

Jianwu Sun

List of Publications by Year in descending order

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73
papers

1,428
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331259

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74
all docs

74
docs citations

74
times ranked

2009
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanoporous Cubic Silicon Carbide Photoanodes for Enhanced Solar Water Splitting. ACS Nano, 2021, 15, 5502-5512.	7.3	34
2	Highly Selective Photocatalytic CO ₂ Reduction to CH ₄ by Ball-Milled Cubic Silicon Carbide Nanoparticles under Visible-Light Irradiation. ACS Applied Materials & Interfaces, 2021, 13, 5073-5078.	4.0	24
3	Silver nanoparticle array on weakly interacting epitaxial graphene substrate as catalyst for hydrogen evolution reaction under neutral conditions. Applied Physics Letters, 2021, 119, 153902.	1.5	2
4	Cubic SiC Photoanode Coupling with Ni:FeOOH Oxygen Evolution Cocatalyst for Sustainable Photoelectrochemical Water Oxidation. Solar Rrl, 2020, 4, 1900364.	3.1	16
5	Progress of Ultra-Wide Bandgap Ga ₂ O ₃ Semiconductor Materials in Power MOSFETs. IEEE Transactions on Power Electronics, 2020, 35, 5157-5179.	5.4	106
6	Cu ₂ O/ZnO p-n Junction Decorated with NiO _x as a Protective Layer and Cocatalyst for Enhanced Photoelectrochemical Water Splitting. ACS Applied Energy Materials, 2020, 3, 10408-10414.	2.5	40
7	High mobility organic semiconductor for constructing high efficiency carbon nitride heterojunction photocatalysts. Journal of Materials Chemistry C, 2020, 8, 17157-17161.	2.7	7
8	Epitaxial Graphene Growth on the Step-Structured Surface of Off-Axis C-Face 3C-SiC(1 $\bar{1}$ 1 $\bar{1}$). Physica Status Solidi (B): Basic Research, 2020, 257, 1900718.	0.7	1
9	Influence of Metal Gate Electrodes on Electrical Properties of Atomic-Layer-Deposited Al-Rich HfAlO/Ga ₂ O ₃ MOSCAPs. IEEE Transactions on Electron Devices, 2020, 67, 1730-1736.	1.6	10
10	Atomic-Scale Tuning of Graphene/Cubic SiC Schottky Junction for Stable Low-Bias Photoelectrochemical Solar-to-Fuel Conversion. ACS Nano, 2020, 14, 4905-4915.	7.3	31
11	Enhanced Interface Charge Transfer of ZnS Photocatalyst by Br Substitution at the Bay Position in Perylene Tetracarboxylic Diimide. Solar Rrl, 2020, 4, 2000303.	3.1	12
12	A patterning-free approach for growth of free-standing graphene nanoribbons using step-bunched facets of off-oriented 4H-SiC(0 $\bar{1}$ 1 $\bar{0}$) epilayers. Journal Physics D: Applied Physics, 2020, 53, 115102.	1.3	2
13	Nanoporous 6H-SiC Photoanodes with a Conformal Coating of Ni-FeOOH Nanorods for Zero-Onset-Potential Water Splitting. ACS Applied Materials & Interfaces, 2020, 12, 7038-7046.	4.0	17
14	Photocatalytic removal of NO by intercalated carbon nitride: The effect of group IIA element ions. Applied Catalysis B: Environmental, 2020, 273, 119007.	10.8	40
15	A Review of Recent Progress on Silicon Carbide for Photoelectrochemical Water Splitting. Solar Rrl, 2020, 4, 2000111.	3.1	48
16	Enhancing Photocatalytic Activity of NO Removal through an In Situ Control of Oxygen Vacancies in Growth of TiO ₂ . Advanced Materials Interfaces, 2019, 6, 1901032.	1.9	34
17	A nanostructured NiO/cubic SiC p-n heterojunction photoanode for enhanced solar water splitting. Journal of Materials Chemistry A, 2019, 7, 4721-4728.	5.2	50
18	A comparative study of high-quality C-face and Si-face 3C-SiC(1 $\bar{1}$ 1) grown on off-oriented 4H-SiC substrates. Journal Physics D: Applied Physics, 2019, 52, 345103.	1.3	16

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19	Stress-induced charge trapping and electrical properties of atomic-layer-deposited $\text{HfAlO}/\text{Ga}_2\text{O}_3$ metal-oxide-semiconductor capacitors. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 215104.	1.3	16
20	Self-powered MSM deep-ultraviolet $\text{In}_2\text{Ga}_2\text{O}_3$ photodetector realized by an asymmetrical pair of Schottky contacts. <i>Optical Materials Express</i> , 2019, 9, 1191.	1.6	79
21	Atomically manipulated proton transfer energizes water oxidation on silicon carbide photoanodes. <i>Journal of Materials Chemistry A</i> , 2018, 6, 24358-24366.	5.2	17
22	Optical and Microstructural Investigation of Heavy B-Doping Effects in Sublimation-Grown 3C-SiC. <i>Materials Science Forum</i> , 2018, 924, 221-224.	0.3	1
23	Materials for Energy Harvesting. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1800645.	0.8	0
24	Flat-Band Electronic Structure and Interlayer Spacing Influence in Rhombohedral Four-Layer Graphene. <i>Nano Letters</i> , 2018, 18, 5862-5866.	4.5	20
25	Elimination of step bunching in the growth of large-area monolayer and multilayer graphene on off-axis 3C SiC (111). <i>Carbon</i> , 2018, 140, 533-542.	5.4	14
26	Boron-doping of cubic SiC for intermediate band solar cells: a scanning transmission electron microscopy study. <i>SciPost Physics</i> , 2018, 5, .	1.5	3
27	Honeycomb-inspired design of ultrafine $\text{SnO}_2@C$ nanospheres embedded in carbon film as anode materials for high performance lithium- and sodium-ion battery. <i>Journal of Power Sources</i> , 2017, 359, 340-348.	4.0	125
28	Characterization of B-Implanted 3C-SiC for Intermediate Band Solar Cells. <i>Materials Science Forum</i> , 2017, 897, 299-302.	0.3	2
29	Growth optimization and applicability of thick on-axis SiC layers using sublimation epitaxy in vacuum. <i>Journal of Crystal Growth</i> , 2016, 448, 51-57.	0.7	4
30	Boron-Implanted 3C-SiC for Intermediate Band Solar Cells. <i>Materials Science Forum</i> , 2016, 858, 291-294.	0.3	6
31	Cubic silicon carbide as a potential photovoltaic material. <i>Solar Energy Materials and Solar Cells</i> , 2016, 145, 104-108.	3.0	41
32	Strained germanium quantum well p-FinFETs fabricated on 45nm Fin pitch using replacement channel, replacement metal gate and germanide-free local interconnect. , 2015, , .		28
33	Single Domain 3C-SiC Growth on Off-Oriented 4H-SiC Substrates. <i>Crystal Growth and Design</i> , 2015, 15, 2940-2947.	1.4	38
34	Ultimate nano-electronics: New materials and device concepts for scaling nano-electronics beyond the Si roadmap. <i>Microelectronic Engineering</i> , 2015, 132, 218-225.	1.1	30
35	Examination of Photoluminescence Temperature Dependencies in N-B Co-doped 6H-SiC. <i>IOP Conference Series: Materials Science and Engineering</i> , 2014, 56, 012003.	0.3	3
36	The role of defects in fluorescent silicon carbide layers grown by sublimation epitaxy. <i>IOP Conference Series: Materials Science and Engineering</i> , 2014, 56, 012002.	0.3	3

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37	Carrier Lifetimes and Influence of In-Grown Defects in N-B Co-Doped 6H-SiC. IOP Conference Series: Materials Science and Engineering, 2014, 56, 012004.	0.3	3
38	Strained Ge FinFET structures fabricated by selective epitaxial growth. , 2014, , .		6
39	Advances in wide bandgap SiC for optoelectronics. European Physical Journal B, 2014, 87, 1.	0.6	58
40	Fluorescent silicon carbide as an ultraviolet-to-visible light converter by control of donor to acceptor recombinations. Journal Physics D: Applied Physics, 2012, 45, 235107.	1.3	9
41	Shockley-Frank stacking faults in 6H-SiC. Journal of Applied Physics, 2012, 111, 113527.	1.1	6
42	Seeding Layer Influence on the Low Temperature Photoluminescence Intensity of 3C-SiC Grown on 6H-SiC by Sublimation Epitaxy. Materials Science Forum, 2012, 711, 149-153.	0.3	2
43	Fluorescent SiC as a new material for white LEDs. Physica Scripta, 2012, T148, 014002.	1.2	34
44	Effects of source material on epitaxial growth of fluorescent SiC. Thin Solid Films, 2012, 522, 7-10.	0.8	13
45	Room temperature luminescence properties of fluorescent SiC as white light emitting diode medium. Thin Solid Films, 2012, 522, 33-35.	0.8	10
46	Considerably long carrier lifetimes in high-quality 3C-SiC(111). Applied Physics Letters, 2012, 100, .	1.5	29
47	Comparative micro-photoluminescence investigation of ZnO hexagonal nanopillars and the seeding layer grown on 4H-SiC. Journal of Luminescence, 2012, 132, 122-127.	1.5	2
48	Optical Investigation of Defect Filtering Effects in Bulk 3C-SiC Crystals Grown by the CF-PVT Method Using a Necking Technique. Materials Science Forum, 2011, 679-680, 169-172.	0.3	0
49	Splitting of type-I (N-B, P-Al) and type-II (N-Al, N-Ga) donor-acceptor pair spectra in 3C-SiC. Physical Review B, 2011, 83, .	1.1	6
50	Influence of Post-Growth Annealing on the Defects Nature and Distribution in VLS Grown (111) 3C-SiC Layers. Materials Science Forum, 2011, 679-680, 241-244.	0.3	2
51	Incorporation of group III, IV and V elements in 3C-SiC(111) layers grown by the vapour-liquid-solid mechanism. Journal of Crystal Growth, 2010, 312, 3443-3450.	0.7	9
52	Effects of Growth Conditions on the Low Temperature Photoluminescence Spectra of (111) 3C-SiC Layers Grown by Chemical Vapor Deposition on 3C-SiC Seeds grown by the Vapor-Liquid-Solid Technique. , 2010, , .		0
53	Splitting of close N-Al donor-acceptor-pair spectra in 3C-SiC. , 2010, , .		0
54	Combined effects of Ga, N, and Al codoping in solution grown 3C-SiC. Journal of Applied Physics, 2010, 108, 013503.	1.1	11

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55	Local chemical states and thermal stabilities of nitrogen dopants in ZnO film studied by temperature-dependent x-ray photoelectron spectroscopy. Applied Physics Letters, 2009, 95, .	1.5	78
56	Substantial photo-response of InGaN p-n homojunction solar cells. Semiconductor Science and Technology, 2009, 24, 055009.	1.0	20
57	Excitonic electroluminescence from ZnO-based heterojunction light emitting diodes. Journal Physics D: Applied Physics, 2008, 41, 155103.	1.3	34
58	Well-width dependence of exciton-longitudinal-optical-phonon coupling in MgZnO/ZnO single quantum wells. Nanotechnology, 2008, 19, 485401.	1.3	14
59	Room temperature excitonic spontaneous and stimulated emission properties in ZnO/MgZnO multiple quantum wells grown on sapphire substrate. Journal Physics D: Applied Physics, 2007, 40, 6541-6544.	1.3	15
60	Nitrogen-related recombination mechanisms in p-type ZnO films grown by plasma-assisted molecular beam epitaxy. Journal of Applied Physics, 2007, 102, .	1.1	59
61	The activation energy of the nitrogen acceptor in p-type ZnO film grown by plasma-assisted molecular beam epitaxy. Solid State Communications, 2006, 140, 345-348.	0.9	28
62	Hole transport in p-type ZnO films grown by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2006, 89, 232101.	1.5	25
63	Investigation of Low Doped n-Type and p-Type 3C-SiC Layers Grown on 6H-SiC Substrates by Sublimation Epitaxy. Materials Science Forum, 0, 645-648, 179-182.	0.3	1
64	LTPL Investigation of N-Ga and N-Al Donor-Acceptor Pair Spectra in 3C-SiC Layers Grown by VLS on 6H-SiC Substrates. Materials Science Forum, 0, 645-648, 415-418.	0.3	3
65	Structural and Optical Investigation of VLS Grown (111) 3C-SiC Layers on 6H-SiC Substrates in Sn-Based Melts. Materials Science Forum, 0, 679-680, 165-168.	0.3	1
66	Low Temperature Photoluminescence Investigation of 3-Inch SiC Wafers for Power Device Applications. Materials Science Forum, 0, 711, 164-168.	0.3	1
67	Low Temperature Photoluminescence Signature of Stacking Faults in 6H-SiC Epilayers Grown on Low Angle Off-Axis Substrates. Materials Science Forum, 0, 717-720, 407-410.	0.3	0
68	Step-Flow Growth of Fluorescent 4H-SiC Layers on 4 Degree Off-Axis Substrates. Materials Science Forum, 0, 740-742, 185-188.	0.3	3
69	Effect of Surface and Interface Recombination on Carrier Lifetime in 6H-SiC Layers. Materials Science Forum, 0, 740-742, 490-493.	0.3	1
70	Microsecond Carrier Lifetimes in Bulk-Like 3C-SiC Grown by Sublimation Epitaxy. Materials Science Forum, 0, 740-742, 315-318.	0.3	0
71	Fast Growth Rate Epitaxy on 4° Off-Cut 4-Inch Diameter 4H-SiC Wafers. Materials Science Forum, 0, 778-780, 179-182.	0.3	6
72	Optical Investigation of 3C-SiC Hetero-Epitaxial Layers Grown by Sublimation Epitaxy under Gas Atmosphere. Materials Science Forum, 0, 778-780, 243-246.	0.3	0

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73	Solar Driven Energy Conversion Applications Based on 3C-SiC. Materials Science Forum, 0, 858, 1028-1031.	0.3	13