Jiann Shieh

List of Publications by Year
in descending order

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66 papers	1,806 citations	279701 23 h-index	265120 42 g-index
67 all docs	67 docs citations	67 times ranked	2552 citing authors

#	Article	IF	Citations
1	Electrode dependence of filament formation in HfO2 resistive-switching memory. Journal of Applied Physics, 2011, 109, .	1.1	261
2	Sensitivity properties of a novel NO2 gas sensor based on mesoporous WO3 thin film. Sensors and Actuators B: Chemical, 2003, 96, 219-225.	4.0	150
3	Robust Airlike Superhydrophobic Surfaces. Advanced Materials, 2010, 22, 597-601.	11.1	134
4	WO3 and Wî—¸Tîî—¸O thin-film gas sensors prepared by solâ€“gel dip-coating. Sensors and Actuators B: Chemical, 2002, 86, 75-80.	4.0	96
5	Nanoscale of biomimetic moth eye structures exhibiting inverse polarization phenomena at the Brewster angle. Nanoscale, 2010, 2, 799.	2.8	92
6	Enhanced Piezoelectricity of Nanoimprinted Sub-20 nm Poly(vinylidene fluorideâ€“trifluoroethylene) Copolymer Nanograss. Macromolecules, 2012, 45, 1580-1586.	2.2	67
7	High Sensitivity Semiconductor NO[sub 2] Gas Sensor Based on Mesoporous WO[sub 3] Thin Film. Electrochemical and Solid-State Letters, 2003, 6, G108.	2.2	60
8	Structure and optical properties of mesoporous tungsten oxide. Journal of Alloys and Compounds, 2005, 396, 251-254.	2.8	58
9	Plasma nanofabrications and antireflection applications. Journal Physics D: Applied Physics, 2007, 40, 2242-2246.	1.3	55
10	Using Spectroscopic Ellipsometry to Characterize and Apply the Optical Constants of Hollow Gold Nanoparticles. ACS Nano, 2009, 3, 960-970.	7.3	51
11	Nanostructure and hardness of titanium aluminum nitride prepared by plasma enhanced chemical vapor deposition. Thin Solid Films, 2001, 391, 101-108.	0.8	43
12	Evolution of RESET current and filament morphology in low-power HfO2 unipolar resistive switching memory. Applied Physics Letters, 2011, 98, .	1.5	43
13	Nanoparticle-Assisted Growth of Porous Germanium Thin Films. Advanced Materials, 2004, 16, 1121-1124.	11.1	41
14	Nanoimprinting of Flexible Polycarbonate Sheets with a Flexible Polymer Mold and Application to Superhydrophobic Surfaces. Advanced Materials Interfaces, 2015, 2, 1500030.	1.9	36
15	Fabrication of one-dimensional mesoporous tungsten oxide. Nanotechnology, 2006, 17, 110-115.	1.3	34
16	Plasma-made silicon nanograss and related nanostructures. Journal Physics D: Applied Physics, 2011, 44, 174010.	1.3	31
17	Phase transformation and optical characteristics of porous germanium thin film. Thin Solid Films, 2008, 516, 2934-2938.	0.8	30
18	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

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19	Hydrogen plasma dry etching method for field emission application. Applied Physics Letters, 2006, 88, 263118.	1.5	29
20	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
21	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
22	Broadband and wide angle antireflection of sub-20 nm GaAs nanograss. Energy and Environmental Science, 2012, 5, 7601.	15.6	25
23	Simulation of thermal ablation by high-intensity focused ultrasound with temperature-dependent properties. Ultrasonics Sonochemistry, 2015, 27, 456-465.	3.8	25
24	Effect of depolarization and coercivity on actuation strains due to domain switching in barium titanate. Applied Physics Letters, 2007, 90, 172902.	1.5	23
25	Effects of mesoporous structure on grain growth of nanostructured tungsten oxide. Journal of Materials Research, 2004, 19, 2687-2693.	1.2	21
26	Ultralow Reflection from aâ€Si Nanograss/Si Nanofrustum Double Layers. Advanced Materials, 2013, 25, 1724-1728.	11.1	21
27	Emission of Bright Blue Light from Mesoporous Silica with Dense Si (Ge) Nanocrystals. Electrochemical and Solid-State Letters, 2005, 8, G143.	2.2	19
28	Well-Aligned Silicon Nanograss Fabricated by Hydrogen Plasma Dry Etching. Electrochemical and Solid-State Letters, 2005, 8, C131.	2.2	19
29	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
30	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
31	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
32	Fabrication and enhanced field emission properties of novel silicon nanostructures. Microelectronics Reliability, 2010, 50, 1973-1976.	0.9	16
33	Plasma enables edge-to-center-oriented graphene nanoarrays on Si nanograss. Applied Physics Letters, 2012, 100, .	1.5	16
34	EUV interferometric lithography and structural characterization of an EUV diffraction grating with nondestructive spectroscopic ellipsometry. Microelectronic Engineering, 2011, 88, 2639-2643.	1.1	14
35	Field-Emission Performance of Wormhole-Like Mesoporous Tungsten Oxide Nanowires. Journal of Electronic Materials, 2008, 37, 1082-1087.	1.0	13
36	Observation of plastic deformation in TiAlCN/a -C ceramic nanocomposite coating. Applied Physics A: Materials Science and Processing, 2005, 80, 131-134.	1.1	11

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37	Hydrolysis reaction on the characterization of wormhole-like mesoporous tungsten oxide. Journal of Alloys and Compounds, 2007, 438, 247-252.	2.8	11
38	Fabrication of Morphology-Controlled Sub-20-nm Polymer Nanotip and Nanopore Arrays Using an Identical Nanograss Mold. Macromolecules, 2010, 43, 7722-7728.	2.2	11
39	Growing invisible silica nanowires on fused silica plates provides highly transparent and superwetting substrates. Applied Surface Science, 2019, 479, 619-625.	3.1	11
40	Active Modulation of Surface Plasmon Resonance Wavelengths by Applying an Electric Field to Gold Nanoparticle-Embedded Ferroelectric Films. Journal of Physical Chemistry C, 2008, 112, 11673-11678.	1.5	10
41	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
42	Heat transfer enhancement of a multilayer graphene coating surface. Experimental Thermal and Fluid Science, 2020, 118, 110175.	1.5	9
43	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
44	Low-Temperature Growth of Polycrystalline Ge Films on SiO2 Substrate by HDPCVD. Electrochemical and Solid-State Letters, 2005, 8, C74-C76.	2.2	7
45	Decreasing reflection through the mutually positive effects of nanograss and nanopillars. Journal of Materials Chemistry C, 2014, 2, 3645-3650.	2.7	7
46	Broadband antireflection and field emission properties of TiN-coated Si-nanopillars. Nanoscale, 2014, 6, 9846.	2.8	7
47	Fabricating Silver Nanoparticles on Thin Silicon Nanowalls for Highly Sensitive Surface-Enhanced Raman Scattering. Materials Transactions, 2014, 55, 1800-1805.	0.4	6
48	Using Si/MoS2 Core-Shell Nanopillar Arrays Enhances SERS Signal. Nanomaterials, 2021, 11, 733.	1.9	6
49	Nanomanipulation of field emission measurement for vacuum nanodiodes based on uniform silicon nanowire emitters. Applied Physics Letters, 2011, 98, 163106.	1.5	5
50	Effects of Coffeeâ€Beanâ€Like Morphology and Graded Interlayer on Texture Evolution of Plasmaâ€Enhanced Chemicalâ€Vaporâ€Deposited Tiâ€Câ€N Films. Journal of the American Ceramic Society, 2002, 85, 636-640.	1.9	4
51	Effect of Calcination on Crystallinity for Nanostructured Development of Wormholeâ€Like Mesoporous Tungsten Oxide. Journal of the American Ceramic Society, 2007, 90, 4073-4075.	1.9	4
52	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
53	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
54	Harvesting water surface energy: self-jumping nanostructured hydrophobic metals. IScience, 2021, 24, 102746.	1.9	3

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55	Eliminated UV Light Emitted from Nanostructured Silica Thin Film using H2 Plasma by ICP-CVD. Current Nanoscience, 2011, 7, 240-244.	0.7	2
56	Improving optical and electrical properties of micropillar and black-Si solar cells by combining them into a superstructure. , 2016, , .		2
57	Protocol for growing silica nanowires on various substrates to enhance superwetting and self-jumping properties. STAR Protocols, 2022, 3, 101066.	0.5	2
58	Functionally gradient PECVD Ti(C,N) coatings. Materials Research Society Symposia Proceedings, 1998, 555, 407.	0.1	1
59	Fabrication of Silicon and Germanium Nanostructures by Combination of Hydrogen Plasma Dry Etching and VLS Mechanism. Japanese Journal of Applied Physics, 2005, 44, 5791-5794.	0.8	1
60	Optical and surface properties of morphology-controlled sub-20 nm polymer nanotips/nanopores. , 2010, , .		1
61	Low-I<inf>RESET</inf> unipolar HfO<inf>2</inf> RRAM and tunable resistive-switching mode via interface engineering. , 2011, , .		1
62	Microstructure and photoluminescence of Ge-doped mesoporous silica. Journal of Sol-Gel Science and Technology, 2013, 66, 242-247.	1.1	1
63	High-performance Ni/SiO<inf>2</inf>/Si programmable metallization cell. , 2011, , .		0
64	Flexible tactile sensors based on nanoimprinted sub-20 NM piezoelectric copolymer nanograss films. , 2012, , .		0
65	Plasma made antireflective GaAs nanograss. , 2012, , .		0
66	Piezoelectricity of sub-20-nm nanoimprinted PVDF-TrFE nanograss. , 2012, , .		0