

# Jiann Shieh

## List of Publications by Year in descending order

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Version: 2024-02-01

66  
papers

1,806  
citations

279487

23  
h-index

264894

42  
g-index

67  
all docs

67  
docs citations

67  
times ranked

2552  
citing authors

#	ARTICLE	IF	CITATIONS
1	Protocol for growing silica nanowires on various substrates to enhance superwetting and self-jumping properties. STAR Protocols, 2022, 3, 101066.	0.5	2
2	Using Si/MoS2 Core-Shell Nanopillar Arrays Enhances SERS Signal. Nanomaterials, 2021, 11, 733.	1.9	6
3	Harvesting water surface energy: self-jumping nanostructured hydrophobic metals. IScience, 2021, 24, 102746.	1.9	3
4	Heat transfer enhancement of a multilayer graphene coating surface. Experimental Thermal and Fluid Science, 2020, 118, 110175.	1.5	9
5	Rapid, Low-Temperature Growth of Sub-10 nm Silica Nanowires through Plasma Pretreatment for Antireflection Applications. ACS Applied Nano Materials, 2019, 2, 2836-2843.	2.4	4
6	Growing invisible silica nanowires on fused silica plates provides highly transparent and superwetting substrates. Applied Surface Science, 2019, 479, 619-625.	3.1	11
7	Black-Silicon on Micropillars with Minimal Surface Area Enlargement to Enhance the Performance of Silicon Solar Cells. Nanoscale Research Letters, 2016, 11, 489.	3.1	10
8	Improving optical and electrical properties of micropillar and black-Si solar cells by combining them into a superstructure. , 2016, , .		2
9	Nanoimprinting: Nanoimprinting of Flexible Polycarbonate Sheets with a Flexible Polymer Mold and Application to Superhydrophobic Surfaces (Adv. Mater. Interfaces 7(2015)). Advanced Materials Interfaces, 2015, 2, .	1.9	3
10	Extracting high electrical currents with large fill factors from core/shell silicon nanopillar solar cells. Journal of Renewable and Sustainable Energy, 2015, 7, 033102.	0.8	8
11	Simulation of thermal ablation by high-intensity focused ultrasound with temperature-dependent properties. Ultrasonics Sonochemistry, 2015, 27, 456-465.	3.8	25
12	Nanoimprinting of Flexible Polycarbonate Sheets with a Flexible Polymer Mold and Application to Superhydrophobic Surfaces. Advanced Materials Interfaces, 2015, 2, 1500030.	1.9	36
13	Decreasing reflection through the mutually positive effects of nanoglass and nanopillars. Journal of Materials Chemistry C, 2014, 2, 3645-3650.	2.7	7
14	Broadband antireflection and field emission properties of TiN-coated Si-nanopillars. Nanoscale, 2014, 6, 9846.	2.8	7
15	Fabricating Silver Nanoparticles on Thin Silicon Nanowalls for Highly Sensitive Surface-Enhanced Raman Scattering. Materials Transactions, 2014, 55, 1800-1805.	0.4	6
16	Microstructure and photoluminescence of Ge-doped mesoporous silica. Journal of Sol-Gel Science and Technology, 2013, 66, 242-247.	1.1	1
17	Switching Mode and Mechanism in Binary Oxide Resistive Random Access Memory Using Ni Electrode. Japanese Journal of Applied Physics, 2013, 52, 031801.	0.8	19
18	Ultralow Reflection from $\text{Si Nanoglass/Si Nanofrustum Double Layers}$ . Advanced Materials, 2013, 25, 1724-1728.	11.1	21

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19	Plasma enables edge-to-center-oriented graphene nanoarrays on Si nanograss. Applied Physics Letters, 2012, 100, .	1.5	16
20	Broadband and wide angle antireflection of sub-20 nm GaAs nanograss. Energy and Environmental Science, 2012, 5, 7601.	15.6	25
21	Flexible tactile sensors based on nanoimprinted sub-20 NM piezoelectric copolymer nanograss films. , 2012, , .		0
22	Plasma made antireflective GaAs nanograss. , 2012, , .		0
23	Piezoelectricity of sub-20-nm nanoimprinted PVDF-TrFE nanograss. , 2012, , .		0
24	Enhanced Piezoelectricity of Nanoimprinted Sub-20 nm Poly(vinylidene fluoride-trifluoroethylene) Copolymer Nanograss. Macromolecules, 2012, 45, 1580-1586.	2.2	67
25	High-performance Ni/SiO <sub>2</sub> /Si programmable metallization cell. , 2011, , .		0
26	Low-Reset unipolar HfO <sub>2</sub> RRAM and tunable resistive-switching mode via interface engineering. , 2011, , .		1
27	Subwavelength Antireflective Si Nanostructures Fabricated by Using the Self-Assembled Silver Metal-Nanomask. Journal of Physical Chemistry C, 2011, 115, 8983-8987.	1.5	17
28	Plasma-made silicon nanograss and related nanostructures. Journal Physics D: Applied Physics, 2011, 44, 174010.	1.3	31
29	Enhanced Free Exciton and Direct Band-Edge Emissions at Room Temperature in Ultrathin ZnO Films Grown on Si Nanopillars by Atomic Layer Deposition. ACS Applied Materials & Interfaces, 2011, 3, 4415-4419.	4.0	28
30	Eliminated UV Light Emitted from Nanostructured Silica Thin Film using H <sub>2</sub> Plasma by ICP-CVD. Current Nanoscience, 2011, 7, 240-244.	0.7	2
31	Electrode dependence of filament formation in HfO <sub>2</sub> resistive-switching memory. Journal of Applied Physics, 2011, 109, .	1.1	261
32	EUV interferometric lithography and structural characterization of an EUV diffraction grating with nondestructive spectroscopic ellipsometry. Microelectronic Engineering, 2011, 88, 2639-2643.	1.1	14
33	Nanomanipulation of field emission measurement for vacuum nanodiodes based on uniform silicon nanowire emitters. Applied Physics Letters, 2011, 98, 163106.	1.5	5
34	Evolution of RESET current and filament morphology in low-power HfO <sub>2</sub> unipolar resistive switching memory. Applied Physics Letters, 2011, 98, .	1.5	43
35	Robust Airlike Superhydrophobic Surfaces. Advanced Materials, 2010, 22, 597-601.	11.1	134
36	Fabrication and enhanced field emission properties of novel silicon nanostructures. Microelectronics Reliability, 2010, 50, 1973-1976.	0.9	16

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37	Nanoscale of biomimetic moth eye structures exhibiting inverse polarization phenomena at the Brewster angle. <i>Nanoscale</i> , 2010, 2, 799.	2.8	92
38	Fabrication of Morphology-Controlled Sub-20-nm Polymer Nanotip and Nanopore Arrays Using an Identical Nanograss Mold. <i>Macromolecules</i> , 2010, 43, 7722-7728.	2.2	11
39	Optical and surface properties of morphology-controlled sub-20 nm polymer nanotips/nanopores. , 2010, , .		1
40	Using Spectroscopic Ellipsometry to Characterize and Apply the Optical Constants of Hollow Gold Nanoparticles. <i>ACS Nano</i> , 2009, 3, 960-970.	7.3	51
41	Field-Emission Performance of Wormhole-Like Mesoporous Tungsten Oxide Nanowires. <i>Journal of Electronic Materials</i> , 2008, 37, 1082-1087.	1.0	13
42	Phase transformation and optical characteristics of porous germanium thin film. <i>Thin Solid Films</i> , 2008, 516, 2934-2938.	0.8	30
43	Active Modulation of Surface Plasmon Resonance Wavelengths by Applying an Electric Field to Gold Nanoparticle-Embedded Ferroelectric Films. <i>Journal of Physical Chemistry C</i> , 2008, 112, 11673-11678.	1.5	10
44	Hydrolysis reaction on the characterization of wormhole-like mesoporous tungsten oxide. <i>Journal of Alloys and Compounds</i> , 2007, 438, 247-252.	2.8	11
45	Effect of depolarization and coercivity on actuation strains due to domain switching in barium titanate. <i>Applied Physics Letters</i> , 2007, 90, 172902.	1.5	23
46	Plasma nanofabrications and antireflection applications. <i>Journal Physics D: Applied Physics</i> , 2007, 40, 2242-2246.	1.3	55
47	Effect of Calcination on Crystallinity for Nanostructured Development of Wormhole-Like Mesoporous Tungsten Oxide. <i>Journal of the American Ceramic Society</i> , 2007, 90, 4073-4075.	1.9	4
48	Fabrication of one-dimensional mesoporous tungsten oxide. <i>Nanotechnology</i> , 2006, 17, 110-115.	1.3	34
49	Hydrogen plasma dry etching method for field emission application. <i>Applied Physics Letters</i> , 2006, 88, 263118.	1.5	29
50	Observation of plastic deformation in TiAlCN/a -C ceramic nanocomposite coating. <i>Applied Physics A: Materials Science and Processing</i> , 2005, 80, 131-134.	1.1	11
51	Emission of Bright Blue Light from Mesoporous Silica with Dense Si (Ge) Nanocrystals. <i>Electrochemical and Solid-State Letters</i> , 2005, 8, G143.	2.2	19
52	Well-Aligned Silicon Nanograss Fabricated by Hydrogen Plasma Dry Etching. <i>Electrochemical and Solid-State Letters</i> , 2005, 8, C131.	2.2	19
53	Fabrication of Silicon and Germanium Nanostructures by Combination of Hydrogen Plasma Dry Etching and VLS Mechanism. <i>Japanese Journal of Applied Physics</i> , 2005, 44, 5791-5794.	0.8	1
54	Low-Temperature Growth of Polycrystalline Ge Films on SiO <sub>2</sub> Substrate by HDPCVD. <i>Electrochemical and Solid-State Letters</i> , 2005, 8, C74-C76.	2.2	7

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55	Structure and optical properties of mesoporous tungsten oxide. Journal of Alloys and Compounds, 2005, 396, 251-254.	2.8	58
56	Effect of copolymer and additive concentrations on the behaviors of mesoporous tungsten oxide. Journal of Alloys and Compounds, 2005, 396, 295-301.	2.8	26
57	Effects of mesoporous structure on grain growth of nanostructured tungsten oxide. Journal of Materials Research, 2004, 19, 2687-2693.	1.2	21
58	Nanoparticle-Assisted Growth of Porous Germanium Thin Films. Advanced Materials, 2004, 16, 1121-1124.	11.1	41
59	Low-Temperature Growth of Germanium Quantum Dots on Silicon Oxide by Inductively Coupled Plasma Chemical Vapor Deposition. Chemical Vapor Deposition, 2004, 10, 265-269.	1.4	16
60	Sensitivity properties of a novel NO <sub>2</sub> gas sensor based on mesoporous WO <sub>3</sub> thin film. Sensors and Actuators B: Chemical, 2003, 96, 219-225.	4.0	150
61	High Sensitivity Semiconductor NO <sub>2</sub> Gas Sensor Based on Mesoporous WO <sub>3</sub> Thin Film. Electrochemical and Solid-State Letters, 2003, 6, G108.	2.2	60
62	Plasma-enhanced chemical-vapor deposition of titanium aluminum carbonitride/amorphous-carbon nanocomposite thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 87-92.	0.9	29
63	WO <sub>3</sub> and W <sub>1-x</sub> Ti <sub>x</sub> O thin-film gas sensors prepared by sol-gel dip-coating. Sensors and Actuators B: Chemical, 2002, 86, 75-80.	4.0	96
64	Effects of Coffee-Bean-Like Morphology and Graded Interlayer on Texture Evolution of Plasma-Enhanced Chemical Vapor Deposited TiC <sub>x</sub> N <sub>1-x</sub> Films. Journal of the American Ceramic Society, 2002, 85, 636-640.	1.9	4
65	Nanostructure and hardness of titanium aluminum nitride prepared by plasma enhanced chemical vapor deposition. Thin Solid Films, 2001, 391, 101-108.	0.8	43
66	Functionally gradient PECVD Ti(C,N) coatings. Materials Research Society Symposia Proceedings, 1998, 555, 407.	0.1	1