

# Berit Zeller-Plumhoff

## List of Publications by Year in descending order

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Version: 2024-02-01

34  
papers

462  
citations

687363

13  
h-index

794594

19  
g-index

37  
all docs

37  
docs citations

37  
times ranked

504  
citing authors

#	ARTICLE	IF	CITATIONS
1	High-resolution ex vivo analysis of the degradation and osseointegration of Mg-xGd implant screws in 3D. <i>Bioactive Materials</i> , 2022, 13, 37-52.	15.6	18
2	Mechanical Interactions in Interpenetrating Composites. <i>IFMBE Proceedings</i> , 2022, , 579-586.	0.3	0
3	<sc>CppyABM</sc>: An open-source agent-based modeling library to integrate C++ and Python. <i>Software - Practice and Experience</i> , 2022, 52, 1337-1351.	3.6	3
4	Combining peridynamic and finite element simulations to capture the corrosion of degradable bone implants and to predict their residual strength. <i>International Journal of Mechanical Sciences</i> , 2022, 220, 107143.	6.7	28
5	Computational modelling of magnesium degradation in simulated body fluid under physiological conditions. <i>Journal of Magnesium and Alloys</i> , 2022, 10, 965-978.	11.9	6
6	Implant degradation of low-alloyed Mg-Zn-Ca in osteoporotic, old and juvenile rats. <i>Acta Biomaterialia</i> , 2022, 147, 427-438.	8.3	16
7	Pore characterization of PM Mg-0.6Ca alloy and its degradation behavior under physiological conditions. <i>Journal of Magnesium and Alloys</i> , 2021, 9, 686-703.	11.9	12
8	Magnesium ions regulate mesenchymal stem cells population and osteogenic differentiation: A fuzzy agent-based modeling approach. <i>Computational and Structural Biotechnology Journal</i> , 2021, 19, 4110-4122.	4.1	12
9	The Influence of In Situ Anatase Particle Addition on the Formation and Properties of Multifunctional Plasma Electrolytic Oxidation Coatings on AA2024 Aluminum Alloy. <i>Advanced Engineering Materials</i> , 2021, 23, 2001527.	3.5	4
10	Microengineered Hollow Graphene Tube Systems Generate Conductive Hydrogels with Extremely Low Filler Concentration. <i>Nano Letters</i> , 2021, 21, 3690-3697.	9.1	29
11	Exploring key ionic interactions for magnesium degradation in simulated body fluid – A data-driven approach. <i>Corrosion Science</i> , 2021, 182, 109272.	6.6	22
12	Electrochemical Surface Structuring for Strong SMA Wire-Polymer Interface Adhesion. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 21924-21935.	8.0	8
13	Utilizing Synchrotron Radiation for the Characterization of Biodegradable Magnesium Alloys – From Alloy Development to the Application as Implant Material. <i>Advanced Engineering Materials</i> , 2021, 23, 2100197.	3.5	19
14	Degradation Analysis of Thin Mg-xAg Wires Using X-ray Near-Field Holotomography. <i>Metals</i> , 2021, 11, 1422.	2.3	10
15	X-ray diffraction tomography as a tool to study the influence of biodegradable metal implant on the bone in 3D. , 2021, , .		1
16	Assessing the microstructure and in vitro degradation behavior of Mg-xGd screw implants using $\mu$ CT. <i>Journal of Magnesium and Alloys</i> , 2021, 9, 2207-2222.	11.9	20
17	Evaluating the morphology of the degradation layer of pure magnesium via 3D imaging at resolutions below 40nm. <i>Bioactive Materials</i> , 2021, 6, 4368-4376.	15.6	11
18	Early osteoimmunomodulatory effects of magnesium-calcium-zinc alloys. <i>Journal of Tissue Engineering</i> , 2021, 12, 204173142110471.	5.5	21

#	ARTICLE	IF	CITATIONS
19	Evaporation kinetics in highly porous tetrapodal zinc oxide networks studied using in situ SR $\mu$ CT. Scientific Reports, 2021, 11, 20272.	3.3	2
20	Scaling the U-net: segmentation of biodegradable bone implants in high-resolution synchrotron radiation microtomograms. Scientific Reports, 2021, 11, 24237.	3.3	9
21	Analysis of the bone ultrastructure around biodegradable Mg $\times$ Gd implants using small angle X-ray scattering and X-ray diffraction. Acta Biomaterialia, 2020, 101, 637-645.	8.3	29
22	Comparing image quality in phase contrast sub $\mu$ CT X-ray tomography $\hat{=}$ "A round-robin study. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 951, 162992.	1.6	8
23	Reptile-like physiology in Early Jurassic stem-mammals. Nature Communications, 2020, 11, 5121.	12.8	30
24	Nanotomographic evaluation of precipitate structure evolution in a Mg $\hat{=}$ Zn $\hat{=}$ Zr alloy during plastic deformation. Scientific Reports, 2020, 10, 16101.	3.3	4
25	A load frame for in situ tomography at PETRA III. , 2019, , .		6
26	Quantitative characterization of degradation processes in situ by means of a bioreactor coupled flow chamber under physiological conditions using time $\hat{=}$ lapse SR $\mu$ CT. Materials and Corrosion - Werkstoffe Und Korrosion, 2018, 69, 298-306.	1.5	28
27	Using high resolution X-ray computed tomography to create an image based model of a lymph node. Journal of Theoretical Biology, 2018, 449, 73-82.	1.7	11
28	Visualization of Implant Failure by Synchrotron Tomography. Minerals, Metals and Materials Series, 2018, , 275-284.	0.4	5
29	Image-based modelling of skeletal muscle oxygenation. Journal of the Royal Society Interface, 2017, 14, 20160992.	3.4	13
30	Phase contrast synchrotron radiation computed tomography of muscle spindles in the mouse soleus muscle. Journal of Anatomy, 2017, 230, 859-865.	1.5	17
31	Investigation of microvascular morphological measures for skeletal muscle tissue oxygenation by image-based modelling in three dimensions. Journal of the Royal Society Interface, 2017, 14, 20170635.	3.4	10
32	Soft tissue 3D imaging in the lab through optimised propagation-based phase contrast computed tomography. Optics Express, 2017, 25, 33451.	3.4	10
33	Biodegradable magnesium-based implants in bone studied by synchrotron radiation microtomography. , 2017, , .		3
34	Imaging Invasion: Micro-CT imaging of adamantinomatous craniopharyngioma highlights cell type specific spatial relationships of tissue invasion. Acta Neuropathologica Communications, 2016, 4, 57.	5.2	36