

Grzegorz Lesiuk

List of Publications by Year in descending order

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92
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304743

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98
all docs

98
docs citations

98
times ranked

723
citing authors

#	ARTICLE	IF	CITATIONS
1	A generalization of the fatigue Kohout-Váchet model for several fatigue damage parameters. Engineering Fracture Mechanics, 2017, 185, 284-300.	4.3	71
2	Nonlinear fatigue damage accumulation and life prediction of metals: A comparative study. Fatigue and Fracture of Engineering Materials and Structures, 2019, 42, 1271-1282.	3.4	65
3	Reliability analysis based on hybrid algorithm of M5 model tree and Monte Carlo simulation for corroded pipelines: Case of study X60 Steel grade pipes. Engineering Failure Analysis, 2019, 97, 793-803.	4.0	56
4	Experimental and numerical investigation of mixed mode I+II and I+III fatigue crack growth in S355JO steel. International Journal of Fatigue, 2018, 113, 160-170.	5.7	54
5	Mixed mode (I+II) fatigue crack growth in puddle iron. Engineering Fracture Mechanics, 2017, 185, 175-192.	4.3	46
6	Influence of loading direction on the static and fatigue fracture properties of the long term operated metallic materials. Engineering Failure Analysis, 2019, 96, 409-425.	4.0	35
7	Energy response of S355 and 41Cr4 steel during fatigue crack growth process. Journal of Strain Analysis for Engineering Design, 2018, 53, 663-675.	1.8	34
8	Influence of fillet end geometry on fatigue behaviour of welded joints. International Journal of Fatigue, 2019, 123, 196-212.	5.7	33
9	Kinetics of fatigue crack growth and crack closure effect in long term operating steel manufactured at the turn of the 19 th and 20 th centuries. Engineering Fracture Mechanics, 2017, 185, 160-174.	4.3	32
10	The influence of heat treatment on the behavior of fatigue crack growth in welded joints made of S355 under bending loading. International Journal of Fatigue, 2020, 131, 105328.	5.7	32
11	The mechanical properties and the microstructural degradation effect in an old low carbon steels after 100-years operating time. Archives of Civil and Mechanical Engineering, 2015, 15, 786-797.	3.8	30
12	Mixed mode I/II/III fatigue crack growth in S355 steel. Procedia Structural Integrity, 2017, 5, 896-903.	0.8	30
13	Features of the microstructural and mechanical degradation of long term operated mild steel. International Journal of Structural Integrity, 2018, 9, 296-306.	3.3	29
14	Evaluation of multiaxial high-cycle fatigue criteria under proportional loading for S355 steel. Engineering Failure Analysis, 2021, 120, 105037.	4.0	29
15	Fatigue resistance curves for single and double shear riveted joints from old portuguese metallic bridges. Engineering Failure Analysis, 2019, 96, 255-273.	4.0	28
16	Analysis of fatigue crack growth under mixed mode (I+II) loading conditions in rail steel using CTS specimen. Engineering Failure Analysis, 2020, 109, 104354.	4.0	26
17	Study of the Fatigue Crack Growth in Long-Term Operated Mild Steel under Mixed-Mode (I + II, I + III) Loading Conditions. Materials, 2020, 13, 160.	2.9	25
18	Fatigue crack growth modelling of FÁo Bridge puddle iron under variable amplitude loading. International Journal of Fatigue, 2020, 136, 105588.	5.7	25

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19	Fatigue assessment of EA4T railway axles under artificial surface damage. <i>International Journal of Fatigue</i> , 2021, 146, 106157.	5.7	25
20	Comparison of fatigue crack growth rate: Pearlitic rail versus bainitic rail. <i>International Journal of Fatigue</i> , 2021, 149, 106280.	5.7	25
21	Algorithms for the estimation of fatigue crack growth using energy method. <i>Archives of Civil and Mechanical Engineering</i> , 2009, 9, 119-134.	3.8	24
22	Aspects of structural degradation in steels of old bridges by means of fatigue crack propagation. <i>Materials Science</i> , 2011, 47, 82-88.	0.9	23
23	Fatigue crack propagation prediction of a pressure vessel mild steel based on a strain energy density model. <i>Frattura Ed Integrita Strutturale</i> , 2017, 11, 74-84.	0.9	22
24	Probabilistic fatigue S-N curves derivation for notched components. <i>Frattura Ed Integrita Strutturale</i> , 2017, 11, 105-118.	0.9	19
25	Fatigue crack growth rate in CFRP reinforced constructional old steel. <i>International Journal of Structural Integrity</i> , 2018, 9, 381-395.	3.3	18
26	A comparison between S-N Logistic and Kohout-Váchet formulations applied to the fatigue data of old metallic bridges materials. <i>Frattura Ed Integrita Strutturale</i> , 2019, 13, 400-410.	0.9	17
27	Mixed Mode (I+II) Fatigue Crack Growth of Long Term Operating Bridge Steel. <i>Procedia Engineering</i> , 2016, 160, 262-269.	1.2	16
28	Fatigue Strength Evaluation of Resin-Injected Bolted Connections Using Statistical Analysis. <i>Engineering</i> , 2017, 3, 795-805.	6.7	16
29	Improved manufacturing performance of a new antifriction composite parts based on copper. <i>Engineering Failure Analysis</i> , 2018, 91, 225-233.	4.0	16
30	Probabilistic Fatigue Crack Initiation and Propagation Fields Using the Strain Energy Density. <i>Strength of Materials</i> , 2018, 50, 620-635.	0.5	16
31	Influence of Polyurea Composite Coating on Selected Mechanical Properties of AISI 304 Steel. <i>Materials</i> , 2019, 12, 3137.	2.9	16
32	Fatigue performance prediction of S235 base steel plates in the riveted connections. <i>Structures</i> , 2021, 30, 745-755.	3.6	16
33	Structural Reliability Analysis of Corroded Pipeline made in X60 Steel Based on M5 Model Tree Algorithm and Monte Carlo Simulation. <i>Procedia Structural Integrity</i> , 2018, 13, 1670-1675.	0.8	15
34	Fatigue Crack Growth Rate of the Long Term Operated Puddle Iron from the Eiffel Bridge. <i>Metals</i> , 2019, 9, 53.	2.3	13
35	Fatigue crack propagation behavior of old puddle iron including crack closure effects. <i>Procedia Structural Integrity</i> , 2016, 2, 3218-3225.	0.8	12
36	Comparison of high and low frequency fatigue properties of structural steels S355J0 and S355J2. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2021, 44, 3202-3213.	3.4	12

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37	Fatigue crack growth of 42CrMo4 and 41Cr4 steels under different heat treatment conditions. International Journal of Structural Integrity, 2018, 9, 326-336.	3.3	11
38	Low-cycle fatigue modelling supported by strain energy density-based Huffman model considering the variability of dislocation density. Engineering Failure Analysis, 2021, 128, 105608.	4.0	11
39	Minimal Invasive Diagnostic Capabilities and Effectiveness of CFRP-Patches Repairs in Long-Term Operated Metals. Metals, 2020, 10, 984.	2.3	10
40	Fatigue strength assessment of riveted details in railway metallic bridges. Engineering Failure Analysis, 2021, 121, 105120.	4.0	10
41	Improvement of the fatigue crack growth resistance in long term operated steel strengthened with CFRP patches. Procedia Structural Integrity, 2017, 5, 912-919.	0.8	9
42	Mixed mode (I+II, I+III) fatigue crack growth rate description in P355NL1 and 18G2A steel using new energy parameter based on J-integral approach. Engineering Failure Analysis, 2019, 99, 263-272.	4.0	9
43	Determination of fracture energy (mode I) in the inverse fiber metal laminates using experimental-numerical approach. International Journal of Fracture, 2022, 234, 213-222.	2.2	9
44	Application and discussion of various crack closure models to predict fatigue crack growth in 6061-T651 aluminium alloy. International Journal of Fatigue, 2021, 153, 106472.	5.7	9
45	Static and Flexural Fatigue Behavior of GFRP Pultruded Rebars. Materials, 2021, 14, 297.	2.9	9
46	Degradation Theory of Long Term Operated Materials and Structures. Structural Integrity, 2021, , .	1.4	8
47	Rheological Relaxation of OSB Beams Reinforced with CFRP Composites. Materials, 2021, 14, 7527.	2.9	8
48	Fatigue Properties and Fatigue Crack Growth in Puddled Steel with Consideration of Microstructural Degradation Processes after 100-years Operating Time. Procedia Engineering, 2014, 74, 64-67.	1.2	7
49	Fatigue crack growth behaviour of the 6082-T6 aluminium using CT specimens with distinct notches. Procedia Structural Integrity, 2016, 2, 3272-3279.	0.8	7
50	Energy description of fatigue crack growth process - theoretical and experimental approach. Procedia Structural Integrity, 2017, 5, 904-911.	0.8	7
51	The Mechanical Investigation of Filament-Wound CFRP Structures Subjected to Different Cooling Rates in Terms of Compressive Loading and Residual Stresses—An Experimental Approach. Materials, 2021, 14, 1041.	2.9	7
52	On the relationship between modification of Bi ₂ O ₃ by Sb and type of grain boundaries in ZnO-based varistors. Engineering Failure Analysis, 2021, 122, 105251.	4.0	7
53	Statistical analysis of fatigue crack propagation data of materials from ancient portuguese metallic bridges. Frattura Ed Integrita Strutturale, 2017, 11, 136-146.	0.9	7
54	Description of fatigue crack growth in steel structural components using energy approach - Influence of the microstructure on the FCGR. AIP Conference Proceedings, 2016, , .	0.4	6

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55	Fatigue failure assessment of S355J2G1W structural steel under biaxial in- and out of phase loading regarding geometrical constraints of samples. <i>Engineering Failure Analysis</i> , 2020, 117, 104785.	4.0	6
56	Flexural Pseudo-Ductility Effect in Hybrid GFRP/CFRP Bars under Static Loading Conditions. <i>Materials</i> , 2021, 14, 5608.	2.9	6
57	The energy approach to fatigue crack growth of S355 steel welded specimens subjected to bending. <i>Theoretical and Applied Fracture Mechanics</i> , 2022, 121, 103470.	4.7	6
58	Fatigue Life Response of P355NL1 Steel under Uniaxial Loading Using Kohout-Väçhet Model. <i>Procedia Engineering</i> , 2016, 160, 109-116.	1.2	5
59	Mixed mode (I+II) fatigue crack paths in S355J0 steel in terms of fractal geometry. <i>AIP Conference Proceedings</i> , 2018, , .	0.4	5
60	Application of a New, Energy-Based $\dot{\gamma}^m S^*$ Crack Driving Force for Fatigue Crack Growth Rate Description. <i>Materials</i> , 2019, 12, 518.	2.9	5
61	Fracture behaviour of engineering stone material. <i>International Journal of Structural Integrity</i> , 2019, 12, 70-88.	3.3	5
62	Case Studies: Structural, Fractographic and Mechanical Aspects of the Steels Degradation of the Hyperboloid Gridshell Towers. <i>Structural Integrity</i> , 2021, , 95-125.	1.4	5
63	Fatigue crack growth modelling by means of the strain energy density-based Huffman model considering the residual stress effect. <i>Engineering Failure Analysis</i> , 2022, 140, 106543.	4.0	5
64	Recent developments on experimental techniques, fracture mechanics and fatigue approaches. <i>Journal of Strain Analysis for Engineering Design</i> , 2018, 53, 545-545.	1.8	4
65	Mean stress effect and fatigue crack closure in material from old bridge erected in the late 19th century. <i>Procedia Structural Integrity</i> , 2019, 17, 198-205.	0.8	4
66	Sensitivity of Puddled Steels to Stress Corrosion Cracking and Estimation of Their State with Using Electrochemical Parameters. <i>Structural Integrity</i> , 2021, , 55-93.	1.4	4
67	Analysis of the Deceleration Methods of Fatigue Crack Growth Rates under Mode I Loading Type in Pearlitic Rail Steel. <i>Metals</i> , 2021, 11, 584.	2.3	4
68	Numerical estimation of stress intensity factors and crack propagation in lug connector with existing flaw. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	4
69	A NEW METHOD FOR COMPLEXITY DETERMINATION BY USING FRACTALS AND ITS APPLICATIONS IN MATERIAL SURFACE CHARACTERISTICS. <i>International Journal for Quality Research</i> , 2020, 14, 705-716.	1.0	4
70	Fatigue lifetime improvement in AISI 304 stainless steel due to high-density electropulsing. <i>Procedia Structural Integrity</i> , 2017, 5, 928-934.	0.8	3
71	FRACTURE RESISTANCE ANALYSIS OF PEEK-POLYMER. <i>Engineering Structures and Technologies</i> , 2017, 9, 207-213.	0.1	3
72	MECHANICAL CHARACTERIZATION OF ANCIENT PORTUGUESE RIVETED BRIDGES STEELS. <i>Engineering Structures and Technologies</i> , 2017, 9, 214-225.	0.1	3

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73	Structural integrity assessment of rigid polyurethane components using energy methods. <i>Procedia Structural Integrity</i> , 2018, 13, 1595-1599.	0.8	3
74	Influence of reinforcement type on the flexural behaviour of reinforced concrete beams. <i>Proceedings of the Institution of Civil Engineers: Forensic Engineering</i> , 2019, 172, 158-166.	0.5	3
75	Kinetics of fatigue crack growth and crack paths in the old puddled steel after 100-years operating time. <i>Frattura Ed Integrita Strutturale</i> , 2015, 9, .	0.9	3
76	Root causes analysis of differential pinion shaft assembly failure in WRX class car. <i>International Journal of Structural Integrity</i> , 2017, 8, 694-706.	3.3	2
77	Pre-Strain Effects on Mixed-Mode Fatigue Crack Propagation Behaviour of the P355NL1 Pressure Vessels Steel. , 2018, , .		2
78	Study on Electric-Magnetic-Acoustic Signal Regularity and Its Correlation during Rock Shear Failure. <i>Advances in Materials Science and Engineering</i> , 2019, 2019, 1-12.	1.8	2
79	Crack Propagation Under Cyclic Bending in Welded Specimens After Heat Treatment. <i>Structural Integrity</i> , 2019, , 169-174.	1.4	2
80	Assessment of the risk of fatigue damage in biaxial stress state. <i>Procedia Structural Integrity</i> , 2019, 22, 393-400.	0.8	2
81	Mechanical Properties, Microstructure and Degradation Processes in Long-Term Operated Bridge Materials from the 19th Century and Early 20th Century. <i>Structural Integrity</i> , 2021, , 21-53.	1.4	2
82	Introduction to the Degradation Theory of Low Carbon Steels. <i>Structural Integrity</i> , 2021, , 1-19.	1.4	2
83	Fatigue crack growth in welded S355 specimens subjected to combined loadings. <i>Frattura Ed Integrita Strutturale</i> , 2019, 13, 10-17.	0.9	2
84	Fatigue crack growth under mixed-mode I+II and I+III in heat treated 42CrMo4 steel. <i>International Journal of Fracture</i> , 2022, 234, 235-248.	2.2	2
85	Evaluation of microstructural complex geometry of robot laser hardened materials through a genetic programming model. <i>Procedia Manufacturing</i> , 2021, 55, 253-259.	1.9	2
86	Static failure load predictions in notched steel components using a combined experimental-numerical approach. <i>International Journal of Structural Integrity</i> , 2017, 8, 683-693.	3.3	1
87	Mixed mode (I+II, I+III) fatigue crack growth description in S355/P355NL1 steel. <i>Procedia Structural Integrity</i> , 2019, 16, 51-58.	0.8	1
88	Fatigue tests of materials with the controlled energy parameter amplitude. <i>Procedia Structural Integrity</i> , 2019, 17, 503-508.	0.8	1
89	New method for modeling the topographical property of metals and its application in robot laser hardening with overlapping. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 659, 012084.	0.6	1
90	Fatigue Behaviour of Bolted Connections Applied in Racking Structures. <i>Experimental Perspective. Procedia Structural Integrity</i> , 2019, 22, 401-406.	0.8	0

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91	Cumulation of Failure and Crack Growth in Materials. Advances in Materials Science and Engineering, 2020, 2020, 1-2.	1.8	0
92	Fractography Study of the Mixed Mode Fatigue Crack Growth Process in Pressure Vessel P355NL1 Steel. , 2019, , .		0