Fabio Nudelman

List of Publications by Year
in descending order

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47 papers	4,712 citations	236925 25 h-index	223800 46 g-index
54 all docs	54 docs citations	54 times ranked	5587 citing authors

#	Article	IF	Citations
1	The role of collagen in bone apatite formation in the presence of hydroxyapatite nucleation inhibitors. Nature Materials, 2010, 9, 1004-1009.	27.5	960
2	Mollusk Shell Formation: A Source of New Concepts for Understanding Biomineralization Processes. Chemistry - A European Journal, 2006, 12, 980-987.	3.3	919
3	Biomineralization as an Inspiration for Materials Chemistry. Angewandte Chemie - International Edition, 2012, 51, 6582-6596.	13.8	426
4	Mollusk shell formation: Mapping the distribution of organic matrix components underlying a single aragonitic tablet in nacre. Journal of Structural Biology, 2006, 153, 176-187.	2.8	296
5	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
6	In vitro models of collagen biomineralization. Journal of Structural Biology, 2013, 183, 258-269.	2.8	215
7	A classical view on nonclassical nucleation. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E7882-E7890.	7.1	181
8	Think Positive: Phase Separation Enables a Positively Charged Additive to Induce Dramatic Changes in Calcium Carbonate Morphology. Advanced Functional Materials, 2012, 22, 907-915.	14.9	128
9	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
10	Frustrated Lewis Pair Polymers as Responsive Self-Healing Gels. Journal of the American Chemical Society, 2017, 139, 14232-14236.	13.7	95
11	Temperature-Responsive Nanospheres with Bicontinuous Internal Structures from a Semicrystalline Amphiphilic Block Copolymer. Journal of the American Chemical Society, 2010, 132, 10256-10259.	13.7	91
12	Intermolecular channels direct crystal orientation in mineralized collagen. Nature Communications, 2020, 11, 5068.	12.8	90
13	Formation of Fluorohydroxyapatite with Silver Diamine Fluoride. Journal of Dental Research, 2017, 96, 1122-1128.	5.2	89
14	The role of the amorphous phase on the biomimetic mineralization of collagen. Faraday Discussions, 2012, 159, 357.	3.2	73
15	Nacre biomineralisation: A review on the mechanisms of crystal nucleation. Seminars in Cell and Developmental Biology, 2015, 46, 2-10.	5.0	67
16	Solidâ€State Transformation of Amorphous Calcium Carbonate to Aragonite Captured by CryoTEM. Angewandte Chemie - International Edition, 2017, 56, 11740-11743.	13.8	66
17	Unexpected differences between D- and L- tyrosine lead to chiral enhancement in racemic mixtures. Origins of Life and Evolution of Biospheres, 2002, 32, 285-297.	1.9	57
18	Uniting Polypeptides with Sequence-Designed Peptides: Synthesis and Assembly of Poly(Î³-benzyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2370-2377.	13.7	57

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19	Controlling Internal Pore Sizes in Bicontinuous Polymeric Nanospheres. Angewandte Chemie - International Edition, 2015, 54, 2457-2461.	13.8	56
20	Cryo-electron tomography: 3-dimensional imaging of soft matter. Soft Matter, 2011, 7, 17-24.	2.7	54
21	Stabilization of amorphous calcium carbonate by controlling its particle size. Nanoscale, 2010, 2, 2436.	5.6	46
22	Controlling the Distribution of Supported Nanoparticles by Aqueous Synthesis. Chemistry of Materials, 2013, 25, 890-896.	6.7	44
23	Mineralized biological materials: A perspective on interfaces and interphases designed over millions of years. Biointerphases, 2006, 1, P12-P14.	1.6	28
24	Polymorph evolution during crystal growth studied by 3D electron diffraction. IUCrJ, 2020, 7, 5-9.	2.2	27
25	Longâ€Lived Foams Stabilized by a Hydrophobic Dipeptide Hydrogel. Advanced Materials Interfaces, 2016, 3, 1500601.	3.7	26
26	The binding of CNA35 contrast agents to collagen fibrils. Chemical Communications, 2011, 47, 1503-1505.	4.1	24
27	Enzymatic pH control for biomimetic deposition of calcium phosphate coatings. Acta Biomaterialia, 2014, 10, 931-939.	8.3	21
28	Polymorph Selectivity of Coccolithâ€Associated Polysaccharides from Gephyrocapsa Oceanica on Calcium Carbonate Formation In Vitro. Advanced Functional Materials, 2019, 29, 1807168.	14.9	21
29	The effects of strontium-doped bioactive glass and fluoride on hydroxyapatite crystallization. Journal of Dentistry, 2021, 105, 103581.	4.1	21
30	Î²-Chitin Nanofibril Self-Assembly in Aqueous Environments. Biomacromolecules, 2019, 20, 2421-2429.	5.4	19
31	Three-dimensional architecture and surface functionality of coccolith base plates. Journal of Structural Biology, 2019, 208, 127-136.	2.8	15
32	Morphological development of Pleurochrysis carterae coccoliths examined by cryo-electron tomography. Journal of Structural Biology, 2020, 210, 107476.	2.8	15
33	A novel fluorescein-bisphosphonate based diagnostic tool for the detection of hydroxyapatite in both cell and tissue models. Scientific Reports, 2018, 8, 17360.	3.3	14
34	Controlling Internal Pore Sizes in Bicontinuous Polymeric Nanospheres. Angewandte Chemie, 2015, 127, 2487-2491.	2.0	13
35	A lathe system for micrometre-sized cylindrical sample preparation at room and cryogenic temperatures. Journal of Synchrotron Radiation, 2020, 27, 472-476.	2.4	12
36	A Biomimetic Model for Mineralization of Type-I Collagen Fibrils. Methods in Molecular Biology, 2019, 1944, 39-54.	0.9	11

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37	Disordered Filaments Mediate the Fibrillogenesis of Type I Collagen in Solution. Biomacromolecules, 2020, 21, 3631-3643.	5.4	10
38	Revealing the early stages of carbamazepine crystallization by cryoTEM and 3D electron diffraction. IUCrJ, 2021, 8, 860-866.	2.2	10
39	Mechanical adaptation of brachiopod shells via hydration-induced structural changes. Nature Communications, 2021, 12, 5383.	12.8	9
40	Solidâ€State Transformation of Amorphous Calcium Carbonate to Aragonite Captured by CryoTEM. Angewandte Chemie, 2017, 129, 11902-11905.	2.0	7
41	Effect of Ag Co-catalyst on TiO2â€“Cu2O nanocomposites structure and apparent visible photocatalytic activity. Journal of Environmental Management, 2020, 260, 110175.	7.8	5
42	Enhancing strength in mineralized collagen. Science, 2022, 376, 137-138.	12.6	5
43	Ablation of Enpp6 Results in Transient Bone Hypomineralization. JBMR Plus, 2021, 5, e10439.	2.7	4
44	Micron-sized biogenic and synthetic hollow mineral spheres occlude additives within single crystals. Faraday Discussions, 2022, 235, 536-550.	3.2	4
45	A first-order phase transition in Blatter's radical at high pressure. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2022, 78, 107-116.	1.1	2
46	1â€…Detection of calcification in atherosclerotic plaques using optical imaging. , 2018, , .		0
47	Learning lessons from nature â€“ the future of biomimetics: general discussion. Faraday Discussions, 0, 235, 562-568.	3.2	0