

# Fei Ren

## List of Publications by Year in descending order

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73  
papers

1,395  
citations

279798

23  
h-index

361022

35  
g-index

75  
all docs

75  
docs citations

75  
times ranked

1668  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structure Evolution and Thermoelectric Properties of Carbonized Polydopamine Thin Films. ACS Applied Materials & Interfaces, 2017, 9, 6655-6660.	8.0	77
2	Thermoelectric and mechanical properties of multi-walled carbon nanotube doped Bi <sub>0.4</sub> Sb <sub>1.6</sub> Te <sub>3</sub> thermoelectric material. Applied Physics Letters, 2013, 103, .	3.3	69
3	Thermal runaway risk evaluation of Li-ion cells using a pinch-torsion test. Journal of Power Sources, 2014, 249, 156-162.	7.8	64
4	The high-temperature elastic moduli of polycrystalline PbTe measured by resonant ultrasound spectroscopy. Acta Materialia, 2008, 56, 5954-5963.	7.9	61
5	Resonant ultrasound spectroscopy measurement of Young's modulus, shear modulus and Poisson's ratio as a function of porosity for alumina and hydroxyapatite. Philosophical Magazine, 2009, 89, 1163-1182.	1.6	58
6	Part I: Porosity dependence of the Weibull modulus for hydroxyapatite and other brittle materials. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 8, 21-36.	3.1	53
7	Nanostructured Thermoelectric Materials and High-Efficiency Power-Generation Modules. Journal of Electronic Materials, 2007, 36, 704-710.	2.2	52
8	Hardness as a function of composition for n-type LAST thermoelectric material. Journal of Alloys and Compounds, 2008, 455, 340-345.	5.5	46
9	Part II: Fracture strength and elastic modulus as a function of porosity for hydroxyapatite and other brittle materials. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 8, 99-110.	3.1	46
10	Electrical and mechanical properties of poly(dopamine)-modified copper/reduced graphene oxide composites. Journal of Materials Science, 2017, 52, 11620-11629.	3.7	45
11	Investigating fracture behavior of polymer and polymeric composite materials using spiral notch torsion test. Engineering Fracture Mechanics, 2013, 101, 109-128.	4.3	44
12	The development of in situ fracture toughness evaluation techniques in hydrogen environment. International Journal of Hydrogen Energy, 2015, 40, 2013-2024.	7.1	44
13	Rehabilitation of notch damaged steel beams using a carbon fiber reinforced hybrid polymeric-matrix composite. Composite Structures, 2013, 106, 690-702.	5.8	43
14	Temperature-dependent elastic moduli of lead telluride-based thermoelectric materials. Philosophical Magazine, 2009, 89, 143-167.	1.6	35
15	Weibull analysis of the biaxial fracture strength of a cast p-type LAST-T thermoelectric material. Philosophical Magazine Letters, 2006, 86, 673-682.	1.2	32
16	Failure analysis of pinch-torsion tests as a thermal runaway risk evaluation method of Li-ion cells. Journal of Power Sources, 2014, 265, 356-362.	7.8	32
17	Visualizing the Structural Evolution of LSM/xYSZ Composite Cathodes for SOFC by in-situ Neutron Diffraction. Scientific Reports, 2014, 4, 5179.	3.3	31
18	Porosity dependence of elastic moduli in LAST (Lead-antimony-silver-tellurium) thermoelectric materials. Materials Chemistry and Physics, 2009, 118, 459-466.	4.0	30

#	ARTICLE	IF	CITATIONS
19	Young's modulus as a function of composition for an n-type lead-antimony-silver-telluride (LAST) thermoelectric material. <i>Philosophical Magazine</i> , 2007, 87, 4907-4934.	1.6	29
20	Cooling performance of transverse thermoelectric devices. <i>International Journal of Heat and Mass Transfer</i> , 2016, 95, 787-794.	4.8	28
21	Synthesis and catalytic performance of polydopamine supported metal nanoparticles. <i>Scientific Reports</i> , 2020, 10, 10416.	3.3	27
22	Confocal laser scanning microscopy as a tool for imaging cancellous bone. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2006, 79B, 185-192.	3.4	26
23	Characterization of dry milled powders of LAST (lead-antimony-silver-tellurium) thermoelectric material. <i>Philosophical Magazine</i> , 2007, 87, 4567-4591.	1.6	25
24	Reciprocated suppression of polymer crystallization toward improved solid polymer electrolytes: Higher ion conductivity and tunable mechanical properties. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2015, 53, 1450-1457.	2.1	24
25	Kirigami-Inspired Conducting Polymer Thermoelectrics from Electrostatic Recognition Driven Assembly. <i>ACS Nano</i> , 2018, 12, 7967-7973.	14.6	23
26	Development of Thermoelectric Fibers for Miniature Thermoelectric Devices. <i>Journal of Electronic Materials</i> , 2016, 45, 1412-1418.	2.2	22
27	Three-Dimensional Microstructural Characterization of Porous Hydroxyapatite Using Confocal Laser Scanning Microscopy. <i>International Journal of Applied Ceramic Technology</i> , 2005, 2, 200-211.	2.1	21
28	Effect of projectile impact and penetration on the phase composition and microstructure of high performance concretes. <i>Cement and Concrete Composites</i> , 2013, 41, 1-8.	10.7	19
29	Mechanical properties of polydopamine (PDA) thin films. <i>MRS Advances</i> , 2019, 4, 405-412.	0.9	19
30	Structural evolution and electrical properties of metal ion-containing polydopamine. <i>Journal of Materials Science</i> , 2019, 54, 6393-6400.	3.7	19
31	Machining and Ceramic/Ceramic Joining to Form Internal Mesoscale Channels. <i>International Journal of Applied Ceramic Technology</i> , 2004, 1, 95-103.	2.1	17
32	Preparation and electrical properties of sintered copper powder compacts modified by polydopamine-derived carbon nanofilms. <i>Journal of Materials Science</i> , 2018, 53, 6562-6573.	3.7	16
33	Mechanical Characterization of PbTe-based Thermoelectric Materials. <i>Materials Research Society Symposia Proceedings</i> , 2007, 1044, 1.	0.1	15
34	Anomalous temperature-dependent Young's modulus of a cast LAST (Pb-Sb-Ag-Te) thermoelectric material. <i>Acta Materialia</i> , 2010, 58, 31-38.	7.9	15
35	Elastic modulus, biaxial fracture strength, electrical and thermal transport properties of thermally fatigued hot pressed LAST and LASTT thermoelectric materials. <i>Materials Chemistry and Physics</i> , 2012, 134, 973-987.	4.0	14
36	Chemically Driven Interfacial Coupling in Charge-Transfer Mediated Functional Superstructures. <i>Nano Letters</i> , 2016, 16, 2851-2859.	9.1	14

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37	Nanostructure enhanced ionic transport in fullerene reinforced solid polymer electrolytes. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 8266-8275.	2.8	13
38	Agglomeration during wet milling of LAST (lead-antimony-silver-tellurium) powders. <i>Materials Chemistry and Physics</i> , 2009, 113, 497-502.	4.0	10
39	Temperature-dependent thermal expansion of cast and hot-pressed LAST (Pb-Sb-Ag-Te) thermoelectric materials. <i>Philosophical Magazine</i> , 2009, 89, 1439-1455.	1.6	10
40	Fractographic study of epoxy under mode I and mixed mode I/III loading. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 532, 449-455.	5.6	9
41	Copper-polydopamine composite derived from bioinspired polymer coating. <i>Journal of Alloys and Compounds</i> , 2018, 742, 191-198.	5.5	9
42	Effect of material anisotropy on the transverse thermoelectricity of layered composites. <i>International Journal of Energy Research</i> , 2019, 43, 181-188.	4.5	9
43	Nanoindentation study of time-dependent mechanical properties of ultra-high-molecular-weight polyethylene (UHMWPE) at different temperatures. <i>Polymer Testing</i> , 2020, 91, 106787.	4.8	9
44	Improving Interlayer Adhesion of Poly(p-phenylene terephthalamide) (PPTA)/Ultra-high-molecular-weight Polyethylene (UHMWPE) Laminates Prepared by Plasma Treatment and Hot Pressing Technique. <i>Polymers</i> , 2021, 13, 2600.	4.5	9
45	In situ neutron scattering study of nanoscale phase evolution in PbTe-PbS thermoelectric material. <i>Applied Physics Letters</i> , 2016, 109, 081903.	3.3	8
46	Structure-Mechanical Property Relations of Skin-Core Regions of Poly(p-phenylene terephthalamide) Single Fiber. <i>Scientific Reports</i> , 2019, 9, 740.	3.3	7
47	Enhancing the electrical and mechanical properties of copper by introducing nanocarbon derived from polydopamine coating. <i>Journal of Alloys and Compounds</i> , 2019, 778, 288-293.	5.5	7
48	Effect of composite coating on insertion mechanics of needle structure in soft materials. <i>Medical Engineering and Physics</i> , 2021, 95, 104-110.	1.7	7
49	Transverse Thermoelectricity in Fibrous Composite Materials. <i>Energies</i> , 2017, 10, 1006.	3.1	6
50	Electron-beam induced in situ growth of self-supported metal nanoparticles in ion-containing polydopamine. <i>Materials Letters</i> , 2019, 252, 277-281.	2.6	6
51	Room-temperature mechanical properties of LAST (Pb-Sb-Ag-Te) thermoelectric materials as a function of cooling rate during ingot casting. <i>Philosophical Magazine Letters</i> , 2009, 89, 267-275.	1.2	5
52	Thermal Expansion Study and Microstructural Characterization of High-Performance Concretes. <i>Journal of Materials in Civil Engineering</i> , 2013, 25, 1574-1578.	2.9	5
53	Nanoparticle-Infused UHMWPE Layer as Multifunctional Coating for High-Performance PPTA Single Fibers. <i>Scientific Reports</i> , 2019, 9, 7183.	3.3	5
54	Development of copper powder paste for direct printing and soft mold casting. <i>Additive Manufacturing</i> , 2020, 31, 100992.	3.0	5

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55	Electrical Contact Fabrication and Measurements of Metals and Alloys to Thermoelectric Materials. Materials Research Society Symposia Proceedings, 2007, 1044, 1.	0.1	4
56	In Situ Neutron Scattering Study of Nanostructured PbTe-PbS Bulk Thermoelectric Material. Journal of Electronic Materials, 2017, 46, 2604-2610.	2.2	4
57	Biopolymer-Assisted Manufacturing of Aluminum-Copper Nanoparticle Composites with Enhanced Sinterability. ACS Applied Nano Materials, 2019, 2, 5688-5694.	5.0	3
58	Alternative approach for cavitation damage study utilizing repetitive laser pulses. Wear, 2010, 270, 115-119.	3.1	2
59	Polydopamine Coating for Thermal Insulation of Shape Memory Alloy Wires. , 2016, , .		2
60	Steel-Concrete Composite Vessel for Stationary High-Pressure Hydrogen Storage. , 2016, , .		2
61	Wear Study of Cubic Boron Nitride (cBN) Cutting Tool for Machining of Compacted Graphite Iron (CGI) with Different Metalworking Fluids. Lubricants, 2022, 10, 51.	2.9	2
62	An <i>in situ</i> SEM experimental study of the thermal stability of a LAST thermoelectric material. Philosophical Magazine Letters, 2011, 91, 443-451.	1.2	1
63	Study on the Fabrication and Characterization of LAST and LASTT Based Thermoelectric Generators. Materials Research Society Symposia Proceedings, 2007, 1044, 1.	0.1	0
64	SOLID-STATE SYNTHESIS AND SOME PROPERTIES OF MAGNESIUM-DOPED COPPER ALUMINUM OXIDES. Materials Research Society Symposia Proceedings, 2009, 1218, 1.	0.1	0
65	Spiral Notch Torsion Test Use for Determining Fracture Toughness of Structural Materials. , 2012, , .		0
66	Integrity Study of ACSR and ACSS Two Stage Splice Connectors at High Operation Temperatures. , 2012, , .		0
67	Nanostructure-Driven Ion Transport in PCBM-Based Polymer Electrolytes. ECS Transactions, 2014, 61, 31-33.	0.5	0
68	Smart patch integration development of compression connector structural health monitoring in overhead transmission lines. , 2016, , .		0
69	Structural health monitoring of compression connectors for overhead transmission lines. , 2017, , .		0
70	Enhanced Thermoelectric Cooling through Introduction of Material Anisotropy in Transverse Thermoelectric Composites. Materials, 2019, 12, 2049.	2.9	0
71	Freestanding Polymer Assembly Conductor by Contact-Free Annealing. ACS Applied Polymer Materials, 2019, 1, 3196-3202.	4.4	0
72	Cavitation Damage Study via a Novel Repetitive Pressure Pulse Approach. , 2010, , .		0

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73	Development of In Situ Techniques for Torsion and Tension Testing in Hydrogen Environment. , 2011, , .		0