ChristÃ¨le Combes

List of Publications by Year
in descending order

85 papers	4,541 citations	117453 34 h-index	102304 66 g-index
89 all docs	89 docs citations	89 times ranked	4990 citing authors

#	Article	IF	Citations
1	Amorphous calcium phosphates: Synthesis, properties and uses in biomaterials. Acta Biomaterialia, 2010, 6, 3362-3378.	4.1	600
2	Bone mineral: update on chemical composition and structure. Osteoporosis International, 2009, 20, 1013-1021.	1.3	430
3	Physico-chemical properties of nanocrystalline apatites: Implications for biominerals and biomaterials. Materials Science and Engineering C, 2007, 27, 198-205.	3.8	252
4	Adsorption of proteins and calcium phosphate materials bioactivity. Biomaterials, 2002, 23, 2817-2823.	5.7	182
5	Adaptative physico-chemistry of bio-related calcium phosphates. Journal of Materials Chemistry, 2004, 14, 2148.	6.7	176
6	Characterization and Some Physicochemical Aspects of Pathological Microcalcifications. Chemical Reviews, 2012, 112, 5092-5120.	23.0	162
7	Apatite Biominerals. Minerals (Basel, Switzerland), 2016, 6, 34.	0.8	152
8	Poorly crystalline apatites: evolution and maturation in vitro and in vivo. Journal of Bone and Mineral Metabolism, 2004, 22, 310-7.	1.3	124
9	Surface Characteristics of Nanocrystalline Apatites: Effect of Mg Surface Enrichment on Morphology, Surface Hydration Species, and Cationic Environments. Langmuir, 2009, 25, 5647-5654.	1.6	124
10	Evidence of hydroxyl-ion deficiency in bone apatites: an inelastic neutron-scattering study. Bone, 2000, 26, 599-602.	1.4	115
11	Adsorption and release of BMPâ€2 on nanocrystalline apatiteâ€coated and uncoated hydroxyapatite/Î²â€tricalcium phosphate porous ceramics. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2009, 91B, 706-715.	1.6	105
12	Interleukin-6 and chondrocyte mineralisation act in tandem to promote experimental osteoarthritis. Annals of the Rheumatic Diseases, 2016, 75, 1372-1379.	0.5	93
13	Preparation, physicalâ€“chemical characterisation and cytocompatibility of calcium carbonate cements. Biomaterials, 2006, 27, 1945-1954.	5.7	92
14	Surface enrichment of biomimetic apatites with biologically-active ions Mg2+ and Sr2+: A preamble to the activation of bone repair materials. Materials Science and Engineering C, 2008, 28, 1544-1550.	3.8	92
15	Biomimetic apatite sintered at very low temperature by spark plasma sintering: Physico-chemistry and microstructure aspects. Acta Biomaterialia, 2010, 6, 577-585.	4.1	91
16	Surface properties of biomimetic nanocrystalline apatites; applications in biomaterials. Progress in Crystal Growth and Characterization of Materials, 2014, 60, 63-73.	1.8	80
17	In vitro crystallization of octacalcium phosphate on type I collagen: influence of serum albumin. Journal of Materials Science: Materials in Medicine, 1999, 10, 153-160.	1.7	78
18	Diffraction techniques and vibrational spectroscopy opportunities to characterise bones. Osteoporosis International, 2009, 20, 1065-1075.	1.3	78

#	Article	IF	Citations
19	Nanocrystalline apatites: From powders to biomaterials. Powder Technology, 2009, 190, 118-122.	2.1	76
20	Gout and pseudo-gout-related crystals promote GLUT1-mediated glycolysis that governs NLRP3 and interleukin-1Î² activation on macrophages. Annals of the Rheumatic Diseases, 2020, 79, 1506-1514.	0.5	72
21	High Zn content of Randall's plaque: A Î¼-X-ray fluorescence investigation. Journal of Trace Elements in Medicine and Biology, 2011, 25, 160-165.	1.5	60
22	Hydroxyapatite coating on titanium by a low energy plasma spraying mini-gun. Surface and Coatings Technology, 2012, 206, 2346-2353.	2.2	60
23	PNIPAM grafted surfaces through ATRP and RAFT polymerization: Chemistry and bioadhesion. Colloids and Surfaces B: Biointerfaces, 2017, 151, 143-155.	2.5	57
24	Calcium carbonateâ€“calcium phosphate mixed cement compositions for bone reconstruction. Journal of Biomedical Materials Research - Part A, 2006, 79A, 318-328.	2.1	56
25	Formation and Evolution of Hydrated Surface Layers of Apatites. Key Engineering Materials, 2005, 284-286, 3-6.	0.4	45
26	Synthesis and Characterisation of Hydrated Calcium Pyrophosphate Phases of Biological Interest. European Journal of Inorganic Chemistry, 2013, 2013, 5886-5895.	1.0	45
27	XPS and IR study of dicalcium phosphate dihydrate nucleation on titanium surfaces. Colloids and Surfaces B: Biointerfaces, 1998, 11, 15-27.	2.5	41
28	Inflammatory Potential of Four Different Phases of Calcium Pyrophosphate Relies on NF-ÎºB Activation and MAPK Pathways. Frontiers in Immunology, 2018, 9, 2248.	2.2	41
29	MinÃ©ralisations biologiques Ã base de phosphate de calcium. Comptes Rendus - Palevol, 2004, 3, 563-572.	0.1	40
30	Medical Potentialities of Biomimetic Apatites through Adsorption, Ionic Substitution, and Mineral/Organic Associations: Three Illustrative Examples. Advanced Engineering Materials, 2010, 12, B224.	1.6	39
31	Bioceramics: Spark Plasma Sintering (SPS) of Calcium Phosphates. Advances in Science and Technology, 2006, 49, 45.	0.2	37
32	Characterization of Calcium Phosphates Using Vibrational Spectroscopies. Springer Series in Biomaterials Science and Engineering, 2014, , 229-266.	0.7	37
33	Calcium phosphate coatings elaborated by the soaking process on titanium dental implants: Surface preparation, processing and physicalâ€“chemical characterization. Dental Materials, 2019, 35, e25-e35.	1.6	37
34	Strontiumâ€loaded mineral bone cements as sustained release systems: Compositions, release properties, and effects on human osteoprogenitor cells. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2012, 100B, 378-390.	1.6	35
35	Chemical Diversity of Apatites. Advances in Science and Technology, 2006, 49, 27.	0.2	34
36	Freeze-casting for PLGA/carbonated apatite composite scaffolds: Structure and properties. Materials Science and Engineering C, 2017, 77, 731-738.	3.8	34

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37	From crystalline to amorphous calcium pyrophosphates: A solid state Nuclear Magnetic Resonance perspective. Acta Biomaterialia, 2016, 31, 348-357.	4.1	33
38	Single-step pulsed electrodeposition of calcium phosphate coatings on titanium for drug delivery. Surface and Coatings Technology, 2019, 358, 266-275.	2.2	33
39	Standardization of antimicrobial testing of dental devices. Dental Materials, 2020, 36, e59-e73.	1.6	33
40	Specific Characteristics of Wet Nanocrystalline Apatites. Consequences on Biomaterials and Bone Tissue. Key Engineering Materials, 2004, 254-256, 927-930.	0.4	32
41	Crystal growth of aragonite in the presence of phosphate. Journal of Crystal Growth, 2017, 458, 44-52.	0.7	32
42	Injectability, microstructure and release properties of sodium fusidate-loaded apatitic cement as a local drug-delivery system. Materials Science and Engineering C, 2016, 59, 177-184.	3.8	27
43	Rheological properties of calcium carbonate self-setting injectable paste. Acta Biomaterialia, 2010, 6, 920-927.	4.1	23
44	Crystallisation of a highly metastable hydrated calcium pyrophosphate phase. CrystEngComm, 2013, 15, 2294.	1.3	22
45	Pushing the limits of sensitivity and resolution for natural abundance ⁴³Ca NMR using ultra-high magnetic field (35.2 T). Chemical Communications, 2018, 54, 9591-9594.	2.2	22
46	Hydroxyapatite functionalization to trigger adsorption and release of risedronate. Colloids and Surfaces B: Biointerfaces, 2017, 160, 493-499.	2.5	21
47	The Calcium Phosphateâ^'Calcium Carbonate System: Growth of Octacalcium Phosphate on Calcium Carbonates. Crystal Growth and Design, 2011, 11, 1683-1688.	1.4	20
48	Composition and properties of silver-containing calcium carbonateâ€“calcium phosphate bone cement. Journal of Materials Science: Materials in Medicine, 2013, 24, 2665-2675.	1.7	20
49	Production, by co-grinding in a media mill, of porous biodegradable polylactic acidâ€“apatite composite materials for bone tissue engineering. Powder Technology, 2009, 190, 89-94.	2.1	19
50	Crystal structure of monoclinic calcium pyrophosphate dihydrate (m-CPPD) involved in inflammatory reactions and osteoarthritis. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2016, 72, 96-101.	0.5	19
51	C-reactive protein (CRP) recognizes uric acid crystals and recruits proteases C1 and MASP1. Scientific Reports, 2020, 10, 6391.	1.6	19
52	A soft-chemistry approach to the synthesis of amorphous calcium ortho/pyrophosphate biomaterials of tunable composition. Acta Biomaterialia, 2020, 103, 333-345.	4.1	18
53	Co-grinding significance for calcium carbonateâ€“calcium phosphate mixed cement. Part I: Effect of particle size and mixing on solid phase reactivity. Acta Biomaterialia, 2011, 7, 1817-1826.	4.1	16
54	Synthesis of fluor-hydroxyapatite powder for plasma sprayed biomedical coatings: Characterization and improvement of the powder properties. Powder Technology, 2014, 255, 23-28.	2.1	16

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55	Adsorption of Proteins on m-CPPD and Urate Crystals Inhibits Crystal-induced Cell Responses: Study on Albumin-crystal Interaction. Journal of Functional Biomaterials, 2019, 10, 18.	1.8	16
56	Identification and Evaluation of HPO₄ Ions in Biomimetic Poorly Crystalline Apatite and Bone Mineral. Key Engineering Materials, 2000, 192-195, 143-146.	0.4	15
57	Optimization of spray-dried hyaluronic acid microspheres to formulate drug-loaded bone substitute materials. Powder Technology, 2014, 255, 44-51.	2.1	15
58	Multifunctional homogeneous calcium phosphate coatings: Toward antibacterial and cell adhesive titanium scaffolds. Surface and Coatings Technology, 2021, 405, 126557.	2.2	15
59	Comparison of Physical-chemical and Mechanical Properties of Chlorapatite and Hydroxyapatite Plasma Sprayed Coatings. Open Biomedical Engineering Journal, 2015, 9, 42-55.	0.7	15
60	Multifunctionalization Modulates Hydroxyapatite Surface Interaction with Bisphosphonate: Antiosteoporotic and Antioxidative Stress Materials. ACS Biomaterials Science and Engineering, 2019, 5, 3429-3439.	2.6	14
61	Development of a new family of monolithic calcium (pyro)phosphate glasses by soft chemistry. Acta Biomaterialia, 2016, 41, 320-327.	4.1	13
62	Mechanical properties of self-setting composites: influence of the carboxymethylcellulose content and hydration state. Journal of Materials Science, 2016, 51, 4296-4305.	1.7	13
63	Nucleation and crystal growth of dicalcium phosphate dihydrate on titanium powder. Journal of Materials Science: Materials in Medicine, 1995, 6, 699-702.	1.7	12
64	Injectable bone cement containing carboxymethyl cellulose microparticles as a silver delivery system able to reduce implant-associated infection risk. Acta Biomaterialia, 2022, 145, 342-357.	4.1	11
65	Structure of the calcium pyrophosphate monohydrate phase (Ca₂P₂O₇Â·H₂O): towards understanding the dehydration process in calcium pyrophosphate hydrates. Acta Crystallographica Section C, Structural Chemistry, 2014, 70, 862-866.	0.2	10
66	Effect of ionic liquids on the structural, thermal, and in vitro degradation properties of poly(Ìµâ€caprolactone) synthesized in the presence of Candida antarctica lipase B. Journal of Applied Polymer Science, 2016, 133, .	1.3	10
67	Influence of Ionic Additives on Triclinic Calcium Pyrophosphate Dihydrate Precipitation. Crystal Growth and Design, 2017, 17, 37-50.	1.4	10
68	Well-defined polyester-grafted silica nanoparticles for biomedical applications: Synthesis and quantitative characterization. Polymer, 2020, 211, 123048.	1.8	10
69	Heterogeneous crystallization of dicalcium phosphate dihydrate on titanium surfaces. Journal of Materials Science: Materials in Medicine, 1999, 10, 231-237.	1.7	9
70	New Calcium Carbonate-Based Cements for Bone Reconstruction. Key Engineering Materials, 2005, 284-286, 105-108.	0.4	9
71	What bridges mineral platelets of bone?. BoneKEy Reports, 2014, 3, 586.	2.7	9
72	Advances in the synthesis and structure of Î±-canaphite: a multitool and multiscale study. CrystEngComm, 2020, 22, 3130-3143.	1.3	8

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73	Development of an injectable composite for bone regeneration. Irbm, 2013, 34, 176-179.	3.7	5
74	Poly(<scp>d,l</scp>-lactide)-Grafted Bioactive Glass Nanoparticles: From Nanobricks to Freeze-Cast Scaffolds for Bone Substitution. ACS Applied Nano Materials, 2022, 5, 5278-5291.	2.4	5
75	Nanocrystalline Apatites: A Versatile Functionalizable Platform for Biomedical Applications for Bone Engineeringâ€¦ and beyond. Key Engineering Materials, 2016, 696, 14-22.	0.4	4
76	Time-domain THz spectroscopy of the characteristics of hydroxyapatite provides a signature of heating in bone tissue. PLoS ONE, 2018, 13, e0201745.	1.1	3
77	Tunable Behavior in Solution of Amorphous Calcium Ortho/Pyrophosphate Materials: An Acellular In Vitro Study. ACS Biomaterials Science and Engineering, 2022, , .	2.6	3
78	Crystal growth and structure of a new hormonal derived compound. International Journal of Pharmaceutics, 2002, 248, 141-147.	2.6	2
79	Impact of Calcium Phosphate Particle Morphology on Osteoconduction: an In Vivo Study. Key Engineering Materials, 2008, 361-363, 1237-1240.	0.4	2
80	Cogrinding significance for calcium carbonateâ€“calcium phosphate mixed cement. II. Effect on cement properties. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2011, 99B, 302-312.	1.6	2
81	Synthesis and physical chemical characterizations of octacalcium phosphateâ€“based biomaterials for hard-tissue regeneration. , 2020, , 177-212.		2
82	Formation and Evolution of Hydrated Surface Layers of Apatites. Key Engineering Materials, 0, , 3-6.	0.4	1
83	Fluorideâ€Based Bioceramics. , 2008, , 279-331.		0
84	Apatitic and Tricalcic Calcium Phosphate-Based Bioceramics: Overview and Perspectives. , 2021, , 575-594.		0
85	Multi-energy spectral photon-counting CT in crystal-related arthropathies: initial experience and diagnostic performance in vitro. , 2018, , .		0