

# Chunhui Yang

## List of Publications by Year in descending order

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107  
papers

2,440  
citations

218381

26  
h-index

223531

46  
g-index

107  
all docs

107  
docs citations

107  
times ranked

2510  
citing authors

#	ARTICLE	IF	CITATIONS
1	A multi-material topology optimization with temperature-dependent thermoelastic properties. <i>Engineering Optimization</i> , 2022, 54, 2140-2155.	1.5	7
2	Investigation on springback behaviours of hexagonal close-packed sheet metals. <i>Applied Mathematical Modelling</i> , 2021, 92, 149-175.	2.2	13
3	Nickel Phosphides Electrodeposited on TiO <sub>2</sub> Nanotube Arrays as Electrocatalysts for Hydrogen Evolution. <i>ACS Applied Nano Materials</i> , 2021, 4, 4542-4551.	2.4	19
4	Material Anisotropy in Additively Manufactured Polymers and Polymer Composites: A Review. <i>Polymers</i> , 2021, 13, 3368.	2.0	59
5	Flexible integrated metallic glass-based sandwich electrodes for high-performance wearable all-solid-state supercapacitors. <i>Applied Materials Today</i> , 2020, 19, 100539.	2.3	45
6	A Machine Learning Model for Predicting Noise Limits of Motor Vehicles in UNECE R51 Regulations. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 8092.	1.3	1
7	Influences of impact scenarios and vehicle front-end design on head injury risk of motorcyclist. <i>Accident Analysis and Prevention</i> , 2020, 145, 105697.	3.0	11
8	A new method to get initial guess configuration for multi-step sheet metal forming simulations. <i>International Journal of Advanced Manufacturing Technology</i> , 2020, 110, 2651-2668.	1.5	0
9	Effects of Tension-Compression Asymmetry on Bending of Steels. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 3339.	1.3	11
10	Experimental and numerical study of hat shaped CFRP structures under quasi-static axial crushing. <i>Composite Structures</i> , 2020, 249, 112465.	3.1	30
11	A study on motorcyclist head responses during impact against front end of vehicle. <i>International Journal of Crashworthiness</i> , 2020, , 1-13.	1.1	5
12	Location dependence of breathing mechanism for a slant crack in a shaft. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2020, 43, 2515-2526.	1.7	1
13	Application of Non-Symmetric Bending Principles on Modelling Fatigue Crack Behaviour and Vibration of a Cracked Rotor. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 717.	1.3	13
14	Fabrication and Characterisation of Nano-Additive Reinforced Polymeric Composites. <i>Lecture Notes in Civil Engineering</i> , 2020, , 131-140.	0.3	3
15	Influences of Angular Position of Unbalanced Force on Crack Breathing Mechanism. <i>Mechanisms and Machine Science</i> , 2019, , 263-274.	0.3	0
16	Effects of Elliptical Crack Shape Ratio on Transverse Trajectory of a Cracked Shaft. <i>Mechanisms and Machine Science</i> , 2019, , 275-284.	0.3	1
17	Numerical Synthesis of Stephenson Six-Bar Mechanism Using a CAD Geometric Approach. <i>Mechanisms and Machine Science</i> , 2019, , 95-102.	0.3	0
18	An Inverse Analysis-Based Optimal Selection of Cohesive Zone Model for Metallic Materials. <i>International Journal of Applied Mechanics</i> , 2018, 10, 1850015.	1.3	14

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19	Length-scale-dependent nanoindentation creep behaviour of Ti/Al multilayers by magnetron sputtering. <i>Materials Characterization</i> , 2018, 139, 165-175.	1.9	20
20	Morphological and mechanical properties of graphene-reinforced PMMA nanocomposites using a multiscale analysis. <i>Computational Materials Science</i> , 2018, 150, 107-120.	1.4	17
21	Graphene Helicoid: Distinct Properties Promote Application of Graphene Related Materials in Thermal Management. <i>Journal of Physical Chemistry C</i> , 2018, 122, 7605-7612.	1.5	25
22	Case Studies on Chain-die Forming for AHSS. <i>Journal of Physics: Conference Series</i> , 2018, 1063, 012174.	0.3	0
23	A theoretical study on pure bending of hexagonal close-packed metal sheet. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	3
24	Interfacial Thermal Conductance and Thermal Rectification of Hexagonal BC <sub>n</sub> /Graphene In-Plane Heterojunctions. <i>Journal of Physical Chemistry C</i> , 2018, 122, 22783-22789.	1.5	42
25	Comparative study on plasticity and fracture behaviour of Ti/Al multilayers. <i>Tribology International</i> , 2018, 126, 344-351.	3.0	8
26	Breakdown of Hooke's law at the nanoscale – 2D material-based nanosprings. <i>Nanoscale</i> , 2018, 10, 18961-18968.	2.8	27
27	Numerical simulation on chain-die forming of an AHSS top-hat section. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	1
28	Modelling of lightning strike damage to CFRP composites with an advanced protection system. Part I: Thermal–electrical transition. <i>Composite Structures</i> , 2017, 165, 83-90.	3.1	44
29	The application of general self-consistent model on mechanical behaviour of fibre-reinforced cementitious composites. <i>Construction and Building Materials</i> , 2017, 146, 114-121.	3.2	2
30	Graphene helicoid as novel nanospring. <i>Carbon</i> , 2017, 120, 258-264.	5.4	42
31	Plastic behaviour of high-strength lightweight Al/Ti multilayered films. <i>Journal of Materials Science</i> , 2017, 52, 13956-13965.	1.7	9
32	Ultra-high specific strength and deformation behavior of nanostructured Ti/Al multilayers. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 365302.	1.3	8
33	Finite element modelling of chain-die forming for ultra-high strength steel. <i>AIP Conference Proceedings</i> , 2017, , .	0.3	2
34	Metamaterials and Smart Structures in a Big Data Era. <i>Advances in Materials Science and Engineering</i> , 2017, 2017, 1-1.	1.0	0
35	Vibration Analysis of a Cracked Rotor with an Unbalance Influenced Breathing Mechanism. <i>International Journal of Mechanical Engineering and Robotics Research</i> , 2017, 6, 22-29.	0.7	9
36	Recent advances in experimental studies of the mechanical behaviour of natural fibre-reinforced cementitious composites. <i>Structural Concrete</i> , 2016, 17, 564-575.	1.5	20

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37	Numerical Investigation on Mechanical Behaviour of Closed-cell Aluminium Foams Using a Representative Volume Element Method. MATEC Web of Conferences, 2016, 65, 03003.	0.1	1
38	Effect of non-covalent functionalisation on thermal and mechanical properties of graphene-polymer nanocomposites. Carbon, 2016, 102, 311-318.	5.4	108
39	Multiscale modelling of multiple-cracking tensile fracture behaviour of engineered cementitious composites. Engineering Fracture Mechanics, 2016, 160, 52-66.	2.0	32
40	Cellular Automata Simulation on Dynamic Recrystallization of TA16 Alloy during Hot Deformation. Materials Science Forum, 2016, 849, 245-250.	0.3	2
41	Numerical modelling of mechanical behaviour of aluminium foam using a representative volume element method. International Journal of Mechanical Sciences, 2016, 118, 155-165.	3.6	13
42	Hypothesis on Phase Transition Nucleation and Propagation in Polycrystalline NiTi shape Memory Alloys under Nanoscale Compressive Loading. Materials Today: Proceedings, 2016, 3, 708-714.	0.9	1
43	Some Aspects of Thermal Transport across the Interface between Graphene and Epoxy in Nanocomposites. ACS Applied Materials & Interfaces, 2016, 8, 8272-8279.	4.0	106
44	Strain gradients in Cu-Fe thin films and multilayers during micropillar compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 651, 146-154.	2.6	15
45	Effect of Unbalanced Force on the Crack Breathing Mechanism. International Journal of Mechanical Engineering and Robotics Research, 2016, 7, 174-178.	0.7	0
46	A study on atomic diffusion behaviours in an Al-Mg compound casting process. AIP Advances, 2015, 5, .	0.6	12
47	Effects of the Junction Functionality and Chain Entanglements in Chemomechanical Behavior of Polyelectrolyte Gels. Advances in Condensed Matter Physics, 2015, 2015, 1-10.	0.4	1
48	Effect of Covalent Functionalization on Thermal Transport across Graphene-Polymer Interfaces. Journal of Physical Chemistry C, 2015, 119, 12731-12738.	1.5	126
49	Nanoscale variation in energy dissipation in austenitic shape memory alloys in ultimate loading cycles. Journal of Intelligent Material Systems and Structures, 2015, 26, 2411-2417.	1.4	2
50	Mechanical behaviours of green hybrid fibre-reinforced cementitious composites. Construction and Building Materials, 2015, 95, 152-163.	3.2	51
51	Mechanical Behavior of Nano-crystalline Metallic Thin Films and Multilayers Under Microcompression. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 1405-1412.	1.1	5
52	Thermal shock fracture mechanics analysis of a semi-infinite medium based on the dual-phase-lag heat conduction model. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20140595.	1.0	9
53	A molecular dynamics study on thermal and mechanical properties of graphene-paraffin nanocomposites. RSC Advances, 2015, 5, 82638-82644.	1.7	48
54	Formation of carbon nanoscrolls from graphene nanoribbons: A molecular dynamics study. Computational Materials Science, 2015, 96, 300-305.	1.4	31

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55	NUMERICAL INVESTIGATION OF ELASTIC WAVE PROPAGATION IN FUNCTIONALLY GRADED MATERIALS. Proceedings of International Structural Engineering and Construction, 2015, 2, .	0.1	0
56	A STUDY ON MECHANICAL BEHAVIOR OF FUNCTIONALLY-GRADED CARBON NANOTUBE-REINFORCED NANOCOMPOSITES. International Journal of Computational Methods, 2014, 11, 1344003.	0.8	6
57	A Theoretical Study on Bending Behaviour of Conducting Polymer Actuator. Applied Mechanics and Materials, 2014, 553, 551-556.	0.2	0
58	Effective Models of PZT Actuators for Numerical Simulation of Elastic Wave Propagation. Applied Mechanics and Materials, 2014, 553, 705-710.	0.2	3
59	Digital Material Representation and Testing of Metal Foams. Applied Mechanics and Materials, 2014, 553, 54-59.	0.2	1
60	Finite Element Analysis of Residual Stresses in Metallic Coatings through a Compound Casting. Applied Mechanics and Materials, 2014, 553, 48-53.	0.2	1
61	Fabrication, modelling and evaluation of microstructured materials in a digital framework. Computational Materials Science, 2014, 81, 89-97.	1.4	12
62	Coupled FE-SPH Simulation of a High-Speed Grinding Process Using a Multiple-Grain Model. Advanced Materials Research, 2014, 989-994, 3248-3251.	0.3	2
63	A novel carbon nanofibre/phenolic nanocomposite coated polymer system for tailoring thermal behaviour. Composites Part A: Applied Science and Manufacturing, 2013, 46, 80-88.	3.8	17
64	Functionally graded carbon nanofiber/phenolic nanocomposites and their mechanical properties. Composites Part A: Applied Science and Manufacturing, 2013, 54, 124-134.	3.8	27
65	Numerical Simulation of High Speed Single-Grain Cutting Using a Coupled FE-SPH Approach. Applied Mechanics and Materials, 2013, 483, 3-8.	0.2	3
66	Extrinsic size effect in microcompression of polycrystalline Cu/Fe multilayers. Scripta Materialia, 2013, 69, 626-629.	2.6	14
67	Functionally graded carbon nanofiber-phenolic nanocomposites for sudden temperature change applications. Polymer, 2013, 54, 3940-3948.	1.8	7
68	Preparation and properties of composition-controlled carbon nanofiber/phenolic nanocomposites. Composites Part B: Engineering, 2013, 52, 120-126.	5.9	25
69	A theoretical study of the structureâ€“property relations in ultra-fine metallic materials with fractal microstructures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 559, 543-548.	2.6	3
70	Numerical investigation on press forming of self-lubricating spherical plain bearings. International Journal of Materials and Product Technology, 2013, 47, 46.	0.1	3
71	Impact Response and Energy Absorption of Aluminium Foam-Filled Tubes. Applied Mechanics and Materials, 2012, 152-154, 436-439.	0.2	4
72	Effect of compositional gradient on thermal behavior of synthetic graphiteâ€“phenolic nanocomposites. Journal of Thermal Analysis and Calorimetry, 2012, 109, 1169-1176.	2.0	22

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73	Effects of mechanical properties on the contact profile in Berkovich nanoindentation of elastoplastic materials. Journal of Materials Research, 2012, 27, 313-319.	1.2	9
74	Investigation of cell shape effect on the mechanical behaviour of open-cell metal foams. Computational Materials Science, 2012, 55, 1-9.	1.4	34
75	Fabrication and characterization of functionally graded synthetic graphite/phenolic nanocomposites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 545, 123-131.	2.6	46
76	Effect of residual stress on the bending of aluminium. Journal of Materials Processing Technology, 2012, 212, 877-883.	3.1	42
77	Electrochemical fabrication and modelling of mechanical behavior of a tri-layer polymer actuator. Materials Chemistry and Physics, 2011, 125, 113-117.	2.0	14
78	Review of Approximate Analyses of Sheet Forming Processes. , 2011, , .		0
79	Analytic Study on Pure Bending of Metal Sheets. , 2011, , .		6
80	The effect of skin passing on the material behavior of metal strip in pure bending and tension. AIP Conference Proceedings, 2010, , .	0.3	12
81	Numerical Simulations on Warm Forming of Stainless Steel with TRIP-Effect. , 2010, , .		8
82	Synthesis, Characterization and Analytical Modelling of Mechanical Behavior of a Conducting Polymer Actuator. Materials Science Forum, 2010, 654-656, 2467-2470.	0.3	2
83	Analytical Solutions and Finite Element Modelling of Deep Drawing Process for Cylindrical Metal Cups. Key Engineering Materials, 2010, 443, 104-109.	0.4	1
84	On the Effective Mechanical Properties of Fluid-Saturated Composites: A Homogenization Approach. Materials Science Forum, 2010, 654-656, 2273-2276.	0.3	0
85	Effect of Pore Size on Mechanical Properties of Titanium Foams. Materials Science Forum, 2010, 654-656, 827-830.	0.3	5
86	Design and construction of a micropump for drug delivery applications. , 2010, , .		1
87	Effects of pores on shear bands in metallic glasses: A molecular dynamics study. Computational Materials Science, 2010, 50, 211-217.	1.4	42
88	Effects of quenching rate on amorphous structures of Cu <sub>46</sub> Zr <sub>54</sub> metallic glass. Journal of Materials Processing Technology, 2009, 209, 4601-4606.	3.1	32
89	Recent developments in finite element analysis for laminated composite plates. Composite Structures, 2009, 88, 147-157.	3.1	347
90	Modeling of Advanced High Strength Steels with the realistic microstructure-strength relationships. Computational Materials Science, 2009, 45, 860-866.	1.4	38

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91	Quantitative assessment of through-thickness crack size based on Lamb wave scattering in aluminium plates. NDT and E International, 2008, 41, 59-68.	1.7	141
92	Geometrical effects on residual stresses in 7050-T7451 aluminum alloy rods subject to laser shock peening. Journal of Materials Processing Technology, 2008, 201, 303-309.	3.1	89
93	Recent Advances of Finite Elements for Laminated Composite Plates. Recent Patents on Engineering, 2008, 2, 36-46.	0.3	38
94	Assessment of delamination in composite beams using shear horizontal (SH) wave mode. Composites Science and Technology, 2007, 67, 244-251.	3.8	66
95	The effect of laser power density on the fatigue life of laser shock-peened 7050 aluminium alloy. Fatigue and Fracture of Engineering Materials and Structures, 2007, 30, 1110-1124.	1.7	37
96	A family of simple and robust finite elements for linear and geometrically nonlinear analysis of laminated composite plates. Composite Structures, 2006, 75, 545-552.	3.1	13
97	Some aspects of numerical simulation for Lamb wave propagation in composite laminates. Composite Structures, 2006, 75, 267-275.	3.1	104
98	Hierarchical development of training database for artificial neural network-based damage identification. Composite Structures, 2006, 76, 224-233.	3.1	20
99	Investigation of effective material properties in composites with internal defect or reinforcement particles. International Journal of Solids and Structures, 2005, 42, 6141-6165.	1.3	11
100	Numerical modeling of interactions between a macro-crack and a cluster of micro-defects. Engineering Fracture Mechanics, 2004, 71, 193-217.	2.0	23
101	Evaluation of effective material properties of composite materials using special FEM. Journal of Materials Processing Technology, 2003, 140, 185-190.	3.1	7
102	Detection of small cracks and cavities using laser diffraction. Optical Engineering, 2002, 41, 1295.	0.5	3
103	Modeling of voids/cracks and their interactions. Theoretical and Applied Fracture Mechanics, 2002, 38, 81-101.	2.1	12
104	Special membrane elements with internal defects. , 2001, , 554-558.		1
105	Multiscale Particle-In-Cell Modelling for Advanced High Strength Steels. Advanced Materials Research, 0, 32, 285-288.	0.3	6
106	A New Solution Method for Homogenization of Effective Properties of Electromagnetic Honeycombs. Key Engineering Materials, 0, 443, 551-556.	0.4	1
107	A Study on Bending Behaviours of Aluminium Foam-Filled Tubes. Applied Mechanics and Materials, 0, 620, 413-416.	0.2	4