Chun-Wei Huang

List of Publications by Year
in descending order

67 papers	2,709 citations	218677 26 h-index	182427 51 g-index
67 all docs	67 docs citations	67 times ranked	4614 citing authors

#	Article	IF	Citations
1	High Mobility MoS₂ Transistor with Low Schottky Barrier Contact by Using Atomic Thick hâ€BN as a Tunneling Layer. Advanced Materials, 2016, 28, 8302-8308.	21.0	398
2	Dynamic Evolution of Conducting Nanofilament in Resistive Switching Memories. Nano Letters, 2013, 13, 3671-3677.	9.1	327
3	Switching Kinetic of VCMâ€Based Memristor: Evolution and Positioning of Nanofilament. Advanced Materials, 2015, 27, 5028-5033.	21.0	176
4	Flexible ferroelectric element based on van der Waals heteroepitaxy. Science Advances, 2017, 3, e1700121.	10.3	174
5	Well-aligned ZnOnanowires with excellent field emission and photocatalytic properties. Nanoscale, 2012, 4, 1471-1475.	5.6	107
6	Direct Observation of Dualâ€Filament Switching Behaviors in Ta₂O₅â€Based Memristors. Small, 2017, 13, 1603116.	10.0	85
7	Oxide Heteroepitaxy for Flexible Optoelectronics. ACS Applied Materials & Interfaces, 2016, 8, 32401-32407.	8.0	81
8	Rational Design of ZnO:H/ZnO Bilayer Structure for High-Performance Thin-Film Transistors. ACS Applied Materials & Interfaces, 2016, 8, 7862-7868.	8.0	76
9	Dielectric Engineering of a Boron Nitride/Hafnium Oxide Heterostructure for Highâ€Performance 2D Field Effect Transistors. Advanced Materials, 2016, 28, 2062-2069.	21.0	65
10	Phase transformation and thermoelectric properties of bismuth-telluride nanowires. Nanoscale, 2013, 5, 4669.	5.6	63
11	Observation of Resistive Switching Behavior in Crossbar Coreâ€“Shell Ni/NiO Nanowires Memristor. Small, 2018, 14, 1703153.	10.0	58
12	Atomic-scale investigation of Lithiation/Delithiation mechanism in High-entropy spinel oxide with superior electrochemical performance. Chemical Engineering Journal, 2021, 420, 129838.	12.7	53
13	Excellent piezoelectric and electrical properties of lithium-doped ZnO nanowires for nanogenerator applications. Nano Energy, 2014, 8, 291-296.	16.0	48
14	Growth of CuInSe2and In2Se3/CuInSe2Nano-Heterostructures through Solid State Reactions. Nano Letters, 2011, 11, 4348-4351.	9.1	46
15	Revealing Controllable Nanowire Transformation through Cationic Exchange for RRAM Application. Nano Letters, 2014, 14, 2759-2763.	9.1	44
16	In Situ TEM and Energy Dispersion Spectrometer Analysis of Chemical Composition Change in ZnO Nanowire Resistive Memories. Analytical Chemistry, 2013, 85, 3955-3960.	6.5	41
17	Kinetic Competition Model and Size-Dependent Phase Selection in 1-D Nanostructures. Nano Letters, 2012, 12, 3115-3120.	9.1	40
18	Dynamic Observation of Phase Transformation Behaviors in Indium(III) Selenide Nanowire Based Phase Change Memory. ACS Nano, 2014, 8, 9457-9462.	14.6	39

#	Article	IF	Citations
19	Copper silicide/silicon nanowire heterostructures: in situ TEM observation of growth behaviors and electron transport properties. Nanoscale, 2013, 5, 5086.	5.6	34
20	Observing Growth of Nanostructured ZnO in Liquid. Chemistry of Materials, 2016, 28, 4507-4511.	6.7	34
21	Probing the electrochemical properties of an electrophoretically deposited Co₃O₄/rGO/CNTs nanocomposite for supercapacitor applications. RSC Advances, 2016, 6, 60578-60586.	3.6	33
22	In-situ TEM observation of Multilevel Storage Behavior in low power FeRAM device. Nano Energy, 2017, 34, 103-110.	16.0	33
23	Observing topotactic phase transformation and resistive switching behaviors in low power SrCoOx memristor. Nano Energy, 2020, 72, 104683.	16.0	33
24	Atomicâ€Scale Fabrication of Inâ€Plane Heterojunctions of Fewâ€Layer MoS₂ via In Situ Scanning Transmission Electron Microscopy. Small, 2020, 16, e1905516.	10.0	29
25	Phosphorus-Doped pâ€“n Homojunction ZnO Nanowires: Growth Kinetics in Liquid and Their Optoelectronic Properties. Chemistry of Materials, 2015, 27, 4216-4221.	6.7	28
26	High-yield synthesis of ZnO nanowire arrays and their opto-electrical properties. Nanoscale, 2012, 4, 1476-1480.	5.6	27
27	Direct observation of melting behaviors at the nanoscale under electron beam and heat to form hollow nanostructures. Nanoscale, 2012, 4, 4702.	5.6	26
28	Optoelectronic Properties of Single-Crystalline Zn₂GeO₄ Nanowires. Journal of Physical Chemistry C, 2014, 118, 8194-8199.	3.1	26
29	Opto-electrical properties of Sb-doped p-type ZnO nanowires. Applied Physics Letters, 2014, 104, .	3.3	25
30	Transparent Antiradiative Ferroelectric Heterostructure Based on Flexible Oxide Heteroepitaxy. ACS Applied Materials & Interfaces, 2018, 10, 30574-30580.	8.0	24
31	The Influence of Surface Oxide on the Growth of Metal/Semiconductor Nanowires. Nano Letters, 2011, 11, 2753-2758.	9.1	23
32	Single-crystalline Î´-Ni2Si nanowires with excellent physical properties. Nanoscale Research Letters, 2013, 8, 290.	5.7	22
33	The different roles of contact materials between oxidation interlayer and doping effect for high performance ZnO thin film transistors. Applied Physics Letters, 2015, 106, 051607.	3.3	21
34	Observing the evolution of graphene layers at high current density. Nano Research, 2016, 9, 3663-3670.	10.4	21
35	Flexible Heteroepitaxy Photoelectrode for Photo-electrochemical Water Splitting. ACS Applied Energy Materials, 2018, 1, 3900-3907.	5.1	21
36	Single-crystalline CuO nanowires for resistive random access memory applications. Applied Physics Letters, 2015, 106, .	3.3	19

#	Article	IF	Citations
37	Atomic Visualization of the Phase Transition in Highly Strained BiFeO3 Thin Films with Excellent Pyroelectric Response. Nano Energy, 2015, 17, 72-81.	16.0	19
38	Nickel/Platinum Dual Silicide Axial Nanowire Heterostructures with Excellent Photosensor Applications. Nano Letters, 2016, 16, 1086-1091.	9.1	19
39	Growth of single-crystalline cobalt silicide nanowires with excellent physical properties. Journal of Applied Physics, 2011, 110, .	2.5	18
40	Self-formed conductive nanofilaments in (Bi, Mn)O for ultralow-power memory devices. Nano Energy, 2015, 13, 283-290.	16.0	17
41	Dynamic observation of reversible lithium storage phenomena in hybrid supercapacitor devices. Nano Energy, 2017, 41, 494-500.	16.0	17
42	Optimization of the nanotwin-induced zigzag surface of copper by electromigration. Nanoscale, 2016, 8, 2584-2588.	5.6	16
43	In Situ Investigation of Defect-Free Copper Nanowire Growth. Nano Letters, 2018, 18, 778-784.	9.1	15
44	Low Interface Trap Densities and Enhanced Performance of AlGaN/GaN MOS High- Electron Mobility Transistors Using Thermal Oxidized Y₂O₃ Interlayer. IEEE Electron Device Letters, 2015, 36, 1284-1286.	3.9	14
45	Mass transport phenomena in copper nanowires at high current density. Nano Research, 2016, 9, 1071-1078.	10.4	14
46	In situ TEM investigation of electron beam-induced ultrafast chemical lithiation for charging. Journal of Materials Chemistry A, 2020, 8, 648-655.	10.3	13
47	Synthesis and thermoelectric properties of indium telluride nanowires. Materials Research Bulletin, 2019, 112, 61-65.	5.2	12
48	Atomic-Scale Localized Thinning and Reconstruction of Two-Dimensional WS₂ Layers through In Situ Transmission Electron Microscopy/Scanning Transmission Electron Microscopy. Journal of Physical Chemistry C, 2020, 124, 14935-14940.	3.1	12
49	Single-crystalline Ge nanowires and Cu3Ge/Ge nano-heterostructures. CrystEngComm, 2012, 14, 4570.	2.6	11
50	Observing phase transformation in CVD-grown MoS₂via atomic resolution TEM. Chemical Communications, 2018, 54, 9941-9944.	4.1	11
51	Direct Observation of Sublimation Behaviors in One-Dimensional In2Se3/In2O3 Nanoheterostructures. Analytical Chemistry, 2015, 87, 5584-5588.	6.5	10
52	In Situ TEM Investigation of the Electrochemical Behavior in CNTs/MnO₂-Based Energy Storage Devices. Analytical Chemistry, 2017, 89, 9671-9675.	6.5	10
53	Carbon Nanotube/Nitrogen-Doped Reduced Graphene Oxide Nanocomposites and Their Application in Supercapacitors. Journal of Nanoscience and Nanotechnology, 2017, 17, 5366-5373.	0.9	10
54	Growth and properties of single-crystalline Ge nanowires and germanide/Ge nano-heterostructures. CrystEngComm, 2012, 14, 53-58.	2.6	9

#	Article	IF	Citations
55	Dynamic observation on the growth behaviors in manganese silicide/silicon nanowire heterostructures. Nanoscale, 2015, 7, 1776-1781.	5.6	9
56	Electron Beam Irradiation-Induced Deoxidation and Atomic Flattening on the Copper Surface. ACS Applied Materials & Interfaces, 2019, 11, 40909-40915.	8.0	9
57	Observing Solid-State Formation of Oriented Porous Functional Oxide Nanowire Heterostructures by in Situ TEM. Nano Letters, 2018, 18, 6064-6070.	9.1	8
58	Electron-beam-induced phase transition in the transmission electron microscope: the case of VO₂(B). CrystEngComm, 2018, 20, 6857-6860.	2.6	7
59	Real Time Observation of the Formation of Hollow Nanostructures through Solid State Reactions. Analytical Chemistry, 2014, 86, 4348-4353.	6.5	6
60	Dynamic observation on the functional metal oxide conversion behaviors in Fe3O4/ZnO heterostructures. Scripta Materialia, 2020, 177, 192-197.	5.2	6
61	Shape control of nickel silicide nanocrystals on stress-modified surface. CrystEngComm, 2014, 16, 1611.	2.6	4
62	Solidâ€State Diffusional Behaviors of Functional Metal Oxides at Atomic Scale. Small, 2018, 14, 1702877.	10.0	4
63	Observing resistive switching behaviors in single Ta2O5 nanotube-based memristive devices. Materials Today Nano, 2022, 18, 100212.	4.6	4
64	The Linearly Temperature-Dependent Thermal Conductivity Across the Transition Temperature of Polycrystalline YBa2Cu3O6.9. Journal of Superconductivity and Novel Magnetism, 2019, 32, 2289-2293.	1.8	2
65	Unique amorphization-mediated growth to form heterostructured silicide nanowires by solid-state reactions. Materials and Design, 2019, 169, 107674.	7.0	2
66	Synthesis of single-crystalline Ge₁Sb₂Te₄nanoplates in solution phase. CrystEngComm, 2016, 18, 2244-2246.	2.6	1
67	Single Crystalline CuO Nanowire for Resistive Random Access Memory Application. ECS Meeting Abstracts, 2014, , .	0.0	0