Elia Beniash

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/1925885/publications.pdf

Version: 2024-02-01

63 papers	10,861 citations	147786 31 h-index	128286 60 g-index
63 all docs	63 docs citations	63 times ranked	11191 citing authors

#	Article	IF	Citations
1	Self-Assembly and Mineralization of Peptide-Amphiphile Nanofibers. Science, 2001, 294, 1684-1688.	12.6	3,460
2	Selective Differentiation of Neural Progenitor Cells by High-Epitope Density Nanofibers. Science, 2004, 303, 1352-1355.	12.6	2,062
3	Peptide-amphiphile nanofibers: A versatile scaffold for the preparation of self-assembling materials. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 5133-5138.	7.1	1,170
4	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
5	Transient amorphous calcium phosphate in forming enamel. Journal of Structural Biology, 2009, 166, 133-143.	2.8	375
6	Self-assembling peptide amphiphile nanofiber matrices for cell entrapment. Acta Biomaterialia, 2005, 1, 387-397.	8.3	285
7	Proteomic response to elevated PCO2 level in eastern oysters, Crassostrea virginica: evidence for oxidative stress. Journal of Experimental Biology, 2011, 214, 1836-1844.	1.7	251
8	Interactive effects of salinity and elevated CO2 levels on juvenile eastern oysters, Crassostrea virginica. Journal of Experimental Biology, 2012, 215, 29-43.	1.7	227
9	Bioinspired Synthesis of Mineralized Collagen Fibrils. Crystal Growth and Design, 2008, 8, 3084-3090.	3.0	205
10	The effect of recombinant mouse amelogenins on the formation and organization of hydroxyapatite crystals in vitro. Journal of Structural Biology, 2005, 149, 182-190.	2.8	188
11	Hierarchical self-assembly of amelogenin and the regulation of biomineralization at the nanoscale. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 14097-14102.	7.1	175
12	Biomineralsâ€"hierarchical nanocomposites: the example of bone. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2011, 3, 47-69.	6.1	168
13	The hidden structure of human enamel. Nature Communications, 2019, 10, 4383.	12.8	134
14	Role of 20-kDa Amelogenin (P148) Phosphorylation in Calcium Phosphate Formation in Vitro. Journal of Biological Chemistry, 2009, 284, 18972-18979.	3.4	103
15	Primary Structure and Phosphorylation of Dentin Matrix Protein 1 (DMP1) and Dentin Phosphophoryn (DPP) Uniquely Determine Their Role in Biomineralization.. Biomacromolecules, 2011, 12, 2933-2945.	5.4	101
16	Nanoscale Confinement Controls the Crystallization of Calcium Phosphate: Relevance to Bone Formation. Chemistry - A European Journal, 2013, 19, 14918-14924.	3.3	95
17	Interactive effects of CO2 and trace metals on the proteasome activity and cellular stress response of marine bivalves Crassostrea virginica and Mercenaria mercenaria. Aquatic Toxicology, 2014, 149, 65-82.	4.0	83
18	Effects of phosphorylation on the self-assembly of native full-length porcine amelogenin and its regulation of calcium phosphate formation in vitro. Journal of Structural Biology, 2011, 173, 250-260.	2.8	70

#	Article	IF	Citations
19	The role of poly(aspartic acid) in the precipitation of calcium phosphate in confinement. Journal of Materials Chemistry B, 2013, 1, 6586.	5.8	67
20	Probing the Organicâ˜Mineral Interface at the Molecular Level in Model Biominerals. Langmuir, 2008, 24, 2680-2687.	3.5	64
21	Assembling a lasing hybrid material with supramolecular polymers and nanocrystals. Nature Materials, 2003, 2, 689-694.	27.5	61
22	Environmental salinity modulates the effects of elevated CO2 levels on juvenile hard shell clams, Mercenaria mercenaria. Journal of Experimental Biology, 2013, 216, 2607-18.	1.7	57
23	Enamelin Is Critical for Ameloblast Integrity and Enamel Ultrastructure Formation. PLoS ONE, 2014, 9, e89303.	2.5	56
24	Biomineralization-related specialization of hemocytes and mantle tissues of the Pacific oysters Crassostrea gigas. Journal of Experimental Biology, 2017, 220, 3209-3221.	1.7	56
25	Phosphate induces formation of matrix vesicles during odontoblast-initiated mineralization in vitro. Matrix Biology, 2016, 52-54, 284-300.	3.6	52
26	Amelogenin-Collagen Interactions Regulate Calcium Phosphate Mineralization in Vitro. Journal of Biological Chemistry, 2010, 285, 19277-19287.	3.4	45
27	Conformational Changes in Salivary Proline-Rich Protein 1 upon Adsorption to Calcium Phosphate Crystals. Langmuir, 2007, 23, 11200-11205.	3.5	44
28	Design and evaluation of collagen-inspired mineral-hydrogel nanocomposites for bone regeneration. Acta Biomaterialia, 2020, 112, 262-273.	8.3	43
29	Hair keratin mutations in tooth enamel increase dental decay risk. Journal of Clinical Investigation, 2014, 124, 5219-5224.	8.2	43
30	Amelogenin phosphorylation regulates tooth enamel formation by stabilizing a transient amorphous mineral precursor. Journal of Biological Chemistry, 2020, 295, 1943-1959.	3.4	42
31	Possible role of DMP1 in dentin mineralization. Journal of Structural Biology, 2011, 174, 100-106.	2.8	41
32	Keratins as components of the enamel organic matrix. Matrix Biology, 2016, 52-54, 260-265.	3.6	31
33	CryoTEM study of effects of phosphorylation on the hierarchical assembly of porcine amelogenin and its regulation of mineralization in vitro. Journal of Structural Biology, 2013, 183, 250-257.	2.8	26
34	Osteoinductivity of calcium phosphate mediated by connexin 43. Biomaterials, 2013, 34, 3763-3774.	11.4	25
35	Effects of cadmium exposure on critical temperatures of aerobic metabolism in eastern oysters Crassostrea virginica (Gmelin, 1791). Aquatic Toxicology, 2015, 167, 77-89.	4.0	24
36	Accelerated enamel mineralization in Dspp mutant mice. Matrix Biology, 2016, 52-54, 246-259.	3.6	24

#	Article	IF	Citations
37	Reactive oxygen species (ROS) generation as an underlying mechanism of inorganic phosphate (Pi)-induced mineralization of osteogenic cells. Free Radical Biology and Medicine, 2020, 153, 103-111.	2.9	24
38	Regulation of calcium phosphate formation by native amelogenins in vitro. Connective Tissue Research, 2014, 55, 21-24.	2.3	23
39	X-ray Linear Dichroism in Apatite. Journal of the American Chemical Society, 2018, 140, 11698-11704.	13.7	19
40	Effects of environmental hypercapnia and metal (Cd and Cu) exposure on acid-base and metal homeostasis of marine bivalves. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2015, 174-175, 1-12.	2.6	18
41	Localization of Phosphoproteins within the Barnacle Adhesive Interface. Biological Bulletin, 2016, 230, 233-242.	1.8	18
42	Relationships between dentin and enamel mineral at the dentinoâ€“enamel boundary: electron tomography and highâ€•resolution transmission electron microscopy study. European Journal of Oral Sciences, 2011, 119, 120-124.	1.5	17
43	Protein Phosphorylation and Mineral Binding Affect the Secondary Structure of the Leucine-Rich Amelogenin Peptide. Frontiers in Physiology, 2017, 8, 450.	2.8	17
44	Synthesis of bone-like nanocomposites using multiphosphorylated peptides. Acta Biomaterialia, 2014, 10, 2241-2249.	8.3	16
45	Cryogenic Transmission Electron Microscopy Study of Amelogenin Self-Assembly at Different pH. Cells Tissues Organs, 2011, 194, 166-170.	2.3	15
46	Anisotropy of Chemical Bonds in Collagen Molecules Studied by X-ray Absorption Near-Edge Structure (XANES) Spectroscopy. ACS Chemical Biology, 2012, 7, 476-480.	3.4	15
47	Potential trade-offs between biomineralization and immunity revealed by shell properties and gene expression profiles of two closely related Crassostrea species. Journal of Experimental Biology, 2018, 221, .	1.7	15
48	Anticorrosive Self-Assembled Hybrid Alkylsilane Coatings for Resorbable Magnesium Metal Devices. ACS Biomaterials Science and Engineering, 2017, 3, 518-529.	5.2	14
49	Effect of the Periapical â€œInflammatory Plugâ€•on Dental Pulp Regeneration: A Histologic InÂVivo Study. Journal of Endodontics, 2020, 46, 51-56.	3.1	9
50	Role of the Mineral in the Self-Healing of Cracks in Human Enamel. ACS Nano, 2022, 16, 10273-10280.	14.6	9
51	Optimizing Immunostaining of Enamel Matrix: Application of Sudan Black B and Minimization of False Positives from Normal Sera and IgGs. Frontiers in Physiology, 2017, 8, 239.	2.8	8
52	Controlling magnesium corrosion and degradation-regulating mineralization using matrix GLA protein. Acta Biomaterialia, 2019, 98, 142-151.	8.3	8
53	Trps1 transcription factor represses phosphate-induced expression of SerpinB2 in osteogenic cells. Bone, 2020, 141, 115673.	2.9	8
54	Trafficking and secretion of keratin 75 by ameloblasts in vivo. Journal of Biological Chemistry, 2019, 294, 18475-18487.	3.4	7

#	Article	IF	Citations
55	Porcine keratin 75 in developing enamel. Journal of Oral Biosciences, 2019, 61, 163-172.	2.2	5
56	Loss of biological control of enamel mineralization in amelogenin-phosphorylation-deficient mice. Journal of Structural Biology, 2022, 214, 107844.	2.8	4
57	The Role of Amelogenin in Dental Enamel Formation: A Universal Strategy for Protein-Mediated Biomineralization. , 2010, , 133-142.		3
58	Deficiency of Mineralization-Regulating Transcription Factor Trps1 Compromises Quality of Dental Tissues and Increases Susceptibility to Dental Caries. Frontiers in Dental Medicine, 2022, 3, .	1.4	3
59	In vivo study of selfâ€assembled alkylsilane coated degradable magnesium devices. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 342-351.	3.4	2
60	Co-option of Hair Follicle Keratins into Amelogenesis Is Associated with the Evolution of Prismatic Enamel: A Hypothesis. Frontiers in Physiology, 2017, 8, 823.	2.8	1
61	Immunofluorescence Procedure for Developing Enamel Tissues. Methods in Molecular Biology, 2019, 1922, 191-196.	0.9	1
62	Collagenous Mineralized Tissues: Composition, Structure, and Biomineralization. Biology of Extracellular Matrix, 2021, , 55-74.	0.3	0
63	The phosphorylation of serine55 in enamelin is essential for murine amelogenesis. Matrix Biology, 2022, 111, 245-263.	3.6	0