

Robert B Heimann

List of Publications by Year in descending order

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Version: 2024-02-01

50
papers

1,844
citations

279798

23
h-index

276875

41
g-index

61
all docs

61
docs citations

61
times ranked

1757
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermal spraying of biomaterials. <i>Surface and Coatings Technology</i> , 2006, 201, 2012-2019.	4.8	207
2	Structural aspects and conformation of linear carbon polytypes (carbynes). <i>Carbon</i> , 1984, 22, 147-156.	10.3	125
3	Plasma-Sprayed Hydroxylapatite-Based Coatings: Chemical, Mechanical, Microstructural, and Biomedical Properties. <i>Journal of Thermal Spray Technology</i> , 2016, 25, 827-850.	3.1	117
4	Structure, properties, and biomedical performance of osteoconductive bioceramic coatings. <i>Surface and Coatings Technology</i> , 2013, 233, 27-38.	4.8	108
5	Formation and transformation of amorphous calcium phosphates on titanium alloy surfaces during atmospheric plasma spraying and their subsequent in vitro performance. <i>Biomaterials</i> , 2006, 27, 823-831.	11.4	92
6	Phase content, tetragonality, and crystallite size of nanoscaled barium titanate synthesized by the catecholate process: effect of calcination temperature. <i>Journal of the European Ceramic Society</i> , 2003, 23, 127-132.	5.7	83
7	Induction plasma-sprayed photocatalytically active titania coatings and their characterisation by micro-Raman spectroscopy. <i>Surface and Coatings Technology</i> , 2006, 201, 255-264.	4.8	77
8	Effect of sintering temperature on microstructure of hydrothermally prepared bismuth sodium titanate ceramics. <i>Journal of the European Ceramic Society</i> , 2004, 24, 517-520.	5.7	66
9	Between bloomery and blast furnace: Mafa iron-smelting technology in North Cameroon. <i>African Archaeological Review</i> , 1989, 7, 183-208.	1.4	64
10	Magnesium alloys for biomedical application: Advanced corrosion control through surface coating. <i>Surface and Coatings Technology</i> , 2021, 405, 126521.	4.8	64
11	Compositional and microstructural changes of engineered plasma-sprayed hydroxyapatite coatings on Ti6Al4V substrates during incubation in protein-free simulated body fluid. <i>Journal of Biomedical Materials Research Part B</i> , 2000, 53, 685-693.	3.1	50
12	Plasma-Sprayed Hydroxylapatite Coatings as Biocompatible Intermediaries Between Inorganic Implant Surfaces and Living Tissue. <i>Journal of Thermal Spray Technology</i> , 2018, 27, 1212-1237.	3.1	48
13	Cubic zirconia as a candidate waste form for actinides: Dissolution studies. <i>Journal of Materials Science Letters</i> , 1988, 7, 583-586.	0.5	44
14	Linear finite carbon chains (carbynes): their role during dynamic transformation of graphite to diamond, and their geometric and electronic structure. <i>Diamond and Related Materials</i> , 1994, 3, 1151-1157.	3.9	41
15	Silicon Nitride, a Close to Ideal Ceramic Material for Medical Application. <i>Ceramics</i> , 2021, 4, 208-223.	2.6	39
16	The technology of tin smelting in the Rooiberg Valley, Limpopo Province, South Africa, ca. 1650â€“1850 CE. <i>Journal of Archaeological Science</i> , 2010, 37, 1656-1669.	2.4	33
17	Recently Patented Work on Thermally Sprayed Coatings for Protection Against Wear and Corrosion of Engineered Structures. <i>Recent Patents on Materials Science</i> , 2008, 1, 41-55.	0.5	32
18	Bioceramic coatings: state-of-the-art and recent development trends. <i>European Journal of Mineralogy</i> , 1997, 9, 597-616.	1.3	32

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19	Correlation between surface roughness of plasma-sprayed chromium oxide coatings and powder grain size distribution: a fractal approach. <i>Surface and Coatings Technology</i> , 2004, 185, 215-221.	4.8	30
20	Beyond furnaces and slags: a review study of bellows and their role in indigenous African metallurgical processes. <i>Azania</i> , 2009, 44, 195-215.	0.9	30
21	Microstructural and in vitro chemical investigations into plasma-sprayed bioceramic coatings. <i>Journal of Biomedical Materials Research Part B</i> , 1998, 43, 441-450.	3.1	26
22	Osseointegrative and Corrosion-Inhibiting Plasma-Sprayed Calcium Phosphate Coatings for Metallic Medical Implants. <i>Metals</i> , 2017, 7, 468.	2.3	25
23	Thermal resistance and apparent thermal conductivity of thin plasma-sprayed mullite coatings. <i>Surface and Coatings Technology</i> , 2006, 200, 3404-3410.	4.8	23
24	The challenge and promise of low-temperature bioceramic coatings: An editorial. <i>Surface and Coatings Technology</i> , 2016, 301, 1-5.	4.8	18
25	Dense Si ₃ N ₄ Coatings with High Friction Coefficient Deposited by High-Velocity Pulsed Plasma Spraying. <i>Journal of Thermal Spray Technology</i> , 2006, 15, 356-363.	3.1	17
26	Better Quality Control: Stochastic Approaches to Optimize Properties and Performance of Plasma-Sprayed Coatings. <i>Journal of Thermal Spray Technology</i> , 2010, 19, 765-778.	3.1	17
27	High-pressure cold gas dynamic (CGD)-sprayed alumina-reinforced aluminum coatings for potential application as space construction material. <i>Surface and Coatings Technology</i> , 2014, 252, 113-119.	4.8	16
28	Development and testing of HVOF-sprayed tungsten carbide coatings applied to moulds for concrete roof tiles. <i>Wear</i> , 2004, 256, 81-87.	3.1	15
29	Spatial and depth-resolved studies of air plasma-sprayed hydroxyapatite coatings by means of diffraction techniques: Part I. <i>Surface and Coatings Technology</i> , 2016, 294, 153-163.	4.8	15
30	Charakterisierung des in-vitro-Resorptionsverhaltens von plasmagespritzten Hydroxylapatit-Schichten. <i>BIOMaterialien: Offizielles Organ Der Deutschen Gesellschaft Fuer Biomaterialien</i> , 2001, 2, .	0.1	14
31	Mineralogical study of precolonial (1650/1850 CE) tin smelting slags from Rooiberg, Limpopo Province, South Africa. <i>European Journal of Mineralogy</i> , 2010, 22, 751-761.	1.3	13
32	On the Self-Affine Fractal Geometry of Plasma-Sprayed Surfaces. <i>Journal of Thermal Spray Technology</i> , 2011, 20, 898-908.	3.1	13
33	Tracking the thermal decomposition of plasma-sprayed hydroxylapatite. <i>American Mineralogist</i> , 2015, 100, 2419-2425.	1.9	13
34	Thermal spraying of silicon nitride coatings using highly accelerated precursor powder particles. <i>Surface and Coatings Technology</i> , 2010, 205, 943-948.	4.8	11
35	In vivo-Untersuchungen zur Osseointegration von Hydroxylapatit-beschichteten Ti6Al4V Implantaten mit und ohne bioinertem Titanoxid-Haftvermittlerschicht. <i>BIOMaterialien: Offizielles Organ Der Deutschen Gesellschaft Fuer Biomaterialien</i> , 2004, 5, .	0.1	10
36	Thermal Optical Properties of Plasma-Sprayed Mullite Coatings for Space Launch Vehicles. <i>Journal of Spacecraft and Rockets</i> , 2006, 43, 439-442.	1.9	9

#	ARTICLE	IF	CITATIONS
37	Measurement of the thermal conductivity of cold gas dynamically sprayed alumina-reinforced aluminum coatings between -150°C and $+200^{\circ}\text{C}$. New test method and experimental results. <i>Surface and Coatings Technology</i> , 2014, 242, 141-145.	4.8	9
38	Structural Changes of Hydroxylapatite during Plasma Spraying: Raman and NMR Spectroscopy Results. <i>Coatings</i> , 2021, 11, 987.	2.6	9
39	Biomimetic formation of hydroxyapatite investigated by analytical techniques with high resolution. <i>Journal of Materials Science: Materials in Medicine</i> , 2008, 19, 3295-3302.	3.6	8
40	Weathering of ancient and medieval glasses – potential proxy for nuclear fuel waste glasses. A perennial challenge revisited. <i>International Journal of Applied Glass Science</i> , 2018, 9, 29-41.	2.0	7
41	Plasma-Sprayed Bioactive Ceramic Coatings with High Resorption Resistance Based on Transition Metal-Substituted Calcium Hexaorthophosphates. <i>Materials</i> , 2019, 12, 2059.	2.9	6
42	Investigations into provenance and properties of ancient building sandstones of the Zittau/Görlitz region (Upper Lusatia, Eastern Saxony, Germany). <i>Geological Society Special Publication</i> , 2002, 205, 283-297.	1.3	5
43	Functional plasma-sprayed hydroxylapatite coatings for medical application: Clinical performance requirements and key property enhancement. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021, 39, .	2.1	5
44	Recent Research and Patents on Controlling Corrosion of Bioresorbable Mg Alloy Implants: Towards Next Generation Biomaterials. <i>Recent Patents on Materials Science</i> , 2017, 10, .	0.5	4
45	Calcium (Ti,Zr) hexaorthophosphate bioceramics for electrically stimulated biomedical implant devices: A position paper. <i>American Mineralogist</i> , 2017, 102, 2170-2179.	1.9	3
46	A Discussion on the Limits to Coating Reproducibility Based on Heat Transfer Instabilities. <i>Journal of Thermal Spray Technology</i> , 2019, 28, 327-332.	3.1	3
47	A model of thermo-diffusive mass transport in geothermal systems using a stability theory formalism. <i>Applied Geochemistry</i> , 1987, 2, 639-647.	3.0	2
48	Analyse plasmagespritzter Hydroxyapatit-Schichten mit hochauflösenden Messverfahren. <i>BIOMaterialien: Offizielles Organ Der Deutschen Gesellschaft Fuer Biomaterialien</i> , 2007, 8, .	0.1	2
49	15. Hydroxylapatite coatings: applied mineralogy research in the bioceramics field. , 2017, , 301-316.		1
50	Joachim Bohm – life and work. <i>Crystal Research and Technology</i> , 2015, 50, 917-921.	1.3	0