

# Jin Dong Song

## List of Publications by Year in descending order

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71  
papers

1,513  
citations

411340

20  
h-index

371746

37  
g-index

73  
all docs

73  
docs citations

73  
times ranked

3207  
citing authors

#	ARTICLE	IF	CITATIONS
1	Coherence in cooperative photon emission from indistinguishable quantum emitters. <i>Science Advances</i> , 2022, 8, eabm8171.	4.7	13
2	Energy-Efficient III-V Tunnel FET-Based Synaptic Device with Enhanced Charge Trapping Ability Utilizing Both Hot Hole and Hot Electron Injections for Analog Neuromorphic Computing. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 24592-24601.	4.0	5
3	SWIR imaging using PbS QD photodiode array sensors. <i>Optics Express</i> , 2022, 30, 20659.	1.7	0
4	Temperature-Dependent Exciton Dynamics in a Single GaAs Quantum Ring and a Quantum Dot. <i>Nanomaterials</i> , 2022, 12, 2331.	1.9	1
5	Coherent Dynamics in Quantum Emitters under Dichromatic Excitation. <i>Physical Review Letters</i> , 2021, 126, 047403.	2.9	25
6	Nanomechanical Microwave Bolometry with Semiconducting Nanowires. <i>Physical Review Applied</i> , 2021, 15, .	1.5	0
7	Optical characteristics of type-II hexagonal-shaped GaSb quantum dots on GaAs synthesized using nanowire self-growth mechanism from Ga metal droplet. <i>Scientific Reports</i> , 2021, 11, 7699.	1.6	3
8	rf-Signal-induced heating effects in single-electron pumps composed of gate-tunable quantum dots. <i>Physical Review B</i> , 2021, 103, .	1.1	1
9	Cavity-enhanced InGaAs photo-FET with a metal gate reflector fabricated by wafer bonding on Si. <i>Optics Express</i> , 2021, 29, 42630.	1.7	3
10	On-demand spin-state manipulation of single-photon emission from quantum dot integrated with metasurface. <i>Science Advances</i> , 2020, 6, eaba8761.	4.7	52
11	Zero-Dimensional PbS Quantum Dot-InGaZnO Film Heterostructure for Short-Wave Infrared Flat-Panel Imager. <i>ACS Photonics</i> , 2020, 7, 1932-1941.	3.2	26
12	Study on Charge-Enhanced Ferroelectric SIS Optical Phase Shifters Utilizing Negative Capacitance Effect. <i>IEEE Journal of Quantum Electronics</i> , 2020, 56, 1-10.	1.0	4
13	Cavity quantum electro-dynamics with solid-state emitters in aperiodic nano-photon spiral devices. <i>Applied Physics Letters</i> , 2020, 117, .	1.5	13
14	High hole mobility and low leakage thin-body (In)GaSb p-MOSFETs grown on high-bandgap AlGaSb. <i>IEEE Journal of the Electron Devices Society</i> , 2020, , 1-1.	1.2	5
15	Intrinsically p-type cuprous iodide semiconductor for hybrid light-emitting diodes. <i>Scientific Reports</i> , 2020, 10, 3995.	1.6	26
16	Self-Powered Visible-Invisible Multiband Detection and Imaging Achieved Using High-Performance 2D MoTe <sub>2</sub> /MoS <sub>2</sub> Semivertical Heterojunction Photodiodes. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 10858-10866.	4.0	49
17	Fundamental Limits to Coherent Photon Generation with Solid-State Atomlike Transitions. <i>Physical Review Letters</i> , 2019, 123, 167402.	2.9	15
18	InAs on GaAs Photodetectors Using Thin InAlAs Graded Buffers and Their Application to Exceeding Short-Wave Infrared Imaging at 300%K. <i>Scientific Reports</i> , 2019, 9, 12875.	1.6	10

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19	Monolithic integration of visible GaAs and near-infrared InGaAs for multicolor photodetectors by using high-throughput epitaxial lift-off toward high-resolution imaging systems. Scientific Reports, 2019, 9, 18661.	1.6	26
20	Exciton-phonon coupling channels in a $\tilde{\text{strain-free}}^{\text{TM}}$ GaAs droplet epitaxy single quantum dot. Current Applied Physics, 2018, 18, 829-833.	1.1	5
21	Design of Efficient Phase Shifter using InGaAs-InAs/Ge SIS Capacitor for Mid-IR Photonics Application. , 2018, , .		0
22	Feasibility Study on Negative Capacitance SIS Phase Shifter for Low-Power Optical Phase Modulation. , 2018, , .		2
23	SWIR-LWIR Photoluminescence from Sb-based Epilayers Grown on GaAs Substrates by using MBE. Journal of the Korean Physical Society, 2018, 73, 1604-1611.	0.3	0
24	High-Quality 100 nm Thick InSb Films Grown on GaAs(001) Substrates with an In <sub>x</sub> Al <sub>1-x</sub> Sb Continuously Graded Buffer Layer. ACS Omega, 2018, 3, 14562-14566.	1.6	5
25	Multicolor Tunable Upconversion Luminescence from Sensitized Seed-Mediated Grown LiGdF <sub>4</sub> :Yb,Tm-Based Core/Triple-Shell Nanophosphors for Transparent Displays. Chemistry of Materials, 2018, 30, 8457-8464.	3.2	66
26	High hole mobility in strained In <sub>0.25</sub> Ga <sub>0.75</sub> Sb quantum well with high quality Al <sub>0.95</sub> Ga <sub>0.05</sub> Sb buffer layer. Applied Physics Letters, 2018, 113, 093501.	1.5	3
27	Single Self-Assembled $\text{InAs}_{x}\text{Ga}_{1-x}\text{Quantum Dots in Photonic Nanostructures: The Role of Nanofabrication. Physical Review Applied, 2018, 9, .}$	1.5	73
28	Room temperature operation of mid-infrared InAs <sub>0.81</sub> Sb <sub>0.19</sub> based photovoltaic detectors with an In <sub>0.02</sub> Al <sub>0.08</sub> Sb barrier layer grown on GaAs substrates. Optics Express, 2018, 26, 6249.	1.7	13
29	Droplet Epitaxy for III-V Compound Semiconductor Quantum Nanostructures on Lattice Matched Systems. Journal of the Korean Physical Society, 2018, 73, 190-202.	0.3	9
30	Growth of pure wurtzite InGaAs nanowires for photovoltaic and energy harvesting applications. Nano Energy, 2018, 53, 57-65.	8.2	11
31	Uniformly strained AlGaSb/InGaSb/AlGaSb quantum well on GaAs substrates for balanced complementary metal-oxide-semiconductors. Current Applied Physics, 2017, 17, 417-421.	1.1	5
32	Cryogenic photoluminescence imaging system for nanoscale positioning of single quantum emitters. Review of Scientific Instruments, 2017, 88, 023116.	0.6	48
33	Fabrication of high-quality GaAs-based photodetector arrays on Si. Applied Physics Letters, 2017, 110, .	1.5	38
34	GaSb/InGaAs 2-dimensional hole gas grown on InP substrate for III-V CMOS applications. Current Applied Physics, 2017, 17, 1005-1008.	1.1	2
35	Mixed-Dimensional 1D ZnO $\epsilon$ -2D WSe <sub>2</sub> van der Waals Heterojunction Device for Photosensors. Advanced Functional Materials, 2017, 27, 1703822.	7.8	98
36	10-nm Fin-width InGaSb p-channel self-aligned FinFETs using antimonide-compatible digital etch. , 2017, , .		15

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37	Alternative Patterning Process for Realization of Large-Area, Full-Color, Active Quantum Dot Display. Nano Letters, 2016, 16, 6946-6953.	4.5	171
38	Screening Nuclear Field Fluctuations in Quantum Dots for Indistinguishable Photon Generation. Physical Review Letters, 2016, 116, 257401.	2.9	20
39	Ultra-high-throughput Production of III-V/Si Wafer for Electronic and Photonic Applications. Scientific Reports, 2016, 6, 20610.	1.6	72
40	Hybrid quantum optomechanics with a quantum-dot single photon source. Physical Review B, 2016, 94, .	1.1	3
41	Ultrasensitive PbS quantum-dot-sensitized InGaZnO hybrid photoinverter for near-infrared detection and imaging with high photogain. NPG Asia Materials, 2016, 8, e233-e233.	3.8	129
42	Investigation of in-situ doping profile for N+/P/N+ bidirectional switching device using Si<sub>x</sub>Ge<sub>1-x</sub>/Si<sub>x</sub>Ge<sub>1-x</sub> structure. IEICE Electronics Express, 2015, 12, 20150098-20150098.		0
43	Spatially-resolved and polarized Raman scattering from a single Si nanowire. Journal of Raman Spectroscopy, 2015, 46, 524-530.	1.2	4
44	Hot Carrier Trapping Induced Negative Photoconductance in InAs Nanowires toward Novel Nonvolatile Memory. Nano Letters, 2015, 15, 5875-5882.	4.5	139
45	The growth of GaSb/Al <sub>0.33</sub> Ga <sub>0.67</sub> Sb MQW on n-Silicon (100) with Al <sub>0.66</sub> Ga <sub>0.34</sub> Sb/AlSb SPS layers. Materials Research Bulletin, 2014, 57, 152-155.	2.7	6
46	Gate voltage control of the Rashba effect in a p-type GaSb quantum well and application in a complementary device. Solid-State Electronics, 2013, 82, 34-37.	0.8	9
47	Decay dynamics and exciton localization in large GaAs quantum dots grown by droplet epitaxy. Physical Review B, 2013, 88, .	1.1	29
48	Magnetic-field-controlled reconfigurable semiconductor logic. Nature, 2013, 494, 72-76.	13.7	92
49	Effect of Annealing Temperature on the Luminescence Properties of Digital-Alloy InGaAlAs Multiple Quantum Wells. Applied Science and Convergence Technology, 2013, 22, 321-326.	0.3	2
50	Formation of Al<sub>0.3</sub>Ga<sub>0.7</sub>As/GaAs Multiple Quantum Wells on Silicon Substrate with AlAs<sub>x</sub>Sb<sub>1-x</sub> Step-graded Buffer. Applied Science and Convergence Technology, 2013, 22, 313-320.	0.3	0
51	The effect of post-growth thermal annealing on the emission spectra of GaAs/AlGaAs quantum dots grown by droplet epitaxy. Physica Status Solidi - Rapid Research Letters, 2012, 6, 445-447.	1.2	8
52	Effect of thin intermediate-layer of InAs quantum dots on the physical properties of InSb films grown on (001) GaAs. Thin Solid Films, 2012, 520, 6589-6594.	0.8	9
53	Temperature dependence of the excitonic energy band gap in In(Ga)As nanostructures. Journal of the Korean Physical Society, 2012, 60, 1828-1832.	0.3	3
54	Structural and electrical properties of high-quality 0.41 $\mu$ m-thick InSb films grown on GaAs (100) substrate with In <sub>x</sub> Al <sub>1-x</sub> Sb continuously graded buffer. Materials Research Bulletin, 2012, 47, 2927-2930.	2.7	8

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55	Temperature-dependent energy band gap variation in self-organized InAs quantum dots. Applied Physics Letters, 2011, 99, .	1.5	23
56	Growth of high-quality InSb layer on (001) Si substrate with an initial intermediate layer of InAs quantum dots. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 2104-2107.	0.8	3
57	Effect of growth parameters on the formation of three-dimensional InAs islands on (001) silicon substrate. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 391-395.	0.8	5
58	Raman scattering studies of (GaP) <sub>n</sub> /(InP) <sub>n</sub> ( $n = 1, 1.7, 2$ ) short-period superlattice structures. Journal of Raman Spectroscopy, 2009, 40, 1178-1182.	1.2	2
59	Parametrical Study on the Preparation of InAs/AlSb 2DEG Structure for Application to High-Mobility Inverted-Doping HEMT. Journal of the Korean Physical Society, 2009, 55, 1525-1529.	0.3	2
60	Atomic Force Microscopy and Polarized Raman Spectroscopy of (GaP) <sub>n</sub> /(InP) <sub>n</sub> Short-Period Superlattice Structures. Journal of the Korean Physical Society, 2008, 52, 1886-1890.	0.3	3
61	Optical characterization of digital alloy In <sub>0.49</sub> Ga <sub>0.51</sub> P <sub>1-x</sub> In <sub>0.49</sub> (Ga <sub>0.6</sub> Al <sub>0.4</sub> ) <sub>0.51</sub> P multi-quantum-wells grown by molecular beam epitaxy. Journal of Applied Physics, 2006, 100, 093503.	1.1	8
62	Optical and structural properties of InGaAs/InP double quantum wells grown by molecular beam epitaxy with polycrystalline GaAs and GaP decomposition sources. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 32, 234-236.	1.3	2
63	Comparison of structural and optical properties of InAs quantum dots grown by migration-enhanced molecular-beam epitaxy and conventional molecular-beam epitaxy. Applied Physics Letters, 2006, 88, 133104.	1.5	40
64	Effect of deposition period on structural and optical properties of InGaAs/GaAs quantum dots formed by InAs/GaAs short-period superlattices. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 26, 86-90.	1.3	9
65	Parametric study on optical properties of digital-alloy In(Ga <sub>1-x</sub> Al <sub>x</sub> )As/InP grown by molecular-beam epitaxy. Applied Physics Letters, 2004, 84, 873-875.	1.5	9
66	MBE growth and optical properties of digital-alloy 1.55- $\mu$ m multi-quantum wells. Journal of Crystal Growth, 2004, 270, 295-300.	0.7	5
67	Optical Properties of Quantum-Wires Grown Using Lateral Composition Modulation Induced by (InP) <sub>1</sub> /(GaP) <sub>1</sub> Short-Period Superlattices. Materials Research Society Symposia Proceedings, 2003, 794, 88.	0.1	2
68	Effects of Growth Sequence on Optical and Structural Properties of InAs/GaAs Quantum Dots Grown by Atomic Layer Molecular Beam Epitaxy. Materials Research Society Symposia Proceedings, 2003, 794, 94.	0.1	0
69	Uniform growth of high-quality 2-in diameter In <sub>0.53</sub> Ga <sub>0.47</sub> As/In <sub>0.52</sub> Al <sub>0.48</sub> As/InP and In <sub>0.2</sub> Ga <sub>0.8</sub> As/GaAs/AlGaAs multi-quantum well wafers by MBE with GaP and GaAs decomposition sources. Journal of Crystal Growth, 2002, 237-239, 1504-1509.	0.7	3
70	Molecular Beam Epitaxial Growth of High-Quality InP/InGaAs/InP Heterostructure with Polycrystalline GaAs and GaP Decomposition Sources. Japanese Journal of Applied Physics, 2000, 39, L347-L350.	0.8	16
71	Thermal release tape-assisted semiconductor membrane transfer process for hybrid photonic devices embedding quantum emitters. Materials for Quantum Technology, 0, , .	1.2	5