Cafer T Yavuz

List of Publications by Year
in descending order

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125 papers	8,262 citations	76294 40 h-index	48277 88 g-index
134 all docs	134 docs citations	134 times ranked	10529 citing authors

#	Article	IF	Citations
1	Low-Field Magnetic Separation of Monodisperse Fe3O4 Nanocrystals. Science, 2006, 314, 964-967.	6.0	1,153
2	Synthesis of monodisperse iron oxide nanocrystals by thermal decomposition of iron carboxylate salts. Chemical Communications, 2004, , 2306.	2.2	524
3	Unprecedented high-temperature CO2 selectivity in N2-phobic nanoporous covalent organic polymers. Nature Communications, 2013, 4, 1357.	5.8	456
4	The effect of nanocrystalline magnetite size on arsenic removal. Science and Technology of Advanced Materials, 2007, 8, 71-75.	2.8	419
5	Effect of magnetite particle size on adsorption and desorption of arsenite and arsenate. Journal of Materials Research, 2005, 20, 3255-3264.	1.2	378
6	Dry reforming of methane by stable Niâ€“Mo nanocatalysts on single-crystalline MgO. Science, 2020, 367, 777-781.	6.0	372
7	Carbon Dioxide Capture Adsorbents: Chemistry and Methods. ChemSusChem, 2017, 10, 1303-1317.	3.6	313
8	Magnetic separations: From steel plants to biotechnology. Chemical Engineering Science, 2009, 64, 2510-2521.	1.9	310
9	Noninvasive functionalization of polymers of intrinsic microporosity for enhanced CO2 capture. Chemical Communications, 2012, 48, 9989.	2.2	199
10	High capacity carbon dioxide adsorption by inexpensive covalent organic polymers. Journal of Materials Chemistry, 2012, 22, 8431.	6.7	187
11	Highly Stable Nanoporous Sulfurâ€Bridged Covalent Organic Polymers for Carbon Dioxide Removal. Advanced Functional Materials, 2013, 23, 2270-2276.	7.8	135
12	Precious metal recovery from electronic waste by a porous porphyrin polymer. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 16174-16180.	3.3	133
13	Charge-specific size-dependent separation of water-soluble organic molecules by fluorinated nanoporous networks. Nature Communications, 2016, 7, 13377.	5.8	132
14	Directing the Structural Features of N₂â€Phobic Nanoporous Covalent Organic Polymers for CO₂ Capture and Separation. Chemistry - A European Journal, 2014, 20, 772-780.	1.7	128
15	Electrically driven phase transition in magnetite nanostructures. Nature Materials, 2008, 7, 130-133.	13.3	124
16	Pd-Sensitized Single Vanadium Oxide Nanowires: Highly Responsive Hydrogen Sensing Based on the Metalâ^'Insulator Transition. Nano Letters, 2009, 9, 3980-3984.	4.5	121
17	High-capacity methane storage in flexible alkane-linked porous aromatic network polymers. Nature Energy, 2019, 4, 604-611.	19.8	110
18	Highly Efficient Catalytic Cyclic Carbonate Formation by Pyridyl Salicylimines. ACS Applied Materials & Interfaces, 2018, 10, 9478-9484.	4.0	103

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19	Selective removal of heavy metal ions by disulfide linked polymer networks. Journal of Hazardous Materials, 2017, 332, 140-148.	6.5	101
20	Nanoporous covalent organic polymers incorporating TrÃ¶ger's base functionalities for enhanced CO₂capture. Journal of Materials Chemistry A, 2014, 2, 12507.	5.2	90
21	Gold Recovery from E-Waste by Porous Porphyrinâ€“Phenazine Network Polymers. Chemistry of Materials, 2020, 32, 5343-5349.	3.2	83
22	How Reproducible are Surface Areas Calculated from the BET Equation?. Advanced Materials, 2022, 34, .	11.1	82
23	Amidoximes: promising candidates for CO2 capture. Energy and Environmental Science, 2011, 4, 4528.	15.6	79
24	Markedly Improved CO₂ Capture Efficiency and Stability of Gallium Substituted Hydrotalcites at Elevated Temperatures. Chemistry of Materials, 2009, 21, 3473-3475.	3.2	78
25	A Half Millimeter Thick Coplanar Flexible Battery with Wireless Recharging Capability. Nano Letters, 2015, 15, 2350-2357.	4.5	78
26	Size-Dependent Sedimentation Properties of Nanocrystals. ACS Nano, 2008, 2, 311-319.	7.3	71
27	Catalytic Non-redox Carbon Dioxide Fixation in Cyclic Carbonates. CheM, 2019, 5, 3232-3242.	5.8	71
28	Growth of Metal Oxide Nanowires from Supercooled Liquid Nanodroplets. Nano Letters, 2009, 9, 4138-4146.	4.5	70
29	Fluorinated Covalent Organic Polymers for High Performance Sulfur Cathodes in Lithiumâ€“Sulfur Batteries. Chemistry of Materials, 2019, 31, 7910-7921.	3.2	66
30	Melamine based porous organic amide polymers for CO₂capture. RSC Advances, 2014, 4, 52263-52269.	1.7	63
31	Redox and Nonredox CO₂ Utilization: Dry Reforming of Methane and Catalytic Cyclic Carbonate Formation. ACS Energy Letters, 2020, 5, 1689-1700.	8.8	59
32	Pollution magnet: nano-magnetite for arsenic removal from drinking water. Environmental Geochemistry and Health, 2010, 32, 327-334.	1.8	57
33	High pressure CO2 absorption studies on imidazolium-based ionic liquids: Experimental and simulation approaches. Fluid Phase Equilibria, 2013, 351, 74-86.	1.4	56
34	Investigation of Ester- and Amide-Linker-Based Porous Organic Polymers for Carbon Dioxide Capture and Separation at Wide Temperatures and Pressures. ACS Applied Materials & Interfaces, 2016, 8, 20772-20785.	4.0	52
35	Cross-Linked â€œPoisonousâ€•Polymer: Thermochemically Stable Catalyst Support for Tuning Chemoselectivity. ACS Catalysis, 2016, 6, 2435-2442.	5.5	52
36	Nanoporous Benzoxazole Networks by Silylated Monomers, Their Exceptional Thermal Stability, and Carbon Dioxide Capture Capacity. Chemistry of Materials, 2014, 26, 6729-6733.	3.2	50

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37	A combined computational and experimental study of high pressure and supercritical CO2 adsorption on Basolite MOFs. Microporous and Mesoporous Materials, 2013, 175, 34-42.	2.2	45
38	Insights of CO2 adsorption performance of amine impregnated mesoporous silica (SBA-15) at wide range pressure and temperature conditions. International Journal of Greenhouse Gas Control, 2015, 43, 22-32.	2.3	44
39	CO₂ Adsorption Studies on Hydroxy Metal Carbonates M(CO₃)_x(OH)_y (M = Zn, Znâ€“Mg, Mg, Mgâ€“Cu, Cu, Ni,) Tj ET Q q 1 1 0 0 4384314 rg	4.6	44
40	Low-overpotential overall water splitting by a cooperative interface of cobalt-iron hydroxide and iron oxyhydroxide. Cell Reports Physical Science, 2022, 3, 100762.	2.8	43
41	CO2 adsorption studies on Prussian blue analogues. Microporous and Mesoporous Materials, 2012, 162, 91-97.	2.2	42
42	Limitations and high pressure behavior of MOF-5 for CO2 capture. Physical Chemistry Chemical Physics, 2013, 15, 14319.	1.3	42
43	Observation of the wrapping mechanism in amine carbon dioxide molecular interactions on heterogeneous sorbents. Physical Chemistry Chemical Physics, 2016, 18, 14177-14181.	1.3	42
44	Amidoxime porous polymers for CO2 capture. RSC Advances, 2013, 3, 17203.	1.7	41
45	Radioactive Strontium Removal from Seawater by a MOF via Two-Step Ion Exchange. CheM, 2019, 5, 750-752.	5.8	41
46	Highly optimized CO2 capture by inexpensive nanoporous covalent organic polymers and their amine composites. Faraday Discussions, 2015, 183, 401-412.	1.6	39
47	Covalent organic polymer functionalization of activated carbon surfaces through acyl chloride for environmental clean-up. Chemical Engineering Journal, 2017, 309, 766-771.	6.6	39
48	High-Pressure Methane, Carbon Dioxide, and Nitrogen Adsorption on Amine-Impregnated Porous Montmorillonite Nanoclays. Journal of Chemical & Engineering Data, 2016, 61, 2749-2760.	1.0	38
49	Rapid extraction of uranium ions from seawater using novel porous polymeric adsorbents. RSC Advances, 2016, 6, 45968-45976.	1.7	38
50	Nanoporous networks as effective stabilisation matrices for nanoscale zero-valent iron and groundwater pollutant removal. Journal of Materials Chemistry A, 2016, 4, 632-639.	5.2	36
51	Disulfide polymer grafted porous carbon composites for heavy metal removal from stormwater runoff. Chemical Engineering Journal, 2018, 348, 685-692.	6.6	36
52	Synthesis of nanoporous 1,2,4-oxadiazole networks with high CO₂ capture capacity. Chemical Communications, 2015, 51, 2915-2917.	2.2	35
53	Systematic Investigation of the Effect of Polymerization Routes on the Gasâ€Sorption Properties of Nanoporous Azobenzene Polymers. Chemistry - A European Journal, 2015, 21, 15320-15327.	1.7	34
54	Triazatruxene-Based Ordered Porous Polymer: High Capacity CO₂, CH₄, and H₂ Capture, Heterogeneous Suzukiâ€“Miyaura Catalytic Coupling, and Thermoelectric Properties. ACS Applied Energy Materials, 2020, 3, 4983-4994.	2.5	34

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55	Quaternary ammonium salt grafted nanoporous covalent organic polymer for atmospheric CO2 fixation and cyclic carbonate formation. Catalysis Today, 2020, 356, 527-534.	2.2	34
56	Reversible water capture by a charged metal-free porous polymer. Polymer, 2017, 126, 308-313.	1.8	33
57	Covalent organic polymer framework with Câ€“C bonds as a fluorescent probe for selective iron detection. RSC Advances, 2015, 5, 69010-69015.	1.7	32
58	Granular activated carbon with grafted nanoporous polymer enhances nanoscale zero-valent iron impregnation and water contaminant removal. Chemical Engineering Journal, 2018, 339, 22-31.	6.6	31
59	Rapid Access to Ordered Mesoporous Carbons for Chemical Hydrogen Storage. Angewandte Chemie - International Edition, 2021, 60, 22478-22486.	7.2	31
60	Gold recovery using porphyrin-based polymer from electronic wastes: Gold desorption and adsorbent regeneration. Science of the Total Environment, 2020, 704, 135405.	3.9	30
61	Photochemically Enhanced Selective Adsorption of Gold Ions on Tannin-Coated Porous Polymer Microspheres. ACS Applied Materials & Interfaces, 2019, 11, 21915-21925.	4.0	29
62	Nanoporous Polymer Microspheres with Nitrile and Amidoxime Functionalities for Gas Capture and Precious Metal Recovery from E-Waste. ACS Sustainable Chemistry and Engineering, 2019, 7, 123-128.	3.2	29
63	Influence of Aminosilane Coupling Agent on Aromatic Polyamide/Intercalated Clay Nanocomposites. Industrial & Engineering Chemistry Research, 2013, 52, 6908-6915.	1.8	28
64	Direct Access to Primary Amines and Particle Morphology Control in Nanoporous CO₂ Sorbents. ChemSusChem, 2017, 10, 2130-2134.	3.6	24
65	Direct Z-Scheme Tanninâ€“TiO₂ Heterostructure for Photocatalytic Gold Ion Recovery from Electronic Waste. ACS Sustainable Chemistry and Engineering, 2020, 8, 7359-7370.	3.2	24
66	Sustainable Synthesis of Superhydrophobic Perfluorinated Nanoporous Networks for Small Molecule Separation. Chemistry of Materials, 2019, 31, 5206-5213.	3.2	23
67	Inversion of Dispersion: Colloidal Stability of Calixarene-Modified Metalâ€“Organic Framework Nanoparticles in Nonpolar Media. Journal of the American Chemical Society, 2019, 141, 12182-12186.	6.6	23
68	Applying analytical ultracentrifugation to nanocrystal suspensions. Nanotechnology, 2009, 20, 355702.	1.3	22
69	Sustainable Porous Polymer Catalyst for Size-Selective Cross-Coupling Reactions. ACS Sustainable Chemistry and Engineering, 2019, 7, 10865-10872.	3.2	22
70	Exceptional organic solvent uptake by disulfide-linked polymeric networks. RSC Advances, 2014, 4, 24320.	1.7	21
71	Conductive nanocomposite materials derived from SEBS-g-PPy and surface modified clay. Composites Science and Technology, 2014, 100, 44-52.	3.8	21
72	Asynchronous Double Schiff Base Formation of Pyrazole Porous Polymers for Selective Pd Recovery. Advanced Science, 2021, 8, 2001676.	5.6	21

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73	Selective removal of cationic micro-pollutants using disulfide-linked network structures. RSC Advances, 2017, 7, 25969-25977.	1.7	19
74	Arsenic removal by magnetic nanocrystalline barium hexaferrite. Journal of Nanoparticle Research, 2012, 14, 1.	0.8	18
75	Charge induced formation of crystalline network polymers. RSC Advances, 2014, 4, 59779-59784.	1.7	18
76	Influence of interlayer functionalization of kaolinite on property profile of copolymer nanocomposites. Applied Clay Science, 2015, 112-113, 25-31.	2.6	18
77	Nanoporous networks as caging supports for uniform, surfactant-free Co₃O₄ nanocrystals and their applications in energy storage and conversion. Journal of Materials Chemistry A, 2015, 3, 15489-15497.	5.2	18
78	Synthesis and Easy Functionalization of Highly Porous Networks through Exchangeable Fluorines for Target Specific Applications. Chemistry of Materials, 2016, 28, 5592-5595.	3.2	18
79	A catalytic role of surface silanol groups in CO₂ capture on the amine-anchored silica support. Physical Chemistry Chemical Physics, 2018, 20, 12149-12156.	1.3	18
80	Covalent Amine Tethering on Ketone Modified Porous Organic Polymers for Enhanced CO₂ Capture. ChemSusChem, 2020, 13, 6433-6441.	3.6	18
81	Enhanced Sorption Cycle Stability and Kinetics of CO₂ on Lithium Silicates Using the Lithium Ion Channeling Effect of TiO₂ Nanotubes. Industrial & Engineering Chemistry Research, 2017, 56, 3413-3417.	1.8	17
82	Increasing mesoporosity by a silica hard template in a covalent organic polymer for enhanced amine loading and CO2 capture capacity. Microporous and Mesoporous Materials, 2016, 229, 44-50.	2.2	16
83	Bisphenolâ€“based cyanide sensing: Selectivity, reversibility, facile synthesis, bilateral â€œOFF-ONâ€• fluorescence, C2 structural and conformational analysis. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 259, 119881.	2.0	16
84	Synthesis, characterization and evaluation of porous polybenzimidazole materials for CO2 adsorption at high pressures. Adsorption, 2016, 22, 247-260.	1.4	15
85	A combined experimental and theoretical study on gas adsorption performance of amine and amide porous polymers. Microporous and Mesoporous Materials, 2019, 279, 61-72.	2.2	15
86	Reaction: Porous Organic Polymers for Uranium Capture. CheM, 2021, 7, 276-277.	5.8	14
87	Alkylâ€Linked Porphyrin Porous Polymers for Gas Capture and Precious Metal Adsorption. Small Science, 2021, 1, 2000078.	5.8	14
88	Magnetic BaFe12O19 nanofiber filter for effective separation of Fe3O4 nanoparticles and removal of arsenic. Journal of Nanoparticle Research, 2014, 16, 1.	0.8	13
89	A Novel, Reactive Green Iron Sulfide (Sulfide Green Rust) Formed on Iron Oxide Nanocrystals. Chemistry of Materials, 2015, 27, 700-707.	3.2	13
90	Quantifying the nitrogen effect on CO₂ capture using isoporous network polymers. Chemical Communications, 2020, 56, 4273-4275.	2.2	13

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91	Robust Câ€“C bonded porous networks with chemically designed functionalities for improved CO₂ capture from flue gas. Beilstein Journal of Organic Chemistry, 2016, 12, 2274-2279.	1.3	12
92	An All-Purpose Porous Cleaner for Acid Gas Removal and Dehydration of Natural Gas. CheM, 2017, 3, 719-721.	5.8	12
93	Solvent Vapor Annealing, Defect Analysis, and Optimization of Self-Assembly of Block Copolymers Using Machine Learning Approaches. ACS Applied Materials & Interfaces, 2021, 13, 28639-28649.	4.0	12
94	A multiplexed separation of iron oxide nanocrystals using variable magnetic fields. Nanoscale, 2011, 3, 4560.	2.8	10
95	Molecular Insights into Benzimidazoleâ€Linked Polymer Interactions with Carbon Dioxide and Nitrogen. ChemistrySelect, 2018, 3, 3691-3701.	0.7	10
96	Zwitterion Ï€â€“conjugated network polymer based on guanidinium and Î²-ketoenol as a heterogeneous organo-catalyst for chemical fixation of CO2 into cyclic carbonates. APL Materials, 2019, 7, .	2.2	10
97	Thiourea-Based Extraction and Deposition of Gold for Electroless Nickel Immersion Gold Process. Industrial & Engineering Chemistry Research, 2020, 59, 8086-8092.	1.8	10
98	Light-activated polydopamine coatings for efficient metal recovery from electronic waste. Separation and Purification Technology, 2021, 254, 117674.	3.9	10
99	Optimizing bromide anchors for easy tethering of amines, nitriles and thiols in porous organic polymers towards enhanced CO2 capture. Microporous and Mesoporous Materials, 2021, 328, 111450.	2.2	10
100	Investigation on novel thermoplastic poly(urethane-thiourea-imide)s with enhanced chemical and heat resistance. Polymer Degradation and Stability, 2011, 96, 1333-1341.	2.7	9
101	Disulfide polymer grafted polypropylene/polyethylene filter media for selective cadmium removal. Journal of Hazardous Materials, 2020, 399, 123060.	6.5	9
102	Applicability of disulfide-polymer particles surface embedded on alginate beads for cadmium removal from airport derived stormwater. Journal of Environmental Chemical Engineering, 2018, 6, 4124-4129.	3.3	8
103	Extensive Screening of Solventâ€Linked Porous Polymers through Friedelâ€“Crafts Reaction for Gas Adsorption. Advanced Energy and Sustainability Research, 2021, 2, 2100064.	2.8	8
104	Toward open source nano: Arsenic removal and alternative models of technology transfer. Advances in the Study of Entrepreneurship, Innovation, and Economic Growth, 2009, , 51-78.	0.6	7
105	Nanostructure and mechanical properties of aromatic polyamide and reactive organoclay nanocomposites. Materials Chemistry and Physics, 2014, 147, 636-643.	2.0	7
106	Monitoring instability of linear amine impregnated UiO-66 by in-situ temperature resolved powder X-ray diffraction. Microporous and Mesoporous Materials, 2017, 243, 85-90.	2.2	7
107	Sustainable Nanoporous Benzoxazole Networks as Metalâ€Free Catalysts for Oneâ€Pot Oxidative Selfâ€Coupling of Amines by Air Oxygen. Advanced Sustainable Systems, 2017, 1, 1700089.	2.7	7
108	A Hybrid Machine Learning Model to Study UV-Vis Spectra of Gold Nanospheres. Plasmonics, 2021, 16, 147-155.	1.8	7

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109	One-pot facile synthesis of PEGylated Au nanoparticles in an aqueous media. Materials Chemistry and Physics, 2012, 134, 1153-1159.	2.0	6
110	High performance CO₂filtration and sequestration by using bromomethyl benzene linked microporous networks. RSC Advances, 2016, 6, 66324-66335.	1.7	6
111	Structural Elucidation of Covalent Organic Polymers (COP) and Their Linker Effect on Gas Adsorption Performance via Density Functional Theory Approach. ChemistrySelect, 2018, 3, 8294-8305.	0.7	6
112	Cesium Ionâ€Mediated Microporous Carbon for CO₂ Capture and Lithiumâ€Ion Storage. ChemNanoMat, 2021, 7, 150-157.	1.5	6
113	Robust Mesoporous Zr-MOF with Pd Nanoparticles for Formic-Acid-Based Chemical Hydrogen Storage. Matter, 2021, 4, 10-12.	5.0	6
114	Rapid Access to Ordered Mesoporous Carbons for Chemical Hydrogen Storage. Angewandte Chemie, 2021, 133, 22652-22660.	1.6	6
115	Polypyrrole Decorated Mechanically Robust Conductive Nanocomposites via Solution Blending and in Situ Polymerization Techniques. Industrial & Engineering Chemistry Research, 2019, 58, 10886-10893.	1.8	4
116	Selective palladium recovery by a highly porous polyisothiocyanurate. CheM, 2022, 8, 1793-1796.	5.8	4
117	Processing nanoporous organic polymers in liquid amines. Beilstein Journal of Nanotechnology, 2019, 10, 1844-1850.	1.5	3
118	Phosphorus stimulated unidirectional growth of TiO2 nanostructures. Journal of Materials Chemistry A, 2013, 1, 6091.	5.2	2
119	Arsenic removal by magnetic nanocrystalline barium hexaferrite. , 2012, , 163-169.		2
120	Atom efficiency in small molecule and macromolecule synthesis: general discussion. Faraday Discussions, 2015, 183, 97-123.	1.6	1
121	Capture agents, conversion mechanisms, biotransformations and biomimetics: general discussion. Faraday Discussions, 2015, 183, 463-487.	1.6	1
122	Response to Comment on â€œDry reforming of methane by stable Niâ€“Mo nanocatalysts on single-crystalline MgOâ€• Science, 2020, 368, .	6.0	1
123	How to reach carbon emission targets with technology and public awareness. Matter, 2022, , .	5.0	1
124	Exceptional CO2 capture via polymeric materials. , 2012, , 38-41.		0
125	EEWS 2016: Progress and Perspectives of Energy Science and Technology. ACS Energy Letters, 2017, 2, 592-594.	8.8	0