Fateme Rezaei

List of Publications by Year in descending order

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119 papers	6,179 citations	50170 46 h-index	79541 73 g-index
120 all docs	120 docs citations	120 times ranked	5093 citing authors

#	Article	IF	Citations
1	Formulation and processing of dual functional Adsorbent/Catalyst structured monoliths using an additively manufactured contactor for direct Capture/Conversion of CO2 with cogeneration of ethylene. Chemical Engineering Journal, 2022, 431, 133224.	6.6	14
2	Integrated direct air capture and oxidative dehydrogenation of propane with CO2 at isothermal conditions. Applied Catalysis B: Environmental, 2022, 303, 120907.	10.8	21
3	Modeling of temperature swing adsorption-oxidation of volatile organic compounds. Chemical Engineering Science, 2022, 250, 117356.	1.9	2
4	Process evaluation and kinetic analysis of 3D-printed monoliths comprised of CaO and Cr/H-ZSM-5 in combined CO2 Capture-C2H6 oxidative dehydrogenation to C2H4. Chemical Engineering Journal, 2022, 435, 134706.	6.6	14
5	Combined Ibuprofen and Curcumin Delivery Using Mg-MOF-74 as a Single Nanocarrier. ACS Applied Bio Materials, 2022, 5, 265-271.	2.3	15
6	Atomic layer deposited Pt/TiO2-SiO2 and Pt/ZrO2-SiO2 for sequential adsorption and oxidation of VOCs. Chemical Engineering Journal, 2022, 444, 136603.	6.6	10
7	Analysis of Sequential Adsorptionâ€“Oxidation of VOCs on Atomic Layer-Deposited PtNi/ZrO₂â€“SiO₂ Dual-Function Materials. Energy & Fuels, 2022, 36, 6989-6998.	2.5	3
8	Reduced building energy consumption by combined indoor CO2 and H2O composition control. Applied Energy, 2022, 322, 119526.	5.1	13
9	Oxidative dehydrogenation of propane over 3D printed mixed metal oxides/H-ZSM-5 monolithic catalysts using CO2 as an oxidant. Catalysis Today, 2021, 374, 173-184.	2.2	13
10	Investigating the microstructure of high-calcium fly ash-based alkali-activated material for aqueous Zn sorption. Environmental Research, 2021, 198, 110484.	3.7	15
11	Binderless zeolite monoliths production with sacrificial biopolymers. Chemical Engineering Journal, 2021, 407, 128011.	6.6	27
12	Advanced pore characterization and adsorption of light gases over aerogel-derived activated carbon. Microporous and Mesoporous Materials, 2021, 313, 110833.	2.2	13
13	Directly Printed Oxide/ZSM-5 Bifunctional Catalysts for Methanol Conversion to Dimethyl Ether with Exceptional Stability, Conversion, and Selectivity. Energy & Fuels, 2021, 35, 2619-2629.	2.5	9
14	Metal-Doped Kâ€“Ca Double Salts with Improved Capture Performance and Stability for High-Temperature CO₂ Adsorption. Energy & Fuels, 2021, 35, 4258-4266.	2.5	14
15	Curcumin Delivery on Metalâ€“Organic Frameworks: The Effect of the Metal Center on Pharmacokinetics within the M-MOF-74 Family. ACS Applied Bio Materials, 2021, 4, 3423-3432.	2.3	24
16	Aminosilane-grafted bismuth-alumina adsorbents: Role of amine loading and bismuth content in iodine immobilization from aqueous solutions. Chemical Engineering Journal, 2021, 409, 128277.	6.6	13
17	Structured Bifunctional Catalysts for CO₂ Activation and Oxidative Dehydrogenation of Propane. ACS Sustainable Chemistry and Engineering, 2021, 9, 5716-5727.	3.2	23
18	PDMS/PAI-HF composite membrane containing immobilized palladium nanoparticles for 4-nitrophenol reduction. Chemical Engineering Journal, 2021, 410, 128326.	6.6	17

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19	Recent Advances in 3D Printing of Structured Materials for Adsorption and Catalysis Applications. Chemical Reviews, 2021, 121, 6246-6291.	23.0	151
20	Passive Control of Indoor Formaldehyde by Mixed-Metal Oxide Latex Paints. Environmental Science & Technology, 2021, 55, 9255-9265.	4.6	8
21	Effects of Process Parameters on CO₂/H₂ Separation Performance of 3D-Printed MOF-74 Monoliths. ACS Sustainable Chemistry and Engineering, 2021, 9, 10902-10912.	3.2	27
22	Assessment of CO₂/CH₄ Separation Performance of 3D-Printed Carbon Monoliths in Pressure Swing Adsorption. Industrial & Engineering Chemistry Research, 2021, 60, 16445-16456.	1.8	16
23	Investigation of Combined Captureâ€“Destruction of Toluene over Pd/MIL-101 and TiO₂/MIL-101 Dual Function Materials. Energy & Fuels, 2021, 35, 13256-13267.	2.5	12
24	Adsorption of iodine from aqueous solutions by aminosilane-grafted mesoporous alumina. Chemical Engineering Journal, 2021, 415, 128968.	6.6	37
25	Mixing Mg-MOF-74 with Zn-MOF-74: A Facile Pathway of Controlling the Pharmacokinetic Release Rate of Curcumin. ACS Applied Bio Materials, 2021, 4, 6874-6880.	2.3	18
26	A Novel Method of 3D Printing Highâ€Loaded Oxide/Hâ€ZSMâ€5 Catalyst Monoliths for Carbon Dioxide Reduction in Tandem with Propane Dehydrogenation. Advanced Sustainable Systems, 2021, 5, 2000257.	2.7	16
27	Direct Ink Writing of Metal Oxide/H-ZSM-5 Catalysts for n-Hexane Cracking: A New Method of Additive Manufacturing with High Metal Oxide Loading. ACS Applied Materials & Interfaces, 2021, 13, 781-794.	4.0	21
28	Screening of Adsorbent/Catalyst Composite Monoliths for Carbon Capture-Utilization and Ethylene Production. ACS Applied Materials & Interfaces, 2021, 13, 55198-55207.	4.0	17
29	Abatement of gaseous volatile organic compounds: A process perspective. Catalysis Today, 2020, 350, 100-119.	2.2	66
30	Abatement of gaseous volatile organic compounds: A material perspective. Catalysis Today, 2020, 350, 3-18.	2.2	56
31	Highly efficient Pt/Mo-Fe/Ni-based Al2O3-CeO2 catalysts for dry reforming of methane. Catalysis Today, 2020, 350, 80-90.	2.2	34
32	Ceria nanostructured catalysts for conversion of methanol and carbon dioxide to dimethyl carbonate. Catalysis Today, 2020, 350, 120-126.	2.2	41
33	Diffusion kinetics of CO 2 in amineâ€impregnated MILâ€101, alumina, and silica adsorbents. AICHE Journal, 2020, 66, e16785.	1.8	11
34	Multicomponent adsorptive separation of CO2, CO, CH4, N2, and H2 over core-shell zeolite-5A@MOF-74 composite adsorbents. Chemical Engineering Journal, 2020, 384, 123251.	6.6	54
35	Recent advances in development of amine functionalized adsorbents for CO2 capture. Adsorption, 2020, 26, 5-50.	1.4	94
36	Diffusion kinetics of ethane, ethylene, and their binary mixtures in ethane-selective adsorbents. Separation and Purification Technology, 2020, 230, 115872.	3.9	17

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37	Metal- and solvent-free synthesis of aminoalcohols under continuous flow conditions. Reaction Chemistry and Engineering, 2020, 5, 289-299.	1.9	4
38	Development of bismuth-mordenite adsorbents for iodine capture from off-gas streams. Chemical Engineering Journal, 2020, 391, 123583.	6.6	69
39	Development of 3D-Printed Polymer-MOF Monoliths for CO₂ Adsorption. Industrial & Engineering Chemistry Research, 2020, 59, 7151-7160.	1.8	55
40	3D-printed HZSM-5 and 3D-HZM5@SAPO-34 structured monoliths with controlled acidity and porosity for conversion of methanol to dimethyl either. Fuel, 2020, 280, 118628.	3.4	34
41	Gelâ€“Printâ€“Grow: A New Way of 3D Printing Metalâ€“Organic Frameworks. ACS Applied Materials & Interfaces, 2020, 12, 56108-56117.	4.0	53
42	Optimizing ibuprofen concentration for rapid pharmacokinetics on biocompatible zinc-based MOF-74 and UTSA-74. Materials Science and Engineering C, 2020, 117, 111336.	3.8	26
43	Exceptionally High Gravimetric Methane Storage in Aerogel-Derived Carbons. Industrial & Engineering Chemistry Research, 2020, 59, 19383-19391.	1.8	2
44	Hydrocarbon Molecules Separation using Nanoporous Materials. , 2020, , 217-264.		0
45	Toluene Abatement by Simultaneous Adsorption and Oxidation over Mixed-Metal Oxides. Industrial & Engineering Chemistry Research, 2020, 59, 13762-13772.	1.8	16
46	Structureâ€“Property Relationship of Geopolymers for Aqueous Pb Removal. ACS Omega, 2020, 5, 21689-21699.	1.6	10
47	Atomic Layer Deposited Ni/ZrO₂â€“SiO₂ for Combined Capture and Oxidation of VOCs. ACS Applied Materials & Interfaces, 2020, 12, 39318-39334.	4.0	19
48	Enhancing the Ethylene Yield over Hybrid Adsorbent Catalyst Materials in CO2-Assisted Oxidative Dehydrogenation of Ethane by Tuning Catalyst Support Properties. Energy & Fuels, 2020, 34, 14483-14492.	2.5	12
49	Analysis of equilibrium and dynamic adsorption of benzene vapor over unimodal and bimodal silica-based mixed-metal oxides. Chemical Engineering Journal, 2020, 396, 125273.	6.6	18
50	Analysis of dynamic <scp>CO₂</scp> capture over <scp>13X</scp> zeolite monoliths in the presence of <scp>SO_x</scp>, <scp>NO_x</scp> and humidity. AICHE Journal, 2020, 66, e16297.	1.8	15
51	Oxidative dehydrogenation of ethane to ethylene in an integrated CO2 capture-utilization process. Applied Catalysis B: Environmental, 2020, 278, 119329.	10.8	53
52	The effects of cell density and intrinsic porosity on structural properties and adsorption kinetics in 3D-printed zeolite monoliths. Chemical Engineering Science, 2020, 218, 115564.	1.9	47
53	Mixed Alkanolamineâ€Polyethylenimine Functionalized Silica for CO₂ capture. Energy Technology, 2019, 7, 253-262.	1.8	19
54	Diffusion Kinetics of CO₂, CH₄, and their Binary Mixtures in Porous Organic Cage CC3. Journal of Physical Chemistry C, 2019, 123, 24172-24180.	1.5	10

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55	Amine-Based Latex Coatings for Indoor Air CO₂ Control in Commercial Buildings. ACS Applied Materials & Interfaces, 2019, 11, 16594-16604.	4.0	15
56	Amine-Functionalized MIL-101 Monoliths for CO₂ Removal from Enclosed Environments. Energy & Fuels, 2019, 33, 2399-2407.	2.5	61
57	3D-printed ZSM-5 monoliths with metal dopants for methanol conversion in the presence and absence of carbon dioxide. Applied Catalysis B: Environmental, 2019, 245, 486-495.	10.8	55
58	Improving Adsorptive Performance of CaO for High-Temperature CO₂ Capture through Fe and Ga Doping. Energy & Fuels, 2019, 33, 1404-1413.	2.5	65
59	Methanol-to-olefin conversion on 3D-printed ZSM-5 monolith catalysts: Effects of metal doping, mesoporosity and acid strength. Microporous and Mesoporous Materials, 2019, 276, 1-12.	2.2	64
60	Synthesis of SAPO-34@ZSM-5 and SAPO-34@Silicalite-1 Coreâ€“Shell Zeolite Composites for Ethanol Dehydration. Industrial & Engineering Chemistry Research, 2018, 57, 1446-1453.	1.8	43
61	Development of 3D-printed polymer-zeolite composite monoliths for gas separation. Chemical Engineering Journal, 2018, 348, 109-116.	6.6	90
62	Catalytic cracking of n-hexane for producing light olefins on 3D-printed monoliths of MFI and FAU zeolites. Chemical Engineering Journal, 2018, 333, 545-553.	6.6	75
63	Oxidative dehydrogenation of propane to propylene with carbon dioxide. Applied Catalysis B: Environmental, 2018, 220, 429-445.	10.8	209
64	Carbon Hollow Fiber-Supported Metal-Organic Framework Composites for Gas Adsorption. Energy Technology, 2018, 6, 694-701.	1.8	36
65	MOF-GO Hybrid Nanocomposite Adsorbents for Methane Storage. Industrial & Engineering Chemistry Research, 2018, 57, 17470-17479.	1.8	50
66	Adsorption of Ethane and Ethylene over 3D-Printed Ethane-Selective Monoliths. ACS Sustainable Chemistry and Engineering, 2018, 6, 15228-15237.	3.2	35
67	Aminosilane-Grafted SiO₂â€“ZrO₂ Polymer Hollow Fibers as Bifunctional Microfluidic Reactor for Tandem Reaction of Glucose and Fructose to 5-Hydroxymethylfurfural. ACS Sustainable Chemistry and Engineering, 2018, 6, 17211-17219.	3.2	25
68	Adsorptive Removal of Formaldehyde from Air Using Mixed-Metal Oxides. Industrial & Engineering Chemistry Research, 2018, 57, 12916-12925.	1.8	33
69	Combined Capture and Utilization of CO₂ for Syngas Production over Dual-Function Materials. ACS Sustainable Chemistry and Engineering, 2018, 6, 13551-13561.	3.2	80
70	Synthesis of Cr, Cu, Ni, and Y-Doped 3D-Printed ZSM-5 Monoliths and Their Catalytic Performance for n-Hexane Cracking. ACS Applied Energy Materials, 2018, 1, 2740-2748.	2.5	38
71	Direct Air Capture of CO 2 in Enclosed Environments: Design under Uncertainty and Techno-Economic Analysis. Computer Aided Chemical Engineering, 2018, 44, 2179-2184.	0.3	8
72	3D-printed zeolite monoliths with hierarchical porosity for selective methanol to light olefin reaction. Reaction Chemistry and Engineering, 2018, 3, 733-746.	1.9	24

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73	UTSA-16 Growth within 3D-Printed Co-Kaolin Monoliths with High Selectivity for CO₂/CH₄, CO₂/N₂, and CO₂/H₂ Separation. ACS Applied Materials & Interfaces, 2018, 10, 19076-19086.	4.0	79
74	Novel Zeolite-5A@MOF-74 Composite Adsorbents with Coreâ€“Shell Structure for H₂ Purification. ACS Applied Materials & Interfaces, 2018, 10, 29656-29666.	4.0	71
75	Carbon Capture and Utilization Update. Energy Technology, 2017, 5, 834-849.	1.8	424
76	Hydrogenolysis of glycerol over Ni, Cu, Zn, and Zr supported on H-beta. Chemical Engineering Journal, 2017, 317, 1-8.	6.6	46
77	Combined Flue Gas Cleanup Process for Simultaneous Removal of SO_x, NO_x, and CO₂â€”A Techno-Economic Analysis. Energy & Fuels, 2017, 31, 4165-4172.	2.5	21
78	Formulation of Aminosilica Adsorbents into 3D-Printed Monoliths and Evaluation of Their CO₂ Capture Performance. ACS Applied Materials & Interfaces, 2017, 9, 7489-7498.	4.0	106
79	MOF immobilization on the surface of polymer-cordierite composite monoliths through in-situ crystal growth. Separation and Purification Technology, 2017, 183, 173-180.	3.9	38
80	Engineering Porous Polymer Hollow Fiber Microfluidic Reactors for Sustainable Câ€“H Functionalization. ACS Applied Materials & Interfaces, 2017, 9, 16288-16295.	4.0	18
81	CO₂ Capture from Air Using Amineâ€Functionalized Kaolinâ€Based Zeolites. Chemical Engineering and Technology, 2017, 40, 1999-2007.	0.9	49
82	Advanced buffer materials for indoor air CO2control in commercial buildings. Indoor Air, 2017, 27, 1213-1223.	2.0	18
83	3D-Printed Metalâ€“Organic Framework Monoliths for Gas Adsorption Processes. ACS Applied Materials & Interfaces, 2017, 9, 35908-35916.	4.0	216
84	Porous polymeric hollow fibers as bifunctional catalysts for CO2 conversion to cyclic carbonates. Journal of CO2 Utilization, 2017, 21, 589-596.	3.3	24
85	Development of Potassium- and Sodium-Promoted CaO Adsorbents for CO₂ Capture at High Temperatures. Industrial & Engineering Chemistry Research, 2017, 56, 8292-8300.	1.8	52
86	MOF-74 and UTSA-16 film growth on monolithic structures and their CO2 adsorption performance. Chemical Engineering Journal, 2017, 313, 1346-1353.	6.6	107
87	Effect of Postâ€Functionalization Conditions on the Carbon Dioxide Adsorption Properties of Aminosilaneâ€Grafted Zirconia/Titania/Silicaâ€Poly(amideâ€imide) Composite Hollow Fiber Sorbents. Energy Technology, 2017, 5, 327-337.	1.8	24
88	3D-Printed Zeolite Monoliths for CO₂ Removal from Enclosed Environments. ACS Applied Materials & Interfaces, 2016, 8, 27753-27761.	4.0	201
89	Direct aldol and nitroaldol condensation in an aminosilane-grafted Si/Zr/Ti composite hollow fiber as a heterogeneous catalyst and continuous-flow reactor. Journal of Catalysis, 2016, 341, 149-159.	3.1	29
90	Aminosilaneâ€Grafted Zirconiaâ€“Titaniaâ€“Silica Nanoparticles/Torlon Hollow Fiber Composites for CO₂ Capture. ChemSusChem, 2016, 9, 1166-1177.	3.6	38

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91	Light olefins from renewable resources: Selective catalytic dehydration of bioethanol to propylene over zeolite and transition metal oxide catalysts. Catalysis Today, 2016, 276, 62-77.	2.2	55
92	Inâ€...situ Formation of a Monodispersed Spherical Mesoporous Nanosilicaâ€“Torlon Hollowâ€Fiber Composite for Carbon Dioxide Capture. ChemSusChem, 2015, 8, 3439-3450.	3.6	25
93	CO₂ Sorption Performance of Composite Polymer/Aminosilica Hollow Fiber Sorbents: An Experimental and Modeling Study. Industrial & Engineering Chemistry Research, 2015, 54, 1783-1795.	1.8	30
94	Stability of amine-based hollow fiber CO2 adsorbents in the presence of NO and SO2. Fuel, 2015, 160, 153-164.	3.4	44
95	SO_x/NO_x Removal from Flue Gas Streams by Solid Adsorbents: A Review of Current Challenges and Future Directions. Energy & Fuels, 2015, 29, 5467-5486.	2.5	213
96	Composite Polymer/Oxide Hollow Fiber Contactors: Versatile and Scalable Flow Reactors for Heterogeneous Catalytic Reactions in Organic Synthesis. Angewandte Chemie - International Edition, 2015, 54, 6470-6474.	7.2	50
97	Shaping amine-based solid CO2 adsorbents: Effects of pelletization pressure on the physical and chemical properties. Microporous and Mesoporous Materials, 2015, 204, 34-42.	2.2	66
98	Poly(amide-imide)/Silica Supported PEI Hollow Fiber Sorbents for Postcombustion CO₂ Capture by RTSA. ACS Applied Materials & Interfaces, 2014, 6, 19336-19346.	4.0	57
99	Stability of Supported Amine Adsorbents to SO₂ and NO_x in Postcombustion CO₂ Capture. 2. Multicomponent Adsorption. Industrial & Engineering Chemistry Research, 2014, 53, 12103-12110.	1.8	62
100	Evaluation of CO2 adsorption dynamics of polymer/silica supported poly(ethylenimine) hollow fiber sorbents in rapid temperature swing adsorption. International Journal of Greenhouse Gas Control, 2014, 21, 61-71.	2.3	62
101	Modeling of rapid temperature swing adsorption using hollow fiber sorbents. Chemical Engineering Science, 2014, 113, 62-76.	1.9	57
102	Post-spinning infusion of poly(ethyleneimine) into polymer/silica hollow fiber sorbents for carbon dioxide capture. Chemical Engineering Journal, 2013, 221, 166-175.	6.6	81
103	Aminosilane-Grafted Polymer/Silica Hollow Fiber Adsorbents for CO₂ Capture from Flue Gas. ACS Applied Materials & Interfaces, 2013, 5, 3921-3931.	4.0	127
104	Stability of Supported Amine Adsorbents to SO₂ and NO_x in Postcombustion CO₂ Capture. 1. Single-Component Adsorption. Industrial & Engineering Chemistry Research, 2013, 52, 12192-12201.	1.8	111
105	Thermal Management of Structured Adsorbents in CO₂ Capture Processes. Industrial & Engineering Chemistry Research, 2012, 51, 4025-4034.	1.8	40
106	Selective formation of light olefin by n-hexane cracking over HZSM-5: Influence of crystal size and acid sites of nano- and micrometer-sized crystals. Chemical Engineering Journal, 2012, 191, 528-533.	6.6	74
107	Optimal design of engineered gas adsorbents: Pore-scale level. Chemical Engineering Science, 2012, 69, 270-278.	1.9	26
108	Selective dehydration of methanol to dimethyl ether on ZSM-5 nanocrystals. Applied Catalysis B: Environmental, 2012, 119-120, 56-61.	10.8	111

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109	Uniform mesoporous ZSM-5 single crystals catalyst with high resistance to coke formation for methanol deoxygenation. Microporous and Mesoporous Materials, 2012, 151, 26-33.	2.2	98
110	Yield of gasoline-range hydrocarbons as a function of uniform ZSM-5 crystal size. Catalysis Communications, 2011, 14, 37-41.	1.6	87
111	The effect of wall porosity and zeolite film thickness on the dynamic behavior of adsorbents in the form of coated monoliths. Separation and Purification Technology, 2011, 81, 191-199.	3.9	33
112	Structured zeolite NaX coatings on ceramic cordierite monolith supports for PSA applications. Microporous and Mesoporous Materials, 2010, 130, 38-48.	2.2	40
113	Structured adsorbents in gas separation processes. Separation and Purification Technology, 2010, 70, 243-256.	3.9	213
114	Comparison of Traditional and Structured Adsorbents for CO₂ Separation by Vacuum-Swing Adsorption. Industrial & Engineering Chemistry Research, 2010, 49, 4832-4841.	1.8	64
115	Solvothermal synthesis of vanadium phosphate catalysts for n-butane oxidation. Chemical Engineering Journal, 2009, 155, 514-522.	6.6	22
116	Optimum structured adsorbents for gas separation processes. Chemical Engineering Science, 2009, 64, 5182-5191.	1.9	150
117	Influence of Rare-Earth and Bimetallic Promoters on Various VPO Catalysts for Partial Oxidation of n-Butane. Catalysis Letters, 2009, 130, 504-516.	1.4	24
118	High Surface Area Vanadium Phosphate Catalysts for n-Butane Oxidation. Industrial & Engineering Chemistry Research, 2009, 48, 7517-7528.	1.8	25
119	Development of Short-Carbon-Fiber-Reinforced Polypropylene Composite for Car Bonnet. Polymer-Plastics Technology and Engineering, 2008, 47, 351-357.	1.9	129