Ali CoÅkun

List of Publications by Year
in descending order

126 papers	12,264 citations	25034 57 h-index	24982 109 g-index
138 all docs	138 docs citations	138 times ranked	13682 citing authors

#	Article	IF	Citations
1	Highly elastic binders integrating polyrotaxanes for silicon microparticle anodes in lithium ion batteries. Science, 2017, 357, 279-283.	12.6	943
2	Great expectations: can artificial molecular machines deliver on their promise?. Chemical Society Reviews, 2012, 41, 19-30.	38.1	796
3	Enzyme-Responsive Snap-Top Covered Silica Nanocontainers. Journal of the American Chemical Society, 2008, 130, 2382-2383.	13.7	567
4	Unprecedented high-temperature CO2 selectivity in N2-phobic nanoporous covalent organic polymers. Nature Communications, 2013, 4, 1357.	12.8	456
5	Ion Sensing Coupled to Resonance Energy Transfer:Â A Highly Selective and Sensitive Ratiometric Fluorescent Chemosensor for Ag(I) by a Modular Approach. Journal of the American Chemical Society, 2005, 127, 10464-10465.	13.7	398
6	Signal Ratio Amplification via Modulation of Resonance Energy Transfer:â€‰ Proof of Principle in an Emission Ratiometric Hg(II) Sensor. Journal of the American Chemical Society, 2006, 128, 14474-14475.	13.7	387
7	The emerging era of supramolecular polymeric binders in silicon anodes. Chemical Society Reviews, 2018, 47, 2145-2164.	38.1	341
8	Elementalâ€Sulfurâ€Mediated Facile Synthesis of a Covalent Triazine Framework for Highâ€Performance Lithiumâ€"Sulfur Batteries. Angewandte Chemie - International Edition, 2016, 55, 3106-3111.	13.8	308
9	High hopes: can molecular electronics realise its potential?. Chemical Society Reviews, 2012, 41, 4827.	38.1	277
10	Hyperbranched Î²-Cyclodextrin Polymer as an Effective Multidimensional Binder for Silicon Anodes in Lithium Rechargeable Batteries. Nano Letters, 2014, 14, 864-870.	9.1	277
11	Effective PET and ICT Switching of Boradiazaindacene Emission:â€‰ A Unimolecular, Emission-Mode, Molecular Half-Subtractor with Reconfigurable Logic Gates. Organic Letters, 2005, 7, 5187-5189.	4.6	276
12	Charged Covalent Triazine Frameworks for CO₂ Capture and Conversion. ACS Applied Materials & Interfaces, 2017, 9, 7209-7216.	8.0	270
13	Bis(2-pyridyl)-Substituted Boratriazaindacene as an NIR-Emitting Chemosensor for Hg(II). Organic Letters, 2007, 9, 607-609.	4.6	235
14	Millipede-inspired structural design principle for high performance polysaccharide binders in silicon anodes. Energy and Environmental Science, 2015, 8, 1224-1230.	30.8	222
15	Design Strategies for Ratiometric Chemosensors: Modulation of Excitation Energy Transfer at the Energy Donor Site. Journal of the American Chemical Society, 2009, 131, 9007-9013.	13.7	207
16	Chromatography in a Single Metalâˆ'Organic Framework (MOF) Crystal. Journal of the American Chemical Society, 2010, 132, 16358-16361.	13.7	192
17	Highly stable tetrathiafulvalene radical dimers in [3]catenanes. Nature Chemistry, 2010, 2, 870-879.	13.6	171
18	Dynamic Cross-Linking of Polymeric Binders Based on Hostâ€"Guest Interactions for Silicon Anodes in Lithium Ion Batteries. ACS Nano, 2015, 9, 11317-11324.	14.6	167

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19	Porous cationic polymers: the impact of counteranions and charges on CO₂capture and conversion. Chemical Communications, 2016, 52, 934-937.	4.1	162
20	Perfluoroarylâ€Elemental Sulfur S_NAr Chemistry in Covalent Triazine Frameworks with High Sulfur Contents for Lithiumâ€“Sulfur Batteries. Advanced Functional Materials, 2017, 27, 1703947.	14.9	158
21	Systematic Molecularâ€Level Design of Binders Incorporating Meldrum's Acid for Silicon Anodes in Lithium Rechargeable Batteries. Advanced Materials, 2014, 26, 7979-7985.	21.0	155
22	Pillar[5]arene Based Conjugated Microporous Polymers for Propane/Methane Separation through Hostâ€“Guest Complexation. Chemistry of Materials, 2016, 28, 4460-4466.	6.7	147
23	Fluorinated ether electrolyte with controlled solvation structure for high voltage lithium metal batteries. Nature Communications, 2022, 13, 2575.	12.8	147
24	Directing the Structural Features of N₂â€Phobic Nanoporous Covalent Organic Polymers for CO₂ Capture and Separation. Chemistry - A European Journal, 2014, 20, 772-780.	3.3	128
25	A Lightâ€Stimulated Molecular Switch Driven by Radicalâ€“Radical Interactions in Water. Angewandte Chemie - International Edition, 2011, 50, 6782-6788.	13.8	127
26	A Light-Gated STOPâˆ’GO Molecular Shuttle. Journal of the American Chemical Society, 2009, 131, 2493-2495.	13.7	125
27	Solution-Phase Mechanistic Study and Solid-State Structure of a Tris(bipyridinium radical cation) Inclusion Complex. Journal of the American Chemical Society, 2012, 134, 3061-3072.	13.7	123
28	Selection of Binder and Solvent for Solution-Processed All-Solid-State Battery. Journal of the Electrochemical Society, 2017, 164, A2075-A2081.	2.9	122
29	Metal Nanoparticles Functionalized with Molecular and Supramolecular Switches. Journal of the American Chemical Society, 2009, 131, 4233-4235.	13.7	119
30	Photoinduced Memory Effect in a Redox Controllable Bistable Mechanical Molecular Switch. Angewandte Chemie - International Edition, 2012, 51, 1611-1615.	13.8	119
31	Highly Hydrophobic ZIFâ€8/Carbon Nitride Foam with Hierarchical Porosity for Oil Capture and Chemical Fixation of CO₂. Advanced Functional Materials, 2017, 27, 1700706.	14.9	119
32	Graphene/ZIF-8 composites with tunable hierarchical porosity and electrical conductivity. Journal of Materials Chemistry A, 2016, 4, 7710-7717.	10.3	117
33	Nanoporous Polymers Incorporating Sterically Confined <i>N</i>-Heterocyclic Carbenes for Simultaneous CO₂ Capture and Conversion at Ambient Pressure. Chemistry of Materials, 2015, 27, 6818-6826.	6.7	116
34	Dynamic hook-and-eye nanoparticle sponges. Nature Chemistry, 2009, 1, 733-738.	13.6	114
35	Mechanically Stabilized Tetrathiafulvalene Radical Dimers. Journal of the American Chemical Society, 2011, 133, 4538-4547.	13.7	114
36	Ground-State Kinetics of Bistable Redox-Active Donorâ€“Acceptor Mechanically Interlocked Molecules. Accounts of Chemical Research, 2014, 47, 482-493.	15.6	107

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37	Rational Sulfur Cathode Design for Lithiumâ€“Sulfur Batteries: Sulfur-Embedded Benzoxazine Polymers. ACS Energy Letters, 2016, 1, 566-572.	17.4	107
38	An Aqueous Sodium Ion Hybrid Battery Incorporating an Organic Compound and a Prussian Blue Derivative. Advanced Energy Materials, 2014, 4, 1400133.	19.5	106
39	Metalâ€“Organic Frameworks Incorporating Copperâ€Complexed Rotaxanes. Angewandte Chemie - International Edition, 2012, 51, 2160-2163.	13.8	105
40	Mechanically Interlocked Molecules Assembled by Ï€â€“Ï€â€…Recognition. ChemPlusChem, 2012, 77, 159-185.	2.8	100
41	Elementalâ€Sulfurâ€Mediated Facile Synthesis of a Covalent Triazine Framework for Highâ€Performance Lithiumâ€“Sulfur Batteries. Angewandte Chemie, 2016, 128, 3158-3163.	2.0	96
42	Difluorobora-s-diazaindacene dyes as highly selective dosimetric reagents for fluoride anions. Tetrahedron Letters, 2004, 45, 4947-4949.	1.4	92
43	Chemical Blowing Approach for Ultramicroporous Carbon Nitride Frameworks and Their Applications in Gas and Energy Storage. Advanced Functional Materials, 2017, 27, 1604658.	14.9	92
44	Nanoporous covalent organic polymers incorporating TrÃ¶ger's base functionalities for enhanced CO₂capture. Journal of Materials Chemistry A, 2014, 2, 12507.	10.3	90
45	Highly Efficient Ultrafast Electron Injection from the Singlet MLCT Excited State of Copper(I) Diimine Complexes to TiO₂ Nanoparticles. Angewandte Chemie - International Edition, 2012, 51, 12711-12715.	13.8	85
46	Assembly of Polygonal Nanoparticle Clusters Directed by Reversible Noncovalent Bonding Interactions. Nano Letters, 2009, 9, 3185-3190.	9.1	82
47	Advances in Porous Organic Polymers for Efficient Water Capture. Chemistry - A European Journal, 2019, 25, 10262-10283.	3.3	82
48	A Pyreneâ€“Poly(acrylic acid)â€“Polyrotaxane Supramolecular Binder Network for Highâ€Performance Silicon Negative Electrodes. Advanced Materials, 2019, 31, e1905048.	21.0	77
49	Effect of N-substitution in naphthalenediimides on the electrochemical performance of organic rechargeable batteries. RSC Advances, 2012, 2, 7968.	3.6	76
50	Lithiumâ€Salt Mediated Synthesis of a Covalent Triazine Framework for Highly Stable Lithium Metal Batteries. Angewandte Chemie - International Edition, 2019, 58, 16795-16799.	13.8	72
51	Imprinting Chemical and Responsive Micropatterns into Metalâ€“Organic Frameworks. Angewandte Chemie - International Edition, 2011, 50, 276-279.	13.8	68
52	Highly Elastic Polyrotaxane Binders for Mechanically Stable Lithium Hosts in Lithiumâ€Metal Batteries. Advanced Materials, 2019, 31, e1901645.	21.0	68
53	Prospect for Supramolecular Chemistry in High-Energy-Density Rechargeable Batteries. Joule, 2019, 3, 662-682.	24.0	66
54	Chemically Activated Covalent Triazine Frameworks with Enhanced Textural Properties for High Capacity Gas Storage. ACS Applied Materials & Interfaces, 2017, 9, 30679-30685.	8.0	65

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55	Molecular-Mechanical Switching at the Nanoparticleâˆ'Solvent Interface: Practice and Theory. Journal of the American Chemical Society, 2010, 132, 4310-4320.	13.7	61
56	Thinking Outside the Cage: Controlling the Extrinsic Porosity and Gas Uptake Properties of Shape-Persistent Molecular Cages in Nanoporous Polymers. Chemistry of Materials, 2015, 27, 4149-4155.	6.7	60
57	Electron Injection from Copper Diimine Sensitizers into TiO₂: Structural Effects and Their Implications for Solar Energy Conversion Devices. Journal of the American Chemical Society, 2015, 137, 9670-9684.	13.7	60
58	A redox-active reverse donorâ€“acceptor bistable [2]rotaxane. Chemical Science, 2011, 2, 1046-1053.	7.4	58
59	Ionic Liquid Functionalized Gel Polymer Electrolytes for Stable Lithium Metal Batteries. Angewandte Chemie - International Edition, 2021, 60, 22791-22796.	13.8	58
60	Novel fluorescent chemosensor for anions via modulation of oxidative PET: a remarkable 25-fold enhancement of emission. Tetrahedron Letters, 2003, 44, 5649-5651.	1.4	57
61	Energy Band-Gap Engineering of Conjugated Microporous Polymers via Acidity-Dependent in Situ Cyclization. Journal of the American Chemical Society, 2018, 140, 10937-10940.	13.7	57
62	A Multistate Switchable [3]Rotacatenane. Chemistry - A European Journal, 2011, 17, 213-222.	3.3	56
63	Templateâ€Directed Approach Towards the Realization of Ordered Heterogeneity in Bimetallic Metalâ€“Organic Frameworks. Angewandte Chemie - International Edition, 2017, 56, 5071-5076.	13.8	55
64	Covalent Triazine Frameworks Incorporating Charged Polypyrrole Channels for High-Performance Lithiumâ€“Sulfur Batteries. Chemistry of Materials, 2020, 32, 4185-4193.	6.7	55
65	A Reverse Donor-Acceptor Bistable [2]Catenane. Organic Letters, 2008, 10, 3187-3190.	4.6	54
66	Donorâ€“Acceptor Oligorotaxanes Made to Order. Chemistry - A European Journal, 2011, 17, 2107-2119.	3.3	53
67	Integrated Ringâ€Chain Design of a New Fluorinated Ether Solvent for Highâ€Voltage Lithiumâ€Metal Batteries. Angewandte Chemie - International Edition, 2022, 61, e202115884.	13.8	50
68	Direct Utilization of Elemental Sulfur in the Synthesis of Microporous Polymers for Natural Gas Sweetening. CheM, 2016, 1, 482-493.	11.7	46
69	Synthesis of Highly Porous Coordination Polymers with Open Metal Sites for Enhanced Gas Uptake and Separation. ACS Applied Materials & Interfaces, 2016, 8, 26860-26867.	8.0	46
70	Epoxyâ€Functionalized Porous Organic Polymers via the Dielsâ€“Alder Cycloaddition Reaction for Atmospheric Water Capture. Angewandte Chemie - International Edition, 2018, 57, 3173-3177.	13.8	46
71	Three-Point Recognition and Selective Fluorescence Sensing ofl-DOPA. Organic Letters, 2004, 6, 3107-3109.	4.6	45
72	Bottom-up synthesis of fully sp² hybridized three-dimensional microporous graphitic frameworks as metal-free catalysts. Journal of Materials Chemistry A, 2017, 5, 12080-12085.	10.3	44

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73	In Situ Deprotection of Polymeric Binders for Solutionâ€Processible Sulfideâ€Based Allâ€Solidâ€State Batteries. Advanced Materials, 2020, 32, e2001702.	21.0	43
74	Stable Solid Electrolyte Interphase Formation Induced by Monoquat-Based Anchoring in Lithium Metal Batteries. ACS Energy Letters, 2021, 6, 1711-1718.	17.4	40
75	Polycatenation under Thermodynamic Control. Angewandte Chemie - International Edition, 2010, 49, 3151-3156.	13.8	38
76	Bottom-up Approach for the Synthesis of a Three-Dimensional Nanoporous Graphene Nanoribbon Framework and Its Gas Sorption Properties. Chemistry of Materials, 2015, 27, 2576-2583.	6.7	37
77	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.	3.3	34
78	A bifunctional approach for the preparation of graphene and ionic liquid-based hybrid gels. Journal of Materials Chemistry A, 2013, 1, 43-48.	10.3	32
79	A Threeâ€Dimensional Porous Organic Semiconductor Based on Fully sp²â€Hybridized Graphitic Polymer. Angewandte Chemie - International Edition, 2020, 59, 15166-15170.	13.8	29
80	Threeâ€Dimensional Architectures Incorporating Stereoregular Donorâ€"Acceptor Stacks. Chemistry - A European Journal, 2013, 19, 8457-8465.	3.3	28
81	Porous polyisothiocyanurates for selective palladium recovery and heterogeneous catalysis. CheM, 2022, 8, 2043-2059.	11.7	28
82	Redox-Controlled Selective Docking in a [2]Catenane Host. Journal of the American Chemical Society, 2013, 135, 2466-2469.	13.7	27
83	Lithiumâ€Salt Mediated Synthesis of a Covalent Triazine Framework for Highly Stable Lithium Metal Batteries. Angewandte Chemie, 2019, 131, 16951-16955.	2.0	26
84	Ordered Supramolecular Gels Based on Graphene Oxide and Tetracationic Cyclophanes. Advanced Materials, 2014, 26, 2725-2729.	21.0	25
85	Dual Functional High Donor Electrolytes for Lithiumâ€"Sulfur Batteries under Lithium Nitrate Free and Lean Electrolyte Conditions. ACS Energy Letters, 2022, 7, 2459-2468.	17.4	23
86	Nanostructured ZnO as a structural template for the growth of ZIF-8 with tunable hierarchical porosity for CO₂ conversion. CrystEngComm, 2017, 19, 4147-4151.	2.6	21
87	A sensitive fluorescent chemosensor for anions based on a styrylâ€"boradiazaindacene framework. Tetrahedron Letters, 2007, 48, 5359-5361.	1.4	20
88	Bimetallic metal organic frameworks with precisely positioned metal centers for efficient H₂ storage. Chemical Communications, 2018, 54, 12218-12221.	4.1	20
89	Hierarchically Porous Reduced Graphene Oxide Coated with Metalâ€"Organic Framework HKUST-1 for Enhanced Hydrogen Gas Affinity. ACS Applied Nano Materials, 2020, 3, 985-991.	5.0	20
90	Diazapyrenium-based porous cationic polymers for colorimetric amine sensing and capture from CO₂ scrubbing conditions. RSC Advances, 2016, 6, 77406-77409.	3.6	19

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91	Molten Salt Templated Synthesis of Covalent Isocyanurate Frameworks with Tunable Morphology and High CO₂ Uptake Capacity. ACS Applied Materials & Interfaces, 2021, 13, 26102-26108.	8.0	19
92	Ionic Liquid Functionalized Gel Polymer Electrolytes for Stable Lithium Metal Batteries. Angewandte Chemie, 2021, 133, 22973-22978.	2.0	19
93	Graphene oxide-templated preferential growth of continuous MOF thin films. CrystEngComm, 2016, 18, 4013-4017.	2.6	18
94	Tuning the Transport Properties of Gases in Porous Graphene Membranes with Controlled Pore Size and Thickness. Advanced Materials, 2022, 34, e2106785.	21.0	18
95	Transition metal complex directed synthesis of porous cationic polymers for efficient CO2 capture and conversion. Polymer, 2017, 126, 296-302.	3.8	15
96	The Prospect of Dimensionality in Porous Semiconductors. Chemistry - A European Journal, 2021, 27, 7489-7501.	3.3	15
97	Ultrahigh permeance metal coated porous graphene membranes with tunable gas selectivities. CheM, 2021, 7, 2385-2394.	11.7	15
98	Porous shape-persistent rylene imine cages with tunable optoelectronic properties and delayed fluorescence. Chemical Science, 2021, 12, 5275-5285.	7.4	14
99	Cation modulation of carbonyldipyrrinone (CDP) fluorescence: emission-ratiometric sensing of calcium. Journal of Materials Chemistry, 2005, 15, 2908.	6.7	13
100	Edge-Functionalized Graphene Nanoribbon Frameworks for the Capture and Separation of Greenhouse Gases. Macromolecules, 2017, 50, 523-533.	4.8	13
101	Epoxyâ€Functionalized Porous Organic Polymers via the Dielsâ€“Alder Cycloaddition Reaction for Atmospheric Water Capture. Angewandte Chemie, 2018, 130, 3227-3231.	2.0	12
102	A Threeâ€Dimensional Porous Organic Semiconductor Based on Fully sp²â€Hybridized Graphitic Polymer. Angewandte Chemie, 2020, 132, 15278-15282.	2.0	12
103	COFs Meet Graphene Nanoribbons. CheM, 2020, 6, 1046-1048.	11.7	11
104	Fully Conjugated Tetraoxa[8]circuleneâ€Based Porous Semiconducting Polymers. Angewandte Chemie - International Edition, 2022, 61, .	13.8	11
105	Excited state distortions in a charge transfer state of a donorâ€“acceptor [2]rotaxane. Physical Chemistry Chemical Physics, 2010, 12, 14135.	2.8	10
106	Electronic and Optical Vibrational Spectroscopy of Molecular Transport Junctions Created by Onâ€Wire Lithography. Small, 2013, 9, 1900-1903.	10.0	10
107	Nitrogenâ€Doped Carbons with Hierarchical Porosity via Chemical Blowing Towards Longâ€Lived Metalâ€Free Catalysts for Acetylene Hydrochlorination. ChemCatChem, 2020, 12, 1922-1925.	3.7	10
108	A Facile and Scalable Route to the Preparation of Catalytic Membranes with in Situ Synthesized Supramolecular Dendrimer Particle Hosts for Pt(0) Nanoparticles Using a Low-Generation PAMAM Dendrimer (G1-NH2) as Precursor. ACS Applied Materials & Interfaces, 2018, 10, 33238-33251.	8.0	9

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109	Templateâ€Directed Approach Towards the Realization of Ordered Heterogeneity in Bimetallic Metalâ€“Organic Frameworks. Angewandte Chemie, 2017, 129, 5153-5158.	2.0	8
110	Integrated Ringâ€Chain Design of a New Fluorinated Ether Solvent for Highâ€Voltage Lithiumâ€Metal Batteries. Angewandte Chemie, 2022, 134, .	2.0	8
111	Salt-Templated Solvothermal Synthesis of Dioxane-Linked Three-Dimensional Nanoporous Organic Polymers for Carbon Dioxide and Iodine Capture. ACS Applied Nano Materials, 2022, 5, 13711-13719.	5.0	8
112	Postfunctionalized Covalent Organic Frameworks for Water Harvesting. ACS Central Science, 0, , .	11.3	8
113	An acenaphthopyrrolone-dipicolylamine derivative as a selective and sensitive chemosensor for group IIB cations. Tetrahedron Letters, 2006, 47, 3689-3691.	1.4	7
114	Catalystâ€Free Synthesis of Porous Graphene Networks as Efficient Sorbents for CO₂ and H₂. ChemPlusChem, 2015, 80, 1127-1132.	2.8	7
115	Cyclotetrabenzil-Based Porous Organic Polymers with High Carbon Dioxide Affinity. Organic Materials, 2021, 03, 346-352.	2.0	7
116	Fluorinated Cyclic Ether Co-solvents for Ultra-high-Voltage Practical Lithium-Metal Batteries. ACS Applied Energy Materials, 2022, 5, 7784-7790.	5.1	5
117	Dyeing Your Hair withÂGraphene. CheM, 2018, 4, 661-663.	11.7	4
118	The Green Lean Amine Machine: Harvesting Electric Power While Capturing Carbon Dioxide from Breath. Advanced Science, 2021, 8, e2100995.	11.2	4
119	Inside Cover: A Light-Stimulated Molecular Switch Driven by Radical-Radical Interactions in Water (Angew. Chem. Int. Ed. 30/2011). Angewandte Chemie - International Edition, 2011, 50, 6674-6674.	13.8	3
120	The Power of the Mechanical Bond. CheM, 2018, 4, 2260-2262.	11.7	3
121	One-step anodization-electrophoretic deposition of titanium nanotubes-graphene nanoribbon framework for water oxidation. Journal of Electroanalytical Chemistry, 2021, 902, 115802.	3.8	2
122	Fully Conjugated Tetraoxa[8]circuleneâ€Based Porous Semiconducting Polymers. Angewandte Chemie, 2022, 134, .	2.0	2
123	Innentitelbild: A Light-Stimulated Molecular Switch Driven by Radical-Radical Interactions in Water (Angew. Chem. 30/2011). Angewandte Chemie, 2011, 123, 6804-6804.	2.0	0
124	Frontispiece: Advances in Porous Organic Polymers for Efficient Water Capture. Chemistry - A European Journal, 2019, 25, .	3.3	0
125	Frontispiece: The Prospect of Dimensionality in Porous Semiconductors. Chemistry - A European Journal, 2021, 27, .	3.3	0
126	Tailor-made Functional Polymers for Energy Storage and Environmental Applications. Chimia, 2020, 74, 667.	0.6	0