Iryna Polishchuk

List of Publications by Year
in descending order

39	945	623188	476904
papers	citations	14 h-index	29 g-index

42	42	42	1294
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A hydrated crystalline calcium carbonate phase: Calcium carbonate hemihydrate. Science, 2019, 363, 396-400.	6.0	153
2	Powder diffraction and crystal structure prediction identify four new coumarin polymorphs. Chemical Science, 2017, 8, 4926-4940.	3.7	97
3	Coherently aligned nanoparticles within a biogenic single crystal: A biological prestressing strategy. Science, 2017, 358, 1294-1298.	6.0	97
4	â€œGuanigmaâ€• The Revised Structure of Biogenic Anhydrous Guanine. Chemistry of Materials, 2015, 27, 8289-8297.	3.2	74
5	Resorcinol Crystallization from the Melt: A New Ambient Phase and New â€œRiddlesâ€• Journal of the American Chemical Society, 2016, 138, 4881-4889.	6.6	74
6	Structure and Properties of Nanocomposites Formed by the Occlusion of Block Copolymer Worms and Vesicles Within Calcite Crystals. Advanced Functional Materials, 2016, 26, 1382-1392.	7.8	63
7	From spinodal decomposition to alternating layered structure within single crystals of biogenic magnesium calcite. Nature Communications, 2019, 10, 4559.	5.8	36
8	Calcite Single Crystals as Hosts for Atomicâ€Scale Entrapment and Slow Release of Drugs. Advanced Healthcare Materials, 2015, 4, 1510-1516.	3.9	32
9	Narrowly Distributed Crystal Orientation in Biomineral Vaterite. Chemistry of Materials, 2015, 27, 6516-6523.	3.2	27
10	Molecular and skeletal fingerprints of scleractinian coral biomineralization: From the sea surface to mesophotic depths. Acta Biomaterialia, 2021, 120, 263-276.	4.1	27
11	Bioinspired Nanocomposites: Ordered 2D Materials Within a 3D Lattice. Advanced Functional Materials, 2016, 26, 5569-5575.	7.8	23
12	Lattice Shrinkage by Incorporation of Recombinant Starmakerâ€Like Protein within Bioinspired Calcium Carbonate Crystals. Chemistry - A European Journal, 2019, 25, 12740-12750.	1.7	20
13	Photocatalytic activity of exfoliated graphiteâ€“TiO₂ nanoparticle composites. Nanoscale, 2019, 11, 19301-19314.	2.8	18
14	Acidic Monosaccharides become Incorporated into Calcite Single Crystals**. Chemistry - A European Journal, 2020, 26, 16860-16868.	1.7	17
15	Strong Band Gap Blueshift in Copper (I) Oxide Semiconductor via Bioinspired Route. Advanced Functional Materials, 2020, 30, 1910405.	7.8	17
16	Effect of Surface Chemistry on Incorporation of Nanoparticles within Calcite Single Crystals. Crystal Growth and Design, 2019, 19, 4429-4435.	1.4	14
17	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
18	Strong Quantum Confinement Effects and Chiral Excitons in Bio-Inspired ZnOâ€“Amino Acid Cocrystals. Journal of Physical Chemistry C, 2018, 122, 6348-6356.	1.5	13

#	Article	IF	Citations
19	Superhydrophobic Wax Coatings for Prevention of Biofilm Establishment in Dairy Food. ACS Applied Bio Materials, 2019, 2, 4932-4940.	2.3	13
20	Incorporation of organic and inorganic impurities into the lattice of metastable vaterite. Inorganic Chemistry Frontiers, 2019, 6, 2696-2703.	3.0	12
21	Helical Microstructures of the Mineralized Coralline Red Algae Determine Their Mechanical Properties. Advanced Science, 2020, 7, 2000108.	5.6	11
22	Bioinspired Molecular Bridging in a Hybrid Perovskite Leads to Enhanced Stability and Tunable Properties. Advanced Functional Materials, 2020, 30, 2005136.	7.8	10
23	Coral micro- and macro-morphological skeletal properties in response to life-long acclimatization at CO2 vents in Papua New Guinea. Scientific Reports, 2021, 11, 19927.	1.6	10
24	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
25	Long-term stabilized amorphous calcium carbonateâ€”an ink for bio-inspired 3D printing. Materials Today Bio, 2021, 11, 100120.	2.6	9
26	Non-stoichiometric hydrated magnesium-doped calcium carbonate precipitation in ethanol. Chemical Communications, 2019, 55, 12944-12947.	2.2	8
27	Experimental and Theoretical Insights into the Bioinspired Formation of Disordered Baâ€Calcite. Advanced Functional Materials, 2020, 30, 1805028.	7.8	6
28	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
29	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
30	Tuning the Magnetization of Manganese (II) Carbonate by Intracrystalline Amino Acids. Advanced Materials, 2022, 34, .	11.1	5
31	Surface reconstruction causes structural variations in nanometric amorphous Al₂O₃. Physical Chemistry Chemical Physics, 2019, 21, 14887-14891.	1.3	4
32	On the mechanism of calcium carbonate polymorph selection via confinement. Faraday Discussions, 2022, 235, 433-445.	1.6	4
33	Disorder and Confinement Effects to Tune the Optical Properties of Amino Acid Doped Cu₂O Crystals. Advanced Functional Materials, 2022, 32, .	7.8	4
34	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
35	Excessive Increase in the Optical Band Gap of Nearâ€Infrared Semiconductor Lead (II) Sulfide via the Incorporation of Amino Acids. Advanced Optical Materials, 0, , 2200203.	3.6	3
36	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

#	Article	IF	Citations
37	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
38	Sclerites of the soft coral Ovabunda macrospiculata (Xeniidae) are predominantly the metastable CaCO3 polymorph vaterite. Acta Biomaterialia, 2021, 135, 663-670.	4.1	1
39	Lattice Shrinkage by Incorporation of Recombinant StarmakerâEŁike Protein within Bioinspired Calcium Carbonate Crystals. Chemistry - A European Journal, 2019, 25, 12658-12658.	1.7	0