

Wei-Heng Shih

List of Publications by Year in descending order

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95
papers

3,168
citations

147801

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161849

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100
docs citations

100
times ranked

3795
citing authors

#	ARTICLE	IF	CITATIONS
1	Water-resistant and flexible all-inorganic perovskite nanocrystals films for white light-emitting applications. <i>Journal of Materials Research</i> , 2021, 36, 1835-1845.	2.6	6
2	Stabilization of MAPbI ₃ Nanocrystals by Dual Ligands for Photodetectors. <i>ACS Applied Nano Materials</i> , 2021, 4, 10334-10343.	5.0	6
3	Improving Stability of Cesium Lead Iodide Perovskite Nanocrystals by Solution Surface Treatments. <i>ACS Omega</i> , 2020, 5, 18013-18020.	3.5	13
4	Enhancing the photoluminescence of SnS quantum dots by ZnS treatment. <i>Chemical Physics Letters</i> , 2020, 754, 137696.	2.6	7
5	Flexible inorganic CsPbI ₃ perovskite nanocrystal-PMMA composite films with enhanced stability in air and water for white light-emitting diodes. <i>Nanotechnology</i> , 2020, 31, 225602.	2.6	28
6	Ultrahighly Photosensitive and Highly Stretchable Rippled Structure Photodetectors Based on Perovskite Nanocrystals and Graphene. <i>ACS Applied Electronic Materials</i> , 2019, 1, 1517-1526.	4.3	11
7	Graphene Sandwich Stable Perovskite Quantum-Dot Light-Emissive Ultrasensitive and Ultrafast Broadband Vertical Phototransistors. <i>ACS Nano</i> , 2019, 13, 12540-12552.	14.6	69
8	Rapid, label-free genetic detection of enteropathogens in stool without genetic isolation or amplification. <i>Biosensors and Bioelectronics</i> , 2019, 130, 73-80.	10.1	13
9	A model study of 3-dimensional localization of breast tumors using piezoelectric fingers of different probe sizes. <i>Review of Scientific Instruments</i> , 2019, 90, 015006.	1.3	2
10	Variable piezoelectricity of electrospun chitin. <i>Carbohydrate Polymers</i> , 2018, 195, 218-224.	10.2	38
11	Control of oleylamine to perovskite ratio in synthesis of MAPbBr ₃ nanoparticles. <i>Chemical Physics Letters</i> , 2018, 702, 21-25.	2.6	23
12	Multicolor Ultralow-Threshold Random Laser Assisted by Vertical-Graphene Network. <i>Advanced Optical Materials</i> , 2018, 6, 1800382.	7.3	35
13	Random Lasers: Multicolor Ultralow-Threshold Random Laser Assisted by Vertical-Graphene Network (<i>Advanced Optical Materials</i> 16/2018). <i>Advanced Optical Materials</i> , 2018, 6, 1870063.	7.3	0
14	In situ, amplification-free double-stranded mutation detection at 60 copies/ml with thousand-fold wild type in urine. <i>Biosensors and Bioelectronics</i> , 2018, 119, 221-229.	10.1	7
15	Piezoelectric Plate Sensor (PEPS) for Analysis of Specific KRAS Point Mutations at Low Copy Number in Urine Without DNA Isolation or Amplification. <i>Methods in Molecular Biology</i> , 2017, 1572, 327-348.	0.9	2
16	Wrinkled 2D Materials: A Versatile Platform for Low-Threshold Stretchable Random Lasers. <i>Advanced Materials</i> , 2017, 29, 1703549.	21.0	85
17	Charge-Neutral, Stable, Non-Cytotoxic, Near-Infrared SnS Aqueous Quantum Dots for High Signal-to-Noise-Ratio Biomedical Imaging. <i>ChemistrySelect</i> , 2017, 2, 7332-7339.	1.5	5
18	Advanced Green Energy Nanomaterials for Optoelectronic Devices: Synthesis, Processing, Characterization, and Applications. <i>Journal of Nanomaterials</i> , 2016, 2016, 1-1.	2.7	0

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19	Electricalâ€Polarizationâ€Induced Ultrahigh Responsivity Photodetectors Based on Graphene and Graphene Quantum Dots. <i>Advanced Functional Materials</i> , 2016, 26, 620-628.	14.9	98
20	Development of array piezoelectric fingers towards <i>in vivo</i> breast tumor detection. <i>Review of Scientific Instruments</i> , 2016, 87, 124301.	1.3	12
21	Control of morphology, photoluminescence, and stability of colloidal methylammonium lead bromide nanocrystals by oleylamine capping molecules. <i>Journal of Colloid and Interface Science</i> , 2016, 484, 17-23.	9.4	33
22	Amplification-free in situ KRAS point mutation detection at 60 copies per mL in urine in a background of 1000-fold wild type. <i>Analyst, The</i> , 2016, 141, 1421-1433.	3.5	10
23	Facile Preparation and Self-Assembly of Monodisperse Polystyrene Nanospheres for Photonic Crystals. <i>Journal of Nanoscience and Nanotechnology</i> , 2015, 15, 3239-3243.	0.9	25
24	Quantitative assessment of Tn antigen in breast tissue micro-arrays using CdSe aqueous quantum dots. <i>Biomaterials</i> , 2014, 35, 2971-2980.	11.4	13
25	A Highly Sensitive Grapheneâ€Organic Hybrid Photodetector with a Piezoelectric Substrate. <i>Advanced Functional Materials</i> , 2014, 24, 6818-6825.	14.9	84
26	High-conjugation-efficiency aqueous CdSe quantum dots. <i>Analyst, The</i> , 2013, 138, 7316.	3.5	10
27	Flow Energy Harvesting Using Piezoelectric Cantilevers With Cylindrical Extension. <i>IEEE Transactions on Industrial Electronics</i> , 2013, 60, 1116-1118.	7.9	131
28	Enhancing detection sensitivity of piezoelectric plate sensor by increasing transverse electromechanical coupling constant. <i>Journal of Applied Physics</i> , 2013, 114, 064505.	2.5	5
29	Graphene-lead zirconate titanate optothermal field effect transistors. <i>Applied Physics Letters</i> , 2012, 100, 113507.	3.3	31
30	Single ZnO nanowireâ€PZT optothermal field effect transistors. <i>Nanotechnology</i> , 2012, 23, 355201.	2.6	7
31	80 MHz Intravascular Ultrasound (IVUS) transducer. , 2011, , .		1
32	Leadâ€Free Piezoelectric Freestanding Films with Sheet Geometryâ€Enhanced Highâ€Field Piezoelectric Coefficients. <i>Journal of the American Ceramic Society</i> , 2010, 93, 1852-1855.	3.8	0
33	Highly Photoluminescent and Stable Aqueous ZnS Quantum Dots. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 578-582.	3.7	39
34	Direct observation of two-step polarization reversal by an opposite field in a substrate-free piezoelectric thin sheet. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	11
35	Synthesis of Na _{0.5} K _{0.5} NbO ₃ Piezoelectrics by a Solution Coating Approach. <i>International Journal of Applied Ceramic Technology</i> , 2009, 6, 205-215.	2.1	0
36	Transfection of aqueous CdS quantum dots using polyethylenimine. <i>Nanotechnology</i> , 2008, 19, 475101.	2.6	15

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37	Length and thickness dependence of longitudinal flexural resonance frequency shifts of a piezoelectric microcantilever sensor due to Young's modulus change. Journal of Applied Physics, 2008, 104, .	2.5	13
38	Response to "Comment on "Mechanism of flexural resonance frequency shift of a piezoelectric microcantilever sensor during humidity detection" [Appl. Phys. Lett. 93, 096101 (2008)]" Applied Physics Letters, 2008, 93, 096102.	3.3	0
39	Mechanism of the flexural resonance frequency shift of a piezoelectric microcantilever sensor in a dc bias electric field. Applied Physics Letters, 2008, 92, .	3.3	15
40	All-electrical indentation shear modulus and elastic modulus measurement using a piezoelectric cantilever with a tip. Journal of Applied Physics, 2007, 101, 054510.	2.5	20
41	Synthesis and Characterization of Aqueous Carboxyl-Capped CdS Quantum Dots for Bioapplications. Industrial & Engineering Chemistry Research, 2007, 46, 2013-2019.	3.7	132
42	Non-heavy-metal ZnS quantum dots with bright blue photoluminescence by a one-step aqueous synthesis. Nanotechnology, 2007, 18, 205604.	2.6	94
43	Stable aqueous ZnS quantum dots obtained using (3-mercaptopropyl)trimethoxysilane as a capping molecule. Nanotechnology, 2007, 18, 495605.	2.6	32
44	Effect of Antimony Concentration on the Crystalline Structure, Dielectric, and Piezoelectric Properties of (Na _{0.5} K _{0.5}) _{0.945} Li _{0.055} Nb _{1-x} Sb _x O ₃ Solid Solutions. Journal of the American Ceramic Society, 2007, 90, 3070-3072.	3.8	38
45	Double Precursor Solution Coating Approach for Low-Temperature Sintering of [Pb(Mg _{1/3} Nb _{2/3})O ₃] _{0.63} [PbTiO ₃] _{0.37} Solids. Journal of the American Ceramic Society, 2007, 90, 070929025416005-???	3.8	5
46	Mass detection sensitivity of piezoelectric cantilevers with a nonpiezoelectric extension. Review of Scientific Instruments, 2006, 77, 065101.	1.3	38
47	Sheet geometry enhanced giant piezoelectric coefficients. Applied Physics Letters, 2006, 89, 242913.	3.3	26
48	Palpationlike soft-material elastic modulus measurement using piezoelectric cantilevers. Review of Scientific Instruments, 2006, 77, 044302.	1.3	25
49	Self-exciting, self-sensing PbZr _{0.53} Ti _{0.47} O ₃ ·SiO ₂ piezoelectric microcantilevers with femtogram/Hertz sensitivity. Applied Physics Letters, 2006, 89, 023506.	3.3	44
50	Methyltrimethoxysilane-insulated piezoelectric microcantilevers for direct, all-electrical biodetection in buffered aqueous solutions. Review of Scientific Instruments, 2006, 77, 125105.	1.3	21
51	Low-Temperature, Single Step, Reactive Sintering of Lead Magnesium Niobate Using Mg(OH) ₂ -Coated Nb ₂ O ₅ Powders. Journal of the American Ceramic Society, 2005, 88, 1435-1443.	3.8	12
52	Soft-materials elastic and shear moduli measurement using piezoelectric cantilevers. Review of Scientific Instruments, 2005, 76, 064302.	1.3	56
53	Real-Time Salmonella Detection Using Lead Zirconate Titanate-Titanium Microcantilevers. Materials Research Society Symposia Proceedings, 2004, 845, 87.	0.1	0
54	Comparison in the Coating of Mg(OH) ₂ on Micron-Sized and Nanometer-Sized Nb ₂ O ₅ Particles. International Journal of Applied Ceramic Technology, 2004, 1, 146-154.	2.1	7

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55	The effects of containers of precursors on the properties of zirconia powders. <i>Microporous and Mesoporous Materials</i> , 2003, 59, 29-34.	4.4	9
56	Single-Step Calcination Synthesis of Pyrochlore-Free $0.9\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$ and 0.1PbTiO_3 and $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$ Ceramics Using a Coating Method. <i>Journal of the American Ceramic Society</i> , 2003, 86, 217-221.	3.8	41
57	In situ cell detection using piezoelectric lead zirconate titanate-stainless steel cantilevers. <i>Journal of Applied Physics</i> , 2003, 93, 619-625.	2.5	93
58	Effect of length, width, and mode on the mass detection sensitivity of piezoelectric unimorph cantilevers. <i>Journal of Applied Physics</i> , 2002, 91, 1680-1686.	2.5	234
59	Effect of a Transverse Tensile Stress on the Electric Field-Induced Domain Reorientation in Soft PZT: <i>In Situ</i> XRD Study. <i>Journal of the American Ceramic Society</i> , 2002, 85, 844-850.	3.8	42
60	Electromechanical Properties of a Ceramic d_{31} -Gradient Flexensional Actuator. <i>Journal of the American Ceramic Society</i> , 2001, 84, 996-1003.	3.8	41
61	Effects of Boehmite Coating Thickness on the Consolidation and Rheological Properties of Boehmite-Coated SiC Suspensions. <i>Journal of the American Ceramic Society</i> , 2001, 84, 2834-2840.	3.8	15
62	Synthesis of mesoporous aluminum oxide with aluminum alkoxide and tartaric acid. <i>Materials Letters</i> , 2000, 42, 143-149.	2.6	51
63	Vibrations and static responses of asymmetric bimorph disks of piezoelectric ceramics. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2000, 47, 706-715.	3.0	21
64	Synthesis of Zeolites A and X from Fly Ashes and Their Ion-Exchange Behavior with Cobalt Ions. <i>Industrial & Engineering Chemistry Research</i> , 2000, 39, 4185-4191.	3.7	117
65	Gelation, Consolidation, and Rheological Properties of Boehmite-Coated Silicon Carbide Suspensions. <i>Journal of the American Ceramic Society</i> , 2000, 83, 1879-1884.	3.8	15
66	Effect of Sodium on Crystallite Size and Surface Area of Zirconia Powders at Elevated Temperatures. <i>Journal of the American Ceramic Society</i> , 2000, 83, 2055-2061.	3.8	9
67	Electromechanical Behavior of PZT-Brass Unimorphs. <i>Journal of the American Ceramic Society</i> , 1999, 82, 1733-1740.	3.8	87
68	Piezoelectric ceramic disks with thickness-graded material properties. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 1999, 46, 205-215.	3.0	25
69	Elastic and Yield Behavior of Strongly Flocculated Colloids. <i>Journal of the American Ceramic Society</i> , 1999, 82, 616-624.	3.8	140
70	Effect of Acid on the Coating of Boehmite onto Silicon Carbide Particles in Aqueous Suspensions. <i>Journal of the American Ceramic Society</i> , 1999, 82, 436-440.	3.8	21
71	A Non-surfactant Templating Route to Mesoporous Silica Materials. <i>Advanced Materials</i> , 1998, 10, 313-316.	21.0	166
72	A General Method for the Conversion of Fly Ash into Zeolites as Ion Exchangers for Cesium. <i>Industrial & Engineering Chemistry Research</i> , 1998, 37, 71-78.	3.7	159

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73	A Non-surfactant Templating Route to Mesoporous Silica Materials. <i>Advanced Materials</i> , 1998, 10, 313-316.	21.0	1
74	Effects of Copper Coating on the Crystalline Structure of Fine Barium Titanate Particles. <i>Journal of the American Ceramic Society</i> , 1997, 80, 2781-2788.	3.8	13
75	Size Effects in Barium Titanate Particles and Clusters. <i>Journal of the American Ceramic Society</i> , 1997, 80, 2844-2852.	3.8	174
76	Scaling Analysis for the Axial Displacement and Pressure of Flextensional Transducers. <i>Journal of the American Ceramic Society</i> , 1997, 80, 1073-1078.	3.8	34
77	Porous Materials from Fly Ash. <i>Materials Research Society Symposia Proceedings</i> , 1996, 431, 69.	0.1	0
78	Boehmite and Yttrium Oxide Coatings on Silicon Nitride From Aqueous Sols. <i>Materials Research Society Symposia Proceedings</i> , 1996, 432, 201.	0.1	1
79	Rheology and Consolidation of Colloidal Alumina-Coated Silicon Nitride Suspensions. <i>Journal of the American Ceramic Society</i> , 1996, 79, 1155-1162.	3.8	43
80	Improved Aqueous Dispersion of Silicon Nitride with Aminosilanes. <i>Journal of the American Ceramic Society</i> , 1996, 79, 2940-2946.	3.8	15
81	Heteroflocculation in Binary Colloidal Suspensions: Monte Carlo Simulations. <i>Journal of the American Ceramic Society</i> , 1996, 79, 2587-2591.	3.8	8
82	Boehmite Coating as a Consolidation and Forming Aid in Aqueous Silicon Nitride Processing. <i>Journal of the American Ceramic Society</i> , 1995, 78, 1252-1260.	3.8	35
83	Elimination of an isolated pore: Effect of grain size. <i>Journal of Materials Research</i> , 1995, 10, 1000-1015.	2.6	18
84	Rheology of aqueous boehmite-coated silicon nitride suspensions and gels. <i>Journal of Materials Research</i> , 1995, 10, 2808-2816.	2.6	13
85	Equilibrium-State Density Profiles of Centrifuged Cakes. <i>Journal of the American Ceramic Society</i> , 1994, 77, 540-546.	3.8	24
86	Ultrafine titanate powders produced via a precursor-modified sol-gel method. <i>Ferroelectrics</i> , 1994, 154, 241-246.	0.6	19
87	Improved Dispersion of Silicon Nitride Whiskers. <i>Materials Research Society Symposia Proceedings</i> , 1994, 365, 29.	0.1	0
88	Conversion of Class-F Fly Ash to Zeolites. <i>Materials Research Society Symposia Proceedings</i> , 1994, 371, 39.	0.1	17
89	Crystallization Behavior in Precursor-Modified Sol-Gel Lead. <i>Materials Research Society Symposia Proceedings</i> , 1992, 284, 481.	0.1	0
90	Equilibrium-State Density Profiles of Centrifuged Cakes of Flocculated Suspensions. <i>Materials Research Society Symposia Proceedings</i> , 1992, 289, 251.	0.1	3

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91	Mechanical Properties of Colloidal Gels Subject to Particle Rearrangement. Materials Research Society Symposia Proceedings, 1990, 195, 477.	0.1	4
92	Sintering Behavior of an Isolated Pore: Monte Carlo Simulation. Materials Research Society Symposia Proceedings, 1988, 138, 125.	0.1	0
93	Exploring all-electrical soft-tissue stiffness measurement using piezoelectric unimorph cantilevers. , 0, , .		3
94	Thermodynamic Stability of Titanium-Aluminum Alloys in Air. Ceramic Engineering and Science Proceedings, 0, , 173-180.	0.1	1
95	Cesium lead iodide electrospun fibrous membranes for white light-emitting diodes. Nanotechnology, 0, , .	2.6	0