalytic coatings on microreactor channels. Microporous and Mesoporous Materials, 2008, 115, 147-155.	4.4	41

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73	Zeolite Membranes. , 2008, , 269-323.		2
74	Preparation of Pt/ZSM-5 films on stainless steel microreactors. Catalysis Today, 2007, 125, 2-10.	4.4	52
75	Study on the reproducibility of mordenite tubular membranes used in the dehydration of ethanol. Journal of Membrane Science, 2007, 299, 166-173.	8.2	32
76	Selective oxidations in micro-structured catalytic reactorsâ€"For gas-phase reactions and specifically for fuel processing for fuel cells. Catalysis Today, 2007, 120, 2-20.	4.4	53
77	Continuous zeolite membrane reactor for esterification of ethanol and acetic acid. Chemical Engineering Journal, 2007, 131, 35-39.	12.7	122
78	Evaluation of optical and dielectrical properties of the zeolites. Desalination, 2006, 200, 601-603.	8.2	3
79	The use of post-synthetic treatments to improve the pervaporation performance of mordenite membranes. Journal of Membrane Science, 2006, 270, 32-41.	8.2	35
80	Preparation and characterization of two-layered mordenite-ZSM-5 bi-functional membranes. Microporous and Mesoporous Materials, 2006, 93, 318-324.	4.4	26
81	Synthesis and characterization of MCM-48 tubular membranes. Journal of Membrane Science, 2006, 280, 867-875.	8.2	28
82	Preparation of inner-side tubular zeolite NaA membranes in a semi-continuous synthesis system. Journal of Membrane Science, 2006, 278, 401-409.	8.2	53
83	Preparation of zeolite NaA membranes on the inner side of tubular supports by means of a controlled seeding technique. Catalysis Today, 2005, 104, 281-287.	4.4	77
84	Preparation of Silicalite Membranes on Stainless Steel Grid Supports. Industrial & Engineering Chemistry Research, 2005, 44, 7627-7632.	3.7	15
85	Selective separation of homogeneous catalysts using silicalite membranes. Inorganica Chimica Acta, 2004, 357, 4577-4581.	2.4	7
86	Preparation and reactive applications of nanoporous silicon carbide membranes. Chemical Engineering Science, 2004, 59, 4957-4965.	3.8	80
87	Preparation of highly accessible mordenite coatings on ceramic monoliths at loadings exceeding 50% by weight. Chemical Communications, 2004, , 528-529.	4.1	32
88	Preparation, characterization and pervaporation performance of mordenite membranes. Journal of Membrane Science, 2003, 216, 135-147.	8.2	65
89	Synthesis and characterization of ZSM-5 coatings onto cordierite honeycomb supports. Applied Catalysis A: General, 2003, 253, 257-269.	4.3	62
90	Experimental Study on the Oxidation of Butane to Maleic Anhydride in a Two-Zone Fluidized Bed Reactor. Industrial & Engineering Chemistry Research, 2002, 41, 5181-5186.	3.7	26

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91	On the favourable effect of CO2 addition in the oxidation of butane to maleic anhydride using membrane reactors. Applied Catalysis A: General, 2002, 231, 109-116.	4.3	8
92	Preparation of mordenite membranes for pervaporation of water-ethanol mixtures. Desalination, 2002, 148, 25-29.	8.2	47
93	Catalytic oxidation of butane to maleic anhydride enhanced yields in the presence of CO2 in the reactor feed. Applied Catalysis A: General, 2001, 210, 271-274.	4.3	25
94	Simulation of an inert membrane reactor for the synthesis of maleic anhydride. AICHE Journal, 2000, 46, 2489-2498.	3.6	22
95	Use of membrane reactors for the oxidation of butane to maleic anhydride under high butane concentrations. Catalysis Today, 2000, 56, 191-197.	4.4	68
96	Influence of the Reaction Atmosphere on the Characteristics and Performance of VPO Catalysts. Journal of Catalysis, 2000, 196, 1-7.	6.2	23
97	Synthesis of Maleic Anhydride in an Inert Membrane Reactor. Effect of Reactor Configuration. Industrial & Engineering Chemistry Research, 2000, 39, 620-625.	3.7	36