

# Zbigniew L Kowalewski

## List of Publications by Year in descending order

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73  
papers

720  
citations

623734

14  
h-index

580821

25  
g-index

75  
all docs

75  
docs citations

75  
times ranked

525  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanisms-based creep constitutive equations for an aluminium alloy. <i>Journal of Strain Analysis for Engineering Design</i> , 1994, 29, 309-316.	1.8	164
2	Compressive Viscoplastic Response of 6082-T6 and 7075-T6 Aluminium Alloys Under Wide Range of Strain Rate at Room Temperature: Experiments and Modelling. <i>Strain</i> , 2012, 48, 498-509.	2.4	45
3	Miniaturized Compression Test at Very High Strain Rates by Direct Impact. <i>Experimental Mechanics</i> , 2007, 47, 451-463.	2.0	32
4	Influences of Horizontal and Vertical Build Orientations and Post-Fabrication Processes on the Fatigue Behavior of Stainless Steel 316L Produced by Selective Laser Melting. <i>Materials</i> , 2019, 12, 4203.	2.9	30
5	Effect of cyclic loading on the yield surface evolution of 18G2A low-alloy steel. <i>International Journal of Mechanical Sciences</i> , 1997, 39, 51-68.	6.7	29
6	Creep rupture of copper and aluminium alloy under combined loadings—experiments and their various descriptions. <i>International Journal of Mechanical Sciences</i> , 2005, 47, 1038-1058.	6.7	27
7	Multiparameter analysis of the Barkhausen noise signal and its application for the assessment of plastic deformation level in 13HMF grade steel. <i>Measurement Science and Technology</i> , 2010, 21, 115702.	2.6	24
8	Comparison of Properties of Magnetoacoustic Emission and Mechanical Barkhausen Effects for P91 Steel After Plastic Flow and Creep. <i>IEEE Transactions on Magnetics</i> , 2008, 44, 3273-3276.	2.1	22
9	Aluminide Thermal Barrier Coating for High Temperature Performance of MAR 247 Nickel Based Superalloy. <i>Coatings</i> , 2021, 11, 48.	2.6	22
10	Damage development of Al/SiC metal matrix composite under fatigue, creep and monotonic loading conditions. <i>Procedia Engineering</i> , 2011, 10, 1420-1425.	1.2	18
11	Experimental and theoretical evaluation of a high-accuracy uni-axial creep testpiece with slit extensometer ridges. <i>International Journal of Mechanical Sciences</i> , 1994, 36, 751-769.	6.7	17
12	Mechanical Properties of A359/SiCp Metal Matrix Composites at Wide Range of Strain Rates. <i>Applied Mechanics and Materials</i> , 2011, 82, 166-171.	0.2	17
13	New samples with artificial voids for ultrasonic investigation of material damage due to creep. <i>NDT and E International</i> , 2009, 42, 150-156.	3.7	16
14	On the role of slip, twinning and detwinning in magnesium alloy AZ31B sheet. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 813, 141152.	5.6	16
15	Anti-buckling Fixture for Large Deformation Tension—Compression Cyclic Loading of Thin Metal Sheets. <i>Strain</i> , 2014, 50, 174-183.	2.4	15
16	The Dominant Influence of Plastic Deformation Induced Residual Stress on the Barkhausen Effect Signal in Martensitic Steels. <i>Journal of Nondestructive Evaluation</i> , 2017, 36, 1.	2.4	15
17	Influence of the Welding Process on the Mechanical Characteristics and Fracture of the S700MC High Strength Steel under Various Types of Loading. <i>Materials</i> , 2020, 13, 5249.	2.9	15
18	Experimental investigation of an anisotropy in copper subjected to predeformation due to constant and monotonic loadings. <i>International Journal of Plasticity</i> , 1997, 13, 87-109.	8.8	13

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19	Material effects during monotonic-cyclic loading. International Journal of Solids and Structures, 2014, 51, 740-753.	2.7	12
20	Possibility of Application of Magnetoacoustic Emission for the Assessment of Plastic Deformation Level in Ferrous Materials. IEEE Transactions on Magnetics, 2011, 47, 2087-2092.	2.1	11
21	Analysis of fatigue crack initiation in cyclic microplasticity regime. International Journal of Fatigue, 2020, 131, 105342.	5.7	11
22	Thermal Barrier Stability and Wear Behavior of CVD Deposited Aluminide Coatings for MAR 247 Nickel Superalloy. Materials, 2020, 13, 3863.	2.9	10
23	Creep and Low Cycle Fatigue Investigations of Light Aluminium Alloys for Engine Cylinder Heads. Strain, 2011, 47, 374-381.	2.4	9
24	Effect of high temperature exposure on the fatigue damage development of X10CrMoVNb9-1 steel for power plant pipes. International Journal of Pressure Vessels and Piping, 2021, 189, 104282.	2.6	9
25	Microstructural Analysis of Fractured Orthopedic Implants. Materials, 2021, 14, 2209.	2.9	9
26	Creep behavior of copper under plane stress state. International Journal of Plasticity, 1991, 7, 387-404.	8.8	8
27	Assessment of cyclic properties of 18G2A low-alloy steel at biaxial stress state. Acta Mechanica, 1997, 120, 71-89.	2.1	8
28	Isochronous creep rupture loci for metals under biaxial stress. Journal of Strain Analysis for Engineering Design, 2004, 39, 581-593.	1.8	6
29	EVALUATION OF DAMAGE IN STEELS SUBJECTED TO EXPLOITATION LOADING - DESTRUCTIVE AND NON-DESTRUCTIVE METHODS. International Journal of Modern Physics B, 2008, 22, 5533-5538.	2.0	6
30	Anti-buckling System for Flat Specimens Investigations under Cyclic Tension-compression. Materials Today: Proceedings, 2016, 3, 1045-1050.	1.8	6
31	An influence of impact energy on magnesium alloy behaviour. International Journal of Mechanics and Materials in Design, 2020, 16, 139-153.	3.0	6
32	On the application of magnetoelastic properties measurements for plastic level determination in martensitic steels. Journal of Electrical Engineering, 2018, 69, 502-506.	0.7	6
33	Tow truck frame made of high strength steel under cyclic loading. Materials Today: Proceedings, 2019, 12, 207-212.	1.8	5
34	Digital Image Correlation Technique as a Tool for Kinematics Assessment of Structural Components. Acta Mechanica Et Automatica, 2018, 12, 101-104.	0.6	5
35	EVALUATION OF DAMAGE DEVELOPMENT IN STEELS SUBJECTED TO PRIOR DEFORMATION: DESTRUCTIVE AND NONDESTRUCTIVE TECHNIQUES. Journal of Multiscale Modeling, 2009, 01, 479-499.	1.1	4
36	Stress Relaxation Effects in TiNi SMA During Superelastic Deformation: Experiment and Constitutive Model. Shape Memory and Superelasticity, 2017, 3, 392-402.	2.2	4

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37	Nondestructive Methodology for Identification of Local Discontinuities in Aluminide Layer-Coated MAR 247 during Its Fatigue Performance. <i>Materials</i> , 2021, 14, 3824.	2.9	4
38	Destructive and Ultrasonic Investigations of Damage Development in Metallic Materials. <i>Key Engineering Materials</i> , 2007, 340-341, 229-234.	0.4	3
39	On the Mutual Interactions of Monotonic and Cyclic Loading and their Effect on the Strength of Aluminium Alloys. <i>Applied Mechanics and Materials</i> , 2010, 24-25, 213-218.	0.2	3
40	Determination of Artificial Defects in Material Under Monotonic Tension by the Use of FEM and DIC Methods. <i>Materials Today: Proceedings</i> , 2016, 3, 1171-1176.	1.8	3
41	Experimental and Numerical Investigation of Mechanical and Thermal Effects in TiNi SMA during Transformation-Induced Creep Phenomena. <i>Materials</i> , 2019, 12, 883.	2.9	3
42	Anisotropy of Gum Metal analysed by ultrasonic measurement and digital image correlation. <i>Materials Science and Technology</i> , 2020, 36, 996-1002.	1.6	3
43	Variation of Barkhausen Noise, Magnetic and Crystal Structure of Ferromagnetic Medium-Carbon Steel after Different Loading Processes. <i>Physics of Metals and Metallography</i> , 2020, 121, 115-122.	1.0	3
44	Effect of plasma nitriding process on the fatigue and high temperature corrosion resistance of Inconel 740H nickel alloy. <i>Archives of Civil and Mechanical Engineering</i> , 2022, 22, 1.	3.8	3
45	QUANTITATIVE RELATIONSHIPS BETWEEN MICROSTRUCTURAL AND MECHANICAL PARAMETERS OF STEELS WITH DIFFERENT CARBON CONTENT. <i>International Journal of Modern Physics B</i> , 2008, 22, 5819-5824.	2.0	2
46	Experimental analysis of creep and fatigue of light multifunctional aluminium alloys. <i>Materials Research Innovations</i> , 2011, 15, s53-s56.	2.3	2
47	A Novel Microstructural Evolution Model for Growth of Ultra-Fine Al <sub>2</sub> O <sub>3</sub> Oxides from SiO <sub>2</sub> Silica Ceramic Decomposition during Self-Propagated High-Temperature Synthesis. <i>Materials</i> , 2020, 13, 2821.	2.9	2
48	Experimental analysis and modelling of fatigue crack initiation mechanisms. <i>Journal of Theoretical and Applied Mechanics</i> , 0, , 1443.	0.5	2
49	The high-strength steel and its weld under impact. <i>Materials Today: Proceedings</i> , 2022, , .	1.8	2
50	Deformation of the Titanium Plate Stabilizing the Lateral Ankle Fracture Due to Its Overloading in Case of the Young, Obese Patient: Case Report Including the Biomechanical Analysis. <i>Diagnostics</i> , 2022, 12, 1479.	2.6	2
51	The effects observed in engineering materials after annealing and ageing processes. <i>Journal of Materials Processing Technology</i> , 2001, 119, 165-173.	6.3	1
52	Effects induced in metallic materials due to non-proportional cyclic loading. <i>Journal of Materials Processing Technology</i> , 2003, 143-144, 741-747.	6.3	1
53	On the Effects Associated with Control Parameters Delay during Biaxial Cyclic Loading of Engineering Materials. <i>Materials Science Forum</i> , 2010, 638-642, 3913-3918.	0.3	1
54	Evaluation of the Heat Treatment Role for Light Aluminum Alloys Subjected to Creep and Low Cycle Fatigue. <i>Materials Science Forum</i> , 2010, 638-642, 455-460.	0.3	1

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55	Modification of simple deformation processes of metallic materials by means of cyclic loading. Materials Research Innovations, 2011, 15, s73-s76.	2.3	1
56	Experimental Assessment of Ball Joints Operation Using Servo-Hydraulic Testing Systems. Solid State Phenomena, 0, 240, 232-237.	0.3	1
57	Effect of Uniaxial Fatigue Aging and Fabric Orientation on Low Impact Velocity Response of Glass Fibers/Elium Acrylic Composite Laminates. Materials, 2021, 14, 4089.	2.9	1
58	EVALUATION OF DAMAGE IN STEELS SUBJECTED TO EXPLOITATION LOADING - DESTRUCTIVE AND NON-DESTRUCTIVE METHODS. , 2009, , .		1
59	Experimental and Numerical Investigations of the Effects Associated to Complex Loading Combinations. Advanced Structured Materials, 2015, , 117-142.	0.5	1
60	Experimental investigation of thin brass sheets under tension-compression cyclic loading. Journal of Theoretical and Applied Mechanics, 0, , 757.	0.5	1
61	Creep Deformation. , 2020, , 499-508.		1
62	Creep of Metals Subjected to Prior Plastic Deformation. Key Engineering Materials, 2004, 274-276, 913-918.	0.4	0
63	AN INFLUENCE OF SELECTED MECHANICAL PARAMETERS OF MMC ON THE THERMAL SHOCK RESISTANCE. International Journal of Modern Physics B, 2008, 22, 5807-5812.	2.0	0
64	Experimental damage analysis of steels after exploitation loading. EPJ Web of Conferences, 2010, 6, 43001.	0.3	0
65	A Role of Destructive and Non-Destructive Tests in Creep Damage Identification. Key Engineering Materials, 0, 488-489, 315-318.	0.4	0
66	An Influence of Step Cyclic Loading due to Torsion on Tensile Curve Variation. Key Engineering Materials, 0, 535-536, 181-184.	0.4	0
67	Yielding and strain localization effects in gum metal - a unique Ti alloy - investigated by digital image correlation and infrared thermography. Materials Today: Proceedings, 2019, 12, 235-238.	1.8	0
68	Fe-Al based composite reinforced with ultra-fine Al <sub>2</sub> O <sub>3</sub> oxides for high temperature applications. Journal of Theoretical and Applied Mechanics, 2021, , 509-513.	0.5	0
69	Methods for Creep Rupture Analysis – Previous Attempts and New Challenges. Advanced Structured Materials, 2015, , 163-198.	0.5	0
70	Creep Deformation. , 2018, , 1-10.		0
71	Optimal Design of Disks Under Large Creep Deformation. Advanced Structured Materials, 2018, , 387-417.	0.5	0
72	Damage Identification Supported by Nondestructive Testing Techniques. Advanced Structured Materials, 2020, , 67-117.	0.5	0

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73	Strength tests of polymer-glass composite to evaluate its operational suitability for ballistic shield plates. <i>Eksploatacja I Niezawodnosc</i> , 2020, 22, 592-600.	2.0	0