Alejandro Basilio RodrÃ-guez-Navarro

List of Publications by Year
in descending order

101 papers	3,569 citations	159585 30 h-index	149698 56 g-index
103 all docs	103 docs citations	103 times ranked	4242 citing authors

#	Article	IF	Citations
1	Mechanisms and hormonal regulation of shell formation. , 2022, , 813-859.		1
2	Properties, Genetics and Innate Immune Function of the Cuticle in Egg-Laying Species. Frontiers in Immunology, 2022, 13, 838525.	4.8	15
3	Parasitism by metacercariae modulates the morphological, organic and mechanical responses of the shell of an intertidal bivalve to environmental drivers. Science of the Total Environment, 2022, 830, 154747.	8.0	3
4	Antimicrobial defenses of table eggs: Importance of antibacterial proteins in egg white as a function of hen age in an extended production cycle. Food Microbiology, 2022, 107, 104068.	4.2	5
5	Crystallographic control of the fabrication of an extremely sophisticated shell surface microornament in the glass scallop Catillopecten. Scientific Reports, 2022, 12, .	3.3	4
6	Influence of de-remineralization process on chemical, microstructural, and mechanical properties of human and bovine dentin. Clinical Oral Investigations, 2021, 25, 841-849.	3.0	8
7	Relationship between Bone Quality, Egg Production and Eggshell Quality in Laying Hens at the End of an Extended Production Cycle (105 Weeks). Animals, 2021, 11, 623.	2.3	37
8	No evidence that selection for egg production persistency causes loss of bone quality in laying hens. Genetics Selection Evolution, 2021, 53, 11.	3.0	22
9	An intrapopulational study of organic compounds and biomechanical properties of the shell of the Antarctic bivalve Laternula elliptica (P. P. King, 1832) at King George Island. Polar Biology, 2021, 44, 1343-1352.	1.2	1
10	Chronic Lead Exposure Alters Mineral Properties in Alveolar Bone. Minerals (Basel, Switzerland), 2021, 11, 642.	2.0	0
11	Research Note: Changes in eggshell quality and microstructure related to hen age during a production cycle. Poultry Science, 2021, 100, 101287.	3.4	14
12	Proanthocyanidin-functionalized hydroxyapatite nanoparticles as dentin biomodifier. Dental Materials, 2021, 37, 1437-1445.	3.5	6
13	Role of the Organic Matter in the Structural Organization of Giant Barnacle Austromegabalanus Psittacus Shell from the Micro- to Nanoscale. Crystal Growth and Design, 2021, 21, 357-365.	3.0	2
14	The argonaut constructs its shell via physical self-organization and coordinated cell sensorial activity. IScience, 2021, 24, 103288.	4.1	4
15	Impact of Different Layer Housing Systems on Eggshell Cuticle Quality and Salmonella Adherence in Table Eggs. Foods, 2021, 10, 2559.	4.3	7
16	Plasticity in organic composition maintains biomechanical performance in shells of juvenile scallops exposed to altered temperature and pH conditions. Scientific Reports, 2021, 11, 24201.	3.3	12
17	Upwelling intensity modulates the fitness and physiological performance of coastal species: Implications for the aquaculture of the scallop Argopecten purpuratus in the Humboldt Current System. Science of the Total Environment, 2020, 745, 140949.	8.0	35
18	Geographical variability and parasitism on body size, reproduction and shell characteristics of the keyhole limpet Fissurella crassa (Mollusca: Vetigastropoda). Marine Environmental Research, 2020, 161, 105060.	2.5	5

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19	Effect of Degradation on Wood Hygroscopicity: The Case of a 400-Year-Old Coffin. Forests, 2020, 11, 712.	2.1	12
20	Origin of the biphase nature and surface roughness of biogenic calcite secreted by the giant barnacle Austromegabalanus psittacus. Scientific Reports, 2020, 10, 16784.	3.3	7
21	Avian eggshell formation reveals a new paradigm for vertebrate mineralization via vesicular amorphous calcium carbonate. Journal of Biological Chemistry, 2020, 295, 15853-15869.	3.4	18
22	Microstructure and crystallography of the wall plates of the giant barnacleAustromegabalanus psittacus: a material organized by crystal growth. Journal of the Royal Society Interface, 2020, 17, 20190743.	3.4	6
23	Bacterial EPS in Agarose Hydrogels Directs Mineral Organization in Calcite Precipitates: Species-Specific Biosignatures of Bacillus subtilis, Mycobacterium phley, Mycobacterium smagmatis, and Pseudomonas putida EPS. Crystal Growth and Design, 2020, 20, 4402-4417.	3.0	5
24	Nanostructure of mouse otoconia. Journal of Structural Biology, 2020, 210, 107489.	2.8	4
25	An eQTL in the cystathionine beta synthase gene is linked to osteoporosis in laying hens. Genetics Selection Evolution, 2020, 52, 13.	3.0	15
26	Development and characterization of magnetic eggshell membranes for lead removal from wastewater. Ecotoxicology and Environmental Safety, 2020, 192, 110307.	6.0	14
27	Directing Effect of Bacterial Extracellular Polymeric Substances (EPS) on Calcite Organization and EPSâ€“Carbonate Composite Aggregate Formation. Crystal Growth and Design, 2020, 20, 1467-1484.	3.0	21
28	Dense Mytilus Beds Along Freshwater-Influenced Greenland Shores: Resistance to Corrosive Waters Under High Food Supply. Estuaries and Coasts, 2020, 43, 387-395.	2.2	5
29	The combined effects of salinity and pH on shell biomineralization of the edible mussel Mytilus chilensis. Environmental Pollution, 2020, 263, 114555.	7.5	20
30	Effect of vacuum/pressure cycles on cell wall composition and structure of poplar wood. Cellulose, 2019, 26, 8543-8556.	4.9	9
31	Changes with age (from 0 to 37 D) in tibiae bone mineralization, chemical composition and structural organization in broiler chickens. Poultry Science, 2019, 98, 5215-5225.	3.4	29
32	Articulation and growth of skeletal elements in balanid barnacles (Balanidae, Balanomorpha,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 222	2.4	14
33	Guinea fowl eggshell quantitative proteomics yield new findings related to its unique structural characteristics and superior mechanical properties. Journal of Proteomics, 2019, 209, 103511.	2.4	16
34	Great spotted cuckoo eggshell microstructure characteristics can make eggs stronger. Journal of Avian Biology, 2019, 50, .	1.2	14
35	Changes in avian cortical and medullary bone mineral composition and organization during acid-induced demineralization. European Journal of Mineralogy, 2019, 31, 209-216.	1.3	17
36	Correlative vibrational spectroscopy and 2D X-ray diffraction to probe the mineralization of bone in phosphate-deficient mice. Journal of Applied Crystallography, 2019, 52, 960-971.	4.5	1

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37	Nanostructure, osteopontin, and mechanical properties of calcitic avian eggshell. Science Advances, 2018, 4, eaar3219.	10.3	86
38	Magnetite Nanoparticles Biomineralization in the Presence of the Magnetosome Membrane Protein MamC: Effect of Protein Aggregation and Protein Structure on Magnetite Formation. Crystal Growth and Design, 2017, 17, 1620-1629.	3.0	24
39	Crystallographic texture analysis of Protobranchia (Mollusca: Bivalvia): interspecific variations, homology and shell microstructural evolution. Journal of Molluscan Studies, 2017, 83, 304-315.	1.2	2
40	Biomineralization changes with food supply confer juvenile scallops (Argopecten purpuratus) resistance to ocean acidification. Global Change Biology, 2016, 22, 2025-2037.	9.5	57
41	Effect of 30Â% hydrogen peroxide on mineral chemical composition and surface morphology of bovine enamel. Odontology / the Society of the Nippon Dental University, 2016, 104, 44-52.	1.9	11
42	Crystallography and Textural Aspects of Crossed Lamellar Layers in Arcidae (Bivalvia, Mollusca) Shells. Key Engineering Materials, 2016, 672, 60-70.	0.4	6
43	Shifts in shell mineralogy and metabolism of Concholepas concholepas juveniles along the Chilean coast. Marine and Freshwater Research, 2015, 66, 1147.	1.3	25
44	Quantitative proteomics provides new insights into chicken eggshell matrix protein functions during the primary events of mineralisation and the active calcification phase. Journal of Proteomics, 2015, 126, 140-154.	2.4	57
45	Irregularities of crystallographic orientation and residual stresses in the crossed-lamellar shell as a natural functionally graded material. Journal of the Royal Society Interface, 2015, 12, 20150738.	3.4	4
46	Extreme pH Conditions at a Natural CO2 Vent System (Italy) Affect Growth, and Survival of Juvenile Pen Shells (Pinna nobilis). Estuaries and Coasts, 2015, 38, 1986-1999.	2.2	18
47	Importance of eggshell cuticle composition and maturity for avoiding trans-shell Salmonella contamination in chicken eggs. Food Control, 2015, 55, 31-38.	5.5	32
48	Data set for the proteomic inventory and quantitative analysis of chicken eggshell matrix proteins during the primary events of eggshell mineralization and the active growth phase of calcification. Data in Brief, 2015, 4, 430-436.	1.0	11
49	Amorphous calcium carbonate controls avian eggshell mineralization: A new paradigm for understanding rapid eggshell calcification. Journal of Structural Biology, 2015, 190, 291-303.	2.8	122
50	Crystalline organization of the fibrous prismatic calcitic layer of the Mediterranean mussel Mytilus galloprovincialis. European Journal of Mineralogy, 2014, 26, 495-505.	1.3	30
51	Effects of lead shot ingestion on bone mineralization in a population of red-legged partridge (Alectoris rufa). Science of the Total Environment, 2014, 466-467, 34-39.	8.0	22
52	Ferric sulphate alterations on primary dentin and the adhesive interface. Journal of Adhesive Dentistry, 2014, 16, 347-56.	0.5	3
53	Geographical variation in shell morphology of juvenile snails (Concholepas concholepas) along the physicalâ€“chemical gradient of the Chilean coast. Journal of the Marine Biological Association of the United Kingdom, 2013, 93, 2167-2176.	0.8	19
54	Validating chemical and structural changes in painting materials by principal component analysis of spectroscopic data using internal mineral standards. Journal of Cultural Heritage, 2013, 14, 509-514.	3.3	10

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55	Chronic effects of lead (Pb) on bone properties in red deer and wild boar: Relationship with vitamins A and D3. Environmental Pollution, 2013, 174, 142-149.	7.5	23
56	Change in the chicken eggshell cuticle with hen age and egg freshness. Poultry Science, 2013, 92, 3026-3035.	3.4	63
57	Percentage exposure of root dentin collagen after application of two irrigation protocols with manual or rotary instrumentation and two methacrylate resin-based sealers. Journal of Adhesive Dentistry, 2013, 15, 481-9.	0.5	1
58	Fluid-driven low-grade metamorphism in polydeformed rocks of Avalonia (Arisaig Group, Nova Scotia,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	1.2	9
59	Signatures in magnetites formed by (Ca,Mg,Fe)CO3 thermal decomposition: Terrestrial and extraterrestrial implications. Geochimica Et Cosmochimica Acta, 2012, 87, 69-80.	3.9	15
60	Automatic sample changer for the analysis of powder samples on an X-ray single-crystal diffractometer equipped with an area detector. Journal of Applied Crystallography, 2012, 45, 135-137.	4.5	1
61	Crystallographic relationships in the crossed lamellar microstructure of the shell of the gastropod Conus marmoreus. Acta Biomaterialia, 2012, 8, 830-835.	8.3	40
62	Collagenâ€based proteinaceous binderâ€pigment interaction study under UV ageing conditions by MALDIâ€TOFâ€MS and principal component analysis. Journal of Mass Spectrometry, 2012, 47, 322-330.	1.6	24
63	The eggshell: structure, composition and mineralization. Frontiers in Bioscience - Landmark, 2012, 17, 1266.	3.0	315
64	Compositional and Quantitative Microtextural Characterization of Historic Paintings by Micro-X-ray Diffraction and Raman Microscopy. Analytical Chemistry, 2011, 83, 8420-8428.	6.5	23
65	Influence of processing conditions on the optical and crystallographic properties of injection molded polyamide-6 and polyamide-6/montmorillonite nanocomposites. Applied Clay Science, 2011, 51, 414-418.	5.2	14
66	High dietary intake of retinol leads to bone marrow hypoxia and diaphyseal endosteal mineralization in rats. Bone, 2011, 48, 496-506.	2.9	44
67	Demineralization effects of phosphoric acid on surface and subsurface bovine enamel bleached with in-office hydrogen peroxide. Journal of Adhesive Dentistry, 2011, 13, 315-21.	0.5	7
68	Life-history traits of the giant squid Architeuthis dux revealed from stable isotope signatures recorded in beaks. ICES Journal of Marine Science, 2010, 67, 1425-1431.	2.5	51
69	Magnetite biomineralization induced by Shewanella oneidensis. Geochimica Et Cosmochimica Acta, 2010, 74, 967-979.	3.9	138
70	Thermo-XRD and differential scanning calorimetry to trace epitaxial crystallization in PA6/montmorillonite nanocomposites. Materials Letters, 2009, 63, 1159-1161.	2.6	18
71	Organization and mode of secretion of the granular prismatic microstructure of Entodesma navicula (Bivalvia: Mollusca). Acta Zoologica, 2009, 90, 132-141.	0.8	32
72	Short-term exposure to dioxin impairs bone tissue in male rats. Chemosphere, 2009, 75, 680-684.	8.2	25

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73	Crystalline properties of injection molded polyamide-6 and polyamide-6/montmorillonite nanocomposites. Applied Clay Science, 2009, 43, 91-97.	5.2	37
74	Crystallographic reorganization of the calcitic prismatic layer of oysters. Journal of Structural Biology, 2009, 167, 261-270.	2.8	39
75	Effects of 3,3â€²,4,4â€²,5-pentachlorobiphenyl (PCB126) on vertebral bone mineralization and on thyroxin and vitamin D levels in Sprague–Dawley rats. Toxicology Letters, 2009, 187, 63-68.	0.8	37
76	Crystal Growth in the Foliated Aragonite of Monoplacophorans (Mollusca). Crystal Growth and Design, 2009, 9, 4574-4580.	3.0	24
77	The Influence of Hydrostatic Pressure on Shell Mineralization ofAnodonta cygnea: A Comparative Study with a Hydrothermal Vent BivalveBathymodiolus azoricus. Journal of Shellfish Research, 2009, 28, 899-904.	0.9	6
78	Innovative Analytical Methodology Combining Micro-X-Ray Diffraction, Scanning Electron Microscopy-Based Mineral Maps, and Diffuse Reflectance Infrared Fourier Transform Spectroscopy to Characterize Archeological Artifacts. Analytical Chemistry, 2009, 81, 604-611.	6.5	34
79	Thermal decomposition of calcite: Mechanisms of formation and textural evolution of CaO nanocrystals. American Mineralogist, 2009, 94, 578-593.	1.9	344
80	Origin and Expansion of Foliated Microstructure in Pteriomorph Bivalves. Biological Bulletin, 2008, 214, 153-165.	1.8	44
81	Microstructure Characterization Of Calcified Tissues By Xrd Using An Area Detector. Materials Research Society Symposia Proceedings, 2008, 1094, 1.	0.1	0
82	New method for separation of magnetite from rock samples for oxygen isotope analysis. European Journal of Mineralogy, 2007, 19, 717-722.	1.3	1
83	Analysis of avian eggshell microstructure using X-ray area detectors. European Journal of Mineralogy, 2007, 19, 391-398.	1.3	24
84	Bacterially mediated mineralization of vaterite. Geochimica Et Cosmochimica Acta, 2007, 71, 1197-1213.	3.9	291
85	Crystallographic structure of the foliated calcite of bivalves. Journal of Structural Biology, 2007, 157, 393-402.	2.8	83
86	Registering pole figures using an X-ray single-crystal diffractometer equipped with an area detector. Journal of Applied Crystallography, 2007, 40, 631-634.	4.5	22
87	Precipitation of aragonite by calcitic bivalves in Mg-enriched marine waters. Marine Biology, 2007, 150, 819-827.	1.5	56
88	Effect of In Ovo Exposure to PCBs and Hg on Clapper Rail Bone Mineral Chemistry from a Contaminated Salt Marsh in Coastal Georgia. Environmental Science & Technology, 2006, 40, 4936-4942.	10.0	34
89	Microstructure and crystallographic-texture of giant barnacle (Austromegabalanus psittacus) shell. Journal of Structural Biology, 2006, 156, 355-362.	2.8	52
90	XRD2DScan: new software for polycrystalline materials characterization using two-dimensional X-ray diffraction. Journal of Applied Crystallography, 2006, 39, 905-909.	4.5	104

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91	Automatic Crystal Size Determination in the Micrometer Range from Spotty X-Ray Diffraction Rings of Powder Samples. Journal of the American Ceramic Society, 2006, 89, 060427083300005-???.	3.8	11
92	Magnetron Sputtering Deposition of Calcium Phosphate Films with Nanoscale Grain Morphology in their Surface. Materials Research Society Symposia Proceedings, 2006, 975, 1.	0.1	0
93	The nature and formation of calcitic columnar prismatic shell layers in pteriomorphian bivalves. Biomaterials, 2005, 26, 6404-6414.	11.4	107
94	Self-organisation of nacre in the shells of Pterioida (Bivalvia: Mollusca). Biomaterials, 2005, 26, 1071-1079.	11.4	138
95	Role of marble microstructure in near-infrared laser-induced damage during laser cleaning. Journal of Applied Physics, 2004, 95, 3350-3357.	2.5	27
96	Influence of lysozyme on the precipitation of calcium carbonate: a kinetic and morphologic study. Geochimica Et Cosmochimica Acta, 2003, 67, 1667-1676.	3.9	100
97	Mineral fabrics analysis using a low-cost universal stage for X-ray diffractometry. European Journal of Mineralogy, 2002, 14, 987-992.	1.3	4
98	Model of texture development in polycrystalline films growing on amorphous substrates with different topographies. Thin Solid Films, 2001, 389, 288-295.	1.8	41
99	Geometrical and crystallographic constraints determine the self-organization of shell microstructures in Unionidae (Bivalvia: Mollusca). Proceedings of the Royal Society B: Biological Sciences, 2001, 268, 771-778.	2.6	56
100	Model of textural development of layered crystal aggregates. European Journal of Mineralogy, 2000, 12, 609-614.	1.3	42
101	To Infer the early Evolution of Mollusc Shell Microstructures. Key Engineering Materials, 0, 672, 113-133.	0.4	19