

Jaroslav AČapek

List of Publications by Year in descending order

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papers

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393982

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all docs

59
docs citations

59
times ranked

1304
citing authors

#	ARTICLE	IF	CITATIONS
1	The Role of Mandrel Rotation during CSET Processing Demonstrated on a 3003 Aluminium Alloy. <i>Metals</i> , 2022, 12, 398.	1.0	0
2	The evolution of microstructure and mechanical properties of Zn-0.8Mg-0.2Sr alloy prepared by casting and extrusion. <i>Journal of Alloys and Compounds</i> , 2022, 906, 164308.	2.8	14
3	Selective laser melting of iron: Multiscale characterization of mechanical properties. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 800, 140316.	2.6	5
4	Microstructural, mechanical, in vitro corrosion and biological characterization of an extruded Zn-0.8Mg-0.2Sr (wt%) as an absorbable material. <i>Materials Science and Engineering C</i> , 2021, 122, 111924.	3.8	24
5	Influence of Ceramic Particles Character on Resulted Properties of Zinc-Hydroxyapatite/Monetite Composites. <i>Metals</i> , 2021, 11, 499.	1.0	7
6	Laser shock peening of copper poly- and single crystals. <i>Materials Characterization</i> , 2021, 174, 111037.	1.9	5
7	Influence of the Microstructure of the Initial Material on the Zn Wires Prepared by Direct Extrusion with a Huge Extrusion Ratio. <i>Metals</i> , 2021, 11, 787.	1.0	3
8	Zn-0.8Mg-0.2Sr (wt.%) Absorbable Screws: An In-Vivo Biocompatibility and Degradation Pilot Study on a Rabbit Model. <i>Materials</i> , 2021, 14, 3271.	1.3	10
9	Influence of model environment complexity on corrosion mechanism of biodegradable zinc alloys. <i>Corrosion Science</i> , 2021, 187, 109520.	3.0	20
10	Influence of the pre-exposure of a Zn-0.8Mg-0.2Sr absorbable alloy in bovine serum albumin containing media on its surface changes and their impact on the cytocompatibility of the material. <i>Materials Today Communications</i> , 2021, 28, 102556.	0.9	4
11	Microstructure evolution and mechanical performance of ternary Zn-0.8Mg-0.2Sr (wt. %) alloy processed by equal-channel angular pressing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 824, 141809.	2.6	17
12	Effect of crystal quality on twinning stress in Ni-Mn-Ga magnetic shape memory alloys. <i>Journal of Materials Research and Technology</i> , 2021, 14, 1934-1944.	2.6	17
13	Microstructural Evolution of a 3003 Based Aluminium Alloy during the CSET Process. <i>Materials</i> , 2021, 14, 5770.	1.3	2
14	A Complex Evaluation of the In-Vivo Biocompatibility and Degradation of an Extruded ZnMgSr Absorbable Alloy Implanted into Rabbit Bones for 360 Days. <i>International Journal of Molecular Sciences</i> , 2021, 22, 13444.	1.8	7
15	Extrusion of the biodegradable ZnMg0.8Ca0.2 alloy: The influence of extrusion parameters on microstructure and mechanical characteristics. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 108, 103796.	1.5	26
16	High-strength ultrafine-grained CoCrFeNiNb high-entropy alloy prepared by mechanical alloying: Properties and strengthening mechanism. <i>Journal of Alloys and Compounds</i> , 2020, 835, 155308.	2.8	56
17	ZnMg0.8Ca0.2 (wt%) biodegradable alloy: The influence of thermal treatment and extrusion on microstructural and mechanical characteristics. <i>Materials Characterization</i> , 2020, 162, 110230.	1.9	21
18	Characterization of a Zn-Ca5(PO4)3(OH) Composite with a High Content of the Hydroxyapatite Particles Prepared by the Spark Plasma Sintering Process. <i>Metals</i> , 2020, 10, 372.	1.0	15

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19	Characterization of Newly Developed Zinc Composite with the Content of 8 wt.% of Hydroxyapatite Particles Processed by Extrusion. <i>Materials</i> , 2020, 13, 1716.	1.3	16
20	Anisotropy of fracture in hexagonal metals. <i>International Journal of Fracture</i> , 2020, 225, 123-127.	1.1	4
21	Microstructural characterization and optimization of the ZnMg0.8(CaO)0.26 alloy processed by ball milling and subsequent extrusion. <i>Manufacturing Technology</i> , 2020, 20, 484-491.	0.2	3
22	Crack growth in Fe-Si (2 \hat{a} wt%) single crystals on macroscopic and atomistic level. <i>Results in Physics</i> , 2019, 14, 102450.	2.0	9
23	Selective laser melting of pure iron: Multiscale characterization of hierarchical microstructure. <i>Materials Characterization</i> , 2019, 154, 222-232.	1.9	30
24	Thermal Plasma Spraying as a New Approach for Preparation of Zinc Biodegradable Scaffolds: A Complex Material Characterization. <i>Journal of Thermal Spray Technology</i> , 2019, 28, 826-841.	1.6	13
25	ZnMg0.8Ca/Sr0.2 ternary alloys \hat{a} the influence of the third element on material properties. <i>Procedia Structural Integrity</i> , 2019, 23, 3-8.	0.3	3
26	Zn-Mg Biodegradable Composite: Novel Material with Tailored Mechanical and Corrosion Properties. <i>Materials</i> , 2019, 12, 3930.	1.3	20
27	Influence of processing on the microstructure and mechanical properties of Zn/HA8 wt.% biodegradable composite. <i>Manufacturing Technology</i> , 2019, 19, 836-841.	1.1	19
28	Influence of Processing on the Microstructure and the Mechanical Properties of Zn/HA8 wt.% Biodegradable Composite. <i>Manufacturing Technology</i> , 2019, 19, 836-841.	0.2	3
29	Preparation and characterization of porous zinc prepared by spark plasma sintering as a material for biodegradable scaffolds. <i>Materials Chemistry and Physics</i> , 2018, 203, 249-258.	2.0	46
30	Secondary twinning in zinc. <i>Philosophical Magazine Letters</i> , 2018, 98, 437-445.	0.5	4
31	Properties of a high-strength ultrafine-grained CoCrFeNiMn high-entropy alloy prepared by short-term mechanical alloying and spark plasma sintering. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 734, 341-352.	2.6	52
32	A novel high-strength and highly corrosive biodegradable Fe-Pd alloy: Structural, mechanical and in vitro corrosion and cytotoxicity study. <i>Materials Science and Engineering C</i> , 2017, 79, 550-562.	3.8	55
33	Biodegradable Metallic Materials for Temporary Medical Implants. <i>Materials Science Forum</i> , 2017, 891, 395-399.	0.3	2
34	3D printed porous stainless steel for potential use in medicine. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 179, 012025.	0.3	12
35	Microstructure, mechanical and corrosion properties of biodegradable powder metallurgical Fe-2 wt% X (X \hat{A} =APd, Ag and C) alloys. <i>Materials Chemistry and Physics</i> , 2016, 181, 501-511.	2.0	42
36	Highly porous, low elastic modulus 316L stainless steel scaffold prepared by selective laser melting. <i>Materials Science and Engineering C</i> , 2016, 69, 631-639.	3.8	148

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37	Microstructural, mechanical, corrosion and cytotoxicity characterization of the hot forged FeMn30(wt.%) alloy. <i>Materials Science and Engineering C</i> , 2016, 58, 900-908.	3.8	59
38	High Entropy Alloys Prepared by Combination of Mechanical Alloying and Spark Plasma Sintering. <i>Manufacturing Technology</i> , 2016, 16, 1350-1354.	0.2	3
39	Microstructural and mechanical properties of biodegradable iron foam prepared by powder metallurgy. <i>Materials and Design</i> , 2015, 83, 468-482.	3.3	65
40	Formation of Niâ€“Ti intermetallics during reactive sintering at 500â€“650Â°â€“. <i>Materials Chemistry and Physics</i> , 2015, 155, 113-121.	2.0	41
41	Comparative mechanical and corrosion studies on magnesium, zinc and iron alloys as biodegradable metals. <i>Materiali in Tehnologije</i> , 2015, 49, 877-882.	0.3	34
42	Powder Metallurgical Techniques for Fabrication of Biomaterials. <i>Manufacturing Technology</i> , 2015, 15, 964-969.	0.2	13
43	Effect of sintering conditions on the microstructural and mechanical characteristics of porous magnesium materials prepared by powder metallurgy. <i>Materials Science and Engineering C</i> , 2014, 35, 21-28.	3.8	66
44	Structural and mechanical stability of the nano-crystalline Niâ€“Ti (50.9Âat.% Ni) shape memory alloy during short-term heat treatments. <i>Intermetallics</i> , 2014, 49, 7-13.	1.8	16
45	Microstructural and mechanical characteristics of porous iron prepared by powder metallurgy. <i>Materials Science and Engineering C</i> , 2014, 43, 494-501.	3.8	53
46	Preparation and Characterization of NiTi Shape Memory Alloy Prepared by Powder Metallurgy. <i>Manufacturing Technology</i> , 2014, 14, 342-347.	0.2	9
47	Preparation of Magnesium-zinc Alloy by Mechanical Alloying. <i>Manufacturing Technology</i> , 2014, 14, 304-309.	0.2	3
48	Structural and mechanical characteristics of Mgâ€“4Zn and Mgâ€“4Znâ€“0.4Ca alloys after different thermal and mechanical processing routes. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 586, 284-291.	2.6	36
49	Iron removal from zinc liquors originating from hydrometallurgical processing of spent Zn/MnO ₂ batteries. <i>Hydrometallurgy</i> , 2013, 138, 100-105.	1.8	9
50	Effect of SHS conditions on microstructure of NiTi shape memory alloy. <i>Intermetallics</i> , 2013, 42, 85-91.	1.8	52
51	Properties of porous magnesium prepared by powder metallurgy. <i>Materials Science and Engineering C</i> , 2013, 33, 564-569.	3.8	96
52	Properties of Biodegradable Alloys Usable for Medical Purposes. <i>Acta Physica Polonica A</i> , 2012, 122, 520-523.	0.2	7
53	Porous Magnesium for Medical Applications - Influence of Powder Size on Mechanical Properties. <i>Key Engineering Materials</i> , 0, 592-593, 342-345.	0.4	4
54	Novel Trends in the Development of Metallic Materials for Medical Implants. <i>Key Engineering Materials</i> , 0, 647, 59-65.	0.4	0

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55	Corrosion and Mechanical Behavior of Biodegradable Metallic Biomaterials. Solid State Phenomena, 0, 227, 431-434.	0.3	5
56	Anisotropy of Plastic Deformation in Hexagonal Metals. Materials Science Forum, 0, 1016, 1091-1096.	0.3	1