Joseph D Christesen

List of Publications by Year
in descending order

20	794	471509 17	839539 18
papers	citations	h-index	g-index

20	20	20	1156
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Direct Imaging of Free Carrier and Trap Carrier Motion in Silicon Nanowires by Spatially-Separated Femtosecond Pumpâ€“Probe Microscopy. Nano Letters, 2013, 13, 1336-1340.	9.1	120
2	Design Principles for Photovoltaic Devices Based on Si Nanowires with Axial or Radial pâ€“n Junctions. Nano Letters, 2012, 12, 6024-6029.	9.1	119
3	Synthetically Encoding 10 nm Morphology in Silicon Nanowires. Nano Letters, 2013, 13, 6281-6286.	9.1	87
4	Ultrafast Carrier Dynamics in Individual Silicon Nanowires: Characterization of Diameter-Dependent Carrier Lifetime and Surface Recombination with Pumpâ€“Probe Microscopy. Journal of Physical Chemistry C, 2014, 118, 8634-8640.	3.1	50
5	Imaging Charge Separation and Carrier Recombination in Nanowire p-i-n Junctions Using Ultrafast Microscopy. Nano Letters, 2014, 14, 3079-3087.	9.1	48
6	Encoding Abrupt and Uniform Dopant Profiles in Vaporâ€“Liquidâ€“Solid Nanowires by Suppressing the Reservoir Effect of the Liquid Catalyst. ACS Nano, 2014, 8, 11790-11798.	14.6	46
7	Designing Morphology in Epitaxial Silicon Nanowires: The Role of Gold, Surface Chemistry, and Phosphorus Doping. ACS Nano, 2017, 11, 4453-4462.	14.6	46
8	Horizontal Silicon Nanowires with Radial pâ€“n Junctions: A Platform for Unconventional Solar Cells. Journal of Physical Chemistry Letters, 2013, 4, 2002-2009.	4.6	41
9	Identifying Crystallization- and Incorporation-Limited Regimes during Vaporâ€“Liquidâ€“Solid Growth of Si Nanowires. ACS Nano, 2014, 8, 6081-6088.	14.6	38
10	Capillarity-Driven Welding of Semiconductor Nanowires for Crystalline and Electrically Ohmic Junctions. Nano Letters, 2016, 16, 5241-5246.	9.1	36
11	Understanding the vaporâ€“liquidâ€“solid mechanism of Si nanowire growth and doping to synthetically encode precise nanoscale morphology. Journal of Materials Chemistry C, 2016, 4, 3890-3897.	5.5	32
12	Chemically Engraving Semiconductor Nanowires: Using Three-Dimensional Nanoscale Morphology to Encode Functionality from the Bottom Up. Journal of Physical Chemistry Letters, 2016, 7, 685-692.	4.6	28
13	Waveguide Scattering Microscopy for Dark-Field Imaging and Spectroscopy of Photonic Nanostructures. ACS Photonics, 2014, 1, 725-731.	6.6	22
14	Ratcheting quasi-ballistic electrons in silicon geometric diodes at room temperature. Science, 2020, 368, 177-180.	12.6	22
15	Ultrafast Carrier Dynamics of Silicon Nanowire Ensembles: The Impact of Geometrical Heterogeneity on Charge Carrier Lifetime. Journal of Physical Chemistry C, 2014, 118, 8626-8633.	3.1	18
16	Encoding Highly Nonequilibrium Boron Concentrations and Abrupt Morphology in p-Type/n-Type Silicon Nanowire Superlattices. ACS Applied Materials & Interfaces, 2017, 9, 37105-37111.	8.0	17
17	Probing Intrawire, Interwire, and Diameter-Dependent Variations in Silicon Nanowire Surface Trap Density with Pumpâ€“Probe Microscopy. Nano Letters, 2017, 17, 5956-5961.	9.1	17
18	Barrierless Switching between a Liquid and Superheated Solid Catalyst during Nanowire Growth. Journal of Physical Chemistry Letters, 2016, 7, 4236-4242.	4.6	7

#	Article	IF	Citations
19	Visualization of Charge Carrier Motion in Semiconductor Nanowires with Ultrafast Pump-Probe Microscopy. , 2014, , .		0
20	Visualization of Charge Carrier Motion in Semiconductor Nanowires with Ultrafast Pump-Probe Microscopy. Springer Proceedings in Physics, 2015, , 671-674.	0.2	0