

# Zbigniew L Kowalewski

## List of Publications by Year in descending order

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73  
papers

720  
citations

623734

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h-index

580821

25  
g-index

75  
all docs

75  
docs citations

75  
times ranked

525  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of plasma nitriding process on the fatigue and high temperature corrosion resistance of Inconel 740H nickel alloy. Archives of Civil and Mechanical Engineering, 2022, 22, 1.	3.8	3
2	The high-strength steel and its weld under impact. Materials Today: Proceedings, 2022, , .	1.8	2
3	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. Diagnostics, 2022, 12, 1479.	2.6	2
4	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
5	Microstructural Analysis of Fractured Orthopedic Implants. Materials, 2021, 14, 2209.	2.9	9
6	On the role of slip, twinning and detwinning in magnesium alloy AZ31B sheet. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 813, 141152.	5.6	16
7	Nondestructive Methodology for Identification of Local Discontinuities in Aluminide Layer-Coated MAR 247 during Its Fatigue Performance. Materials, 2021, 14, 3824.	2.9	4
8	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
9	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
10	Aluminide Thermal Barrier Coating for High Temperature Performance of MAR 247 Nickel Based Superalloy. Coatings, 2021, 11, 48.	2.6	22
11	Anisotropy of Gum Metal analysed by ultrasonic measurement and digital image correlation. Materials Science and Technology, 2020, 36, 996-1002.	1.6	3
12	An influence of impact energy on magnesium alloy behaviour. International Journal of Mechanics and Materials in Design, 2020, 16, 139-153.	3.0	6
13	Analysis of fatigue crack initiation in cyclic microplasticity regime. International Journal of Fatigue, 2020, 131, 105342.	5.7	11
14	Influence of the Welding Process on the Mechanical Characteristics and Fracture of the S700MC High Strength Steel under Various Types of Loading. Materials, 2020, 13, 5249.	2.9	15
15	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. Materials, 2020, 13, 2821.	2.9	2
16	Variation of Barkhausen Noise, Magnetic and Crystal Structure of Ferromagnetic Medium-Carbon Steel after Different Loading Processes. Physics of Metals and Metallography, 2020, 121, 115-122.	1.0	3
17	Thermal Barrier Stability and Wear Behavior of CVD Deposited Aluminide Coatings for MAR 247 Nickel Superalloy. Materials, 2020, 13, 3863.	2.9	10
18	Damage Identification Supported by Nondestructive Testing Techniques. Advanced Structured Materials, 2020, , 67-117.	0.5	0

#	ARTICLE	IF	CITATIONS
19	Creep Deformation. , 2020, , 499-508.		1
20	Strength tests of polymer-glass composite to evaluate its operational suitability for ballistic shield plates. Eksploatacja I Niezawodnosc, 2020, 22, 592-600.	2.0	0
21	Tow truck frame made of high strength steel under cyclic loading. Materials Today: Proceedings, 2019, 12, 207-212.	1.8	5
22	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
23	Experimental and Numerical Investigation of Mechanical and Thermal Effects in TiNi SMA during Transformation-Induced Creep Phenomena. Materials, 2019, 12, 883.	2.9	3
24	Influences of Horizontal and Vertical Build Orientations and Post-Fabrication Processes on the Fatigue Behavior of Stainless Steel 316L Produced by Selective Laser Melting. Materials, 2019, 12, 4203.	2.9	30
25	Digital Image Correlation Technique as a Tool for Kinematics Assessment of Structural Components. Acta Mechanica Et Automatica, 2018, 12, 101-104.	0.6	5
26	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
27	Creep Deformation. , 2018, , 1-10.		0
28	Optimal Design of Disks Under Large Creep Deformation. Advanced Structured Materials, 2018, , 387-417.	0.5	0
29	The Dominant Influence of Plastic Deformation Induced Residual Stress on the Barkhausen Effect Signal in Martensitic Steels. Journal of Nondestructive Evaluation, 2017, 36, 1.	2.4	15
30	Stress Relaxation Effects in TiNi SMA During Superelastic Deformation: Experiment and Constitutive Model. Shape Memory and Superelasticity, 2017, 3, 392-402.	2.2	4
31	Determination of Artificial Defects in Material Under Monotonic Tension by the Use of FEM and DIC Methods. Materials Today: Proceedings, 2016, 3, 1171-1176.	1.8	3
32	Anti-buckling System for Flat Specimens Investigations under Cyclic Tension-compression. Materials Today: Proceedings, 2016, 3, 1045-1050.	1.8	6
33	Experimental and Numerical Investigations of the Effects Associated to Complex Loading Combinations. Advanced Structured Materials, 2015, , 117-142.	0.5	1
34	Methods for Creep Rupture Analysis – Previous Attempts and New Challenges. Advanced Structured Materials, 2015, , 163-198.	0.5	0
35	Anti-buckling Fixture for Large Deformation Tension – Compression Cyclic Loading of Thin Metal Sheets. Strain, 2014, 50, 174-183.	2.4	15
36	Material effects during monotonic-cyclic loading. International Journal of Solids and Structures, 2014, 51, 740-753.	2.7	12

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37	Compressive Viscoplastic Response of 6082 and 7075 Aluminium Alloys Under Wide Range of Strain Rate at Room Temperature: Experiments and Modelling. <i>Strain</i> , 2012, 48, 498-509.	2.4	45
38	Experimental analysis of creep and fatigue of light multifunctional aluminium alloys. <i>Materials Research Innovations</i> , 2011, 15, s53-s56.	2.3	2
39	Modification of simple deformation processes of metallic materials by means of cyclic loading. <i>Materials Research Innovations</i> , 2011, 15, s73-s76.	2.3	1
40	Creep and Low Cycle Fatigue Investigations of Light Aluminium Alloys for Engine Cylinder Heads. <i>Strain</i> , 2011, 47, 374-381.	2.4	9
41	Possibility of Application of Magnetoacoustic Emission for the Assessment of Plastic Deformation Level in Ferrous Materials. <i>IEEE Transactions on Magnetics</i> , 2011, 47, 2087-2092.	2.1	11
42	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
43	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
44	Experimental damage analysis of steels after exploitation loading. <i>EPJ Web of Conferences</i> , 2010, 6, 43001.	0.3	0
45	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
46	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
47	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
48	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
49	EVALUATION OF DAMAGE DEVELOPMENT IN STEELS SUBJECTED TO PRIOR DEFORMATION: DESTRUCTIVE AND NONDESTRUCTIVE TECHNIQUES. <i>Journal of Multiscale Modeling</i> , 2009, 01, 479-499.	1.1	4
50	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
51	EVALUATION OF DAMAGE IN STEELS SUBJECTED TO EXPLOITATION LOADING - DESTRUCTIVE AND NON-DESTRUCTIVE METHODS. , 2009, , .		1
52	AN INFLUENCE OF SELECTED MECHANICAL PARAMETERS OF MMC ON THE THERMAL SHOCK RESISTANCE. <i>International Journal of Modern Physics B</i> , 2008, 22, 5807-5812.	2.0	0
53	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
54	EVALUATION OF DAMAGE IN STEELS SUBJECTED TO EXPLOITATION LOADING - DESTRUCTIVE AND NON-DESTRUCTIVE METHODS. <i>International Journal of Modern Physics B</i> , 2008, 22, 5533-5538.	2.0	6

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55	Comparison of Properties of Magnetoacoustic Emission and Mechanical Barkhausen Effects for P91 Steel After Plastic Flow and Creep. IEEE Transactions on Magnetics, 2008, 44, 3273-3276.	2.1	22
56	Destructive and Ultrasonic Investigations of Damage Development in Metallic Materials. Key Engineering Materials, 2007, 340-341, 229-234.	0.4	3
57	Miniaturized Compression Test at Very High Strain Rates by Direct Impact. Experimental Mechanics, 2007, 47, 451-463.	2.0	32
58	Creep rupture of copper and aluminium alloy under combined loadings experiments and their various descriptions. International Journal of Mechanical Sciences, 2005, 47, 1038-1058.	6.7	27
59	Creep of Metals Subjected to Prior Plastic Deformation. Key Engineering Materials, 2004, 274-276, 913-918.	0.4	0
60	Isochronous creep rupture loci for metals under biaxial stress. Journal of Strain Analysis for Engineering Design, 2004, 39, 581-593.	1.8	6
61	Effects induced in metallic materials due to non-proportional cyclic loading. Journal of Materials Processing Technology, 2003, 143-144, 741-747.	6.3	1
62	The effects observed in engineering materials after annealing and ageing processes. Journal of Materials Processing Technology, 2001, 119, 165-173.	6.3	1
63	Assessment of cyclic properties of 18G2A low-alloy steel at biaxial stress state. Acta Mechanica, 1997, 120, 71-89.	2.1	8
64	Experimental investigation of an anisotropy in copper subjected to predeformation due to constant and monotonic loadings. International Journal of Plasticity, 1997, 13, 87-109.	8.8	13
65	Effect of cyclic loading on the yield surface evolution of 18G2A low-alloy steel. International Journal of Mechanical Sciences, 1997, 39, 51-68.	6.7	29
66	Experimental and theoretical evaluation of a high-accuracy uni-axial creep testpiece with slit extensometer ridges. International Journal of Mechanical Sciences, 1994, 36, 751-769.	6.7	17
67	Mechanisms-based creep constitutive equations for an aluminium alloy. Journal of Strain Analysis for Engineering Design, 1994, 29, 309-316.	1.8	164
68	Creep behavior of copper under plane stress state. International Journal of Plasticity, 1991, 7, 387-404.	8.8	8
69	A Role of Destructive and Non-Destructive Tests in Creep Damage Identification. Key Engineering Materials, 0, 488-489, 315-318.	0.4	0
70	An Influence of Step Cyclic Loading due to Torsion on Tensile Curve Variation. Key Engineering Materials, 0, 535-536, 181-184.	0.4	0
71	Experimental Assessment of Ball Joints Operation Using Servo-Hydraulic Testing Systems. Solid State Phenomena, 0, 240, 232-237.	0.3	1
72	Experimental analysis and modelling of fatigue crack initiation mechanisms. Journal of Theoretical and Applied Mechanics, 0, , 1443.	0.5	2

#	ARTICLE	IF	CITATIONS
73	Experimental investigation of thin brass sheets under tension-compression cyclic loading. Journal of Theoretical and Applied Mechanics, 0, , 757.	0.5	1