Boaz Pokroy

List of Publications by Year
in descending order

125	5,188	81743 39	95083 68
papers	citations	h-index	g-index

130	130	130	5916
all docs	docs citations	times ranked	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	Biofabrication of Nanocelluloseâ€"Mycelium Hybrid Materials. Advanced Sustainable Systems, 2021, 5, 2000196.	2.7	24
8	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
9	Long-term stabilized amorphous calcium carbonateâ€"an ink for bio-inspired 3D printing. Materials Today Bio, 2021, 11, 100120.	2.6	9
10	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
11	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
12	Sclerites of the soft coral Ovabunda macrospiculata (Xeniidae) are predominantly the metastable CaCO3 polymorph vaterite. Acta Biomaterialia, 2021, 135, 663-670.	4.1	1
13	Retention of surface structure causes lower density in atomic layer deposition of amorphous titanium oxide thin films. Physical Chemistry Chemical Physics, 2021, 23, 6600-6612.	1.3	4
14	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
15	Selfâ€Propulsion of Droplets via Lightâ€Stimuli Rapid Control of Their Surface Tension. Advanced Materials Interfaces, 2021, 8, 2100751.	1.9	13
16	Experimental and Theoretical Insights into the Bioinspired Formation of Disordered Baâ€Calcite. Advanced Functional Materials, 2020, 30, 1805028.	7.8	6
17	Acidic Monosaccharides become Incorporated into Calcite Single Crystals**. Chemistry - A European Journal, 2020, 26, 16860-16868.	1.7	17
18	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

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19	Bioinspired Molecular Bridging in a Hybrid Perovskite Leads to Enhanced Stability and Tunable Properties. Advanced Functional Materials, 2020, 30, 2005136.	7.8	10
20	Strong Band Gap Blueshift in Copper (I) Oxide Semiconductor via Bioinspired Route. Advanced Functional Materials, 2020, 30, 1910405.	7.8	17
21	Additives Control the Stability of Amorphous Calcium Carbonate via Two Different Mechanisms: Surface Adsorption versus Bulk Incorporation. Advanced Functional Materials, 2020, 30, 2000003.	7.8	49
22	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
23	Helical Microstructures of the Mineralized Coralline Red Algae Determine Their Mechanical Properties. Advanced Science, 2020, 7, 2000108.	5.6	11
24	Incorporation of organic and inorganic impurities into the lattice of metastable vaterite. Inorganic Chemistry Frontiers, 2019, 6, 2696-2703.	3.0	12
25	Surface reconstruction causes structural variations in nanometric amorphous Al₂O₃. Physical Chemistry Chemical Physics, 2019, 21, 14887-14891.	1.3	4
26	Effect of Surface Chemistry on Incorporation of Nanoparticles within Calcite Single Crystals. Crystal Growth and Design, 2019, 19, 4429-4435.	1.4	14
27	Lattice Shrinkage by Incorporation of Recombinant Starmakerâ€Like Protein within Bioinspired Calcium Carbonate Crystals. Chemistry - A European Journal, 2019, 25, 12658-12658.	1.7	0
28	From spinodal decomposition to alternating layered structure within single crystals of biogenic magnesium calcite. Nature Communications, 2019, 10, 4559.	5.8	36
29	A fungal mycelium templates the growth of aragonite needles. Journal of Materials Chemistry B, 2019, 7, 5725-5731.	2.9	10
30	Retinoic acid/calcite micro-carriers inserted in fibrin scaffolds modulate neuronal cell differentiation. Journal of Materials Chemistry B, 2019, 7, 5808-5813.	2.9	11
31	Superhydrophobic Wax Coatings for Prevention of Biofilm Establishment in Dairy Food. ACS Applied Bio Materials, 2019, 2, 4932-4940.	2.3	13
32	A hydrated crystalline calcium carbonate phase: Calcium carbonate hemihydrate. Science, 2019, 363, 396-400.	6.0	153
33	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
34	Structure and Morphology of Light-Reflecting Synthetic and Biogenic Polymorphs of Isoxanthopterin: A Comparison. Chemistry of Materials, 2019, 31, 4479-4489.	3.2	12
35	Thickness dependence of the physical properties of atomic-layer deposited Al2O3. Journal of Applied Physics, 2019, 125, .	1.1	14
36	Selective Deposition of Platinum by Atomic Layer Deposition Using Terraced Oxide Surfaces. Journal of Physical Chemistry C, 2019, 123, 8770-8776.	1.5	3

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37	Non-stoichiometric hydrated magnesium-doped calcium carbonate precipitation in ethanol. Chemical Communications, 2019, 55, 12944-12947.	2.2	8
38	Photocatalytic activity of exfoliated graphiteâ€“TiO₂ nanoparticle composites. Nanoscale, 2019, 11, 19301-19314.	2.8	18
39	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
40	Additives influence the phase behavior of calcium carbonate solution by a cooperative ion-association process. Journal of Materials Chemistry B, 2018, 6, 449-457.	2.9	31
41	Residual Strain and Stress in Biocrystals. Advanced Materials, 2018, 30, e1707263.	11.1	35
42	Insights on the interaction of calcein with calcium carbonate and its implications in biomineralization studies. CrystEngComm, 2018, 20, 4221-4224.	1.3	7
43	A study on the wetting properties of broccoli leaf surfaces and their time dependent self-healing after mechanical damage. Soft Matter, 2018, 14, 7782-7792.	1.2	17
44	Association Between Gold Grain Orientation and Its Periodic Steps Formed at the Gold/Substrate Interface. Journal of Physical Chemistry C, 2018, 122, 11364-11370.	1.5	4
45	Morphological changes of calcite single crystals induced by grapheneâ€“biomolecule adducts. Journal of Crystal Growth, 2017, 457, 356-361.	0.7	6
46	Sponge-associated bacteria mineralize arsenic and barium on intracellular vesicles. Nature Communications, 2017, 8, 14393.	5.8	55
47	Powder diffraction and crystal structure prediction identify four new coumarin polymorphs. Chemical Science, 2017, 8, 4926-4940.	3.7	97
48	Density of Nanometrically Thin Amorphous Films Varies by Thickness. Chemistry of Materials, 2017, 29, 4912-4919.	3.2	10
49	Synthesis of calcium carbonate in trace water environments. Chemical Communications, 2017, 53, 4811-4814.	2.2	12
50	Pore and ligament size control, thermal stability and mechanical properties of nanoporous single crystals of gold. Nanoscale, 2017, 9, 14458-14466.	2.8	16
51	Coherently aligned nanoparticles within a biogenic single crystal: A biological prestressing strategy. Science, 2017, 358, 1294-1298.	6.0	97
52	A Gold Complex Single Crystal Comprising Nanoporosity and Curved Surfaces. Crystal Growth and Design, 2017, 17, 221-227.	1.4	2
53	Bioinspired Nanocomposites: Ordered 2D Materials Within a 3D Lattice. Advanced Functional Materials, 2016, 26, 5569-5575.	7.8	23
54	A comparison between HfO2/Al2O3 nano-laminates and ternary HfxAlyO compound as the dielectric material in InGaAs based metal-oxide-semiconductor (MOS) capacitors. Journal of Applied Physics, 2016, 120, 124505.	1.1	12

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55	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
56	Hybrid Gold Single Crystals Incorporating Amino Acids. Crystal Growth and Design, 2016, 16, 2972-2978.	1.4	14
57	Morphology-preserving transformation of minerals mediated by a temperature-responsive polymer membrane: calcite to hydroxyapatite. CrystEngComm, 2016, 18, 2289-2293.	1.3	6
58	Tuning hardness in calcite by incorporation of amino acids. Nature Materials, 2016, 15, 903-910.	13.3	183
59	Amorphous biogenic calcium oxalate. ChemistrySelect, 2016, 1, 132-135.	0.7	5
60	Structural analysis and optical properties of the Bi_{2â^’x}Y_xWO₆ system. CrystEngComm, 2016, 18, 6464-6470.	1.3	8
61	Paraffin Wax Crystal Coarsening: Effects of Strain and Wax Crystal Shape. Crystal Growth and Design, 2016, 16, 3932-3939.	1.4	4
62	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
63	Kinetics of Nanoscale Self-Assembly Measured on Liquid Drops by Macroscopic Optical Tensiometry: From Mercury to Water and Fluorocarbons. Journal of the American Chemical Society, 2016, 138, 2585-2591.	6.6	5
64	Calcite Single Crystals as Hosts for Atomicâ€Scale Entrapment and Slow Release of Drugs. Advanced Healthcare Materials, 2015, 4, 1510-1516.	3.9	32
65	â€œGuanigmaâ€: The Revised Structure of Biogenic Anhydrous Guanine. Chemistry of Materials, 2015, 27, 8289-8297.	3.2	74
66	Intracrystalline inclusions within single crystalline hosts: from biomineralization to bio-inspired crystal growth. CrystEngComm, 2015, 17, 5873-5883.	1.3	59
67	Narrowly Distributed Crystal Orientation in Biomineral Vaterite. Chemistry of Materials, 2015, 27, 6516-6523.	3.2	27
68	Structural analysis of metal-doped calcium oxalate. RSC Advances, 2015, 5, 98626-98633.	1.7	18
69	Sponge-like nanoporous single crystals of gold. Nature Communications, 2015, 6, 8841.	5.8	31
70	Bioinspired passive anti-biofouling surfaces preventing biofilm formation. Journal of Materials Chemistry B, 2015, 3, 1371-1378.	2.9	49
71	Insect attachment on crystalline bioinspired wax surfaces formed by alkanes of varying chain lengths. Beilstein Journal of Nanotechnology, 2014, 5, 1031-1041.	1.5	20
72	Multilevel Hierarchy of Fluorinated Wax on CuO Nanowires for Superoleophobic Surfaces. Langmuir, 2014, 30, 15568-15573.	1.6	21

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73	Bioâ€Inspired Band Gap Engineering of Zinc Oxide by Intracrystalline Incorporation of Amino Acids. Advanced Materials, 2014, 26, 477-481.	11.1	82
74	Semiconductors: Bio-Inspired Band Gap Engineering of Zinc Oxide by Intracrystalline Incorporation of Amino Acids (Adv. Mater. 3/2014). Advanced Materials, 2014, 26, 503-503.	11.1	1
75	Formation of Curved Micrometer-Sized Single Crystals. ACS Nano, 2014, 8, 4747-4753.	7.3	6
76	Bio-inspired engineering of a zinc oxide/amino acid composite: synchrotron microstructure study. CrystEngComm, 2014, 16, 3268-3273.	1.3	25
77	Oxygen Spectroscopy and Polarization-Dependent Imaging Contrast (PIC)-Mapping of Calcium Carbonate Minerals and Biominerals. Journal of Physical Chemistry B, 2014, 118, 8449-8457.	1.2	60
78	Incorporation of a Recombinant Biomineralization Fusion Protein into the Crystalline Lattice of Calcite. Chemistry of Materials, 2014, 26, 4925-4932.	3.2	45
79	Size Effect on the Short Range Order and the Crystallization of Nanosized Amorphous Alumina. Crystal Growth and Design, 2014, 14, 3983-3989.	1.4	34
80	Three-Dimensional Triple Hierarchy Formed by Self-Assembly of Wax Crystals on CuO Nanowires for Nonwettable Surfaces. ACS Applied Materials & Interfaces, 2014, 6, 4927-4934.	4.0	20
81	Crystal nucleation and near-epitaxial growth in nacre. Journal of Structural Biology, 2013, 184, 454-463.	1.3	54
82	Exposed and Buried Biomineral Interfaces in the Aragonitic Shell of <i>Perna canaliculus</i> Revealed by Solid-State NMR. Chemistry of Materials, 2013, 25, 4595-4602.	3.2	31
83	Vaterite Crystals Contain Two Interspersed Crystal Structures. Science, 2013, 340, 454-457.	6.0	139
84	Shape of Waterâ€"Air Interface beneath a Drop on a Superhydrophobic Surface Revealed: Constant Curvature That Approaches Zero. Journal of Physical Chemistry C, 2013, 117, 6658-6663.	1.5	18
85	Unique crystallographic pattern in the macro to atomic structure of Herdmania momus vateritic spicules. Journal of Structural Biology, 2013, 183, 191-198.	1.3	16
86	Bioâ€Inspired Superoleophobic Fluorinated Wax Crystalline Surfaces. Advanced Functional Materials, 2013, 23, 4572-4576.	7.8	39
87	Superoleophobic Materials: Bio-Inspired Superoleophobic Fluorinated Wax Crystalline Surfaces (Adv.) Tj ETQq1 1 0.784314 rgBT /Overlo	7.8	0
88	Bioinspired hierarchical superhydrophobic structures formed by n-paraffin waxes of varying chain lengths. Soft Matter, 2013, 9, 5710.	1.2	23
89	Atomic structure and ultrastructure of the Murex troscheli shell. Journal of Structural Biology, 2012, 180, 539-545.	1.3	15
90	Self-Ordered Vicinal-Surface-Like Nanosteps at the Thin Metal-Film/Substrate Interface. Journal of Physical Chemistry C, 2012, 116, 12149-12155.	1.5	3

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91	Coiled to Diffuse: Brownian Motion of a Helical Bacterium. Langmuir, 2012, 28, 12941-12947.	1.6	39
92	Screening the Incorporation of Amino Acids into an Inorganic Crystalline Host: the Case of Calcite. Advanced Functional Materials, 2012, 22, 4216-4224.	7.8	124
93	Hierarchical Calcite Crystals with Occlusions of a Simple Polyelectrolyte Mimic Complex Biomineral Structures. Advanced Functional Materials, 2012, 22, 4668-4676.	7.8	69
94	Selfâ€Assembling, Bioinspired Wax Crystalline Surfaces with Timeâ€Dependent Wettability. Advanced Functional Materials, 2012, 22, 745-750.	7.8	40
95	Superhydrophobic Surfaces: Selfâ€Assembling, Bioinspired Wax Crystalline Surfaces with Timeâ€Dependent Wettability (Adv. Funct. Mater. 4/2012). Advanced Functional Materials, 2012, 22, 744-744.	7.8	1
96	Formation and Elimination of Surface Nanodefects on Ultraflat Metal Surfaces Produced by Template Stripping. Langmuir, 2011, 27, 13415-13419.	1.6	16
97	An artificial biomineral formed by incorporation of copolymer micelles in calcite crystals. Nature Materials, 2011, 10, 890-896.	13.3	248
98	Inhomogeneous Strain/Stress Profiles in the Nacre Layer of Mollusk Shells. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 554-558.	1.1	7
99	Bacterial biofilm shows persistent resistance to liquid wetting and gas penetration. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 995-1000.	3.3	302
100	Control of Shape and Size of Nanopillar Assembly by Adhesion-Mediated Elastocapillary Interaction. ACS Nano, 2010, 4, 6323-6331.	7.3	63
101	Sonication-Assisted Synthesis of Large, High-Quality Mercury Thiolate Single Crystals Directly from Liquid Mercury. Journal of the American Chemical Society, 2010, 132, 14355-14357.	6.6	26
102	Nacre in Mollusk Shells as a Multilayered Structure with Strain Gradient. Advanced Functional Materials, 2009, 19, 1054-1059.	7.8	40
103	Fabrication of Bioinspired Actuated Nanostructures with Arbitrary Geometry and Stiffness. Advanced Materials, 2009, 21, 463-469.	11.1	167
104	Crystallization of Malonic and Succinic Acids on SAMs: Toward the General Mechanism of Oriented Nucleation on Organic Monolayers. Langmuir, 2009, 25, 14002-14006.	1.6	15
105	Self-Organization of a Mesoscale Bristle into Ordered, Hierarchical Helical Assemblies. Science, 2009, 323, 237-240.	6.0	368
106	Electrochemical behaviour of stainless steels in media containing iron-oxidizing bacteria (IOB) by corrosion process modeling. Corrosion Science, 2008, 50, 540-547.	3.0	71
107	Biogenic Guanine Crystals from the Skin of Fish May Be Designed to Enhance Light Reflectance. Crystal Growth and Design, 2008, 8, 507-511.	1.4	118
108	Protein-induced, previously unidentified twin form of calcite. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 7337-7341.	3.3	46

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109	Biomineralization of calcium carbonate: structural aspects. CrystEngComm, 2007, 9, 1156.	1.3	58
110	Atomic Structure of Biogenic Aragonite. Chemistry of Materials, 2007, 19, 3244-3251.	3.2	87
111	Calcite shape modulation through the lattice mismatch between the self-assembled monolayer template and the nucleated crystal face. CrystEngComm, 2007, 9, 1219.	1.3	40
112	Structure of Biogenic Aragonite (CaCO₃). Crystal Growth and Design, 2007, 7, 1580-1583.	1.4	52
113	Protein mapping of calcium carbonate biominerals by immunogold. Biomaterials, 2007, 28, 2368-2377.	5.7	49
114	Purification and Functional Analysis of a 40 kD Protein Extracted from theStrombus decorus persicusMollusk Shells. Biomacromolecules, 2006, 7, 550-556.	2.6	37
115	Anisotropic lattice distortions in the mollusk-made aragonite: A widespread phenomenon. Journal of Structural Biology, 2006, 153, 145-150.	1.3	126
116	Anisotropic lattice distortions in biogenic calcite induced by intra-crystalline organic molecules. Journal of Structural Biology, 2006, 155, 96-103.	1.3	171
117	The Microstructure of Biogenic Calcite: A View by High-Resolution Synchrotron Powder Diffraction. Advanced Materials, 2006, 18, 2363-2368.	11.1	117
118	On the structure of aragonite. Acta Crystallographica Section B: Structural Science, 2005, 61, 129-132.	1.8	86
119	Structural Distinctions Between Biogenic and Geological Aragonite. Materials Research Society Symposia Proceedings, 2005, 874, 1.	0.1	0
120	Aragonite growth on single-crystal substrates displaying a threefold axis. Chemical Communications, 2005, , 2140.	2.2	24
121	Measurement of Residual Strains with High Depth Resolution by Energy-Variable Diffraction on Synchrotron Beam Lines. Materials Research Society Symposia Proceedings, 2004, 840, Q7.7.1.	0.1	2
122	Anisotropic lattice distortions in biogenic aragonite. Nature Materials, 2004, 3, 900-902.	13.3	175
123	Depth-resolved strain measurements in polycrystalline materials by energy-variable X-ray diffraction. Journal of Synchrotron Radiation, 2004, 11, 309-313.	1.0	8
124	Microstructure of natural plywood-like ceramics: a study by high-resolution electron microscopy and energy-variable X-ray diffraction. Journal of Materials Chemistry, 2003, 13, 682-688.	6.7	67
125	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