

Claire A Murray

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77
papers

1,627
citations

22
h-index

38
g-index

82
ext. papers

1,991
ext. citations

7.2
avg, IF

4.55
L-index

#	Paper	IF	Citations
77	Selective Adsorption of Sulfur Dioxide in a Robust Metal-Organic Framework Material. <i>Advanced Materials</i> , 2016 , 28, 8705-8711	24	161
76	Proton Conduction in a Phosphonate-Based Metal-Organic Framework Mediated by Intrinsic "Free Diffusion inside a Sphere". <i>Journal of the American Chemical Society</i> , 2016 , 138, 6352-5	16.4	156
75	Defect-dependent colossal negative thermal expansion in UiO-66(Hf) metal-organic framework. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 11586-92	3.6	99
74	Negative thermal expansion in hybrid improper ferroelectric Ruddlesden-Popper perovskites by symmetry trapping. <i>Physical Review Letters</i> , 2015 , 114, 035701	7.4	95
73	Selective Hysteretic Sorption of Light Hydrocarbons in a Flexible Metal-Organic Framework Material. <i>Chemistry of Materials</i> , 2016 , 28, 2331-2340	9.6	84
72	Synthesis and structure of Zr(IV)- and Ce(IV)-based CAU-24 with 1,2,4,5-tetrakis(4-carboxyphenyl)benzene. <i>Dalton Transactions</i> , 2016 , 45, 18822-18826	4.3	64
71	pH-Tunable hydrogelators for water purification: structural optimisation and evaluation. <i>Chemistry - A European Journal</i> , 2012 , 18, 2692-9	4.8	64
70	Ammonia Storage by Reversible Host-Guest Site Exchange in a Robust Metal-Organic Framework. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 14778-14781	16.4	55
69	Observation of Binding and Rotation of Methane and Hydrogen within a Functional Metal-Organic Framework. <i>Journal of the American Chemical Society</i> , 2016 , 138, 9119-27	16.4	48
68	Metal-insulator transition and orbital order in PbRuO ₃ . <i>Physical Review Letters</i> , 2009 , 102, 046409	7.4	43
67	Symmetry Switching of Negative Thermal Expansion by Chemical Control. <i>Journal of the American Chemical Society</i> , 2016 , 138, 5479-82	16.4	38
66	Hydrogen Oxidation on PdIr/C Catalysts in Alkaline Media. <i>Journal of the Electrochemical Society</i> , 2014 , 161, F458-F463	3.9	36
65	Post-synthetic modulation of the charge distribution in a metal-organic framework for optimal binding of carbon dioxide and sulfur dioxide. <i>Chemical Science</i> , 2019 , 10, 1472-1482	9.4	35
64	Cation Control of Molecular Sieving by Flexible Li-Containing Zeolite Rho. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 19652-19662	3.8	34
63	Strain driven structural phase transformations in dysprosium doped BiFeO ₃ ceramics. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 3345-3360	7.1	33
62	Impact of partial interpenetration in a hybrid ultramicroporous material on CH ₄ /CH ₄ separation performance. <i>Chemical Communications</i> , 2018 , 54, 3488-3491	5.8	29
61	New synchrotron powder diffraction facility for long-duration experiments. <i>Journal of Applied Crystallography</i> , 2017 , 50, 172-183	3.8	28

60	In Situ Synchrotron X-ray Diffraction Study of the Sol-Gel Synthesis of Fe ₃ N and Fe ₃ C. <i>Chemistry of Materials</i> , 2015 , 27, 5094-5099	9.6	28
59	Decarboxylation of Lactones over Zn/ZSM-5: Elucidation of the Structure of the Active Site and Molecular Interactions. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 10711-10716	16.4	25
58	Elucidation of Adsorbate Structures and Interactions on Brønsted Acid Sites in H-ZSM-5 by Synchrotron X-ray Powder Diffraction. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 5981-4	16.4	24
57	Recyclable switching between nonporous and porous phases of a square lattice (sql) topology coordination network. <i>Chemical Communications</i> , 2018 , 54, 7042-7045	5.8	24
56	Probing atomic positions of adsorbed ammonia molecules in zeolite. <i>Chemical Communications</i> , 2016 , 52, 3422-5	5.8	23
55	Glancing angle XRD analysis of particle stability under self-ion irradiation in oxide dispersion strengthened alloys. <i>Scripta Materialia</i> , 2016 , 110, 24-27	5.6	22
54	Conformational modulation of sequence recognition in synthetic macromolecules. <i>Journal of the American Chemical Society</i> , 2011 , 133, 19442-7	16.4	22
53	Refinement of pore size at sub-angstrom precision in robust metal-organic frameworks for separation of xylenes. <i>Nature Communications</i> , 2020 , 11, 4280	17.4	22
52	Room Temperature Magnetically Ordered Polar Corundum GaFeO Displaying Magnetoelectric Coupling. <i>Journal of the American Chemical Society</i> , 2017 , 139, 1520-1531	16.4	21
51	In Situ Electron Paramagnetic Resonance and X-ray Diffraction Monitoring of Temperature-Induced Breathing and Related Structural Transformations in Activated V-Doped MIL-53(Al). <i>Journal of Physical Chemistry C</i> , 2016 , 120, 17400-17407	3.8	18
50	Thermally-induced phase transformations in Na _{0.5} Bi _{0.5} TiO ₃ -KNbO ₃ ceramics. <i>Journal of the American Ceramic Society</i> , 2017 , 100, 3293-3304	3.8	17
49	Ammonia decomposition catalysis using lithium-calcium imide. <i>Faraday Discussions</i> , 2016 , 188, 525-44	3.6	17
48	Unravelling the spatial dependency of the complex solid-state chemistry of Pb in a paint micro-sample from Rembrandt's Homer using XRD-CT. <i>Chemical Communications</i> , 2019 , 55, 1931-1934	5.8	14
47	Unexpected behaviour in derivatives of Barluenga's reagent, Hal(Coll)X (Coll = 2,4,6-trimethyl pyridine, collidine; Hal = I, Br; X = PF, ClO & BF). <i>Chemical Communications</i> , 2018 , 54, 9849-9852	5.8	14
46	Stepwise observation and quantification and mixed matrix membrane separation of CO within a hydroxy-decorated porous host. <i>Chemical Science</i> , 2017 , 8, 3239-3248	9.4	13
45	A compact and versatile dynamic flow cryostat for photon science. <i>Review of Scientific Instruments</i> , 2016 , 87, 115103	1.7	13
44	Structural characterization of the electric field-induced ferroelectric phase in Na _{0.5} Bi _{0.5} TiO ₃ -KNbO ₃ ceramics. <i>Journal of the European Ceramic Society</i> , 2016 , 36, 4015-4021	6	12
43	Elucidation of Adsorbate Structures and Interactions on Brønsted Acid Sites in H-ZSM-5 by Synchrotron X-ray Powder Diffraction. <i>Angewandte Chemie</i> , 2016 , 128, 6085-6088	3.6	12

42	Hardsoft synthesis of a new series of vacancy-ordered perovskites, CaCrO ₃ □ <i>Journal of Materials Chemistry C</i> , 2014 , 2, 9364-9367	7.1	12
41	Early age hydration and application of blended magnesium potassium phosphate cements for reduced corrosion of reactive metals. <i>Cement and Concrete Research</i> , 2021 , 143, 106375	10.3	11
40	Properties of CO ₂ clathrate hydrates formed in the presence of MgSO ₄ solutions with implications for icy moons. <i>Astronomy and Astrophysics</i> , 2017 , 600, A88	5.1	10
39	Mutual Complexation between Stacked Molecular Tweezers. <i>Crystal Growth and Design</i> , 2018 , 18, 386-392	3.5	10
38	Pyrene-modified quartz crystal microbalance for the detection of polynitroaromatic compounds. <i>Analytical Chemistry</i> , 2011 , 83, 6208-14	7.8	10
37	Ammonia Storage by Reversible HostGuest Site Exchange in a Robust MetalOrganic Framework. <i>Angewandte Chemie</i> , 2018 , 130, 14994-14997	3.6	9
36	Effects of quenching on phase transformations and ferroelectric properties of 0.35BCZT-0.65KBT ceramics. <i>Journal of the European Ceramic Society</i> , 2019 , 39, 4070-4084	6	8
35	Tolerance Factor Control of Uniaxial Negative Thermal Expansion in a Layered Perovskite. <i>Chemistry of Materials</i> , 2020 , 32, 605-610	9.6	8
34	Insights into the Mechanochemical Synthesis of MOF-74. <i>Crystal Growth and Design</i> , 2021 , 21, 3047-3055	3.5	8
33	Fast microwave treatments of single source alkoxides for nanostructured Li-ion battery electrodes. <i>Chemical Communications</i> , 2016 , 52, 9028-31	5.8	7
32	C ₂ H ₄ and C ₂ H ₆ adsorption-induced structural variation of pillared-layer CPL-2 MOF: A combined experimental and Monte Carlo simulation study. <i>Chemical Engineering Science</i> , 2020 , 218, 115566	4.4	7
31	Bulk phase behavior of lithium imide-metal nitride ammonia decomposition catalysts. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 22689-22697	3.6	7
30	The Mixing Behavior of Alkanes Adsorbed on Hexagonal Boron Nitride. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 25796-25805	3.8	6
29	Monitoring the methanol conversion process in H-ZSM-5 using synchrotron X-ray powder diffraction-mass spectrometry. <i>Journal of Catalysis</i> , 2018 , 365, 145-152	7.3	6
28	Pairwise assembly of organopalladium(II) units with cyanurato(3-) and trithiocyanurato(3-) ligands: formation of chiral Pd ₁₂ , Pd ₁₀ , and Pd ₉ cage-molecules. <i>Inorganic Chemistry</i> , 2013 , 52, 10424-30	5.1	6
27	Decarboxylation of Lactones over Zn/ZSM-5: Elucidation of the Structure of the Active Site and Molecular Interactions. <i>Angewandte Chemie</i> , 2017 , 129, 10851-10856	3.6	5
26	Elements of fractal geometry in the H NMR spectrum of a copolymer intercalation-complex: identification of the underlying Cantor set. <i>Chemical Science</i> , 2018 , 9, 4052-4061	9.4	4
25	Quadruple stacking of macrocyclic viologen radical-cations. <i>Supramolecular Chemistry</i> , 2018 , 30, 751-757	1.8	4

24	Spontaneous structural distortion of the metallic Shastry-Sutherland system DyB4 by quadrupole-spin-lattice coupling. <i>Physical Review B</i> , 2016 , 94,	3.3	4
23	Binding and separation of CO ₂ , SO ₂ and C ₂ H ₂ in homo- and hetero-metallic metal-organic framework materials. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 7190-7197	13	4
22	Cation Control of Cooperative CO ₂ Adsorption in Li-Containing Mixed Cation Forms of the Flexible Zeolite Merlinoite. <i>Chemistry of Materials</i> , 2021 , 33, 1157-1173	9.6	4
21	Negative X-ray expansion in cadmium cyanide. <i>Materials Horizons</i> , 2021 , 8, 1446-1453	14.4	4
20	Analysis by synchrotron X-ray scattering of the kinetics of formation of an Fe-based metal-organic framework with high CO ₂ adsorption. <i>APL Materials</i> , 2019 , 7, 111104	5.7	3
19	Novel PdIr/C Catalysts for the Hydrogen Oxidation Reaction in Alkaline Media. <i>ECS Transactions</i> , 2013 , 58, 637-650	1	3
18	Discovery of a Low Thermal Conductivity Oxide Guided by Probe Structure Prediction and Machine Learning. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 16457-16465	16.4	3
17	Cation Ordering and Exsolution in Copper-Containing Forms of the Flexible Zeolite Rho (Cu,M-Rho; M=H, Na) and Their Consequences for CO Adsorption. <i>Chemistry - A European Journal</i> , 2021 , 27, 13029-13039	4.8	3
16	Structural and Electronic Effects of X-ray Irradiation on Prototypical [M(COD)Cl] Catalysts. <i>Journal of Physical Chemistry A</i> , 2021 , 125, 7473-7488	2.8	3
15	In-situ Electrochemical X-ray Diffraction: A Rigorous Method to Navigate within Phase Diagrams Reveals FeSe as Superconductor for All x. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 15401-15406	16.4	2
14	Thermal properties of TiNiSn and VFeSb half-Heusler thermoelectrics from synchrotron x-ray powder diffraction. <i>JPhys Energy</i> , 2021 , 3, 035001	4.9	2
13	Compositional flexibility in Li-N-H materials: implications for ammonia catalysis and hydrogen storage. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 15091-15100	3.6	2
12	Amorphous MgFe silicates from microwave-dried sol-gels. <i>Astronomy and Astrophysics</i> , 2019 , 624, A136	5.1	1
11	Inorganic co-crystal formation and thermal disproportionation in a dicyanometallate superperovskite. <i>Chemical Communications</i> , 2019 , 55, 5439-5442	5.8	1
10	Magnetically induced metal-insulator transition in Pb ₂ CaOsO ₆ . <i>Physical Review B</i> , 2020 , 102,	3.3	1
9	On the Origin of Reversible and Irreversible Reactions in LiNi _x Co _{(1-x)/2} Mn _{(1-x)/2} O ₂ . <i>Journal of the Electrochemical Society</i> ,	3.9	1
8	A slow-cooling-rate cell for long-duration studies of mineral precipitation in cold aqueous environments on Earth and other planetary bodies. <i>Journal of Applied Crystallography</i> , 2018 , 51, 1197-1210	3.8	1
7	Disorder-Induced Structural Complexity in the Barlowite Family of S = 1/2 Kagomí Magnets. <i>Chemistry of Materials</i> , 2021 , 33, 9638-9651	9.6	1

- 6 Structural Chemistry, Flexibility, and CO₂ Adsorption Performance of Alkali Metal Forms of Merlinoite with a Framework Si/Al Ratio of 4.2. *Journal of Physical Chemistry C*, **2021**, 125, 27403-27419 3.8 1
- 5 Elementary women. *Nature Chemistry*, **2019**, 11, 602-603 17.6
- 4 Elektrochemische In-situ-Röntgenbeugung: Eine präzise Methode zur Navigation in Phasendiagrammen enthält Fe_{1+x}Se als Supraleiter für alle x. *Angewandte Chemie*, **2019**, 131, 15547-15552 3.6
- 3 In situ X-ray Diffraction Investigation of Hydrogen Storage Alloys During Charge and Discharge. *ChemistrySelect*, **2016**, 1, 710-714 1.8
- 2 Crystallisation of amorphous Mg-Fe silicates produced from microwave-dried sol-gels. *Proceedings of the International Astronomical Union*, **2019**, 15, 408-409 0.1
- 1 X-ray powder diffraction study of the stability of clathrate hydrates in the presence of salts with relevance to the Martian cryosphere. *Geochimica Et Cosmochimica Acta*, **2019**, 245, 304-315 5.5