Wei Tong

List of Publications by Citations

73 papers	2,051 citations	24 h-index	44 g-index
77 ext. papers	2,244 ext. citations	3.1 avg, IF	5.27 L-index

#	Paper	IF	Citations
73	Fast, Robust and Accurate Digital Image Correlation Calculation Without Redundant Computations. *Experimental Mechanics*, **2013**, 53, 1277-1289	2.6	283
72	An Evaluation of Digital Image Correlation Criteria for Strain Mapping Applications. *Strain*, **2005**, 41, 167-175	1.7	173
71	Spatio-temporal characteristics of the Portevinâ Chelier effect in austenitic steel with twinning induced plasticity. *International Journal of Plasticity*, **2009**, 25, 2298-2330	7.6	147
70	Microstructural effects of AZ31 magnesium alloy on its tensile deformation and failure behaviors. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2006**, 418, 341-356	5.3	124
69	Pressure-shear impact investigation of strain rate history effects in oxygen-free high-conductivity copper. *Journal of the Mechanics and Physics of Solids*, **1992**, 40, 1251-1294	5	99
68	Time-resolved strain mapping measurements of individual Portevinâ Chatelier deformation bands. *Scripta Materialia*, **2005**, 53, 87-92	5.6	91
67	Deformation and fracture of miniature tensile bars with resistance-spot-weld microstructures. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2005**, 36, 2651-2669	2.3	91
66	An experimental study on grain deformation and interactions in an Al-0.5%Mg multicrystal. *International Journal of Plasticity*, **2004**, 20, 523-542	7.6	84
65	Detection of plastic deformation patterns in a binary aluminum alloy. *Experimental Mechanics*, **1997** , 37, 452-459	2.6	69
64	Cracking and decohesion of a thin Al2O3 film on a ductile Alâ%Mg substrate. *Acta Materialia*, **2005** , 53, 477-485	8.4	69
63	ERROR ASSESSMENT FOR STRAIN MAPPING BY DIGITAL IMAGE CORRELATION. *Experimental Techniques*, **1998**, 22, 19-21	1.4	67
62	Inertial Effects on Void Growth in Porous Viscoplastic Materials. *Journal of Applied Mechanics, Transactions ASME*, **1995**, 62, 633-639	2.7	53
61	Fatigue properties of a dental implant produced by electron beam melting (EBM). *Journal of Materials Processing Technology*, **2015**, 226, 255-263	5.3	52
60	In-situ surface characterization of a binary aluminum alloy during tensile deformation. *Scripta Materialia*, **1997**, 36, 1339-1344	5.6	39
59	Strain characterization of propagative deformation bands. *Journal of the Mechanics and Physics of Solids*, **1998**, 46, 2087-2102	5	37
58	Dynamic pore collapse in viscoplastic materials. *Journal of Applied Physics*, **1993**, 74, 2425-2435	2.5	36
57	The bio-compatible dental implant designed by using non-stochastic porosity produced by Electron Beam Melting (EBM). *Journal of Materials Processing Technology*, **2014**, 214, 1728-1739	5.3	34

56	An iterative procedure for determining effective stressâ□strain curves of sheet metals. *International Journal of Mechanics and Materials in Design*, **2009**, 5, 13-27	2.5	33
55	Subpixel image registration with reduced bias. *Optics Letters*, **2011**, 36, 763-5	3	31
54	Identification of post-necking strain hardening behavior of thin sheet metals from image-based surface strain data in uniaxial tension tests. *International Journal of Solids and Structures*, **2015**, 75-76, 12-31	3.1	30
53	Formulation of Lucasâ□Kanade Digital Image Correlation Algorithms for Non-contact Deformation Measurements: A Review. *Strain*, **2013**, 49, 313-334	1.7	29
52	A plane stress anisotropic plastic flow theory for orthotropic sheet metals. *International Journal of Plasticity*, **2006**, 22, 497-535	7.6	28
51	Particle-level modeling of dynamic consolidation of Ti-SiC powders. *Modelling and Simulation in Materials Science and Engineering*, **1995**, 3, 771-796	2	26
50	A high resolution DIC technique for measuring small thermal expansion of film specimens. *Optics and Lasers in Engineering*, **2013**, 51, 30-33	4.6	24
49	Effective elastic moduli and characterization of a particulate metal-matrix composite with damaged particles. *Composites Science and Technology*, **1994**, 52, 247-252	8.6	22
48	Plastic surface strain mapping of bent sheets by image correlation. *Experimental Mechanics*, **2004**, 44, 502-511	2.6	20
47	Uniaxial Tensile and Simple Shear Behavior of Resistance Spot-Welded Dual-Phase Steel Joints. *Journal of Materials Engineering and Performance*, **2008**, 17, 517-534	1.6	18
46	Processing SiC-particulate reinforced titanium-based metal matrix composites by shock wave consolidation. *Acta Metallurgica Et Materialia*, **1995**, 43, 235-250		18
45	A Finite Element Analysis of a Tapered Flat Sheet Tensile Specimen. *Experimental Mechanics*, **2009**, 49, 317-330	2.6	16
44	Strain Accumulation in Polymer Electrolyte Membrane and Membrane Electrode Assembly Materials During a Single Hydration/Dehydration Cycle. *Journal of Fuel Cell Science and Technology*, **2007**, 4, 19-28		15
43	Mode I Fracture at Spot Welds in Dual-Phase Steel: An Application of Reverse Digital Image Correlation. *Experimental Mechanics*, **2010**, 50, 1199-1212	2.6	13
42	Technical Application Series. *Experimental Techniques*, **2004**, 28, 63-67	1.4	13
41	A Constitutive Model for Friction in Forming. *CIRP Annals - Manufacturing Technology*, **1993**, 42, 361-366	4.9	13
40	An Improved Error Evaluation in One-Dimensional Deformation Measurements by Linear Digital Image Correlation. *Experimental Mechanics*, **2011**, 51, 1019-1031	2.6	12
39	On Serrated Plastic Flow in an AA5052-H32 Sheet. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **2007**, 129, 332-341	1.8	11

38	Modeling the Rotation of Orthotropic Axes of Sheet Metals Subjected to Off-Axis Uniaxial Tension. *Journal of Applied Mechanics, Transactions ASME*, **2004**, 71, 521-531	2.7	11
37	Generalized fourth-order Hillâ 1979 yield function for modeling sheet metals in plane stress. *Acta Mechanica*, **2016**, 227, 2719-2733	2.1	11
36	Comparative evaluation of non-associated quadratic and associated quartic plasticity models for orthotropic sheet metals. *International Journal of Solids and Structures*, **2017**, 128, 133-148	3.1	10
35	Local Plastic Deformation and Failure Behavior of Nd:YAG Laser Welds in AA5182-O and AA6111-T4. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2007**, 38, 3063-3086	2.3	10
34	Pressure-shear stress wave analysis in plate impact experiments. *International Journal of Impact Engineering*, **1997**, 19, 147-164	4	8
33	Calibration of a complete homogeneous polynomial yield function of six degrees for modeling orthotropic steel sheets. *Acta Mechanica*, **2018**, 229, 2495-2519	2.1	7
32	An improved method of determining Gotohâ nine material constants for a sheet metal with only seven or less experimental inputs. *International Journal of Mechanical Sciences*, **2018**, 140, 394-406	5.5	7
31	Interaction between dislocations and alloying elements and its implication on crystal plasticity of aluminum alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2001**, 309-310, 300-303	5.3	7
30	Rise time in shock consolidation of materials. *Applied Physics Letters*, **1994**, 65, 2783-2785	3.4	7
29	Algebraic Convexity Conditions for Gotoh's Nonquadratic Yield Function. *Journal of Applied Mechanics, Transactions ASME*, **2018**, 85,	2.7	6
28	A perturbation analysis of the unstable plastic flow pattern evolution in an aluminum alloy. *International Journal of Solids and Structures*, **2006**, 43, 5931-5952	3.1	6
27	On the Parameter Identification of Polynomial Anisotropic Yield Functions. *Journal of Manufacturing Science and Engineering, Transactions of the ASME*, **2016**, 138,	3.3	5
26	Application of Gotoh's Orthotropic Yield Function for Modeling Advanced High-Strength Steel Sheets. *Journal of Manufacturing Science and Engineering, Transactions of the ASME*, **2016**, 138,	3.3	5
25	Reduction of Noise-Induced Bias in Displacement Estimation by Linear Off-Pixel Digital Image Correlation. *Strain*, **2013**, 49, 158-166	1.7	4
24	A planar plastic flow theory of orthotropic sheet metals and the experimental procedure for its evaluations. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2005**, 461, 1775-1809	2.4	4
23	Mechanical Properties of Metallic Thin Films: Tensile Tests vs. Indentation Tests. *Materials Research Society Symposia Proceedings*, **2003**, 782, 1		4
22	On the New Shear Constraint for Plane-Stress Orthotropic Plasticity Modeling of Sheet Metals. *Experimental Mechanics*, **2020**, 60, 889-905	2.6	3
21	Recent Developments in Modeling Shock Compression of Porous Materials **1997**, 177-203		3

20	Tensile behavior of fusion-brazed aluminum alloy coach-peel joints fabricated by a dual-beam laser. *Journal of Materials Processing Technology*, **2018**, 261, 184-192	5.3	2
19	Crack Initiation and Growth in a Notched NiTi Shape Memory Alloy Sheet. *Materials Research Society Symposia Proceedings*, **2003**, 785, 771		2
18	A New Perspective on the Mathematical Modeling of Highly Nonlinear Anisotropic Plastic Flows in a Heterogeneous Solid. *Solid State Phenomena*, **2005**, 105, 271-276	0.4	2
17	Mechanical Properties and Stresses in Thin Gold Films on a Silicon Substrate. *Materials Research Society Symposia Proceedings*, **2001**, 695, 1		2
16	The Effect of Material Inhomogeneity on Serrated Plastic Flows. *Materials Research Society Symposia Proceedings*, **1999**, 578, 33		2
15	Characterizing and Modeling Plastic Strain Inhomogeneity in Thin Metallic Sheets. *Materials Research Society Symposia Proceedings*, **1998**, 538, 179		1
14	On the Certification of Positive and Convex Gotohâ Fourth-Order Yield Function. *Journal of Physics: Conference Series*, **2018**, 1063, 012093	0.3	1
13	Non-Quadratic Pseudo Dual Potentials for Plastic Flow Modeling. *IOP Conference Series: Materials Science and Engineering*, **2022**, 1238, 012004	0.4	1
12	Process optimization of laser hot-wire cladding with high-power direct diode laser via the response surface methodology. *International Journal of Advanced Manufacturing Technology*,1	3.2	0
11	Finite Element Calculation of Anisotropy of Hole Expansion in a Thin Steel Sheet with Six Degrees Polynomial Yield Function. *Key Engineering Materials*, **2019**, 794, 260-266	0.4	
10	On the Image Correlation Measurement of Displacement Fields With Strong Strain Gradients Or Discontinuities **2007**, 673-674		
9	Microindentation of Coarse-Grained Polycrystalline Brass. *Materials Research Society Symposia Proceedings*, **2002**, 750, 1		
8	Coarse Slip Bands in a Single-Crystalline Aluminum Alloy. *Materials Research Society Symposia Proceedings*, **2000**, 653, 1		
7	A kinematics perspective on the micro-to-macro transition in anisotropic plasticity modeling of polycrystalline solids **2003**, 693-695		
6	3D Surface Elastic-Plastic Strain Mapping in Hemming, Bending, and Indentation Tests **2007**, 559-560		
5	On the convexity bound of the generalized Druckerâ yield function CB2001 for orthotropic sheets. *Acta Mechanica*, **2021**, 232, 3259-3275	2.1	
4	Finite element calculations of hole expansion in a thin steel sheet with polynomial yield functions of four and six degrees. *Journal of Physics: Conference Series*, **2018**, 1063, 012095	0.3	
3	Implicitization of the Vegter Yield Criterion. *IOP Conference Series: Materials Science and Engineering*, **2022**, 1238, 012007	0.4	

2	On Strain Hardening Modeling in Associated and Non-Associated Orthotropic Plasticity. *Minerals, Metals and Materials Series*, **2022**, 365-374	0.3
1	On the Generalized Plane-Strain Constraints for Orthotropic Plasticity Modeling of Sheet Metals. *Minerals, Metals and Materials Series*, **2022**, 231-239	0.3