Alexandre M Rossi

List of Publications by Year
in descending order

120 papers	3,543 citations	147801 31 h-index	168389 53 g-index
122 all docs	122 docs citations	122 times ranked	4477 citing authors

#	Article	IF	Citations
1	Studies on the Mechanisms of Lead Immobilization by Hydroxyapatite. Environmental Science & Technology, 2002, 36, 1625-1629.	10.0	269
2	The structure of strontium-doped hydroxyapatite: an experimental and theoretical study. Physical Chemistry Chemical Physics, 2009, 11, 568-577.	2.8	185
3	Microcapsules of alginate/chitosan containing magnetic nanoparticles for controlled release of insulin. Colloids and Surfaces B: Biointerfaces, 2010, 81, 206-211.	5.0	125
4	Cadmium Uptake by Hydroxyapatite Synthesized in Different Conditions and Submitted to Thermal Treatment. Environmental Science & Technology, 2002, 36, 1630-1635.	10.0	110
5	Magnetic studies of iron(III) nanoparticles in alginate polymer for drug delivery applications. Materials Science and Engineering C, 2004, 24, 625-629.	7.3	105
6	Fe2+/Fe3+substitution in hydroxyapatite: Theory and experiment. Physical Review B, 2002, 66, .	3.2	104
7	Hydroxyapatite deposition by electrophoresis on titanium sheets with different surface finishing. Journal of Biomedical Materials Research Part B, 2002, 60, 1-7.	3.1	104
8	Adsorption and bioactivity studies of albumin onto hydroxyapatite surface. Colloids and Surfaces B: Biointerfaces, 2011, 83, 1-9.	5.0	93
9	In situ synthesis and magnetic studies of iron oxide nanoparticles in calcium-alginate matrix for biomedical applications. Materials Science and Engineering C, 2008, 28, 253-257.	7.3	83
10	A theoretical and experimental study of lead substitution in calcium hydroxyapatite. Physical Chemistry Chemical Physics, 2006, 8, 967.	2.8	73
11	Understanding the impact of divalent cation substitution on hydroxyapatite: An in vitro multiparametric study on biocompatibility. Journal of Biomedical Materials Research - Part A, 2011, 98A, 351-358.	4.0	70
12	Effect of Process Parameters on the Characteristics of Porous Calcium Phosphate Ceramics for Bone Tissue Scaffolds. Artificial Organs, 2003, 27, 406-411.	1.9	67
13	Dissolution of calcium-deficient hydroxyapatite synthesized at different conditions. Materials Characterization, 2003, 50, 203-207.	4.4	64
14	Growth of Crystalline Hydroxyapatite Thin Films at Room Temperature by Tuning the Energy of the RF-Magnetron Sputtering Plasma. ACS Applied Materials & Interfaces, 2013, 5, 9435-9445.	8.0	63
15	Adult Stem Cells Spheroids to Optimize Cell Colonization in Scaffolds for Cartilage and Bone Tissue Engineering. International Journal of Molecular Sciences, 2018, 19, 1285.	4.1	58
16	Crystalline nano-coatings of fluorine-substituted hydroxyapatite produced by magnetron sputtering with high plasma confinement. Surface and Coatings Technology, 2015, 264, 163-174.	4.8	57
17	Dissolution properties of calcium phosphate granules with different compositions in simulated body fluid. Journal of Biomedical Materials Research Part B, 2003, 65A, 299-305.	3.1	54
18	Osteoblast proliferation on hydroxyapatite thin coatings produced by right angle magnetron sputtering. Biomedical Materials (Bristol), 2007, 2, 67-77.	3.3	50

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19	An ESR study on identification of gammaâ€irradiated kiwi, papaya and tomato using fruit pulp. International Journal of Food Science and Technology, 1999, 34, 173-178.	2.7	45
20	Structure of vanadate in calcium phosphate and vanadate apatite solid solutions. Physical Chemistry Chemical Physics, 2000, 2, 4225-4230.	2.8	45
21	Crystalline hydroxyapatite thin films produced at room temperature â€" An opposing radio frequency magnetron sputtering approach. Thin Solid Films, 2007, 515, 6773-6780.	1.8	45
22	Characterization of phase evolution during lead immobilization by synthetic hydroxyapatite. Materials Characterization, 2004, 53, 71-78.	4.4	41
23	In vitro and in vivo evaluation of strontiumâ€containing nanostructured carbonated hydroxyapatite/sodium alginate for sinus lift in rabbits. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2016, 104, 274-282.	3.4	41
24	Experimental evidence and structural modeling of nonstoichiometric (010) surfaces coexisting in hydroxyapatite nano-crystals. Colloids and Surfaces B: Biointerfaces, 2012, 89, 15-22.	5.0	40
25	Characterization of Antibiotic-Loaded Alginate-Osa Starch Microbeads Produced by Ionotropic Pregelation. BioMed Research International, 2013, 2013, 1-11.	1.9	40
26	Synthesis and characterization of biocomposites with different hydroxyapatiteâ€"collagen ratios. Journal of Materials Science: Materials in Medicine, 2009, 20, 2395-2400.	3.6	38
27	Prospective carriers of 223Ra for targeted alpha particle therapy. Journal of Radioanalytical and Nuclear Chemistry, 2015, 304, 443-447.	1.5	38
28	Electron spin resonance (ESR) studies of radicals in irradiated A and B-type carbonate-containing apatites. Applied Radiation and Isotopes, 2000, 52, 1085-1091.	1.5	37
29	A Solid-State NMR Study of Lead and Vanadium Substitution into Hydroxyapatite. Journal of the American Chemical Society, 2009, 131, 5145-5152.	13.7	37
30	Influence of iron on kaolin whiteness: An electron paramagnetic resonance study. Applied Clay Science, 2010, 49, 170-175.	5.2	35
31	XRD, AFM, IR and TGA study of nanostructured hydroxyapatite. Materials Research, 2012, 15, 622-627.	1.3	35
32	The association of human primary bone cells with biphasic calcium phosphate (Î²TCP/HA 70:30) granules increases bone repair. Journal of Materials Science: Materials in Medicine, 2012, 23, 781-788.	3.6	33
33	Does the incorporation of zinc into calcium phosphate improve bone repair? A systematic review. Ceramics International, 2018, 44, 1240-1249.	4.8	33
34	Microspheres of alginate encapsulated minocycline-loaded nanocrystalline carbonated hydroxyapatite: therapeutic potential and effects on bone regeneration . International Journal of Nanomedicine, 2019, Volume 14, 4559-4571.	6.7	33
35	Electron spin resonance (ESR), electron nuclear double resonance (ENDOR) and general triple resonance of irradiated biocarbonates. Applied Radiation and Isotopes, 1996, 47, 1443-1455.	1.5	32
36	Electron spin resonance of Fe3+ ion in obsidians from Mediterranean islands. Application to provenance studies. Journal of Non-Crystalline Solids, 2003, 323, 193-199.	3.1	32

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37	Radiolabelled nanohydroxyapatite with 99mTc: perspectives to nanoradiopharmaceuticals construction. Artificial Cells, Nanomedicine and Biotechnology, 2014, 42, 88-91.	2.8	32
38	Adsorption of chlorhexidine on synthetic hydroxyapatite and in vitro biological activity. Colloids and Surfaces B: Biointerfaces, 2011, 87, 310-318.	5.0	31
39	Effects on insulin adsorption due to zinc and strontium substitution in hydroxyapatite. Materials Science and Engineering C, 2017, 79, 802-811.	7.3	30
40	Effect of strontium ranelate on bone mineral: Analysis of nanoscale compositional changes. Micron, 2014, 56, 29-36.	2.2	29
41	Electron spin resonance dosimetry of teeth of GoiÃ¢nia radiation accident victims. Applied Radiation and Isotopes, 2000, 52, 1297-1303.	1.5	27
42	Ultrastructure of regenerated bone mineral surrounding hydroxyapatiteâ€“alginate composite and sintered hydroxyapatite. Bone, 2012, 50, 301-310.	2.9	27
43	Chlorhexidine-loaded hydroxyapatite microspheres as an antimicrobial delivery system and its effect on in vivo osteo-conductive properties. Journal of Materials Science: Materials in Medicine, 2015, 26, 166.	3.6	27
44	Apoptosisâ€associated speckâ€like protein containing a caspaseâ€1 recruitment domain (ASC) contributes to osteoblast differentiation and osteogenesis. Journal of Cellular Physiology, 2019, 234, 4140-4153.	4.1	27
45	Configuration ofCO2âˆ’radicals in Î³-irradiatedA-type carbonated apatites: â€ƒTheory and experimental EPR and ENDOR studies. Physical Review B, 2000, 63, .	3.2	26
46	Hydroxyapatite-alginate biocomposite promotes bone mineralization in different length scales in vivo. Frontiers of Materials Science in China, 2009, 3, 145-153.	0.5	25
47	In vitro and in vivo evaluations of nanocrystalline Zn-doped carbonated hydroxyapatite/alginate microspheres: zinc and calcium bioavailability and bone regeneration . International Journal of Nanomedicine, 2019, Volume 14, 3471-3490.	6.7	25
48	Ca alginate as scaffold for iron oxide nanoparticles synthesis. Brazilian Journal of Chemical Engineering, 2008, 25, 759-764.	1.3	24
49	Short-term in vivo evaluation of zinc-containing calcium phosphate using a normalized procedure. Materials Science and Engineering C, 2014, 41, 309-319.	7.3	24
50	Doxycycline containing hydroxyapatite ceramic microspheres as a boneâ€targeting drug delivery system. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 1351-1362.	3.4	24
51	Theoretical and experimental studies of substitution of cadmium into hydroxyapatite. Physical Chemistry Chemical Physics, 2010, 12, 15490.	2.8	23
52	Long-term biocompatibility evaluation of 0.5Â% zinc containing hydroxyapatite in rabbits. Journal of Materials Science: Materials in Medicine, 2013, 24, 1455-1463.	3.6	23
53	Nanoscale analysis of calcium phosphate films obtained by RF magnetron sputtering during the initial stages of deposition. Surface and Coatings Technology, 2015, 279, 16-24.	4.8	23
54	EPR dating CO2âˆ’ sites in tooth enamel apatites by ENDOR and triple resonance. Applied Radiation and Isotopes, 1995, 46, 311-315.	1.5	22

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55	Gamma dose response of synthetic A-type carbonated apatite in comparison with the response of tooth enamel. Applied Radiation and Isotopes, 2000, 52, 1093-1097.	1.5	22
56	Osteoblast proliferation on hydroxyapatite coated substrates prepared by right angle magnetron sputtering. Journal of Biomedical Materials Research - Part A, 2010, 93A, 878-885.	4.0	22
57	Pb 2+, Cu 2+and Cd 2+ ions uptake by Brazilian phosphate rocks. Journal of the Brazilian Chemical Society, 2005, 16, 62-68.	0.6	22
58	Ultrastructural and Mineral Phase Characterization of the Bone-Like Matrix Assembled in F-OST Osteoblast Cultures. Calcified Tissue International, 2011, 89, 358-371.	3.1	21
59	The impact of the RGD peptide on osteoblast adhesion and spreading on zinc-substituted hydroxyapatite surface. Journal of Materials Science: Materials in Medicine, 2013, 24, 1271-1283.	3.6	21
60	Strontium ranelate changes the composition and crystal structure of the biological bone-like apatite produced in osteoblast cell cultures. Cell and Tissue Research, 2014, 357, 793-801.	2.9	21
61	DoesÂthe association of blood-derived growth factors to nanostructured carbonated hydroxyapatite contributes to the maxillary sinus floor elevation? A randomized clinical trial. Clinical Oral Investigations, 2019, 23, 369-379.	3.0	20
62	Influence of sample treatment on ESR signal of irradiated citrus. Applied Radiation and Isotopes, 1996, 47, 1647-1653.	1.5	19
63	EPR of electron irradiated K4OsII(CN)6 in KCl single crystals. Journal of Chemical Physics, 1978, 68, 3152-3157.	3.0	18
64	Electron spin relaxation of radicals in irradiated tooth enamel and synthetic hydroxyapatite. Radiation Measurements, 2007, 42, 997-1004.	1.4	18
65	Hydroxyapatite and lead-substituted hydroxyapatite near-surface structures: Novel modelling of photoemission lines from X-ray photoelectron spectra. Applied Surface Science, 2022, 571, 151310.	6.1	18
66	Identification and dose determination using ESR measurements in the flesh of irradiated vegetable products. Applied Radiation and Isotopes, 2000, 52, 1375-1383.	1.5	17
67	A structural analysis of lead hydroxyvanadinite. Physical Chemistry Chemical Physics, 2006, 8, 1845.	2.8	16
68	Energy Dependence of EPR Signal in Synthetic and Biological Hydroxyapatite Irradiated with Photons. Radiation Protection Dosimetry, 1999, 84, 511-514.	0.8	15
69	EPR and ENDOR studies on CO2- radicals in Î³-irradiated B-type carbonated apatites. Physical Chemistry Chemical Physics, 2000, 2, 1339-1343.	2.8	15
70	Reduction by hydrogen of vanadium in vanadate apatite solid solutions. Physical Chemistry Chemical Physics, 2003, 5, 4290.	2.8	15
71	The crystal structure and chemical state of aluminum-doped hydroxyapatite by experimental and first principles calculation studies. Physical Chemistry Chemical Physics, 2016, 18, 21789-21796.	2.8	15
72	Randomized Controlled Clinical Trial of Nanostructured Carbonated Hydroxyapatite for Alveolar Bone Repair. Materials, 2019, 12, 3645.	2.9	15

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73	Dose response of A-type carbonated apatites prepared under different conditions. Radiation Physics and Chemistry, 2001, 61, 485-487.	2.8	14
74	Influence of processing parameters on structural characteristics of porous calcium phosphate samples: a study using an experimental design method. Materials Research, 2005, 8, 71-76.	1.3	14
75	High-Resolution Transmission Electron Microscopy Study of Nanostructured Hydroxyapatite. Microscopy and Microanalysis, 2008, 14, 433-438.	0.4	14
76	Biological behavior of magnesium-substituted hydroxyapatite during bone repair. Brazilian Journal of Biology, 2021, 81, 53-61.	0.9	14
77	Identification and valuation of paramagnetic radicals in natural dolomites as an indicator of geological events. Physics and Chemistry of Minerals, 2003, 30, 39-43.	0.8	13
78	Impact of crystallinity and crystal size of nanostructured carbonated hydroxyapatite on preâ€osteoblast in vitro biocompatibility. Journal of Biomedical Materials Research - Part A, 2019, 107, 1965-1976.	4.0	13
79	EPR and ENDOR studies on CO- radicals in Î³-irradiated synthetic hydroxyapatites. Physical Chemistry Chemical Physics, 1999, 1, 2007-2012.	2.8	12
80	Intracellular pathway and subsequent transformation of hydroxyapatite nanoparticles in the <scp>SAOS</scp>â€2 osteoblast cell line. Journal of Biomedical Materials Research - Part A, 2018, 106, 428-439.	4.0	12
81	Histomorphometric evaluation of strontium-containing nanostructured hydroxyapatite as bone substitute in sheep. Brazilian Oral Research, 2016, 30, e45.	1.4	11
82	Multiscale connections between morphology and chemistry in crystalline, zinc-substituted hydroxyapatite nanofilms designed for biomedical applications. Ceramics International, 2019, 45, 793-804.	4.8	11
83	The role of apoptosis associated speck-like protein containing a caspase-1 recruitment domain (ASC) in response to bone substitutes. Materials Science and Engineering C, 2020, 112, 110965.	7.3	11
84	AvaliaÃ§Ã£o histolÃ³gica comparativa de reparo Ã³sseo em tÃbia de coelho tratada com xenoenxertos. Acta Ortopedica Brasileira, 2009, 17, 340-343.	0.5	11
85	Magnetic properties of Ni81Fe19/W90Ti10 multilayers. Journal of Magnetism and Magnetic Materials, 2003, 256, 93-99.	2.3	10
86	Orientation and conformation of osteocalcin adsorbed onto calcium phosphate and silica surfaces. Biointerphases, 2017, 12, 02D411.	1.6	10
87	Fourier transform infrared determination of CO 2 evolved from carbonate in carbonated apatites. Fresenius' Journal of Analytical Chemistry, 2000, 367, 556-561.	1.5	9
88	FMR evidence of finite-size effects in CoCu granular alloys. Physical Review B, 2003, 67, .	3.2	9
89	Enhanced magnetic anisotropy in granular cobaltâ€"copper alloys. Journal of Applied Physics, 2003, 93, 7217-7219.	2.5	9
90	Effects of surface undulations of biphasic calcium phosphate tablets on human osteoblast behavior. Journal of Biomedical Materials Research - Part A, 2005, 74A, 315-324.	4.0	9

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91	A comparative thermoluminescence and electron spin resonance study of synthetic carbonated A-type hydroxyapatite. Applied Radiation and Isotopes, 2012, 70, 533-537.	1.5	9
92	Trabecular architecture during the healing process of a tibial diaphysis defect. Acta Biomaterialia, 2021, 120, 181-193.	8.3	9
93	In vitro and in vivo evaluation of silicated hydroxyapatite and impact of insulin adsorption. Journal of Materials Science: Materials in Medicine, 2014, 25, 2383-2393.	3.6	8
94	<i>In Vivo</i> Evaluation of Zinc-Containing Nanostructured Carbonated Hydroxyapatite. Key Engineering Materials, 0, 696, 223-229.	0.4	7
95	Insight by Cryo-TEM into the growth and crystallization processes of calcium phosphate nanoparticles in aqueous medium. Materials Chemistry and Physics, 2019, 237, 121862.	4.0	7
96	Electron Spin Resonance, Electron-Nuclear Double Resonance and General Triple Resonance Studies on the Contributions to Line Broadening ofCO2-in A-type Carbonated Apatites and Biocarbonates. Japanese Journal of Applied Physics, 1998, 37, 502-508.	1.5	6
97	In Vitro Assessment of New Niobium Phosphate Glasses and Glass Ceramics. Key Engineering Materials, 2008, 361-363, 229-232.	0.4	6
98	Hydroxyapatite-alginate composite for lead removal in artificial gastric fluid. Journal of Materials Research, 2007, 22, 3371-3377.	2.6	6
99	Polymeric sponges coated with hydroxyapatite for metal immobilization. Surface and Coatings Technology, 2012, 206, 2810-2816.	4.8	6
100	Does crystallinity of extracted bone mineral increase over storage time?. Materials Research, 2013, 16, 970-974.	1.3	6
101	Magnetic studies in Fe/Zn multilayers. Journal of Magnetism and Magnetic Materials, 2003, 256, 100-105.	2.3	5
102	The role of lower hybrid resonance and helicon waves excitations in aÂmagnetized plasma for coating production of complex crystalline structures as hydroxyapatite. Vacuum, 2017, 146, 233-245.	3.5	5
103	Nano-Hydroxyapatite Doped with Ho-166 as Drug Delivery System for Bone Cancer Therapy and Diagnosis: Developing a Theragnostic Radiopharmaceuticals. Anti-Cancer Agents in Medicinal Chemistry, 2017, 17, 355-358.	1.7	5
104	Study of dental enamel and synthetic hydroxyapatite irradiated by EPR at K-band. Applied Radiation and Isotopes, 2005, 62, 213-217.	1.5	4
105	REDUCTION BY HYDROGEN OF VANADIUM IN PHOSPHATE AND VANADATE LEAD APATITES: AN ESR STUDY. Modern Physics Letters B, 2007, 21, 1489-1500.	1.9	4
106	Boneâ€nanohydroxyapatite spheres interface evaluation by synchrotron radiation Xâ€ray microfluorescence. X-Ray Spectrometry, 2012, 41, 6-11.	1.4	4
107	Influence of the geometry of nanostructured hydroxyapatite and alginate composites in the initial phase of bone repair. Acta Cirurgica Brasileira, 2019, 34, e201900203.	0.7	4
108	Evaluation of Dosimetric Properties of Paramagnetic Centres Formed in Gamma Irradiated Polymers. Radiation Protection Dosimetry, 1999, 85, 463-468.	0.8	3

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109	The Influence of Unstable Signals for Electron Spin Resonance Dosimetry with Synthetic A-Type Carbonated Apatite. Radiation Protection Dosimetry, 2002, 101, 539-544.	0.8	3
110	Characterization by MÃ¶ssbauer Spectroscopy and Electron Paramagnetic Resonance of Peruvian Obsidians for Provenance Studies: A Preliminary Study. Hyperfine Interactions, 2003, 148/149, 73-77.	0.5	3
111	Biocompatibility of Carbonated Hydroxyapatite Nanoparticles with Different Crystallinities. Key Engineering Materials, 0, 493-494, 331-336.	0.4	3
112	ESR Studies on the Linewidth Temperature Variation of $f CO_{2}^{-}$ Radicals in Carbonated Apatite and Calcium Carbonates. Japanese Journal of Applied Physics, 1997, 36, L202-L205.	1.5	2
113	Lead and Cadmium Immobilization by Polymeric Sponges Coated with Hydroxyapatite. Key Engineering Materials, 0, 396-398, 561-564.	0.4	2
114	Methodological Implications on Quantitative Studies of Cytocompatibility in Direct Contact with Bioceramic Surfaces. Key Engineering Materials, 2011, 493-494, 325-330.	0.4	2
115	Comparative In Vivo Study of Biocompatibility of Apatites Incorporated with 1% Zinc or Lead Ions versus Stoichiometric Hydroxyapatite. Journal of Biomimetics, Biomaterials, and Tissue Engineering, 2014, 19, 109-120.	0.7	2
116	Hydroxyapatite Coatings Produced by Right Angle Magnetron Sputtering for Biomedical Applications. Materials Research Society Symposia Proceedings, 2007, 1008, 1.	0.1	1
117	Effects of Albumin Adsorption on Cell Adhesion in Hydroxyapatite Modified Surfaces. Key Engineering Materials, 0, 631, 351-356.	0.4	1
118	Spectroscopic Studies of Adsorbed Myoglobin on Hydroxyapatite Surface. Key Engineering Materials, 0, 493-494, 504-507.	0.4	0
119	In Vitro Cell Response to Protein Adhesion on Commercial Î²-TCP. Key Engineering Materials, 2014, 631, 367-372.	0.4	0
120	<i>In Vivo</i> Evaluation of Strontium-Containing Nanostructured Carbonated Hydroxyapatite. Key Engineering Materials, 0, 696, 212-222.	0.4	0