

# Matthias Epple

## List of Publications by Citations

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487  
papers

21,740  
citations

65  
h-index

131  
g-index

535  
ext. papers

24,464  
ext. citations

5  
avg, IF

7.27  
L-index

| #   | Paper  | IF   | Citations |
|-----|--|------|-----------|
| 487 | Biological and medical significance of calcium phosphates. <i>Angewandte Chemie - International Edition</i> , <b>2002</b> , 41, 3130-46  | 16.4 | 1497      |
| 486 | Silver as antibacterial agent: ion, nanoparticle, and metal. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 1636-53  | 16.4 | 1466      |
| 485 | Toxicity of Silver Nanoparticles Increases during Storage Because of Slow Dissolution under Release of Silver Ions. <i>Chemistry of Materials</i> , <b>2010</b> , 22, 4548-4554                              | 9.6  | 888       |
| 484 | MSC-derived exosomes: a novel tool to treat therapy-refractory graft-versus-host disease. <i>Leukemia</i> , <b>2014</b> , 28, 970-3  | 10.7 | 650       |
| 483 | Characterisation of exosomes derived from human cells by nanoparticle tracking analysis and scanning electron microscopy. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2011</b> , 87, 146-50           | 6    | 518       |
| 482 | Inorganic nanoparticles as carriers of nucleic acids into cells. <i>Angewandte Chemie - International Edition</i> , <b>2008</b> , 47, 1382-95  | 16.4 | 473       |
| 481 | Calcium phosphates in biomedical applications: materials for the future?. <i>Materials Today</i> , <b>2016</b> , 19, 69-87   | 11.8 | 465       |
| 480 | A thorough physicochemical characterisation of 14 calcium phosphate-based bone substitution materials in comparison to natural bone. <i>Biomaterials</i> , <b>2004</b> , 25, 987-94                          | 15.6 | 424       |
| 479 | Functionally graded materials for biomedical applications. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2003</b> , 362, 40-60          | 5.3  | 370       |
| 478 | A solid-state NMR investigation of the structure of nanocrystalline hydroxyapatite. <i>Magnetic Resonance in Chemistry</i> , <b>2006</b> , 44, 573-80  | 2.1  | 293       |
| 477 | Uptake and intracellular distribution of silver nanoparticles in human mesenchymal stem cells. <i>Acta Biomaterialia</i> , <b>2011</b> , 7, 347-54   | 10.8 | 277       |
| 476 | Application of calcium phosphate nanoparticles in biomedicine. <i>Journal of Materials Chemistry</i> , <b>2010</b> , 20, 18-23   |      | 266       |
| 475 | The toxic effect of silver ions and silver nanoparticles towards bacteria and human cells occurs in the same concentration range. <i>RSC Advances</i> , <b>2012</b> , 2, 6981                                | 3.7  | 258       |
| 474 | The dissolution and biological effects of silver nanoparticles in biological media. <i>Journal of Materials Chemistry B</i> , <b>2014</b> , 2, 1634-1643   | 7.3  | 257       |
| 473 | Calcium phosphate crystals induce cell death in human vascular smooth muscle cells: a potential mechanism in atherosclerotic plaque destabilization. <i>Circulation Research</i> , <b>2008</b> , 103, e28-34 | 15.7 | 240       |
| 472 | Continuous synthesis of amorphous carbonated apatites. <i>Biomaterials</i> , <b>2002</b> , 23, 2553-9  | 15.6 | 231       |
| 471 | Effective transfection of cells with multi-shell calcium phosphate-DNA nanoparticles. <i>Biomaterials</i> , <b>2006</b> , 27, 3147-53  | 15.6 | 230       |

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| 470 | Studies on the biocompatibility and the interaction of silver nanoparticles with human mesenchymal stem cells (hMSCs). <i>Langenbeck's Archives of Surgery</i> , <b>2009</b> , 394, 495-502  | 3.4  | 188 |
| 469 | The composition of the exoskeleton of two crustacea: The American lobster <i>Homarus americanus</i> and the edible crab <i>Cancer pagurus</i> . <i>Thermochimica Acta</i> , <b>2007</b> , 463, 65-68   | 2.9  | 179 |
| 468 | The influence of proteins on the dispersability and cell-biological activity of silver nanoparticles. <i>Journal of Materials Chemistry</i> , <b>2010</b> , 20, 512-518  |      | 176 |
| 467 | Silver nanoparticles with different size and shape: equal cytotoxicity, but different antibacterial effects. <i>RSC Advances</i> , <b>2016</b> , 6, 18490-18501  | 3.7  | 173 |
| 466 | The structure of bone studied with synchrotron X-ray diffraction, X-ray absorption spectroscopy and thermal analysis. <i>Thermochimica Acta</i> , <b>2000</b> , 361, 131-138   | 2.9  | 165 |
| 465 | Comparison of different characterization methods for nanoparticle dispersions before and after aerosolization. <i>Analytical Methods</i> , <b>2014</b> , 6, 7324   | 3.2  | 163 |
| 464 | Calcium carbonate modifications in the mineralized shell of the freshwater snail <i>Biomphalaria glabrata</i> . <i>Chemistry - A European Journal</i> , <b>2000</b> , 6, 3679-85   | 4.8  | 161 |
| 463 | On the structure of amorphous calcium carbonate—a detailed study by solid-state NMR spectroscopy. <i>Inorganic Chemistry</i> , <b>2008</b> , 47, 7874-9  | 5.1  | 152 |
| 462 | Possibilities and limitations of different analytical methods for the size determination of a bimodal dispersion of metallic nanoparticles. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2011</b> , 377, 386-392 | 5.1  | 147 |
| 461 | Biologically and chemically optimized composites of carbonated apatite and polyglycolide as bone substitution materials. <i>Journal of Biomedical Materials Research Part B</i> , <b>2001</b> , 54, 162-71                                       |      | 139 |
| 460 | A novel method to produce hydroxyapatite objects with interconnecting porosity that avoids sintering. <i>Biomaterials</i> , <b>2004</b> , 25, 3335-40  | 15.6 | 132 |
| 459 | The mineral phase in the cuticles of two species of Crustacea consists of magnesium calcite, amorphous calcium carbonate, and amorphous calcium phosphate. <i>Dalton Transactions</i> , <b>2005</b> , 1814-20                                    | 4.3  | 123 |
| 458 | Transfection of cells with custom-made calcium phosphate nanoparticles coated with DNA. <i>Journal of Materials Chemistry</i> , <b>2004</b> , 14, 2213   |      | 122 |
| 457 | Lanthanide-doped calcium phosphate nanoparticles with high internal crystallinity and with a shell of DNA as fluorescent probes in cell experiments. <i>Journal of Materials Chemistry</i> , <b>2007</b> , 17, 4153                              |      | 121 |
| 456 | Cell type-specific responses of peripheral blood mononuclear cells to silver nanoparticles. <i>Acta Biomaterialia</i> , <b>2011</b> , 7, 3505-14   | 10.8 | 114 |
| 455 | Carbonated calcium phosphates are suitable pH-stabilising fillers for biodegradable polyesters. <i>Biomaterials</i> , <b>2003</b> , 24, 2037-43  | 15.6 | 107 |
| 454 | The use of calcium phosphate nanoparticles encapsulating Toll-like receptor ligands and the antigen hemagglutinin to induce dendritic cell maturation and T cell activation. <i>Biomaterials</i> , <b>2010</b> , 31, 5627-33                     | 15.6 | 106 |
| 453 | Nanoparticle-Protein Interactions: Therapeutic Approaches and Supramolecular Chemistry. <i>Accounts of Chemical Research</i> , <b>2017</b> , 50, 1383-1390   | 24.3 | 103 |

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| 452 | The relevance of biomaterials to the prevention and treatment of osteoporosis. <i>Acta Biomaterialia</i> , <b>2014</b> , 10, 1793-805   | 10.8 | 103 |
| 451 | Synthesis, Structure, Properties, and Applications of Bimetallic Nanoparticles of Noble Metals. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1909260  | 15.6 | 102 |
| 450 | PVP-coated, negatively charged silver nanoparticles: A multi-center study of their physicochemical characteristics, cell culture and in vivo experiments. <i>Beilstein Journal of Nanotechnology</i> , <b>2014</b> , 5, 1944-63                                 | 3.3  | 102 |
| 449 | Structure, composition, and mechanical properties of shark teeth. <i>Journal of Structural Biology</i> , <b>2012</b> , 178, 290-9   | 3.4  | 100 |
| 448 | Functionalisation of calcium phosphate nanoparticles by oligonucleotides and their application for gene silencing. <i>Journal of Materials Chemistry</i> , <b>2007</b> , 17, 721-727  |      | 98  |
| 447 | Easy assessment of the biocompatibility of Ni-Ti alloys by in vitro cell culture experiments on a functionally graded Ni-NiTi-Ti material. <i>Biomaterials</i> , <b>2002</b> , 23, 4549-55  | 15.6 | 97  |
| 446 | Calcium phosphate coating of nickel-titanium shape-memory alloys. Coating procedure and adherence of leukocytes and platelets. <i>Biomaterials</i> , <b>2003</b> , 24, 3689-96  | 15.6 | 95  |
| 445 | Mechanism of the uptake of cationic and anionic calcium phosphate nanoparticles by cells. <i>Acta Biomaterialia</i> , <b>2013</b> , 9, 7527-35  | 10.8 | 93  |
| 444 | Calcium phosphate nanoparticles as efficient carriers for photodynamic therapy against cells and bacteria. <i>Biomaterials</i> , <b>2009</b> , 30, 3324-31  | 15.6 | 92  |
| 443 | Structural characterisation of X-ray amorphous calcium carbonate (ACC) in sternal deposits of the crustacea <i>Porcellio scaber</i> . <i>Dalton Transactions</i> , <b>2003</b> , 551-555  | 4.3  | 92  |
| 442 | Precipitation with polyethylene glycol followed by washing and pelleting by ultracentrifugation enriches extracellular vesicles from tissue culture supernatants in small and large scales. <i>Journal of Extracellular Vesicles</i> , <b>2018</b> , 7, 1528109 | 16.4 | 92  |
| 441 | The preparation of calcium phosphate coatings on titanium and nickel-titanium by rf-magnetron-sputtered deposition: Composition, structure and micromechanical properties. <i>Surface and Coatings Technology</i> , <b>2008</b> , 202, 3913-3920                | 4.4  | 90  |
| 440 | Morphological characterization and in vitro biocompatibility of a porous nickel-titanium alloy. <i>Biomaterials</i> , <b>2005</b> , 26, 5801-7  | 15.6 | 90  |
| 439 | The use of size-defined DNA-functionalized calcium phosphate nanoparticles to minimise intracellular calcium disturbance during transfection. <i>Biomaterials</i> , <b>2009</b> , 30, 6794-802  | 15.6 | 89  |
| 438 | Review of potential health risks associated with nanoscopic calcium phosphate. <i>Acta Biomaterialia</i> , <b>2018</b> , 77, 1-14   | 10.8 | 87  |
| 437 | Large-area, uniform, high-spatial-frequency ripples generated on silicon using a nanojoule-femtosecond laser at high repetition rate. <i>Optics Letters</i> , <b>2011</b> , 36, 229-31  | 3    | 87  |
| 436 | Geometrically structured implants for cranial reconstruction made of biodegradable polyesters and calcium phosphate/calcium carbonate. <i>Biomaterials</i> , <b>2004</b> , 25, 1239-47  | 15.6 | 87  |
| 435 | Colonic gene silencing using siRNA-loaded calcium phosphate/PLGA nanoparticles ameliorates intestinal inflammation in vivo. <i>Journal of Controlled Release</i> , <b>2016</b> , 222, 86-96   | 11.7 | 86  |

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| 434 | Cell targeting by antibody-functionalized calcium phosphate nanoparticles. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 396-404  |      | 85 |
| 433 | Accumulation of silver nanoparticles by cultured primary brain astrocytes. <i>Nanotechnology</i> , <b>2011</b> , 22, 375101   | 3.4  | 83 |
| 432 | The influence of the deposition parameters on the properties of an rf-magnetron-deposited nanostructured calcium phosphate coating and a possible growth mechanism. <i>Surface and Coatings Technology</i> , <b>2011</b> , 205, 3600-3606 | 4.4  | 83 |
| 431 | Basic Principles of Thermoanalytical Techniques and Their Applications in Preparative Chemistry. <i>Angewandte Chemie International Edition in English</i> , <b>1995</b> , 34, 1171-1187  |      | 82 |
| 430 | EARLY MINERALIZATION IN BIOMPHALARIA GLABRATA: MICROSCOPIC AND STRUCTURAL RESULTS. <i>Journal of Molluscan Studies</i> , <b>2003</b> , 69, 113-121  | 1.1  | 80 |
| 429 | In vitro Synthesis and Structural Characterization of Amorphous Calcium Carbonate. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , <b>2005</b> , 631, 2830-2835   | 1.3  | 78 |
| 428 | The resorption of nanocrystalline calcium phosphates by osteoclast-like cells. <i>Acta Biomaterialia</i> , <b>2010</b> , 6, 3223-33   | 10.8 | 77 |
| 427 | The composition of the mineralized cuticle in marine and terrestrial isopods: A comparative study. <i>CrystEngComm</i> , <b>2007</b> , 9, 1245  | 3.3  | 76 |
| 426 | Die biologische und medizinische Bedeutung von Calciumphosphaten. <i>Angewandte Chemie</i> , <b>2002</b> , 114, 3260-3277   | 3.6  | 73 |
| 425 | The structure of an RF-magnetron sputter-deposited silicate-containing hydroxyapatite-based coating investigated by high-resolution techniques. <i>Surface and Coatings Technology</i> , <b>2013</b> , 218, 39-46                         | 4.4  | 72 |
| 424 | Structural Evolution of Silver Nanoparticles during Wet-Chemical Synthesis. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 951-957   | 9.6  | 67 |
| 423 | Continuous preparation of functionalised calcium phosphate nanoparticles with adjustable crystallinity. <i>Chemical Communications</i> , <b>2004</b> , 1204-5   | 5.8  | 66 |
| 422 | miR-542-3p exerts tumor suppressive functions in neuroblastoma by downregulating Survivin. <i>International Journal of Cancer</i> , <b>2015</b> , 136, 1308-20  | 7.5  | 65 |
| 421 | 3D biodegradable scaffolds of polycaprolactone with silicate-containing hydroxyapatite microparticles for bone tissue engineering: high-resolution tomography and in vitro study. <i>Scientific Reports</i> , <b>2018</b> , 8, 8907       | 4.9  | 64 |
| 420 | Immunization with biodegradable nanoparticles efficiently induces cellular immunity and protects against influenza virus infection. <i>Journal of Immunology</i> , <b>2013</b> , 190, 6221-9  | 5.3  | 63 |
| 419 | Gold nanoparticles: dispersibility in biological media and cell-biological effect. <i>Journal of Materials Chemistry</i> , <b>2010</b> , 20, 6176   |      | 63 |
| 418 | Targeting sphingosine-1-phosphate lyase as an anabolic therapy for bone loss. <i>Nature Medicine</i> , <b>2018</b> , 24, 667-678  | 50.5 | 62 |
| 417 | Effect of silver nanoparticles on human mesenchymal stem cell differentiation. <i>Beilstein Journal of Nanotechnology</i> , <b>2014</b> , 5, 2058-69  | 3    | 62 |

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| 416 | Mechanically stable implants of synthetic bone mineral by cold isostatic pressing. <i>Biomaterials</i> , <b>2003</b> , 24, 4565-71  | 15.6 | 62 |
| 415 | 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. <i>Advanced Engineering Materials</i> , <b>2005</b> , 7, 613-619 | 3.5  | 62 |
| 414 | Freeze-dried cationic calcium phosphate nanorods as versatile carriers of nucleic acids (DNA, siRNA). <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 199-204   |      | 61 |
| 413 | Effect of hydroxyapatite on the biodegradation and biomechanical stability of polyester nanocomposites for orthopaedic applications. <i>Acta Biomaterialia</i> , <b>2010</b> , 6, 763-75  | 10.8 | 61 |
| 412 | Silver, gold, and alloyed silver-gold nanoparticles: characterization and comparative cell-biologic action. <i>Journal of Nanoparticle Research</i> , <b>2012</b> , 14, 1   | 2.3  | 59 |
| 411 | Multifunctional calcium phosphate nanoparticles for combining near-infrared fluorescence imaging and photodynamic therapy. <i>Acta Biomaterialia</i> , <b>2015</b> , 14, 197-207  | 10.8 | 58 |
| 410 | Synthesis of PVP-coated silver nanoparticles and their biological activity towards human mesenchymal stem cells. <i>Materialwissenschaft Und Werkstofftechnik</i> , <b>2009</b> , 40, 258-264                                       | 0.9  | 58 |
| 409 | Targeting and activation of antigen-specific B-cells by calcium phosphate nanoparticles loaded with protein antigen. <i>Biomaterials</i> , <b>2014</b> , 35, 6098-105   | 15.6 | 57 |
| 408 | Upregulation of metallothioneins after exposure of cultured primary astrocytes to silver nanoparticles. <i>Neurochemical Research</i> , <b>2012</b> , 37, 1639-48   | 4.6  | 57 |
| 407 | How Size Determines the Value of Gold: Economic Aspects of Wet Chemical and Laser-Based Metal Colloid Synthesis. <i>ChemPhysChem</i> , <b>2017</b> , 18, 1012-1019  | 3.2  | 56 |
| 406 | Fabrication, ultra-structure characterization and in vitro studies of RF magnetron sputter deposited nano-hydroxyapatite thin films for biomedical applications. <i>Applied Surface Science</i> , <b>2014</b> , 317, 172-180        | 6.7  | 56 |
| 405 | Rational design of sheet ligands against A $\beta$ 2-induced toxicity. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 4348-58   | 16.4 | 55 |
| 404 | X-ray microcomputer tomography for the study of biomineralized endo- and exoskeletons of animals. <i>Chemical Reviews</i> , <b>2008</b> , 108, 4734-41  | 68.1 | 55 |
| 403 | Ultrastructure and mineral distribution in the tergal cuticle of the terrestrial isopod <i>Titanethes albus</i> . Adaptations to a karst cave biotope. <i>Journal of Structural Biology</i> , <b>2009</b> , 168, 426-36             | 3.4  | 54 |
| 402 | Monohydrocalcite and Its Relationship to Hydrated Amorphous Calcium Carbonate in Biominerals. <i>European Journal of Inorganic Chemistry</i> , <b>2007</b> , 2007, 1953-1957  | 2.3  | 54 |
| 401 | Continuous Preparation of Calcite, Aragonite and Vaterite, and of Magnesium-Substituted Amorphous Calcium Carbonate (Mg-ACC). <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , <b>2008</b> , 634, 1439-1443              | 1.3  | 54 |
| 400 | Composites of Calcium Phosphate and Polymers as Bone Substitution Materials. <i>European Journal of Trauma and Emergency Surgery</i> , <b>2006</b> , 32, 125-131  |      | 54 |
| 399 | A comparative study of clinically well-characterized human atherosclerotic plaques with histological, chemical, and ultrastructural methods. <i>Journal of Inorganic Biochemistry</i> , <b>2004</b> , 98, 2032-8                    | 4.2  | 54 |

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| 398 | Incorporation of silver nanoparticles into magnetron-sputtered calcium phosphate layers on titanium as an antibacterial coating. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2017</b> , 156, 104-113  | 6    | 53 |
| 397 | Colloidal Stability and Surface Chemistry Are Key Factors for the Composition of the Protein Corona of Inorganic Gold Nanoparticles. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1701956  | 15.6 | 53 |
| 396 | Nanoparticles as transfection agents: a comprehensive study with ten different cell lines. <i>RSC Advances</i> , <b>2016</b> , 6, 18102-18112  | 3.7  | 52 |
| 395 | Silver-doped calcium phosphate nanoparticles: synthesis, characterization, and toxic effects toward mammalian and prokaryotic cells. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2013</b> , 102, 724-9  | 6    | 52 |
| 394 | The release of nickel from nickel-titanium (NiTi) is strongly reduced by a sub-micrometer thin layer of calcium phosphate deposited by rf-magnetron sputtering. <i>Journal of Materials Science: Materials in Medicine</i> , <b>2010</b> , 21, 1233-9  | 4.5  | 52 |
| 393 | 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. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 19522-19533 | 9.5  | 51 |
| 392 | SiRNA-loaded multi-shell nanoparticles incorporated into a multilayered film as a reservoir for gene silencing. <i>Biomaterials</i> , <b>2010</b> , 31, 6013-8   | 15.6 | 51 |
| 391 | Grundlagen der Thermischen Analysetechniken und ihre Anwendungen in der präparativen Chemie. <i>Angewandte Chemie</i> , <b>1995</b> , 107, 1284-1301   | 3.6  | 51 |
| 390 | Chlorhexidine-loaded calcium phosphate nanoparticles for dental maintenance treatment: combination of mineralising and antibacterial effects. <i>RSC Advances</i> , <b>2012</b> , 2, 870-875   | 3.7  | 50 |
| 389 | Fetuin-A and albumin alter cytotoxic effects of calcium phosphate nanoparticles on human vascular smooth muscle cells. <i>PLoS ONE</i> , <b>2014</b> , 9, e97565   | 3.7  | 49 |
| 388 | Ultrastructure and mineral distribution in the tergite cuticle of the beach isopod <i>Tylos europaeus</i> Arcangeli, 1938. <i>Journal of Structural Biology</i> , <b>2011</b> , 174, 512-26  | 3.4  | 48 |
| 387 | Synthesis and characterization of DNA-functionalized calcium phosphate nanoparticles. <i>Materialwissenschaft Und Werkstofftechnik</i> , <b>2006</b> , 37, 441-445   | 0.9  | 48 |
| 386 | Magnesium alcoholates as precursors for magnesia. <i>Journal of Materials Chemistry</i> , <b>1995</b> , 5, 589   |      | 48 |
| 385 | Calcium phosphate nanoparticles with adjustable dispersability and crystallinity. <i>Journal of Materials Chemistry</i> , <b>2009</b> , 19, 2166   |      | 47 |
| 384 | Mimicking exposures to acute and lifetime concentrations of inhaled silver nanoparticles by two different in vitro approaches. <i>Beilstein Journal of Nanotechnology</i> , <b>2014</b> , 5, 1357-70   | 3    | 46 |
| 383 | In vitro and in vivo interactions of selected nanoparticles with rodent serum proteins and their consequences in biokinetics. <i>Beilstein Journal of Nanotechnology</i> , <b>2014</b> , 5, 1699-711   | 3    | 46 |
| 382 | Preparation of a silicate-containing hydroxyapatite-based coating by magnetron sputtering: structure and osteoblast-like MG63 cells in vitro study. <i>RSC Advances</i> , <b>2013</b> , 3, 11240   | 3.7  | 45 |
| 381 | Cytotoxic and proinflammatory effects of PVP-coated silver nanoparticles after intratracheal instillation in rats. <i>Beilstein Journal of Nanotechnology</i> , <b>2013</b> , 4, 933-40  | 3    | 45 |

- 380 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**, 82, 731-9 5.4 45
- 379 A detailed characterization of polyglycolide prepared by solid-state polycondensation reaction. *Macromolecular Chemistry and Physics*, **1999**, 200, 2221-2229 2.6 45
- 378 Quantifying the influence of polymer coatings on the serum albumin corona formation around silver and gold nanoparticles. *Journal of Nanoparticle Research*, **2012**, 14, 1 2.3 44
- 377 Biomimetic Crystallization of Apatite in a Porous Polymer Matrix. *Chemistry - A European Journal*, **1998**, 4, 1898-1903 4.8 44
- 376 Shape-Dependent Dissolution and Cellular Uptake of Silver Nanoparticles. *Langmuir*, **2018**, 34, 1506-1519 4.3 43
- 375 Fabrication and physico-mechanical properties of thin magnetron sputter deposited silver-containing hydroxyapatite films. *Applied Surface Science*, **2016**, 360, 929-935 6.7 43
- 374 Ultrastructural organization and micromechanical properties of shark tooth enameloid. *Acta Biomaterialia*, **2014**, 10, 3959-68 10.8 42
- 373 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 6.7 42
- 372 Interaction of dermatologically relevant nanoparticles with skin cells and skin. *Beilstein Journal of Nanotechnology*, **2014**, 5, 2363-73 3 42
- 371 Amorphous and crystalline calcium carbonate distribution in the tergite cuticle of moulting *Porcellio scaber* (Isopoda, Crustacea). *Journal of Structural Biology*, **2011**, 175, 10-20 3.4 42
- 370 Synthetic pathways to make nanoparticles fluorescent. *Nanoscale*, **2011**, 3, 1957-62 7.7 42
- 369 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 4.3 42
- 368 Calcium phosphate nanoparticles as templates for nanocapsules prepared by the layer-by-layer technique. *Journal of Materials Chemistry*, **2008**, 18, 3831 4.2 42
- 367 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, 475-85 15.6 42
- 366 The Crystallization of Fluoroapatite Dumbbells from Supersaturated Aqueous Solution. *Crystal Growth and Design*, **2006**, 6, 498-506 3.5 42
- 365 Synthesis of nanosized hydroxyapatite/agarose powders for bone filler and drug delivery application. *Materials Today Communications*, **2016**, 8, 31-40 2.5 42
- 364 Nanostructure of wet-chemically prepared, polymer-stabilized silver-gold nanoalloys (6 nm) over the entire composition range. *Journal of Materials Chemistry B*, **2015**, 3, 4654-4662 7.3 41
- 363 An easy synthesis of autofluorescent alloyed silver-gold nanoparticles. *Journal of Materials Chemistry B*, **2014**, 2, 7887-7895 7.3 41



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| 362 | A new tool for the transfection of corneal endothelial cells: calcium phosphate nanoparticles. <i>Acta Biomaterialia</i> , <b>2012</b> , 8, 1156-63   | 10.8 | 41 |
| 361 | Quantitative determination of the composition of multi-shell calcium phosphate-oligonucleotide nanoparticles and their application for the activation of dendritic cells. <i>Acta Biomaterialia</i> , <b>2011</b> , 7, 4029-36  | 10.8 | 41 |
| 360 | Electrochemistry at single bimetallic nanoparticles - using nano impacts for sizing and compositional analysis of individual AgAu alloy nanoparticles. <i>Faraday Discussions</i> , <b>2016</b> , 193, 327-338  | 3.6  | 41 |
| 359 | The potential of nanoparticles for the immunization against viral infections. <i>Journal of Materials Chemistry B</i> , <b>2015</b> , 3, 4767-4779  | 7.3  | 40 |
| 358 | Calcium phosphate nanoparticles as versatile carrier for small and large molecules across cell membranes. <i>Journal of Nanoparticle Research</i> , <b>2012</b> , 14, 1   | 2.3  | 40 |
| 357 | Synthesis of fluorescent core-shell hydroxyapatite nanoparticles. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 1250-1254   |      | 40 |
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| 355 | Calcium sulfate hemihydrate in statoliths of deep-sea medusae. <i>Dalton Transactions RSC</i> , <b>2002</b> , 1266-1268   |      | 40 |
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