

Wei Tong

List of Publications by Year in descending order

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74
papers

2,474
citations

257101

24
h-index

197535

49
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78
all docs

78
docs citations

78
times ranked

1694
citing authors

#	ARTICLE	IF	CITATIONS
1	Fast, Robust and Accurate Digital Image Correlation Calculation Without Redundant Computations. <i>Experimental Mechanics</i> , 2013, 53, 1277-1289.	1.1	400
2	An Evaluation of Digital Image Correlation Criteria for Strain Mapping Applications. <i>Strain</i> , 2005, 41, 167-175.	1.4	227
3	Spatio-temporal characteristics of the Portevinâ€œLe Châ€telier effect in austenitic steel with twinning induced plasticity. <i>International Journal of Plasticity</i> , 2009, 25, 2298-2330.	4.1	161
4	Microstructural effects of AZ31 magnesium alloy on its tensile deformation and failure behaviors. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006, 418, 341-356.	2.6	143
5	Pressure-shear impact investigation of strain rate history effects in oxygen-free high-conductivity copper. <i>Journal of the Mechanics and Physics of Solids</i> , 1992, 40, 1251-1294.	2.3	111
6	Deformation and fracture of miniature tensile bars with resistance-spot-weld microstructures. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2005, 36, 2651-2669.	1.1	100
7	An experimental study on grain deformation and interactions in an Al-0.5%Mg multicrystal. <i>International Journal of Plasticity</i> , 2004, 20, 523-542.	4.1	98
8	Time-resolved strain mapping measurements of individual Portevinâ€œLe Chatelier deformation bands. <i>Scripta Materialia</i> , 2005, 53, 87-92.	2.6	97
9	Cracking and decohesion of a thin Al ₂ O ₃ film on a ductile Alâ€œ5%Mg substrate. <i>Acta Materialia</i> , 2005, 53, 477-485.	3.8	82
10	Detection of plastic deformation patterns in a binary aluminum alloy. <i>Experimental Mechanics</i> , 1997, 37, 452-459.	1.1	76
11	ERROR ASSESSMENT FOR STRAIN MAPPING BY DIGITAL IMAGE CORRELATION. <i>Experimental Techniques</i> , 1998, 22, 19-21.	0.9	74
12	Inertial Effects on Void Growth in Porous Viscoplastic Materials. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1995, 62, 633-639.	1.1	64
13	Fatigue properties of a dental implant produced by electron beam melting Â® (EBM). <i>Journal of Materials Processing Technology</i> , 2015, 226, 255-263.	3.1	64
14	In-situ surface characterization of a binary aluminum alloy during tensile deformation. <i>Scripta Materialia</i> , 1997, 36, 1339-1344.	2.6	43
15	Strain characterization of propagative deformation bands. <i>Journal of the Mechanics and Physics of Solids</i> , 1998, 46, 2087-2102.	2.3	42
16	Identification of post-necking strain hardening behavior of thin sheet metals from image-based surface strain data in uniaxial tension tests. <i>International Journal of Solids and Structures</i> , 2015, 75-76, 12-31.	1.3	42
17	Dynamic pore collapse in viscoplastic materials. <i>Journal of Applied Physics</i> , 1993, 74, 2425-2435.	1.1	40
18	An iterative procedure for determining effective stressâ€œstrain curves of sheet metals. <i>International Journal of Mechanics and Materials in Design</i> , 2009, 5, 13-27.	1.7	37

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19	Subpixel image registration with reduced bias. <i>Optics Letters</i> , 2011, 36, 763.	1.7	37
20	The bio-compatible dental implant designed by using non-stochastic porosity produced by Electron Beam Melting® (EBM). <i>Journal of Materials Processing Technology</i> , 2014, 214, 1728-1739.	3.1	37
21	Formulation of Lucas-Kanade Digital Image Correlation Algorithms for Non-contact Deformation Measurements: A Review. <i>Strain</i> , 2013, 49, 313-334.	1.4	35
22	A plane stress anisotropic plastic flow theory for orthotropic sheet metals. <i>International Journal of Plasticity</i> , 2006, 22, 497-535.	4.1	34
23	A high resolution DIC technique for measuring small thermal expansion of film specimens. <i>Optics and Lasers in Engineering</i> , 2013, 51, 30-33.	2.0	34
24	Particle-level modeling of dynamic consolidation of Ti-SiC powders. <i>Modelling and Simulation in Materials Science and Engineering</i> , 1995, 3, 771-796.	0.8	27
25	Effective elastic moduli and characterization of a particulate metal-matrix composite with damaged particles. <i>Composites Science and Technology</i> , 1994, 52, 247-252.	3.8	24
26	Uniaxial Tensile and Simple Shear Behavior of Resistance Spot-Welded Dual-Phase Steel Joints. <i>Journal of Materials Engineering and Performance</i> , 2008, 17, 517-534.	1.2	24
27	Plastic surface strain mapping of bent sheets by image correlation. <i>Experimental Mechanics</i> , 2004, 44, 502-511.	1.1	22
28	A Finite Element Analysis of a Tapered Flat Sheet Tensile Specimen. <i>Experimental Mechanics</i> , 2009, 49, 317-330.	1.1	21
29	Processing SiC-particulate reinforced titanium-based metal matrix composites by shock wave consolidation. <i>Acta Metallurgica Et Materialia</i> , 1995, 43, 235-250.	1.9	20
30	Strain Accumulation in Polymer Electrolyte Membrane and Membrane Electrode Assembly Materials During a Single Hydration/Dehydration Cycle. <i>Journal of Fuel Cell Science and Technology</i> , 2007, 4, 19-28.	0.8	18
31	A Constitutive Model for Friction in Forming. <i>CIRP Annals - Manufacturing Technology</i> , 1993, 42, 361-366.	1.7	16
32	Technical Application Series. AN ADAPTIVE BACKWARD IMAGE CORRELATION TECHNIQUE FOR DEFORMATION MAPPING OF A GROWING CRACK IN THIN SHEETS. <i>Experimental Techniques</i> , 2004, 28, 63-67.	0.9	14
33	Modeling the Rotation of Orthotropic Axes of Sheet Metals Subjected to Off-Axis Uniaxial Tension. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2004, 71, 521-531.	1.1	13
34	Mode I Fracture at Spot Welds in Dual-Phase Steel: An Application of Reverse Digital Image Correlation. <i>Experimental Mechanics</i> , 2010, 50, 1199-1212.	1.1	13
35	An Improved Error Evaluation in One-Dimensional Deformation Measurements by Linear Digital Image Correlation. <i>Experimental Mechanics</i> , 2011, 51, 1019-1031.	1.1	13
36	On Serrated Plastic Flow in an AA5052-H32 Sheet. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2007, 129, 332-341.	0.8	12

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37	Comparative evaluation of non-associated quadratic and associated quartic plasticity models for orthotropic sheet metals. <i>International Journal of Solids and Structures</i> , 2017, 128, 133-148.	1.3	12
38	Pressure-shear stress wave analysis in plate impact experiments. <i>International Journal of Impact Engineering</i> , 1997, 19, 147-164.	2.4	11
39	Generalized fourth-order Hill's 1979 yield function for modeling sheet metals in plane stress. <i>Acta Mechanica</i> , 2016, 227, 2719-2733.	1.1	11
40	An improved method of determining Gotoh's nine material constants for a sheet metal with only seven or less experimental inputs. <i>International Journal of Mechanical Sciences</i> , 2018, 140, 394-406.	3.6	11
41	Local Plastic Deformation and Failure Behavior of Nd:YAG Laser Welds in AA5182-O and AA6111-T4. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2007, 38, 3063-3086.	1.1	10
42	Calibration of a complete homogeneous polynomial yield function of six degrees for modeling orthotropic steel sheets. <i>Acta Mechanica</i> , 2018, 229, 2495-2519.	1.1	10
43	Rise time in shock consolidation of materials. <i>Applied Physics Letters</i> , 1994, 65, 2783-2785.	1.5	9
44	Application of Gotoh's Orthotropic Yield Function for Modeling Advanced High-Strength Steel Sheets. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2016, 138, .	1.3	8
45	Algebraic Convexity Conditions for Gotoh's Nonquadratic Yield Function. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2018, 85, .	1.1	8
46	Process optimization of laser hot-wire cladding with high-power direct diode laser via the response surface methodology. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 120, 8089-8103.	1.5	8
47	Interaction between dislocations and alloying elements and its implication on crystal plasticity of aluminum alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001, 309-310, 300-303.	2.6	7
48	A planar plastic flow theory of orthotropic sheet metals and the experimental procedure for its evaluations. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2005, 461, 1775-1809.	1.0	6
49	A perturbation analysis of the unstable plastic flow pattern evolution in an aluminum alloy. <i>International Journal of Solids and Structures</i> , 2006, 43, 5931-5952.	1.3	6
50	Mechanical Properties of Metallic Thin Films: Tensile Tests vs. Indentation Tests. <i>Materials Research Society Symposia Proceedings</i> , 2003, 782, 1.	0.1	5
51	Reduction of Noise-Induced Bias in Displacement Estimation by Linear Off-Pixel Digital Image Correlation. <i>Strain</i> , 2013, 49, 158-166.	1.4	5
52	On the Parameter Identification of Polynomial Anisotropic Yield Functions. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2016, 138, .	1.3	5
53	On the New Shear Constraint for Plane-Stress Orthotropic Plasticity Modeling of Sheet Metals. <i>Experimental Mechanics</i> , 2020, 60, 889-905.	1.1	4
54	Recent Developments in Modeling Shock Compression of Porous Materials. , 1997, , 177-203.		4

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55	A New Perspective on the Mathematical Modeling of Highly Nonlinear Anisotropic Plastic Flows in a Heterogeneous Solid. <i>Solid State Phenomena</i> , 2005, 105, 271-276.	0.3	3
56	On the Certification of Positive and Convex Gotoh's Fourth-Order Yield Function. <i>Journal of Physics: Conference Series</i> , 2018, 1063, 012093.	0.3	3
57	The Effect of Material Inhomogeneity on Serrated Plastic Flows. <i>Materials Research Society Symposia Proceedings</i> , 1999, 578, 33.	0.1	2
58	Mechanical Properties and Stresses in Thin Gold Films on a Silicon Substrate. <i>Materials Research Society Symposia Proceedings</i> , 2001, 695, 1.	0.1	2
59	Crack Initiation and Growth in a Notched NiTi Shape Memory Alloy Sheet. <i>Materials Research Society Symposia Proceedings</i> , 2003, 785, 771.	0.1	2
60	Tensile behavior of fusion-brazed aluminum alloy coach-peel joints fabricated by a dual-beam laser. <i>Journal of Materials Processing Technology</i> , 2018, 261, 184-192.	3.1	2
61	Characterizing and Modeling Plastic Strain Inhomogeneity in Thin Metallic Sheets. <i>Materials Research Society Symposia Proceedings</i> , 1998, 538, 179.	0.1	1
62	On the convexity bound of the generalized Drucker's yield function CB2001 for orthotropic sheets. <i>Acta Mechanica</i> , 2021, 232, 3259-3275.	1.1	1
63	Non-Quadratic Pseudo Dual Potentials for Plastic Flow Modeling. <i>IOP Conference Series: Materials Science and Engineering</i> , 2022, 1238, 012004.	0.3	1
64	Coarse Slip Bands in a Single-Crystalline Aluminum Alloy. <i>Materials Research Society Symposia Proceedings</i> , 2000, 653, 1.	0.1	0
65	Microindentation of Coarse-Grained Polycrystalline α -Brass. <i>Materials Research Society Symposia Proceedings</i> , 2002, 750, 1.	0.1	0
66	On the Image Correlation Measurement of Displacement Fields With Strong Strain Gradients Or Discontinuities. , 2007, , 673-674.		0
67	Mechanical Characterization of Biological Tissue: Finite Element Modeling. , 2010, , .		0
68	Finite element calculations of hole expansion in a thin steel sheet with polynomial yield functions of four and six degrees. <i>Journal of Physics: Conference Series</i> , 2018, 1063, 012095.	0.3	0
69	Finite Element Calculation of Anisotropy of Hole Expansion in a Thin Steel Sheet with Six Degrees Polynomial Yield Function. <i>Key Engineering Materials</i> , 2019, 794, 260-266.	0.4	0
70	A kinematics perspective on the micro-to-macro transition in anisotropic plasticity modeling of polycrystalline solids. , 2003, , 693-695.		0
71	3D Surface Elastic-Plastic Strain Mapping in Hemming, Bending, and Indentation Tests. , 2007, , 559-560.		0
72	Microstructure-Based Modeling of Ti-6Al-4V Lattice Structures and Trabecular Bone. , 2010, , .		0

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73	Processing and properties of SiC-particulate reinforced titanium matrix composites by shock wave consolidation. European Physical Journal Special Topics, 1994, 04, C8-331-C8-336.	0.2	0
74	Implicitization of the Vegter Yield Criterion. IOP Conference Series: Materials Science and Engineering, 2022, 1238, 012007.	0.3	0