Leila Ladani

List of Publications by Year
in descending order

84	1,753	318942	340414
papers	citations	23 h-index	39 g-index

87	87	87	1645
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Process Parameter Optimization in Metal Laser-Based Powder Bed Fusion Using Image Processing and Statistical Analyses. Metals, 2022, 12, 87.	1.0	5
2	Grain Scale Investigation of the Mechanical Anisotropic Behavior of Electron Beam Powder Bed Additively Manufactured Ti6Al4V Parts. Metals, 2022, 12, 163.	1.0	3
3	Finite Element Modeling of Quantitative Ultrasound Analysis of the Surgical Margin of Breast Tumor. Tomography, 2022, 8, 570-584.	0.8	3
4	Finite Element Analysis of Identifying Breast Cancer Tumor Grades Through Frequency Spectral Variation of High-Frequency Ultrasound. , 2022, 1, 100003.		0
5	Location-dependent deformation behavior of additively manufactured copper and copper-carbon nanotube composite. Journal of Alloys and Compounds, 2022, 909, 164800.	2.8	3
6	Computational Modeling of Ultrasound C-Scan Imaging Using Transmitted Signal Peak Density. Applied Sciences (Switzerland), 2021, 11, 4924.	1.3	5
7	Defect analysis and fatigue strength prediction of as-built Ti6Al4V parts, produced using electron beam melting (EBM) AM technology. Materialia, 2021, 16, 101041.	1.3	24
8	Applications of artificial intelligence and machine learning in metal additive manufacturing. JPhys Materials, 2021, 4, 042009.	1.8	10
9	Review of Powder Bed Fusion Additive Manufacturing for Metals. Metals, 2021, 11, 1391.	1.0	63
10	Towards developing multiscale-multiphysics models and their surrogates for digital twins of metal additive manufacturing. Additive Manufacturing, 2021, 46, 102089.	1.7	34
11	Mechanical Behavior of Electron Beam Powder Bed Fusion Additively Manufactured Ti6Al4V Parts at Elevated Temperatures. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2021, 143, .	1.3	14
12	Temperature Profile, Bead Geometry, and Elemental Evaporation in Laser Powder Bed Fusion Additive Manufacturing Process. Jom, 2020, 72, 429-439.	0.9	32
13	Development of High-Temperature-Resistant Seed Layer for Electrodeposition of Copper for Microelectronic Applications. Journal of Electronic Materials, 2020, 49, 1387-1395.	1.0	11
14	Experimental measurement of thermal diffusivity, conductivity and specific heat capacity of metallic powders at room and high temperatures. Powder Technology, 2020, 374, 648-657.	2.1	20
15	Relationship between peak density and acoustic scattering in high-frequency ultrasound wave propagation. SN Applied Sciences, 2020, 2, 1.	1.5	8
16	Mechanical Anisotropy and Surface Roughness in Additively Manufactured Parts Fabricated by Stereolithography (SLA) Using Statistical Analysis. Materials, 2020, 13, 2496.	1.3	28
17	Laser Interaction with Surface in Powder Bed Melting Process and Its Impact on Temperature Profile, Bead and Melt Pool Geometry. Minerals, Metals and Materials Series, 2019, , 319-329.	0.3	2
18	The Potential for Metalâ€“Carbon Nanotubes Composites as Interconnects. Journal of Electronic Materials, 2019, 48, 92-98.	1.0	12

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19	High-Frequency Ultrasound Analysis in Both Experimental and Computation Level to Understand the Microstructural Change in Soft Tissues. Minerals, Metals and Materials Series, 2019, , 87-97.	0.3	1
20	Examination of a spectral-based ultrasonic analysis method for materials characterization and evaluation. Biomedical Signal Processing and Control, 2018, 40, 454-461.	3.5	6
21	Direct metal laser melting of Inconel 718: Process impact on grain formation and orientation. Journal of Alloys and Compounds, 2018, 736, 297-305.	2.8	71
22	Multi-Physics Modeling of Laser Interaction With Surface in Powder Bed Melting Process. , 2018, , .		4
23	Influence of Microstructure on the High-Frequency Ultrasound Measurement of Peak Density. Journal of Nondestructive Evaluation, Diagnostics and Prognostics of Engineering Systems, 2018, 1, .	0.7	2
24	Fabrication of carbon nanotube/copper and carbon nanofiber/copper composites for microelectronics. Materials Today Communications, 2017, 11, 123-131.	0.9	19
25	Effective liquid conductivity for improved simulation of thermal transport in laser beam melting powder bed technology. Additive Manufacturing, 2017, 14, 13-23.	1.7	61
26	Finite element simulation of laser additive melting and solidification of Inconel 718 with experimentally tested thermal properties. Finite Elements in Analysis and Design, 2017, 135, 36-43.	1.7	67
27	Multiscale Modeling of Novel Carbon Nanotube/Copper-Composite Material Used in Microelectronics. Journal of Multiscale Modeling, 2016, 07, 1650001.	1.0	2
28	Optimizing quality of additively manufactured Inconel 718 using powder bed laser melting process. Additive Manufacturing, 2016, 11, 60-70.	1.7	95
29	Local shear stress-strain response of Sn-3.5Ag/Cu solder joint with high fraction of intermetallic compounds: Experimental analysis. Journal of Alloys and Compounds, 2016, 680, 665-676.	2.8	49
30	Miniaturization of Micro-Solder Bumps and Effect of IMC on Stress Distribution. Journal of Electronic Materials, 2016, 45, 3683-3694.	1.0	12
31	Investigating ultrasound imaging in the frequency domain for tissue characterisation. Nondestructive Testing and Evaluation, 2016, 31, 209-218.	1.1	5
32	Laser Additive Melting and Solidification of Inconel 718: Finite Element Simulation and Experiment. Jom, 2016, 68, 967-977.	0.9	52
33	Strength and Failure of Ultrafine Grain and Bimodal Al-Mg Alloy at High Temperatures. Minerals, Metals and Materials Series, 2016, , 279-282.	0.3	0
34	Local and Global Mechanical Behavior and Microstructure of Ti6Al4V Parts Built Using Electron Beam Melting Technology. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 3835-3841.	1.1	44
35	Effect of Intermetallic Compounds on the Thermomechanical Fatigue Life of Three-Dimensional Integrated Circuit Package Microsolder Bumps: Finite Element Analysis and Study. Journal of Electronic Packaging, Transactions of the ASME, 2015, 137, .	1.2	22
36	Thermal Modeling of Laser Based Additive Manufacturing Processes within Common Materials. Procedia Manufacturing, 2015, 1, 238-250.	1.9	90

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37	Mechanical integrity of a carbon nanotube/copper-based through-silicon via for 3D integrated circuits: a multi-scale modeling approach. Nanotechnology, 2015, 26, 485705.	1.3	11
38	Structural Size Effect on Mechanical Behavior of Intermetallic Material in Solder Joints: Experimental Investigation. Journal of Electronic Packaging, Transactions of the ASME, 2015, 137, .	1.2	2
39	Single Crystal Plasticity Finite Element Analysis of Cu6Sn5 Intermetallic. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 1108-1118.	1.1	13
40	Temperature distribution and melt geometry in laser and electron-beam melting processes â€“ A comparison among common materials. Additive Manufacturing, 2015, 8, 1-11.	1.7	66
41	Copper-CNT Hybrid TSVs: Thermo-Mechanical Stresses and Reliability Analysis. International Journal of High Speed Electronics and Systems, 2015, 24, 1550006.	0.3	5
42	Representation of a microstructure with bimodal grain size distribution through crystal plasticity and cohesive interface modeling. Mechanics of Materials, 2015, 82, 1-12.	1.7	37
43	Deformation and Failure of an Al-Mg Alloy Investigated Through Multiscale Microstructural Models. , 2015, , 245-249.		0
44	Performance of piles in integral abutment bridges under thermo-mechanical cyclic loads. Bridge Structures, 2014, 10, 11-17.	0.2	3
45	Mechanical Anisotropy and Strain Rate Dependency Behavior of Ti6Al4V Produced Using E-Beam Additive Fabrication. Journal of Engineering Materials and Technology, Transactions of the ASME, 2014, 136, .	0.8	61
46	Grain Growth Orientation and Anisotropy in Cu6Sn5 Intermetallic: Nanoindentation and Electron Backscatter Diffraction Analysis. Journal of Electronic Materials, 2014, 43, 996-1004.	1.0	29
47	Finite element simulation of pile behaviour under thermo-mechanical loading in integral abutment bridges. Structure and Infrastructure Engineering, 2014, 10, 643-653.	2.0	9
48	Molecular Dynamics Simulation of Mechanical Interface Behavior of Copper and Single Walled Carbon Nanotube Bundles. , 2014, , .		2
49	Cohesive Zone Model for the Interface of Multiwalled Carbon Nanotubes and Copper: Molecular Dynamics Simulation. Journal of Nanotechnology in Engineering and Medicine, 2014, 5, .	0.8	12
50	Anisotropic Behavior of Single Grain Cu6Sn5 Intermetallic. , 2014, , .		1
51	Effect of Varying Test Parameters on Elasticâ€“plastic Properties Extracted by Nanoindentation Tests. Experimental Mechanics, 2013, 53, 1299-1309.	1.1	7
52	Temperature dependency of mechanical behavior and strain rate sensitivity of an Alâ€“Mg alloy with bimodal grain size. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 582, 276-283.	2.6	15
53	Fatigue Crack Initiation and Propagation in Piles of Integral Abutment Bridges. Computer-Aided Civil and Infrastructure Engineering, 2013, 28, 389-402.	6.3	14
54	Mechanical Behavior of Ti-6Al-4V Manufactured by Electron Beam Additive Fabrication. , 2013, , .		8

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55	Effect of Joint Size on Microstructure and Growth Kinetics of Intermetallic Compounds in Solid-Liquid Interdiffusion Sn3.5Ag/Cu-Substrate Solder Joints. Journal of Electronic Packaging, Transactions of the ASME, 2013, 135, .	1.2	16
56	Fatigue Life of Piles in Integral-Abutment Bridges: Case Study. Journal of Bridge Engineering, 2013, 18, 1105-1117.	1.4	12
57	Interfacial Strength Between Single Wall Carbon Nanotubes and Copper Material: Molecular Dynamics Simulation. Journal of Nanotechnology in Engineering and Medicine, 2013, 4, .	0.8	12
58	Experimental Observation of the Effect of Crystallographic Orientation on Mechanical Behavior of Single Crystal Cu6Sn5 Intermetallic. , 2013, , .		1
59	Optimization of Preparation Process for Successful Electron Backscatter Diffraction of Multilayer Specimens: Application to Lead-Free Solder Joints. Journal of Advanced Microscopy Research, 2013, 8, 10-20.	0.3	1
60	Effects of tensile test parameters on the mechanical properties of a bimodal Alâ€“Mg alloy. Acta Materialia, 2012, 60, 5838-5849.	3.8	54
61	IMC growth of Sn-3.5Ag/Cu system: Combined chemical reaction and diffusion mechanisms. Journal of Alloys and Compounds, 2012, 537, 87-99.	2.8	98
62	Complete mechanical characterization of nanocrystalline Alâ€“Mg alloy using nanoindentation. Mechanics of Materials, 2012, 52, 1-11.	1.7	25
63	Mechanical Strength and Failure Characterization of Sn-Ag-Cu Intermetallic Compound Joints at the Microscale. Journal of Electronic Materials, 2012, 41, 573-579.	1.0	4
64	In Vivo Mechanical Characterization of Micro-Specimens Using a Novel Micro-Electro-Mechanical System. , 2011, , .		0
65	Fracture toughness of bonds using interfacial stresses in four-point bending test. Mechanics of Materials, 2011, 43, 885-900.	1.7	14
66	Fatigue and monotonic loading crack nucleation and propagation in bimodal grain size aluminum alloy. Acta Materialia, 2011, 59, 3550-3570.	3.8	39
67	Fatigue Crack Initiation and Propagation in Aileron Lever Using Successive-Initiation Modeling Approach. Journal of Aircraft, 2011, 48, 1387-1395.	1.7	3
68	Transition of Crack Propagation Path Under Varied Levels of Load in Bimodal Grain Size Al-Mg Alloy. Journal of Engineering Materials and Technology, Transactions of the ASME, 2011, 133, .	0.8	6
69	Stress analysis of 3-dimensional IC package as function of structural design parameters. Microelectronic Engineering, 2010, 87, 1852-1860.	1.1	18
70	Numerical analysis of thermo-mechanical reliability of through silicon vias (TSVs) and solder interconnects in 3-dimensional integrated circuits. Microelectronic Engineering, 2010, 87, 208-215.	1.1	96
71	Microstructure and mechanical strength of snag-based solid liquid inter-diffusion bonds for 3 dimensional integrated circuits. Thin Solid Films, 2010, 518, 4948-4954.	0.8	3
72	A Novel Piezo-Actuator-Sensor Micromachine for Mechanical Characterization of Micro-Specimens. Micromachines, 2010, 1, 129-152.	1.4	6

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73	An anisotropic mechanical fatigue damage evolution model for Pb-free solder materials. Mechanics of Materials, 2009, 41, 878-885.	1.7	12
74	A meso-scale damage evolution model for cyclic fatigue of viscoplastic materials. International Journal of Fatigue, 2009, 31, 703-711.	2.8	27
75	Interaction Effect of Voids and Standoff Height on Thermomechanical Durability of BGA Solder Joints. IEEE Transactions on Device and Materials Reliability, 2009, 9, 348-355.	1.5	13
76	Effect of Selected Process Parameters on Durability and Defects in Surface-Mount Assemblies for Portable Electronics. IEEE Transactions on Electronics Packaging Manufacturing, 2008, 31, 51-60.	1.6	22
77	Reliability estimation for large-area solder joints using explicit modeling of damage. IEEE Transactions on Device and Materials Reliability, 2008, 8, 375-386.	1.5	17
78	Damage Initiation and Propagation in Voided Joints: Modeling and Experiment. Journal of Electronic Packaging, Transactions of the ASME, 2008, 130, .	1.2	37
79	Estimating fatigue damage model constants with maximum likelihood method. International Journal of Materials and Structural Integrity, 2008, 2, 164.	0.1	0
80	Effect of Voids on Thermomechanical Durability of Pb-Free BGA Solder Joints: Modeling and Simulation. Journal of Electronic Packaging, Transactions of the ASME, 2007, 129, 273-277.	1.2	30
81	Effect of Design Variables on Voids and Thermal Performance of QFN Packages. , 2007, , .		0
82	Implementation of Six Sigma quality system in Celestica with practical examples. International Journal of Six Sigma and Competitive Advantage, 2006, 2, 69.	0.3	5
83	Effect of Voids on Thermo-Mechanical Durability of Pb-Free BGA Solder Joints: Modeling and Simulation. , 2005, , 57.		5
84	Global local modeling of melt pool dynamics and bead formation in laser bed powder fusion additive manufacturing using a multi-physics thermo-fluid simulation. Progress in Additive Manufacturing, 0, , .	2.5	2