

Martin Abendroth

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Computer-Aided Design of Metal Melt Filters: Geometric Modifications of Open-Cell Foams, Effective Hydraulic Properties and Filtration Performance. <i>Advanced Engineering Materials</i> , 2022, 24, .	3.5	2
2	Influence of the Foam Morphology on the Mechanical Behavior of Flow-Through Foam Filters During Filtration Processes. <i>Advanced Engineering Materials</i> , 2022, 24, 2100784.	3.5	3
3	A Hybrid Approach Employing Neural Networks to Simulate the Elasto-Plastic Deformation Behavior of 3D-Foam Structures. <i>Advanced Engineering Materials</i> , 2022, 24, 2100641.	3.5	9
4	Utilization of a Miniaturized Brazilian Disc Test for Strength Measurements of C-Bonded Alumina Filter Materials. <i>Advanced Engineering Materials</i> , 2022, 24, 2101081.	3.5	1
5	Characterization of Iron-Based Shape Memory Alloys Using the Small Punch Test. <i>Materials Performance and Characterization</i> , 2022, 11, 335-350.	0.3	0
6	A hybrid approach for the multi-scale simulation of irreversible material behavior incorporating neural networks. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2021, 20, e202000248.	0.2	1
7	Simulation-supported characterization of 3D-printed biodegradable structures. <i>GAMM Mitteilungen</i> , 2021, 44, e202100018.	5.5	4
8	Influence of carbon content and coking temperature on the biaxial flexural strength of carbon-bonded alumina at elevated temperatures. <i>Carbon</i> , 2020, 159, 324-332.	10.3	15
9	A hybrid approach to simulate the homogenized irreversible elastic-plastic deformations and damage of foams by neural networks. <i>International Journal of Plasticity</i> , 2020, 126, 102624.	8.8	60
10	Statistical Analysis of the Flexural Strength of Free-Standing Flame-Sprayed Alumina Coatings Prior and After Thermal Shock. <i>Journal of Thermal Spray Technology</i> , 2020, 29, 2026-2032.	3.1	6
11	Effect of morphology, topology and anisotropy of open cell foams on their yield surface. <i>Mechanics of Materials</i> , 2019, 137, 103145.	3.2	7
12	Constitutive modeling of plastic deformation behavior of open-cell foam structures using neural networks. <i>Mechanics of Materials</i> , 2019, 131, 1-10.	3.2	37
13	Additive Manufactured Polymer Foams as Templates for Customized Ceramic Foams - Comparison of SLS and FFF Techniques. <i>InterCeram: International Ceramic Review</i> , 2019, 68, 30-37.	0.2	3
14	Mechanical and physical characterization of Al ₂ O ₃ -C foam filters produced by distinct processing routes: The importance of the ceramic strut morphology. <i>Journal of the European Ceramic Society</i> , 2019, 39, 2760-2769.	5.7	10
15	Additive manufactured polyamide foams with periodic grid as templates for the production of functional coated carbon-bonded alumina foam filters. <i>Ceramics International</i> , 2019, 45, 153-159.	4.8	17
16	Validation of an experimental-numerical approach for the high temperature behaviour of open-cell ceramic foams. <i>Journal of the European Ceramic Society</i> , 2019, 39, 610-617.	5.7	8
17	Determining the fracture toughness of ceramic filter materials using the miniaturized chevron-notched beam method at high temperature. <i>Ceramics International</i> , 2018, 44, 13986-13993.	4.8	4
18	Prediction of High Temperature Behavior of Open-Cell Ceramic Foams Using an Experimental-Numerical Approach. <i>Advanced Engineering Materials</i> , 2017, 19, 1700082.	3.5	4

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19	An Approach Toward Numerical Investigation of the Mechanical Behavior of Ceramic Foams during Metal Melt Filtration Processes. <i>Advanced Engineering Materials</i> , 2017, 19, 1700080.	3.5	14
20	Influence of the Specimen Manufacturing Process on the Strength of Carbon-Bonded Alumina (Al_2O_3). <i>Advanced Engineering Materials</i> , 2017, 19, 1700083.	3.5	6
21	Influence of Foam Morphology on Effective Properties Related to Metal Melt Filtration. <i>Advanced Engineering Materials</i> , 2017, 19, 1700240.	3.5	15
22	Determining fracture mechanical properties for brittle materials using the ball on three balls test combined with numerical simulations. <i>Theoretical and Applied Fracture Mechanics</i> , 2016, 86, 19-24.	4.7	9
23	Fracture Mechanical Analysis of Open Cell Ceramic Foams Under Thermal Shock Loading. <i>Journal of Multiscale Modeling</i> , 2016, 07, 1640006.	1.1	2
24	Fracture mechanical analysis of open cell ceramic foams under multi-axial mechanical loading. <i>Archive of Applied Mechanics</i> , 2016, 86, 335-349.	2.2	7
25	Experimental and Numerical Investigations on the Creep Behaviour of Heat-Resisting Chromium Steel X10CrMoVnNb9-1 by Means of Small Punch Test. <i>Transactions of the Indian Institute of Metals</i> , 2016, 69, 629-633.	1.5	4
26	Numerical and analytical solutions for anisotropic yield surfaces of the open-cell Kelvin foam. <i>International Journal of Mechanical Sciences</i> , 2016, 105, 70-82.	6.7	23
27	Assessment of Material Properties by Means of the Small Punch Test. , 2016, , 127-157.		7
28	Influence of curved struts, anisotropic pores and strut cavities on the effective elastic properties of open-cell foams. <i>Mechanics of Materials</i> , 2015, 86, 1-10.	3.2	17
29	High-temperature small punch test for mechanical characterization of a nickel-base super alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 613, 259-263.	5.6	18
30	Strength of fine grained carbon-bonded alumina (Al_2O_3) materials obtained by means of the small punch test. <i>Ceramics International</i> , 2014, 40, 9555-9561.	4.8	16
31	Raman spectroscopic characterization of epitaxially grown GaN on sapphire. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 285302.	2.8	21
32	Geometry Dependent Effective Elastic Properties of Open-Cell Foams Based on Kelvin Cell Models**. <i>Advanced Engineering Materials</i> , 2013, 15, 1292-1298.	3.5	20
33	Geometrical modelling of foam structures using implicit functions. <i>International Journal of Solids and Structures</i> , 2013, 50, 548-555.	2.7	36
34	The influence of the measurement parameters on the crushing strength of reticulated ceramic foams. <i>Journal of Materials Research</i> , 2013, 28, 2288-2299.	2.6	18
35	Influence of the Content of Modified Coal Tar Pitch Powder on the Strength of Carbon Bonded Alumina (Al_2O_3). <i>Advanced Engineering Materials</i> , 2013, 15, 1230-1234.	3.5	4
36	Fracture mechanical evaluation of an in-vessel melt retention scenario. <i>Annals of Nuclear Energy</i> , 2008, 35, 627-635.	1.8	3

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37	Identification of ductile damage and fracture parameters from the small punch test using neural networks. <i>Engineering Fracture Mechanics</i> , 2006, 73, 710-725.	4.3	142
38	Determination of Ductile Material Properties by Means of the Small Punch Test and Neural Networks. <i>Advanced Engineering Materials</i> , 2004, 6, 536-540.	3.5	21
39	Finite element analyses of three-dimensional crack problems in piezoelectric structures. <i>Engineering Fracture Mechanics</i> , 2003, 70, 143-160.	4.3	65
40	Determination of deformation and failure properties of ductile materials by means of the small punch test and neural networks. <i>Computational Materials Science</i> , 2003, 28, 633-644.	3.0	133
41	Finite element-computation of the electromechanical J-Integral for 2-D and 3-D crack analysis. <i>International Journal of Fracture</i> , 2002, 114, 359-378.	2.2	45
42	Determination of Fracture Mechanical Properties of Carbon Bonded Alumina Using Miniaturized Specimens. <i>Key Engineering Materials</i> , 0, 713, 70-73.	0.4	1
43	FEM Analysis of Small Punch Tests. <i>Key Engineering Materials</i> , 0, 734, 23-36.	0.4	10
44	Fracture Toughness Characterization of Carbon Bonded Alumina Using Chevron Notched Specimens. <i>Key Engineering Materials</i> , 0, 754, 71-74.	0.4	1
45	Rapid Prototyping of Carbon-Bonded Alumina Filters with Flame-Sprayed Alumina Coating for Bottom-Teeming Steel Ingot Casting. <i>Advanced Engineering Materials</i> , 0, , 2100777.	3.5	2
46	Fabrication of Carbon-Bonded Alumina Filters by Additive-Manufactured, Water-Soluble Polyvinyl Alcohol Filter Templates and Alginate-Based Slips. <i>Advanced Engineering Materials</i> , 0, , 2100655.	3.5	0