

Yi-Chung Shu

List of Publications by Year in descending order

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48
papers

2,589
citations

279487

23
h-index

276539

41
g-index

48
all docs

48
docs citations

48
times ranked

1760
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of power output for piezoelectric energy harvesting systems. <i>Smart Materials and Structures</i> , 2006, 15, 1499-1512.	1.8	629
2	Efficiency of energy conversion for a piezoelectric power harvesting system. <i>Journal of Micromechanics and Microengineering</i> , 2006, 16, 2429-2438.	1.5	283
3	An improved analysis of the SSHI interface in piezoelectric energy harvesting. <i>Smart Materials and Structures</i> , 2007, 16, 2253-2264.	1.8	282
4	The influence of texture on the shape-memory effect in polycrystals. <i>Acta Materialia</i> , 1998, 46, 5457-5473.	3.8	146
5	Revisit of series-SSHI with comparisons to other interfacing circuits in piezoelectric energy harvesting. <i>Smart Materials and Structures</i> , 2010, 19, 125009.	1.8	124
6	Micromagnetic modeling of magnetostrictive materials under intrinsic stress. <i>Mechanics of Materials</i> , 2004, 36, 975-997.	1.7	83
7	Array of piezoelectric energy harvesting by the equivalent impedance approach. <i>Smart Materials and Structures</i> , 2012, 21, 082001.	1.8	83
8	Domain patterns and macroscopic behaviour of ferroelectric materials. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 2001, 81, 2021-2054.	0.6	70
9	Heterogeneous Thin Films of Martensitic Materials. <i>Archive for Rational Mechanics and Analysis</i> , 2000, 153, 39-90.	1.1	68
10	Analysis of an array of piezoelectric energy harvesters connected in series. <i>Smart Materials and Structures</i> , 2013, 22, 094026.	1.8	61
11	Phase-field simulation of magnetoelastic couplings in ferromagnetic shape memory alloys. <i>Acta Materialia</i> , 2011, 59, 2648-2655.	3.8	51
12	Multivariant model of martensitic microstructure in thin films. <i>Acta Materialia</i> , 2008, 56, 3969-3981.	3.8	45
13	Austenite-martensite interface in shape memory alloys. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	45
14	A study of electromechanical switching in ferroelectric single crystals. <i>Journal of the Mechanics and Physics of Solids</i> , 2008, 56, 2117-2135.	2.3	43
15	Constrained modeling of domain patterns in rhombohedral ferroelectrics. <i>Applied Physics Letters</i> , 2008, 92, 052909.	1.5	42
16	Hysteresis behaviors of barium titanate single crystals based on the operation of multiple 90° switching systems. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2009, 161, 50-54.	1.7	41
17	Finite element modeling of electrically rectified piezoelectric energy harvesters. <i>Smart Materials and Structures</i> , 2015, 24, 094008.	1.8	39
18	Magnetoelastic domains and magnetic field-induced strains in ferromagnetic shape memory alloys by phase-field simulation. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	32

#	ARTICLE	IF	CITATIONS
19	The magnetoelectric domains and cross-field switching in multiferroic BiFeO ₃ . Applied Physics Letters, 2008, 93, 192506.	1.5	32
20	Electrically rectified piezoelectric energy harvesting induced by rotary magnetic plucking. Smart Materials and Structures, 2018, 27, 125006.	1.8	31
21	Continuum theory and phase-field simulation of magnetoelectric effects in multiferroic bismuth ferrite. Journal of the Mechanics and Physics of Solids, 2010, 58, 1613-1627.	2.3	30
22	Wideband energy harvesting based on mixed connection of piezoelectric oscillators. Smart Materials and Structures, 2017, 26, 094005.	1.8	30
23	Unconventional phase field simulations of transforming materials with evolving microstructures. Acta Mechanica Sinica/Lixue Xuebao, 2012, 28, 915-927.	1.5	27
24	Shape-Memory Micropumps. Materials Transactions, 2002, 43, 1037-1044.	0.4	23
25	Effect of depolarization and coercivity on actuation strains due to domain switching in barium titanate. Applied Physics Letters, 2007, 90, 172902.	1.5	23
26	Pattern formation in martensitic thin films. Applied Physics Letters, 2007, 91, 021908.	1.5	22
27	Self-powered SECE piezoelectric energy harvesting induced by shock excitations for sensor supply. Mechanical Systems and Signal Processing, 2022, 177, 109123.	4.4	19
28	Operation of multiple 90° switching systems in barium titanate single crystals under electromechanical loading. Applied Physics Letters, 2007, 91, .	1.5	18
29	Domain pattern and piezoelectric response across polymorphic phase transition in strained bismuth ferrite films. Applied Physics Letters, 2010, 97, 242906.	1.5	18
30	A unified electromechanical finite element dynamic analysis of multiple segmented smart plate energy harvesters: circuit connection patterns. Acta Mechanica, 2018, 229, 4575-4604.	1.1	18
31	Spring amplification and dynamic friction modelling of a 2DOF/2SDOF system in an electromagnetic vibration energy harvester – Experiment, simulation, and analytical analysis. Mechanical Systems and Signal Processing, 2019, 132, 232-252.	4.4	18
32	An SECE array of piezoelectric energy harvesting. Smart Materials and Structures, 2021, 30, 045008.	1.8	18
33	Broadband piezoelectric energy harvesting induced by mixed resonant modes under magnetic plucking. Smart Materials and Structures, 2021, 30, 105026.	1.8	14
34	Damping ratio and power output prediction of an electromagnetic energy harvester designed through finite element analysis. Sensors and Actuators A: Physical, 2019, 286, 220-231.	2.0	12
35	Investigation of nanodomain pattern and piezoelectric behavior of mixed phases in epitaxial BiFeO ₃ films. Journal of the European Ceramic Society, 2011, 31, 3063-3071.	2.8	11
36	Network segmentations of smart plate structure with attached mass and dynamic motions. European Journal of Mechanics, A/Solids, 2021, 85, 104061.	2.1	11

#	ARTICLE	IF	CITATIONS
37	A series-SSHI-Phi interface circuit for piezoelectric energy harvesting with 163% improvement in extracted power at off-resonance. , 2016, , .		10
38	Performance Evaluation of Vibration-Based Piezoelectric Energy Scavengers. , 2009, , 79-105.		9
39	Phase-field modeling of martensitic microstructure with inhomogeneous elasticity. Journal of Applied Physics, 2013, 113, 123506.	1.1	8
40	A sharp interface model of compatible twin patterns in shape memory alloys. Smart Materials and Structures, 2012, 21, 094010.	1.8	7
41	Strain Relaxation in an Alloy Film with a Rough Free Surface. Journal of Elasticity, 2002, 66, 63-92.	0.9	4
42	A temperature-dependent study on the polarization-free straining of barium titanate single crystals. Smart Materials and Structures, 2009, 18, 104018.	1.8	3
43	Strain actuation of barium titanate single crystals under electromechanical loading in the non-polar [110] direction. Smart Materials and Structures, 2013, 22, 094011.	1.8	2
44	SECE-based piezoelectric energy sensor for the diagnostics of timing belt. , 2022, , .		2
45	Polarization-Free Straining of Barium Titanate Single Crystals. , 2008, , .		1
46	An SECE-based piezoelectric power harvesting induced by rotary magnetic plucking. , 2019, , .		1
47	<title>Pressurized shape-memory micropumps</title>. , 2002, 4699, 263.		0
48	Strain Actuation Behavior of Barium Titanate Single Crystal Loaded Electromechanically in Non-Variant [110] Direction. , 2012, , .		0