

Takayuki Shiraiwa

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Effect of crystallographic orientation and geometrical compatibility on fatigue crack initiation and propagation in rolled Ti-6Al-4V alloy. <i>Acta Materialia</i> , 2019, 177, 56-67.	3.8	112
2	Microstructure modeling and crystal plasticity simulations for the evaluation of fatigue crack initiation in α -iron specimen including an elliptic defect. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 695, 165-177.	2.6	60
3	Numerical investigation of the influence of twinning/detwinning on fatigue crack initiation in AZ31 magnesium alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 753, 79-90.	2.6	41
4	Numerical investigation of the influence of rolling texture and microstructure on fatigue crack initiation in BCC polycrystals. <i>International Journal of Fatigue</i> , 2018, 107, 72-82.	2.8	32
5	Prediction of Cyclic Stress-Strain Property of Steels by Crystal Plasticity Simulations and Machine Learning. <i>Materials</i> , 2019, 12, 3668.	1.3	27
6	Mechanical properties and failure mechanisms of Mg-Zn-Y alloys with different extrusion ratio and LPSO volume fraction. <i>Journal of Magnesium and Alloys</i> , 2022, 10, 2158-2172.	5.5	24
7	Nucleation and propagation modeling of short fatigue crack in rolled bi-modal Ti-6Al-4V alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 790, 139710.	2.6	23
8	Prediction of Fatigue Strength in Steels by Linear Regression and Neural Network. <i>Materials Transactions</i> , 2018, 60, 189-198.	0.4	21
9	Development of integrated framework for fatigue life prediction in welded structures. <i>Engineering Fracture Mechanics</i> , 2018, 198, 158-170.	2.0	20
10	Modeling and Crystal Plasticity Simulations of Lath Martensitic Steel under Fatigue Loading. <i>Materials Transactions</i> , 2018, 60, 199-206.	0.4	18
11	Analysis of kinking and twinning behavior in extruded Mg-Y-Zn alloys by acoustic emission method with supervised machine learning technique. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 768, 138473.	2.6	18
12	Micromechanical investigation of the effect of the crystal orientation on the local deformation path and ductile void nucleation in dual-phase steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 826, 141933.	2.6	18
13	Evaluation of hydrogen-induced cracking in high-strength steel welded joints by acoustic emission technique. <i>Materials and Design</i> , 2020, 190, 108573.	3.3	17
14	Evaluation of the deformation behavior in directionally solidified Mg-Y-Zn alloys containing LPSO phases by AE analysis. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 689, 157-165.	2.6	16
15	Fatigue Crack Initiation Simulation in Pure Iron Polycrystalline Aggregate. <i>Materials Transactions</i> , 2016, 57, 1741-1746.	0.4	15
16	Monotonic and cyclic anisotropies of an extruded Mg-Al-Ca-Mn alloy plate: Experiments and crystal plasticity studies. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 772, 138753.	2.6	12
17	Effect of microstructure of simulated heat-affected zone on low-to high-cycle fatigue properties of low-carbon steels. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2020, 43, 1239-1249.	1.7	12
18	Acoustic emission analysis during fatigue crack propagation by Bayesian statistical modeling. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 778, 139087.	2.6	12

#	ARTICLE	IF	CITATIONS
19	The effect of the 18R-LPSO phase on the fatigue behavior of extruded Mg/LPSO two-phase alloy through a comparative experimental-numerical study. <i>Journal of Magnesium and Alloys</i> , 2021, 9, 130-143.	5.5	12
20	Effect of macrozones on fatigue crack initiation and propagation mechanisms in a forged ti-6Al-4V alloy under fully-reversed condition. <i>Materialia</i> , 2022, 22, 101401.	1.3	11
21	Acoustic emission analysis using Bayesian model selection for damage characterization in ceramic matrix composites. <i>Journal of the European Ceramic Society</i> , 2020, 40, 2791-2800.	2.8	10
22	Fatigue Crack Length Measurement of Sputtered Metal Film for RFID-based Smart Stress Memory Patch. <i>ISIJ International</i> , 2011, 51, 1480-1486.	0.6	9
23	Effect of long period stacking ordered phase on the fatigue properties of extruded Mg-Y-Zn alloys. <i>International Journal of Fatigue</i> , 2019, 128, 105205.	2.8	7
24	Multiscale Analysis of MnS Inclusion Distributions in High Strength Steel. <i>ISIJ International</i> , 2020, 60, 1714-1723.	0.6	7
25	Prediction of Fatigue Life of Steels in Consideration of Defect-induced Crack Initiation and Propagation. <i>ISIJ International</i> , 2020, 60, 799-806.	0.6	7
26	Data Assimilation in the Welding Process for Analysis of Weld Toe Geometry and Heat Source Model. <i>ISIJ International</i> , 2020, 60, 1301-1311.	0.6	7
27	Fatigue Performance Prediction of Structural Materials by Multi-scale Modeling and Machine Learning. <i>Minerals, Metals and Materials Series</i> , 2017, , 317-326.	0.3	6
28	Crystallography and deformation behavior of ϵ phase precipitate at twin/matrix interface in a cold rolled metastable Ti-12Mo alloy. <i>Journal of Alloys and Compounds</i> , 2022, 892, 162234.	2.8	6
29	Strain-Controlled Fatigue Behavior in Thin Pure Copper Sheet for Smart Stress-Memory Patch. <i>Materials Transactions</i> , 2012, 53, 690-695.	0.4	5
30	Effect of overload on fatigue crack growth behavior of thin copper foil. <i>International Journal of Fatigue</i> , 2019, 126, 202-209.	2.8	5
31	Evaluation of Fatigue Properties of Steel Bar by Smart Stress-memory Patch. <i>ISIJ International</i> , 2011, 51, 250-255.	0.6	5
32	Evaluation of Torsional Fatigue Behavior of Coronary Stents. <i>Materials Transactions</i> , 2015, 56, 1257-1261.	0.4	4
33	Detection of Crack Propagation by AE and Evaluation of Fracture Toughness in Various Mg Alloys. <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , 2014, 78, 381-387.	0.2	3
34	AE Analysis of Compression Test with Different Loading Direction of Unidirectional Solidification LPSO-Mg Alloys. <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , 2016, 80, 697-701.	0.2	3
35	Evaluation of Mechanical Properties of Catheter Shafts under Cyclic Bending. <i>Materials Transactions</i> , 2017, 58, 1049-1054.	0.4	3
36	Exploration of outliers in strength-ductility relationship of dual-phase steels. <i>Science and Technology of Advanced Materials Methods</i> , 2022, 2, 175-197.	0.4	3

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37	Fatigue crack behavior of thin copper sheet and its application for smart stress-memory patch. Strength, Fracture and Complexity, 2011, 7, 205-214.	0.2	1
38	Effect of Specimen Shape on Fatigue Behavior in Thin Pure Copper Sheet for Smart Stress-memory Patch. ISIJ International, 2014, 54, 2342-2348.	0.6	1
39	Effects of Fabrication Method, Shape, Strain and Temperature on Conductive Properties of Smart Stress-Memory Patch. Materials Transactions, 2014, 55, 1464-1470.	0.4	1
40	Clustering Analysis of Acoustic Emission Signals during Compression Tests in Mille-Feuille Structure Materials. Materials Transactions, 2022, 63, .	0.4	1
41	Detection of Fracture in Structural Adhesive Using RFID Tags. Materials Transactions, 2014, 55, 1722-1726.	0.4	0
42	Investigation of Static and Fatigue Behavior of Periodic Mesh Plates Using Acoustic Emission Method. Materials Transactions, 2015, 56, 576-580.	0.4	0
43	Fatigue Life Prediction of Welded Joint by Microstructure-based Simulation. MATEC Web of Conferences, 2019, 269, 03005.	0.1	0
44	Evaluation of Mechanical Property of Catheter Shaft under Cyclic Bending. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2018, 65, 301-306.	0.1	0