Yong Zhu

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161 18,696 136 52 h-index g-index citations papers 8.1 20,978 170 7.21 L-index avg, IF ext. citations ext. papers

#	Paper	IF	Citations
161	Carbon-based supercapacitors produced by activation of graphene. <i>Science</i> , 2011 , 332, 1537-41	33.3	4940
160	Pd-Pt bimetallic nanodendrites with high activity for oxygen reduction. <i>Science</i> , 2009 , 324, 1302-5	33.3	2605
159	Highly conductive and stretchable silver nanowire conductors. <i>Advanced Materials</i> , 2012 , 24, 5117-22	24	982
158	Wearable multifunctional sensors using printed stretchable conductors made of silver nanowires. <i>Nanoscale</i> , 2014 , 6, 2345-52	7.7	748
157	A review on mechanics and mechanical properties of 2D materials@raphene and beyond. <i>Extreme Mechanics Letters</i> , 2017 , 13, 42-77	3.9	581
156	Nanomaterial-enabled stretchable conductors: strategies, materials and devices. <i>Advanced Materials</i> , 2015 , 27, 1480-511	24	510
155	Rate-dependent slip of Newtonian liquid at smooth surfaces. <i>Physical Review Letters</i> , 2001 , 87, 096105	7.4	468
154	Ultrastrong, Stiff, and Lightweight Carbon-Nanotube Fibers. Advanced Materials, 2007, 19, 4198-4201	24	379
153	Mechanical properties of vapor-liquid-solid synthesized silicon nanowires. <i>Nano Letters</i> , 2009 , 9, 3934-9	11.5	316
152	Nanomaterial-Enabled Wearable Sensors for Healthcare. <i>Advanced Healthcare Materials</i> , 2018 , 7, 17008	89 0.1	282
151	Surface-energy-assisted perfect transfer of centimeter-scale monolayer and few-layer MoSI f ilms onto arbitrary substrates. <i>ACS Nano</i> , 2014 , 8, 11522-8	16.7	281
150	An electromechanical material testing system for in situ electron microscopy and applications. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 14503-8	11.5	281
149	Size effects on elasticity, yielding, and fracture of silver nanowires: In situ experiments. <i>Physical Review B</i> , 2012 , 85,	3.3	224
148	Viscosity of interfacial water. <i>Physical Review Letters</i> , 2001 , 87, 096104	7.4	207
147	Stretchable and reversibly deformable radio frequency antennas based on silver nanowires. <i>ACS Applied Materials & Discrete Applied & Discre</i>	9.5	206
146	A thermal actuator for nanoscalein situmicroscopy testing: design and characterization. <i>Journal of Micromechanics and Microengineering</i> , 2006 , 16, 242-253	2	202
145	Printing Conductive Nanomaterials for Flexible and Stretchable Electronics: A Review of Materials, Processes, and Applications. <i>Advanced Materials Technologies</i> , 2019 , 4, 1800546	6.8	194

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144	Wavy Ribbons of Carbon Nanotubes for Stretchable Conductors. <i>Advanced Functional Materials</i> , 2012 , 22, 1279-1283	15.6	189
143	Mechanical Force-Triggered Drug Delivery. <i>Chemical Reviews</i> , 2016 , 116, 12536-12563	68.1	179
142	Controlled 3D buckling of silicon nanowires for stretchable electronics. ACS Nano, 2011, 5, 672-8	16.7	176
141	Interfacial Sliding and Buckling of Monolayer Graphene on a Stretchable Substrate. <i>Advanced Functional Materials</i> , 2014 , 24, 396-402	15.6	175
140	Hypoxia and HO Dual-Sensitive Vesicles for Enhanced Glucose-Responsive Insulin Delivery. <i>Nano Letters</i> , 2017 , 17, 733-739	11.5	172
139	Mechanical properties of ZnO nanowires under different loading modes. <i>Nano Research</i> , 2010 , 3, 271-2	80 0	158
138	Stretch-Triggered Drug Delivery from Wearable Elastomer Films Containing Therapeutic Depots. <i>ACS Nano</i> , 2015 , 9, 9407-15	16.7	157
137	Electrohydrodynamic printing of silver nanowires for flexible and stretchable electronics. <i>Nanoscale</i> , 2018 , 10, 6806-6811	7.7	149
136	Wearable silver nanowire dry electrodes for electrophysiological sensing. <i>RSC Advances</i> , 2015 , 5, 11627	'- <u>3.1</u> ,632	2 145
135	Buckling of aligned carbon nanotubes as stretchable conductors: a new manufacturing strategy. <i>Advanced Materials</i> , 2012 , 24, 1073-7	24	143
134	Mechanical properties of silicon carbide nanowires: effect of size-dependent defect density. <i>Nano Letters</i> , 2014 , 14, 754-8	11.5	130
133	Flexible Technologies for Self-Powered Wearable Health and Environmental Sensing. <i>Proceedings of the IEEE</i> , 2015 , 103, 665-681	14.3	124
132	Design and Operation of a MEMS-Based Material Testing System for Nanomechanical Characterization. <i>Journal of Microelectromechanical Systems</i> , 2007 , 16, 1219-1231	2.5	124
131	A Wearable Hydration Sensor with Conformal Nanowire Electrodes. <i>Advanced Healthcare Materials</i> , 2017 , 6, 1601159	10.1	119
130	Recoverable plasticity in penta-twinned metallic nanowires governed by dislocation nucleation and retraction. <i>Nature Communications</i> , 2015 , 6, 5983	17.4	114
129	Low-Power Wearable Systems for Continuous Monitoring of Environment and Health for Chronic Respiratory Disease. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2016 , 20, 1251-1264	7.2	113
128	Direct extraction of rate-dependent traction eparation laws for polyurea/steel interfaces. <i>International Journal of Solids and Structures</i> , 2009 , 46, 31-51	3.1	112
127	A microelectromechanical load sensor for in situ electron and x-ray microscopy tensile testing of nanostructures. <i>Applied Physics Letters</i> , 2005 , 86, 013506	3.4	109

126	Soft electrothermal actuators using silver nanowire heaters. <i>Nanoscale</i> , 2017 , 9, 3797-3805	7.7	108
125	Nanomaterial-Enabled Flexible and Stretchable Sensing Systems: Processing, Integration, and Applications. <i>Advanced Materials</i> , 2020 , 32, e1902343	24	106
124	Strain Hardening and Size Effect in Five-fold Twinned Ag Nanowires. <i>Nano Letters</i> , 2015 , 15, 4037-44	11.5	95
123	Nanomaterial-Enabled Dry Electrodes for Electrophysiological Sensing: A Review. <i>Jom</i> , 2016 , 68, 1145-7	1 <u>1</u> 55	85
122	Compact, Highly Efficient, and Fully Flexible Circularly Polarized Antenna Enabled by Silver Nanowires for Wireless Body-Area Networks. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2017 , 11, 920-932	5.1	82
121	Strain-release assembly of nanowires on stretchable substrates. ACS Nano, 2011, 5, 1556-63	16.7	80
120	Measuring graphene adhesion using atomic force microscopy with a microsphere tip. <i>Nanoscale</i> , 2015 , 7, 10760-6	7.7	77
119	Tailoring the Temperature Coefficient of Resistance of Silver Nanowire Nanocomposites and their Application as Stretchable Temperature Sensors. <i>ACS Applied Materials & Design Sensors</i> , 11, 1783	3 <i>8</i> -₹78	4 2 4
118	Gas-Permeable, Ultrathin, Stretchable Epidermal Electronics with Porous Electrodes. <i>ACS Nano</i> , 2020 , 14, 5798-5805	16.7	74
117	An electrothermal microactuator with Z-shaped beams. <i>Journal of Micromechanics and Microengineering</i> , 2010 , 20, 085014	2	68
116	Thrombin-Responsive Transcutaneous Patch for Auto-Anticoagulant Regulation. <i>Advanced Materials</i> , 2017 , 29, 1604043	24	65
115	Effect of temperature on capacitive RF MEMS switch performanced coupled-field analysis. <i>Journal of Micromechanics and Microengineering</i> , 2004 , 14, 1270-1279	2	65
114	Experimental Techniques for the Mechanical Characterization of One-Dimensional Nanostructures. <i>Experimental Mechanics</i> , 2007 , 47, 7-24	2.6	62
113	Large anelasticity and associated energy dissipation in single-crystalline nanowires. <i>Nature Nanotechnology</i> , 2015 , 10, 687-91	28.7	59
112	Ultrasound-triggered noninvasive regulation of blood glucose levels using microgels integrated with insulin nanocapsules. <i>Nano Research</i> , 2017 , 10, 1393-1402	10	55
111	Multifunctional Electronic Textiles Using Silver Nanowire Composites. <i>ACS Applied Materials & ACS Applied Materials & Interfaces</i> , 2019 , 11, 31028-31037	9.5	55
110	Cohesive-Shear-Lag Modeling of Interfacial Stress Transfer Between a Monolayer Graphene and a Polymer Substrate. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2015 , 82,	2.7	54
109	Static friction between silicon nanowires and elastomeric substrates. <i>ACS Nano</i> , 2011 , 5, 7404-10	16.7	49

108	Gravure Printing of Water-based Silver Nanowire ink on Plastic Substrate for Flexible Electronics. <i>Scientific Reports</i> , 2018 , 8, 15167	4.9	47	
107	A review of microelectromechanical systems for nanoscale mechanical characterization. <i>Journal of Micromechanics and Microengineering</i> , 2015 , 25, 093001	2	45	
106	Measuring true Young's modulus of a cantilevered nanowire: effect of clamping on resonance frequency. <i>Small</i> , 2012 , 8, 2571-6	11	42	
105	Design and operation of silver nanowire based flexible and stretchable touch sensors. <i>Journal of Materials Research</i> , 2015 , 30, 79-85	2.5	39	
104	Helical coil buckling mechanism for a stiff nanowire on an elastomeric substrate. <i>Journal of the Mechanics and Physics of Solids</i> , 2016 , 95, 25-43	5	39	
103	Fabrication of functional nanowire devices on unconventional substrates using strain-release assembly. ACS Applied Materials & amp; Interfaces, 2013, 5, 256-61	9.5	39	
102	Tailoring the Load Carrying Capacity of MWCNTs Through Inter-shell Atomic Bridging. <i>Experimental Mechanics</i> , 2009 , 49, 169-182	2.6	39	
101	Anomalous Tensile Detwinning in Twinned Nanowires. <i>Physical Review Letters</i> , 2017 , 119, 256101	7.4	38	
100	Microstructures of SiC nanoparticle-doped MgB2Ee tapes. <i>Journal of Applied Physics</i> , 2007 , 102, 013913	2.5	35	
99	Mechanics of Crystalline Nanowires: An Experimental Perspective. <i>Applied Mechanics Reviews</i> , 2017 , 69,	8.6	34	
98	Bidirectional Electrothermal Actuator With Z-Shaped Beams. <i>IEEE Sensors Journal</i> , 2012 , 12, 2508-2509	4	33	
97	Evolution of Metastable Defects and Its Effect on the Electronic Properties of MoS Films. <i>Scientific Reports</i> , 2018 , 8, 6724	4.9	32	
96	On the size-dependent elasticity of penta-twinned silver nanowires. <i>Extreme Mechanics Letters</i> , 2016 , 8, 177-183	3.9	31	
95	Origami/Kirigami-Guided Morphing of Composite Sheets. <i>Advanced Functional Materials</i> , 2018 , 28, 1802	27 16,8 6	29	
94	A microelectromechanical system for thermomechanical testing of nanostructures. <i>Applied Physics Letters</i> , 2013 , 103, 263114	3.4	28	
93	Z-Shaped MEMS Thermal Actuators: Piezoresistive Self-Sensing and Preliminary Results for Feedback Control. <i>Journal of Microelectromechanical Systems</i> , 2012 , 21, 596-604	2.5	27	
92	Temperature control in thermal microactuators with applications to in-situ nanomechanical testing. <i>Applied Physics Letters</i> , 2013 , 102, 013101	3.4	25	
91	Simple geometric model to describe self-folding of polymer sheets. <i>Physical Review E</i> , 2014 , 89, 042601	2.4	23	

In Situ Nano-thermomechanical Experiment Reveals Brittle to Ductile Transition in Silicon

Analysis of Nonlinear Phenomena in a Thermal Micro-Actuator With a Built-In Thermal Position

Nanowires. Nano Letters, 2019, 19, 5327-5334

Sensor. IEEE Sensors Journal, 2012, 12, 1772-1784

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(2019-2003)

72	An experimental/computational approach to identify moduli and residual stress in MEMS radio-frequency switches. <i>Experimental Mechanics</i> , 2003 , 43, 309-316	2.6	17
71	Pop-up assembly of 3D structures actuated by heat shrinkable polymers. <i>Smart Materials and Structures</i> , 2017 , 26, 125011	3.4	16
70	In-situ TEM study of dislocation interaction with twin boundary and retraction in twinned metallic nanowires. <i>Acta Materialia</i> , 2020 , 196, 304-312	8.4	15
69	Transition of Deformation Mechanisms in Single-Crystalline Metallic Nanowires. <i>ACS Nano</i> , 2019 , 13, 9082-9090	16.7	15
68	Emerging Wearable Sensors for Plant Health Monitoring. Advanced Functional Materials,2106475	15.6	15
67	Evoked Haptic Sensation in the Hand With Concurrent Non-Invasive Nerve Stimulation. <i>IEEE Transactions on Biomedical Engineering</i> , 2019 , 66, 2761-2767	5	13
66	Electrocardiogram of a Silver Nanowire Based Dry Electrode: Quantitative Comparison With the Standard Ag/AgCl Gel Electrode. <i>IEEE Access</i> , 2019 , 7, 20789-20800	3.5	13
65	Noninvasive and Nonocclusive Blood Pressure Monitoring via a Flexible Piezo-Composite Ultrasonic Sensor. <i>IEEE Sensors Journal</i> , 2021 , 21, 2642-2650	4	13
64	In Situ Nanomechanical Testing of Crystalline Nanowires in Electron Microscopes. <i>Jom</i> , 2016 , 68, 84-93	2.1	12
63	Large-Area Nanolattice Film with Enhanced Modulus, Hardness, and Energy Dissipation. <i>Scientific Reports</i> , 2017 , 7, 9145	4.9	12
62	. IEEE Transactions on Industrial Electronics, 2020 , 67, 6955-6962	8.9	12
61	Equi-biaxial compressive strain in graphene: Grfleisen parameter and buckling ridges. <i>2D Materials</i> , 2019 , 6, 015026	5.9	12
60	Object Shape and Surface Topology Recognition Using Tactile Feedback Evoked through Transcutaneous Nerve Stimulation. <i>IEEE Transactions on Haptics</i> , 2020 , 13, 152-158	2.7	11
59	Microstructure and tensile behaviour of pure titanium produced after high-energy shot peening. <i>Materials Science and Technology</i> , 2016 , 32, 1323-1329	1.5	11
58	Achieving High-Resolution Electrohydrodynamic Printing of Nanowires on Elastomeric Substrates through Surface Modification. <i>ACS Applied Electronic Materials</i> , 2021 , 3, 192-202	4	11
57	Evolution of Irradiation-Induced Vacancy Defects in Boron Nitride Nanotubes. <i>Small</i> , 2016 , 12, 818-24	11	11
56	Object stiffness recognition using haptic feedback delivered through transcutaneous proximal nerve stimulation. <i>Journal of Neural Engineering</i> , 2019 , 17, 016002	5	11
55	Interfacial shear stress transfer at nanowire-polymer interfaces with van der Waals interactions and chemical bonding. <i>Journal of the Mechanics and Physics of Solids</i> , 2019 , 127, 191-207	5	10

36	Characterization and Modeling of Catalyst-free Carbon-Assisted Synthesis of ZnO Nanowires. Journal of Manufacturing Processes, 2018 , 32, 438-444	5	3
35	Stiffness Perception using Transcutaneous Electrical Stimulation during Active and Passive Prosthetic Control. Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference, 2020,	0.9	3
34	Stretching nanowires on a stretchable substrate: A method towards facile fracture testing and elastic strain engineering. <i>Extreme Mechanics Letters</i> , 2020 , 41, 101035	3.9	3
33	Silver nanowire based wearable sensors for multimodal sensing 2016 ,		3
32	Drug Delivery: Thrombin-Responsive Transcutaneous Patch for Auto-Anticoagulant Regulation (Adv. Mater. 4/2017). <i>Advanced Materials</i> , 2017 , 29,	24	2
31	Substrate Effects on Growth of MoS2 Film by Laser Physical Vapor Deposition on Sapphire, Si and Graphene (on Cu). <i>Journal of Electronic Materials</i> , 2017 , 46, 1010-1021	1.9	2
30	Nanoscale Testing of One-Dimensional Nanostructures 2008 , 280-304		2
29	Shape-induced ferromagnetic ordering in a triangular array of magnetized disks. <i>Applied Physics Letters</i> , 2005 , 87, 202504	3.4	2
28	Competition between shear localization and tensile detwinning in twinned nanowires. <i>Physical Review Materials</i> , 2020 , 4,	3.2	2
27	Soft wearable sensors for monitoring symptoms of COVID-19 and other respiratory diseases: a review. <i>Progress in Biomedical Engineering</i> , 2022 , 4, 012001	7.2	2
26	Static and dynamic proprioceptive recognition through vibrotactile stimulation. <i>Journal of Neural Engineering</i> , 2021 , 18,	5	2
25	Merged Haptic Sensation in the Hand during Concurrent Non-Invasive Proximal Nerve Stimulation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference, 2018 , 2018, 2186-2189	0.9	2
24	Shape Morphing: Origami/Kirigami-Guided Morphing of Composite Sheets (Adv. Funct. Mater. 44/2018). <i>Advanced Functional Materials</i> , 2018 , 28, 1870314	15.6	2
23	Ultrasoft Porous 3D Conductive Dry Electrodes for Electrophysiological Sensing and Myoelectric Control. <i>Advanced Materials Technologies</i> ,2101637	6.8	2
22	A Flexible Piezo-Composite Ultrasound Blood Pressure Sensor with Silver Nanowire-based Stretchable Electrodes 2020 ,		1
21	Silver nanowire strain sensors for wearable body motion tracking 2015,		1
20	A Novel Bidirectional Z-Shaped Thermally Actuated RF MEMS Switch for Multiple-Beam Antenna Array. <i>Advanced Materials Research</i> , 2013 , 705, 264-269	0.5	1
19	A Novel MEMS-based Nanoscale Material Testing System		1

18	Emerging Wearable Sensors for Plant Health Monitoring (Adv. Funct. Mater. 52/2021). <i>Advanced Functional Materials</i> , 2021 , 31, 2170387	15.6	1
17	Closed-loop control of a prosthetic finger via evoked proprioceptive information. <i>Journal of Neural Engineering</i> , 2021 , 18,	5	1
16	Object Recognition via Evoked Sensory Feedback during Control of a Prosthetic Hand. <i>IEEE Robotics and Automation Letters</i> , 2022 , 7, 207-214	4.2	1
15	MEMS-based Material Testing Systems 2006 , 1-10		1
14	In Situ Nano-thermo-mechanical Experiment Reveals Brittle to Ductile Transition in Si Nanowires. <i>Microscopy and Microanalysis</i> , 2020 , 26, 3192-3194	0.5	1
13	Conformal Physical Vapor Deposition Assisted by Atomic Layer Deposition and Its Application for Stretchable Conductors. <i>Advanced Materials Interfaces</i> , 2018 , 5, 1801379	4.6	1
12	Direct measurement of rate-dependent mode I and mode II traction-separation laws for cohesive zone modeling of laminated glass. <i>Composite Structures</i> , 2022 , 279, 114759	5.3	1
11	A New Electrothermal Microactuator with Z-shaped Beams. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2011 , 209-213	0.3	1
10	Integrating charge mobility, stability and stretchability within conjugated polymer films for stretchable multifunctional sensors <i>Nature Communications</i> , 2022 , 13, 2739	17.4	1
9	Evoked Tactile Feedback and Control Scheme on Functional Utility of Prosthetic Hand. <i>IEEE Robotics and Automation Letters</i> , 2022 , 7, 1308-1315	4.2	O
8	Effect of electrode characteristics on electromyographic activity of the masseter muscle. <i>Journal of Electromyography and Kinesiology</i> , 2021 , 56, 102492	2.5	0
7	Atomic Layer Deposition: Conformal Physical Vapor Deposition Assisted by Atomic Layer Deposition and Its Application for Stretchable Conductors (Adv. Mater. Interfaces 22/2018). <i>Advanced Materials Interfaces</i> , 2018 , 5, 1870109	4.6	Ο
6	Anelastic Behavior in Crystalline Nanowires. <i>Microscopy and Microanalysis</i> , 2018 , 24, 1908-1909	0.5	
5	Soft Dry Electrodes for Electrocardiogram with Conductive Silver Nanowires. <i>Materials Research Society Symposia Proceedings</i> , 2014 , 1685, 54		
4	In Situ Thermomechanical Loading for TEM Studies of Nanocrystalline Alloys. <i>Microscopy and Microanalysis</i> , 2021 , 27, 2420-2424	0.5	
3	Tensile detwinning in bi-twinned metallic nanowires. <i>Microscopy and Microanalysis</i> , 2021 , 27, 1488-1490	0.5	
2	Anomalous Tensile Detwinning in Twinned Metallic Nanowires. <i>Microscopy and Microanalysis</i> , 2018 , 24, 1824-1825	0.5	
1	Interaction of dislocations with twinning boundary in bi-twinned metallic nanowires. <i>Microscopy and Microanalysis</i> , 2021 , 27, 1960-1962	0.5	