Moises A Carreon

List of Publications by Year
in descending order

110 papers	6,396 citations	76326 40 h-index	69250 77 g-index
113 all docs	113 docs citations	113 times ranked	6883 citing authors

#	Article	IF	Citations
1	Highly Permeable Zeolite Imidazolate Framework-8 Membranes for CO₂/CH₄ Separation. Journal of the American Chemical Society, 2010, 132, 76-78.	13.7	883
2	Structural Evolution of Zeolitic Imidazolate Framework-8. Journal of the American Chemical Society, 2010, 132, 18030-18033.	13.7	619
3	Zeolitic Imidazole Framework-8 Catalysts in the Conversion of CO₂ to Chloropropene Carbonate. ACS Catalysis, 2012, 2, 180-183.	11.2	419
4	Alumina-Supported SAPO-34 Membranes for CO₂/CH₄ Separation. Journal of the American Chemical Society, 2008, 130, 5412-5413.	13.7	291
5	Metal organic framework membranes for carbon dioxide separation. Chemical Engineering Science, 2015, 124, 3-19.	3.8	195
6	Catalytic activity of ZIF-8 in the synthesis of styrene carbonate from CO2 and styrene oxide. Catalysis Communications, 2013, 32, 36-40.	3.3	183
7	Ordered Mesoâ€•and Macroporous Binary and Mixed Metal Oxides. European Journal of Inorganic Chemistry, 2005, 2005, 27-43.	2.0	157
8	Amino-Functionalized SAPO-34 Membranes for CO₂/CH₄ and CO₂/N₂ Separation. Langmuir, 2011, 27, 2888-2894.	3.5	125
9	Synthesis and CO2/CH4 separation performance of Bio-MOF-1 membranes. Chemical Communications, 2012, 48, 5130.	4.1	111
10	Pore architecture affects photocatalytic activity of periodic mesoporous nanocrystalline anatase thin films. Journal of Materials Chemistry, 2007, 17, 82-89.	6.7	106
11	Catalytic activity of metal organic framework Cu3(BTC)2 in the cycloaddition of CO2 to epichlorohydrin reaction. Catalysis Today, 2012, 198, 215-218.	4.4	106
12	Kr/Xe Separation over a Chabazite Zeolite Membrane. Journal of the American Chemical Society, 2016, 138, 9791-9794.	13.7	103
13	Room-Temperature Synthesis of ZIF-8: The Coexistence of ZnO Nanoneedles. Chemistry of Materials, 2011, 23, 3590-3592.	6.7	102
14	Hierarchical Sandwich-Like Structure of Ultrafine N-Rich Porous Carbon Nanospheres Grown on Graphene Sheets as Superior Lithium-Ion Battery Anodes. ACS Applied Materials & Interfaces, 2016, 8, 10324-10333.	8.0	100
15	Scale-up of SAPO-34 membranes for CO2/CH4 separation. Journal of Membrane Science, 2010, 352, 7-13.	8.2	97
16	Metalâ€“Organic Framework HKUST-1 Promotes Methane Hydrate Formation for Improved Gas Storage Capacity. ACS Applied Materials & Interfaces, 2020, 12, 53510-53518.	8.0	97
17	Alumina-supported cobaltâ€“adeninate MOF membranes for CO₂/CH₄ separation. Journal of Materials Chemistry A, 2014, 2, 1239-1241.	10.3	96
18	AlPO-18 membranes for CO2/CH4 separation. Chemical Communications, 2012, 48, 2310.	4.1	90

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19	Synthesis of SAPO-34 Crystals in the Presence of Crystal Growth Inhibitors. Journal of Physical Chemistry B, 2008, 112, 16261-16265.	2.6	80
20	Decarboxylation and further transformation of oleic acid over bifunctional, Pt/SAPO-11 catalyst and Pt/chloride Al2O3 catalysts. Journal of Molecular Catalysis A, 2014, 386, 14-19.	4.8	76
21	Zeolitic Imidazolate Framework-8 (ZIF-8) Membranes for Kr/Xe Separation. Industrial & Engineering Chemistry Research, 2017, 56, 1682-1686.	3.7	76
22	Decarboxylation of Oleic Acid to Heptadecane over Pt Supported on Zeolite 5A Beads. ACS Catalysis, 2015, 5, 6497-6502.	11.2	75
23	Decarboxylation of oleic acid over Pt catalysts supported on small-pore zeolites and hydrotalcite. Catalysis Science and Technology, 2015, 5, 380-388.	4.1	74
24	SAPO-34 Membranes for N2/CH4 separation: Preparation, characterization, separation performance and economic evaluation. Journal of Membrane Science, 2015, 487, 141-151.	8.2	73
25	Nonthermal Plasma Synthesis of Ammonia over Ni-MOF-74. ACS Sustainable Chemistry and Engineering, 2019, 7, 377-383.	6.7	73
26	Kinetics of transformation on ZIF-67 crystals. Journal of Crystal Growth, 2015, 418, 158-162.	1.5	64
27	Ammonia Synthesis via Atmospheric Plasma Catalysis: Zeolite 5A, a Case of Study. Industrial & Engineering Chemistry Research, 2020, 59, 5167-5176.	3.7	63
28	Structural effects on SAPO-34 and ZIF-8 materials exposed to seawater solutions, and their potential as desalination membranes. Desalination, 2016, 377, 128-137.	8.2	62
29	Methane Hydrate Growth Promoted by Microporous Zeolitic Imidazolate Frameworks ZIF-8 and ZIF-67 for Enhanced Methane Storage. ACS Sustainable Chemistry and Engineering, 2021, 9, 9001-9010.	6.7	62
30	Deoxygenation of Palmitic and Lauric Acids over Pt/ZIF-67 Membrane/Zeolite 5A Bead Catalysts. ACS Applied Materials & Interfaces, 2017, 9, 31993-32000.	8.0	59
31	Small pore zeolite catalysts for furfural synthesis from xylose and switchgrass in a Î³-valerolactone/water solvent. Journal of Molecular Catalysis A, 2016, 422, 18-22.	4.8	57
32	Highly Permeable AlPO-18 Membranes for N₂/CH₄ Separation. Industrial & Engineering Chemistry Research, 2017, 56, 4113-4118.	3.7	54
33	Molecular sieve membranes for N₂/CH₄separation. Journal of Materials Research, 2018, 33, 32-43.	2.6	53
34	Thin SAPO-34 membranes synthesized in stainless steel autoclaves for N2/CH4 separation. Journal of Membrane Science, 2017, 524, 117-123.	8.2	52
35	Cu, Al and Ga based metal organic framework catalysts for the decarboxylation of oleic acid. Catalysis Science and Technology, 2015, 5, 2777-2782.	4.1	51
36	Mesoporous Nanocrystalline Mixed Metal Oxides from Heterometallic Alkoxide Precursors: Cobaltâ€“Nickel Oxide Spinels for Propane Oxidation. European Journal of Inorganic Chemistry, 2006, 2006, 4983-4988.	2.0	49

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37	Plasma-Induced Catalytic Conversion of Nitrogen and Hydrogen to Ammonia over Zeolitic Imidazolate Frameworks ZIF-8 and ZIF-67. ACS Applied Materials & Interfaces, 2021, 13, 21338-21348.	8.0	49
38	Microwave assisted phase transformation of silicoaluminophosphate zeolite crystals. Journal of Materials Chemistry, 2009, 19, 3138.	6.7	44
39	Highly permeable N2/CH4 separation SAPO-34 membranes synthesized by diluted gels and increased crystallization temperature. Microporous and Mesoporous Materials, 2016, 224, 36-42.	4.4	44
40	Molecular Simulation Insights on Xe/Kr Separation in a Set of Nanoporous Crystalline Membranes. ACS Applied Materials & Interfaces, 2018, 10, 582-592.	8.0	44
41	Microwave-assisted synthesized SAPO-56 as a catalyst in the conversion of CO2 to cyclic carbonates. Dalton Transactions, 2013, 42, 6732.	3.3	42
42	Synthesis of ZIF-67 and ZIF-8 crystals using DMSO (Dimethyl Sulfoxide) as solvent and kinetic transformation studies. Journal of Crystal Growth, 2016, 455, 152-156.	1.5	41
43	Porous crystals as active catalysts for the synthesis of cyclic carbonates. Journal of Applied Polymer Science, 2014, 131, .	2.6	40
44	Separation of Light Gases from Xenon over Porous Organic Cage Membranes. ACS Applied Materials & Interfaces, 2020, 12, 32182-32188.	8.0	40
45	Microporous Crystalline Membranes for Kr/Xe Separation: Comparison Between AlPO-18, SAPO-34, and ZIF-8. ACS Applied Nano Materials, 2018, 1, 463-470.	5.0	39
46	Microwave-assisted synthesis of nanocrystalline mesoporous gallium oxide. Microporous and Mesoporous Materials, 2010, 130, 97-102.	4.4	37
47	Macroporous Vanadium Phosphorus Oxide Phases Displaying Three-Dimensional Arrays of Spherical Voids. Chemistry of Materials, 2002, 14, 2670-2675.	6.7	35
48	Porous crystals as membranes. Science, 2020, 367, 624-625.	12.6	32
49	Knudsen diffusion through ZIF-8 membranes synthesized by secondary seeded growth. Journal of Porous Materials, 2014, 21, 235-240.	2.6	31
50	Effect of reaction parameters on the decarboxylation of oleic acid over Pt/<scp>ZIF</scp>â€67membrane/zeolite <scp>5A</scp> bead catalysts. Journal of Chemical Technology and Biotechnology, 2017, 92, 52-58.	3.2	29
51	Growth of zeolitic imidazolate framework-8 crystals from the solidâ€“liquid interface. Journal of Materials Chemistry, 2012, 22, 7684.	6.7	28
52	Ammonia separation from N2 and H2 over LTA zeolitic imidazolate framework membranes. Journal of Membrane Science, 2021, 623, 119078.	8.2	28
53	Insights on cold plasma ammonia synthesis and decomposition using alkaline earth metal-based perovskites. Catalysis Science and Technology, 0, , .	4.1	24
54	Vanadium-phosphorus-oxides: From fundamentals of n-Butane oxidation to synthesis of new phases. Catalysis, 2007, , 1-45.	1.0	24

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55	Recovery of xenon from air over ZIF-8 membranes. Chemical Communications, 2018, 54, 8976-8979.	4.1	23
56	Mesostructured vanadium-phosphorus-oxide phases. Microporous and Mesoporous Materials, 2002, 55, 297-304.	4.4	22
57	Noble metal-free catalytic decarboxylation of oleic acid to n-heptadecane on nickel-based metalâ€“organic frameworks (MOFs). Catalysis Science and Technology, 2017, 7, 3027-3035.	4.1	22
58	Zeolite adsorbent-MOF layered nanovalves for CH4 storage. Adsorption, 2017, 23, 19-24.	3.0	22
59	Integrated gas hydrate-membrane system for natural gas purification. Journal of Renewable and Sustainable Energy, 2018, 10, .	2.0	22
60	Chabazite Zeolite SAPO-34 Membranes for He/CH₄ Separation. , 2019, 1, 655-659.		22
61	Plasma ammonia synthesis over mesoporous silica SBA-15. Journal Physics D: Applied Physics, 2021, 54, 264003.	2.8	22
62	Hierarchical design of mixed metal oxides: novel macroporous VPO phases. Chemical Communications, 2001, , 1438-1439.	4.1	21
63	Ordered Mesostructured Mixed Metal Oxides: Microporous VPO Phases for n-Butane Oxidation to Maleic Anhydride. Catalysis Letters, 2004, 92, 11-16.	2.6	21
64	SAPO-34 membranes for xenon capture from air. Journal of Membrane Science, 2019, 573, 288-292.	8.2	21
65	Synthesis of catalytic materials on multiple length scales: from mesoporous to macroporous bulk mixed metal oxides for selective oxidation of hydrocarbons. Catalysis Today, 2005, 99, 137-142.	4.4	19
66	Operando Raman-mass spectrometry investigation of hydrogen release by thermolysis of ammonia borane confined in mesoporous materials. Microporous and Mesoporous Materials, 2016, 226, 454-465.	4.4	19
67	Time Dependent Structural Evolution of Porous Organic Cage CC3. Crystal Growth and Design, 2018, 18, 921-927.	3.0	19
68	Synthesis of ZIF-11 crystals by microwave heating. New Journal of Chemistry, 2020, 44, 3562-3565.	2.8	19
69	Phase transformations in mesostructured vanadiumâ€“phosphorus-oxides. Catalysis Today, 2003, 78, 303-310.	4.4	18
70	Deoxygenation of Stearic Acid over Cobalt-Based NaX Zeolite Catalysts. Catalysts, 2019, 9, 42.	3.5	18
71	Tunability of ammonia adsorption over NaP zeolite. Microporous and Mesoporous Materials, 2021, 324, 111288.	4.4	18
72	Porous Organic Cage CC3: An Effective Promoter for Methane Hydrate Formation for Natural Gas Storage. Journal of Physical Chemistry C, 2021, 125, 20512-20521.	3.1	18

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73	Self-assembly hydrothermal assisted synthesis of mesoporous anatase in the presence of ethylene glycol. Catalysis Communications, 2009, 10, 2036-2040.	3.3	17
74	Nanovalved Adsorbents for CH₄ Storage. Nano Letters, 2016, 16, 3309-3313.	9.1	17
75	Microwave-assisted synthesis of porous organic cages CC3 and CC2. CrystEngComm, 2019, 21, 4534-4537.	2.6	17
76	Thermally Stable Nanocrystalline Mesoporous Gallium Oxide Phases. European Journal of Inorganic Chemistry, 2009, 2009, 3275-3281.	2.0	16
77	SAPO-34/5A Zeolite Bead Catalysts for Furan Production from Xylose and Glucose. ACS Omega, 2018, 3, 16253-16259.	3.5	16
78	Decarboxylation of Diunsaturated Linoleic Acid to Heptadecane over Zeolite Supported Pt/ZIF-67 Catalysts. Industrial & Engineering Chemistry Research, 2018, 57, 15991-15997.	3.7	16
79	Experimental strategies to increase ammonia yield in plasma catalysis over LTA and BEA zeolites. IOP SciNotes, 2020, 1, 024801.	0.8	16
80	Promoting Methane Hydrate Formation for Natural Gas Storage over Chabazite Zeolites. ACS Applied Energy Materials, 2021, 4, 13420-13424.	5.1	16
81	Phase transformations in mesostructured VPO/surfactant composites. Microporous and Mesoporous Materials, 2004, 71, 57-63.	4.4	15
82	Catalytic transformations of methyl oleate and biodiesel over mesoporous galliumâ€“niobium oxides. Catalysis Communications, 2011, 12, 644-650.	3.3	15
83	CC3 porous organic cage crystals and membranes for the non-thermal plasma catalytic ammonia synthesis. Chemical Engineering Journal Advances, 2022, 11, 100340.	5.2	14
84	Mesostructured mixed Moâ€“Vâ€“Nb oxides for propane ammoxidation. Catalysis Communications, 2009, 10, 416-420.	3.3	13
85	CO2/CH4 separation characteristics of poly(RTIL)-RTIL-zeolite mixed-matrix membranes evaluated under binary feeds up to 40 bar and 50Â°C. Journal of Membrane Science, 2021, 621, 118979.	8.2	13
86	Photocatalytic degradation of organic dyes by mesoporous nanocrystalline anatase. Materials Chemistry and Physics, 2011, 125, 474-478.	4.0	12
87	Epoxidation of cyclooctene over mesoporous Ga, Gaâ€“Nb, and Gaâ€“Mo oxide catalysts. Catalysis Communications, 2011, 15, 46-51.	3.3	11
88	Methanolysis of olive oil for biodiesel synthesis over ZnO nanorods. Reaction Kinetics, Mechanisms and Catalysis, 2015, 114, 583-595.	1.7	11
89	Mesoporous microspherical NiO catalysts for the deoxygenation of oleic acid. Catalysis Communications, 2020, 143, 106046.	3.3	11
90	Methane storage scale-up using hydrates & metal organic framework HKUST-1 in a packed column. Fuel, 2022, 325, 124920.	6.4	10

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91	Decarboxylation of stearic acid over Ni/MOR catalysts. Journal of Chemical Technology and Biotechnology, 2020, 95, 102-110.	3.2	9
92	Microporous Crystalline Molecular Sieve Membranes for Molecular Gas Separations: What Is Next?. , 0, , 868-873.		9
93	Porous Organic Cages CC3 and CC2 as Adsorbents for the Separation of Carbon Dioxide from Nitrogen and Hydrogen. Industrial & Engineering Chemistry Research, 2022, 61, 10547-10553.	3.7	9
94	Synthesis and characterization of mesostructured vanadium-phosphorus-oxide phases. Studies in Surface Science and Catalysis, 2002, 141, 301-308.	1.5	6
95	Synthesis of porous organic cage CC3 via solvent modulated evaporation. Inorganica Chimica Acta, 2020, 501, 119312.	2.4	6
96	Vacancy Healing as a Desorption Tool: Oxygen Triggered Removal of Stored Ammonia from NiO‹sub›1â€“‹i›x‹/i›‹/sub›/MOR Validated by Experiments and Simulations. ACS Applied Energy Materials, 2020, 3, 8233-8239.	5.1	6
97	Towards continuous deoxygenation of acetic acid catalyzed by recyclable mono/bi/trimetallic zeolite catalysts. Journal of Catalysis, 2021, 401, 137-148.	6.2	6
98	Solvothermal synthesis of porous organic cage CC3 in the presence of dimethylformamide as solvent. CrystEngComm, 2019, 21, 5039-5044.	2.6	5
99	Evaluating the effect of ionomer chemical composition in silver-ionomer catalyst inks toward the oxygen evolution reaction by half-cell measurements and water electrolysis. Electrochimica Acta, 2022, 412, 140124.	5.2	5
100	Thermally stable mesoporous bariumâ€“iron mixed oxide phases. Materials Letters, 2006, 60, 2119-2124.	2.6	4
101	Synthesis of SAPO-56 with controlled crystal size. Journal of Nanoparticle Research, 2017, 19, 1.	1.9	4
102	Exploiting hydrophobicity and hydrophilicity in nanopores as a design principle for â€œsmartâ€•MOF microtanks for methane storage. Molecular Systems Design and Engineering, 2020, 5, 166-176.	3.4	4
103	Novel macroporous vanadium-phosphorus-oxides with three-dimensional arrays of spherical voids. Studies in Surface Science and Catalysis, 2002, 141, 309-316.	1.5	2
104	Green deoxygenation of fatty acids to transport fuels over metal-organic frameworks as catalysts and catalytic supports. , 2019, , 285-318.		2
105	New Evidence for a Dicopper Core within Zeolite Mordenite Side Pockets. Journal of Physical Chemistry C, 2022, 126, 5550-5554.	3.1	2
106	Microporous Crystalline Membranes and Their Application for CO2 Separations. World Scientific Series in Nanoscience and Nanotechnology, 2015, , 401-434.	0.1	1
107	Membrane Processes for N2â€“CH4 Separation. , 2017, , 145-194.		1
108	Quantum Size Effect Silicon Structures via Molecularly Self-Assembled Hybrid Templates. Materials Research Society Symposia Proceedings, 2002, 728, 8401.	0.1	0

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109	Mesostructured and mesoporous pure and substituted barium hexaferrite phases. Studies in Surface Science and Catalysis, 2005, 156, 287-294.	1.5	0
110	Catalyst Design Through Dual Templating. , 0, , 295-314.		0