Ramanathan Vaidhyanathan

List of Publications by Year
in descending order

73 papers	6,857 citations	125106 35 h-index	90395 73 g-index
76 all docs	76 docs citations	76 times ranked	8672 citing authors

#	Article	IF	Citations
1	Covalent Organic Frameworks as Tunable Supports for HER, OER, and ORR Catalysts: A New Addition to Heterogeneous Electrocatalysts. Nanostructure Science and Technology, 2022, , 389-444.	0.1	0
2	Coordination Flexibility Aided CO₂â€specific Gating in an Iron Isonicotinate MOF. Chemistry - an Asian Journal, 2022, 17, .	1.7	7
3	Synergistic Electronic Effects in AuCo Nanoparticles Stabilized in a Triazine-Based Covalent Organic Framework: A Catalyst for Methyl Orange and Methylene Blue Reduction. ACS Applied Nano Materials, 2022, 5, 4744-4753.	2.4	10
4	Nanopores of a Covalent Organic Framework: A Customizable Vessel for Organocatalysis. ACS Omega, 2022, 7, 15275-15295.	1.6	14
5	Exceptional Capacitance Enhancement of a Nonâ€Conducting COF through Potentialâ€Driven Chemical Modulation by Redox Electrolyte. Advanced Energy Materials, 2021, 11, 2003626.	10.2	30
6	Deciphering the Weak CO₂Â·Â·Â·Framework Interactions in Microporous MOFs Functionalized with Strong Adsorption Sitesâ€"A Ubiquitous Observation. ACS Applied Materials & Interfaces, 2021, 13, 24976-24983.	4.0	17
7	Three in One: Triple G-C-T Base-Coded Brahma Nucleobase Amino Acid: Synthesis, Peptide Formation, and Structural Features. Journal of Organic Chemistry, 2021, 86, 15689-15694.	1.7	1
8	Viologen Functionalized C-C Bonded Cationic Polymers for Oxo-anion Pollutant Removal from Aqueous Medium. Materials Research Bulletin, 2021, , 111614.	2.7	2
9	A scalable metal-organic framework as a durable physisorbent for carbon dioxide capture. Science, 2021, 374, 1464-1469.	6.0	308
10	Fe₃SnC@CNF: A 3â€‰D Antiperovskite Intermetallic Carbide System as a New Robust Highâ€Capacity Lithiumâ€Ion Battery Anode. ChemSusChem, 2020, 13, 196-204.	3.6	11
11	Nanoporous Covalent Organic Framework Embedded with Fe/Fe₃O₄ Nanoparticles as Air-Stable Low-Density Nanomagnets. ACS Applied Nano Materials, 2020, 3, 9088-9096.	2.4	13
12	An Ultraâ€Microporous Metalâ€"Organic Framework with Exceptional Xe Capacity. Chemistry - A European Journal, 2020, 26, 12544-12548.	1.7	10
13	Tuning the electronic energy level of covalent organic frameworks for crafting high-rate Na-ion battery anode. Nanoscale Horizons, 2020, 5, 1264-1273.	4.1	53
14	Room temperature processed in-situ carbon-coated vanadium carbide (VC@C) as a high capacity robust Li/Na battery anode material. Carbon, 2020, 161, 108-116.	5.4	24
15	Carbon Derived from Soft Pyrolysis of a Covalent Organic Framework as a Support for Small-Sized RuO₂ Showing Exceptionally Low Overpotential for Oxygen Evolution Reaction. ACS Omega, 2019, 4, 13465-13473.	1.6	33
16	Aqueous-Phase Differentiation and Speciation of Fe³⁺ and Fe²⁺ Using Water-Stable Photoluminescent Lanthanide-Based Metalâ€"Organic Framework. ACS Applied Nano Materials, 2019, 2, 5169-5178.	2.4	41
17	Facile Exfoliation of Singleâ€Crystalline Copper Alkylphosphates to Singleâ€Layer Nanosheets and Enhanced Supercapacitance. Angewandte Chemie - International Edition, 2019, 58, 16844-16849.	7.2	18
18	Waterâ€stable Adenineâ€based MOFs with Polar Pores for Selective CO 2 Capture. Chemistry - an Asian Journal, 2019, 14, 3736-3741.	1.7	23

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19	Ag Nanoparticles Supported on a Resorcinolâ€Phenylenediamineâ€Based Covalent Organic Framework for Chemical Fixation of CO₂. Chemistry - an Asian Journal, 2019, 14, 4767-4773.	1.7	43
20	High capacity, power density and cycling stability of silicon Li-ion battery anodes with a few layer black phosphorus additive. Sustainable Energy and Fuels, 2019, 3, 245-250.	2.5	18
21	Chemical Exfoliation as a Controlled Route to Enhance the Anodic Performance of COF in LIB. Advanced Energy Materials, 2019, 9, 1902428.	10.2	121
22	Facile Exfoliation of Singleâ€Crystalline Copper Alkylphosphates to Singleâ€Layer Nanosheets and Enhanced Supercapacitance. Angewandte Chemie, 2019, 131, 17000-17005.	1.6	6
23	Pyridine-Rich Covalent Organic Frameworks as High-Performance Solid-State Supercapacitors. , 2019, 1, 490-497.		77
24	Imparting gas selective and pressure dependent porosity into a non-porous solid <i>via</i> coordination flexibility. Materials Horizons, 2019, 6, 1883-1891.	6.4	17
25	Hyper-Cross-linked Porous Organic Frameworks with Ultramicropores for Selective Xenon Capture. ACS Applied Materials & Interfaces, 2019, 11, 13279-13284.	4.0	43
26	Cu/Cu₂O Nanoparticles Supported on a Phenolâ€“Pyridyl COF as a Heterogeneous Catalyst for the Synthesis of Unsymmetrical Diynes via Glaserâ€“Hay Coupling. ACS Applied Materials & Interfaces, 2019, 11, 15670-15679.	4.0	77
27	Preferential Adsorption of CO₂ in an Ultramicroporous MOF with Cavities Lined by Basic Groups and Open-Metal Sites. Inorganic Chemistry, 2018, 57, 5267-5272.	1.9	57
28	High and Reversible Lithium Ion Storage in Selfâ€Exfoliated Triazoleâ€Triformyl Phloroglucinolâ€Based Covalent Organic Nanosheets. Advanced Energy Materials, 2018, 8, 1702170.	10.2	174
29	Potential of ultramicroporous metalâ€“organic frameworks in CO₂ clean-up. Chemical Communications, 2018, 54, 13472-13490.	2.2	49
30	Anthracene-Resorcinol Derived Covalent Organic Framework as Flexible White Light Emitter. Journal of the American Chemical Society, 2018, 140, 13367-13374.	6.6	179
31	Microporous mixed-metal mixed-ligand metal organic framework for selective CO₂ capture. CrystEngComm, 2018, 20, 6088-6093.	1.3	9
32	Heterogenous Catalysts: Highly Stable COF-Supported Co/Co(OH)2 Nanoparticles Heterogeneous Catalyst for Reduction of Nitrile/Nitro Compounds under Mild Conditions (Small 37/2018). Small, 2018, 14, 1870169.	5.2	3
33	Highly Stable COFâ€Supported Co/Co(OH)₂ Nanoparticles Heterogeneous Catalyst for Reduction of Nitrile/Nitro Compounds under Mild Conditions. Small, 2018, 14, e1801233.	5.2	75
34	Molecular and Selfâ€Trapped Excitonic Contributions to the Broadband Luminescence in Diamineâ€Based Lowâ€Dimensional Hybrid Perovskite Systems. Advanced Optical Materials, 2018, 6, 1800751.	3.6	43
35	Ultralow Parasitic Energy for Postcombustion CO₂ Capture Realized in a Nickel Isonicotinate Metalâ€“Organic Framework with Excellent Moisture Stability. Journal of the American Chemical Society, 2017, 139, 1734-1737.	6.6	121
36	Ultraâ€microporous Metalâ€“Organic Framework Built from Rigid Linkers Showing Structural Flexibility Resulting in a Marked Change in Carbon Dioxide Capacity. European Journal of Inorganic Chemistry, 2017, 2017, 2464-2468.	1.0	2

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37	Super-hydrophobic covalent organic frameworks for chemical resistant coatings and hydrophobic paper and textile composites. Journal of Materials Chemistry A, 2017, 5, 8376-8384.	5.2	87
38	Secondary Interactions Arrest the Hemiaminal Intermediate To Invert the <i>Modus Operandi</i> of Schiff Base Reaction: A Route to Benzoxazinones. Journal of Organic Chemistry, 2017, 82, 4342-4351.	1.7	11
39	Exceptionally stable Bakelite-type polymers for efficient pre-combustion CO2capture and H2purification. Journal of Materials Chemistry A, 2017, 5, 8431-8439.	5.2	11
40	Bulky Isopropyl Group Loaded Tetraaryl Pyrene Based Azo-Linked Covalent Organic Polymer for Nitroaromatics Sensing and CO₂ Adsorption. ACS Omega, 2017, 2, 3572-3582.	1.6	31
41	Strategically designed azolyl-carboxylate MOFs for potential humid CO₂ capture. Journal of Materials Chemistry A, 2017, 5, 535-543.	5.2	50
42	10000-Fold Enhancement in Proton Conduction by Doping of Cesium Ions in a Proton-Conducting Zwitterionic Metal-Organic Framework. European Journal of Inorganic Chemistry, 2016, 2016, 4382-4386.	1.0	20
43	A permanently porous single molecule H-bonded organic framework for selective CO₂ capture. Chemical Communications, 2016, 52, 7249-7252.	2.2	86
44	Low Band Gap Benzimidazole COF Supported Ni₃N as Highly Active OER Catalyst. Advanced Energy Materials, 2016, 6, 1601189.	10.2	182
45	1000-fold enhancement in proton conductivity of a MOF using post-synthetically anchored proton transporters. Scientific Reports, 2016, 6, 32489.	1.6	22
46	CO₂ Laser Direct Written MOF-Based Metal-Decorated and Heteroatom-Doped Porous Graphene for Flexible All-Solid-State Microsupercapacitor with Extremely High Cycling Stability. ACS Applied Materials & Interfaces, 2016, 8, 31841-31848.	4.0	72
47	Lowâ€Overpotential Electrocatalytic Water Splitting with Nobleâ€Metalâ€Free Nanoparticles Supported in a sp³ Nâ€Rich Flexible COF. Advanced Energy Materials, 2016, 6, 1600110.	10.2	121
48	Larger pores via shorter pillars in flexible layer coordination networks. Canadian Journal of Chemistry, 2016, 94, 449-452.	0.6	6
49	Enhancing the carbon capture capacities of a rigid ultra-microporous MOF through gate-opening at low CO₂pressures assisted by swiveling oxalate pillars. Chemical Communications, 2016, 52, 1851-1854.	2.2	44
50	Identifying Solid Luminogens through Goldâ€Catalysed Intramolecular Hydroarylation of Alkynes. European Journal of Organic Chemistry, 2015, 2015, 4860-4867.	1.2	11
51	Lithiumâ€Assisted Proton Conduction at 150 Â°C in a Microporous Triazineâ€Phenol Polymer. Advanced Materials Interfaces, 2015, 2, 1500301.	1.9	11
52	A single-ligand ultra-microporous MOF for precombustion CO ₂ capture and hydrogen purification. Science Advances, 2015, 1, e1500421.	4.7	127
53	Pd loaded amphiphilic COF as catalyst for multi-fold Heck reactions, C-C couplings and CO oxidation. Scientific Reports, 2015, 5, 10876.	1.6	112
54	A proton-conducting cesium sulfonate metal organic framework. Canadian Journal of Chemistry, 2015, 93, 988-991.	0.6	12

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55	A triazineâ€“resorcinol based porous polymer with polar pores and exceptional surface hydrophobicity showing CO₂ uptake under humid conditions. Journal of Materials Chemistry A, 2015, 3, 21116-21122.	5.2	39
56	Metal organic framework. Resonance, 2014, 19, 1147-1157.	0.2	1
57	Tuning porosity via control of interpenetration in a zinc isonicotinate metal organic framework. Journal of Chemical Sciences, 2014, 126, 1393-1398.	0.7	6
58	Zn7O2(RCOO)10 Clusters and Nitro Aromatic Linkers in a Porous Metalâ€“Organic Framework. Inorganic Chemistry, 2013, 52, 4124-4126.	1.9	24
59	Enhancing Water Stability of Metalâ€“Organic Frameworks via Phosphonate Monoester Linkers. Journal of the American Chemical Society, 2012, 134, 14338-14340.	6.6	210
60	Competition and Cooperativity in Carbon Dioxide Sorption by Amineâ€Functionalized Metalâ€“Organic Frameworks. Angewandte Chemie - International Edition, 2012, 51, 1826-1829.	7.2	131
61	A route to functionalised pores in coordination polymers via mixed phosphonate and amino-triazole linkers. Supramolecular Chemistry, 2011, 23, 278-282.	1.5	13
62	Phosphonate Monoesters as Carboxylate-like Linkers for Metal Organic Frameworks. Journal of the American Chemical Society, 2011, 133, 20048-20051.	6.6	85
63	Guest Organization by an Amino Acid-Derived Amide Linkage in a Cluster-Based Open Framework. Crystal Growth and Design, 2010, 10, 4348-4356.	1.4	9
64	Facile Proton Conduction via Ordered Water Molecules in a Phosphonate Metalâˆ'Organic Framework. Journal of the American Chemical Society, 2010, 132, 14055-14057.	6.6	384
65	Direct Observation and Quantification of CO ₂ Binding Within an Amine-Functionalized Nanoporous Solid. Science, 2010, 330, 650-653.	6.0	860
66	A microporous alkaline-earth phosphonate sustained by one-dimensional inorganic and organic units. Canadian Journal of Chemistry, 2009, 87, 247-253.	0.6	30
67	Anhydrous proton conduction at 150ÂÂ°C in a crystalline metalâ€“organic framework. Nature Chemistry, 2009, 1, 705-710.	6.6	724
68	Phosphonate and sulfonate metal organic frameworks. Chemical Society Reviews, 2009, 38, 1430.	18.7	609
69	An amine-functionalized metal organic framework for preferential CO2 adsorption at low pressures. Chemical Communications, 2009, , 5230.	2.2	390
70	Control of Porosity Geometry in Amino Acid Derived Nanoporous Materials. Chemistry - A European Journal, 2008, 14, 4521-4532.	1.7	81
71	Particle sizeâ€“activity relationship for CoFe2O4 nanoparticle CO oxidation catalysts. Journal of Materials Chemistry, 2008, 18, 5518.	6.7	30
72	A Family of Nanoporous Materials Based on an Amino Acid Backbone. Angewandte Chemie - International Edition, 2006, 45, 6495-6499.	7.2	384

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73	A layered chlorophosphate, $Na_3[Cd_4Cl_3(HPO_4)_2(H_2PO_4)_4]$, containing Na^+ ions in the interlamellar space. New Journal of Chemistry, 2001, 25, 1199-1202.	1.4	4