Enrico Mugnaioli

List of Publications by Year
in descending order

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108 papers	4,028 citations	136950 32 h-index	128289 60 g-index
116 all docs	116 docs citations	116 times ranked	4543 citing authors

#	Article	IF	Citations
1	Jingsuiite, TiB2, a new mineral from the Cr-11 podiform chromitite orebody, Luobusa ophiolite, Tibet, China: Implications for recycling of boron. American Mineralogist, 2022, 107, 43-53.	1.9	10
2	Two New Organic Co-Crystals Based on Acetamidophenol Molecules. Symmetry, 2022, 14, 431.	2.2	1
3	3D electron diffraction study of terrestrial iron oxide alteration in the Mineo pallasite. Mineralogical Magazine, 2022, 86, 272-281.	1.4	2
4	Effect of pressure on the properties of a NASICON Li_{1.3}Al_{0.3}Ti_{1.7}(PO₄)₃ nanofiber solid electrolyte. Journal of Materials Chemistry A, 2021, 9, 13688-13696.	10.3	15
5	Crystal Structure of Linagliptin Hemihydrate Hemiethanolate (C25H28N8O2)2(H2O)(C2H5OH) from 3D Electron Diffraction Data, Rietveld Refinement, and Density Functional Theory Optimization. Crystal Growth and Design, 2021, 21, 2019-2027.	3.0	10
6	3D Electron Diffraction Structure Determination of Terrylene, a Promising Candidate for Intermolecular Singlet Fission. ChemPhysChem, 2021, 22, 1631-1637.	2.1	10
7	3D Electron Diffraction for Chemical Analysis: Instrumentation Developments and Innovative Applications. Chemical Reviews, 2021, 121, 11823-11834.	47.7	40
8	Structure determination, thermal stability and dissolution rate of Î´-indomethacin. International Journal of Pharmaceutics, 2021, 608, 121067.	5.2	15
9	Titania-decorated hybrid nano-architectures and their preliminary assessment in catalytic applications. Nano Structures Nano Objects, 2021, 28, 100788.	3.5	0
10	Heterogeneity of nano-sized zeolite crystals. Microporous and Mesoporous Materials, 2020, 294, 109897.	4.4	5
11	Cs₃Cu₄In₂Cl₁₃ Nanocrystals: A Perovskite-Related Structure with Inorganic Clusters at A Sites. Inorganic Chemistry, 2020, 59, 548-554.	4.0	16
12	Structural analysis of metastable pharmaceutical loratadine form II, by 3D electron diffraction and DFT+D energy minimisation. CrystEngComm, 2020, 22, 7490-7499.	2.6	13
13	The Effect of the Starting Mineralogical Mixture on the Nature of Fe-Serpentines Obtained during Hydrothermal Synthesis AT 90Â°C. Clays and Clay Minerals, 2020, 68, 394-412.	1.3	4
14	Electron Diffraction on Flash-Frozen Cowlesite Reveals the Structure of the First Two-Dimensional Natural Zeolite. ACS Central Science, 2020, 6, 1578-1586.	11.3	18
15	Nanocrystals of Lead Chalcohalides: A Series of Kinetically Trapped Metastable Nanostructures. Journal of the American Chemical Society, 2020, 142, 10198-10211.	13.7	34
16	Racemic Conglomerate Formation via Crystallization of Metaxalone from Volatile Deep Eutectic Solvents. Crystal Growth and Design, 2020, 20, 4731-4739.	3.0	9
17	The structure of kaliophilite KAlSiO₄, a long-lasting crystallographic problem. IUCrJ, 2020, 7, 1070-1083.	2.2	9
18	Two new minerals, badengzhuite, TiP, and zhiqinite, TiSi₂, from the Cr-11 chromitite orebody, Luobusa ophiolite, Tibet, China: is this evidence for super-reduced mantle-derived fluids?. European Journal of Mineralogy, 2020, 32, 557-574.	1.3	20

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19	Structural study of decrespignyite-(Y), a complex yttrium rare earth copper carbonate chloride, by three-dimensional electron and synchrotron powder diffraction. European Journal of Mineralogy, 2020, 32, 545-555.	1.3	0
20	3D Electron Diffraction: The Nanocrystallography Revolution. ACS Central Science, 2019, 5, 1315-1329.	11.3	286
21	Structure analysis of materials at the orderâ€“disorder borderline using three-dimensional electron diffraction. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2019, 75, 550-563.	1.1	14
22	Evidence for subsolidus quartz-coesite transformation in impact ejecta from the Australasian tektite strewn field. Geochimica Et Cosmochimica Acta, 2019, 264, 105-117.	3.9	9
23	The Crystal Structure of Orthocetamol Solved by 3D Electron Diffraction. Angewandte Chemie, 2019, 131, 11035-11038.	2.0	11
24	The Crystal Structure of Orthocetamol Solved by 3D Electron Diffraction. Angewandte Chemie - International Edition, 2019, 58, 10919-10922.	13.8	34
25	Novel TEM Microscopy and Electron Diffraction Techniques to Characterize Cultural Heritage Materials: From Ancient Greek Artefacts to Maya Mural Paintings. Scanning, 2019, 2019, 1-13.	1.5	4
26	Daliranite, PbHgAs₂S₅: determination of the incommensurately modulated structure and revision of the chemical formula. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2019, 75, 711-716.	1.1	5
27	Nanobeam precession-assisted 3D electron diffraction reveals a new polymorph of hen egg-white lysozyme. IUCrJ, 2019, 6, 178-188.	2.2	56
28	Single-crystal analysis of nanodomains by electron diffraction tomography: mineralogy at the order-disorder borderline. Zeitschrift Fur Kristallographie - Crystalline Materials, 2018, 233, 163-178.	0.8	27
29	Submicrometer yttrian zircon coating and arborescent aeschynite microcrystals on truncated bipyramidal anatase: An electron microscopy study of miarolitic cavities in the Cuasso al Monte granophyre (Varese, Italy). American Mineralogist, 2018, 103, 480-488.	1.9	0
30	Raman, FT-IR spectroscopy and morphology of carbon dust from carbon arc in liquid benzene. Fullerenes Nanotubes and Carbon Nanostructures, 2018, 26, 654-660.	2.1	3
31	A nanocrystalline monoclinic CaCO ₃ precursor of metastable aragonite. Science Advances, 2018, 4, eaau6178.	10.3	28
32	Crystal Structures of Two Important Pharmaceuticals Solved by 3D Precession Electron Diffraction Tomography. Organic Process Research and Development, 2018, 22, 1365-1372.	2.7	44
33	Ab Initio Structure Determination of Cu_{2â€“x}Te Plasmonic Nanocrystals by Precession-Assisted Electron Diffraction Tomography and HAADF-STEM Imaging. Inorganic Chemistry, 2018, 57, 10241-10248.	4.0	25
34	Crystalline Curcumin bioMOF Obtained by Precipitation in Supercritical CO₂ and Structural Determination by Electron Diffraction Tomography. ACS Sustainable Chemistry and Engineering, 2018, 6, 12309-12319.	6.7	36
35	A pilot study to test the reliability of the ERT method in the identification of mixed sulphides bearing dykes: The example of Sidi Flah mine (Anti-Atlas, Morocco). Ore Geology Reviews, 2018, 101, 819-838.	2.7	5
36	Cronstedtite polytypes in the Paris meteorite. European Journal of Mineralogy, 2018, 30, 349-354.	1.3	16

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37	Mineralogical, crystallographic and redox features of the earliest stages of fluid alteration in CM chondrites. Geochimica Et Cosmochimica Acta, 2017, 209, 106-122.	3.9	45
38	Crystal structure determination of karibibite, an Fe3+ arsenite, using electron diffraction tomography. Mineralogical Magazine, 2017, 81, 1191-1202.	1.4	8
39	The structure of denisovite, a fibrous nanocrystalline polytypic disordered `very complex' silicate, studied by a synergistic multi-disciplinary approach employing methods of electron crystallography and X-ray powder diffraction. IUCrJ, 2017, 4, 223-242.	2.2	36
40	(Na,â–¡)₅[MnO₂]₁₃nanorods: a new tunnel structure for electrode materials determinedab initioand refined through a combination of electron and synchrotron diffraction data. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2016, 72, 893-903.	1.1	12
41	What is the actual structure of samarskite-(Y)? A TEM investigation of metamict samarskite from the Garnet Codera dike pegmatite (Central Italian Alps). American Mineralogist, 2016, 101, 1679-1690.	1.9	13
42	Ultrafast Electron Diffraction Tomography for Structure Determination of the New Zeolite ITQ-58. Journal of the American Chemical Society, 2016, 138, 10116-10119.	13.7	78
43	Hierachical Ni@Fe₂O₃superparticles through epitaxial growth of Î³-Fe₂O₃nanorods onin situformed Ni nanoplates. Nanoscale, 2016, 8, 9548-9555.	5.6	21
44	Structural Characterisation of Complex Layered Double Hydroxides and TGAâ€Câ€MS Study on Thermal Response and Carbonate Contamination in Nitrateâ€and Organicâ€Exchanged Hydrotalcites. Chemistry - A European Journal, 2015, 21, 14975-14986.	3.3	53
45	6. Investigation of bio-related minerals by electron-diffraction tomography: Vaterite, dental hydroxyapatite, and crystalline nanorods in sponge primmorphs. , 2015, , 149-168.		0
46	Closing the gap between electron and X-ray crystallography. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2015, 71, 737-739.	1.1	6
47	Single nano crystal analysis using automated electron diffraction tomography. Rendiconti Lincei, 2015, 26, 211-223.	2.2	6
48	Structural insights intoM₂Oâ€“Al₂O₃â€“WO₃(M= Na, K) system by electron diffraction tomography. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2015, 71, 349-357.	1.1	6
49	A structural study of cyanotrichite from Dachang by conventional and automated electron diffraction. Physics and Chemistry of Minerals, 2015, 42, 651-661.	0.8	7
50	Structure characterization of nanocrystalline porous materials by tomographic electron diffraction. Zeitschrift Fur Kristallographie - Crystalline Materials, 2015, 230, 271-288.	0.8	11
51	High-Pressure Synthesis of Novel Boron Oxynitride B6N4O3 with Sphalerite Type Structure. Chemistry of Materials, 2015, 27, 5907-5914.	6.7	22
52	A multi-technique, micrometer- to atomic-scale description of a synthetic analogue of chukanovite, Fe2(CO3)(OH)2. European Journal of Mineralogy, 2014, 26, 221-229.	1.3	17
53	Atomic structure solution of the complex quasicrystal approximant Al₇₇Rh₁₅Ru₈from electron diffraction data. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2014, 70, 999-1005.	1.1	13
54	Synthesis of a quenchable high-pressure form of magnetite (h-Fe3O4) with composition Fe1(Fe2+0.75Mg0.26)Fe2(Fe3+0.70Cr0.15Al0.11Si0.04)2O4. American Mineralogist, 2014, 99, 2405-2415.	1.9	9

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55	MZ-35, a new layered pentasil borosilicate synthesized in the presence of large alkali cations. Microporous and Mesoporous Materials, 2014, 189, 64-70.	4.4	3
56	Structure solution of zeolites by automated electron diffraction tomography â€“ Impact and treatment of preferential orientation. Microporous and Mesoporous Materials, 2014, 189, 107-114.	4.4	16
57	Evidence of Noncentrosymmetry of Human Tooth Hydroxyapatite Crystals. Chemistry - A European Journal, 2014, 20, 6849-6852.	3.3	21
58	Rational assembly and dual functionalization of Au@MnO heteroparticles on TiO₂nanowires. New Journal of Chemistry, 2014, 38, 2031-2036.	2.8	3
59	IM-17: a new zeolitic material, synthesis and structure elucidation from electron diffraction ADT data and Rietveld analysis. RSC Advances, 2014, 4, 19440.	3.6	38
60	Structure analysis on the nanoscale: closed WS2 nanoboxes through a cascade of topo- and epitactic processes. CrystEngComm, 2014, 16, 5087-5092.	2.6	2
61	Facile hydrothermal synthesis of crystalline Ta2O5 nanorods, MTaO3 (M = H, Na, K, Rb) nanoparticles, and their photocatalytic behaviour. Journal of Materials Chemistry A, 2014, 2, 8033-8040.	10.3	33
62	Ironâ€“clay interactions: Detailed study of the mineralogical transformation of claystone with emphasis on the formation of iron-rich Tâ€“O phyllosilicates in a step-by-step cooling experiment from 90 Â°C to 40 Â°C. Chemical Geology, 2014, 387, 1-11.	3.3	36
63	The Bi sulfates from the Alfenza Mine, Crodo, Italy: An automatic electron diffraction tomography (ADT) study. American Mineralogist, 2014, 99, 500-510.	1.9	23
64	Structural characterization of the of inorganic and organic hydrotalcites. Acta Crystallographica Section A: Foundations and Advances, 2014, 70, C238-C238.	0.1	1
65	Hierarchical composition of the axial filament from spicules of the siliceous sponge Suberites domuncula: from biosilica-synthesizing nanofibrils to structure- and morphology-guiding triangular stems. Cell and Tissue Research, 2013, 351, 49-58.	2.9	12
66	Applications of automated diffraction tomography (ADT) on nanocrystalline porous materials. Microporous and Mesoporous Materials, 2013, 166, 93-101.	4.4	35
67	UsingFOCUSto solve zeolite structures from three-dimensional electron diffraction data. Journal of Applied Crystallography, 2013, 46, 1017-1023.	4.5	24
68	Application of Î´ recycling to electron automated diffraction tomography data from inorganic crystalline nanovolumes. Acta Crystallographica Section A: Foundations and Advances, 2013, 69, 396-407.	0.3	13
69	Snapshots of the Formation of NaTi₃O₆(OH)Â·2H₂O Nanowires: A Timeâ€Resolved XRD/HRTEM Study. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2013, 639, 2521-2526.	1.2	6
70	Automated Diffraction Tomography for the Structure Elucidation of Twinned, Subâ€micrometer Crystals of a Highly Porous, Catalytically Active Bismuth Metalâ€“Organic Framework. Angewandte Chemie - International Edition, 2012, 51, 10373-10376.	13.8	151
71	Structure characterization of hard materials by precession electron diffraction and automatic diffraction tomography: 6Hâ€“SiC semiconductor and Ni_{1+x}Te₁embedded nanodomains. Semiconductor Science and Technology, 2012, 27, 105003.	2.0	8
72	Abâ€…Initio Structure Determination of Vaterite by Automated Electron Diffraction. Angewandte Chemie - International Edition, 2012, 51, 7041-7045.	13.8	98

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73	Ba6P12N17O9Br3 - A Column-Type Phosphate Structure Solved from Single-Nanocrystal Data Obtained by Automated Electron Diffraction Tomography. European Journal of Inorganic Chemistry, 2012, 2012, 121-125.	2.0	13
74	ECSâ€3: A Crystalline Hybrid Organicâ€“Inorganic Aluminosilicate with Open Porosity. Angewandte Chemie - International Edition, 2012, 51, 666-669.	13.8	61
75	From Single Molecules to Nanoscopically Structured Materials: Self-Assembly of Metal Chalcogenide/Metal Oxide Nanostructures Based on the Degree of Pearson Hardness. Chemistry of Materials, 2011, 23, 3534-3539.	6.7	20
76	Assembly and Separation of Semiconductor Quantum Dot Dimers and Trimers. Journal of the American Chemical Society, 2011, 133, 18062-18065.	13.7	49
77	Essential features of the polytypic charoite-96 structure compared to charoite-90. Mineralogical Magazine, 2011, 75, 2833-2846.	1.4	31
78	â€œAb-Initioâ€•Structure Solution of Nano-Crystalline Minerals and Synthetic Materials by Automated Electron Tomography. , 2011, , 41-54.		2
79	Asymmetric tungsten oxide nanobrushes via oriented attachment and Ostwald ripening. CrystEngComm, 2011, 13, 4074.	2.6	24
80	A new hydrous Al-bearing pyroxene as a water carrier in subduction zones. Earth and Planetary Science Letters, 2011, 310, 422-428.	4.4	32
81	Synthesis and Structure Determination of the Hierarchical Meso-Microporous Zeolite ITQ-43. Science, 2011, 333, 1131-1134.	12.6	353
82	Structure analysis of titanate nanorods by automated electron diffraction tomography. Acta Crystallographica Section B: Structural Science, 2011, 67, 218-225.	1.8	44
83	Automated electron diffraction tomography â€“ a new tool for nano crystal structure analysis. Crystal Research and Technology, 2011, 46, 542-554.	1.3	175
84	Elucidating Gating Effects for Hydrogen Sorption in MFUâ€4â€Type Triazolateâ€Based Metalâ€“Organic Frameworks Featuring Different Pore Sizes. Chemistry - A European Journal, 2011, 17, 1837-1848.	3.3	222
85	SrP₃N₅O: A Highly Condensed Layer Phosphate Structure Solved from a Nanocrystal by Automated Electron Diffraction Tomography. Chemistry - A European Journal, 2011, 17, 11258-11265.	3.3	29
86	Charoite, as an Example of a Structure with Natural Nanotubes. , 2011, , 55-60.		0
87	Solution Synthesis of a New Thermoelectric Zn_{1+x}Sb Nanophase and Its Structure Determination Using Automated Electron Diffraction Tomography. Journal of the American Chemical Society, 2010, 132, 9881-9889.	13.7	94
88	Structural Characterization of Organics Using Manual and Automated Electron Diffraction. Polymer Reviews, 2010, 50, 385-409.	10.9	90
89	Silicatein-mediated incorporation of titanium into spicules from the demosponge Suberites domuncula. Cell and Tissue Research, 2010, 339, 429-436.	2.9	17
90	Morphology of Sponge Spicules: Silicatein a Structural Protein for Bioâ€Silica Formation. Advanced Engineering Materials, 2010, 12, B422.	3.5	29

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91	Mismatch Strain versus Dangling Bonds: Formation of â€œCoinâ€Roll Nanowiresâ€•by Stacking Nanosheets. Angewandte Chemie - International Edition, 2010, 49, 3301-3305.	13.8	14
92	Reversible Selfâ€•Assembly of Metal Chalcogenide/Metal Oxide Nanostructures Based on Pearson Hardness. Angewandte Chemie - International Edition, 2010, 49, 7578-7582.	13.8	27
93	The structure of charoite, (K,Sr,Ba,Mn)_{15â€“16}(Ca,Na)₃₂[(Si₇₀(O,OH)₁₈₀)](OH,F)_{4.0} solved by conventional and automated electron diffraction. Mineralogical Magazine, 2010, 74, 159-177.	1.4	33
94	Biosilicification of loricate choanoflagellate: organic composition of the nanotubular siliceous costal strips of Stephanoeca diplocostata. Journal of Experimental Biology, 2010, 213, 3575-3585.	1.7	20
95	Interaction of Alkaline Metal Cations with Oxidic Surfaces: Effect on the Morphology of SnO₂Nanoparticles. Langmuir, 2010, 26, 3590-3595.	3.5	25
96	Direct Access to Metal or Metal Oxide Nanocrystals Integrated with One-Dimensional Nanoporous Carbons for Electrochemical Energy Storage. Journal of the American Chemical Society, 2010, 132, 15030-15037.	13.7	150
97	Automated diffraction tomography combined with electron precession: a new tool for ab initio nanostructure analysis. Materials Research Society Symposia Proceedings, 2009, 1184, 38.	0.1	16
98	Enzymeâ€•Mediated Deposition of a TiO₂ Coating onto Biofunctionalized WS2 Chalcogenide Nanotubes. Advanced Functional Materials, 2009, 19, 285-291.	14.9	52
99	Crystalline Nanorods as Possible Templates for the Synthesis of Amorphous Biosilica during Spicule Formation in Demospongiae. ChemBioChem, 2009, 10, 683-689.	2.6	21
100	Bismuthâ€Catalyzed Growth of SnS₂ Nanotubes and Their Stability. Angewandte Chemie - International Edition, 2009, 48, 6426-6430.	13.8	70
101	Electron diffraction, X-ray powder diffraction and pair-distribution-function analyses to determine the crystal structures of Pigment Yellow 213, C₂₃H₂₁N₅O₉. Acta Crystallographica Section B: Structural Science, 2009, 65, 189-199.	1.8	16
102	â€œAb initioâ€•structure solution from electron diffraction data obtained by a combination of automated diffraction tomography and precession technique. Ultramicroscopy, 2009, 109, 758-765.	1.9	281
103	Accurate and precise lattice parameters by selected-area electron diffraction in the transmission electron microscope. American Mineralogist, 2009, 94, 793-800.	1.9	37
104	Synthesis of Hierarchically Grown ZnO@NT-WS₂ Nanocomposites. Chemistry of Materials, 2009, 21, 5382-5387.	6.7	16
105	Heusler compounds as ternary intermetallic nanoparticles: Co₂FeGa. Journal Physics D: Applied Physics, 2009, 42, 084018.	2.8	46
106	Synthesis of Fullerene- and Nanotube-Like SnS₂ Nanoparticles and Sn/S/Carbon Nanocomposites. Chemistry of Materials, 2009, 21, 2474-2481.	6.7	39
107	Relative motion of the Adriatic with respect to the confining plates: seismological and geodetic constraints. Geophysical Journal International, 2004, 159, 765-775.	2.4	29
108	Electron Diffraction Reinvestigation of CdCr₂Se₄ and ZnCr_{2-x}V_xSe₄ Spinel Structures. Solid State Phenomena, 0, 203-204, 262-265.	0.3	0