Lara A Estroff

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99 papers	13,784 citations	37 h-index	106 g-index
106 ext. papers	14,802 ext. citations	11.5 avg, IF	6.46 L-index

#	Paper	IF	Citations
99	Self-assembled monolayers of thiolates on metals as a form of nanotechnology. *Chemical Reviews*, **2005**, 105, 1103-69	68.1	6730
98	Water gelation by small organic molecules. *Chemical Reviews*, **2004**, 104, 1201-18	68.1	1779
97	Ultrasmooth organic-inorganic perovskite thin-film formation and crystallization for efficient planar heterojunction solar cells. *Nature Communications*, **2015**, 6, 6142	17.4	695
96	Crystallization kinetics of organic-inorganic trihalide perovskites and the role of the lead anion in crystal growth. *Journal of the American Chemical Society*, **2015**, 137, 2350-8	16.4	266
95	Thermally induced structural evolution and performance of mesoporous block copolymer-directed alumina perovskite solar cells. *ACS Nano*, **2014**, 8, 4730-9	16.7	241
94	At the Interface of Organic and Inorganic Chemistry: Bioinspired Synthesis of Composite Materials. *Chemistry of Materials*, **2001**, 13, 3227-3235	9.6	236
93	Visualizing the 3D internal structure of calcite single crystals grown in agarose hydrogels. *Science*, **2009**, 326, 1244-7	33.3	232
92	Effective Gelation of Water Using a Series of Bis-urea Dicarboxylic Acids We thank the National Science Foundation (CHE9817240) for financial support of this work and Dr. James Eckert (Department of Geology, Yale University) for assistance with the electron microscopy. We also thank R. E. Mel□dez for compound 1. *Angewandte Chemie - International Edition*, **2000**, 39, 3447-3450	16.4	220
91	Influence of Thermal Processing Protocol upon the Crystallization and Photovoltaic Performance of Organic□norganic Lead Trihalide Perovskites. *Journal of Physical Chemistry C*, **2014**, 118, 17171-17177	3.8	214
90	Hierarchical porous polymer scaffolds from block copolymers. *Science*, **2013**, 341, 530-4	33.3	214
89	Mode of Occupation of Tabun Cave, Mt Carmel, Israel During the Mousterian Period: A Study of the Sediments and Phytoliths. *Journal of Archaeological Science*, **1999**, 26, 1249-1260	2.9	162
88	Crystal Growth of Calcium Carbonate in Hydrogels as a Model of Biomineralization. *Advanced Functional Materials*, **2012**, 22, 2891-2914	15.6	157
87	Tuning hardness in calcite by incorporation of amino acids. *Nature Materials*, **2016**, 15, 903-10	27	127
86	Hydroxyapatite nanoparticle-containing scaffolds for the study of breast cancer bone metastasis. *Biomaterials*, **2011**, 32, 5112-22	15.6	113
85	An organic hydrogel as a matrix for the growth of calcite crystals. *Organic and Biomolecular Chemistry*, **2004**, 2, 137-41	3.9	109
84	Calcite Growth in Hydrogels: Assessing the Mechanism of Polymer-Network Incorporation into Single Crystals. *Advanced Materials*, **2009**, 21, 470-473	24	108
83	Design of a synthetic foldamer that modifies the growth of calcite crystals. *Journal of the American Chemical Society*, **2004**, 126, 2-3	16.4	103

82	Hydrogels coupled with self-assembled monolayers: an in vitro matrix to study calcite biomineralization. *Journal of the American Chemical Society*, **2007**, 129, 5480-3	16.4	101
81	Characterization of an Organic Hydrogel: A Cryo-Transmission Electron Microscopy and X-ray Diffraction Study. *Advanced Materials*, **2003**, 15, 38-42	24	91
80	Synthetic alpha-helix mimetics as agonists and antagonists of islet amyloid polypeptide aggregation. *Angewandte Chemie - International Edition*, **2010**, 49, 736-9	16.4	89
79	Calcite Prisms from Mollusk Shells (Atrina Rigida): Swiss-cheese-like Organic□norganic Single-crystal Composites. *Advanced Functional Materials*, **2011**, 21, 2028-2034	15.6	87
78	Multivalency in Ligand Design. *Methods and Principles in Medicinal Chemistry*, **2006**, 11-53	0.4	86
77	Direct Crystallization Route to Methylammonium Lead Iodide Perovskite from an Ionic Liquid. *Chemistry of Materials*, **2015**, 27, 3197-3199	9.6	65
76	Evaluation of strengthening mechanisms in calcite single crystals from mollusk shells. *Acta Biomaterialia*, **2013**, 9, 5353-9	10.8	61
75	Porous calcite single crystals grown from a hydrogel medium. *CrystEngComm*, **2007**, 9, 1153	3.3	60
74	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	15.6	56
73	Nanoscale assembly processes revealed in the nacroprismatic transition zone of Pinna nobilis mollusc shells. *Nature Communications*, **2015**, 6, 10097	17.4	54
72	Matrix Interactions in Biomineralization: Aragonite Nucleation by an Intrinsically Disordered Nacre Polypeptide, n16N, Associated with a □Chitin Substrate. *Crystal Growth and Design*, **2010**, 10, 1383-1389	3.5	54
71	Synthesis and Diastereoselective Complexation of Enantiopure Sulfinyl Dienes: The Preparation of Sulfinyl Iron(0) Dienes. *Journal of Organic Chemistry*, **1997**, 62, 6326-6343	4.2	54
70	Synthesis and Formation Mechanism of Aminated Mesoporous Silica Nanoparticles. *Chemistry of Materials*, **2012**, 24, 3895-3905	9.6	52
69	Impact of the organic halide salt on final perovskite composition for photovoltaic applications. *APL Materials*, **2014**, 2, 081802	5.7	47
68	Silk Fibroin Hydrogels Coupled with the n16N□Chitin Complex: An in Vitro Organic Matrix for Controlling Calcium Carbonate Mineralization. *Crystal Growth and Design*, **2010**, 10, 5169-5175	3.5	46
67	The effect of magnesium substitution on the hardness of synthetic and biogenic calcite. *MRS Communications*, **2012**, 2, 113-116	2.7	43
66	Multiscale characterization of the mineral phase at skeletal sites of breast cancer metastasis. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 10542-10547	11.5	41
65	Chemical and physical properties of carbonated hydroxyapatite affect breast cancer cell behavior. *Acta Biomaterialia*, **2015**, 24, 333-42	10.8	40

64	Promotion of opsonization by antibodies and phagocytosis of Gram-positive bacteria by a bifunctional polyacrylamide. *Biomaterials*, **2006**, 27, 3663-74	15.6	39
63	Intrafibrillar, bone-mimetic collagen mineralization regulates breast cancer cell adhesion and migration. *Biomaterials*, **2019**, 198, 95-106	15.6	36
62	Intrinsically disordered mollusk shell prismatic protein that modulates calcium carbonate crystal growth. *Biomacromolecules*, **2010**, 11, 2539-44	6.9	34
61	Gel incorporation inside of organic single crystals grown in agarose hydrogels. *CrystEngComm*, **2011**, 13, 1060-1062	3.3	32
60	Next Generation Tissue Engineering of Orthopedic Soft Tissue-to-Bone Interfaces. *MRS Communications*, **2017**, 7, 289-308	2.7	31
59	Enantiopure eta4-(1-sulfinyldiene)iron(0) tricarbonyl complexes as templates for carbocycle construction via ring-closing metathesis. *Organic Letters*, **2000**, 2, 365-8	6.2	31
58	Direct comparison of optical and electron microscopy methods for structural characterization of extracellular vesicles. *Journal of Structural Biology*, **2020**, 210, 107474	3.4	31
57	Rediscovering Hydrogel-Based Double-Diffusion Systems for Studying Biomineralization. *CrystEngComm*, **2012**, 14, 5681-5700	3.3	29
56	Effect of the Materials Properties of Hydroxyapatite Nanoparticles on Fibronectin Deposition and Conformation. *Crystal Growth and Design*, **2015**, 15, 2452-2460	3.5	28
55	Mechanistic Insights into Diblock Copolymer Nanoparticle-Crystal Interactions Revealed via in Situ Atomic Force Microscopy. *Journal of the American Chemical Society*, **2018**, 140, 7936-7945	16.4	27
54	Role of Akaganeite (⊞FeOOH) in the Growth of Hematite (⊞Fe2O3) in an Inorganic Silica Hydrogel. *Crystal Growth and Design*, **2015**, 15, 3388-3398	3.5	27
53	Site-Specific Preparation of Intact Solid-Liquid Interfaces by Label-Free In Situ Localization and Cryo-Focused Ion Beam Lift-Out. *Microscopy and Microanalysis*, **2016**, 22, 1338-1349	0.5	26
52	A non-chromatographic method for the purification of a bivalently active monoclonal IgG antibody from biological fluids. *Journal of the American Chemical Society*, **2009**, 131, 9361-7	16.4	25
51	Correlative imaging reveals physiochemical heterogeneity of microcalcifications in human breast carcinomas. *Journal of Structural Biology*, **2018**, 202, 25-34	3.4	23
50	Crystallinity of hydroxyapatite drives myofibroblastic activation and calcification in aortic valves. *Acta Biomaterialia*, **2018**, 71, 24-36	10.8	22
49	Self-Assembled Gyroidal Mesoporous Polymer-Derived High Temperature Ceramic Monoliths. *Chemistry of Materials*, **2016**, 28, 2131-2137	9.6	22
48	Synergistic Biomineralization Phenomena Created by a Combinatorial Nacre Protein Model System. *Biochemistry*, **2016**, 55, 2401-10	3.2	22
47	Hierarchically structured hematite architectures achieved by growth in a silica hydrogel. *Journal of the American Chemical Society*, **2015**, 137, 5184-92	16.4	21

46	The intrinsically disordered C-RING biomineralization protein, AP7, creates protein phases that introduce nanopatterning and nanoporosities into mineral crystals. *Biochemistry*, **2014**, 53, 4317-9	3.2	21
45	Mapping and Profiling Lipid Distribution in a 3D Model of Breast Cancer Progression. *ACS Central Science*, **2019**, 5, 768-780	16.8	19
44	Studying biomineralization pathways in a 3D culture model of breast cancer microcalcifications. *Biomaterials*, **2018**, 179, 71-82	15.6	19
43	Engineering of crystal surfaces and subsurfaces by framework biomineralization protein phases. *CrystEngComm*, **2014**, 16, 7406-7409	3.3	19
42	Physical Confinement Promoting Formation of Cu2O□Au Heterostructures with Au Nanoparticles Entrapped within Crystalline Cu2O Nanorods. *Chemistry of Materials*, **2017**, 29, 555-563	9.6	17
41	Understanding the Stiff-to-Compliant Transition of the Meniscal Attachments by Spatial Correlation of Composition, Structure, and Mechanics. *ACS Applied Materials & Interfaces*, **2019**, 11, 26559-26570	9.5	16
40	Room-temperature preparation of crystalline TiO2 thin films and their applications in polymer/TiO2 hybrid optoelectronic devices. *Organic Electronics*, **2011**, 12, 1073-1079	3.5	16
39	Multiple Pathways for Pathological Calcification in the Human Body. *Advanced Healthcare Materials*, **2021**, 10, e2001271	10.1	16
38	Cellular and Chemical Gradients to Engineer the Meniscus-to-Bone Insertion. *Advanced Healthcare Materials*, **2019**, 8, e1800806	10.1	14
37	Block Copolymer Directed Nanostructured Surfaces as Templates for Confined Surface Reactions. *Macromolecules*, **2017**, 50, 542-549	5.5	13
36	Microscopy techniques for investigating the control of organic constituents on biomineralization. *MRS Bulletin*, **2015**, 40, 480-489	3.2	13
35	Hydroxyapatite mineral enhances malignant potential in a tissue-engineered model of ductal carcinoma in situ (DCIS). *Biomaterials*, **2019**, 224, 119489	15.6	12
34	Protein-crystal interface mediates cell adhesion and proangiogenic secretion. *Biomaterials*, **2017**, 116, 174-185	15.6	10
33	Top-down Fabrication of Spatially Controlled Mineral-Gradient Scaffolds for Interfacial Tissue Engineering. *ACS Biomaterials Science and Engineering*, **2019**, 5, 2988-2997	5.5	10
32	Mineral Distribution Spatially Patterns Bone Marrow Stromal Cell Behavior on Monolithic Bone Scaffolds. *Acta Biomaterialia*, **2020**, 112, 274-285	10.8	10
31	Formation of Periodically-Ordered Calcium Phosphate Nanostructures by Block Copolymer-Directed Self-Assembly. *Chemistry of Materials*, **2016**, 28, 838-847	9.6	10
30	Preparation of Macroscopic Block-Copolymer-Based Gyroidal Mesoscale Single Crystals by Solvent Evaporation. *Advanced Materials*, **2019**, 31, e1902565	24	10
29	Diastereoselective Allylations of Enantiopure 3- and 4-Substituted □-(1Z)-(Sulfinyldienal)iron(0) Tricarbonyl Complexes. *Organometallics*, **1998**, 17, 1841-1849	3.8	9

28	Cooperative Effects of Confinement and Surface Functionalization Enable the Formation of Au/Cu2O Metal–Semiconductor Heterostructures. *Crystal Growth and Design*, **2016**, 16, 6804-6811	3.5	8
27	Rationally designed anionic diblock copolymer worm gels are useful model systems for calcite occlusion studies. *Polymer Chemistry*, **2019**, 10, 5131-5141	4.9	6
26	Self-Assembled Monolayers of Thiolates on Metals as a Form of Nanotechnology. *ChemInform*, **2005**, 36, no		6
25	Bypassing Solid-State Intermediates by Solvent Engineering the Crystallization Pathway in Hybrid Organic–Inorganic Perovskites. *Crystal Growth and Design*, **2020**, 20, 1162-1171	3.5	6
24	Forming Anisotropic Crystal Composites: Assessing the Mechanical Translation of Gel Network Anisotropy to Calcite Crystal Form. *Journal of the American Chemical Society*, **2021**, 143, 3439-3447	16.4	6
23	Fluorescent Silica Nanoparticles to Label Metastatic Tumor Cells in Mineralized Bone Microenvironments. *Small*, **2021**, 17, e2001432	11	6
22	Nanopatterning of Crystalline Transition Metal Oxides by Surface Templated Nucleation on Block Copolymer Mesostructures. *Crystal Growth and Design*, **2017**, 17, 5775-5782	3.5	5
21	Quantitative Comparison of Dye and Ultrasmall Fluorescent Silica Core–Shell Nanoparticle Probes for Optical Super-Resolution Imaging of Model Block Copolymer Thin Film Surfaces. *ACS Macro Letters*, **2019**, 8, 1378-1382	6.6	5
20	Exploring reaction pathways in the hydrothermal growth of phase-pure bismuth ferrites. *Journal of Crystal Growth*, **2017**, 468, 104-109	1.6	5
19	Crystals of Benzamide, the First Polymorphous Molecular Compound, Are Helicoidal. *Angewandte Chemie - International Edition*, **2020**, 59, 14593-14601	16.4	4
18	Sectioning of individual hematite pseudocubes with focused ion beam enables quantitative structural characterization at nanometer length scales. *Microscopy and Microanalysis*, **2014**, 20, 635-44	0.5	4
17	Cryo-Tem, X-Ray Diffraction and Modeling of an Organic Hydrogel **2006**, 721-742		3
16	Fiber formation in water by a mono-urea dicarboxylic acid. *Chemical Communications*, **2003**, 2958-9	5.8	3
15	Combining TGF-β1 and Mechanical Anchoring to Enhance Collagen Fiber Formation and Alignment in Tissue-Engineered Menisci. *ACS Biomaterials Science and Engineering*, **2021**, 7, 1608-1620	5.5	3
14	Mosaic anisotropy model for magnetic interactions in mesostructured crystals. *APL Materials*, **2017**, 5, 104901	5.7	2
13	Revealing the Internal Structure and Local Chemistry of Nanocrystals Grown in Hydrogel with Cryo-FIB Lift-Out and Cryo-STEM. *Microscopy and Microanalysis*, **2015**, 21, 2291-2292	0.5	2
12	Water Gelation by Small Organic Molecules. *ChemInform*, **2004**, 35, no		2
11	Patternable Mesoporous Thin Film Quantum Materials via Block Copolymer Self-Assembly: An Emergent Technology?. *ACS Applied Materials & Interfaces*, **2021**, 13, 34732-34741	9.5	2

10	Crystals of Benzamide, the First Polymorphous Molecular Compound, Are Helicoidal. *Angewandte Chemie*, **2020**, 132, 14701-14709	3.6	1
9	Revealing Mechanisms of Microvesicle Biogenesis in Breast Cancer Cells via in situ Microscopy. *Microscopy and Microanalysis*, **2018**, 24, 1256-1257	0.5	1
8	Hydrogels: Crystal Growth of Calcium Carbonate in Hydrogels as a Model of Biomineralization (Adv. Funct. Mater. 14/2012). *Advanced Functional Materials*, **2012**, 22, 2890-2890	15.6	1
7	The mesoscale order of nacreous pearls. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	1
6	Surface-Induced Coacervation Facilitates Localized Precipitation of Mineral Precursors from Dilute Solutions. *Chemistry of Materials*, **2021**, 33, 3534-3542	9.6	1
5	Non-Destructive Spatial Mapping of Glycosaminoglycan Loss in Native and Degraded Articular Cartilage Using Confocal Raman Microspectroscopy. *Frontiers in Bioengineering and Biotechnology*, **2021**, 9, 744197	5.8	0
4	Orthogonal Nanoprobes Enabling Two-Color Optical Super-Resolution Microscopy Imaging of the Two Domains of Diblock Copolymer Thin Film Nanocomposites. *Chemistry of Materials*, **2021**, 33, 5156-5167	9.6	0
3	Interfaces: Cellular and Chemical Gradients to Engineer the Meniscus-to-Bone Insertion (Adv. Healthcare Mater. 7/2019). *Advanced Healthcare Materials*, **2019**, 8, 1970027	10.1	
2	STEM Characterization of Nano-Crystallites in the Nacre Biomineralization of Mollusk Shells (Pinna nobilis). *Microscopy and Microanalysis*, **2014**, 20, 1332-1333	0.5	
1	Mineralized 3D Culture Systems for Studying Bone Metastatic Breast Cancer **2017**, 169-192		