Cecilia Persson

List of Publications by Year
in descending order

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115	2,732	185998	233125
papers	citations	28 h-index	45 g-index

119	119	119	3270
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Osteoinduction by Foamed and 3D-Printed Calcium Phosphate Scaffolds: Effect of Nanostructure and Pore Architecture. ACS Applied Materials & Interfaces, 2017, 9, 41722-41736.	4.0	153
2	Youngâ€™s modulus of trabecular bone at the tissue level: A review. Acta Biomaterialia, 2018, 78, 1-12.	4.1	129
3	Osteogenesis by foamed and 3D-printed nanostructured calcium phosphate scaffolds: Effect of pore architecture. Acta Biomaterialia, 2018, 79, 135-147.	4.1	98
4	Robocasting of biomimetic hydroxyapatite scaffolds using self-setting inks. Journal of Materials Chemistry B, 2014, 2, 5378-5386.	2.9	92
5	3D-printed PLA/HA composite structures as synthetic trabecular bone: A feasibility study using fused deposition modeling. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 103, 103608.	1.5	90
6	Biological and Biomechanical Effects of Vancomycin and Meropenem in Acrylic Bone Cement. Journal of Arthroplasty, 2008, 23, 1232-1238.	1.5	75
7	Evaluation of silicon nitride as a wear resistant and resorbable alternative for total hip joint replacement. Biomatter, 2012, 2, 94-102.	2.6	64
8	Strain-induced stiffening of nanocellulose-reinforced poly(vinyl alcohol) hydrogels mimicking collagenous soft tissues. Soft Matter, 2017, 13, 3936-3945.	1.2	64
9	The effect of composition on mechanical properties of brushite cements. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 29, 81-90.	1.5	63
10	Hyperelastic Nanocellulose-Reinforced Hydrogel of High Water Content for Ophthalmic Applications. ACS Biomaterials Science and Engineering, 2016, 2, 2072-2079.	2.6	62
11	Poissonâ€™s Ratio and Strain Rate Dependency of the Constitutive Behavior of Spinal Dura Mater. Annals of Biomedical Engineering, 2010, 38, 975-983.	1.3	61
12	An evaluation of methods to determine the porosity of calcium phosphate cements. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2015, 103, 62-71.	1.6	60
13	Mechanical effects of the use of vancomycin and meropenem in acrylic bone cement. Monthly Notices of the Royal Astronomical Society: Letters, 2006, 77, 617-621.	1.2	56
14	The Importance of Fluid-Structure Interaction in Spinal Trauma Models. Journal of Neurotrauma, 2011, 28, 113-125.	1.7	54
15	Compressive, diametral tensile and biaxial flexural strength of cutting-edge calcium phosphate cements. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 60, 617-627.	1.5	47
16	Micrometer-Sized Magnesium Whitlockite Crystals in Micropetrosis of Bisphosphonate-Exposed Human Alveolar Bone. Nano Letters, 2017, 17, 6210-6216.	4.5	44
17	Impact of Biomimicry in the Design of Osteoinductive Bone Substitutes: Nanoscale Matters. ACS Applied Materials & Interfaces, 2019, 11, 8818-8830.	4.0	44
18	Mechanical and tribological behavior of silicon nitride and silicon carbon nitride coatings for total joint replacements. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 25, 41-47.	1.5	41

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19	Characterization of interfacial stress transfer ability in acetylation-treated wood fibre composites using X-ray microtomography. Industrial Crops and Products, 2017, 95, 43-49.	2.5	40
20	Inflammatory Response to Nano- and Microstructured Hydroxyapatite. PLoS ONE, 2015, 10, e0120381.	1.1	38
21	Structure and composition of silicon nitride and silicon carbon nitride coatings for joint replacements. Surface and Coatings Technology, 2013, 235, 827-834.	2.2	37
22	Nano grain sized zirconiaâ€“silica glass ceramics for dental applications. Journal of the European Ceramic Society, 2012, 32, 4105-4110.	2.8	36
23	Trabecular deformations during screw pull-out: a micro-CT study of lapine bone. Biomechanics and Modeling in Mechanobiology, 2017, 16, 1349-1359.	1.4	36
24	Changes of Surface Composition and Morphology after Incorporation of Ions into Biomimetic Apatite Coating. Journal of Biomaterials and Nanobiotechnology, 2010, 01, 7-16.	1.0	36
25	A ready-to-use acidic, brushite-forming calcium phosphate cement. Acta Biomaterialia, 2018, 81, 304-314.	4.1	33
26	Wear and friction properties of experimental Tiâ€“Siâ€“Zr alloys for biomedical applications. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 39, 61-72.	1.5	32
27	In vivo response to a low-modulus PMMA bone cement in an ovine model. Acta Biomaterialia, 2018, 72, 362-370.	4.1	32
28	Porous polylactic acid scaffolds for bone regeneration: A study of additively manufactured triply periodic minimal surfaces and their osteogenic potential. Journal of Tissue Engineering, 2020, 11, 204173142095654.	2.3	32
29	Density and mechanical properties of vertebral trabecular boneâ€”A review. JOR Spine, 2021, 4, e1176.	1.5	32
30	Zebrafish embryo as a replacement model for initial biocompatibility studies of biomaterials and drug delivery systems. Acta Biomaterialia, 2019, 100, 235-243.	4.1	31
31	Compressive mechanical properties and cytocompatibility of bone-compliant, linoleic acid-modified bone cement in a bovine model. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 32, 245-256.	1.5	29
32	Fabrication and evaluation of SixNy coatings for total joint replacements. Journal of Materials Science: Materials in Medicine, 2012, 23, 1879-1889.	1.7	28
33	Elastic properties and strain-to-crack-initiation of calcium phosphate bone cements: Revelations of a high-resolution measurement technique. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 74, 428-437.	1.5	28
34	Current status and future potential of wear-resistant coatings and articulating surfaces for hip and knee implants. Materials Today Bio, 2022, 15, 100270.	2.6	27
35	Variation in Calvarial Bone Healing Capacity. Journal of Craniofacial Surgery, 2013, 24, 339-343.	0.3	25
36	Can Cobalt(II) and Chromium(III) Ions Released from Joint Prostheses Influence the Friction Coefficient?. ACS Biomaterials Science and Engineering, 2015, 1, 617-620.	2.6	25

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37	Dissolution behaviour of silicon nitride coatings for joint replacements. Materials Science and Engineering C, 2016, 62, 497-505.	3.8	25
38	Premixed calcium silicate cement for endodontic applications. Biomatter, 2011, 1, 76-80.	2.6	24
39	The effect of bone fragment size and cerebrospinal fluid on spinal cord deformation during trauma: an ex vivo study. Journal of Neurosurgery: Spine, 2009, 10, 315-323.	0.9	23
40	Fretting of CoCrMo and Ti6Al4V alloys in modular prostheses. Tribology - Materials, Surfaces and Interfaces, 2015, 9, 165-173.	0.6	23
41	A novel strategy to enhance interfacial adhesion in fiber-reinforced calcium phosphate cement. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 75, 495-503.	1.5	23
42	Hexagonal pore geometry and the presence of hydroxyapatite enhance deposition of mineralized bone matrix on additively manufactured polylactic acid scaffolds. Materials Science and Engineering C, 2021, 125, 112091.	3.8	22
43	Polyhedral oligomeric silsesquioxane (POSS)â€“poly(ethylene glycol) (PEG) hybrids as injectable biomaterials. Biomedical Materials (Bristol), 2012, 7, 035013.	1.7	21
44	The effect of unsaturated fatty acid and triglyceride oil addition on the mechanical and antibacterial properties of acrylic bone cements. Journal of Biomaterials Applications, 2015, 30, 279-289.	1.2	21
45	Heparinization of Beta Tricalcium Phosphate: Osteoâ€immunomodulatory Effects. Advanced Healthcare Materials, 2018, 7, 1700867.	3.9	21
46	Stiffness and strength of cranioplastic implant systems in comparison to cranial bone. Journal of Cranio-Maxillo-Facial Surgery, 2018, 46, 418-423.	0.7	21
47	A global digital volume correlation algorithm based on higher-order finite elements: Implementation and evaluation. International Journal of Solids and Structures, 2019, 168, 211-227.	1.3	20
48	Brushite foamsâ€"the effect of <scp>T</scp>weenÂ® 80 and <scp>P</scp>luronicÂ® <scp>F</scp>â€127 on foam porosity and mechanical properties. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2016, 104, 67-77.	1.6	19
49	Radiopacity of tantalum-loaded acrylic bone cement. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2006, 220, 787-791.	1.0	18
50	Stability and prospect of UV/H2O2 activated titania films for biomedical use. Applied Surface Science, 2013, 285, 317-323.	3.1	18
51	Scavenging effect of Trolox released from brushite cements. Acta Biomaterialia, 2015, 11, 459-466.	4.1	18
52	Influence of cement compressive strength and porosity on augmentation performance in a model of orthopedic screw pull-out. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 77, 624-633.	1.5	18
53	Biomechanics of low-modulus and standard acrylic bone cements in simulated vertebroplasty: A human ex vivo study. Journal of Biomechanics, 2015, 48, 3258-3266.	0.9	17
54	Long-TermIn VitroDegradation of a High-Strength Brushite Cement in Water, PBS, and Serum Solution. BioMed Research International, 2015, 2015, 1-17.	0.9	16

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55	Morphology and Dissolution Rate of Wear Debris from Silicon Nitride Coatings. ACS Biomaterials Science and Engineering, 2016, 2, 998-1004.	2.6	16
56	The Effect of Cerebrospinal Fluid Thickness on Traumatic Spinal Cord Deformation. Journal of Applied Biomechanics, 2011, 27, 330-335.	0.3	15
57	Influence of Substrate Heating and Nitrogen Flow on the Composition, Morphological and Mechanical Properties of SiNx Coatings Aimed for Joint Replacements. Materials, 2017, 10, 173.	1.3	15
58	Numerical description and experimental validation of a rheology model for non-Newtonian fluid flow in cancellous bone. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 27, 43-53.	1.5	14
59	Influence of polymer addition on the mechanical properties of a premixed calcium phosphate cement. Biomatter, 2013, 3, e27249.	2.6	14
60	Novel injectable biomaterials for bone augmentation based on isosorbide dimethacrylic monomers. Materials Science and Engineering C, 2014, 40, 76-84.	3.8	14
61	Comparison of a quasi-dynamic and a static extraction method for the cytotoxic evaluation of acrylic bone cements. Materials Science and Engineering C, 2016, 62, 274-282.	3.8	14
62	Towards Functional Silicon Nitride Coatings for Joint Replacements. Coatings, 2019, 9, 73.	1.2	14
63	Calcium phosphate cements with strontium halides as radiopacifiers. , 2014, 102, 250-259.		13
64	In Vitro and In Vivo Response to Low-Modulus PMMA-Based Bone Cement. BioMed Research International, 2015, 2015, 1-9.	0.9	13
65	Evaluation of a porosity measurement method for wet calcium phosphate cements. Journal of Biomaterials Applications, 2015, 30, 526-536.	1.2	13
66	Mechanical behaviour of composite calcium phosphateâ€“titanium cranial implants: Effects of loading rate and design. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 104, 103701.	1.5	13
67	Synthesis and characterization of injectable composites of poly[<scp>D,L</scp>â€lactideâ€coâ€(ìµâ€caprolactone)] reinforced with Î²â€TCP and CaCO₃ for intervertebral disk augmentation. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2010, 95B, 75-83.	1.6	12
68	Direct and interactive effects of three variables on properties of PMMA bone cement for vertebral body augmentation. Journal of Materials Science: Materials in Medicine, 2011, 22, 1599-1606.	1.7	12
69	Compressive fatigue properties of a commercially available acrylic bone cement for vertebroplasty. Biomechanics and Modeling in Mechanobiology, 2014, 13, 1199-1207.	1.4	12
70	Changes in the drug release pattern of fresh and set simvastatin-loaded brushite cement. Materials Science and Engineering C, 2016, 58, 88-96.	3.8	12
71	Low-modulus PMMA bone cement modified with castor oil. Bio-Medical Materials and Engineering, 2011, 21, 323-332.	0.4	11
72	Enhanced Drug Delivery of Antibiotic-Loaded Acrylic Bone Cements Using Calcium Phosphate Spheres. Journal of Applied Biomaterials and Functional Materials, 2015, 13, 241-247.	0.7	11

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73	Compressive fatigue properties of commercially available standard and low-modulus acrylic bone cements intended for vertebroplasty. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 82, 70-76.	1.5	11
74	Long-term mechanical properties of a novel low-modulus bone cement for the treatment of osteoporotic vertebral compression fractures. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 118, 104437.	1.5	11
75	Strategies towards injectable, load-bearing materials for the intervertebral disc: a review and outlook. Journal of Materials Science: Materials in Medicine, 2013, 24, 1-10.	1.7	10
76	Long-term sensory disturbances after orbitozygomatic fractures. Journal of Plastic, Reconstructive and Aesthetic Surgery, 2017, 70, 120-126.	0.5	10
77	The Effect of N, C, Cr, and Nb Content on Silicon Nitride Coatings for Joint Applications. Materials, 2020, 13, 1896.	1.3	10
78	Evaluation of bone formation in calcium phosphate scaffolds with Î¼ CT-method validation using SEM. Biomedical Materials (Bristol), 2017, 12, 065005.	1.7	9
79	The Addition of Poly(Vinyl Alcohol) Fibers to Apatitic Calcium Phosphate Cement Can Improve Its Toughness. Materials, 2019, 12, 1531.	1.3	9
80	Multifunctional Polymer-Free Mineral Plastic Adhesives Formed by Multiple Noncovalent Bonds. ACS Applied Materials & Interfaces, 2020, 12, 7403-7410.	4.0	9
81	Monetite-based composite cranial implants demonstrate long-term clinical volumetric balance by concomitant bone formation and degradation. Acta Biomaterialia, 2021, 128, 502-513.	4.1	9
82	In Situ Synchrotron X-ray Diffraction Analysis of the Setting Process of Brushite Cement: Reaction and Crystal Growth. ACS Applied Materials & Interfaces, 2017, 9, 36392-36399.	4.0	8
83	The Effect of Coating Density on Functional Properties of SiNx Coated Implants. Materials, 2019, 12, 3370.	1.3	8
84	The effect of two types of resorbable augmentation materials â€“ a cement and an adhesive â€“ on the screw pullout pullout resistance in human trabecular bone. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 110, 103897.	1.5	8
85	The Potential of Stereolithography for 3D Printing of Synthetic Trabecular Bone Structures. Materials, 2021, 14, 3712.	1.3	8
86	Low-Modulus PMMA Has the Potential to Reduce Stresses on Endplates after Cement Discoplasty. Journal of Functional Biomaterials, 2022, 13, 18.	1.8	8
87	Persistent diplopia after fractures involving the orbit related to nerve injury. Journal of Plastic, Reconstructive and Aesthetic Surgery, 2015, 68, 219-225.	0.5	7
88	The effect of oligo(trimethylene carbonate) addition on the stiffness of acrylic bone cement. Biomatter, 2016, 6, e1133394.	2.6	7
89	Compressive fatigue properties of an acidic calcium phosphate cementâ€"effect of phase composition. Journal of Materials Science: Materials in Medicine, 2017, 28, 41.	1.7	7
90	Additively manufactured mesh-type titanium structures for cranial implants: E-PBF vs. L-PBF. Materials and Design, 2021, 197, 109207.	3.3	7

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91	Assessing cement injection behaviour in cancellous bone: An in vitro study using flow models. Journal of Biomaterials Applications, 2014, 29, 582-594.	1.2	6
92	Implicit and explicit ï¬nite element models predict the mechanical response of calcium phosphate-titanium cranial implants. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 112, 104085.	1.5	6
93	Functional Properties of Low-Modulus PMMA Bone Cements Containing Linoleic Acid. Journal of Functional Biomaterials, 2021, 12, 5.	1.8	6
94	A combined experimental and numerical method to estimate the elastic modulus of single trabeculae. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 125, 104879.	1.5	6
95	Silk fibroin hydrogels induced and reinforced by acidic calcium phosphate â€“ A simple way of producing bioactive and drug-loadable composites for biomedical applications. International Journal of Biological Macromolecules, 2021, 193, 433-440.	3.6	6
96	A new bone adhesive candidate- does it work in human bone? An ex-vivo preclinical evaluation in fresh human osteoporotic femoral head bone. Injury, 2022, 53, 1858-1866.	0.7	6
97	Porosity prediction of calcium phosphate cements based on chemical composition. Journal of Materials Science: Materials in Medicine, 2015, 26, 210.	1.7	5
98	Synthesis and assessment of metallic ion migration through a novel calcium carbonate coating for biomedical implants. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 429-438.	1.6	5
99	Siâ€“Feâ€“Câ€“N Coatings for Biomedical Applications: A Combinatorial Approach. Materials, 2020, 13, 2074.	1.3	5
100	An Enhanced Understanding of the Powder Bed Fusionâ€“Laser Beam Processing of Mg-Y3.9wt%-Nd3wt%-Zr0.5wt% (WE43) Alloy through Thermodynamic Modeling and Experimental Characterization. Materials, 2022, 15, 417.	1.3	5
101	The effect of gentamicin sulphate on the fracture properties of a manually mixed bone cement. Fatigue and Fracture of Engineering Materials and Structures, 2007, 30, 479-488.	1.7	4
102	Photocatalytic activity of low temperature oxidized Tiâ€“6Alâ€“4V. Journal of Materials Science: Materials in Medicine, 2012, 23, 1173-1180.	1.7	4
103	Structure of the N â€terminal domain of the metalloprotease P rt V from V ibrio cholerae. Protein Science, 2015, 24, 2076-2080.	3.1	4
104	Effect of calcium phosphate heparinization on the in vitro inflammatory response and osteoclastogenesis of human blood precursor cells. Journal of Tissue Engineering and Regenerative Medicine, 2019, 13, 1217-1229.	1.3	4
105	Ceramic cement as a potential stand-alone treatment for bone fractures: An in vitro study of ceramicâ€“bone composites. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 61, 519-529.	1.5	3
106	Mechanical Properties of Brushite Calcium Phosphate Cements. Frontiers in Nanobiomedical Research, 2017, , 285-300.	0.1	3
107	Fatigue performance of a high-strength, degradable calcium phosphate bone cement. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 79, 46-52.	1.5	3
108	Tailoring the dissolution rate and in vitro cell response of silicon nitride coatings through combinatorial sputtering with chromium and niobium. Biomaterials Science, 2022, 10, 3757-3769.	2.6	3

#	Article	IF	Citations
109	Surface and Subsurface Analyses of Metal-on-Polyethylene Total Hip Replacement Retrievals. Annals of Biomedical Engineering, 2016, 44, 1685-1697.	1.3	2
110	The Effect of Al Addition on the Tribological Behavior of Tiâ^'Siâ^'Zr Alloys. Journal of Tribology, 2019, 141, .	1.0	2
111	Metal Release from a Biomedical CoCrMo Alloy in Mixed Protein Solutions Under Static and Sliding Conditions: Effects of Protein Aggregation and Metal Precipitation. Journal of Bio- and Tribo-Corrosion, 2022, 8, 1.	1.2	2
112	Functionalized silk promotes cell migration into calcium phosphate cements by providing macropores and cell adhesion motifs. Ceramics International, 2022, 48, 31449-31460.	2.3	2
113	Comparative characterization of oligomeric precursors intended for injectable implants. Polymers for Advanced Technologies, 2013, 24, 15-21.	1.6	1
114	Mechanical Properties of Brushite Calcium Phosphate Cements. Frontiers in Nanobiomedical Research, 2017, , 285-300.	0.1	1
115	Microstructural Origins of the Corrosion Resistance of a Mg-Y-Nd-Zr Alloy Processed by Powder Bed Fusion â€“ Laser Beam. Frontiers in Bioengineering and Biotechnology, 0, 10, .	2.0	1