Martin Abendroth

List of Publications by Year
in descending order

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46	852	567281	501196
papers	citations	15 h-index	28 g-index

49	49	49	573
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Identification of ductile damage and fracture parameters from the small punch test using neural networks. Engineering Fracture Mechanics, 2006, 73, 710-725.	4.3	142
2	Determination of deformation and failure properties of ductile materials by means of the small punch test and neural networks. Computational Materials Science, 2003, 28, 633-644.	3.0	133
3	Finite element analyses of three-dimensional crack problems in piezoelectric structures. Engineering Fracture Mechanics, 2003, 70, 143-160.	4.3	65
4	A hybrid approach to simulate the homogenized irreversible elasticâ€“plastic deformations and damage of foams by neural networks. International Journal of Plasticity, 2020, 126, 102624.	8.8	60
5	Finite element-computation of the electromechanical J-Integral for 2-D and 3-D crack analysis. International Journal of Fracture, 2002, 114, 359-378.	2.2	45
6	Constitutive modeling of plastic deformation behavior of open-cell foam structures using neural networks. Mechanics of Materials, 2019, 131, 1-10.	3.2	37
7	Geometrical modelling of foam structures using implicit functions. International Journal of Solids and Structures, 2013, 50, 548-555.	2.7	36
8	Numerical and analytical solutions for anisotropic yield surfaces of the open-cell Kelvin foam. International Journal of Mechanical Sciences, 2016, 105, 70-82.	6.7	23
9	Determination of Ductile Material Properties by Means of the Small Punch Test and Neural Networks. Advanced Engineering Materials, 2004, 6, 536-540.	3.5	21
10	Raman spectroscopic characterization of epitaxially grown GaN on sapphire. Journal Physics D: Applied Physics, 2013, 46, 285302.	2.8	21
11	<scp>G</scp>eometry Dependent Effective Elastic Properties of Openâ€<scp>C</scp>ell Foams Based on Kelvin Cell Models**. Advanced Engineering Materials, 2013, 15, 1292-1298.	3.5	20
12	The influence of the measurement parameters on the crushing strength of reticulated ceramic foams. Journal of Materials Research, 2013, 28, 2288-2299.	2.6	18
13	High-temperature small punch test for mechanical characterization of a nickel-base super alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 613, 259-263.	5.6	18
14	Influence of curved struts, anisotropic pores and strut cavities on the effective elastic properties of open-cell foams. Mechanics of Materials, 2015, 86, 1-10.	3.2	17
15	Additive manufactured polyamide foams with periodic grid as templates for the production of functional coated carbon-bonded alumina foam filters. Ceramics International, 2019, 45, 153-159.	4.8	17
16	Strength of fine grained carbon-bonded alumina (Al2O3â€“C) materials obtained by means of the small punch test. Ceramics International, 2014, 40, 9555-9561.	4.8	16
17	Influence of Foam Morphology on Effective Properties Related to Metal Melt Filtration. Advanced Engineering Materials, 2017, 19, 1700240.	3.5	15
18	Influence of carbon content and coking temperature on the biaxial flexural strength of carbon-bonded alumina at elevated temperatures. Carbon, 2020, 159, 324-332.	10.3	15

#	Article	IF	Citations
19	An Approach Toward Numerical Investigation of the Mechanical Behavior of Ceramic Foams during Metal Melt Filtration Processes. Advanced Engineering Materials, 2017, 19, 1700080.	3.5	14
20	FEM Analysis of Small Punch Tests. Key Engineering Materials, 0, 734, 23-36.	0.4	10
21	Mechanical and physical characterization of Al2O3â€“C foam filters produced by distinct processing routes: The importance of the ceramic strut morphology. Journal of the European Ceramic Society, 2019, 39, 2760-2769.	5.7	10
22	Determining fracture mechanical properties for brittle materials using the ball on three balls test combined with numerical simulations. Theoretical and Applied Fracture Mechanics, 2016, 86, 19-24.	4.7	9
23	A Hybrid Approach Employing Neural Networks to Simulate the Elastoâ^'Plastic Deformation Behavior of 3Dâ€Foam Structures. Advanced Engineering Materials, 2022, 24, 2100641.	3.5	9
24	Validation of an experimental-numerical approach for the high temperature behaviour of open-cell ceramic foams. Journal of the European Ceramic Society, 2019, 39, 610-617.	5.7	8
25	Fracture mechanical analysis of open cell ceramic foams under multi-axial mechanical loading. Archive of Applied Mechanics, 2016, 86, 335-349.	2.2	7
26	Assessment of Material Properties by Means of the Small Punch Test. , 2016, , 127-157.		7
27	Effect of morphology, topology and anisoptropy of open cell foams on their yield surface. Mechanics of Materials, 2019, 137, 103145.	3.2	7
28	Influence of the Specimen Manufacturing Process on the Strength of Carbonâ€Bonded Alumina (Al₂O₃â€“C). Advanced Engineering Materials, 2017, 19, 1700083.	3.5	6
29	Statistical Analysis of the Flexural Strength of Free-Standing Flame-Sprayed Alumina Coatings Prior and After Thermal Shock. Journal of Thermal Spray Technology, 2020, 29, 2026-2032.	3.1	6
30	Influence of the Content of Modified Coal Tar Pitch Powder on the Strength of Carbon Bonded Alumina (<scp>A</scp>l₂O₃â€“C). Advanced Engineering Materials, 2013, 15, 1230-1234.	3.5	4
31	Experimental and Numerical Investigations on the Creep Behaviour of Heat-Resisting Chromium Steel X10CrMoVnb9-1 by Means of Small Punch Test. Transactions of the Indian Institute of Metals, 2016, 69, 629-633.	1.5	4
32	Prediction of High Temperature Behavior of Openâ€Cell Ceramic Foams Using an Experimentalâ€Numerical Approach. Advanced Engineering Materials, 2017, 19, 1700082.	3.5	4
33	Determining the fracture toughness of ceramic filter materials using the miniaturized chevron-notched beam method at high temperature. Ceramics International, 2018, 44, 13986-13993.	4.8	4
34	Simulationâ€supported characterization of 3Dâ€printed biodegradable structures. GAMM Mitteilungen, 2021, 44, e202100018.	5.5	4
35	Fracture mechanical evaluation of an in-vessel melt retention scenario. Annals of Nuclear Energy, 2008, 35, 627-635.	1.8	3
36	Additive Manufactured Polymer Foams as Templates for Customized Ceramic Foams - Comparison of SLS and FFF Techniques. InterCeram: International Ceramic Review, 2019, 68, 30-37.	0.2	3

#	Article	IF	Citations
37	Influence of the Foam Morphology on the Mechanical Behavior of Flowâ€Through Foam Filters During Filtration Processes. Advanced Engineering Materials, 2022, 24, 2100784.	3.5	3
38	Fracture Mechanical Analysis of Open Cell Ceramic Foams Under Thermal Shock Loading. Journal of Multiscale Modeling, 2016, 07, 1640006.	1.1	2
39	Rapid Prototyping of Carbonâ€Bonded Alumina Filters with Flameâ€Sprayed Alumina Coating for Bottomâ€Teeming Steel Ingot Casting. Advanced Engineering Materials, 0, , 2100777.	3.5	2
40	Computerâ€Aided Design of Metal Melt Filters: Geometric Modifications of Openâ€Cell Foams, Effective Hydraulic Properties and Filtration Performance. Advanced Engineering Materials, 2022, 24, .	3.5	2
41	Determination of Fracture Mechanical Properties of Carbon Bonded Alumina Using Miniaturized Specimens. Key Engineering Materials, 0, 713, 70-73.	0.4	1
42	Fracture Toughness Characterization of Carbon Bonded Alumina Using Chevron Notched Specimens. Key Engineering Materials, 0, 754, 71-74.	0.4	1
43	A hybrid approach for the multiâ€scale simulation of irreversible material behavior incorporating neural networks. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000248.	0.2	1
44	Utilization of a Miniaturized Brazilian Disc Test for Strength Measurements of Câ€Bonded Alumina Filter Materials. Advanced Engineering Materials, 2022, 24, 2101081.	3.5	1
45	Fabrication of Carbonâ€Bonded Alumina Filters by Additiveâ€Manufactured, Waterâ€Soluble Polyvinyl Alcohol Filter Templates and Alginateâ€Based Slips. Advanced Engineering Materials, 0, , 2100655.	3.5	0
46	Characterization of Iron-Based Shape Memory Alloys Using the Small Punch Test. Materials Performance and Characterization, 2022, 11, 335-350.	0.3	0