

Iryna Polishchuk

List of Publications by Year in descending order

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papers

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citations

623188

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42
all docs

42
docs citations

42
times ranked

1294
citing authors

#	ARTICLE	IF	CITATIONS
1	On the mechanism of calcium carbonate polymorph selection <i>via</i> confinement. Faraday Discussions, 2022, 235, 433-445.	1.6	4
2	Adsorption of SARS CoV-2 spike proteins on various functionalized surfaces correlates with the high transmissibility of Delta and Omicron variants. Materials Today Bio, 2022, 14, 100265.	2.6	6
3	High-Mg calcite nanoparticles within a low-Mg calcite matrix: A widespread phenomenon in biomineralization. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2120177119.	3.3	10
4	Disorder and Confinement Effects to Tune the Optical Properties of Amino Acid Doped Cu₂O Crystals. Advanced Functional Materials, 2022, 32, .	7.8	4
5	Tuning the Magnetization of Manganese (II) Carbonate by Intracrystalline Amino Acids. Advanced Materials, 2022, 34, .	11.1	5
6	Molecular and skeletal fingerprints of scleractinian coral biomineralization: From the sea surface to mesophotic depths. Acta Biomaterialia, 2021, 120, 263-276.	4.1	27
7	Climate variation during the Holocene influenced the skeletal properties of Chamelea gallina shells in the North Adriatic Sea (Italy). PLoS ONE, 2021, 16, e0247590.	1.1	2
8	Long-term stabilized amorphous calcium carbonateâ€™an ink for bio-inspired 3D printing. Materials Today Bio, 2021, 11, 100120.	2.6	9
9	Structural and chemical variations in Mg-calcite skeletal segments of coralline red algae lead to improved crack resistance. Acta Biomaterialia, 2021, 130, 362-373.	4.1	6
10	Self-catalytic growth of one-dimensional materials within dislocations in gold. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	2
11	Sclerites of the soft coral Ovabunda macrospiculata (Xeniidae) are predominantly the metastable CaCO ₃ polymorph vaterite. Acta Biomaterialia, 2021, 135, 663-670.	4.1	1
12	Coral micro- and macro-morphological skeletal properties in response to life-long acclimatization at CO ₂ vents in Papua New Guinea. Scientific Reports, 2021, 11, 19927.	1.6	10
13	Experimental and Theoretical Insights into the Bioinspired Formation of Disordered Baâ€™Calcite. Advanced Functional Materials, 2020, 30, 1805028.	7.8	6
14	Acidic Monosaccharides become Incorporated into Calcite Single Crystals**. Chemistry - A European Journal, 2020, 26, 16860-16868.	1.7	17
15	Modifying hydrophilic properties of polyurethane acryl paint substrates by atomic layer deposition and self-assembled monolayers. RSC Advances, 2020, 10, 34333-34343.	1.7	3
16	Bioinspired Molecular Bridging in a Hybrid Perovskite Leads to Enhanced Stability and Tunable Properties. Advanced Functional Materials, 2020, 30, 2005136.	7.8	10
17	Strong Band Gap Blueshift in Copper (I) Oxide Semiconductor via Bioinspired Route. Advanced Functional Materials, 2020, 30, 1910405.	7.8	17
18	High Amino Acid Lattice Loading at Nonambient Conditions Causes Changes in Structure and Expansion Coefficient of Calcite. Chemistry of Materials, 2020, 32, 4205-4212.	3.2	14

#	ARTICLE	IF	CITATIONS
19	Helical Microstructures of the Mineralized Coralline Red Algae Determine Their Mechanical Properties. <i>Advanced Science</i> , 2020, 7, 2000108.	5.6	11
20	Incorporation of organic and inorganic impurities into the lattice of metastable vaterite. <i>Inorganic Chemistry Frontiers</i> , 2019, 6, 2696-2703.	3.0	12
21	Surface reconstruction causes structural variations in nanometric amorphous Al_2O_3 . <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 14887-14891.	1.3	4
22	Effect of Surface Chemistry on Incorporation of Nanoparticles within Calcite Single Crystals. <i>Crystal Growth and Design</i> , 2019, 19, 4429-4435.	1.4	14
23	Lattice Shrinkage by Incorporation of Recombinant Starmaker-Like Protein within Bioinspired Calcium Carbonate Crystals. <i>Chemistry - A European Journal</i> , 2019, 25, 12658-12658.	1.7	0
24	From spinodal decomposition to alternating layered structure within single crystals of biogenic magnesium calcite. <i>Nature Communications</i> , 2019, 10, 4559.	5.8	36
25	Superhydrophobic Wax Coatings for Prevention of Biofilm Establishment in Dairy Food. <i>ACS Applied Bio Materials</i> , 2019, 2, 4932-4940.	2.3	13
26	A hydrated crystalline calcium carbonate phase: Calcium carbonate hemihydrate. <i>Science</i> , 2019, 363, 396-400.	6.0	153
27	Lattice Shrinkage by Incorporation of Recombinant Starmaker-Like Protein within Bioinspired Calcium Carbonate Crystals. <i>Chemistry - A European Journal</i> , 2019, 25, 12740-12750.	1.7	20
28	Non-stoichiometric hydrated magnesium-doped calcium carbonate precipitation in ethanol. <i>Chemical Communications</i> , 2019, 55, 12944-12947.	2.2	8
29	Photocatalytic activity of exfoliated graphite-TiO ₂ nanoparticle composites. <i>Nanoscale</i> , 2019, 11, 19301-19314.	2.8	18
30	Strong Quantum Confinement Effects and Chiral Excitons in Bio-Inspired ZnO-Amino Acid Cocrystals. <i>Journal of Physical Chemistry C</i> , 2018, 122, 6348-6356.	1.5	13
31	Powder diffraction and crystal structure prediction identify four new coumarin polymorphs. <i>Chemical Science</i> , 2017, 8, 4926-4940.	3.7	97
32	Coherently aligned nanoparticles within a biogenic single crystal: A biological prestressing strategy. <i>Science</i> , 2017, 358, 1294-1298.	6.0	97
33	Bioinspired Nanocomposites: Ordered 2D Materials Within a 3D Lattice. <i>Advanced Functional Materials</i> , 2016, 26, 5569-5575.	7.8	23
34	Structure and Properties of Nanocomposites Formed by the Occlusion of Block Copolymer Worms and Vesicles Within Calcite Crystals. <i>Advanced Functional Materials</i> , 2016, 26, 1382-1392.	7.8	63
35	Resorcinol Crystallization from the Melt: A New Ambient Phase and New "Riddles". <i>Journal of the American Chemical Society</i> , 2016, 138, 4881-4889.	6.6	74
36	Calcite Single Crystals as Hosts for Atomic-Scale Entrapment and Slow Release of Drugs. <i>Advanced Healthcare Materials</i> , 2015, 4, 1510-1516.	3.9	32

#	ARTICLE	IF	CITATIONS
37	“Guanigma”: The Revised Structure of Biogenic Anhydrous Guanine. Chemistry of Materials, 2015, 27, 8289-8297.	3.2	74
38	Narrowly Distributed Crystal Orientation in Biomineral Vaterite. Chemistry of Materials, 2015, 27, 6516-6523.	3.2	27
39	Excessive Increase in the Optical Band Gap of Near-Infrared Semiconductor Lead (II) Sulfide via the Incorporation of Amino Acids. Advanced Optical Materials, 0, , 2200203.	3.6	3