Helen E Maynard-Casely

List of Publications by Year
in descending order

60 papers	991 citations	471509 17 h-index	454955 30 g-index
62 all docs	62 docs citations	62 times ranked	1516 citing authors

#	Article	IF	Citations
1	Crystal engineering of energetic materials: Co-crystals of CL-20. CrystEngComm, 2012, 14, 3742.	2.6	196
2	Putting the squeeze on energetic materialsâ€"structural characterisation of a high-pressure phase of CL-20. CrystEngComm, 2010, 12, 2524.	2.6	61
3	Compressibility change in iron-rich melt and implications for core formation models. Earth and Planetary Science Letters, 2011, 306, 118-122.	4.4	56
4	The magnetic structures and transitions of a potential multiferroic orthoferrite ErFeO₃. Journal of Applied Physics, 2015, 117, 164105.	2.5	45
5	Reactivity of Xenon with Ice at Planetary Conditions. Physical Review Letters, 2013, 110, 265501.	7.8	40
6	Prospects for mineralogy on Titan. American Mineralogist, 2018, 103, 343-349.	1.9	35
7	Deformation-resembling microstructure created by fluid-mediated dissolutionâ€"precipitation reactions. Nature Communications, 2017, 8, 14032.	12.8	34
8	The Acetylene-Ammonia Co-crystal on Titan. ACS Earth and Space Chemistry, 2018, 2, 366-375.	2.7	30
9	Solar System Physics for Exoplanet Research. Publications of the Astronomical Society of the Pacific, 2020, 132, 102001.	3.1	29
10	A co-crystal between benzene and ethane: a potential evaporite material for Saturn's moon Titan. IUCrJ, 2016, 3, 192-199.	2.2	26
11	An indirect generation of 1D M^{II}-2,5-dihydroxybenzoquinone coordination polymers, their structural rearrangements and generation of materials with a high affinity for H₂, CO₂ and CH₄. Dalton Transactions, 2016, 45, 1339-1344.	3.3	26
12	Isomeric Ionic Lithium Isonicotinate Three-Dimensional Networks and Single-Crystal-to-Single-Crystal Rearrangements Generating Microporous Materials. Inorganic Chemistry, 2014, 53, 4956-4969.	4.0	22
13	A New Structural Family of Gasâ€Sorbing Coordination Polymers Derived from Phenolic Carboxylic Acids. Chemistry - A European Journal, 2015, 21, 18057-18061.	3.3	21
14	A Co-Crystal between Acetylene and Butane: A Potentially Ubiquitous Molecular Mineral on Titan. ACS Earth and Space Chemistry, 2019, 3, 2808-2815.	2.7	19
15	Rapid Formation of Clathrate Hydrate From Liquid Ethane and Water Ice on Titan. Geophysical Research Letters, 2020, 47, e2019GL086265.	4.0	19
16	Sc_{1.5}Al_{0.5}W₃O₁₂ Exhibits Zero Thermal Expansion between 4 and 1400 K. Chemistry of Materials, 2021, 33, 3823-3831.	6.7	19
17	The crystal structure of methane B at 8 GPaâ€"An Î±-Mn arrangement of molecules. Journal of Chemical Physics, 2014, 141, 234313.	3.0	18
18	Observation of ammonia dihydrate in the AMH-VI structure at room temperature â€" possible implications for the outer solar system. High Pressure Research, 2009, 29, 396-404.	1.2	17

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19	Consequences of long-term water exposure for bulk crystal structure and surface composition/chemistry of nickel-rich layered oxide materials for Li-ion batteries. Journal of Power Sources, 2020, 470, 228370.	7.8	17
20	Titan in a Test Tube: Organic Co-crystals and Implications for Titan Mineralogy. Accounts of Chemical Research, 2021, 54, 3050-3059.	15.6	17
21	Copper(ii) coordination polymers of imdcâ˜ (H2imdc+ = the 1,3-bis(carboxymethyl)imidazolium cation): unusual sheet interpenetration and an unexpected single crystal-to-single crystal transformation. CrystEngComm, 2013, 15, 9729.	2.6	16
22	Raman spectroscopy of methane (CH₄) to 165ÂGPa: Effect of structural changes on Raman spectra. Journal of Raman Spectroscopy, 2017, 48, 1777-1782.	2.5	16
23	Neutron powder diffraction study on the iron-based nitride superconductor ThFeAsN. Europhysics Letters, 2017, 117, 57005.	2.0	15
24	Effect of High Pressure on the Crystal Structures of Polymorphs of <scp>l</scp>-Histidine. Crystal Growth and Design, 2020, 20, 7788-7804.	3.0	15
25	The next dimension of structural science communication: simple 3D printing directly from a crystal structure. CrystEngComm, 2017, 19, 690-698.	2.6	14
26	Soluble Xanthate Compounds for the Solution Deposition of Metal Sulfide Thin Films. ChemPlusChem, 2015, 80, 107-118.	2.8	13
27	Properties and Behavior of the Acetonitrileâ€“Acetylene Co-Crystal under Titan Surface Conditions. ACS Earth and Space Chemistry, 2020, 4, 1375-1385.	2.7	13
28	Structure and thermal expansion of sulfuric acid octahydrate. Journal of Applied Crystallography, 2012, 45, 1198-1207.	4.5	11
29	Structural and Magnetic Properties of the Osmium Double Perovskites Ba_{2â€“x}Sr_xYOsO₆. Inorganic Chemistry, 2017, 56, 6565-6575.	4.0	11
30	Mixed Hydrocarbon and Cyanide Ice Compositions for Titanâ€™s Atmospheric Aerosols: A Ternary-Phase Co-crystal Predicted by Density Functional Theory. ACS Earth and Space Chemistry, 2020, 4, 1195-1200.	2.7	11
31	Re-examining the crystal structure behaviour of nitrogen and methane. IUCrJ, 2020, 7, 844-851.	2.2	10
32	A new material for the icy Galilean moons: The structure of sulfuric acid hexahydrate. Journal of Geophysical Research E: Planets, 2013, 118, 1895-1902.	3.6	9
33	Neutron diffraction study of the monoclinic â€“ tetragonalÂphase transition in NdNbO₄ and NdTaO₄. Dalton Transactions, 2021, 50, 11485-11497.	3.3	9
34	High-Pressure Neutron Powder Diffraction Study of Îµ-CL-20: A Gentler Way to Study Energetic Materials. Journal of Physical Chemistry C, 2020, 124, 27985-27995.	3.1	9
35	Li+ and Ca2+ Derivatives of the Isonicotinate-N-oxide Ion Including Single Crystal-to-Single Crystal Transformations. Crystal Growth and Design, 2014, 14, 4602-4609.	3.0	8
36	Raman, FTIR and XRD study of Icelandic tephra minerals: implications for Mars. Journal of Raman Spectroscopy, 2015, 46, 846-855.	2.5	7

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37	The Effect of Sterically Active Ligand Substituents on Gas Adsorption within a Family of 3D Zn-Based Coordination Polymers. Inorganic Chemistry, 2020, 59, 8871-8881.	4.0	7
38	Rhenium(<scp>i</scp>) complexationâ€“dissociation strategy for synthesising fluorine-18 labelled pyridine bidentate radiotracers. RSC Advances, 2020, 10, 8853-8865.	3.6	7
39	Anisotropic thermal expansion of the acetyleneâ€“ammonia co-crystal under Titan's conditions. Journal of Applied Crystallography, 2020, 53, 1524-1530.	4.5	7
40	In situ studies of structural changes in DME synthesis catalyst with synchrotron powder diffraction. Applied Catalysis A: General, 2014, 486, 49-54.	4.3	4
41	Characterisation of blue pigments from ceremonial objects of the Southern Highlands in Papua New Guinea using vibrational spectroscopy and X-ray diffraction. Vibrational Spectroscopy, 2016, 85, 43-47.	2.2	4
42	Phase Trapping in Acetonitrile, a Metastable Mineral for Saturnâ€™s Moon Titan. ACS Earth and Space Chemistry, 2020, 4, 1324-1331.	2.7	4
43	Color centers in NaCl single crystals induced by pulsed intense relativistic electron beams to simulate radiation bursts in Europa. Japanese Journal of Applied Physics, 2019, 58, 046003.	1.5	3
44	Accurate H-atom parameters for the two polymorphs of <scp>L</scp>-histidine at 5, 105 and 295â€…K. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2021, 77, 785-800.	1.1	3
45	Phase relations between the water-rich sulfuric acid hydrates, potential markers of thermal history on Jupiterâ€™s icy moons. Icarus, 2014, 238, 59-65.	2.5	2
46	â€˜Peaks in spaceâ€™ â€“ crystallography in planetary science: past impacts and future opportunities. Crystallography Reviews, 2017, 23, 74-117.	1.5	2
47	Three impossible things before lunch â€“ theÂtask of a sample environment specialist. Journal of Neutron Research, 2017, 19, 49-56.	1.1	2
48	Neutron diffraction of deuterated tripalmitin and the influence of shear on its crystallisation. Chemistry and Physics of Lipids, 2019, 221, 108-113.	3.2	2
49	Mineral Diversity on Europa: Exploration of Phases Formed in the MgSO₄â€“H₂SO₄â€“H₂O Ternary. ACS Earth and Space Chemistry, 2021, 5, 1716-1725.	2.7	2
50	Use of a miniature diamond-anvil cell in a joint X-ray and neutron high-pressure study on copper sulfate pentahydrate. IUCrJ, 2022, 9, 73-85.	2.2	2
51	Dripping with science. Physics World, 2015, 28, 37-38.	0.0	1
52	What you see and what you get: combining near-infrared spectroscopy with powder diffraction. Powder Diffraction, 2017, 32, S3-S8.	0.2	1
53	Potential of neutron powder diffraction for the study of solid triacylglycerols. Food Structure, 2019, 22, 100124.	4.5	1
54	Squeezing electrons out of 6s2 lone-pairs in perovskite-type oxides. Chemical Communications, 2019, 55, 3887-3890.	4.1	1

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55	The crystal structure, thermal expansion and far-IR spectrum of propanal (CH₃CH₂CHO) determined using powder X-ray diffraction, neutron scattering, periodic DFT and synchrotron techniques. Physical Chemistry Chemical Physics, 2021, 24, 122-128.	2.8	1
56	Correction to â€œThe Effect of High Pressure on the Crystal Structures of Polymorphs of <scp>l</scp>-Histidineâ€• Crystal Growth and Design, 2022, 22, 937-938.	3.0	1
57	Australian update on women in physics in 2014. AIP Conference Proceedings, 2015, , .	0.4	0
58	Franklin and Lonsdale: two role models for our time. Canadian Journal of Physics, 2018, 96, xxiii-xxiv.	1.1	0
59	Supercritical Fluids in Planetary Environments. , 2020, , 181-198.		0
60	Spin-disorder state near nonmagnetic impurities in the frustrated antiferromagnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">YMnO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2020, 102, .	3.2	0