

# Claire A Murray

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Insights into the Mechanochemical Synthesis of MOF-74. <i>Crystal Growth and Design</i> , <b>2021</b> , 21, 3047-3055	3.5	8
76	Thermal properties of TiNiSn and VFeSb half-Heusler thermoelectrics from synchrotron x-ray powder diffraction. <i>JPhys Energy</i> , <b>2021</b> , 3, 035001	4.9	2
75	Early age hydration and application of blended magnesium potassium phosphate cements for reduced corrosion of reactive metals. <i>Cement and Concrete Research</i> , <b>2021</b> , 143, 106375	10.3	11
74	Discovery of a Low Thermal Conductivity Oxide Guided by Probe Structure Prediction and Machine Learning. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 16457-16465	16.4	3
73	Binding and separation of CO <sub>2</sub> , SO <sub>2</sub> and C <sub>2</sub> H <sub>2</sub> in homo- and hetero-metallic metal-organic framework materials. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 7190-7197	13	4
72	Cation Control of Cooperative CO <sub>2</sub> Adsorption in Li-Containing Mixed Cation Forms of the Flexible Zeolite Merlinoite. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 1157-1173	9.6	4
71	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> , <b>2021</b> , 27, 13029-13039	4.8	3
70	Structural and Electronic Effects of X-ray Irradiation on Prototypical [M(COD)Cl] Catalysts. <i>Journal of Physical Chemistry A</i> , <b>2021</b> , 125, 7473-7488	2.8	3
69	Compositional flexibility in Li-N-H materials: implications for ammonia catalysis and hydrogen storage. <i>Physical Chemistry Chemical Physics</i> , <b>2021</b> , 23, 15091-15100	3.6	2
68	Negative X-ray expansion in cadmium cyanide. <i>Materials Horizons</i> , <b>2021</b> , 8, 1446-1453	14.4	4
67	Disorder-Induced Structural Complexity in the Barlowite Family of S = 1/2 Kagomé Magnets. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 9638-9651	9.6	1
66	Structural Chemistry, Flexibility, and CO <sub>2</sub> Adsorption Performance of Alkali Metal Forms of Merlinoite with a Framework Si/Al Ratio of 4.2. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 27403-27419	3.8	1
65	Magnetically induced metal-insulator transition in Pb <sub>2</sub> CaOsO <sub>6</sub> . <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	1
64	C <sub>2</sub> H <sub>4</sub> and C <sub>2</sub> H <sub>6</sub> adsorption-induced structural variation of pillared-layer CPL-2 MOF: A combined experimental and Monte Carlo simulation study. <i>Chemical Engineering Science</i> , <b>2020</b> , 218, 115566	4.4	7
63	Tolerance Factor Control of Uniaxial Negative Thermal Expansion in a Layered Perovskite. <i>Chemistry of Materials</i> , <b>2020</b> , 32, 605-610	9.6	8
62	Refinement of pore size at sub-angstrom precision in robust metal-organic frameworks for separation of xylenes. <i>Nature Communications</i> , <b>2020</b> , 11, 4280	17.4	22
61	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> , <b>2019</b> , 10, 1472-1482	9.4	35

60	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> , <b>2019</b> , 55, 1931-1934	5.8	14
59	Elementary women. <i>Nature Chemistry</i> , <b>2019</b> , 11, 602-603	17.6	
58	Effects of quenching on phase transformations and ferroelectric properties of 0.35BCZT-0.65KBT ceramics. <i>Journal of the European Ceramic Society</i> , <b>2019</b> , 39, 4070-4084	6	8
57	Amorphous Mg-Fe silicates from microwave-dried sol-gels. <i>Astronomy and Astrophysics</i> , <b>2019</b> , 624, A136	5.1	1
56	Inorganic co-crystal formation and thermal disproportionation in a dicyanometallate superperovskite. <i>Chemical Communications</i> , <b>2019</b> , 55, 5439-5442	5.8	1
55	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> , <b>2019</b> , 58, 15401-15406	16.4	2
54	Analysis by synchrotron X-ray scattering of the kinetics of formation of an Fe-based metal-organic framework with high CO <sub>2</sub> adsorption. <i>APL Materials</i> , <b>2019</b> , 7, 111104	5.7	3
53	Elektrochemische In-situ-Röntgenbeugung: Eine präzise Methode zur Navigation in Phasendiagrammen enthält Fe <sub>1+x</sub> Se als Supraleiter für alle x. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 15547-15552	3.6	
52	Crystallisation of amorphous Mg-Fe silicates produced from microwave-dried sol-gels. <i>Proceedings of the International Astronomical Union</i> , <b>2019</b> , 15, 408-409	0.1	
51	X-ray powder diffraction study of the stability of clathrate hydrates in the presence of salts with relevance to the Martian cryosphere. <i>Geochimica Et Cosmochimica Acta</i> , <b>2019</b> , 245, 304-315	5.5	
50	Mutual Complexation between Stacked Molecular Tweezers. <i>Crystal Growth and Design</i> , <b>2018</b> , 18, 386-392	3.5	10
49	Elements of fractal geometry in the <sup>1</sup> H NMR spectrum of a copolymer intercalation-complex: identification of the underlying Cantor set. <i>Chemical Science</i> , <b>2018</b> , 9, 4052-4061	9.4	4
48	Impact of partial interpenetration in a hybrid ultramicroporous material on CH <sub>4</sub> /CH <sub>2</sub> separation performance. <i>Chemical Communications</i> , <b>2018</b> , 54, 3488-3491	5.8	29
47	Quadruple stacking of macrocyclic viologen radical-cations. <i>Supramolecular Chemistry</i> , <b>2018</b> , 30, 751-757	1.8	4
46	Monitoring the methanol conversion process in H-ZSM-5 using synchrotron X-ray powder diffraction-mass spectrometry. <i>Journal of Catalysis</i> , <b>2018</b> , 365, 145-152	7.3	6
45	Unexpected behaviour in derivatives of Barluenga's reagent, Hal(Coll) <sub>3</sub> (Coll = 2,4,6-trimethylpyridine, collidine; Hal = I, Br; X = PF <sub>6</sub> , ClO <sub>4</sub> & BF <sub>4</sub> ). <i>Chemical Communications</i> , <b>2018</b> , 54, 9849-9852	5.8	14
44	Ammonia Storage by Reversible Host-Guest Site Exchange in a Robust Metal-Organic Framework. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 14778-14781	16.4	55
43	Bulk phase behavior of lithium imide-metal nitride ammonia decomposition catalysts. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 22689-22697	3.6	7

42	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> , <b>2018</b> , 51, 1197-1210	3.8	1
41	Ammonia Storage by Reversible Host-Guest Site Exchange in a Robust Metal-Organic Framework. <i>Angewandte Chemie</i> , <b>2018</b> , 130, 14994-14997	3.6	9
40	Recyclable switching between nonporous and porous phases of a square lattice (sql) topology coordination network. <i>Chemical Communications</i> , <b>2018</b> , 54, 7042-7045	5.8	24
39	Stepwise observation and quantification and mixed matrix membrane separation of CO within a hydroxy-decorated porous host. <i>Chemical Science</i> , <b>2017</b> , 8, 3239-3248	9.4	13
38	Thermally-induced phase transformations in Na <sub>0.5</sub> Bi <sub>0.5</sub> TiO <sub>3</sub> -KNbO <sub>3</sub> ceramics. <i>Journal of the American Ceramic Society</i> , <b>2017</b> , 100, 3293-3304	3.8	17
37	Decarboxylation of Lactones over Zn/ZSM-5: Elucidation of the Structure of the Active Site and Molecular Interactions. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 10851-10856	3.6	5
36	Properties of CO <sub>2</sub> clathrate hydrates formed in the presence of MgSO <sub>4</sub> solutions with implications for icy moons. <i>Astronomy and Astrophysics</i> , <b>2017</b> , 600, A88	5.1	10
35	Decarboxylation of Lactones over Zn/ZSM-5: Elucidation of the Structure of the Active Site and Molecular Interactions. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 10711-10716	16.4	25
34	New synchrotron powder diffraction facility for long-duration experiments. <i>Journal of Applied Crystallography</i> , <b>2017</b> , 50, 172-183	3.8	28
33	Room Temperature Magnetically Ordered Polar Corundum GaFeO Displaying Magnetoelectric Coupling. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 1520-1531	16.4	21
32	Fast microwave treatments of single source alkoxides for nanostructured Li-ion battery electrodes. <i>Chemical Communications</i> , <b>2016</b> , 52, 9028-31	5.8	7
31	Glancing angle XRD analysis of particle stability under self-ion irradiation in oxide dispersion strengthened alloys. <i>Scripta Materialia</i> , <b>2016</b> , 110, 24-27	5.6	22
30	Cation Control of Molecular Sieving by Flexible Li-Containing Zeolite Rho. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 19652-19662	3.8	34
29	Structural characterization of the electric field-induced ferroelectric phase in Na <sub>0.5</sub> Bi <sub>0.5</sub> TiO <sub>3</sub> -KNbO <sub>3</sub> ceramics. <i>Journal of the European Ceramic Society</i> , <b>2016</b> , 36, 4015-4021	6	12
28	Selective Adsorption of Sulfur Dioxide in a Robust Metal-Organic Framework Material. <i>Advanced Materials</i> , <b>2016</b> , 28, 8705-8711	24	161
27	Observation of Binding and Rotation of Methane and Hydrogen within a Functional Metal-Organic Framework. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 9119-27	16.4	48
26	Spontaneous structural distortion of the metallic Shastry-Sutherland system DyB <sub>4</sub> by quadrupole-spin-lattice coupling. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	4
25	The Mixing Behavior of Alkanes Adsorbed on Hexagonal Boron Nitride. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 25796-25805	3.8	6

24	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> , <b>2016</b> , 45, 18822-18826	4.3	64
23	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> , <b>2016</b> , 55, 5981-4	16.4	24
22	Elucidation of Adsorbate Structures and Interactions on Brønsted Acid Sites in H-ZSM-5 by Synchrotron X-ray Powder Diffraction. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 6085-6088	3.6	12
21	Probing atomic positions of adsorbed ammonia molecules in zeolite. <i>Chemical Communications</i> , <b>2016</b> , 52, 3422-5	5.8	23
20	Symmetry Switching of Negative Thermal Expansion by Chemical Control. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 5479-82	16.4	38
19	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> , <b>2016</b> , 120, 17400-17407	3.8	18
18	A compact and versatile dynamic flow cryostat for photon science. <i>Review of Scientific Instruments</i> , <b>2016</b> , 87, 115103	1.7	13
17	Selective Hysteretic Sorption of Light Hydrocarbons in a Flexible Metal-Organic Framework Material. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 2331-2340	9.6	84
16	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> , <b>2016</b> , 138, 6352-5	16.4	156
15	Ammonia decomposition catalysis using lithium-calcium imide. <i>Faraday Discussions</i> , <b>2016</b> , 188, 525-44	3.6	17
14	In situ X-ray Diffraction Investigation of Hydrogen Storage Alloys During Charge and Discharge. <i>ChemistrySelect</i> , <b>2016</b> , 1, 710-714	1.8	
13	Negative thermal expansion in hybrid improper ferroelectric Ruddlesden-Popper perovskites by symmetry trapping. <i>Physical Review Letters</i> , <b>2015</b> , 114, 035701	7.4	95
12	In Situ Synchrotron X-ray Diffraction Study of the Sol-Gel Synthesis of Fe <sub>3</sub> N and Fe <sub>3</sub> C. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 5094-5099	9.6	28
11	Defect-dependent colossal negative thermal expansion in UiO-66(Hf) metal-organic framework. <i>Physical Chemistry Chemical Physics</i> , <b>2015</b> , 17, 11586-92	3.6	99
10	Strain driven structural phase transformations in dysprosium doped BiFeO <sub>3</sub> ceramics. <i>Journal of Materials Chemistry C</i> , <b>2014</b> , 2, 3345-3360	7.1	33
9	Hard-soft synthesis of a new series of vacancy-ordered perovskites, CaCrO <sub>3</sub> . <i>Journal of Materials Chemistry C</i> , <b>2014</b> , 2, 9364-9367	7.1	12
8	Hydrogen Oxidation on Pd/C Catalysts in Alkaline Media. <i>Journal of the Electrochemical Society</i> , <b>2014</b> , 161, F458-F463	3.9	36
7	Pairwise assembly of organopalladium(II) units with cyanurato(3-) and trithiocyanurato(3-) ligands: formation of chiral Pd <sub>12</sub> , Pd <sub>10</sub> , and Pd <sub>9</sub> cage-molecules. <i>Inorganic Chemistry</i> , <b>2013</b> , 52, 10424-30	5.1	6

6	Novel PdIr/C Catalysts for the Hydrogen Oxidation Reaction in Alkaline Media. <i>ECS Transactions</i> , <b>2013</b> , 58, 637-650	1	3
5	pH-Tunable hydrogelators for water purification: structural optimisation and evaluation. <i>Chemistry - A European Journal</i> , <b>2012</b> , 18, 2692-9	4.8	64
4	Pyrene-modified quartz crystal microbalance for the detection of polynitroaromatic compounds. <i>Analytical Chemistry</i> , <b>2011</b> , 83, 6208-14	7.8	10
3	Conformational modulation of sequence recognition in synthetic macromolecules. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 19442-7	16.4	22
2	Metal-insulator transition and orbital order in PbRuO <sub>3</sub> . <i>Physical Review Letters</i> , <b>2009</b> , 102, 046409	7.4	43
1	On the Origin of Reversible and Irreversible Reactions in Li <sub>x</sub> NiCo(1-x)/ <sub>2</sub> Mn(1-x)/ <sub>2</sub> O <sub>2</sub> . <i>Journal of the Electrochemical Society</i> ,	3.9	1