Matthias Epple

List of Publications by Year
in descending order

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507 papers	27,107 citations	10351 72 h-index	8835 145 g-index
535 all docs	535 docs citations	535 times ranked	31349 citing authors

#	Article	IF	Citations
1	Silver as Antibacterial Agent: Ion, Nanoparticle, and Metal. Angewandte Chemie - International Edition, 2013, 52, 1636-1653.	7.2	1,839
2	Biological and Medical Significance of Calcium Phosphates. Angewandte Chemie - International Edition, 2002, 41, 3130-3146.	7.2	1,740
3	Toxicity of Silver Nanoparticles Increases during Storage Because of Slow Dissolution under Release of Silver Ions. Chemistry of Materials, 2010, 22, 4548-4554.	3.2	1,006
4	MSC-derived exosomes: a novel tool to treat therapy-refractory graft-versus-host disease. Leukemia, 2014, 28, 970-973.	3.3	888
5	Characterisation of exosomes derived from human cells by nanoparticle tracking analysis and scanning electron microscopy. Colloids and Surfaces B: Biointerfaces, 2011, 87, 146-150.	2.5	661
6	Calcium phosphates in biomedical applications: materials for the future?. Materials Today, 2016, 19, 69-87.	8.3	642
7	Inorganic Nanoparticles as Carriers of Nucleic Acids into Cells. Angewandte Chemie - International Edition, 2008, 47, 1382-1395.	7.2	521
8	A thorough physicochemical characterisation of 14 calcium phosphate-based bone substitution materials in comparison to natural bone. Biomaterials, 2004, 25, 987-994.	5.7	485
9	Functionally graded materials for biomedical applications. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 362, 40-60.	2.6	441
10	Uptake and intracellular distribution of silver nanoparticles in human mesenchymal stem cells. Acta Biomaterialia, 2011, 7, 347-354.	4.1	335
11	A solid-state NMR investigation of the structure of nanocrystalline hydroxyapatite. Magnetic Resonance in Chemistry, 2006, 44, 573-580.	1.1	324
12	The toxic effect of silver ions and silver nanoparticles towards bacteria and human cells occurs in the same concentration range. RSC Advances, 2012, 2, 6981.	1.7	324
13	Application of calcium phosphatenanoparticles in biomedicine. Journal of Materials Chemistry, 2010, 20, 18-23.	6.7	305
14	The dissolution and biological effects of silver nanoparticles in biological media. Journal of Materials Chemistry B, 2014, 2, 1634.	2.9	305
15	Calcium Phosphate Crystals Induce Cell Death in Human Vascular Smooth Muscle Cells. Circulation Research, 2008, 103, e28-34.	2.0	280
16	Synthesis, Structure, Properties, and Applications of Bimetallic Nanoparticles of Noble Metals. Advanced Functional Materials, 2020, 30, 1909260.	7.8	274
17	Continuous synthesis of amorphous carbonated apatites. Biomaterials, 2002, 23, 2553-2559.	5.7	266
18	Effective transfection of cells with multi-shell calcium phosphate-DNA nanoparticles. Biomaterials, 2006, 27, 3147-3153.	5.7	265

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19	Silver nanoparticles with different size and shape: equal cytotoxicity, but different antibacterial effects. RSC Advances, 2016, 6, 18490-18501.	1.7	244
20	Comparison of different characterization methods for nanoparticle dispersions before and after aerosolization. Analytical Methods, 2014, 6, 7324.	1.3	232
21	The composition of the exoskeleton of two crustacea: The American lobster Homarus americanus and the edible crab Cancer pagurus. Thermochimica Acta, 2007, 463, 65-68.	1.2	220
22	Studies on the biocompatibility and the interaction of silver nanoparticles with human mesenchymal stem cells (hMSCs). Langenbeck's Archives of Surgery, 2009, 394, 495-502.	0.8	217
23	The influence of proteins on the dispersability and cell-biological activity of silver nanoparticles. Journal of Materials Chemistry, 2010, 20, 512-518.	6.7	192
24	Calcium Carbonate Modifications in the Mineralized Shell of the Freshwater SnailBiomphalaria glabrata. Chemistry - A European Journal, 2000, 6, 3679-3685.	1.7	184
25	The structure of bone studied with synchrotron X-ray diffraction, X-ray absorption spectroscopy and thermal analysis. Thermochimica Acta, 2000, 361, 131-138.	1.2	181
26	On the Structure of Amorphous Calcium Carbonateâ€"A Detailed Study by Solid-State NMR Spectroscopy. Inorganic Chemistry, 2008, 47, 7874-7879.	1.9	178
27	Possibilities and limitations of different analytical methods for the size determination of a bimodal dispersion of metallic nanoparticles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2011, 377, 386-392.	2.3	168
28	Precipitation with polyethylene glycol followed by washing and pelleting by ultracentrifugation enriches extracellular vesicles from tissue culture supernatants in small and large scales. Journal of Extracellular Vesicles, 2018, 7, 1528109.	5.5	164
29	Biologically and chemically optimized composites of carbonated apatite and polyglycolide as bone substitution materials. Journal of Biomedical Materials Research Part B, 2001, 54, 162-171.	3.0	163
30	A novel method to produce hydroxyapatite objects with interconnecting porosity that avoids sintering. Biomaterials, 2004, 25, 3335-3340.	5.7	153
31	Structure, composition, and mechanical properties of shark teeth. Journal of Structural Biology, 2012, 178, 290-299.	1.3	144
32	Transfection of cells with custom-made calcium phosphate nanoparticles coated with DNA. Journal of Materials Chemistry, 2004, 14, 2213.	6.7	142
33	The mineral phase in the cuticles of two species of Crustacea consists of magnesium calcite, amorphous calcium carbonate, and amorphous calcium phosphate. Dalton Transactions, 2005, , 1814.	1.6	136
34	Cell type-specific responses of peripheral blood mononuclear cells to silver nanoparticles. Acta Biomaterialia, 2011, 7, 3505-3514.	4.1	133
35	Lanthanide-doped calcium phosphate nanoparticles with high internal crystallinity and with a shell of DNA as fluorescent probes in cell experiments. Journal of Materials Chemistry, 2007, 17, 4153.	6.7	132
36	Nanoparticleâ€"Protein Interactions: Therapeutic Approaches and Supramolecular Chemistry. Accounts of Chemical Research, 2017, 50, 1383-1390.	7.6	131

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37	Review of potential health risks associated with nanoscopic calcium phosphate. Acta Biomaterialia, 2018, 77, 1-14.	4.1	125
38	The use of calcium phosphate nanoparticles encapsulating Toll-like receptor ligands and the antigen hemagglutinin to induce dendritic cell maturation and TÂcell activation. Biomaterials, 2010, 31, 5627-5633.	5.7	123
39	The relevance of biomaterials to the prevention and treatment of osteoporosis. Acta Biomaterialia, 2014, 10, 1793-1805.	4.1	120
40	Carbonated calcium phosphates are suitable pH-stabilising fillers for biodegradable polyesters. Biomaterials, 2003, 24, 2037-2043.	5.7	119
41	PVP-coated, negatively charged silver nanoparticles: A multi-center study of their physicochemical characteristics, cell culture and in vivo experiments. Beilstein Journal of Nanotechnology, 2014, 5, 1944-1965.	1.5	119
42	Easy assessment of the biocompatibility of Niâ€“Ti alloys by in vitro cell culture experiments on a functionally graded Niâ€“NiTiâ€“Ti material. Biomaterials, 2002, 23, 4549-4555.	5.7	115
43	Mechanism of the uptake of cationic and anionic calcium phosphate nanoparticles by cells. Acta Biomaterialia, 2013, 9, 7527-7535.	4.1	113
44	Functionalisation of calcium phosphate nanoparticles by oligonucleotides and their application for gene silencing. Journal of Materials Chemistry, 2007, 17, 721-727.	6.7	108
45	The preparation of calcium phosphate coatings on titanium and nickelâ€“titanium by rf-magnetron-sputtered deposition: Composition, structure and micromechanical properties. Surface and Coatings Technology, 2008, 202, 3913-3920.	2.2	107
46	Calcium phosphate nanoparticles as efficient carriers for photodynamic therapy against cells and bacteria. Biomaterials, 2009, 30, 3324-3331.	5.7	106
47	Large-area, uniform, high-spatial-frequency ripples generated on silicon using a nanojoule-femtosecond laser at high repetition rate. Optics Letters, 2011, 36, 229.	1.7	106
48	Colonic gene silencing using siRNA-loaded calcium phosphate/PLGA nanoparticles ameliorates intestinal inflammation in vivo. Journal of Controlled Release, 2016, 222, 86-96.	4.8	106
49	Calcium phosphate coating of nickelâ€“titanium shape-memory alloys. Coating procedure and adherence of leukocytes and platelets. Biomaterials, 2003, 24, 3689-3696.	5.7	103
50	Structural characterisation of X-ray amorphous calcium carbonate (ACC) in sternal deposits of the crustacea Porcellio scaber. Dalton Transactions, 2003, , 551-555.	1.6	103
51	The use of size-defined DNA-functionalized calcium phosphate nanoparticles to minimise intracellular calcium disturbance during transfection. Biomaterials, 2009, 30, 6794-6802.	5.7	101
52	Morphological characterization and in vitro biocompatibility of a porous nickelâ€“titanium alloy. Biomaterials, 2005, 26, 5801-5807.	5.7	100
53	Cell targeting by antibody-functionalized calcium phosphatenanoparticles. Journal of Materials Chemistry, 2012, 22, 396-404.	6.7	97
54	Basic Principles of Thermoanalytical Techniques and Their Applications in Preparative Chemistry. Angewandte Chemie International Edition in English, 1995, 34, 1171-1187.	4.4	95

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55	Die biologische und medizinische Bedeutung von Calciumphosphaten. Angewandte Chemie, 2002, 114, 3260-3277.	1.6	94
56	The influence of the deposition parameters on the properties of an rf-magnetron-deposited nanostructured calcium phosphate coating and a possible growth mechanism. Surface and Coatings Technology, 2011, 205, 3600-3606.	2.2	94
57	Accumulation of silver nanoparticles by cultured primary brain astrocytes. Nanotechnology, 2011, 22, 375101.	1.3	93
58	Targeting sphingosine-1-phosphate lyase as an anabolic therapy for bone loss. Nature Medicine, 2018, 24, 667-678.	15.2	93
59	EARLY MINERALIZATION IN BIOMPHALARIA GLABRATA: MICROSCOPIC AND STRUCTURAL RESULTS. Journal of Molluscan Studies, 2003, 69, 113-121.	0.4	92
60	Geometrically structured implants for cranial reconstruction made of biodegradable polyesters and calcium phosphate/calcium carbonate. Biomaterials, 2004, 25, 1239-1247.	5.7	91
61	Structural Evolution of Silver Nanoparticles during Wet-Chemical Synthesis. Chemistry of Materials, 2014, 26, 951-957.	3.2	91
62	A Critical Review of Modern Concepts for Teeth Whitening. Dentistry Journal, 2019, 7, 79.	0.9	90
63	3D biodegradable scaffolds of polycaprolactone with silicate-containing hydroxyapatite microparticles for bone tissue engineering: high-resolution tomography and in vitro study. Scientific Reports, 2018, 8, 8907.	1.6	88
64	Piezoelectric 3-D Fibrous Poly(3-hydroxybutyrate)-Based Scaffolds Ultrasound-Mineralized with Calcium Carbonate for Bone Tissue Engineering: Inorganic Phase Formation, Osteoblast Cell Adhesion, and Proliferation. ACS Applied Materials & Interfaces, 2019, 11, 19522-19533.	4.0	88
65	In vitro Synthesis and Structural Characterization of Amorphous Calcium Carbonate. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2005, 631, 2830-2835.	0.6	87
66	The resorption of nanocrystalline calcium phosphates by osteoclast-like cells. Acta Biomaterialia, 2010, 6, 3223-3233.	4.1	87
67	How Size Determines the Value of Gold: Economic Aspects of Wet Chemical and Laserâ€Based Metal Colloid Synthesis. ChemPhysChem, 2017, 18, 1012-1019.	1.0	84
68	The structure of an RF-magnetron sputter-deposited silicate-containing hydroxyapatite-based coating investigated by high-resolution techniques. Surface and Coatings Technology, 2013, 218, 39-46.	2.2	83
69	Immunization with Biodegradable Nanoparticles Efficiently Induces Cellular Immunity and Protects against Influenza Virus Infection. Journal of Immunology, 2013, 190, 6221-6229.	0.4	81
70	The composition of the mineralized cuticle in marine and terrestrial isopods: A comparative study. CrystEngComm, 2007, 9, 1245.	1.3	80
71	miRâ€542â€3p exerts tumor suppressive functions in neuroblastoma by downregulating <scp>S</scp>urvivin. International Journal of Cancer, 2015, 136, 1308-1320.	2.3	78
72	Effect of silver nanoparticles on human mesenchymal stem cell differentiation. Beilstein Journal of Nanotechnology, 2014, 5, 2058-2069.	1.5	77

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73	Colloidal Stability and Surface Chemistry Are Key Factors for the Composition of the Protein Corona of Inorganic Gold Nanoparticles. Advanced Functional Materials, 2017, 27, 1701956.	7.8	76
74	Continuous preparation of functionalised calcium phosphate nanoparticles with adjustable crystallinity. Chemical Communications, 2004, , 1204.	2.2	75
75	Gold nanoparticles: dispersibility in biological media and cell-biological effect. Journal of Materials Chemistry, 2010, 20, 6176.	6.7	75
76	Targeting and activation of antigen-specific B-cells by calcium phosphate nanoparticles loaded with protein antigen. Biomaterials, 2014, 35, 6098-6105.	5.7	71
77	Effect of hydroxyapatite on the biodegradation and biomechanical stability of polyester nanocomposites for orthopaedic applications. Acta Biomaterialia, 2010, 6, 763-775.	4.1	70
78	Nanoparticles as transfection agents: a comprehensive study with ten different cell lines. RSC Advances, 2016, 6, 18102-18112.	1.7	70
79	Mechanically stable implants of synthetic bone mineral by cold isostatic pressing. Biomaterials, 2003, 24, 4565-4571.	5.7	69
80	Silver, gold, and alloyed silverâ€“gold nanoparticles: characterization and comparative cell-biologic action. Journal of Nanoparticle Research, 2012, 14, 1.	0.8	69
81	Fabrication, ultra-structure characterization and in vitro studies of RF magnetron sputter deposited nano-hydroxyapatite thin films for biomedical applications. Applied Surface Science, 2014, 317, 172-180.	3.1	69
82	Freeze-dried cationic calcium phosphatenanorods as versatile carriers of nucleic acids (DNA, siRNA). Journal of Materials Chemistry, 2012, 22, 199-204.	6.7	67
83	Multifunctional calcium phosphate nanoparticles for combining near-infrared fluorescence imaging and photodynamic therapy. Acta Biomaterialia, 2015, 14, 197-207.	4.1	67
84	The Potential of Powder Metallurgy for the Fabrication of Biomaterials on the Basis of Nickel-Titanium: A Case Study with a Staple Showing Shape Memory Behaviour. Advanced Engineering Materials, 2005, 7, 613-619.	1.6	66
85	Upregulation of Metallothioneins After Exposure of Cultured Primary Astrocytes to Silver Nanoparticles. Neurochemical Research, 2012, 37, 1639-1648.	1.6	66
86	Silver-doped calcium phosphate nanoparticles: Synthesis, characterization, and toxic effects toward mammalian and prokaryotic cells. Colloids and Surfaces B: Biointerfaces, 2013, 102, 724-729.	2.5	66
87	Monohydrocalcite and Its Relationship to Hydrated Amorphous Calcium Carbonate in Biominerals. European Journal of Inorganic Chemistry, 2007, 2007, 1953-1957.	1.0	65
88	Continuous Preparation of Calcite, Aragonite and Vaterite, and of Magnesiumâ€Substituted Amorphous Calcium Carbonate (Mgâ€ACC). Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2008, 634, 1439-1443.	0.6	65
89	Composites of Calcium Phosphate and Polymers as Bone Substitution Materials. European Journal of Trauma and Emergency Surgery, 2006, 32, 125-131.	0.3	64
90	X-ray Microcomputer Tomography for the Study of Biomineralized Endo- and Exoskeletons of Animals. Chemical Reviews, 2008, 108, 4734-4741.	23.0	64

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91	Synthesis of PVPâ€coated silver nanoparticles and their biological activity towards human mesenchymal stem cells. Materialwissenschaft Und Werkstofftechnik, 2009, 40, 258-264.	0.5	64
92	Ultrastructural organization and micromechanical properties of shark tooth enameloid. Acta Biomaterialia, 2014, 10, 3959-3968.	4.1	64
93	Fetuin-A and Albumin Alter Cytotoxic Effects of Calcium Phosphate Nanoparticles on Human Vascular Smooth Muscle Cells. PLoS ONE, 2014, 9, e97565.	1.1	62
94	Synthesis of nanosized hydroxyapatite/agarose powders for bone filler and drug delivery application. Materials Today Communications, 2016, 8, 31-40.	0.9	62
95	Rational Design of Î²-Sheet Ligands Against Aβ₄₂-Induced Toxicity. Journal of the American Chemical Society, 2011, 133, 4348-4358.	6.6	61
96	Incorporation of silver nanoparticles into magnetron-sputtered calcium phosphate layers on titanium as an antibacterial coating. Colloids and Surfaces B: Biointerfaces, 2017, 156, 104-113.	2.5	61
97	The release of nickel from nickelâ€“titanium (NiTi) is strongly reduced by a sub-micrometer thin layer of calcium phosphate deposited by rf-magnetron sputtering. Journal of Materials Science: Materials in Medicine, 2010, 21, 1233-1239.	1.7	60
98	Shape-Dependent Dissolution and Cellular Uptake of Silver Nanoparticles. Langmuir, 2018, 34, 1506-1519.	1.6	60
99	Grundlagen der Thermischen Analysetechniken und ihre Anwendungen in der prÃparativen Chemie. Angewandte Chemie, 1995, 107, 1284-1301.	1.6	59
100	Dental pulp stem cells in chitosan/gelatin scaffolds for enhanced orofacial bone regeneration. Dental Materials, 2019, 35, 310-327.	1.6	58
101	A comparative study of clinically well-characterized human atherosclerotic plaques with histological, chemical, and ultrastructural methods. Journal of Inorganic Biochemistry, 2004, 98, 2032-2038.	1.5	57
102	Chlorhexidine-loaded calcium phosphatenanoparticles for dental maintenance treatment: combination of mineralising and antibacterial effects. RSC Advances, 2012, 2, 870-875.	1.7	57
103	Biological and Medical Applications of Calcium Phosphate Nanoparticles. Chemistry - A European Journal, 2021, 27, 7471-7488.	1.7	57
104	Ultrastructure and mineral distribution in the tergal cuticle of the terrestrial isopod Titanethes albus. Adaptations to a karst cave biotope. Journal of Structural Biology, 2009, 168, 426-436.	1.3	56
105	Nanostructure of wet-chemically prepared, polymer-stabilized silverâ€“gold nanoalloys (6 nm) over the entire composition range. Journal of Materials Chemistry B, 2015, 3, 4654-4662.	2.9	56
106	Interaction of dermatologically relevant nanoparticles with skin cells and skin. Beilstein Journal of Nanotechnology, 2014, 5, 2363-2373.	1.5	55
107	Mimicking exposures to acute and lifetime concentrations of inhaled silver nanoparticles by two different in vitro approaches. Beilstein Journal of Nanotechnology, 2014, 5, 1357-1370.	1.5	55
108	Transport of ultrasmall gold nanoparticles (2Ânm) across the bloodâ€“brain barrier in a six-cell brain spheroid model. Scientific Reports, 2020, 10, 18033.	1.6	55

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109	A detailed characterization of polyglycolide prepared by solid-state polycondensation reaction. Macromolecular Chemistry and Physics, 1999, 200, 2221-2229.	1.1	54
110	Calcium phosphate nanoparticles with adjustable dispersability and crystallinity. Journal of Materials Chemistry, 2009, 19, 2166.	6.7	54
111	SiRNA-loaded multi-shell nanoparticles incorporated into a multilayered film as a reservoir for gene silencing. Biomaterials, 2010, 31, 6013-6018.	5.7	53
112	An in situ SAXS investigation of the formation of silver nanoparticles and bimetallic silverâ€“gold nanoparticles in controlled wet-chemical reduction synthesis. Nanoscale Advances, 2020, 2, 225-238.	2.2	53
113	Cytotoxic and proinflammatory effects of PVP-coated silver nanoparticles after intratracheal instillation in rats. Beilstein Journal of Nanotechnology, 2013, 4, 933-940.	1.5	52
114	Magnesium alcoholates as precursors for magnesia. Journal of Materials Chemistry, 1995, 5, 589.	6.7	51
115	Ultrastructure and mineral distribution in the tergite cuticle of the beach isopod Tylos europaeus Arcangeli, 1938. Journal of Structural Biology, 2011, 174, 512-526.	1.3	51
116	Electrochemistry at single bimetallic nanoparticles â€“ using nano impacts for sizing and compositional analysis of individual AgAu alloy nanoparticles. Faraday Discussions, 2016, 193, 327-338.	1.6	51
117	Hybrid biocomposites based on titania nanotubes and a hydroxyapatite coating deposited by RF-magnetron sputtering: Surface topography, structure, and mechanical properties. Applied Surface Science, 2017, 426, 229-237.	3.1	51
118	Ultrasmall gold nanoparticles (2Ânm) can penetrate and enter cell nuclei in an in vitro 3D brain spheroid model. Acta Biomaterialia, 2020, 111, 349-362.	4.1	51
119	Synthesis and characterization of DNA-functionalized calcium phosphate nanoparticles. Materialwissenschaft Und Werkstofftechnik, 2006, 37, 441-445.	0.5	50
120	A new tool for the transfection of corneal endothelial cells: Calcium phosphate nanoparticles. Acta Biomaterialia, 2012, 8, 1156-1163.	4.1	50
121	In vitro and in vivo interactions of selected nanoparticles with rodent serum proteins and their consequences in biokinetics. Beilstein Journal of Nanotechnology, 2014, 5, 1699-1711.	1.5	50
122	Biomimetic Crystallization of Apatite in a Porous Polymer Matrix. Chemistry - A European Journal, 1998, 4, 1898-1903.	1.7	49
123	Quantifying the influence of polymer coatings on the serum albumin corona formation around silver and gold nanoparticles. Journal of Nanoparticle Research, 2012, 14, 1.	0.8	49
124	Live-cell imaging to compare the transfection and gene silencing efficiency of calcium phosphate nanoparticles and a liposomal transfection agent. Gene Therapy, 2017, 24, 282-289.	2.3	49
125	RF magnetron sputtering of a hydroxyapatite target: A comparison study on polytetrafluorethylene and titanium substrates. Applied Surface Science, 2017, 414, 335-344.	3.1	49
126	Calcium sulfate hemihydrate in statoliths of deep-sea medusae. Dalton Transactions RSC, 2002, , 1266-1268.	2.3	48

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127	The release of nickel from orthodontic NiTi wires is increased by dynamic mechanical loading but not constrained by surface nitridation. Journal of Biomedical Materials Research - Part A, 2007, 82A, 731-739.	2.1	48
128	Preparation of a silicate-containing hydroxyapatite-based coating by magnetron sputtering: structure and osteoblast-like MG63 cells in vitro study. RSC Advances, 2013, 3, 11240.	1.7	48
129	Functionalization of titania nanotubes with electrophoretically deposited silver and calcium phosphate nanoparticles: Structure, composition and antibacterial assay. Materials Science and Engineering C, 2019, 97, 420-430.	3.8	48
130	The Crystallization of Fluoroapatite Dumbbells from Supersaturated Aqueous Solution. Crystal Growth and Design, 2006, 6, 498-506.	1.4	47
131	Synthesis of fluorescent coreâ€“shell hydroxyapatite nanoparticles. Journal of Materials Chemistry, 2011, 21, 1250-1254.	6.7	47
132	Quantitative determination of the composition of multi-shell calcium phosphateâ€“oligonucleotide nanoparticles and their application for the activation of dendritic cells. Acta Biomaterialia, 2011, 7, 4029-4036.	4.1	47
133	An easy synthesis of autofluorescent alloyed silverâ€“gold nanoparticles. Journal of Materials Chemistry B, 2014, 2, 7887-7895.	2.9	47
134	Fabrication and physico-mechanical properties of thin magnetron sputter deposited silver-containing hydroxyapatite films. Applied Surface Science, 2016, 360, 929-935.	3.1	47
135	Decreased bacterial colonization of additively manufactured Ti6Al4V metallic scaffolds with immobilized silver and calcium phosphate nanoparticles. Applied Surface Science, 2019, 480, 822-829.	3.1	47
136	Fatigue of orthodontic nickelâ€“titanium (NiTi) wires in different fluids under constant mechanical stress. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 378, 110-114.	2.6	46
137	Amorphous and crystalline calcium carbonate distribution in the tergite cuticle of moulting Porcellio scaber (Isopoda, Crustacea). Journal of Structural Biology, 2011, 175, 10-20.	1.3	46
138	Calcium phosphate nanoparticles as templates for nanocapsules prepared by the layer-by-layer technique. Journal of Materials Chemistry, 2008, 18, 3831.	6.7	45
139	An outer shell of positively charged poly(ethyleneimine) strongly increases the transfection efficiency of calcium phosphate/DNA nanoparticles. Journal of Materials Science, 2010, 45, 4952-4957.	1.7	45
140	Prophylactic and therapeutic vaccination with a nanoparticle-based peptide vaccine induces efficient protective immunity during acute and chronic retroviral infection. Nanomedicine: Nanotechnology, Biology, and Medicine, 2014, 10, 1787-1798.	1.7	45
141	The potential of nanoparticles for the immunization against viral infections. Journal of Materials Chemistry B, 2015, 3, 4767-4779.	2.9	45
142	Polysulfonylamine. XL Darstellung von Silber(I)-disulfonylamid-Acetonitril-Komplexen. Rï¿½ntgenstrukturanalytische und thermochemische Charakterisierung von Tetraacetonitrilsilber(I)-bis(dimesylamido)argentat(I) und von (1,1,3,3-Tetraoxo-1,3,2-benzodithiazolido)acetonitrilsilber(I). Zeitschrift Fur Anorganische Und Allgemeine Chemie, 1993, 619, 912-922.	0.6	44
143	Calcium phosphate nanoparticles: colloidally stabilized and made fluorescent by a phosphate-functionalized porphyrin. Journal of Materials Chemistry, 2008, 18, 3655.	6.7	44
144	Synthetic pathways to make nanoparticles fluorescent. Nanoscale, 2011, 3, 1957.	2.8	44

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145	Chemical composition of surface-functionalized gold nanoparticles. Journal of Nanoparticle Research, 2011, 13, 4809-4814.	0.8	44
146	Direct experimental observation of the aggregation of Î±-amino acids into 100â€“200 nm clusters in aqueous solution. RSC Advances, 2012, 2, 4690.	1.7	44
147	Calcium phosphate nanoparticles as versatile carrier for small and large molecules across cell membranes. Journal of Nanoparticle Research, 2012, 14, 1.	0.8	44
148	Calcium sulfate hemihydrate (bassanite) statoliths in the cubozoan Carybdea sp.. Zoologischer Anzeiger, 2006, 245, 13-17.	0.4	43
149	Performance of functionally graded implants of polylactides and calcium phosphate/calcium carbonate in an ovine model for computer assisted craniectomy and cranioplasty. Biomaterials, 2007, 28, 475-485.	5.7	43
150	Local delivery of siRNA-loaded calcium phosphate nanoparticles abates pulmonary inflammation. Nanomedicine: Nanotechnology, Biology, and Medicine, 2017, 13, 2395-2403.	1.7	43
151	Polyglycolide with controlled porosity: an improved biomaterial. Journal of Materials Chemistry, 1997, 7, 1037-1042.	6.7	42
152	Influence of the substrate bias on the stoichiometry and structure of RFâ€magnetron sputterâ€deposited silverâ€containing calcium phosphate coatings. Materialwissenschaft Und Werkstofftechnik, 2013, 44, 218-225.	0.5	42
153	Study of biocompatibility effect of nanocarbon particles on various cell types in vitro. Materialwissenschaft Und Werkstofftechnik, 2016, 47, 216-221.	0.5	42
154	Biomimetic fabrication of mineralized composite films of nanosilver loaded native fibrillar collagen and chitosan. Materials Science and Engineering C, 2019, 99, 357-366.	3.8	42
155	Magnesium-substituted hydroxyapatite ceramics. Materialwissenschaft Und Werkstofftechnik, 2006, 37, 474-477.	0.5	41
156	Tracking the pathway of calcium phosphate/DNA nanoparticles during cell transfection by incorporation of red-fluorescing tetramethylrhodamine isothiocyanateâ€“bovine serum albumin into these nanoparticles. Journal of Biological Inorganic Chemistry, 2007, 12, 174-179.	1.1	41
157	The predominant species of ionic silver in biological media is colloidally dispersed nanoparticulate silver chloride. RSC Advances, 2014, 4, 35290.	1.7	41
158	Improved Models for Metallic Nanoparticle Cores from Atomic Pair Distribution Function (PDF) Analysis. Journal of Physical Chemistry C, 2018, 122, 29498-29506.	1.5	41
159	Characterization of crocodile teeth: Correlation of composition, microstructure, and hardness. Journal of Structural Biology, 2013, 184, 155-163.	1.3	40
160	Calcium phosphate nanoparticles carrying BMPâ€7 plasmid DNA induce an osteogenic response in MC3T3â€E1 preâ€osteoblasts. Journal of Biomedical Materials Research - Part A, 2015, 103, 3834-3842.	2.1	40
161	Topochemical Rationalization of the Solid-State Polymerization Reaction of Sodium Chloroacetate:Â Structure Determination from Powder Diffraction Data by the Monte Carlo Method. Journal of Physical Chemistry B, 1997, 101, 8827-8831.	1.2	39
162	Calcium sulfate hemihydrate is the inorganic mineral in statoliths of Scyphozoan medusae (Cnidaria). Dalton Transactions, 2005, , 1545-1550.	1.6	39

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163	Comparison of silver nanoparticles stored under air or argon with respect to the induction of intracellular free radicals and toxic effects toward keratinocytes. European Journal of Pharmaceutics and Biopharmaceutics, 2014, 88, 651-657.	2.0	39
164	Calcium phosphate increases the encapsulation efficiency of hydrophilic drugs (proteins, nucleic) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 7 delivery. Journal of Materials Chemistry B, 2014, 2, 7250-7259.	2.9	39
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