Songphol Kanjanachuchai

List of Publications by Year
in descending order

80 papers	461 citations	933447 10 h-index	888059 17 g-index
82 all docs	82 docs citations	82 times ranked	234 citing authors

#	Article	IF	Citations
1	Quantum dot integration in heterostructure solar cells. Solar Energy Materials and Solar Cells, 2006, 90, 2968-2974.	6.2	38
2	Self-Running Ga Droplets on GaAs (111)A and (111)B Surfaces. ACS Applied Materials & Interfaces, 2013, 5, 7709-7713.	8.0	38
3	Self-assembled quantum-dot molecules by molecular-beam epitaxy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 1217.	1.6	26
4	Optimization of stacking high-density quantum dot molecules for photovoltaic effect. Solar Energy Materials and Solar Cells, 2009, 93, 746-749.	6.2	23
5	Directions and Breakup of Self-Running In Droplets on Low-Index InP Surfaces. Crystal Growth and Design, 2014, 14, 830-834.	3.0	18
6	Dislocation-Guided Self-Running Droplets. Crystal Growth and Design, 2015, 15, 14-19.	3.0	14
7	Single-charge tunnelling in n- andp-type strained silicon germanium on silicon-on-insulator. Semiconductor Science and Technology, 1999, 14, 1065-1068.	2.0	13
8	Evolution of self-assembled lateral quantum dot molecules. Journal of Crystal Growth, 2007, 301-302, 812-816.	1.5	13
9	Growth of InAs quantum-dot hatches on InGaAs/GaAs cross-hatch virtual substrates. Microelectronic Engineering, 2007, 84, 1562-1565.	2.4	12
10	Molecular beam epitaxy growth of InSb/GaAs quantum nanostructures. Journal of Crystal Growth, 2017, 477, 30-33.	1.5	11
11	Leakage currents in virtual substrates: measurements and device implications. Semiconductor Science and Technology, 1998, 13, 1215-1218.	2.0	10
12	The effects of relaxed InGaAs virtual substrates on the formation of self-assembled InAs quantum dots. Semiconductor Science and Technology, 2008, 23, 055007.	2.0	10
13	Self-assembled InAs quantum dots on cross-hatch InGaAs templates: Excess growth, growth rate, capping and preferential alignment. Microelectronic Engineering, 2009, 86, 844-849.	2.4	10
14	GaSb and InSb Quantum Nanostructures: Morphologies and Optical Properties. MRS Advances, 2016, 1, 1677-1682.	0.9	10
15	Growth of truncated pyramidal InSb nanostructures on GaAs substrate. Journal of Crystal Growth, 2017, 468, 737-739.	1.5	10
16	Mobility degradation in gated Si:SiGe quantum wells with thermally grown oxides. Electronics Letters, 1995, 31, 1876-1878.	1.0	10
17	Thin-capping-and-regrowth molecular beam epitaxial technique for quantum dots and quantum-dot molecules. Journal of Vacuum Science & Technology B, 2006, 24, 1665.	1.3	9
18	Reliable synthesis of self-running Ga droplets on GaAs (001) in MBE using RHEED patterns. Nanoscale Research Letters, 2015, 10, 184.	5.7	9

#	Article	IF	Citations
19	Coulomb blockade in strained-Si nanowires on leaky virtual substrates. Semiconductor Science and Technology, 2001, 16, 72-76.	2.0	8
20	Evolution of InAs quantum dots grown on cross-hatch substrates. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 806-809.	0.8	8
21	Optical properties of as-grown and annealed InAs quantum dots on InGaAs cross-hatch patterns. Nanoscale Research Letters, 2011, 6, 496.	5.7	8
22	Extended optical properties beyond band-edge of GaAs by InAs quantum dots and quantum dot molecules. Microelectronic Engineering, 2010, 87, 1304-1307.	2.4	7
23	Twin InSb/GaAs quantum nano-stripes: Growth optimization and related properties. Journal of Crystal Growth, 2018, 487, 40-44.	1.5	7
24	Molecular beam epitaxial growth of interdigitated quantum dots for heterojunction solar cells. Journal of Crystal Growth, 2019, 512, 159-163.	1.5	7
25	Effective one-dimensional electronic structure of InGaAs quantum dot molecules. Microelectronic Engineering, 2008, 85, 1225-1228.	2.4	6
26	Nucleation Sequence of InAs Quantum Dots on Cross-Hatch Patterns. Journal of Nanoscience and Nanotechnology, 2011, 11, 10787-10791.	0.9	6
27	Self-assembled InAs quantum dots on anti-phase domains of GaAs on Ge substrates. Journal of Crystal Growth, 2011, 323, 254-258.	1.5	6
28	Self-assembled lateral InAs quantum dot molecules: Dot ensemble control and polarization-dependent photoluminescence. Microelectronic Engineering, 2006, 83, 1526-1529.	2.4	5
29	Improvement of PV Performance by Using Multi-Stacked High Density InAs Quantum Dot Molecules. , 2006, , .		5
30	Aligned quantum dot molecules with 4 satellite dots by self-assembly. Microelectronic Engineering, 2008, 85, 1218-1221.	2.4	5
31	Bimodal optical characteristics of lateral InGaAs quantum dot molecules. Journal of Crystal Growth, 2011, 323, 206-210.	1.5	5
32	Raman and photoluminescence properties of type II GaSb/GaAs quantum dots on (001) Ge substrate. Electronic Materials Letters, 2016, 12, 517-523.	2.2	5
33	Study on Raman spectroscopy of InSb nano-stripes grown on GaSb substrate by molecular beam epitaxy and their Raman peak shift with magnetic field. Journal of Crystal Growth, 2019, 512, 198-202.	1.5	5
34	GaAsPBi epitaxial layer grown by molecular beam epitaxy. Semiconductor Science and Technology, 2020, 35, 095009.	2.0	5
35	Optical properties of lattice-matched GaAsPBi multiple quantum wells grown on GaAs (001). Semiconductor Science and Technology, 2021, 36, 045014.	2.0	5
36	Beyond CMOS: single-electron transistors. , 0, , .		4

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37	Ordered quantum dots formation on engineered template by molecular beam epitaxy. Microelectronic Engineering, 2005, 78-79, 349-352.	2.4	4
38	Improved quantum confinement of self-assembled high-density InAs quantum dot molecules in AlGaAsâˆ•GaAs quantum well structures by molecular beam epitaxy. Journal of Vacuum Science & Technology B, 2008, 26, 1100.	1.3	4
39	Temperature-dependent photoluminescent characteristics of lateral InGaAs quantum dot molecules. Microelectronic Engineering, 2010, 87, 1352-1356.	2.4	4
40	Excitation transfer in stacked quantum dot chains. Semiconductor Science and Technology, 2015, 30, 055005.	2.0	4
41	Ultrathin epitaxial InAs layer relaxation on cross-hatch stress fields. CrystEngComm, 2016, 18, 5852-5859.	2.6	4
42	Planar Self-Assembly of Submicron and Nanoscale Wires and Grooves on IIIâ€"V(110) Surfaces. Crystal Growth and Design, 2017, 17, 4413-4421.	3.0	4
43	Growth and Photoluminescence Properties of InSb/GaSb Nanoâ€Stripes Grown by Molecular Beam Epitaxy. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800498.	1.8	4
44	Self-assembled composite quantum dots for photovoltaic applications. , 0, , .		3
45	Chirped InGaAs quantum dot molecules for broadband applications. Nanoscale Research Letters, 2012, 7, 207.	5.7	3
46	Polarization anisotropy of stacked InAs quantum dots on InGaAs/GaAs cross-hatch patterns. Journal of Crystal Growth, 2013, 378, 524-528.	1.5	3
47	Morphology of self-assembled InSb/GaAs quantum dots on Ge substrate. Journal of Crystal Growth, 2017, 468, 541-546.	1.5	3
48	Preferential nucleation, guiding, and blocking of self-propelled droplets by dislocations. Journal of Applied Physics, 2018, 123, 161570.	2.5	3
49	Photoluminescence properties as a function of growth mechanism for GaSb/GaAs quantum dots grown on Ge substrates. Journal of Applied Physics, 2019, 126, .	2.5	3
50	InSb/InAs quantum nano-stripes grown by molecular beam epitaxy and its photoluminescence at mid-infrared wavelength. Journal of Crystal Growth, 2019, 514, 36-39.	1.5	3
51	Au-catalyzed desorption of GaAs oxides. Nanotechnology, 2019, 30, 215703.	2.6	3
52	Investigation of hybrid InSb and GaSb quantum nanostructures. Microelectronic Engineering, 2021, 237, 111494.	2.4	3
53	SELF-ASSEMBLED INDIUM-ARSENIDE ELONGATED NANOSTRUCTURE GROWN BY MOLECULAR BEAM EPITAXY. International Journal of Nanoscience, 2005, 04, 253-259.	0.7	2
54	Hybrid Quantum Cellular Automata memory. , 2008, , .		2

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55	Investigation of GaSb/GaAs Quantum Dots Formation on Ge (001) Substrate and Effect of Anti-Phase Domains. MRS Advances, 2016, 1, 1729-1734.	0.9	2
56	Anti-phase domain induced morphological differences of self-assembled InSb/GaAs quantum dots grown on (0â€¯0â€¯1) Ge substrate. Journal of Crystal Growth, 2019, 512, 136-141.	1.5	2
57	In situ observation and control of ultrathin In layers on sublimated InP(100) surfaces. Applied Surface Science, 2021, 542, 148549.	6.1	2
58	Single-hole tunnelling in SiGe nanostructures. Microelectronic Engineering, 1999, 46, 137-140.	2.4	1
59	Growth Control of Twin InSb/GaAs Nano-Stripes by Molecular Beam Epitaxy. MRS Advances, 2017, 2, 2943-2949.	0.9	1
60	Demonstration of Photovoltaic Effects in Hybrid Type-I InAs/GaAs Quantum Dots and Type-II GaSb/GaAs Quantum Dots. , 2018, , .		1
61	Investigation of the Morphology of InSb/InAs Quantum Nanostripe Grown by Molecular Beam Epitaxy. Physica Status Solidi (B): Basic Research, 2020, 257, 1900374.	1.5	1
62	GaAs/GaAsPBi coreâ€"shell nanowires grown by molecular beam epitaxy. Nanotechnology, 2022, 33, 095602.	2.6	1
63	Nanocrystalline silicon dot displacement using speed-controlled tapping-mode atomic force microscopy. Microelectronic Engineering, 2004, 73-74, 615-619.	2.4	0
64	Regrowth of self-assembled InAs quantum dots on nanohole and stripe templates. Journal of Micro/Nanolithography, MEMS, and MOEMS, 2006, 5, 011008.	0.9	0
65	InAs and InP Quantum Dot Molecules and their Potentials for Photovoltaic Applications. Materials Research Society Symposia Proceedings, 2006, 959, 1.	0.1	0
66	The Effects of Substrate Mounds and Pits on the Periodicity of Cross-Hatch Surface and Subsequent Formation of Quantum Dots. , 2007, , .		0
67	Self-Assembled InAs Lateral Quantum Dot Molecules Growth on (001) GaAs by Thin-Capping-and-Regrowth MBE Technique. Solid State Phenomena, 2007, 121-123, 395-400.	0.3	0
68	Improved Spectral Response of Quantum Dot Solar Cells Using InAs Multi-stack High Density Quantum Dot Molecules. Materials Research Society Symposia Proceedings, 2010, 1260, 1.	0.1	0
69	Complete formation sequence of InAs quantum dots on lattice-mismatched InGaAs/GaAs substrates. , 2010, , .		0
70	Study on spectral response of schottky-type multi-stack high density quantum dot molecule photovoltaic cells at concentrated light. , 2010, , .		0
71	Luminescence properties of as-grown and annealed InGaAs quantum dots on cross-hatch patterns. , 2011, , .		0
72	InGaAs Quantum Dots on Cross-Hatch Patterns as a Host for Diluted Magnetic Semiconductor Medium. Journal of Nanomaterials, 2013, 2013, 1-5.	2.7	0

#	ARTICLE	IF	CITATIONS
73	Temperature dependent photoluminescence and micromapping of multiple stacks InAs quantum dots. , 2015, , .		0
74	Effects of material intermixing on electronic energy levels in Ga(As)Sb/GaAs quantum dots. , 2016, , .		0
75	Toward quantum state manipulation in twin InSb/GaAs quantum dots. , 2017, , .		0
76	Molecular Beam Epitaxial Growth of InSb and AlSb Heterostructure on InSb Substrates. , 2019, , .		0
77	Growth-related photoluminescence properties of InSb/GaAs self-assembled quantum dots grown on (001) Ge substrates. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 271, 115309.	3.5	0
78	Optical Properties of Lateral InGaAs Quantum Dot Molecules Single- and Bi-Layers. Lecture Notes in Nanoscale Science and Technology, 2014, , 51-75.	0.8	0
79	Raman peak shifts by applied magnetic field in InSb/Al_xIn_{1â^'x}Sb superlattices. Materials Research Express, 2020, 7, 105007.	1.6	0
80	Nanocrystalline silicon dot displacement using speed-controlled tapping-mode atomic force microscopy. Microelectronic Engineering, 2004, 73-74, 615-619.	2.4	0