

List of Publications by Citations

Source: <https://exaly.com/author-pdf/1225046/jorge-gascon-publications-by-citations.pdf>
Version: 2024-04-10

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

325 papers	26,752 citations	82 h-index	154 g-index
364 ext. papers	31,305 ext. citations	10.2 avg, IF	7.51 L-index

#	Paper	IF	Citations
325	Metal-organic framework nanosheets in polymer composite materials for gas separation. <i>Nature Materials</i> , 2015 , 14, 48-55	27	1454
324	An amine-functionalized MIL-53 metal-organic framework with large separation power for CO ₂ and CH ₄ . <i>Journal of the American Chemical Society</i> , 2009 , 131, 6326-7	16.4	863
323	Metal Organic Framework Catalysis: Quo vadis?. <i>ACS Catalysis</i> , 2014 , 4, 361-378	13.1	756
322	Metal-organic and covalent organic frameworks as single-site catalysts. <i>Chemical Society Reviews</i> , 2017 , 46, 3134-3184	58.5	696
321	Challenges in the Greener Production of Formates/Formic Acid, Methanol, and DME by Heterogeneously Catalyzed CO Hydrogenation Processes. <i>Chemical Reviews</i> , 2017 , 117, 9804-9838	68.1	688
320	Metal-organic framework based mixed matrix membranes: a solution for highly efficient CO ₂ capture?. <i>Chemical Society Reviews</i> , 2015 , 44, 2421-54	58.5	627
319	Ethane/ethene separation turned on its head: selective ethane adsorption on the metal-organic framework ZIF-7 through a gate-opening mechanism. <i>Journal of the American Chemical Society</i> , 2010 , 132, 17704-6	16.4	555
318	Amino-based metal-organic frameworks as stable, highly active basic catalysts. <i>Journal of Catalysis</i> , 2009 , 261, 75-87	7.3	535
317	Metal-Organic Frameworks in Heterogeneous Catalysis: Recent Progress, New Trends, and Future Perspectives. <i>Chemical Reviews</i> , 2020 , 120, 8468-8535	68.1	448
316	Synthesis and Characterization of an Amino Functionalized MIL-101(Al): Separation and Catalytic Properties. <i>Chemistry of Materials</i> , 2011 , 23, 2565-2572	9.6	423
315	Metal organic framework based mixed matrix membranes: An increasingly important field of research with a large application potential. <i>Microporous and Mesoporous Materials</i> , 2013 , 166, 67-78	5.3	399
314	Metal-organic frameworks based membranes for liquid separation. <i>Chemical Society Reviews</i> , 2017 , 46, 7124-7144	58.5	372
313	Mixed-Matrix Membranes. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 9292-9310	16.4	347
312	Metal-organic frameworks as heterogeneous photocatalysts: advantages and challenges. <i>CrystEngComm</i> , 2014 , 16, 4919-4926	3.3	341
311	Recent developments in zeolite membranes for gas separation. <i>Journal of Membrane Science</i> , 2016 , 499, 65-79	9.6	315
310	Recent trends and fundamental insights in the methanol-to-hydrocarbons process. <i>Nature Catalysis</i> , 2018 , 1, 398-411	36.5	315
309	Strategies for the Direct Catalytic Valorization of Methane Using Heterogeneous Catalysis: Challenges and Opportunities. <i>ACS Catalysis</i> , 2016 , 6, 2965-2981	13.1	312

308	Metal-organic frameworks as scaffolds for the encapsulation of active species: state of the art and future perspectives. <i>Journal of Materials Chemistry</i> , 2012 , 22, 10102		310
307	Electrochemical Synthesis of Some Archetypical Zn ²⁺ , Cu ²⁺ , and Al ³⁺ -Metal Organic Frameworks. <i>Crystal Growth and Design</i> , 2012 , 12, 3489-3498	3.5	309
306	Co@NH ₂ -MIL-125(Ti): cobaloxime-derived metal-organic framework-based composite for light-driven H ₂ production. <i>Energy and Environmental Science</i> , 2015 , 8, 364-375	35.4	304
305	Practical Approach to Zeolitic Membranes and Coatings: State of the Art, Opportunities, Barriers, and Future Perspectives. <i>Chemistry of Materials</i> , 2012 , 24, 2829-2844	9.6	296
304	Functionalized flexible MOFs as fillers in mixed matrix membranes for highly selective separation of CO ₂ from CH ₄ at elevated pressures. <i>Chemical Communications</i> , 2011 , 47, 9522-4	5.8	296
303	Adsorption-Driven Heat Pumps: The Potential of Metal-Organic Frameworks. <i>Chemical Reviews</i> , 2015 , 115, 12205-50	68.1	294
302	Building MOF bottles around phosphotungstic acid ships: One-pot synthesis of bi-functional polyoxometalate-MIL-101 catalysts. <i>Journal of Catalysis</i> , 2010 , 269, 229-241	7.3	290
301	Manufacture of dense coatings of Cu ₃ (BTC) ₂ (HKUST-1) on alumina. <i>Microporous and Mesoporous Materials</i> , 2008 , 113, 132-138	5.3	271
300	Metal organic framework-mediated synthesis of highly active and stable Fischer-Tropsch catalysts. <i>Nature Communications</i> , 2015 , 6, 6451	17.4	265
299	Complexity behind CO ₂ capture on NH ₂ -MIL-53(Al). <i>Langmuir</i> , 2011 , 27, 3970-6	4	256
298	Iridium-based double perovskites for efficient water oxidation in acid media. <i>Nature Communications</i> , 2016 , 7, 12363	17.4	253
297	Sulfation of metal-organic frameworks: Opportunities for acid catalysis and proton conductivity. <i>Journal of Catalysis</i> , 2011 , 281, 177-187	7.3	249
296	Understanding the anomalous alkane selectivity of ZIF-7 in the separation of light alkane/alkene mixtures. <i>Chemistry - A European Journal</i> , 2011 , 17, 8832-40	4.8	243
295	Visualizing MOF Mixed Matrix Membranes at the Nanoscale: Towards Structure-Performance Relationships in CO ₂ /CH ₄ Separation Over NH ₂ -MIL-53(Al)@PI. <i>Advanced Functional Materials</i> , 2014 , 24, 249-256	15.6	236
294	Metal-organic framework membranes--high potential, bright future?. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 1530-2	16.4	221
293	Isorecticular MOFs as efficient photocatalysts with tunable band gap: an operando FTIR study of the photoinduced oxidation of propylene. <i>ChemSusChem</i> , 2008 , 1, 981-3	8.3	216
292	Separation and permeation characteristics of a DD3R zeolite membrane. <i>Journal of Membrane Science</i> , 2008 , 316, 35-45	9.6	203
291	Enhancing optical absorption of metal-organic frameworks for improved visible light photocatalysis. <i>Chemical Communications</i> , 2013 , 49, 10575-7	5.8	195

290	Multi-scale crystal engineering of metal organic frameworks. <i>Coordination Chemistry Reviews</i> , 2016 , 307, 147-187	23.2	186
289	Metal Organic Framework Crystals in Mixed-Matrix Membranes: Impact of the Filler Morphology on the Gas Separation Performance. <i>Advanced Functional Materials</i> , 2016 , 26, 3154-3163	15.6	185
288	The MOF-driven synthesis of supported palladium clusters with catalytic activity for carbene-mediated chemistry. <i>Nature Materials</i> , 2017 , 16, 760-766	27	180
287	Metal organic frameworks as precursors for the manufacture of advanced catalytic materials. <i>Materials Chemistry Frontiers</i> , 2017 , 1, 1709-1745	7.8	174
286	Design of hydrophilic metal organic framework water adsorbents for heat reallocation. <i>Advanced Materials</i> , 2015 , 27, 4775-80	24	168
285	Kinetic control of metal-organic framework crystallization investigated by time-resolved in situ X-ray scattering. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 9624-8	16.4	159
284	Single cobalt sites in mesoporous N-doped carbon matrix for selective catalytic hydrogenation of nitroarenes. <i>Journal of Catalysis</i> , 2018 , 357, 20-28	7.3	156
283	Hierarchical H-ZSM-5-supported cobalt for the direct synthesis of gasoline-range hydrocarbons from syngas: Advantages, limitations, and mechanistic insight. <i>Journal of Catalysis</i> , 2013 , 305, 179-190	7.3	155
282	Electronic origins of photocatalytic activity in d0 metal organic frameworks. <i>Scientific Reports</i> , 2016 , 6, 23676	4.9	154
281	Tuning the catalytic performance of metal-organic frameworks in fine chemistry by active site engineering. <i>Journal of Materials Chemistry</i> , 2012 , 22, 10313		151
280	Structure-performance descriptors and the role of Lewis acidity in the methanol-to-propylene process. <i>Nature Chemistry</i> , 2018 , 10, 804-812	17.6	145
279	Electrosynthesis of Metal-Organic Frameworks: Challenges and Opportunities. <i>ChemElectroChem</i> , 2015 , 2, 462-474	4.3	142
278	Isolated Fe Sites in Metal Organic Frameworks Catalyze the Direct Conversion of Methane to Methanol. <i>ACS Catalysis</i> , 2018 , 8, 5542-5548	13.1	138
277	Selective Gold Recovery and Catalysis in a Highly Flexible Methionine-Decorated Metal-Organic Framework. <i>Journal of the American Chemical Society</i> , 2016 , 138, 7864-7	16.4	136
276	Highly dispersed platinum in metal organic framework NH ₂ -MIL-101(Al) containing phosphotungstic acid [Characterization and catalytic performance. <i>Journal of Catalysis</i> , 2012 , 289, 42-52	7.3	133
275	Structural and chemical disorder of cryptomelane promoted by alkali doping: Influence on catalytic properties. <i>Journal of Catalysis</i> , 2012 , 293, 165-174	7.3	129
274	Towards acid MOFs [Catalytic performance of sulfonic acid functionalized architectures. <i>Catalysis Science and Technology</i> , 2013 , 3, 2311	5.5	129
273	Elucidating the Nature of Fe Species during Pyrolysis of the Fe-BTC MOF into Highly Active and Stable Fischer-Tropsch Catalysts. <i>ACS Catalysis</i> , 2016 , 6, 3236-3247	13.1	129

272	Azine-Linked Covalent Organic Framework (COF)-Based Mixed-Matrix Membranes for CO ₂ /CH ₄ Separation. <i>Chemistry - A European Journal</i> , 2016 , 22, 14467-70	4.8	126
271	Catalysis engineering of bifunctional solids for the one-step synthesis of liquid fuels from syngas: a review. <i>Catalysis Science and Technology</i> , 2014 , 4, 893-907	5.5	125
270	Highly selective chemical sensing in a luminescent nanoporous magnet. <i>Advanced Materials</i> , 2012 , 24, 5625-9	24	121
269	NH ₂ -MIL-53(Al): a high-contrast reversible solid-state nonlinear optical switch. <i>Journal of the American Chemical Society</i> , 2012 , 134, 8314-7	16.4	121
268	MOFs meet monoliths: Hierarchical structuring metal organic framework catalysts. <i>Applied Catalysis A: General</i> , 2011 , 391, 261-267	5.1	115
267	High flux high-silica SSZ-13 membrane for CO ₂ separation. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 13083-13092	8.3	113
266	Mixed matrix membranes based on NH ₂ -functionalized MIL-type MOFs: Influence of structural and operational parameters on the CO ₂ /CH ₄ separation performance. <i>Microporous and Mesoporous Materials</i> , 2014 , 192, 35-42	5.3	110
265	Adsorptive characterization of porous solids: Error analysis guides the way. <i>Microporous and Mesoporous Materials</i> , 2014 , 200, 199-215	5.3	109
264	Breaking the Fischer-Tropsch synthesis selectivity: direct conversion of syngas to gasoline over hierarchical Co/H-ZSM-5 catalysts. <i>Catalysis Science and Technology</i> , 2013 , 3, 572-575	5.5	105
263	Influence of ZIF-8 particle size in the performance of polybenzimidazole mixed matrix membranes for pre-combustion CO ₂ capture and its validation through interlaboratory test. <i>Journal of Membrane Science</i> , 2016 , 515, 45-53	9.6	105
262	Propane dehydrogenation over a Cr ₂ O ₃ /Al ₂ O ₃ catalyst: transient kinetic modeling of propene and coke formation. <i>Applied Catalysis A: General</i> , 2003 , 248, 105-116	5.1	103
261	Selective gas and vapor sorption and magnetic sensing by an isorecticular mixed-metal-organic framework. <i>Journal of the American Chemical Society</i> , 2012 , 134, 15301-4	16.4	102
260	Adsorption and separation of light gases on an amino-functionalized metal-organic framework: an adsorption and in situ XRD study. <i>ChemSusChem</i> , 2012 , 5, 740-50	8.3	100
259	Experimental Evidence of Negative Linear Compressibility in the MIL-53 Metal-Organic Framework Family. <i>CrystEngComm</i> , 2015 , 17, 276-280	3.3	99
258	Metal-Organic Frameworks in Adsorption-Driven Heat Pumps: The Potential of Alcohols as Working Fluids. <i>Langmuir</i> , 2015 , 31, 12783-96	4	97
257	Fascinating chemistry or frustrating unpredictability: observations in crystal engineering of metal-organic frameworks. <i>CrystEngComm</i> , 2013 , 15, 9249	3.3	95
256	Structuring catalyst and reactor – an inviting avenue to process intensification. <i>Catalysis Science and Technology</i> , 2015 , 5, 807-817	5.5	94
255	Metal Organic Framework-Derived Iron Catalysts for the Direct Hydrogenation of CO ₂ to Short Chain Olefins. <i>ACS Catalysis</i> , 2018 , 8, 9174-9182	13.1	94

254	Photoswitchable metal organic frameworks: turn on the lights and close the windows. <i>CrystEngComm</i> , 2016 , 18, 4006-4012	3.3	92
253	Mechanistic Insight into the Synthesis of Higher Alcohols from Syngas: The Role of K Promotion on MoS ₂ Catalysts. <i>ACS Catalysis</i> , 2013 , 3, 1634-1637	13.1	92
252	Identification of adsorption sites in Cu-BTC by experimentation and molecular simulation. <i>Langmuir</i> , 2009 , 25, 1725-31	4	92
251	Unraveling the Optoelectronic and Photochemical Behavior of Zn ₄ O-Based Metal Organic Frameworks. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 12487-12493	3.8	91
250	Fundamentals and applications of photo-thermal catalysis. <i>Chemical Society Reviews</i> , 2021 , 50, 2173-2219	18.5	91
249	Interplay of metal node and amine functionality in NH ₂ -MIL-53: modulating breathing behavior through intra-framework interactions. <i>Langmuir</i> , 2012 , 28, 12916-22	4	89
248	Insights into the Activity and Deactivation of the Methanol-to-Olefins Process over Different Small-Pore Zeolites As Studied with Operando UV-vis Spectroscopy. <i>ACS Catalysis</i> , 2017 , 7, 4033-4046	13.1	87
247	Manufacture of highly loaded silica-supported cobalt Fischer-Tropsch catalysts from a metal organic framework. <i>Nature Communications</i> , 2017 , 8, 1680	17.4	87
246	Postsynthetic Improvement of the Physical Properties in a Metal-Organic Framework through a Single Crystal to Single Crystal Transmetalation. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 6521-5	16.4	84
245	The oxamate route, a versatile post-functionalization for metal incorporation in MIL-101(Cr): Catalytic applications of Cu, Pd, and Au. <i>Journal of Catalysis</i> , 2013 , 307, 295-304	7.3	83
244	Insights into the Dynamics of Grotthuss Mechanism in a Proton-Conducting Chiral bioMOF. <i>Chemistry of Materials</i> , 2016 , 28, 4608-4615	9.6	82
243	Accelerated synthesis of all-silica DD3R and its performance in the separation of propylene/propane mixtures. <i>Microporous and Mesoporous Materials</i> , 2008 , 115, 585-593	5.3	81
242	Nanosheets of Nonlayered Aluminum Metal-Organic Frameworks through a Surfactant-Assisted Method. <i>Advanced Materials</i> , 2018 , 30, e1707234	24	80
241	Metal-Organic-Framework-Mediated Nitrogen-Doped Carbon for CO Electrochemical Reduction. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 14751-14758	9.5	79
240	Controlled formation of iron carbides and their performance in Fischer-Tropsch synthesis. <i>Journal of Catalysis</i> , 2018 , 362, 106-117	7.3	78
239	Toward bifunctional catalysts for the direct conversion of syngas to gasoline range hydrocarbons: H-ZSM-5 coated Co versus H-ZSM-5 supported Co. <i>Applied Catalysis A: General</i> , 2013 , 456, 11-22	5.1	78
238	Solution processable metal-organic frameworks for mixed matrix membranes using porous liquids. <i>Nature Materials</i> , 2020 , 19, 1346-1353	27	78
237	Effect of Zeolite Topology and Reactor Configuration on the Direct Conversion of CO ₂ to Light Olefins and Aromatics. <i>ACS Catalysis</i> , 2019 , 9, 6320-6334	13.1	77

236	Efficient production of hydrogen from formic acid using a covalent triazine framework supported molecular catalyst. <i>ChemSusChem</i> , 2015 , 8, 809-12	8.3	76
235	Structural Effects in Visible-Light-Responsive Metal-Organic Frameworks Incorporating ortho-Fluoroazobenzenes. <i>Chemistry - A European Journal</i> , 2016 , 22, 746-52	4.8	76
234	Shape and Transition State Selective Hydrogenations Using Egg-Shell Pt-MIL-101(Cr) Catalyst. <i>ACS Catalysis</i> , 2013 , 3, 2617-2626	13.1	75
233	Revisiting Nitrogen Species in Covalent Triazine Frameworks. <i>Langmuir</i> , 2017 , 33, 14278-14285	4	75
232	Propane/propylene separation with Li-exchanged zeolite 13X. <i>Chemical Engineering Journal</i> , 2010 , 160, 207-214	14.7	75
231	The Current Status of MOF and COF Applications. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 23975-24001	16.4	75
230	Self-Diffusion Studies in CuBTC by PFG NMR and MD Simulations. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 10527-10534	3.8	73
229	Thermodynamic analysis of the breathing of amino-functionalized MIL-53(Al) upon CO ₂ adsorption. <i>Microporous and Mesoporous Materials</i> , 2011 , 140, 108-113	5.3	72
228	Stabilized gold on cerium-modified cryptomelane: Highly active in low-temperature CO oxidation. <i>Journal of Catalysis</i> , 2014 , 309, 58-65	7.3	71
227	Heterogeneous Catalysis for the Valorization of CO ₂ : Role of Bifunctional Processes in the Production of Chemicals. <i>ACS Energy Letters</i> , 2019 , 4, 167-176	20.1	71
226	High performance mixed matrix membranes (MMMs) composed of ZIF-94 filler and 6FDA-DAM polymer. <i>Journal of Membrane Science</i> , 2018 , 550, 198-207	9.6	71
225	2020 roadmap on pore materials for energy and environmental applications. <i>Chinese Chemical Letters</i> , 2019 , 30, 2110-2122	8.1	69
224	A pulse chromatographic study of the adsorption properties of the amino-MIL-53 (Al) metal-organic framework. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 9413-8	3.6	68
223	Organic Linker Defines the Excited-State Decay of Photocatalytic MIL-125(Ti)-Type Materials. <i>ChemSusChem</i> , 2016 , 9, 388-95	8.3	67
222	Photocatalytic properties of TiO ₂ and Fe-doped TiO ₂ prepared by metal organic framework-mediated synthesis. <i>Chemical Engineering Journal</i> , 2019 , 360, 75-88	14.7	65
221	Advances in the Design of Heterogeneous Catalysts and Thermocatalytic Processes for CO ₂ Utilization. <i>ACS Catalysis</i> , 2020 , 10, 14147-14185	13.1	64
220	Metal-Organic Framework Mediated Cobalt/Nitrogen-Doped Carbon Hybrids as Efficient and Chemoselective Catalysts for the Hydrogenation of Nitroarenes. <i>ChemCatChem</i> , 2017 , 9, 1854-1862	5.2	63
219	New V(IV)-based metal-organic framework having framework flexibility and high CO ₂ adsorption capacity. <i>Inorganic Chemistry</i> , 2013 , 52, 113-20	5.1	63

218	Understanding metal-organic frameworks for photocatalytic solar fuel production. <i>CrystEngComm</i> , 2017 , 19, 4118-4125	3.3	62
217	Towards liquid fuels from biosyngas: effect of zeolite structure in hierarchical-zeolite-supported cobalt catalysts. <i>ChemSusChem</i> , 2013 , 6, 1646-50	8.3	61
216	Adsorption and Diffusion of Water, Methanol, and Ethanol in All-Silica DD3R: Experiments and Simulation. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 14290-14301	3.8	61
215	Understanding Adsorption of Highly Polar Vapors on Mesoporous MIL-100(Cr) and MIL-101(Cr): Experiments and Molecular Simulations. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 7613-7622	3.8	60
214	Live encapsulation of a Keggin polyanion in NH ₂ -MIL-101(Al) observed by in situ time resolved X-ray scattering. <i>Chemical Communications</i> , 2011 , 47, 8578-80	5.8	60
213	Metal organic framework synthesis in the presence of surfactants: towards hierarchical MOFs?. <i>CrystEngComm</i> , 2015 , 17, 1693-1700	3.3	59
212	Facile manufacture of porous organic framework membranes for precombustion CO capture. <i>Science Advances</i> , 2018 , 4, eaau1698	14.3	59
211	Mechanistic Complexity of Methane Oxidation with HO by Single-Site Fe/ZSM-5 Catalyst. <i>ACS Catalysis</i> , 2018 , 8, 7961-7972	13.1	58
210	Investigating the Case of Titanium(IV) Carboxyphenolate Photoactive Coordination Polymers. <i>Inorganic Chemistry</i> , 2016 , 55, 7192-9	5.1	56
209	High compressibility of a flexible metal-organic framework. <i>RSC Advances</i> , 2012 , 2, 5051	3.7	55
208	Towards efficient polyoxometalate encapsulation in MIL-100(Cr): influence of synthesis conditions. <i>New Journal of Chemistry</i> , 2012 , 36, 977	3.6	55
207	Solid-State Molecular Nanomagnet Inclusion into a Magnetic Metal-Organic Framework: Interplay of the Magnetic Properties. <i>Chemistry - A European Journal</i> , 2016 , 22, 539-45	4.8	55
206	Turning a Methanation Co Catalyst into an In ₂ O ₃ Methanol Producer. <i>ACS Catalysis</i> , 2019 , 9, 6910-6918	13.1	54
205	Maximizing Ag Utilization in High-Rate CO ₂ Electrochemical Reduction with a Coordination Polymer-Mediated Gas Diffusion Electrode. <i>ACS Energy Letters</i> , 2019 , 4, 2024-2031	20.1	54
204	Shaping Covalent Triazine Frameworks for the Hydrogenation of Carbon Dioxide to Formic Acid. <i>ChemCatChem</i> , 2016 , 8, 2217-2221	5.2	54
203	Revisiting the Aluminum Trimesate-Based MOF (MIL-96): From Structure Determination to the Processing of Mixed Matrix Membranes for CO ₂ Capture. <i>Chemistry of Materials</i> , 2017 , 29, 10326-10338	9.6	53
202	Revisiting the Incorporation of Ti(IV) in UiO-type Metal-Organic Frameworks: Metal Exchange versus Grafting and Their Implications on Photocatalysis. <i>Chemistry of Materials</i> , 2017 , 29, 8963-8967	9.6	52
201	Ru/TiO ₂ -catalysed hydrogenation of xylose: the role of the crystal structure of the support. <i>Catalysis Science and Technology</i> , 2016 , 6, 577-582	5.5	51

200	Propylene/propane mixture adsorption on faujasite sorbents. <i>Adsorption</i> , 2008 , 14, 309-321	2.6	51
199	Unraveling reaction networks behind the catalytic oxidation of methane with HO over a mixed-metal MIL-53(Al,Fe) MOF catalyst. <i>Chemical Science</i> , 2018 , 9, 6765-6773	9.4	50
198	Facile synthesis of the DD3R zeolite: performance in the adsorptive separation of buta-1,3-diene and but-2-ene isomers. <i>Journal of Materials Chemistry</i> , 2011 , 21, 18386		50
197	Shape selective methanol to olefins over highly thermostable DDR catalysts. <i>Applied Catalysis A: General</i> , 2011 , 391, 234-243	5.1	50
196	Mixed-Matrix-Membranen. <i>Angewandte Chemie</i> , 2017 , 129, 9420-9439	3.6	49
195	On the dynamic nature of Mo sites for methane dehydroaromatization. <i>Chemical Science</i> , 2018 , 9, 4801-4807	9.1	49
194	Progress in Developing a Structure-Activity Relationship for the Direct Aromatization of Methane. <i>ChemCatChem</i> , 2019 , 11, 39-52	5.2	49
193	Insights into the Catalytic Performance of Mesoporous H-ZSM-5-Supported Cobalt in Fischer-Tropsch Synthesis. <i>ChemCatChem</i> , 2014 , 6, 142-151	5.2	49
192	A two-zone fluidized bed reactor for catalytic propane dehydrogenation. <i>Chemical Engineering Journal</i> , 2005 , 106, 91-96	14.7	46
191	Small-angle X-ray scattering documents the growth of metal-organic frameworks. <i>Catalysis Today</i> , 2013 , 205, 120-127	5.3	45
190	The molecular pathway to ZIF-7 microrods revealed by in situ time-resolved small- and wide-angle X-ray scattering, quick-scanning extended X-ray absorption spectroscopy, and DFT calculations. <i>Chemistry - A European Journal</i> , 2013 , 19, 7809-16	4.8	44
189	Performance and stability of multi-channel MFI zeolite membranes detemplated by calcination and ozonation in ethanol/water pervaporation. <i>Journal of Membrane Science</i> , 2009 , 339, 261-274	9.6	44
188	Thermostability of hydroxy sodalite in view of membrane applications. <i>Microporous and Mesoporous Materials</i> , 2010 , 132, 510-517	5.3	44
187	Suppression of the Aromatic Cycle in Methanol-to-Olefins Reaction over ZSM-5 by Post-Synthetic Modification Using Calcium. <i>ChemCatChem</i> , 2016 , 8, 3057-3063	5.2	44
186	Methane hydrates: Nucleation in microporous materials. <i>Chemical Engineering Journal</i> , 2019 , 360, 569-576	14.7	44
185	Methanol-to-olefins process over zeolite catalysts with DDR topology: effect of composition and structural defects on catalytic performance. <i>Catalysis Science and Technology</i> , 2016 , 6, 2663-2678	5.5	43
184	Mixed-matrix membranes containing an azine-linked covalent organic framework: Influence of the polymeric matrix on post-combustion CO ₂ -capture. <i>Journal of Membrane Science</i> , 2018 , 549, 377-384	9.6	43
183	Porous liquids based on porous cages, metal organic frameworks and metal organic polyhedra. <i>Coordination Chemistry Reviews</i> , 2019 , 386, 85-95	23.2	42

182	A Supramolecular View on the Cooperative Role of Brønsted and Lewis Acid Sites in Zeolites for Methanol Conversion. <i>Journal of the American Chemical Society</i> , 2019 , 141, 14823-14842	16.4	41
181	Molecular promoting of aluminum metal-organic framework topology MIL-101 by N,N-dimethylformamide. <i>Inorganic Chemistry</i> , 2014 , 53, 882-7	5.1	41
180	Continuous synthesis of NaA zeolite membranes. <i>Microporous and Mesoporous Materials</i> , 2009 , 120, 170-176	4.36	41
179	Covalent organic frameworks as supports for a molecular Ni based ethylene oligomerization catalyst for the synthesis of long chain olefins. <i>Journal of Catalysis</i> , 2017 , 345, 270-280	7.3	40
178	Metal-Organic Framework-Derived Synthesis of Cobalt Indium Catalysts for the Hydrogenation of CO ₂ to Methanol. <i>ACS Catalysis</i> , 2020 , 10, 5064-5076	13.1	40
177	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	3.7	40
176	Chloromethylation as a functionalisation pathway for metal-organic frameworks. <i>CrystEngComm</i> , 2012 , 14, 4109	3.3	40
175	Gas Phase Sensing of Alcohols by Metal Organic Framework-Polymer Composite Materials. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 24926-24935	9.5	39
174	Influence of support morphology on the detemplation and permeation of ZSM-5 and SSZ-13 zeolite membranes. <i>Microporous and Mesoporous Materials</i> , 2014 , 197, 268-277	5.3	39
173	Isobutane dehydrogenation in a DD3R zeolite membrane reactor. <i>Chemical Engineering Journal</i> , 2011 , 166, 368-377	14.7	38
172	Tandem Conversion of CO ₂ to Valuable Hydrocarbons in Highly Concentrated Potassium Iron Catalysts. <i>ChemCatChem</i> , 2019 , 11, 2879-2886	5.2	37
171	Post-synthetic cation exchange in the robust metal-organic framework MIL-101(Cr). <i>CrystEngComm</i> , 2013 , 15, 10175	3.3	37
170	Thin mixed matrix and dual layer membranes containing metal-organic framework nanosheets and PolyactiveFor CO ₂ capture. <i>Journal of Membrane Science</i> , 2019 , 570-571, 226-235	9.6	37
169	MOF@MOF core-shell vs. Janus particles and the effect of strain: potential for guest sorption, separation and sequestration. <i>CrystEngComm</i> , 2013 , 15, 6003	3.3	36
168	Detemplation of DDR type zeolites by ozonation. <i>Microporous and Mesoporous Materials</i> , 2009 , 120, 12-18	5.3	35
167	PBI mixed matrix hollow fiber membrane: Influence of ZIF-8 filler over H ₂ /CO ₂ separation performance at high temperature and pressure. <i>Separation and Purification Technology</i> , 2020 , 237, 116347	8.3	35
166	Polymer-Metal Organic Framework Composite Films as Affinity Layer for Capacitive Sensor Devices. <i>ACS Sensors</i> , 2016 , 1, 1188-1192	9.2	34
165	Efficient Electrochemical Production of Syngas from CO ₂ and H ₂ O by using a Nanostructured Ag/g-C ₃ N ₄ Catalyst. <i>ChemElectroChem</i> , 2016 , 3, 1497-1502	4.3	34

164	Optimizing Pd:Zn molar ratio in PdZn/CeO ₂ for CO ₂ hydrogenation to methanol. <i>Applied Catalysis A: General</i> , 2019 , 584, 117185	5.1	34
163	Influence of the synthesis route on the catalytic oxidation of 1,2-dichloroethane over CeO ₂ /H-ZSM5 catalysts. <i>Applied Catalysis A: General</i> , 2013 , 456, 96-104	5.1	34
162	Kinetic Control of Metal-Organic Framework Crystallization Investigated by Time-Resolved In Situ X-Ray Scattering. <i>Angewandte Chemie</i> , 2011 , 123, 9798-9802	3.6	34
161	Engineering Metal-Organic Frameworks for the Electrochemical Reduction of CO : A Minireview. <i>Chemistry - an Asian Journal</i> , 2019 , 14, 3452-3461	4.5	33
160	Influence of Filler Pore Structure and Polymer on the Performance of MOF-Based Mixed-Matrix Membranes for CO Capture. <i>Chemistry - A European Journal</i> , 2018 , 24, 7949-7956	4.8	33
159	Structure and Reactivity of the Mo/ZSM-5 Dehydroaromatization Catalyst: An Operando Computational Study. <i>ACS Catalysis</i> , 2019 , 9, 8731-8737	13.1	33
158	Metall-organische Membranen: hohes Potenzial, große Zukunft?. <i>Angewandte Chemie</i> , 2010 , 122, 1572-1576	3.6	33
157	A generalized kinetic model for the partial oxidation of n-butane to maleic anhydride under aerobic and anaerobic conditions. <i>Chemical Engineering Science</i> , 2006 , 61, 6385-6394	4.4	33
156	A Titanium Metal-Organic Framework with Visible-Light-Responsive Photocatalytic Activity. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 13468-13472	16.4	33
155	Enhancing promoting effects in g-C ₃ N ₄ -Mn ⁺ /CeO ₂ -TiO ₂ ternary composites: Photo-handling of charge carriers. <i>Applied Catalysis B: Environmental</i> , 2015 , 176-177, 687-698	21.8	32
154	Covalent immobilization of glucose oxidase on amino MOFs via post-synthetic modification. <i>RSC Advances</i> , 2016 , 6, 108051-108055	3.7	32
153	Activity Descriptors Derived from Comparison of Mo and Fe as Active Metal for Methane Conversion to Aromatics. <i>Journal of the American Chemical Society</i> , 2019 , 141, 18814-18824	16.4	32
152	Manufacture of dense CAU-10-H coatings for application in adsorption driven heat pumps: optimization and characterization. <i>CrystEngComm</i> , 2015 , 17, 5911-5920	3.3	32
151	Inhibition of a Gold-Based Catalyst in Benzyl Alcohol Oxidation: Understanding and Remediation. <i>Catalysts</i> , 2014 , 4, 89-115	4	32
150	ZIF-67 as silver-bullet in adsorptive propane/propylene separation. <i>Chemical Engineering Journal</i> , 2019 , 360, 10-14	14.7	32
149	Highly dispersed Pt ⁺ on Ti Ce(1)O ₂ as an active phase in preferential oxidation of CO. <i>Applied Catalysis B: Environmental</i> , 2016 , 180, 169-178	21.8	31
148	Revealing Lattice Expansion of Small-Pore Zeolite Catalysts during the Methanol-to-Olefins Process Using Combined Operando X-ray Diffraction and UV-vis Spectroscopy. <i>ACS Catalysis</i> , 2018 , 8, 2060-2070	13.1	31
147	Effect of pretreatment atmosphere on the activity and selectivity of Co/mesoHZSM-5 for Fischer-Tropsch synthesis. <i>New Journal of Chemistry</i> , 2016 , 40, 4167-4177	3.6	31

146	Facile Method for the Preparation of Covalent Triazine Framework coated Monoliths as Catalyst Support: Applications in C1 Catalysis. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 26060-26065	9.5	31
145	Adsorption Forms of CO ₂ on MIL-53(Al) and NH ₂ -MIL-53(Al) As Revealed by FTIR Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 23584-23595	3.8	31
144	Crystals for sustainability Structuring Al-based MOFs for the allocation of heat and cold. <i>CrystEngComm</i> , 2015 , 17, 281-285	3.3	30
143	Relevance of the Mo-precursor state in H-ZSM-5 for methane dehydroaromatization. <i>Catalysis Science and Technology</i> , 2018 , 8, 916-922	5.5	30
142	Carbon/H-ZSM-5 composites as supports for bi-functional Fischer-Tropsch synthesis catalysts. <i>Catalysis Science and Technology</i> , 2016 , 6, 2633-2646	5.5	30
141	Molecular-Scale Hybrid Membranes Derived from Metal-Organic Polyhedra for Gas Separation. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 21381-21389	9.5	30
140	Acidity modification of ZSM-5 for enhanced production of light olefins from CO ₂ . <i>Journal of Catalysis</i> , 2020 , 381, 347-354	7.3	30
139	Revealing the Transient Concentration of CO in a Mixed-Matrix Membrane by IR Microimaging and Molecular Modeling. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 5156-5160	16.4	29
138	Structural and elemental influence from various MOFs on the performance of Fe@C catalysts for Fischer-Tropsch synthesis. <i>Faraday Discussions</i> , 2017 , 197, 225-242	3.6	29
137	The Curious Case of Ketene in Zeolite Chemistry and Catalysis. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 14982-14985	16.4	29
136	Tuning the selectivity of light hydrocarbons in natural gas in a family of isorecticular MOFs. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 11032-11039	13	28
135	Molecular simulation of gas adsorption and diffusion in a breathing MOF using a rigid force field. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 16060-6	3.6	28
134	A technological roadmap to the ammonia energy economy: Current state and missing technologies. <i>Chemical Engineering Journal</i> , 2021 , 408, 127310	14.7	28
133	Determination of early warning signs for photocatalytic degradation of titanium white oil paints by means of surface analysis. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2017 , 172, 100-108	4.4	27
132	A site-sensitive quasi-in situ strategy to characterize Mo/HZSM-5 during activation. <i>Journal of Catalysis</i> , 2019 , 370, 321-331	7.3	27
131	Ruthenium particle size and cesium promotion effects in Fischer-Tropsch synthesis over high-surface-area graphite supported catalysts. <i>Catalysis Science and Technology</i> , 2017 , 7, 1235-1244	5.5	26
130	A Viewpoint on the Refinery of the Future: Catalyst and Process Challenges. <i>ACS Catalysis</i> , 2020 , 10, 8131-8140	13.8	26
129	The importance of heat effects in the methanol to hydrocarbons reaction over ZSM-5: on the role of mesoporosity on catalyst performance. <i>Catalysis Science and Technology</i> , 2016 , 6, 5320-5325	5.5	26

128	Breaking Linear Scaling Relationships with Secondary Interactions in Confined Space: A Case Study of Methane Oxidation by Fe/ZSM-5 Zeolite. <i>ACS Catalysis</i> , 2019 , 9, 9276-9284	13.1	25
127	Toward New 2D Zirconium-Based Metal-Organic Frameworks: Synthesis, Structures, and Electronic Properties. <i>Chemistry of Materials</i> , 2020 , 32, 97-104	9.6	25
126	Cation influence in adsorptive propane/propylene separation in ZIF-8 (SOD) topology. <i>Chemical Engineering Journal</i> , 2019 , 371, 848-856	14.7	24
125	Separation of CO ₂ /CH ₄ mixtures over NH ₂ -MIL-53(Al): An experimental and modelling study. <i>Chemical Engineering Science</i> , 2015 , 124, 96-108	4.4	24
124	Assessing the Surface Area of Porous Solids: Limitations, Probe Molecules, and Methods. <i>Langmuir</i> , 2016 , 32, 12664-12675	4	24
123	Dynamic desorption of CO ₂ and CH ₄ from amino-MIL-53(Al) adsorbent. <i>Adsorption</i> , 2013 , 19, 1235-1244	2.6	24
122	Diffusion in Zeolites: Impact on Catalysis		2010, 361-387 24
121	Selective oxidation of o-xylene to phthalic anhydride over V ₂ O ₅ /TiO ₂ : Kinetic study in a fluidized bed reactor. <i>Chemical Engineering and Processing: Process Intensification</i> , 2008 , 47, 1844-1852	3.7	24
120	Evidence for a chemical clock in oscillatory formation of UiO-66. <i>Nature Communications</i> , 2016 , 7, 11832	17.4	24
119	Electrochemical Selective and Simultaneous Detection of Diclofenac and Ibuprofen in Aqueous Solution Using HKUST-1 Metal-Organic Framework-Carbon Nanofiber Composite Electrode. <i>Sensors</i> , 2016 , 16,	3.8	23
118	Sulfonated Porous Aromatic Frameworks as Solid Acid Catalysts. <i>ChemCatChem</i> , 2016 , 8, 961-967	5.2	23
117	Formulation and catalytic performance of MOF-derived Fe@C/Al composites for high temperature Fischer-Tropsch synthesis. <i>Catalysis Science and Technology</i> , 2018 , 8, 210-220	5.5	23
116	Synthesis and gas adsorption properties of mesoporous silica-NH ₂ -MIL-53(Al) core-shell spheres. <i>Microporous and Mesoporous Materials</i> , 2016 , 225, 116-121	5.3	22
115	Induced Chirality in a Metal-Organic Framework by Postsynthetic Modification for Highly Selective Asymmetric Aldol Reactions. <i>ChemCatChem</i> , 2014 , 6, 2211-2214	5.2	22
114	Efficient Visible-Light Driven Photothermal Conversion of CO ₂ to Methane by Nickel Nanoparticles Supported on Barium Titanate. <i>Advanced Functional Materials</i> , 2021 , 31, 2008244	15.6	22
113	Illuminating the nature and behavior of the active center: the key for photocatalytic H ₂ production in Co@NH ₂ -MIL-125(Ti). <i>Journal of Materials Chemistry A</i> , 2018 , 6, 17318-17322	13	21
112	A diffusion study of small hydrocarbons in DDR zeolites by micro-imaging. <i>Microporous and Mesoporous Materials</i> , 2013 , 180, 219-228	5.3	21
111	One-step conversion of crude oil to light olefins using a multi-zone reactor. <i>Nature Catalysis</i> , 2021 , 4, 233-241	36.5	21

110	Sensitive and Reversible Detection of Methanol and Water Vapor by In Situ Electrochemically Grown CuBTC MOFs on Interdigitated Electrodes. <i>Small</i> , 2017 , 13, 1604150	11	20
109	Structure-activity relationships in metal organic framework derived mesoporous nitrogen-doped carbon containing atomically dispersed iron sites for CO ₂ electrochemical reduction. <i>Journal of Catalysis</i> , 2019 , 378, 320-330	7.3	20
108	Interplay of Linker Functionalization and Hydrogen Adsorption in the Metal-Organic Framework MIL-101. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 19572-19579	3.8	20
107	Toward a Transferable Set of Charges to Model Zeolitic Imidazolate Frameworks: Combined Experimental/Theoretical Research. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 466-471	3.8	20
106	Temperature-Dependent Supramolecular Isomerism of Lutetium-Aminoterephthalate Metal-Organic Frameworks: Synthesis, Crystallography, and Physical Properties. <i>Crystal Growth and Design</i> , 2016 , 16, 5636-5645	3.5	20
105	Electrochemical synthesis of continuous metal-organic framework membranes for separation of hydrocarbons. <i>Nature Energy</i> , 2021 , 6, 882-891	62.3	20
104	Adsorption of CO ₂ on MIL-53(Al): FTIR evidence of the formation of dimeric CO ₂ species. <i>Chemical Communications</i> , 2016 , 52, 1494-7	5.8	19
103	Shaping of ZSM-5-Based Catalysts via Spray Drying: Effect on Methanol-to-Olefins Performance. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 44133-44143	9.5	19
102	Prediction of adsorption isotherms from breakthrough curves. <i>Microporous and Mesoporous Materials</i> , 2019 , 277, 237-244	5.3	19
101	Control of interpenetration of copper-based MOFs on supported surfaces by electrochemical synthesis. <i>CrystEngComm</i> , 2016 , 18, 4018-4022	3.3	18
100	Dynamic Release/Immobilization of a Homogeneous Rhodium Hydroformylation Catalyst by a Polyoxometalate Metal-Organic Framework Composite. <i>ChemCatChem</i> , 2015 , 7, 3243-3247	5.2	18
99	Modeling of fluidized bed reactors with two reaction zones. <i>AIChE Journal</i> , 2006 , 52, 3911-3923	3.6	18
98	Fluidized Bed Reactors with Two-Zones for Maleic Anhydride Production: Different Configurations and Effect of Scale. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 8945-8951	3.9	18
97	Coated sulfated zirconia/SAPO-34 for the direct conversion of CO ₂ to light olefins. <i>Catalysis Science and Technology</i> , 2020 , 10, 1507-1517	5.5	18
96	Aromatization of Ethylene [Main Intermediate for MDA?]. <i>ChemCatChem</i> , 2020 , 12, 544-549	5.2	18
95	One-Pot Synthesis of High-Flux b-Oriented MFI Zeolite Membranes for Xe Recovery. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 33574-33580	9.5	18
94	Facile formation of ZIF-8 thin films on ZnO nanorods. <i>CrystEngComm</i> , 2015 , 17, 5360-5364	3.3	17
93	Cation Exchange in Dynamic 3D Porous Magnets: Improvement of the Physical Properties. <i>Inorganic Chemistry</i> , 2015 , 54, 10834-40	5.1	17

92	Surface enhanced dynamic nuclear polarization solid-state NMR spectroscopy sheds light on Brønsted-Lewis acid synergy during the zeolite catalyzed methanol-to-hydrocarbon process. <i>Chemical Science</i> , 2019 , 10, 8946-8954	9.4	17
91	Simple modification of macroporous alumina supports for the fabrication of dense NaA zeolite coatings: Interplay of electrostatic and chemical interactions. <i>Microporous and Mesoporous Materials</i> , 2011 , 146, 69-75	5.3	17
90	Zeolite Beta membranes for the separation of hexane isomers. <i>Microporous and Mesoporous Materials</i> , 2010 , 128, 194-202	5.3	17
89	Metal-Organic Frameworks: Molecules or Semiconductors in Photocatalysis?. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 26038-26052	16.4	16
88	Triphenylphosphine-Based Covalent Organic Frameworks and Heterogeneous Rh-P-COFs Catalysts. <i>Chemistry - A European Journal</i> , 2020 , 26, 12134-12139	4.8	15
87	Initial Carbon-Carbon Bond Formation during the Early Stages of Methane Dehydroaromatization. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 16741-16746	16.4	15
86	Shape-selective diisopropylation of naphthalene in H-Mordenite: Myth or reality?. <i>Journal of Catalysis</i> , 2010 , 270, 60-66	7.3	15
85	CO ₂ Derived E-Fuels: Research Trends, Misconceptions, and Future Directions. <i>Trends in Chemistry</i> , 2020 , 2, 785-795	14.8	15
84	Establishing hierarchy: the chain of events leading to the formation of silicalite-1 nanosheets. <i>Chemical Science</i> , 2016 , 7, 6506-6513	9.4	15
83	Towards High Performance Metal-Organic Framework-Microporous Polymer Mixed Matrix Membranes: Addressing Compatibility and Limiting Aging by Polymer Doping. <i>Chemistry - A European Journal</i> , 2018 , 24, 12796-12800	4.8	15
82	High-temperature Fischer-Tropsch synthesis over FeTi mixed oxide model catalysts: Tailoring activity and stability by varying the Ti/Fe ratio. <i>Applied Catalysis A: General</i> , 2017 , 533, 38-48	5.1	14
81	Novel high performance poly(p-phenylene benzobisimidazole) (PBDI) membranes fabricated by interfacial polymerization for H ₂ separation. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 8929-8937	13	14
80	An Efficient Metal-Organic Framework-Derived Nickel Catalyst for the Light Driven Methanation of CO. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 26476-26482	16.4	14
79	Conversion of Formic Acid into Methanol Using a Bipyridine-Functionalized Molecular Heterogeneous Catalyst. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 3933-3939	8.3	14
78	Quantifying the impact of dispersion, acidity and porosity of Mo/HZSM-5 on the performance in methane dehydroaromatization. <i>Applied Catalysis A: General</i> , 2019 , 574, 144-150	5.1	13
77	Benzimidazole linked polymers (BILPs) in mixed-matrix membranes: Influence of filler porosity on the CO ₂ /N ₂ separation performance. <i>Journal of Membrane Science</i> , 2018 , 566, 213-222	9.6	13
76	Postsynthetic Improvement of the Physical Properties in a Metal-Organic Framework through a Single Crystal to Single Crystal Transmetalation. <i>Angewandte Chemie</i> , 2015 , 127, 6621-6625	3.6	13
75	Base free transfer hydrogenation using a covalent triazine framework based catalyst. <i>CrystEngComm</i> , 2017 , 19, 4166-4170	3.3	12

74	Separation of nuclear isomers for cancer therapeutic radionuclides based on nuclear decay after-effects. <i>Scientific Reports</i> , 2017 , 7, 44242	4.9	12
73	Anchoring of Diphenylphosphinyl Groups to NH ₂ -MIL-53 by Post-Synthetic Modification. <i>European Journal of Inorganic Chemistry</i> , 2015 , 2015, 4648-4652	2.3	12
72	Micro-imaging of transient guest profiles in nanoporous host systems of cylindrical symmetry. <i>Journal of Chemical Physics</i> , 2012 , 137, 164704	3.9	12
71	High pressure ammonia decomposition on Ru ₃ /CaO catalysts. <i>Catalysis Science and Technology</i> , 2020 , 10, 5027-5035	5.5	12
70	A Titanium Metal-Organic Framework with Visible-Light-Responsive Photocatalytic Activity. <i>Angewandte Chemie</i> , 2020 , 132, 13570-13574	3.6	12
69	Impact of small promoter amounts on coke structure in dry reforming of methane over Ni/ZrO ₂ . <i>Catalysis Science and Technology</i> , 2020 , 10, 3965-3974	5.5	11
68	Preliminary Design of a Vacuum Pressure Swing Adsorption Process for Natural Gas Upgrading Based on Amino-Functionalized MIL-53. <i>Chemical Engineering and Technology</i> , 2015 , 38, 1183-1194	2	11
67	Six-flow operations for catalyst development in Fischer-Tropsch synthesis: bridging the gap between high-throughput experimentation and extensive product evaluation. <i>Review of Scientific Instruments</i> , 2013 , 84, 124101	1.7	11
66	Harvesting the photoexcited holes on a photocatalytic proton reduction metal-organic framework. <i>Faraday Discussions</i> , 2017 , 201, 71-86	3.6	10
65	Metal Organic Framework: Design of Hydrophilic Metal Organic Framework Water Adsorbents for Heat Reallocation (Adv. Mater. 32/2015). <i>Advanced Materials</i> , 2015 , 27, 4803-4803	24	10
64	Six-coordinate Group 13 complexes: the role of d orbitals and electron-rich multi-center bonding. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 12034-8	16.4	10
63	Enhanced vapour sensing using silicon nanowire devices coated with Pt nanoparticle functionalized porous organic frameworks. <i>Nanoscale</i> , 2018 , 10, 6884-6891	7.7	10
62	Aromatics Production via Methanol-Mediated Transformation Routes. <i>ACS Catalysis</i> , 2021 , 11, 7780-7819	13.1	10
61	The Impact of Post-Synthetic Linker Functionalization of MOFs on Methane Storage: The Role of Defects. <i>Frontiers in Energy Research</i> , 2016 , 4,	3.8	10
60	Consequences of secondary zeolite growth on catalytic performance in DMTO studied over DDR and CHA. <i>Catalysis Science and Technology</i> , 2017 , 7, 300-309	5.5	9
59	Stable Cr-MFI Catalysts for the Nonoxidative Dehydrogenation of Ethane: Catalytic Performance and Nature of the Active Sites. <i>ACS Catalysis</i> , 2021 , 11, 3988-3995	13.1	9
58	Highly Selective and Stable Production of Aromatics via High-Pressure Methanol Conversion. <i>ACS Catalysis</i> , 2021 , 11, 3602-3613	13.1	9
57	Turning Waste into Value: Potassium-Promoted Red Mud as an Effective Catalyst for the Hydrogenation of CO. <i>ChemSusChem</i> , 2020 , 13, 2981-2987	8.3	8

56	Transport Limitations during Phase Transfer Catalyzed Ethyl-Benzene Oxidation: Facts and Fictions of Halide Catalysis. <i>ACS Catalysis</i> , 2012 , 2, 1421-1424	13.1	8
55	CHAPTER 10:MOFs as Nano-reactors. <i>RSC Catalysis Series</i> ,310-343	0.3	8
54	CO ₂ hydrogenation to methanol and hydrocarbons over bifunctional Zn-doped ZrO ₂ /zeolite catalysts. <i>Catalysis Science and Technology</i> , 2021 , 11, 1249-1268	5.5	8
53	Composition-performance Relationships in Catalysts Formulation for the Direct Conversion of Crude Oil to Chemicals. <i>ChemCatChem</i> , 2021 , 13, 1806-1813	5.2	8
52	An efficient nanosieve. <i>Nature Materials</i> , 2018 , 17, 1057-1058	27	8
51	Flicking the switch on a molecular gate. <i>Science</i> , 2017 , 358, 303	33.3	7
50	Metal-Organic Framework Capillary Microreactor for Application in Click Chemistry. <i>ChemCatChem</i> , 2016 , 8, 1692-1698	5.2	7
49	Selectivity descriptors for the direct hydrogenation of CO to hydrocarbons during zeolite-mediated bifunctional catalysis. <i>Nature Communications</i> , 2021 , 12, 5914	17.4	7
48	Elucidating the Promotional Effect of Cerium in the Dry Reforming of Methane. <i>ChemCatChem</i> , 2021 , 13, 553-563	5.2	7
47	Unlocking mixed oxides with unprecedented stoichiometries from heterometallic metal-organic frameworks for the catalytic hydrogenation of CO ₂ . <i>Chem Catalysis</i> , 2021 , 1, 364-382		7
46	Bimetallic Metal-Organic Framework Mediated Synthesis of Ni-Co Catalysts for the Dry Reforming of Methane. <i>Catalysts</i> , 2020 , 10, 592	4	6
45	Non-oxidative dehydrogenation of isobutane over supported vanadium oxide: nature of the active sites and coke formation. <i>Catalysis Science and Technology</i> , 2020 , 10, 6139-6151	5.5	6
44	Probing the Catalytic Active Sites of Mo/HZSM-5 and Their Deactivation during Methane Dehydroaromatization. <i>Cell Reports Physical Science</i> , 2021 , 2, 100309	6.1	6
43	Cu-BTC Functional Microdevices as Smart Tools for Capture and Preconcentration of Nerve Agents. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 42622-42633	9.5	5
42	Support Was the Key to Success. <i>Joule</i> , 2020 , 4, 714-716	27.8	5
41	Minimization of Chemicals Use during Adsorptive Recovery of Succinic Acid. <i>Industrial & Engineering Chemistry Research</i> , 2010 , 49, 3794-3801	3.9	5
40	A techno-economic and life cycle assessment for the production of green methanol from CO ₂ : catalyst and process bottlenecks. <i>Journal of Energy Chemistry</i> , 2021 , 68, 255-255	12	5
39	Development of a Ba ₂ Co catalyst for the efficient and stable decomposition of ammonia. <i>Catalysis Science and Technology</i> , 2021 , 11, 3014-3024	5.5	5

- 38 Multifunctional Catalyst Combination for the Direct Conversion of CO to Propane. *Jacs Au*, **2021**, 1, 1719-1732 5
- 37 Metal-Organic Frameworks: Visualizing MOF Mixed Matrix Membranes at the Nanoscale: Towards Structure-Performance Relationships in CO₂/CH₄ Separation Over NH₂-MIL-53(Al)@PI (Adv. Funct. Mater. 2/2014). *Advanced Functional Materials*, **2014**, 24, 268-268 15.6 4
- 36 Metal-Organic Framework-Mediated Synthesis in Catalysis **2017**, 225-250 4
- 35 High purity, self-sustained, pressurized hydrogen production from ammonia in a catalytic membrane reactor. *Chemical Engineering Journal*, **2022**, 431, 134310 14.7 4
- 34 Tunable Selectivity in CO Photo-Thermal Reduction by Perovskite-Supported Pd Nanoparticles. *ChemSusChem*, **2021**, 8.3 4
- 33 Fabrication of Defect-Free P84 Polyimide Hollow Fiber for Gas Separation: Pathway to Formation of Optimized Structure. *Membranes*, **2019**, 10, 3.8 4
- 32 Stable High-Pressure Methane Dry Reforming Under Excess of CO₂. *ChemCatChem*, **2020**, 12, 5919-5925 5.2 4
- 31 Rhodium Nanoparticle Size Effects on the CO₂ Reforming of Methane and Propane. *ChemCatChem*, **2021**, 13, 2879-2886 5.2 4
- 30 A Multi-Parametric Catalyst Screening for CO₂ Hydrogenation to Ethanol. *ChemCatChem*, **2021**, 13, 3324-3332 4.3 4
- 29 Der derzeitige Stand von MOF- und COF-Anwendungen. *Angewandte Chemie*, **2021**, 133, 24174 3.6 4
- 28 Suppression of the Aromatic Cycle in Methanol-to-Olefins Reaction over ZSM-5 by Post-Synthetic Modification Using Calcium. *ChemCatChem*, **2016**, 8, 3005-3005 5.2 4
- 27 Rapid fabrication of MOF-based mixed matrix membranes through digital light processing. *Materials Advances*, **2021**, 2, 2739-2749 3.3 4
- 26 Metal-Organic Frameworks: Molecules or Semiconductors in Photocatalysis?. *Angewandte Chemie*, **2021**, 133, 26242 3.6 4
- 25 Illuminating the Intrinsic Effect of Water Co-feeding on Methane Dehydroaromatization: A Comprehensive Study. *ACS Catalysis*, **2021**, 11, 11671-11684 13.1 4
- 24 Fe-MOF Materials as Precursors for the Catalytic Dehydrogenation of Isobutane. *ACS Catalysis*, **2022**, 12, 3832-3844 13.1 4
- 23 Comment on Efficient Conversion of Methane to Aromatics by Coupling Methylation Reaction. *ACS Catalysis*, **2017**, 7, 4485-4487 13.1 3
- 22 Calcium Looping: On the Positive Influence of SO and the Negative Influence of HO on CO Capture by Metamorphosed Limestone-Derived Sorbents. *ACS Omega*, **2020**, 5, 32318-32333 3.9 3
- 21 Synthesis, characterization and properties of a glycol-coordinated Keggin-type Al chloride. *Chemical Communications*, **2018**, 54, 4148-4151 5.8 3

20	CHAPTER 14:Towards Future MOF Catalytic Applications. <i>RSC Catalysis Series</i> ,406-424	0.3	3
19	Highly Sensitive Non-Enzymatic Detection of Glucose at MWCNT-CuBTC Composite Electrode. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 8419	2.6	3
18	The Importance of Thermal Treatment on Wet-Kneaded Silica-Magnesia Catalyst and Lebedev Ethanol-to-Butadiene Process. <i>Nanomaterials</i> , 2021 , 11,	5.4	3
17	Noncatalytic Oxidative Coupling of Methane (OCM): Gas-Phase Reactions in a Jet Stirred Reactor (JSR).. <i>ACS Omega</i> , 2021 , 6, 33757-33768	3.9	2
16	Solid-State Molecular Nanomagnet Inclusion into a Magnetic Metal-Organic Framework: Interplay of the Magnetic Properties. <i>Chemistry - A European Journal</i> , 2016 , 22, 441	4.8	2
15	Crystal structure of 2,2'-diamino-[1,1'-biphenyl]-4,4'-dicarboxylic acid dihydrate, C14H16N2O6. <i>Zeitschrift Fur Kristallographie - New Crystal Structures</i> , 2016 , 231, 65-67	0.2	2
14	Is Hydroxide Just Hydroxide? Unidentical CO2 Hydration Conditions during Hydrogen Evolution and Carbon Dioxide Reduction in Zero-Gap Gas Diffusion Electrode Reactors. <i>ACS Applied Energy Materials</i> , 2021 , 4, 8506-8516	6.1	2
13	Shaping Covalent Triazine Framework for the Hydrogenation of Carbon Dioxide to Formic Acid. <i>ChemCatChem</i> , 2016 , 8, 2173-2173	5.2	1
12	CHAPTER 1:Introduction. <i>RSC Catalysis Series</i> ,1-5	0.3	1
11	Hole utilization in solar hydrogen production. <i>Nature Reviews Chemistry</i> ,	34.6	1
10	Molecular engineering of intrinsically microporous polybenzimidazole for energy-efficient gas separation. <i>Applied Materials Today</i> , 2022 , 26, 101271	6.6	1
9	Hydrogen Selective Catalytic Reduction of Nitrogen Oxide on Pt- and Pd-Based Catalysts for Lean-Burn Automobile Applications		1
8	Designing a Multifunctional Catalyst for the Direct Production of Gasoline-Range Isoparaffins from CO. <i>Jacs Au</i> , 2021 , 1, 1961-1974		1
7	Co-catalyst and Metal-free CO2 Fixation into Cyclic Carbonates: COPs to the Rescue. <i>CheM</i> , 2019 , 5, 3015-3016	1.1	1
6	Das Rätsel um Keten in der Zeolithchemie und -katalyse. <i>Angewandte Chemie</i> , 2018 , 130, 15198-15201	3.6	0
5	Initial Carbon-Carbon Bond Formation during the Early Stages of Methane Dehydroaromatization. <i>Angewandte Chemie</i> , 2020 , 132, 16884	3.6	
4	Einblicke in die Verteilung von CO2-Molekülen und deren zeitliche Entwicklung durch Mikro-Bildgebung mittels IR-Spektroskopie und molekulardynamische Modellierung. <i>Angewandte Chemie</i> , 2018 , 130, 5250-5255	3.6	
3	Virtual Special Issue on Catalysis in The Netherlands. <i>ACS Catalysis</i> , 2016 , 6, 6006-6007	13.1	

2 Upcycling waste PET and CO₂ to useful chemicals: Multi-functional catalysis at its best. *Chem*, **2022**, 8, 615-616 16.2

1 Effect of the particle blending-shaping method and silicon carbide crystal phase for Mn-Na-W/SiO₂-SiC catalyst in oxidative coupling of methane. *Molecular Catalysis*, **2022**, 527, 112399 3.3