

Andrew D Burrows

List of Publications by Year in descending order

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109
papers

3,800
citations

172207

29
h-index

138251

58
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114
all docs

114
docs citations

114
times ranked

5197
citing authors

#	ARTICLE	IF	CITATIONS
1	Gas sensing using porous materials for automotive applications. <i>Chemical Society Reviews</i> , 2015, 44, 4290-4321.	18.7	406
2	Mixed-component metal-organic frameworks (MC-MOFs): enhancing functionality through solid solution formation and surface modifications. <i>CrystEngComm</i> , 2011, 13, 3623.	1.3	336
3	Post-Synthetic Modification of Tagged Metal-Organic Frameworks. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 8482-8486.	7.2	276
4	Solvent hydrolysis and templating effects in the synthesis of metal-organic frameworks. <i>CrystEngComm</i> , 2005, 7, 548.	1.3	242
5	Synthesis and post-synthetic modification of MIL-101(Cr)-NH ₂ via a tandem diazotisation process. <i>Chemical Communications</i> , 2012, 48, 12053.	2.2	166
6	Size-controlled synthesis of MIL-101(Cr) nanoparticles with enhanced selectivity for CO ₂ over N ₂ . <i>CrystEngComm</i> , 2011, 13, 6916.	1.3	128
7	The influence of hydrogen bonding on the structure of zinc co-ordination polymers. <i>Dalton Transactions RSC</i> , 2000, , 3845-3854.	2.3	106
8	Sulfur-tagged metal-organic frameworks and their post-synthetic oxidation. <i>Chemical Communications</i> , 2009, , 4218.	2.2	98
9	Manufacturing of metal-organic framework monoliths and their application in CO ₂ adsorption. <i>Microporous and Mesoporous Materials</i> , 2015, 214, 149-155.	2.2	97
10	The stepwise formation of mixed-metal coordination networks using complexes of 3-cyanoacetylacetone. <i>Dalton Transactions</i> , 2007, , 2499.	1.6	66
11	Syntheses, structures and properties of cadmium benzenedicarboxylate metal-organic frameworks. <i>Dalton Transactions</i> , 2008, , 2465.	1.6	63
12	Dipyridyl ² -diketonate complexes and their use as metalloligands in the formation of mixed-metal coordination networks. <i>Dalton Transactions</i> , 2012, 41, 4153.	1.6	59
13	Metal-organic frameworks post-synthetically modified with ferrocenyl groups: framework effects on redox processes and surface conduction. <i>Dalton Transactions</i> , 2012, 41, 1475-1480.	1.6	57
14	Selective incorporation of functional dicarboxylates into zinc metal-organic frameworks. <i>Chemical Communications</i> , 2011, 47, 3380.	2.2	56
15	Dipyridyl ² -diketonate complexes: versatile polydentate metalloligands for metal-organic frameworks and hydrogen-bonded networks. <i>Chemical Communications</i> , 2010, 46, 5067.	2.2	53
16	Mixed matrix membranes based on MIL-101 metal-organic frameworks in polymer of intrinsic microporosity PIM-1. <i>Separation and Purification Technology</i> , 2019, 212, 545-554.	3.9	53
17	Mechanical characterisation of polymer of intrinsic microporosity PIM-1 for hydrogen storage applications. <i>Journal of Materials Science</i> , 2017, 52, 3862-3875.	1.7	51
18	Rhodium-Promoted Linear Tetramerization and Cyclization of 3,3-Dimethylbut-1-yne. <i>Angewandte Chemie - International Edition</i> , 1999, 38, 3043-3045.	7.2	50

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19	Subtle structural variation in copper metal-organic frameworks: syntheses, structures, magnetic properties and catalytic behaviour. <i>Dalton Transactions</i> , 2008, , 6788.	1.6	48
20	The effect of carboxylate and N,Nâ€²-ditopic ligand lengths on the structures of copper and zinc coordination polymers. <i>CrystEngComm</i> , 2012, 14, 3658.	1.3	46
21	Incorporation by coordination and release of the iron chelator drug deferiprone from zinc-based metalâ€“organic frameworks. <i>Chemical Communications</i> , 2013, 49, 11260.	2.2	43
22	Hydrogen storage in polymer-based processable microporous composites. <i>Journal of Materials Chemistry A</i> , 2017, 5, 18752-18761.	5.2	43
23	Facile synthesis of crack-free metalâ€“organic framework films on alumina by a dip-coating route in the presence of polyethylenimine. <i>Journal of Materials Chemistry A</i> , 2013, 1, 5497.	5.2	41
24	Ether functionalised aminophosphines: synthesis and co-ordination chemistry of palladium(II) and platinum(II) complexesâ€“â€“. <i>Dalton Transactions RSC</i> , 2000, , 1669-1677.	2.3	38
25	Manipulation of Molecular and Supramolecular Structure in Nickel(II) Complexes through the Orientation of Dicarboxylate Hydrogen Bonding Faces. <i>Crystal Growth and Design</i> , 2004, 4, 813-822.	1.4	38
26	Incorporation of sulfonate dyes into hydrogen-bonded networks. <i>CrystEngComm</i> , 2004, 6, 429.	1.3	37
27	Zinc dicarboxylate polymers and dimers: thiourea substitution as a tool in supramolecular synthesis. <i>Dalton Transactions</i> , 2003, , 3840.	1.6	35
28	Mononuclearâˆ2(4e)-Bonded Phosphaalkyne Complexes; Selective Formation of a 1,2-Diphosphacyclobutadiene Tantalum Complex. <i>Angewandte Chemie - International Edition</i> , 2001, 40, 3221-3224.	7.2	30
29	Selective Cleavage of PâˆN Bonds and the Conversion of RhodiumN-Pyrrolyl Phosphine Complexes into Diphosphoxane-Bridged Dimers. <i>Inorganic Chemistry</i> , 2002, 41, 1695-1697.	1.9	30
30	Supercritical hydrogen adsorption in nanostructured solids with hydrogen density variation in pores. <i>Adsorption</i> , 2013, 19, 643-652.	1.4	29
31	Biodegradable Active Packaging with Controlled Release: Principles, Progress, and Prospects. <i>ACS Food Science & Technology</i> , 2022, 2, 1166-1183.	1.3	29
32	The synthesis and late transition metal chemistry of 7-aza-N-indolyl phosphines and the activity of their palladium complexes in COâ€“ethene co-polymerisation. <i>Dalton Transactions</i> , 2003, , 4718-4730.	1.6	28
33	The synthesis and characterisation of coordination and hydrogen-bonded networks based on 4-(3,5-dimethyl-1H-pyrazol-4-yl)benzoic acid. <i>Dalton Transactions</i> , 2015, 44, 9269-9280.	1.6	26
34	Solid state interconversion of cages and coordination networks via conformational change of a semi-rigid ligand. <i>Chemical Communications</i> , 2010, 46, 5064.	2.2	25
35	A reagentless thermal post-synthetic rearrangement of an allyloxy-tagged metalâ€“organic framework. <i>Chemical Communications</i> , 2013, 49, 990-992.	2.2	25
36	Ion flow in a zeolitic imidazolate framework results in ionic diode phenomena. <i>Chemical Communications</i> , 2016, 52, 2792-2794.	2.2	25

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37	Conversion of primary amines into secondary amines on a metal-organic framework using a tandem post-synthetic modification. <i>CrystEngComm</i> , 2012, 14, 4112.	1.3	24
38	Nanoporous polymer-based composites for enhanced hydrogen storage. <i>Adsorption</i> , 2019, 25, 889-901.	1.4	24
39	Complexes as metalloligands in network formation: synthesis and characterisation of a mixed-metal coordination network containing palladium and zinc. <i>CrystEngComm</i> , 2008, 10, 487.	1.3	23
40	Evaluating Iodine Uptake in a Crystalline Sponge Using Dynamic X-ray Crystallography. <i>Inorganic Chemistry</i> , 2018, 57, 4959-4965.	1.9	23
41	Comparison of MIL-101(Cr) metal-organic framework and 13X zeolite monoliths for CO ₂ capture. <i>Microporous and Mesoporous Materials</i> , 2020, 308, 110525.	2.2	22
42	Incorporation of Dyes into Hydrogen-Bond Networks: The Structures and Properties of Guanidinium Sulfonate Derivatives Containing Ethyl Orange and 4-Aminoazobenzene-4-sulfonate. <i>Crystal Growth and Design</i> , 2006, 6, 546-554.	1.4	21
43	The synthesis, structures and reactions of zinc and cobalt metal-organic frameworks incorporating an alkyne-based dicarboxylate linker. <i>CrystEngComm</i> , 2012, 14, 188-192.	1.3	20
44	A facile single crystal to single crystal transition with significant structural contraction on desolvation. <i>Chemical Communications</i> , 2014, 50, 14436-14439.	2.2	19
45	Compositional control of pore geometry in multivariate metal-organic frameworks: an experimental and computational study. <i>Dalton Transactions</i> , 2016, 45, 4316-4326.	1.6	19
46	Sterically hindered electron-withdrawing ligands: the reactions of N-carbazolyl phosphines with rhodium and palladium centres. <i>Dalton Transactions</i> , 2004, , 3321.	1.6	18
47	Furnishing Amine-Functionalized Metal-Organic Frameworks with the β -Amidoketone Group by Postsynthetic Modification. <i>Inorganic Chemistry</i> , 2016, 55, 10839-10842.	1.9	18
48	Mixed-Component Sulfone-Sulfoxide Tagged Zinc IRMOFs: <i>In Situ</i> Ligand Oxidation, Carbon Dioxide, and Water Sorption Studies. <i>Crystal Growth and Design</i> , 2017, 17, 2016-2023.	1.4	18
49	The effect of metal distribution on the luminescence properties of mixed-lanthanide metal-organic frameworks. <i>Dalton Transactions</i> , 2018, 47, 2360-2367.	1.6	18
50	Amine-functionalised aminophosphines: synthesis, reversible co-ordination to platinum and use in heteronuclear dimer formation. <i>Dalton Transactions RSC</i> , 2000, , 3615-3619.	2.3	17
51	Diphosphines Possessing Electronically Different Donor Groups: A Synthesis and Coordination Chemistry of the Unsymmetrical Di(N-pyrrolyl)phosphino-Functionalized dppm Analogue Ph ₂ PCH ₂ P(NC ₄ H ₄) ₂ . <i>Inorganic Chemistry</i> , 2003, 42, 7227-7238.	1.9	17
52	Synthesis, Structures, And Magnetic Behavior of New Anionic Copper(II) Sulfate Aggregates and Chains. <i>Inorganic Chemistry</i> , 2012, 51, 10983-10989.	1.9	17
53	Role of Ethynyl-Derived Weak Hydrogen-Bond Interactions in the Supramolecular Structures of 1D, 2D, and 3D Coordination Polymers Containing 5-Ethynyl-1,3-benzenedicarboxylate. <i>Crystal Growth and Design</i> , 2015, 15, 465-474.	1.4	17
54	An Iodine-Vapor-Induced Cyclization in a Crystalline Molecular Flask. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 5943-5946.	7.2	17

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55	Post-synthetic modification of zirconium metal-organic frameworks by catalyst-free aza-Michael additions. Dalton Transactions, 2018, 47, 14491-14496.	1.6	17
56	Interpenetration isomers in isorecticular amine-tagged zinc MOFs. CrystEngComm, 2019, 21, 7498-7506.	1.3	17
57	Assessment of the long-term stability of the polymer of intrinsic microporosity PIM-1 for hydrogen storage applications. International Journal of Hydrogen Energy, 2019, 44, 332-337.	3.8	17
58	Bismuth coordination networks containing deferiprone: synthesis, characterisation, stability and antibacterial activity. Dalton Transactions, 2015, 44, 13814-13817.	1.6	16
59	Chemical modification of the polymer of intrinsic microporosity PIM-1 for enhanced hydrogen storage. Adsorption, 2020, 26, 1083-1091.	1.4	16
60	Immobilisation of L-proline onto mixed-linker zirconium MOFs for heterogeneous catalysis of the aldol reaction. Chemical Engineering and Processing: Process Intensification, 2021, 161, 108315.	1.8	16
61	Synthesis and reactivity of rhodium(i) complexes containing keto-functionalised N-pyrrolyl phosphine ligands. Dalton Transactions, 2003, , 3717.	1.6	15
62	Substitution and derivatization reactions of a water soluble iron(ii) complex containing a self-assembled tetradentate phosphine ligand. Dalton Transactions, 2007, , 570-580.	1.6	14
63	Silver coordination networks and cages based on a semi-rigid bis(isoxazolyl) ligand. Dalton Transactions, 2011, 40, 5483.	1.6	14
64	The impact of N,N'-ditopic ligand length and geometry on the structures of zinc-based mixed-linker metal-organic frameworks. CrystEngComm, 2017, 19, 5549-5557.	1.3	14
65	Post-synthetic Modification of MOFs. RSC Catalysis Series, 2013, , 31-75.	0.1	13
66	Structural manipulation through selective substitution of hydrogen bonding groups: the supramolecular structures of bis(thiosemicarbazidato)nickel complexes. CrystEngComm, 2002, 4, 539.	1.3	12
67	Structural manipulation through control of hydrogen bonding faces: the effects of cation substitution on the guanidinium sulfonate structure. CrystEngComm, 2006, 8, 931.	1.3	12
68	Competition between coordination and hydrogen bonding in networks constructed using dipyriddy-1H-pyrazole ligands. CrystEngComm, 2011, 13, 1676-1682.	1.3	11
69	Sodium Trihydrogen-1,4-Benzenediphosphonate: An Extended Coordination Network. Journal of Chemical Crystallography, 2011, 41, 1165-1168.	0.5	11
70	A molybdenum diphosphonate network structure exhibiting reversible dehydration and selective uptake of methanol. CrystEngComm, 2013, 15, 9301.	1.3	11
71	Post-synthetic Mannich Chemistry on Metal-Organic Frameworks: System-specific Reactivity and Functionality-triggered Dissolution. Chemistry - A European Journal, 2018, 24, 11094-11102.	1.7	11
72	The structural influence of ligand coordination and hydrogen bonding capabilities in the crystal engineering of metal thiosemicarbazide compounds with malonate. CrystEngComm, 2005, 7, 388.	1.3	10

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73	Postsynthetic modification of coordination networks. <i>CrystEngComm</i> , 2012, 14, 4095.	1.3	10
74	Secondary amine-functionalised metal-organic frameworks: direct syntheses versus tandem post-synthetic modifications. <i>CrystEngComm</i> , 2016, 18, 5710-5717.	1.3	10
75	Zinc(II) and cadmium(II) coordination polymers containing phenylenediacetate and bis(imidazol-1-ylmethyl)benzene linkers: The effect of ligand isomers on the solid state structures. <i>Journal of Solid State Chemistry</i> , 2017, 252, 8-21.	1.4	10
76	Inclusion and release of ant alarm pheromones from metal-organic frameworks. <i>Dalton Transactions</i> , 2020, 49, 10334-10338.	1.6	10
77	Polymer of Intrinsic Microporosity (PIM-7) Coating Affects Triphasic Palladium Electrocatalysis. <i>ChemElectroChem</i> , 2019, 6, 4307-4317.	1.7	9
78	Supramolecular aspects of biomolecule interactions in metal-organic frameworks. <i>Coordination Chemistry Reviews</i> , 2021, 439, 213928.	9.5	9
79	Synthesis and characterisation of metal-organic frameworks containing bis(β^2 -diketonate) linkers. <i>CrystEngComm</i> , 2008, 10, 1474.	1.3	8
80	Synthesis, Characterization, and Electrochemistry of a Series of Iron(II) Complexes Containing Self-Assembled 1,5-Diaza-3,7-diphosphabicyclo[3.3.1]nonane Ligands. <i>Inorganic Chemistry</i> , 2009, 48, 9924-9935.	1.9	8
81	Solvent Sorption-Induced Actuation of Composites Based on a Polymer of Intrinsic Microporosity. <i>ACS Applied Polymer Materials</i> , 2021, 3, 920-928.	2.0	8
82	Redox Reactivity of Methylene Blue Bound in Pores of UMCM-1 Metal-Organic Frameworks. <i>Molecular Crystals and Liquid Crystals</i> , 2012, 554, 12-21.	0.4	7
83	A new small molecule gelator and 3D framework ligator of lead(II). <i>CrystEngComm</i> , 2015, 17, 8139-8145.	1.3	7
84	Exploring Structure-Property Relationships of Silver 4-(Phenylethynyl)pyridine Complexes. <i>European Journal of Inorganic Chemistry</i> , 2017, 2017, 1855-1867.	1.0	6
85	Solid-state host-guest influences on a BODIPY dye hosted within a crystalline sponge. <i>New Journal of Chemistry</i> , 2020, 44, 14108-14115.	1.4	6
86	N-Pyrrolyl phosphine ligands: an analysis of their size, conformation and supramolecular interactions. <i>CrystEngComm</i> , 2001, 3, 217.	1.3	5
87	Disorder within dicarboxylates and supramolecular structural control in hydrogen-bonded networks. <i>CrystEngComm</i> , 2003, 5, 355.	1.3	5
88	Isomerism and interpenetration in hydrogen-bonded network structures. <i>CrystEngComm</i> , 2008, 10, 15-18.	1.3	5
89	The structures and properties of zinc(II) and cadmium(II) coordination polymers based on semi-rigid phenylenediacetate and 1,4-bis(2-methylimidazol-1-ylmethyl)benzene linkers. <i>Journal of Solid State Chemistry</i> , 2019, 269, 246-256.	1.4	5
90	Enhancement of gas storage and separation properties of microporous polymers by simple chemical modifications. <i>Multifunctional Materials</i> , 2021, 4, 025002.	2.4	5

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91	Synthesis, structures and properties of metal-organic frameworks prepared using a semi-rigid tricarboxylate linker. <i>CrystEngComm</i> , 2022, 24, 863-876.	1.3	5
92	Post-synthetic modification of zinc metal-organic frameworks through palladium-catalysed carbon-carbon bond formation. <i>Journal of Organometallic Chemistry</i> , 2015, 792, 134-138.	0.8	4
93	Design and optimisation of a multifunctional monolithic filter for fire escape masks. <i>Chemical Engineering Journal</i> , 2022, 430, 132775.	6.6	4
94	6 Nitrogen, phosphorus, arsenic, antimony and bismuth. <i>Annual Reports on the Progress of Chemistry Section A</i> , 2001, 97, 81-93.	0.8	3
95	6 Nitrogen, phosphorus, arsenic, antimony and bismuth. <i>Annual Reports on the Progress of Chemistry Section A</i> , 2003, 99, 83-99.	0.8	3
96	Hydrogen-bonded linear thiourea hexads in tetra-n-butylammonium terephthalate inclusion compounds. <i>CrystEngComm</i> , 2003, 5, 226.	1.3	3
97	An Iodine-Vapor-Induced Cyclization in a Crystalline Molecular Flask. <i>Angewandte Chemie</i> , 2016, 128, 6047-6050.	1.6	3
98	Low burden, adsorbent and heat absorbing structures for respiratory protection in building fires. <i>Chemical Engineering Journal</i> , 2021, 421, 127834.	6.6	3
99	Coupling Postsynthetic High-Temperature Oxidative Thermolysis and Thermal Rearrangements in Isorecticular Zinc MOFs. <i>Inorganic Chemistry</i> , 2022, 61, 1136-1144.	1.9	3
100	6 Nitrogen, phosphorus, arsenic, antimony and bismuth. <i>Annual Reports on the Progress of Chemistry Section A</i> , 2002, 98, 77-91.	0.8	2
101	7 Nitrogen, phosphorus, arsenic, antimony and bismuth. <i>Annual Reports on the Progress of Chemistry Section A</i> , 2004, 100, 95-111.	0.8	2
102	Inclusion of viologen cations leads to switchable metal-organic frameworks. <i>Faraday Discussions</i> , 2021, 225, 414-430.	1.6	2
103	Using geometric simulation software "GASP"™ to model conformational flexibility in a family of zinc metal-organic frameworks. <i>New Journal of Chemistry</i> , 2021, 45, 8728-8737.	1.4	2
104	Advanced characterisation techniques: multi-scale, <i>in situ</i> , and time-resolved: general discussion. <i>Faraday Discussions</i> , 2021, 225, 152-167.	1.6	2
105	Synthesis, structure and hydrogen sorption properties of a pyrazine-bridged copper(I) nitrate metal-organic framework. <i>European Journal of Chemistry</i> , 2019, 10, 195-200.	0.3	2
106	The Chemistry of Metal-Organic Frameworks. Synthesis, Characterization, and Applications, 2 Bände. Herausgegeben von Stefan Kaskel. <i>Angewandte Chemie</i> , 2017, 129, 1471-1471.	1.6	1
107	Innentitelbild: An Iodine-Vapor-Induced Cyclization in a Crystalline Molecular Flask (<i>Angew. Chem.</i>) Tj ETQq1 1 Q.784314 ggBT /Overl	1.6	1
108	Development of Regenerative and Low Pressure Drop Adsorbent Structure For Biogas Upgrading. , 2019, , .		0

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109	Towards complex systems and devices: general discussion. Faraday Discussions, 2021, 225, 431-441.	1.6	0