

# Wipakorn Jevasuwan

## List of Publications by Year in descending order

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71  
papers

1,296  
citations

394421

19  
h-index

414414

32  
g-index

71  
all docs

71  
docs citations

71  
times ranked

1743  
citing authors

#	ARTICLE	IF	CITATIONS
1	1-nm-capacitance-equivalent-thickness HfO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> /InGaAs metal-oxide-semiconductor structure with low interface trap density and low gate leakage current density. Applied Physics Letters, 2012, 100, .	3.3	146
2	Cation Vacancy-Initiated CO <sub>2</sub> Photoreduction over ZnS for Efficient Formate Production. ACS Energy Letters, 2019, 4, 1387-1393.	17.4	102
3	Hot Electron Excitation from Titanium Nitride Using Visible Light. ACS Photonics, 2016, 3, 1552-1557.	6.6	98
4	Nitrogen doping-mediated oxygen vacancies enhancing co-catalyst-free solar photocatalytic H <sub>2</sub> production activity in anatase TiO <sub>2</sub> nanosheet assembly. Applied Catalysis B: Environmental, 2021, 285, 119755.	20.2	86
5	High-efficiency silicon hybrid solar cells employing nanocrystalline Si quantum dots and Si nanotips for energy management. Nano Energy, 2017, 35, 154-160.	16.0	49
6	Functionalization of Silicon Nanostructures for Energy-Related Applications. Small, 2017, 13, 1701713.	10.0	49
7	Tensile-Strained GeSn Metal-Oxide-Semiconductor Field-Effect Transistor Devices on Si(111) Using Solid Phase Epitaxy. Applied Physics Express, 2013, 6, 101301.	2.4	40
8	Clear Experimental Demonstration of Hole Gas Accumulation in Ge/Si Core-Shell Nanowires. ACS Nano, 2015, 9, 12182-12188.	14.6	33
9	Impact of Fermi level pinning inside conduction band on electron mobility in InGaAs metal-oxide-semiconductor field-effect transistors. Applied Physics Letters, 2013, 103, .	3.3	27
10	Porous plasmonic nanocomposites for SERS substrates fabricated by two-step laser method. Journal of Alloys and Compounds, 2016, 665, 282-287.	5.5	26
11	Impact of Fermi Level Pinning Due to Interface Traps Inside the Conduction Band on the Inversion-Layer Mobility in In <sub>x</sub> Ga <sub>1-x</sub> As Metal-Oxide-Semiconductor Field Effect Transistors. IEEE Transactions on Device and Materials Reliability, 2013, 13, 456-462.	2.0	25
12	Ultrathin layer transfer technology for post-Si semiconductors. Microelectronic Engineering, 2013, 109, 133-136.	2.4	24
13	Marimo-Bead-Supported Core-Shell Nanocomposites of Titanium Nitride and Chromium-Doped Titanium Dioxide as a Highly Efficient Water-Floatable Green Photocatalyst. ACS Applied Materials & Interfaces, 2020, 12, 31327-31339.	8.0	24
14	Impact of Fermi level pinning inside conduction band on electron mobility of In <sub>x</sub> Ga <sub>1-x</sub> As MOSFETs and mobility enhancement by pinning modulation. , 2011, , .		23
15	Control of grain size and crystallinity of poly-Si films on quartz by Al-induced crystallization. CrystEngComm, 2017, 19, 2305-2311.	2.6	23
16	Self-limiting growth of ultrathin Ga <sub>2</sub> O <sub>3</sub> for the passivation of Al <sub>2</sub> O <sub>3</sub> /InGaAs interfaces. Applied Physics Express, 2014, 7, 011201.	2.4	22
17	Au-Sn Catalyzed Growth of Ge <sub>1-x</sub> Sn <sub>x</sub> Nanowires: Growth Direction, Crystallinity, and Sn Incorporation. Nano Letters, 2019, 19, 6270-6277.	9.1	22
18	Efficiency enhancement of Si nanostructure hybrid solar cells by optimizing non-radiative energy transfer from Si quantum dots. Nano Energy, 2021, 82, 105728.	16.0	22

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19	Vertically Aligned Ge Nanowires on Flexible Plastic Films Synthesized by (111)-Oriented Ge Seeded Vaporâ€“Liquidâ€“Solid Growth. ACS Applied Materials & Interfaces, 2015, 7, 18120-18124.	8.0	21
20	Quadra-quantum dots grown on quantum rings having square-shaped holes: Basic nanostructure for quantum dot cellular automata application. Microelectronic Engineering, 2009, 86, 853-856.	2.4	20
21	Solution derived p-ZnO/n-Si nanowire heterojunctions for photodetection. Chemical Physics Letters, 2016, 658, 158-161.	2.6	20
22	Multimodal switching of a redox-active macrocycle. Nature Communications, 2019, 10, 1007.	12.8	20
23	Photosensitizer Encryption with Aggregation Enhanced Singlet Oxygen Production. Journal of the American Chemical Society, 2022, 144, 10830-10843.	13.7	19
24	Initial Processes of Atomic Layer Deposition of Al <sub>2</sub> O <sub>3</sub> on InGaAs: Interface Formation Mechanisms and Impact on Metal-Insulator-Semiconductor Device Performance. Materials, 2012, 5, 404-414.	2.9	18
25	Highly Air-Stable Solution-Processed and Low-Temperature Organic/Inorganic Nanostructure Hybrid Solar Cells. ACS Applied Energy Materials, 2019, 2, 2637-2644.	5.1	18
26	Metal-catalyzed electroless etching and nanoimprinting silicon nanowire-based solar cells: Silicon nanowire defect reduction and efficiency enhancement by two-step H <sub>2</sub> annealing. Japanese Journal of Applied Physics, 2016, 55, 065001.	1.5	15
27	SERS analyses of thiamethoxam assisted by Ag films and nanostructures produced by laser techniques. Journal of Raman Spectroscopy, 2018, 49, 397-403.	2.5	15
28	Hole gas accumulation in Si/Ge coreâ€“shell and Si/Ge/Si coreâ€“double shell nanowires. Nanoscale, 2018, 10, 21062-21068.	5.6	15
29	Ultrathin GeSn p-channel MOSFETs grown directly on Si(111) substrate using solid phase epitaxy. Japanese Journal of Applied Physics, 2015, 54, 04DA07.	1.5	14
30	Diffused back surface field formation in combination with two-step H <sub>2</sub> annealing for improvement of silicon nanowire-based solar cell efficiency. Japanese Journal of Applied Physics, 2017, 56, 04CP01.	1.5	14
31	Surface-Enhanced Raman Spectroscopy (SERS) of Mancozeb and Thiamethoxam Assisted by Gold and Silver Nanostructures Produced by Laser Techniques on Paper. Applied Spectroscopy, 2019, 73, 313-319.	2.2	13
32	Fabrication of high-performance ordered radial junction silicon nanopencil solar cells by fine-tuning surface carrier recombination and structure morphology. Nano Energy, 2019, 56, 604-611.	16.0	13
33	Pencil-shaped silicon nanowire synthesis and photovoltaic application. Japanese Journal of Applied Physics, 2017, 56, 085201.	1.5	12
34	Controlling Catalyst-Free Formation and Hole Gas Accumulation by Fabricating Si/Ge Coreâ€“Shell and Si/Ge/Si Coreâ€“Double Shell Nanowires. ACS Nano, 2019, 13, 13403-13412.	14.6	12
35	Bonding and electronic states of boron in silicon nanowires characterized by an infrared synchrotron radiation beam. Nanoscale, 2015, 7, 7246-7251.	5.6	10
36	Efficiency enhancement of silicon nanowire solar cells by using UV/Ozone treatments and micro-grid electrodes. Applied Surface Science, 2018, 439, 1057-1064.	6.1	10

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37	Three-dimensional radial junction solar cell based on ordered silicon nanowires. <i>Nanotechnology</i> , 2019, 30, 344001.	2.6	10
38	Surface-Enhanced Raman Spectroscopy (SERS) of Neonicotinoid Insecticide Thiacloprid Assisted by Silver and Gold Nanostructures. <i>Applied Spectroscopy</i> , 2020, 74, 357-364.	2.2	10
39	InP ring-shaped quantum-dot molecules grown by droplet molecular beam epitaxy. <i>Journal of Crystal Growth</i> , 2011, 323, 275-278.	1.5	9
40	Au and Ag films and nanostructures for detection of fungicide mancozeb: SERS analyses. , 2019, , .		9
41	Interfacial intermixing of Ge/Si core-shell nanowires by thermal annealing. <i>Nanoscale</i> , 2020, 12, 7572-7576.	5.6	9
42	In-droplet-induced formation of InP nanostructures by solid-source molecular-beam epitaxy. <i>Microelectronic Engineering</i> , 2007, 84, 1548-1551.	2.4	8
43	Influence of crystallization temperature on InP ring-shaped quantum-dot molecules grown by droplet epitaxy. <i>Microelectronic Engineering</i> , 2010, 87, 1416-1419.	2.4	8
44	Laser-assisted approach for synthesis of plasmonic Ag/ZnO nanostructures. <i>Superlattices and Microstructures</i> , 2017, 109, 886-896.	3.1	8
45	Single grain growth of Si thin film on insulating substrate by limited region aluminum induced crystallization. <i>Materials Letters</i> , 2019, 252, 100-102.	2.6	8
46	Ag and Au nanostructures for surface-enhanced Raman spectroscopy of Mospilan 20 SP (acetamiprid). <i>Journal of Raman Spectroscopy</i> , 2020, 51, 2398-2407.	2.5	8
47	Silicon Nanotubes Fabricated by Wet Chemical Etching of ZnO/Si Core-shell Nanowires. <i>Nanomaterials</i> , 2020, 10, 2535.	4.1	8
48	High electron mobility triangular InGaAs-OI nMOSFETs with (111)B side surfaces formed by MOVPE growth on narrow fin structures. , 2013, , .		7
49	Nanomolecular singlet oxygen photosensitizers based on hemiquinonoid-resorcinarenes, the fuchsonarenes. <i>Chemical Science</i> , 2020, 11, 2614-2620.	7.4	7
50	Transfer-free synthesis of highly ordered Ge nanowire arrays on glass substrates. <i>Applied Physics Letters</i> , 2015, 107, 133102.	3.3	6
51	Silicon nanowires covered with on-site fabricated nanowire-shape graphene for Schottky junction solar cells. <i>Solar Energy</i> , 2021, 224, 666-671.	6.1	6
52	Transformation of concentric quantum double rings to single quantum rings with squarelike nanoholes on GaAs(001) by droplet epitaxy. <i>Journal of Crystal Growth</i> , 2011, 323, 271-274.	1.5	5
53	High mobility p-n junction-less InGaAs-OI tri-gate nMOSFETs with metal source/drain for ultra-low-power CMOS applications. , 2012, , .		5
54	Improvement of silicon nanowire solar cells made by metal catalyzed electroless etching and nano imprint lithography. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 04CP03.	1.5	5

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55	Surface-enhanced Raman spectroscopy of neonicotinoid insecticide imidacloprid, assisted by gold and silver nanostructures. <i>Spectroscopy Letters</i> , 2020, 53, 184-193.	1.0	5
56	On-site growth method of 3D structured multi-layered graphene on silicon nanowires. <i>Nanoscale Advances</i> , 2020, 2, 1718-1725.	4.6	5
57	Functionalized aluminum-catalyzed silicon nanowire formation and radial junction photovoltaic devices. <i>Nanoscale</i> , 2021, 13, 6798-6808.	5.6	5
58	Realization and direct observation of five normal and parametric modes in silicon nanowire resonators by <i>in situ</i> transmission electron microscopy. <i>Nanoscale Advances</i> , 2019, 1, 1784-1790.	4.6	4
59	Fabrication of Self-Assembled InGaAs Squarelike Nanoholes on GaAs(001) by Droplet Epitaxy. <i>Japanese Journal of Applied Physics</i> , 2010, 49, 04DH09.	1.5	3
60	3D integration of high mobility InGaAs nFETs and Ge pFETs for ultra low power and high performance CMOS. , 2013, , .		3
61	Adjustable metal particle grid formed through upward directed solid-state dewetting using silicon nanowires. <i>Nanoscale Advances</i> , 2020, 2, 5607-5614.	4.6	3
62	Defect control and Si/Ge core-shell heterojunction formation on silicon nanowire surfaces formed using the top-down method. <i>Nanotechnology</i> , 2022, 33, 135602.	2.6	3
63	Growth and Characterization of InP Ringlike Quantum-Dot Molecules Grown by Solid-Source Molecular Beam Epitaxy. <i>Journal of Nanoscience and Nanotechnology</i> , 2010, 10, 7291-7294.	0.9	2
64	Controlling Anion Composition at Metal-Insulator-Semiconductor Interfaces on III-V Channels by Plasma Processing. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 065701.	1.5	2
65	Laser nanostructuring for plasmon enhancement of Ag/ZnO optical characteristics. , 2017, , .		2
66	High-capacity CVD-grown Ge nanowire anodes for lithium-ion batteries: simple chemical etching approach for oxide removal. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 2103-2112.	2.2	2
67	ZnO/Ge core-shell nanowires and Ge nanotubes fabricated by chemical vapor deposition and wet etching. <i>Nanotechnology</i> , 2022, 33, 325602.	2.6	1
68	Energetic favorite of quantum dot formation in ring-shaped InP quantum-dot molecules. , 2013, , .		0
69	Electron mobility improvement by in situ annealing before deposition of HfO <sub>2</sub> gate dielectric with equivalent oxide thickness of sub-1.0 nm in In <sub>0.53</sub> Ga <sub>0.47</sub> As n-type metal-insulator-semiconductor field-effect transistor. <i>Applied Physics Express</i> , 2014, 7, 061202.	2.4	0
70	Growth and doping control of Ge/Si and Si/Ge core-shell nanowires. , 2016, , .		0
71	Novel Silicon Nanowire Electrodes Grown by Chemical Vapor Deposition Method for High-Performance Electrochemical Capacitors. <i>Bulletin of the Korean Chemical Society</i> , 2017, 38, 1047-1051.	1.9	0