Kar-Wei Ng

List of Publications by Year
in descending order

90 papers	2,508 citations	201575 27 h-index	214721 47 g-index
90 all docs	90 docs citations	90 times ranked	2929 citing authors

#	Article	IF	Citations
1	One-step synthesized single component white emitting carbon microspheres for lighting. Journal of Luminescence, 2022, 242, 118606.	1.5	1
2	Fabrication and oxidation of amorphous Zr-based alloy for imprint lithography. Microelectronic Engineering, 2022, 256, 111722.	1.1	1
3	Physicochemical and cell toxicity properties of particulate matter (PM) from a diesel vehicle fueled with diesel, spent coffee ground biodiesel, and ethanol. Science of the Total Environment, 2022, 824, 153873.	3.9	11
4	Physical, chemical, and cell toxicity properties of mature/aged particulate matter (PM) trapped in a diesel particulate filter (DPF) along with the results from freshly produced PM of a diesel engine. Journal of Hazardous Materials, 2022, 434, 128855.	6.5	14
5	Low-cost preparation of durable, transparent, superhydrophobic coatings with excellent environmental stability and self-cleaning function. Surface and Coatings Technology, 2022, 438, 128367.	2.2	17
6	Design of functionalized double-metal MXenes (M2Mâ€™C2T2: M = Cr, Mo, Mâ€™ = Ti, V) for magnetic and catalytic applications. International Journal of Hydrogen Energy, 2022, , .	3.8	5
7	Fabrication of Robust, Anti-reflective, Transparent Superhydrophobic Coatings with a Micropatterned Multilayer Structure. Langmuir, 2022, 38, 7129-7136.	1.6	19
8	Ultrasensitive ethanol sensor based on segregated ZnO-In2O3 porous nanosheets. Applied Surface Science, 2021, 535, 147697.	3.1	52
9	Ab initio design of a new family of 2D materials: transition metal carbon nitrogen compounds (MCNs). Journal of Materials Chemistry C, 2021, 9, 4748-4756.	2.7	8
10	Freestanding CH₃NH₃PbBr₃ single-crystal microwires for optoelectronic applications synthesized with a predefined lattice framework. Journal of Materials Chemistry C, 2021, 9, 4771-4781.	2.7	7
11	Metal-to-ligand charge transfer chirality-based sensing of mercury ions. Photonics Research, 2021, 9, 213.	3.4	3
12	Sensitive and Low-Power Metal Oxide Gas Sensors with a Low-Cost Microelectromechanical Heater. ACS Omega, 2021, 6, 1216-1222.	1.6	49
13	Close-loop recycling of perovskite solar cells through dissolution-recrystallization of perovskite by butylamine. Cell Reports Physical Science, 2021, 2, 100341.	2.8	32
14	Multiâ€Phase Heterostructure of CoNiP/Co_xP for Enhanced Hydrogen Evolution Under Alkaline and Seawater Conditions by Promoting H₂O Dissociation. Small, 2021, 17, e2007557.	5.2	83
15	Aluminum-Based Surface Polymerization on Carbon Dots with Aggregation-Enhanced Luminescence. Journal of Physical Chemistry Letters, 2021, 12, 4530-4536.	2.1	16
16	Stable and Efficient Blueâ€Emitting CsPbBr₃ Nanoplatelets with Potassium Bromide Surface Passivation. Small, 2021, 17, e2101359.	5.2	41
17	CNSi/MXene/CNSi: Unique Structure with Specific Electronic Properties for Nanodevices. Small, 2021, 17, 2101482.	5.2	2
18	Stable UV-Pumped White Light-Emitting Diodes Based on Anthracene-Coated CsCu₂I₃. Journal of Physical Chemistry C, 2021, 125, 13076-13083.	1.5	19

#	Article	IF	Citations
19	Robust Ultralong Lead Halide Perovskite Microwire Lasers. ACS Applied Materials & Interfaces, 2021, 13, 38458-38466.	4.0	14
20	Design of 2D materials â€“ MSi₂C_xN_{4â^'x} (M = Cr, Mo, and W;) Tj ETQq0 0 0 rgBT /Overlock 10 T	2.8	10
21	Efficiency Improvement of Quantum Dot Light-Emitting Diodes via Thermal Damage Suppression with HATCN. ACS Applied Materials & Interfaces, 2021, 13, 49058-49065.	4.0	1
22	Micropatterned Amorphous Zr-Based Alloys Coated with Silica Nanoparticles as Superhydrophobic Surfaces against Abrasion. ACS Applied Nano Materials, 2021, 4, 12300-12307.	2.4	12
23	Observation and Suppression of Stacking Interface States in Sandwich-Structured Quantum Dot Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2021, 13, 56630-56637.	4.0	5
24	EFFECT OF VEHICLE LIGHT ON THE NANOSTRUCTURE OF PARTICULATE MATTERS EMITTED FROM DIESEL AND GASOLINE VEHICLES. WIT Transactions on Ecology and the Environment, 2021, , .	0.0	0
25	Two-dimensional materials as novel co-catalysts for efficient solar-driven hydrogen production. Journal of Materials Chemistry A, 2020, 8, 23202-23230.	5.2	81
26	Unveiling the Origin of Catalytic Sites of Pt Nanoparticles Decorated on Oxygen-Deficient Vanadium-Doped Cobalt Hydroxide Nanosheet for Hybrid Sodiumâ€“Air Batteries. ACS Applied Energy Materials, 2020, 3, 7464-7473.	2.5	9
27	Magnetic and electronic properties of 2D TiX3 (X = F, Cl, Br and I). Physical Chemistry Chemical Physics, 2020, 22, 17632-17638.	1.3	12
28	Spray-deposited PbS colloidal quantum dot solid for near-infrared photodetectors. Nano Energy, 2020, 78, 105254.	8.2	35
29	Design of novel pentagonal 2D transitional-metal sulphide monolayers for hydrogen evolution reaction. International Journal of Hydrogen Energy, 2020, 45, 16201-16209.	3.8	32
30	IIIâ€“V micro- and nano-lasers deposited on amorphous SiO2. Applied Physics Letters, 2020, 116, .	1.5	5
31	Investigation on the role of amines in the liquefaction and recrystallization process of MAPbI₃ perovskite. Journal of Materials Chemistry A, 2020, 8, 13585-13593.	5.2	11
32	Solvent Effects on the Interface and Film Integrity of Solution-Processed ZnO Electron Transfer Layers for Quantum Dot Light-Emitting Diodes. ACS Applied Electronic Materials, 2020, 2, 1074-1080.	2.0	10
33	Two-Dimensional Layered Materials: High-Efficient Electrocatalysts for Hydrogen Evolution Reaction. ACS Applied Nano Materials, 2020, 3, 6270-6296.	2.4	70
34	1-kV Sputtered p-NiO/n-Ga₂O₃ Heterojunction Diodes With an Ultra-Low Leakage Current Below $1~mu$ A/cm². IEEE Electron Device Letters, 2020, 41, 449-452.	2.2	129
35	Ultra-thin curved visible microdisk lasers with three-dimensional whispering gallery modes. Nanophotonics, 2020, 9, 2997-3002.	2.9	10
36	Tailoring the Photoluminescence Excitation Dependence of the Carbon Dots via an Alkali Treatment. Journal of Physical Chemistry Letters, 2019, 10, 4596-4602.	2.1	26

#	Article	IF	Citations
37	Homogeneous Core/Shell NiMoO4@NiMoO4 and Activated Carbon for High Performance Asymmetric Supercapacitor. Nanomaterials, 2019, 9, 1033.	1.9	12
38	Cobalt/titanium nitride@N-doped carbon hybrids for enhanced electrocatalytic hydrogen evolution and supercapacitance. New Journal of Chemistry, 2019, 43, 14518-14526.	1.4	17
39	Proton Conducting Polyoxometalate/Polypyrrole Films and Their Humidity Sensing Performance. ACS Applied Nano Materials, 2018, 1, 564-571.	2.4	32
40	InGaAs/InP quantum wires grown on silicon with adjustable emission wavelength at telecom bands. Nanotechnology, 2018, 29, 225601.	1.3	27
41	High-Performance AlGaN/GaN/Si Power MOSHEMTs With ZrO₂ Gate Dielectric. IEEE Transactions on Electron Devices, 2018, 65, 5337-5342.	1.6	22
42	Room-temperature InP/InGaAs nano-ridge lasers grown on Si and emitting at telecom bands. Optica, 2018, 5, 918.	4.8	40
43	Ultracompact Position-Controlled InP Nanopillar LEDs on Silicon with Bright Electroluminescence at Telecommunication Wavelengths. ACS Photonics, 2017, 4, 695-702.	3.2	26
44	An asymmetric supercapacitor with excellent cycling performance realized by hierarchical porous NiGa₂O₄ nanosheets. Journal of Materials Chemistry A, 2017, 5, 19046-19053.	5.2	48
45	Continuous-wave lasing from InP/InGaAs nanoridges at telecommunication wavelengths. Applied Physics Letters, 2017, 111, 212101.	1.5	23
46	Nanopillar quantum well lasers directly grown on silicon and emitting at silicon-transparent wavelengths. Optica, 2017, 4, 717.	4.8	45
47	Ultrahigh Responsivity-Bandwidth Product in a Compact InP Nanopillar Phototransistor Directly Grown on Silicon. Scientific Reports, 2016, 6, 33368.	1.6	22
48	Room-Temperature InGaAs/InP Quantum-Well-in-Nanopillar Laser Directly Grown on Silicon. , 2016, , .		1
49	Laser optomechanics. Scientific Reports, 2015, 5, 13700.	1.6	31
50	InAlGaAs/InAlAs MQWs on Si Substrate. IEEE Photonics Technology Letters, 2015, 27, 748-751.	1.3	13
51	Illumination Angle Insensitive Single Indium Phosphide Tapered Nanopillar Solar Cell. Nano Letters, 2015, 15, 4961-4967.	4.5	24
52	Growing antiphase-domain-free GaAs thin films out of highly ordered planar nanowire arrays on exact (001) silicon. Applied Physics Letters, 2015, 106, .	1.5	135
53	Wurtzite-Phased InP Micropillars Grown on Silicon with Low Surface Recombination Velocity. Nano Letters, 2015, 15, 7189-7198.	4.5	18
54	Broadband Self-Swept High Contrast Grating VCSEL. , 2015, , .		0

#	Article	IF	Citations
55	Three-dimensional whispering gallery modes in InGaAs nanoneedle lasers on silicon. Applied Physics Letters, 2014, 105, .	1.5	9
56	Valence Band Splitting in Wurtzite InGaAs Nanoneedles Studied by Photoluminescence Excitation Spectroscopy. ACS Nano, 2014, 8, 11440-11446.	7.3	10
57	InP nanowire avalanche photodiode and bipolar junction phototransistor integrated on silicon substrate. , 2014, , .		1
58	High Brightness InP Micropillars Grown on Silicon with Fermi Level Splitting Larger than 1 eV. Nano Letters, 2014, 14, 3235-3240.	4.5	19
59	Defect reduction in epitaxial InP on nanostructured Si (001) substrates with position-controlled seed arrays. Journal of Crystal Growth, 2014, 405, 81-86.	0.7	24
60	Metastable Growth of Pure Wurtzite InGaAs Microstructures. Nano Letters, 2014, 14, 4757-4762.	4.5	16
61	Nanopillar Lasers Directly Grown on Silicon with Heterostructure Surface Passivation. ACS Nano, 2014, 8, 6833-6839.	7.3	26
62	Tailoring the Optical Characteristics of Microsized InP Nanoneedles Directly Grown on Silicon. Nano Letters, 2014, 14, 183-190.	4.5	44
63	Composition Homogeneity in InGaAs/GaAs Coreâ€“Shell Nanopillars Monolithically Grown on Silicon. ACS Applied Materials & Interfaces, 2014, 6, 16706-16711.	4.0	9
64	Nanophotonic integrated circuits from nanoresonators grown on silicon. Nature Communications, 2014, 5, 4325.	5.8	57
65	High quality InGaP micropillars directly grown on silicon. , 2013, , .		2
66	High brightness InP micropillars grown on silicon with Fermi-level splits larger than 1 eV. , 2013, , .		0
67	High-quality InP nanoneedles grown on silicon. Applied Physics Letters, 2013, 102, .	1.5	34
68	Unconventional Growth Mechanism for Monolithic Integration of IIIâ€“V on Silicon. ACS Nano, 2013, 7, 100-107.	7.3	53
69	Elastic energy relaxation and critical thickness for plastic deformation in the core-shell InGaAs/GaAs nanopillars. Journal of Applied Physics, 2013, 113, .	1.1	26
70	Single Crystalline InGaAs Nanopillar Grown on Polysilicon with Dimensions beyond the Substrate Grain Size Limit. Nano Letters, 2013, 13, 5931-5937.	4.5	19
71	Nanolasers grown on silicon-based MOSFETs. Optics Express, 2012, 20, 12171.	1.7	36
72	High-speed avalanche photodiodes using III–V nanopillars monolithically grown on silicon. , 2012, , .		4

#	Article	IF	Citations
73	Characteristics of InP nanoneedles grown on silicon by low-temperature MOCVD. , 2012, , .		1
74	Nanopillar lasers on silicon. , 2011, , .		0
75	GaAs-Based Nanoneedle Light Emitting Diode and Avalanche Photodiode Monolithically Integrated on a Silicon Substrate. Nano Letters, 2011, 11, 385-390.	4.5	97
76	Helically Propagating Modes in InGaAs Nanoneedle Lasers Grown on Poly-Silicon and Silicon Substrates. , 2011, , .		0
77	Nanolasers grown on silicon. Nature Photonics, 2011, 5, 170-175.	15.6	469
78	Growth kinetics of GaAs nanoneedles on silicon and sapphire substrates. Applied Physics Letters, 2011, 98, 153113.	1.5	6
79	GaAs nanoneedles grown on sapphire. Applied Physics Letters, 2011, 98, 123101.	1.5	33
80	Nanolasers on Si-MOSFET: A Monolithic Integration. , 2011, , .		0
81	InGaAs QW Nanopillar Light Emitting Diodes Monolithically Grown on a Si Substrate. , 2010, , .		1
82	Single Crystalline GaAs Nanoneedles Grown on 46% Lattice-Mismatched Sapphire with Bright Luminescence. , 2010, , .		1
83	Effects of AlGaN/AlN Stacked Interlayers on GaN Growth on Si (111). Chinese Physics Letters, 2010, 27, 038103.	1.3	4
84	Nanolasers grown on polycrystalline silicon. , 2010, , .		1
85	All-semiconductor nanolasers on silicon. , 2010, , .		2
86	Improved GaN grown on Si(111) substrate using ammonia flow modulation on SiN x mask layer by MOCVD. Science in China Series D: Earth Sciences, 2009, 52, 2758-2761.	0.9	7
87	Core-shell InGaAs/GaAs quantum well nanoneedles grown on silicon with silicon-transparent emission. Optics Express, 2009, 17, 7831.	1.7	38
88	GaAs Nanoneedle Photodetector Monolithically Grown on a (111) Si Substrate by MOCVD. , 2009, , .		1
89	Growth and Characterizations of GaN-Based LEDs Grown on Wet-Etched Stripe-Patterned Sapphire Substrates. Journal of Electronic Materials, 2008, 37, 1560-1564.	1.0	4
90	High-performance III-nitride blue LEDs grown and fabricated on patterned Si substrates. Journal of Crystal Growth, 2007, 298, 725-730.	0.7	66