Xurong Xu

List of Publications by Year in descending order

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84 papers	4,636 citations	81900 39 h-index	102487 66 g-index
86 all docs	86 docs citations	86 times ranked	5385 citing authors

#	Article	IF	Citations
1	Diverse Access to Artificial Superhydrophobic Surfaces Using Block Copolymers. Langmuir, 2005, 21, 6662-6665.	3.5	219
2	Yeast Cells with an Artificial Mineral Shell: Protection and Modification of Living Cells by Biomimetic Mineralization. Angewandte Chemie - International Edition, 2008, 47, 3560-3564.	13.8	203
3	Repair of enamel by using hydroxyapatite nanoparticles as the building blocks. Journal of Materials Chemistry, 2008, 18, 4079.	6.7	195
4	Stable Superhydrophobic Organicâ"Inorganic Hybrid Films by Electrostatic Self-Assembly. Journal of Physical Chemistry B, 2005, 109, 20773-20778.	2.6	184
5	Crosslinking ionic oligomers as conformable precursors to calcium carbonate. Nature, 2019, 574, 394-398.	27.8	166
6	Ultrasonic Controlled Morphology Transformation of Hollow Calcium Phosphate Nanospheres:Â A Smart and Biocompatible Drug Release System. Chemistry of Materials, 2007, 19, 3081-3083.	6.7	161
7	Roles of Amorphous Calcium Phosphate and Biological Additives in the Assembly of Hydroxyapatite Nanoparticles. Journal of Physical Chemistry B, 2007, 111, 13410-13418.	2.6	156
8	Effect of crystallinity of calcium phosphate nanoparticles on adhesion, proliferation, and differentiation of bone marrow mesenchymal stem cells. Journal of Materials Chemistry, 2007, 17, 4690.	6.7	152
9	Toward a Detailed Understanding of Magnesium Ions on Hydroxyapatite Crystallization Inhibition. Crystal Growth and Design, 2014, 14, 763-769.	3.0	140
10	Transformation of amorphous calcium carbonate into aragonite. Journal of Crystal Growth, 2012, 343, 62-67.	1.5	135
11	Rational design of thermostable vaccines by engineered peptide-induced virus self-biomineralization under physiological conditions. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7619-7624.	7.1	134
12	Formation of Amorphous Calcium Carbonate Thin Films and Their Role in Biomineralization. Chemistry of Materials, 2004, 16, 1740-1746.	6.7	125
13	Magnesium-aspartate-based crystallization switch inspired from shell molt of crustacean. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 22096-22101.	7.1	120
14	Adsorption Processes of Gly and Glu Amino Acids on Hydroxyapatite Surfaces at the Atomic Level. Langmuir, 2007, 23, 8972-8981.	3.5	119
15	Bioâ€Inspired Enamel Repair via Gluâ€Directed Assembly of Apatite Nanoparticles: an Approach to Biomaterials with Optimal Characteristics. Advanced Materials, 2011, 23, 4695-4701.	21.0	105
16	Two Modes of Transformation of Amorphous Calcium Carbonate Films in Air. Journal of Physical Chemistry B, 2006, 110, 2764-2770.	2.6	94
17	Surface Modification of Hydroxyapatite Nanocrystallite by a Small Amount of Terbium Provides a Biocompatible Fluorescent Probe. Journal of Physical Chemistry C, 2008, 112, 12219-12224.	3.1	82
18	Improvement of Biological Organisms Using Functional Material Shells. Advanced Functional Materials, 2016, 26, 1862-1880.	14.9	81

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19	Alleviation of high light-induced photoinhibition in cyanobacteria by artificially conferred biosilica shells. Chemical Communications, 2013, 49, 7525.	4.1	76
20	Extracellular Silica Nanocoat Confers Thermotolerance on Individual Cells: A Case Study of Materialâ€Based Functionalization of Living Cells. ChemBioChem, 2010, 11, 2368-2373.	2.6	69
21	Silicificationâ€Induced Cell Aggregation for the Sustainable Production of H₂ under Aerobic Conditions. Angewandte Chemie - International Edition, 2015, 54, 11961-11965.	13.8	68
22	The roles of water and polyelectrolytes in the phase transformation of amorphous calcium carbonate. Journal of Crystal Growth, 2008, 310, 3779-3787.	1.5	66
23	Amorphous calcium phosphate phase-mediated crystal nucleation kinetics and pathway. Faraday Discussions, 2015, 179, 451-461.	3.2	66
24	Calcium phosphate nanoparticles primarily induce cell necrosis through lysosomal rupture: the origination of material cytotoxicity. Journal of Materials Chemistry B, 2014, 2, 3480.	5.8	62
25	Direct Synthesis of Hollow Vaterite Nanospheres from Amorphous Calcium Carbonate Nanoparticles via Phase Transformation. Journal of Physical Chemistry C, 2008, 112, 11324-11330.	3.1	61
26	Evolution of Amorphous Calcium Phosphate to Hydroxyapatite Probed by Gold Nanoparticles. Journal of Physical Chemistry C, 2008, 112, 14929-14933.	3.1	57
27	Biomineralizationâ€Based Virus Shellâ€Engineering: Towards Neutralization Escape and Tropism Expansion. Advanced Healthcare Materials, 2012, 1, 443-449.	7.6	57
28	Unique Roles of Acidic Amino Acids in Phase Transformation of Calcium Phosphates. Journal of Physical Chemistry B, 2011, 115, 1151-1157.	2.6	55
29	Atomic Force Microscopy Reveals Hydroxyapatiteâ^'Citrate Interfacial Structure at the Atomic Level. Langmuir, 2008, 24, 12446-12451.	3.5	54
30	Biomimetic Fabrication of Vaterite Film from Amorphous Calcium Carbonate on Polymer Melt:Â Effect of Polymer Chain Mobility and Functionality. Chemistry of Materials, 2005, 17, 136-141.	6.7	53
31	Pressure-driven fusion of amorphous particles into integrated monoliths. Science, 2021, 372, 1466-1470.	12.6	52
32	High efficient multifunctional Ag3PO4 loaded hydroxyapatite nanowires for water treatment. Journal of Hazardous Materials, 2015, 299, 379-387.	12.4	51
33	Improved Luminescence of Lanthanide(III)-Doped Nanophosphors by Linear Aggregation. Journal of Physical Chemistry C, 2007, 111, 4111-4115.	3.1	48
34	Effect of composition distribution on miscibility and co-crystallization phenomena in the blends of low density polyethylene with conventional and metallocene-based ethyleneâ€“butene copolymers. Polymer, 2001, 42, 3867-3874.	3.8	44
35	Structural Components and Anisotropic Dissolution Behaviors in One Hexagonal Single Crystal of Î²-Tricalcium Phosphate. Crystal Growth and Design, 2008, 8, 2227-2234.	3.0	44
36	Hydration layer structures on calcite facets and their roles in selective adsorptions of biomolecules: A molecular dynamics study. Journal of Chemical Physics, 2013, 139, 234705.	3.0	42

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37	Deposition of Amorphous Calcium Carbonate Hemispheres on Substrates. Langmuir, 2005, 21, 4801-4804.	3.5	40
38	Controls of Tricalcium Phosphate Single-Crystal Formation from Its Amorphous Precursor by Interfacial Energy. Crystal Growth and Design, 2009, 9, 3154-3160.	3.0	40
39	Remineralization of dentin collagen by meta-stabilized amorphous calcium phosphate. CrystEngComm, 2013, 15, 6151.	2.6	39
40	Preparation of large-sized hydroxyapatite single crystals using homogeneous releasing controls. Journal of Crystal Growth, 2007, 308, 151-158.	1.5	37
41	Effect of short chain-branching distribution on crystallinity and modulus of metallocene-based ethylene-butene copolymers. Journal of Applied Polymer Science, 2000, 77, 1709-1715.	2.6	36
42	Short chain branching distributions of metallocene-based ethylene copolymers. European Polymer Journal, 2000, 36, 685-693.	5.4	36
43	Biomineralized vaccine nanohybrid for needle-free intranasal immunization. Biomaterials, 2016, 106, 286-294.	11.4	35
44	Biomimetically Triggered Inorganic Crystal Transformation by Biomolecules: A New Understanding of Biomineralization. Journal of Physical Chemistry B, 2009, 113, 10838-10844.	2.6	34
45	Selfâ€Assembled Organicâ€“Inorganic Hybrid Elastic Crystal via Biomimetic Mineralization. Advanced Materials, 2010, 22, 3729-3734.	21.0	34
46	A Flexible and Degradable Hybrid Mineral as a Plastic Substitute. Advanced Materials, 2022, 34, e2107523.	21.0	34
47	Biomimetic graphene oxideâ€“hydroxyapatite composites via in situ mineralization and hierarchical assembly. RSC Advances, 2014, 4, 25398-25403.	3.6	33
48	Preparation of Calcite and Aragonite Complex Layer Materials Inspired from Biomineralization. Crystal Growth and Design, 2009, 9, 3095-3099.	3.0	29
49	Guarding Embryo Development of Zebrafish by Shell Engineering: A Strategy to Shield Life from Ozone Depletion. PLoS ONE, 2010, 5, e9963.	2.5	29
50	Protection of Photosynthetic Algae against Ultraviolet Radiation by One-Step CeO₂ Shellization. Langmuir, 2017, 33, 2454-2459.	3.5	29
51	Prevention of Cyanobacterial Blooms Using Nanosilica: A Biomineralization-Inspired Strategy. Environmental Science & Technology, 2017, 51, 12717-12726.	10.0	28
52	Overcoming cisplatin resistance in chemotherapy by biomineralization. Chemical Communications, 2013, 49, 4932.	4.1	27
53	The effect of amorphous calcium phosphate on protein protection against thermal denaturation. Chemical Communications, 2015, 51, 8705-8707.	4.1	27
54	Cells Recognize and Prefer Bone-like Hydroxyapatite: Biochemical Understanding of Ultrathin Mineral Platelets in Bone. ACS Applied Materials & Interfaces, 2016, 8, 29997-30004.	8.0	25

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55	Sequential formation of calcium carbonate superstructure: From solid/hollow spheres to sponge-like/solid films. Journal of Crystal Growth, 2007, 308, 110-116.	1.5	23
56	Nano Regulation of Cisplatin Chemotherapeutic Behaviors by Biomineralization Controls. Small, 2014, 10, 3644-3649.	10.0	21
57	Synergic Effect of Sr²⁺ and Mg²⁺ on the Stabilization of Amorphous Calcium Phosphate. Crystal Growth and Design, 2018, 18, 6054-6060.	3.0	20
58	Biomimetic construction of cellular shell by adjusting the interfacial energy. Biotechnology and Bioengineering, 2014, 111, 386-395.	3.3	19
59	Dual Roles of Borax in Kinetics of Calcium Sulfate Dihydrate Formation. Langmuir, 2007, 23, 5070-5076.	3.5	18
60	Biomimetic inorganic camouflage circumvents antibody-dependent enhancement of infection. Chemical Science, 2017, 8, 8240-8246.	7.4	18
61	Therapeutic Potential of Biomineralizationâ€Based Engineering. Advanced Therapeutics, 2018, 1, 1800079.	3.2	18
62	Dynamic rheological behaviors of metallocene-based ethyleneâ€“butene copolymers and their blends with low-density polyethylene. European Polymer Journal, 2002, 38, 365-375.	5.4	17
63	A Size-controlled Synthesis of Hollow Apatite Nanospheres at Waterâ€“Oil Interfaces. Chemistry Letters, 2010, 39, 674-675.	1.3	16
64	Switchable Chiral Selection of Aspartic Acids by Dynamic States of Brushite. Journal of the American Chemical Society, 2017, 139, 8562-8569.	13.7	16
65	Improvement in the Photobiological Hydrogen Production of Aggregated Chlorella by Dimethyl Sulfoxide. ChemBioChem, 2018, 19, 669-673.	2.6	16
66	Role of fetal bovine serum in the prevention of calcification in biological fluids. Journal of Crystal Growth, 2008, 310, 4672-4675.	1.5	15
67	Controlled formation of calcium-phosphate-based hybrid mesocrystals by organicâ€“inorganic co-assembly. Nanoscale, 2010, 2, 2456.	5.6	15
68	Long-term Effect of Biomineralized Insulin Nanoparticles on Type 2 Diabetes Treatment. Theranostics, 2017, 7, 4301-4312.	10.0	13
69	Colour tuning of coreâ€“shell fluorescent materials. Journal of Materials Chemistry, 2008, 18, 5363.	6.7	12
70	Preparing nano-calcium phosphate particles via a biologically friendly pathway. Biomedical Materials (Bristol), 2010, 5, 041001.	3.3	12
71	Hybrid Materials that Integrate Living Cells: Improved Ecoâ€Adaptation and Environmental Applications. ChemSusChem, 2011, 4, 1439-1446.	6.8	12
72	Intracellular delivery of biomineralized monoclonal antibodies to combat viral infection. Chemical Communications, 2016, 52, 1879-1882.	4.1	12

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73	Phaseâ€controlled crystallization of amorphous calcium carbonate in ethanolâ€water binary solvents. Crystal Research and Technology, 2015, 50, 312-318.	1.3	11
74	Ionization controls for biomineralization-inspired CO₂chemical looping at constant room temperature. Physical Chemistry Chemical Physics, 2015, 17, 10080-10085.	2.8	11
75	Nonisothermal crystallization kinetics of ethylene-butene copolymer/low-density polyethylene blends. Journal of Applied Polymer Science, 2001, 80, 123-129.	2.6	10
76	Mechanism of promoted dipeptide formation on hydroxyapatite crystal surfaces. Science Bulletin, 2011, 56, 633-639.	1.7	10
77	Fabrication of a stable inorganicâ€“organic hybrid multilayer film with uniform and dense inorganic nanoparticle depositionElectronic supplementary information (ESI) available: IR-ERS spectra of 8 deposition cycles of DR and PSS-coated ZrO2 on silicon wafer. See http://www.rsc.org/suppdata/cc/b3/b300581j/. Chemical Communications, 2003, , 966-967.	4.1	9
78	Spontaneously amplified homochiral organicâ€“inorganic nano-helix complexes via self-proliferation. Nanoscale, 2013, 5, 3006.	5.6	9
79	Formation and Photoluminescence of Fluorescent Polymers. International Journal of Polymer Science, 2010, 2010, 1-2.	2.7	7
80	Lamellar organicâ€“inorganic architecture via classical screw growth. CrystEngComm, 2012, 14, 7184.	2.6	6
81	Influence of viscosity on the phase transformation of amorphous calcium carbonate in fluids: An understanding of the medium effect in biomimetic mineralization. Science China Chemistry, 2010, 53, 2208-2214.	8.2	4
82	Aragonite crystals formation on nacre substrate. Journal of Crystal Growth, 2012, 351, 41-46.	1.5	3
83	Construction of coral-like complex: Controlled growth of vaterite submicron hairs on flat films and hemispheres. Journal of Crystal Growth, 2008, 310, 3049-3054.	1.5	2
84	Virusâ€Shell Engineering: Biomineralizationâ€Based Virus Shellâ€Engineering: Towards Neutralization Escape and Tropism Expansion (Adv. Healthcare Mater. 4/2012). Advanced Healthcare Materials, 2012, 1, 366-366.	7.6	0