Jan Dzugan

List of Publications by Year
in descending order

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116	1,070	567281	552781
papers	citations	15 h-index	26 g-index

117	117	117	758
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Prediction of Behaviour of Thin-Walled DED-Processed Structure: Experimental-Numerical Approach. Materials, 2022, 15, 806.	2.9	7
2	Additive Manufacturing of Honeycomb Lattice Structureâ€"From Theoretical Models to Polymer and Metal Products. Materials, 2022, 15, 1838.	2.9	5
3	Heat Source Modeling and Residual Stress Analysis for Metal Directed Energy Deposition Additive Manufacturing. Materials, 2022, 15, 2545.	2.9	11
4	Achieving high strength and low elastic modulus in interstitial biomedical Tiâ€"Nbâ€"Zrâ€"O alloys through compositional optimization. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 839, 142833.	5.6	19
5	Effect of deposit thickness on microstructure and mechanical properties at ambient and elevated temperatures for Inconel 718 superalloy fabricated by directed energy deposition. Journal of Alloys and Compounds, 2022, 908, 164723.	5.5	11
6	Investigation of short-term creep properties of a coarse-grained Inconel 718 fabricated by directed energy deposition compared to traditional Inconel 718. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 844, 143143.	5.6	10
7	Extended Continuous Cooling Transformation (CCT) Diagrams Determination for Additive Manufacturing Deposited Steels. Materials, 2022, 15, 3076.	2.9	5
8	Fracture characterisation of vertically build functionally graded 316L stainless steel with Inconel 718 deposited by directed energy deposition process. Virtual and Physical Prototyping, 2022, 17, 821-840.	10.4	14
9	Finite element simulation of plasticity and fracture for Inconel 718 deposited by laser powder bed fusion â€" Chances, use and challenges. Additive Manufacturing, 2022, 56, 102888.	3.0	0
10	The influence of severe plastic deformation on the thermal expansion of additively manufactured Ti6Al4V alloy. Journal of Materials Research and Technology, 2022, 19, 3498-3506.	5.8	5
11	Elevated Temperature Baseplate Effect on Microstructure, Mechanical Properties, and Thermal Stress Evaluation by Numerical Simulation for Austenite Stainless Steel 316L Fabricated by Directed Energy Deposition. Materials, 2022, 15, 4165.	2.9	6
12	Damage Evolution Simulations via a Coupled Crystal Plasticity and Cohesive Zone Model for Additively Manufactured Austenitic SS 316L DED Components. Metals, 2022, 12, 1096.	2.3	0
13	The Use of Miniature Specimens to Determine Local Properties and Fracture Behavior of LPBF-Processed Inconel 718 in as-Deposited and Post-Treated States. Materials, 2022, 15, 4724.	2.9	2
14	Experimental and computational analysis of additively manufactured tensile specimens: Assessment of localized-cooling rate and ductile fracture using the Gursonâ€" Tvergaardâ€"Needleman damage model. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2021, 235, 1430-1442.	1.1	4
15	Studying the Thermally Activated Processes Operating during Deformation of hcp and bcc Mgâ€"Li Metal-Matrix Composites. Metals, 2021, 11, 473.	2.3	5
16	Copper-Induced Strengthening in 0.2 C Bainite Steel. Materials, 2021, 14, 1962.	2.9	0
17	Design of a Model for Risk Reduction in Project Management in Small and Medium-Sized Enterprises. Symmetry, 2021, 13, 763.	2.2	19
18	Structural integrity and mechanical properties of the functionally graded material based on 316L/IN718 processed by DED technology. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 811, 141038.	5.6	50

#	Article	IF	Citations
19	Influence of micro- and nanoparticles on mechanical properties of magnesium and magnesium alloys. IOP Conference Series: Materials Science and Engineering, 2021, 1178, 012059.	0.6	1
20	Damage tolerant design of additively manufactured metallic components subjected to cyclic loading: State of the art and challenges. Progress in Materials Science, 2021, 121, 100786.	32.8	106
21	Base Plate Preheating Effect on Microstructure of 316L Stainless Steel Single Track Deposition by Directed Energy Deposition. Materials, 2021, 14, 5129.	2.9	11
22	Low cycle fatigue properties assessment for rotor steels with the use of miniaturized specimens. International Journal of Fatigue, 2021, 154, 106555.	5.7	5
23	Fracture locus characteristics of Al alloy 5083 processed by equal channel angular pressing using miniaturized specimens. Journal of Alloys and Compounds, 2021, 889, 161675.	5.5	6
24	Strain Hardening in an AZ31 Alloy Submitted to Rotary Swaging. Materials, 2021, 14, 157.	2.9	10
25	Effect of Rotary Swaging on Microstructure and Mechanical Properties of an AZ31 Magnesium Alloy. Advanced Engineering Materials, 2020, 22, 1900596.	3.5	10
26	Thermo-physical properties investigation in relation to deposition orientation for SLM deposited H13 steel. Thermochimica Acta, 2020, 683, 178479.	2.7	15
27	Post-Processing Treatment Impact on Mechanical Properties of SLM Deposited Ti-6Al-4 V Porous Structure for Biomedical Application. Materials, 2020, 13, 5167.	2.9	17
28	Build Size and Orientation Influence on Mechanical Properties of Powder Bed Fusion Deposited Titanium Parts. Metals, 2020, 10, 1340.	2.3	18
29	Influence of thickness reduction on forming limits of mild steel DC01. International Journal of Material Forming, 2020, 13, 371-381.	2.0	5
30	Effects of build orientation and sample geometry on the mechanical response of miniature CP-Ti Grade 2 strut samples manufactured by laser powder bed fusion. Additive Manufacturing, 2020, 35, 101403.	3.0	16
31	Numerical Simulation Development and Computational Optimization for Directed Energy Deposition Additive Manufacturing Process. Materials, 2020, 13, 2666.	2.9	35
32	Fracture analysis in directed energy deposition (DED) manufactured 316L stainless steel using a phase-field approach. Finite Elements in Analysis and Design, 2020, 177, 103417.	3.2	30
33	Structure and Properties of High-Strength Ti Grade 4 Prepared by Severe Plastic Deformation and Subsequent Heat Treatment. Materials, 2020, 13, 1116.	2.9	2
34	Influence of Martensite Deformation on Cu Precipitation Strengthening. Metals, 2020, 10, 282.	2.3	4
35	Optimization of the Mechanical Performance of Titanium for Biomedical Applications by Advanced, High-Gain SPD Technology. Crystals, 2020, 10, 422.	2.2	6
36	Strengthening and Thermally Activated Processes in an AX61/Saffil Metal Matrix Composite. Crystals, 2020, 10, 466.	2.2	2

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37	Effect of Equal Channel Angular Extrusion on the Thermal Conductivity of an AX52 Magnesium Alloy. Crystals, 2020, 10, 497.	2.2	4
38	Small scale testing of IN718 single crystals manufactured by EB-PBF. Additive Manufacturing, 2020, 36, 101449.	3.0	11
39	Magnesium Reinforced with Inconel 718 Particles Prepared Ex Situâ€"Microstructure and Properties. Materials, 2020, 13, 798.	2.9	7
40	Continuous Production of Pure Titanium with Ultrafine to Nanocrystalline Microstructure. Materials, 2020, 13, 336.	2.9	9
41	Using DEFORM Software for Determination of Parameters for Two Fracture Criteria on DIN 34CrNiMo6. Metals, 2020, 10, 445.	2.3	5
42	Characterization of Functionally Graded Materials Based on Inconel 718 and Stainless Steel 316L Manufactured by DED Process. , 2020, , 247-256.		3
43	Compatibility of fracture toughness results in the upper shelf region. Procedia Structural Integrity, 2019, 17, 479-486.	0.8	0
44	Strengthening from Cu Addition in 0.2C-(1-2)Mn Steels during Tempering. Materials, 2019, 12, 247.	2.9	11
45	Novel Methods for High-Cycle Fatigue Life Determination. Key Engineering Materials, 2019, 810, 40-45.	0.4	1
46	Practical notes for assessing the fatigue life of bodyworks of buses and trolleybuses. Procedia Structural Integrity, 2019, 19, 595-603.	0.8	1
47	Determination of Directional Residual Stresses by the Contour Method. Metals, 2019, 9, 1104.	2.3	9
48	The Effect of Hot Working on the Mechanical Properties of High Strength Biomedical Ti-Nb-Ta-Zr-O Alloy. Materials, 2019, 12, 4233.	2.9	10
49	Usage of miniature specimens to investigate TENSILE properties of 3D-pRINTED Ti-6Al-4V. , 2019, , .		1
50	Identification of ductile damage parameters for pressure vessel steel. Nuclear Engineering and Design, 2018, 328, 372-380.	1.7	28
51	Effects of thickness and orientation on the small scale fracture behaviour of additively manufactured Ti-6Al-4V. Materials Characterization, 2018, 143, 94-109.	4.4	79
52	Experiment and finite element analysis of U-profile subjected to dynamic loading. EPJ Web of Conferences, 2018, 183, 02056.	0.3	0
53	Determination of forming limits of TWIP steel sheet using linear and nonlinear strain paths. IOP Conference Series: Materials Science and Engineering, 2018, 461, 012019.	0.6	1
54	Mechanical property of thin walled selective laser melted parts and the effect of heat treatment. IOP Conference Series: Materials Science and Engineering, 2018, 461, 012069.	0.6	1

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55	Fracture Toughness Determination with the Use of Miniaturized Specimens. , 2018, , .		1
56	Comprehensive Evaluation of the Properties of Ultrafine to Nanocrystalline Grade 2 Titanium Wires. Materials, 2018, 11, 2522.	2.9	15
57	Evaluation of ductile fracture model in bulk forming. International Journal of Computational Materials Science and Surface Engineering, 2018, 7, 243.	0.2	0
58	Thermo-mechanical fatigue prediction of a steam turbine shaft. MATEC Web of Conferences, 2018, 165, 22016.	0.2	2
59	Micro-Tensile Behavior of Mg-Al-Zn Alloy Processed by Equal Channel Angular Pressing (ECAP). Materials, 2018, 11, 1644.	2.9	19
60	Study of the Microstructure, Tensile Properties and Hardness of AZ61 Magnesium Alloy Subjected to Severe Plastic Deformation. Metals, 2018, 8, 776.	2.3	14
61	Amplitude-dependent internal friction in AZ31 alloy sheets submitted to accumulative roll bonding. Low Temperature Physics, 2018, 44, 966-972.	0.6	7
62	Thermal Conductivity of an AZ31 Sheet after Accumulative Roll Bonding. Crystals, 2018, 8, 278.	2.2	11
63	Influence of Accumulative Roll Bonding on the Texture and Tensile Properties of an AZ31 Magnesium Alloy Sheets. Materials, 2018, 11, 73.	2.9	28
64	Sheet Thickness Reduction Influence on Fracture Strain Determination. Journal of Physics: Conference Series, 2018, 1063, 012168.	0.4	1
65	Anisotropy of Thermal Expansion in an AZ31 Magnesium Alloy Subjected to the Accumulative Roll Bonding. Acta Physica Polonica A, 2018, 134, 820-823.	0.5	6
66	Effect of Accumulative Roll Bonding of an AZ31 Alloy on the Microstructure and Tensile Stress. Acta Physica Polonica A, 2018, 134, 863-866.	0.5	5
67	Influence of strain rate on deformation behaviour of an AX52 alloy processed by equal channel angular pressing (ECAP). Letters on Materials, 2018, 8, 517-523.	0.7	4
68	Sheet necking prediction in forming limit diagrams with the anisotropy influence incorporation. IOP Conference Series: Materials Science and Engineering, 2017, 179, 012023.	0.6	2
69	Mechanical properties and structure of AZ61 magnesium alloy processed by equal channel angular pressing. IOP Conference Series: Materials Science and Engineering, 2017, 179, 012028.	0.6	9
70	Creep test with use of miniaturized specimens. IOP Conference Series: Materials Science and Engineering, 2017, 179, 012032.	0.6	2
71	Anisotropy of mechanical and thermal properties of AZ31 sheets prepared using the ARB technique. IOP Conference Series: Materials Science and Engineering, 2017, 219, 012023.	0.6	4
72	Low Cycle Fatigue Tests With the Use of Miniaturized Test Specimens. , 2017, , .		5

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73	An assessment of thermo-mechanically induced fatigue damage of a steam turbine shaft. Procedia Structural Integrity, 2017, 7, 190-197.	0.8	2
74	Fatigue limit evaluation of structure materials based on thermographic analysis. Procedia Structural Integrity, 2017, 7, 315-320.	0.8	8
75	Mechanical properties determination of AM components. IOP Conference Series: Materials Science and Engineering, 2017, 179, 012019.	0.6	15
76	Influence of specimen dimensions on ductile-to-brittle transition temperature in Charpy impact test. IOP Conference Series: Materials Science and Engineering, 2017, 179, 012063.	0.6	4
77	Mini-tensile specimen application for sheets characterization. IOP Conference Series: Materials Science and Engineering, 2017, 179, 012020.	0.6	6
78	Strain-amplitude dependent cyclic hardening of 08Ch18N10T austenitic stainless steel. IOP Conference Series: Materials Science and Engineering, 2017, 179, 012026.	0.6	2
79	Strain controlled cyclic tests on miniaturized specimens. IOP Conference Series: Materials Science and Engineering, 2017, 179, 012060.	0.6	2
80	Development of geometry of forming tools for extrusion of strip sheet by SPD process. IOP Conference Series: Materials Science and Engineering, 2017, 179, 012061.	0.6	0
81	Correlation between standard Charpy and sub-size Charpy test results of selected steels in upper shelf region. IOP Conference Series: Materials Science and Engineering, 2017, 179, 012039.	0.6	1
82	Amplitude Dependent Internal Friction in a Mg-Al-Zn Alloy Studied after Thermal and Mechanical Treatment. Metals, 2017, 7, 433.	2.3	6
83	Prediction of fracture in the shearing process using DEFORM and MARC software. IOP Conference Series: Materials Science and Engineering, 2017, 179, 012058.	0.6	1
84	Investigation Study on Determination of Fracture Strain and Fracture Forming Limit Curve Using Different Experimental and Numerical Methods. Journal of Physics: Conference Series, 2017, 896, 012082.	0.4	2
85	STRUCTURE AND PROPERTIES OF AZ31 MAGNESIUM ALLOY AFTER COMBINATION OF HOT EXTRUSION AND ECAP. Acta Metallurgica Slovaca, 2017, 23, 222-228.	0.7	10
86	Possibilities of biocompatible material production using conform SPD technology. Archives of Materials Science and Engineering, 2017, 1, 5-11.	1.1	7
87	SPD Processed Materials Mechanical Properties Determination with the Use of Miniature Specimens. Materials Science Forum, 2016, 879, 471-476.	0.3	6
88	Biological evaluation of ultra-fine titanium with improved mechanical strength for dental implant engineering. Journal of Materials Science, 2016, 51, 3097-3110.	3.7	22
89	Specimens Preparation Influence on Results of Micro-Tensile Tests. DEStech Transactions on Environment Energy and Earth Science, 2016, , .	0.0	2
90	Development of Forming Processes for MoNiCr Alloy. Key Engineering Materials, 2015, 658, 3-7.	0.4	1

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91	Determination of Local Tensile and Fatigue Properties With the Use of Sub-Sized Specimens. , 2015, , .		13
92	Investigation of Sample-size Influence on Tensile Test Results at Different Strain Rates. Procedia Engineering, 2015, 114, 410-415.	1.2	33
93	Input Data Determination for Large Strain Simulations. Applied Mechanics and Materials, 2015, 751, 124-130.	0.2	0
94	Micro-Tensile Test Technique Development and Application to Mechanical Property Determination. , 2015, , 12-30.		26
95	Calibration of fracture locus in scope of uncoupled elasticâ€“plastic-ductile fracture material models. Advances in Engineering Software, 2014, 72, 95-108.	3.8	19
96	Construction of Hammer for Sugarcane Shredder. Advanced Materials Research, 2013, 811, 308-313.	0.3	2
97	Dynamic Mechanical Properties of Sugarcane. Advanced Materials Research, 2013, 811, 314-318.	0.3	0
98	On Formability of MoNiCr Alloy. Advanced Materials Research, 2011, 295-297, 1731-1737.	0.3	4
99	Fatigue Life Optimization of Steel by Thermomechanical Treatment with the Use of Physical Thermomechanical Simulator. Advanced Materials Research, 2011, 264-265, 1725-1730.	0.3	1
100	ICFPD method application for crack initiation determination for Charpy size 3-point bend specimens. EPJ Web of Conferences, 2010, 6, 13005.	0.3	0
101	Effect of Preliminary Treatment on Grain Refinement of Medium Carbon Steel Using ECAP at Increased Temperature. Materials Science Forum, 2010, 638-642, 2013-2018.	0.3	4
102	Dynamic compression testing by means of Charpy pendulum. , 2009, , .		0
103	Impact compression and tensile testing by means of a Charpy pendulum. WIT Transactions on the Built Environment, 2008, , .	0.0	1
104	Application of the normalization method for the determination of Jâ€“R curves. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 387-389, 307-311.	5.6	26
105	Fracture toughness tests of wheelset materials used in the Japanese Shinkansen express trains. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2004, 218, 263-271.	1.1	0
106	Use of instrumented Charpy impact tests for the determination of fracture toughness values. European Structural Integrity Society, 2002, , 245-252.	0.1	7
107	Some issues by using the master curve concept. Nuclear Engineering and Design, 2002, 212, 115-124.	1.7	16
108	Master Curve Evaluation of Irradiated Russian VVER Type Reactor Pressure Vessel Steels. , 2001, , 109-124.		2

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109	High Cycle Fatigue Tests at High Temperature under Superheated Steam Conditions. Advanced Materials Research, 0, 538-541, 1630-1633.	0.3	0
110	Calibration of Selected Ductile Fracture Criteria Using Two Types of Specimens. Key Engineering Materials, 0, 592-593, 258-261.	0.4	7
111	Input Data Influence on FEM Simulation of Steam Turbine Blades Materials Hot Forming. Materials Science Forum, 0, 773-774, 79-88.	0.3	3
112	Fatigue Strength Simulation and Prediction of a Turbine Blade. Key Engineering Materials, 0, 627, 229-232.	0.4	1
113	THERMO-MECHANICAL FATIGUE ANALYSIS OF A STEAM TURBINE SHAFT. Acta Polytechnica CTU Proceedings, 0, 20, 56-64.	0.3	5
114	Applicability of miniature tensile test in the automotive sector. IOP Conference Series: Materials Science and Engineering, 0, 461, 012043.	0.6	5
115	Fatigue properties of SLM-produced Ti6Al4V with various post-processing processes. IOP Conference Series: Materials Science and Engineering, 0, 461, 012052.	0.6	7
116	Fracture Prediction Based on Evaluation of Initial Porosity Induced By Direct Energy Deposition. European Journal of Computational Mechanics, 0, , .	0.0	3