Lia Addadi

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/7991673/publications.pdf

Version: 2024-02-01

198 papers	23,315 citations	10986 71 h-index	8167 148 g-index
215 all docs	215 docs citations	215 times ranked	15678 citing authors

#	Article	IF	Citations
1	Force and focal adhesion assembly: a close relationship studied using elastic micropatterned substrates. Nature Cell Biology, 2001, 3, 466-472.	10.3	1,924
2	Taking Advantage of Disorder: Amorphous Calcium Carbonate and Its Roles in Biomineralization. Advanced Materials, 2003, 15, 959-970.	21.0	1,344
3	Design strategies in mineralized biological materials. Journal of Materials Chemistry, 1997, 7, 689-702.	6.7	968
4	Mollusk Shell Formation: A Source of New Concepts for Understanding Biomineralization Processes. Chemistry - A European Journal, 2006, 12, 980-987.	3.3	919
5	Sea Urchin Spine Calcite Forms via a Transient Amorphous Calcium Carbonate Phase. Science, 2004, 306, 1161-1164.	12.6	881
6	Control and Design Principles in Biological Mineralization. Angewandte Chemie International Edition in English, 1992, 31, 153-169.	4.4	818
7	Amorphous calcium carbonate transforms into calcite during sea urchin larval spicule growth. Proceedings of the Royal Society B: Biological Sciences, 1997, 264, 461-465.	2.6	629
8	Calcitic microlenses as part of the photoreceptor system in brittlestars. Nature, 2001, 412, 819-822.	27.8	605
9	Mollusc larval shell formation: amorphous calcium carbonate is a precursor phase for aragonite. The Journal of Experimental Zoology, 2002, 293, 478-491.	1.4	572
10	Amorphous calcium phosphate is a major component of the forming fin bones of zebrafish: Indications for an amorphous precursor phase. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 12748-12753.	7.1	490
11	Structure of the Nacreous Organic Matrix of a Bivalve Mollusk Shell Examined in the Hydrated State Using Cryo-TEM. Journal of Structural Biology, 2001, 135, 8-17.	2.8	476
12	Factors Involved in the Formation of Amorphous and Crystalline Calcium Carbonate:Â A Study of an Ascidian Skeleton. Journal of the American Chemical Society, 2002, 124, 32-39.	13.7	458
13	Crystallization Pathways in Biomineralization. Annual Review of Materials Research, 2011, 41, 21-40.	9.3	456
14	Mapping amorphous calcium phosphate transformation into crystalline mineral from the cell to the bone in zebrafish fin rays. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 6316-6321.	7.1	389
15	Transformation mechanism of amorphous calcium carbonate into calcite in the sea urchin larval spicule. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 17362-17366.	7.1	380
16	Stabilization of amorphous calcium carbonate by specialized macromolecules in biological and synthetic precipitates. Advanced Materials, 1996, 8, 222-226.	21.0	378
17	The Transient Phase of Amorphous Calcium Carbonate in Sea Urchin Larval Spicules: The Involvement of Proteins and Magnesium Ions in Its Formation and Stabilization. Advanced Functional Materials, 2003, 13, 480-486.	14.9	322
18	Growth and Dissolution of Organic Crystals with ?Tailor-Made? Inhibitors?Implications in Stereochemistry and Materials Science. Angewandte Chemie International Edition in English, 1985, 24, 466-485.	4.4	271

#	Article	IF	Citations
19	The Architecture of the Adhesive Apparatus of Cultured Osteoclasts: From Podosome Formation to Sealing Zone Assembly. PLoS ONE, 2007, 2, e179.	2.5	263
20	Cellular Control Over Spicule Formation in Sea Urchin Embryos: A Structural Approach. Journal of Structural Biology, 1999, 125, 50-62.	2.8	231
21	Control Over Aragonite Crystal Nucleation and Growth: An In Vitro Study of Biomineralization. Chemistry - A European Journal, 1998, 4, 389-396.	3.3	229
22	Acidic macromolecules of mineralized tissues: The controllers of crystal formation. Trends in Biochemical Sciences, 1991, 16, 252-256.	7.5	228
23	Bone mineralization proceeds through intracellular calcium phosphate loaded vesicles: A cryo-electron microscopy study. Journal of Structural Biology, 2011, 174, 527-535.	2.8	227
24	Mollusk Shell Acidic Proteins: In Search of Individual Functions. ChemBioChem, 2003, 4, 522-529.	2.6	220
25	Asprich: A Novel Aspartic Acid-Rich Protein Family from the Prismatic Shell Matrix of the Bivalve Atrina rigida. ChemBioChem, 2005, 6, 304-314.	2.6	220
26	Structural Characterization of the Transient Amorphous Calcium Carbonate Precursor Phase in Sea Urchin Embryos. Advanced Functional Materials, 2006, 16, 1289-1298.	14.9	219
27	Spiers Memorial Lecture : Lessons from biomineralization: comparing the growth strategies of mollusc shell prismatic and nacreous layers in Atrina rigida. Faraday Discussions, 2007, 136, 9.	3.2	217
28	Polysaccharides of Intracrystalline Glycoproteins Modulate Calcite Crystal Growth In Vitro. Chemistry - A European Journal, 1996, 2, 278-284.	3.3	209
29	Role of Magnesium Ion in the Stabilization of Biogenic Amorphous Calcium Carbonate: A Structureâ^'Function Investigation. Chemistry of Materials, 2010, 22, 161-166.	6.7	204
30	Biologically Formed Amorphous Calcium Carbonate. Connective Tissue Research, 2003, 44, 214-218.	2.3	187
31	Distinguishing between calcites formed by different mechanisms using infrared spectrometry: archaeological applications. Journal of Archaeological Science, 2010, 37, 3022-3029.	2.4	182
32	Initial Stages of Cell-Matrix Adhesion Can Be Mediated and Modulated by Cell-Surface Hyaluronan. Biophysical Journal, 2002, 82, 1848-1857.	0.5	165
33	The grinding tip of the sea urchin tooth exhibits exquisite control over calcite crystal orientation and Mg distribution. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 6048-6053.	7.1	161
34	The Mechanism of Color Change in the Neon Tetra Fish: a Lightâ€induced Tunable Photonic Crystal Array. Angewandte Chemie - International Edition, 2015, 54, 12426-12430.	13.8	152
35	Materials design in biology. Materials Science and Engineering C, 2000, 11, 1-8.	7.3	145
36	Initial stages of calcium uptake and mineral deposition in sea urchin embryos. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 39-44.	7.1	142

#	Article	IF	Citations
37	Crystals, asymmetry and life. Nature, 2001, 411, 753-755.	27.8	140
38	Guanineâ€Based Biogenic Photonicâ€Crystal Arrays in Fish and Spiders. Advanced Functional Materials, 2010, 20, 320-329.	14.9	136
39	Particle Accretion Mechanism Underlies Biological Crystal Growth from an Amorphous Precursor Phase. Advanced Functional Materials, 2014, 24, 5420-5426.	14.9	132
40	Chirality of Amyloid Suprastructures. Journal of the American Chemical Society, 2008, 130, 4602-4603.	13.7	130
41	Calcium Oxalate Crystals in Tomato and Tobacco Plants: Morphology and in Vitro Interactions of Crystal-Associated Macromolecules. Chemistry - A European Journal, 2001, 7, 1881-1888.	3.3	128
42	Spatial and Temporal Sequence of Events in Cell Adhesion: From Molecular Recognition to Focal Adhesion Assembly. ChemBioChem, 2004, 5, 1393-1399.	2.6	127
43	Light Manipulation by Guanine Crystals in Organisms: Biogenic Scatterers, Mirrors, Multilayer Reflectors and Photonic Crystals. Advanced Functional Materials, 2017, 27, 1603514.	14.9	125
44	Biogenic Guanine Crystals from the Skin of Fish May Be Designed to Enhance Light Reflectance. Crystal Growth and Design, 2008, 8, 507-511.	3.0	118
45	Kontrollâ€•und Designprinzipien bei der Biomineralisation. Angewandte Chemie, 1992, 104, 159-176.	2.0	115
46	Forming nacreous layer of the shells of the bivalves Atrina rigida and Pinctada margaritifera: An environmental- and cryo-scanning electron microscopy study. Journal of Structural Biology, 2008, 162, 290-300.	2.8	115
47	An organic hydrogel as a matrix for the growth of calcite crystalsElectronic supplementary information (ESI) available: Scanning electron micrographs of calcite etched with EDTA. See http://www.rsc.org/suppdata/ob/b3/b309731e/. Organic and Biomolecular Chemistry, 2004, 2, 137.	2.8	113
48	Sea Urchin Tooth Design: An â€œAllâ€Calciteâ€•Polycrystalline Reinforced Fiber Composite for Grinding Rocks. Advanced Materials, 2008, 20, 1555-1559.	21.0	111
49	Control of polymorphism by ?tailor-made? polymeric crystallization auxiliaries. Preferential precipitation of a metastable polar form for second harmonic generation. Advanced Materials, 1990, 2, 40-43.	21.0	108
50	Asprich mollusk shell protein: in vitro experiments aimed at elucidating function in CaCO3 crystallization. CrystEngComm, 2007, 9, 1171.	2.6	105
51	Organization and Adhesive Properties of the Hyaluronan Pericellular Coat of Chondrocytes and Epithelial Cells. Biophysical Journal, 2003, 85, 1996-2005.	0.5	103
52	Involvement of the Src-cortactin pathway in podosome formation and turnover during polarization of cultured osteoclasts. Journal of Cell Science, 2006, 119, 4878-4888.	2.0	99
53	Overview of the amorphous precursor phase strategy in biomineralization. Frontiers of Materials Science in China, 2009, 3, 104-108.	0.5	97
54	Biologically Induced Reduction in Symmetry: A Study of Crystal Texture of Calcitic Sponge Spicules. Chemistry - A European Journal, 1995, 1, 414-422.	3.3	95

#	Article	IF	Citations
55	Nano-topography sensing by osteoclasts. Journal of Cell Science, 2010, 123, 1503-1510.	2.0	95
56	Biomineralization: mineral formation by organisms. Physica Scripta, 2014, 89, 098003.	2.5	95
57	Decoupling Local Disorder and Optical Effects in Infrared Spectra: Differentiating Between Calcites with Different Origins. Advanced Materials, 2011, 23, 550-554.	21.0	91
58	The image-forming mirror in the eye of the scallop. Science, 2017, 358, 1172-1175.	12.6	90
59	Structural Basis for the Brilliant Colors of the Sapphirinid Copepods. Journal of the American Chemical Society, 2015, 137, 8408-8411.	13.7	89
60	Photopolymerization in chiral crystals. 4. Engineering of chiral crystals for asymmetric (2.pi. + 2.pi.) photopolymerization. Execution of an "absolute" asymmetric synthesis with quantitative enantiomeric yield. Journal of the American Chemical Society, 1982, 104, 3422-3429.	13.7	88
61	Calcite Crystal Growth by a Solidâ€State Transformation of Stabilized Amorphous Calcium Carbonate Nanospheres in a Hydrogel. Angewandte Chemie - International Edition, 2013, 52, 4867-4870.	13.8	88
62	Crystallization of Organic Molecules: Nonclassical Mechanism Revealed by Direct Imaging. ACS Central Science, 2018, 4, 1031-1036.	11.3	88
63	A perspective on underlying crystal growth mechanisms in biomineralization: solution mediated growth versus nanosphere particle accretion. CrystEngComm, 2015, 17, 2606-2615.	2.6	82
64	X-Ray absorption spectroscopy studies on the structure of a biogenic â€œamorphousâ€•calcium carbonate phaseâ€Šâ€. Dalton Transactions RSC, 2000, , 3977-3982.	2.3	81
65	Opposite Particle Size Effect on Amorphous Calcium Carbonate Crystallization in Water and during Heating in Air. Chemistry of Materials, 2015, 27, 4237-4246.	6.7	80
66	Mechanisms of crystal formation in goutâ€”a structural approach. Nature Reviews Rheumatology, 2015, 11, 725-730.	8.0	79
67	Fibronectin adsorption to surfaces of hydrated crystals. An analysis of the importance of bound water in protein-substrate interactions. Langmuir, 1993, 9, 1058-1065.	3.5	78
68	Phosphateâ€“Water Interplay Tunes Amorphous Calcium Carbonate Metastability: Spontaneous Phase Separation and Crystallization vs Stabilization Viewed by Solid State NMR. Journal of the American Chemical Society, 2015, 137, 990-998.	13.7	76
69	Photopolymerization of chiral crystals. 1. The planning and execution of a topochemical solid-state asymmetric synthesis with quantitative asymmetric induction. Journal of the American Chemical Society, 1978, 100, 2838-2844.	13.7	75
70	Photopolymerization in chiral crystals. 3. Toward an "absolute" asymmetric synthesis of optically active dimers and polymers with quantitative enantiomeric yield. Journal of the American Chemical Society, 1979, 101, 2152-2156.	13.7	75
71	Certain Biominerals in Leaves Function as Light Scatterers. Advanced Materials, 2012, 24, OP77-83.	21.0	74
72	On the pathway of mineral deposition in larval zebrafish caudal fin bone. Bone, 2015, 75, 192-200.	2.9	74

#	Article	IF	Citations
73	â€œGuanigmaâ€• The Revised Structure of Biogenic Anhydrous Guanine. Chemistry of Materials, 2015, 27, 8289-8297.	6.7	74
74	Calcium transport into the cells of the sea urchin larva in relation to spicule formation. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 12637-12642.	7.1	74
75	The Stabilizing Effect of Silicate on Biogenic and Synthetic Amorphous Calcium Carbonate. Journal of the American Chemical Society, 2010, 132, 13208-13211.	13.7	71
76	Cryo-FIB-SEM serial milling and block face imaging: Large volume structural analysis of biological tissues preserved close to their native state. Journal of Structural Biology, 2016, 196, 487-495.	2.8	71
77	Crystalline Domain Structure and Cholesterol Crystal Nucleation in Single Hydrated DPPC:Cholesterol:POPC Bilayers. Journal of the American Chemical Society, 2010, 132, 9920-9927.	13.7	70
78	Involvement of actin polymerization in podosome dynamics. Journal of Cell Science, 2012, 125, 1666-72.	2.0	70
79	Dynamic study of the transition from hyaluronan- to integrin-mediated adhesion in chondrocytes. EMBO Journal, 2006, 25, 302-311.	7.8	68
80	Structure of Cholesterol/Ceramide Monolayer Mixtures: Implications to the Molecular Organization of Lipid Rafts. Biophysical Journal, 2005, 88, 3381-3391.	0.5	67
81	Mineral Deposition and Crystal Growth in the Continuously Forming Teeth of Sea Urchins. Advanced Functional Materials, 2007, 17, 2693-2700.	14.9	67
82	Monoclonal antibody recognition of cholesterol monohydrate crystal faces. Chemistry and Biology, 1996, 3, 567-577.	6.0	66
83	Useful impurities for optical resolutions. 2. Generality and mechanism of the rule of reversal. Journal of the American Chemical Society, 1981, 103, 1249-1251.	13.7	64
84	Bone mineralization pathways during the rapid growth of embryonic chicken long bones. Journal of Structural Biology, 2016, 195, 82-92.	2.8	64
85	Mineral Formation in the Larval Zebrafish Tail Bone Occurs via an Acidic Disordered Calcium Phosphate Phase. Journal of the American Chemical Society, 2016, 138, 14481-14487.	13.7	62
86	Transport of membrane-bound mineral particles in blood vessels during chicken embryonic bone development. Bone, 2016, 83, 65-72.	2.9	62
87	The Structural Basis for Enhanced Silver Reflectance in Koi Fish Scale and Skin. Journal of the American Chemical Society, 2014, 136, 17236-17242.	13.7	61
88	The molecular dynamics of osteoclast adhesions. European Journal of Cell Biology, 2006, 85, 203-211.	3.6	60
89	Guanineâ€Based Photonic Crystals in Fish Scales Form from an Amorphous Precursor. Angewandte Chemie - International Edition, 2013, 52, 388-391.	13.8	60
90	Oxygen Spectroscopy and Polarization-Dependent Imaging Contrast (PIC)-Mapping of Calcium Carbonate Minerals and Biominerals. Journal of Physical Chemistry B, 2014, 118, 8449-8457.	2.6	60

#	Article	IF	Citations
91	BIOMINERALIZATION: At the Cutting Edge. Science, 2002, 298, 375-376.	12.6	57
92	Molecular recognition at the interface between crystals and biology: generation, manifestation and detection of chirality at crystal surfacesThis article is based (partly) on a presentation which will be made at the European Research Conference (EURESCO) on "Molecular Crystal Engineering - EuroConference on Design and Preparation of Molecular Materials" (Acquafredda di Maratea, Italy, 31) Tj ETQq0 0 0 rgBT /Overlock 10 T	2.6	55
93	Commission, Research DG, Hu. CrystEngComm, 2003, 5, 140-146. Guanine Crystallization in Aqueous Solutions Enables Control over Crystal Size and Polymorphism. Crystal Growth and Design, 2016, 16, 4975-4980.	3.0	54
94	Crystallization Pathways in Bone. Cells Tissues Organs, 2011, 194, 92-97.	2.3	52
95	Plant Cystoliths: A Complex Functional Biocomposite of Four Distinct Silica and Amorphous Calcium Carbonate Phases. Chemistry - A European Journal, 2012, 18, 10262-10270.	3.3	49
96	Antibody Recognition of Chiral Surfaces. Enantiomorphous Crystals of Leucine-Leucine-Tyrosine. Journal of the American Chemical Society, 2003, 125, 696-704.	13.7	48
97	Crystalline Lipid Domains: Characterization by Xâ€Ray Diffraction and their Relation to Biology. Angewandte Chemie - International Edition, 2011, 50, 3620-3629.	13.8	48
98	Lightâ€Induced Color Change in the Sapphirinid Copepods: Tunable Photonic Crystals. Advanced Functional Materials, 2016, 26, 1393-1399.	14.9	48
99	Mineral-bearing vesicle transport in sea urchin embryos. Journal of Structural Biology, 2015, 192, 358-365.	2.8	46
100	Two polymorphic cholesterol monohydrate crystal structures form in macrophage culture models of atherosclerosis. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 7662-7669.	7.1	46
101	Surfaceâ€Induced Regulation of Podosome Organization and Dynamics in Cultured Osteoclasts. ChemBioChem, 2009, 10, 158-165.	2.6	45
102	Relation between Serum Amyloid A Truncated Peptides and Their Suprastructure Chirality. Journal of the American Chemical Society, 2010, 132, 4242-4248.	13.7	45
103	Development of Correlative Cryo-soft X-ray Tomography and Stochastic Reconstruction Microscopy. A Study of Cholesterol Crystal Early Formation in Cells. Journal of the American Chemical Society, 2016, 138, 14931-14940.	13.7	44
104	Monoclonal antibody detection of plasma membrane cholesterol microdomains responsive to cholesterol trafficking. Journal of Lipid Research, 2001, 42, 1492-1500.	4.2	44
105	Ion Pathways in Biomineralization: Perspectives on Uptake, Transport, and Deposition of Calcium, Carbonate, and Phosphate. Journal of the American Chemical Society, 2021, 143, 21100-21112.	13.7	44
106	Formation of 3D Cholesterol Crystals from 2D Nucleation Sites in Lipid Bilayer Membranes: Implications for Atherosclerosis. Journal of the American Chemical Society, 2015, 137, 1601-1607.	13.7	42
107	Substrate Adhesion Regulates Sealing Zone Architecture and Dynamics in Cultured Osteoclasts. PLoS ONE, 2011, 6, e28583.	2.5	41
108	Infrared Absorption Spectrum of Brushite from First Principles. Chemistry of Materials, 2014, 26, 2934-2942.	6.7	41

#	Article	IF	Citations
109	Effects of surface microtopography on the assembly of the osteoclast resorption apparatus. Journal of the Royal Society Interface, 2012, 9, 1599-1608.	3.4	39
110	Optically functional isoxanthopterin crystals in the mirrored eyes of decapod crustaceans. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2299-2304.	7.1	39
111	The Organic Crystalline Materials of Vision: Structureâ€"Function Considerations from the Nanometer to the Millimeter Scale. Advanced Materials, 2018, 30, e1800006.	21.0	38
112	Structure of Cholesterol/Lipid Ordered Domains in Monolayers and Single Hydrated Bilayers. Angewandte Chemie - International Edition, 2009, 48, 8958-8961.	13.8	37
113	Spontaneous Formation of Two-Dimensional and Three-Dimensional Cholesterol Crystals in Single Hydrated Lipid Bilayers. Biophysical Journal, 2012, 103, 255-264.	0.5	37
114	Cellular pathways of calcium transport and concentration toward mineral formation in sea urchin larvae. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30957-30965.	7.1	37
115	Biologically Controlled Morphology and Twinning in Guanine Crystals. Angewandte Chemie - International Edition, 2017, 56, 9420-9424.	13.8	36
116	Morphology of Goethite Crystals in Developing Limpet Teeth:â€‰ Assessing Biological Control over Mineral Formationâ€. Crystal Growth and Design, 2005, 5, 2131-2138.	3.0	35
117	Mineral and Matrix Components of the Operculum and Shell of the Barnacle Balanus amphitrite: Calcite Crystal Growth in a Hydrogel. Crystal Growth and Design, 2011, 11, 5122-5130.	3.0	35
118	Biomineralization pathways in a foraminifer revealed using a novel correlative cryo-fluorescenceâ€"SEMâ€"EDS technique. Journal of Structural Biology, 2016, 196, 155-163.	2.8	34
119	Mineral Deposits in Ficus Leaves: Morphologies and Locations in Relation to Function. Plant Physiology, 2018, 176, 1751-1763.	4.8	34
120	Stereoselective Interactions of a Specialized Antibody with Cholesterol and Epicholesterol Monolayers. Chemistry - A European Journal, 2000, 6, 869-874.	3.3	33
121	Formation of Aragonite Crystals in the Crossed Lamellar Microstructure of Limpet Shells. Crystal Growth and Design, 2011, 11, 4850-4859.	3.0	33
122	On the Phase Diagram of Calcium Carbonate Solutions. Advanced Materials Interfaces, 2017, 4, 1600076.	3.7	33
123	Plants and Light Manipulation: The Integrated Mineral System in Okra Leaves. Advanced Science, 2017, 4, 1600416.	11.2	33
124	Useful impurities for optical resolutions. 3. An improved Pasteur-type resolution of conglomerates and a new empirical method for assignment of absolute configuration. Journal of the American Chemical Society, 1981, 103, 1251-1252.	13.7	32
125	Aragonite Formation in the Chiton (Mollusca) Girdle. Helvetica Chimica Acta, 2003, 86, 1101-1112.	1.6	32
126	Extracellular cholesterol-rich microdomains generated by human macrophages and their potential function in reverse cholesterol transport. Journal of Lipid Research, 2010, 51, 2303-2313.	4.2	32

#	Article	IF	Citations
127	ABCG1-mediated generation of extracellular cholesterol microdomains. Journal of Lipid Research, 2014, 55, 115-127.	4.2	32
128	Anhydrous Î²-guanine crystals in a marine dinoflagellate: Structure and suggested function. Journal of Structural Biology, 2019, 207, 12-20.	2.8	32
129	Useful impurities for optical resolution. 4. Attempted amplification of optical activity by crystallization of chiral crystals of photopolymerizing dienes in the presence of their topochemical products. Journal of the American Chemical Society, 1982, 104, 3429-3434.	13.7	31
130	Intercellular pathways from the vasculature to the forming bone in the zebrafish larval caudal fin: Possible role in bone formation. Journal of Structural Biology, 2019, 206, 139-148.	2.8	30
131	Temperature-Sensitive Micrometer-Thick Layers of Hyaluronan Grafted on Microspheres. Journal of the American Chemical Society, 2006, 128, 1119-1124.	13.7	29
132	Specificity in the recognition of crystals by antibodies. Journal of Molecular Recognition, 1994, 7, 257-264.	2.1	28
133	Mineralized biological materials: A perspective on interfaces and interphases designed over millions of years. Biointerphases, 2006, 1, P12-P14.	1.6	28
134	Control of Biogenic Nanocrystal Formation in Biomineralization. Israel Journal of Chemistry, 2016, 56, 227-241.	2.3	28
135	Useful impurities for optical resolutions. 1. Crystallization of photopolymerizing dienes in the presence of their chiral topochemical products. Journal of the American Chemical Society, 1981, 103, 1248-1249.	13.7	27
136	Biomineralization pathways in calcifying dinoflagellates: Uptake, storage in MgCaP-rich bodies and formation of the shell. Acta Biomaterialia, 2020, 102, 427-439.	8.3	27
137	Pattern Recognition by Antibodies for Two-Dimensional Arrays of Molecules. Advanced Materials, 1998, 10, 1009-1013.	21.0	26
138	Characterization of unusual MgCa particles involved in the formation of foraminifera shells using a novel quantitative cryo SEM/EDS protocol. Acta Biomaterialia, 2018, 77, 342-351.	8.3	26
139	A highly reflective biogenic photonic material from coreâ€“shell birefringent nanoparticles. Nature Nanotechnology, 2020, 15, 138-144.	31.5	26
140	Biogenic Guanine Crystals Are Solid Solutions of Guanine and Other Purine Metabolites. Journal of the American Chemical Society, 2022, 144, 5180-5189.	13.7	26
141	Stereoselective Recognition of Monolayers of Cholesterol,ent-Cholesterol, and Epicholesterol by an Antibody. ChemBioChem, 2001, 2, 265-271.	2.6	25
142	Biologically Controlled Morphology and Twinning in Guanine Crystals. Angewandte Chemie, 2017, 129, 9548-9552.	2.0	25
143	Mineralization pathways in the active murine epiphyseal growth plate. Bone, 2020, 130, 115086.	2.9	25
144	Biologically Formed Amorphous Calcium Carbonate. Connective Tissue Research, 2003, 44, 214-218.	2.3	24

#	Article	IF	Citations
145	Atomic order of aragonite crystals formed by mollusks. CrystEngComm, 2011, 13, 6780.	2.6	23
146	Transient precursor amorphous phases in biomineralization.In the footsteps of Heinz A. Lowenstam. Zeitschrift Fur Kristallographie - Crystalline Materials, 2012, 227, 711-717.	0.8	23
147	Structural information about organized cholesterol domains from specific antibody recognition. Biochimica Et Biophysica Acta - Biomembranes, 2003, 1610, 208-216.	2.6	22
148	Achiral Calcium-Oxalate Crystals with Chiral Morphology from the Leaves of Some Solanacea Plants. Helvetica Chimica Acta, 2003, 86, 4007-4017.	1.6	21
149	Hyaluronan in the pericellular coat: an additional layer of complexity in early cell adhesion events. Soft Matter, 2007, 3, 327.	2.7	21
150	Two and Three-Dimensional Pattern Recognition of Organized Surfaces by Specific Antibodies. Accounts of Chemical Research, 2008, 41, 254-264.	15.6	21
151	Macrophages Shed Excess Cholesterol in Unique Extracellular Structures Containing Cholesterol Microdomains. Arteriosclerosis, Thrombosis, and Vascular Biology, 2018, 38, 1504-1518.	2.4	21
152	ABCA1 contributes to macrophage deposition of extracellular cholesterol. Journal of Lipid Research, 2015, 56, 1720-1726.	4.2	20
153	Acute calcific band keratopathy: Case report and literature review. Journal of Cataract and Refractive Surgery, 2013, 39, 292-294.	1.5	18
154	ABCA1 (ATP-Binding Cassette Transporter A1) Mediates ApoA-I (Apolipoprotein A-I) and ApoA-I Mimetic Peptide Mobilization of Extracellular Cholesterol Microdomains Deposited by Macrophages. Arteriosclerosis, Thrombosis, and Vascular Biology, 2016, 36, 2283-2291.	2.4	18
155	Zebrafish skeleton development: High resolution micro-CT and FIB-SEM block surface serial imaging for phenotype identification. PLoS ONE, 2017, 12, e0177731.	2.5	18
156	Guanine and 7,8-Dihydroxanthopterin Reflecting Crystals in the Zander Fish Eye: Crystal Locations, Compositions, and Structures. Journal of the American Chemical Society, 2019, 141, 19736-19745.	13.7	18
157	Intracellular localization of organized lipid domains of C16-ceramide/cholesterol. Journal of Structural Biology, 2011, 175, 21-30.	2.8	17
158	Monoclonal antibodies to insulin and to the insulin receptor (anti-ID) modify the morphologies of insulin crystals. Journal of Crystal Growth, 1992, 122, 344-350.	1.5	16
159	The Mechanism of Color Change in the Neon Tetra Fish: a Lightâ€Induced Tunable Photonic Crystal Array. Angewandte Chemie, 2015, 127, 12603-12607.	2.0	16
160	The Nonâ€Classical Crystallization Mechanism of a Composite Biogenic Guanine Crystal. Advanced Materials, 2022, 34, .	21.0	16
161	Antibody Labeling of Cholesterol/Ceramide Ordered Domains in Cell Membranes. ChemBioChem, 2007, 8, 2286-2294.	2.6	15
162	Surface microtopography modulates sealing zone development in osteoclasts cultured on bone. Journal of the Royal Society Interface, 2017, 14, 20160958.	3.4	15

#	Article	IF	Citations
163	A 3D study of the relationship between leaf vein structure and mechanical function. Acta Biomaterialia, 2019, 88, 111-119.	8.3	15
164	Accumulation of Ordered Ceramide-Cholesterol Domains in Farber Disease Fibroblasts. JIMD Reports, 2013, 12, 71-77.	1.5	14
165	Fluorescent Silica Nanoparticles to Label Metastatic Tumor Cells in Mineralized Bone Microenvironments. Small, 2021, 17, e2001432.	10.0	14
166	Koi Fishâ€Scale Iridophore Cells Orient Guanine Crystals to Maximize Light Reflection. ChemPlusChem, 2017, 82, 914-923.	2.8	14
167	Study of Osteoclast Adhesion to Cortical Bone Surfaces: A Correlative Microscopy Approach for Concomitant Imaging of Cellular Dynamics and Surface Modifications. ACS Applied Materials & Interfaces, 2016, 8, 14932-14943.	8.0	13
168	Structure and Morphology of Light-Reflecting Synthetic and Biogenic Polymorphs of Isoxanthopterin: A Comparison. Chemistry of Materials, 2019, 31, 4479-4489.	6.7	12
169	The PteropodCreseis aciculaForms Its Shell through a Disordered Nascent Aragonite Phase. Crystal Growth and Design, 2019, 19, 2564-2573.	3.0	12
170	The Effect of the Phospholipid Bilayer Environment on Cholesterol Crystal Polymorphism. ChemPlusChem, 2019, 84, 338-344.	2.8	12
171	Functional Molecular Crystals in Biology. Israel Journal of Chemistry, 2021, 61, 668-678.	2.3	12
172	Controlled Occlusion of Proteins: A Tool for Modulating the Properties of Skeletal Elements. Molecular Crystals and Liquid Crystals, 1994, 248, 185-198.	0.3	11
173	Controlled Modification of Crystal Habit by ?Tailor-Made? Impurities: Application to Benzamide. Angewandte Chemie International Edition in English, 1982, 21, 631-632.	4.4	9
174	Structural Recognition of Cholesterol-Ceramide Monolayers by a Specific Monoclonal Antibody. ChemBioChem, 2006, 7, 1680-1682.	2.6	9
175	Characterization of the growth plate-bone interphase region using cryo-FIB SEM 3D volume imaging. Journal of Structural Biology, 2021, 213, 107781.	2.8	9
176	Cell-Adhesion to Crystal Surfaces: Adhesion-Induced Physiological Cell Death. Cell Adhesion and Communication, 1996, 4, 341-353.	1.7	8
177	Polymorphism, Structure, and Nucleation of CholesterolÂ·H₂O at Aqueous Interfaces and in Pathological Media: Revisited from a Computational Perspective. Journal of the American Chemical Society, 2022, 144, 5304-5314.	13.7	8
178	Interactions between Antibodies and Crystal Surfaces. Molecular Crystals and Liquid Crystals, 1996, 278, 1-15.	0.3	7
179	Antibody recognition of chiral surfaces. Structural models of antibody complexes with leucine-leucine-tyrosine crystal surfaces. Proteins: Structure, Function and Bioinformatics, 2004, 55, 862-873.	2.6	7
180	The gizzard plates in the Cephalaspidean gastropod Philine quadripartita: Analysis of structure and function. Quaternary International, 2015, 390, 4-14.	1.5	6

#	Article	IF	Citations
181	The shell microstructure of the pteropod Creseis acicula is composed of nested arrays of S-shaped aragonite fibers: A unique biological material. MRS Bulletin, 2022, 47, 18-28.	3.5	6
182	Micro-printing with crystal inks. Nature, 1999, 398, 461-462.	27.8	5
183	Measuring the optical properties of nanoscale biogenic spherulites. Optics Express, 2021, 29, 20863.	3.4	5
184	Control Over Aragonite Crystal Nucleation and Growth: An In Vitro Study of Biomineralization. Chemistry - A European Journal, 1998, 4, 389-396.	3.3	5
185	Stereospecific and Structure Specific Recognition of Two- and Three- Dimensionally Organized Surfacesby Biological Macromolecules. Molecular Crystals and Liquid Crystals, 2003, 390, 57-66.	0.9	4
186	Structural organization of xanthine crystals in the median ocellus of a member of the ancestral insect group Archaeognatha. Journal of Structural Biology, 2022, 214, 107834.	2.8	4
187	Crystalline Cholesterol: The Material and Its Assembly Lines. Annual Review of Materials Research, 2022, 52, .	9.3	3
188	Control Over Aragonite Crystal Nucleation and Growth: An In Vitro Study of Biomineralization. , 1998, 4, 389.		2
189	Characterization and possible function of an enigmatic reflector in the eye of the shrimp Litopenaeus vannamei. Faraday Discussions, 2020, 223, 278-294.	3.2	2
190	Inside Cover: Crystalline Lipid Domains: Characterization by Xâ€Ray Diffraction and their Relation to Biology (Angew. Chem. Int. Ed. 16/2011). Angewandte Chemie - International Edition, 2011, 50, 3576-3576.	13.8	1
191	Rosarium Philosophorum â€“ Structural Chemistry, in Dedication to Jack Dunitz. Israel Journal of Chemistry, 2017, 57, 7-8.	2.3	1
192	Animal Eyes: Filtering Out the Background. Current Biology, 2019, 29, R938-R941.	3.9	1
193	The Effect of the Phospholipid Bilayer Environment on Cholesterol Crystal Polymorphism. ChemPlusChem, 2019, 84, 317-317.	2.8	1
194	Heroes of Stereochemistry and Crystals. Israel Journal of Chemistry, 2021, 61, 681-682.	2.3	1
195	Handbook of Biomineralization. Herausgegeben von Edmund BÃuerlein, Peter Behrens und Matthias Epple.. Angewandte Chemie, 2009, 121, 861-862.	2.0	0
196	Cholesterol-Enriched Macrophages Shed Cholesterol Microdomains Into the Extracellular Matrix. Atherosclerosis Supplements, 2018, 32, 93-94.	1.2	0
197	Natural Photonic Structures from Birefringent Core-Shell Nanoparticles. Optics and Photonics News, 2020, 31, 51.	0.5	0
198	Abstract 534: Abca1 Mediates Macrophage Deposition of Cholesterol Into the Extracellular Matrix. Arteriosclerosis, Thrombosis, and Vascular Biology, 2015, 35, .	2.4	0