Joseph W Lyding

List of Publications by Year
in descending order

44 papers	2,137 citations	430874 18 h-index	330143 37 g-index
44 all docs	44 docs citations	44 times ranked	4101 citing authors

#	Article	IF	Citations
1	Enhanced Electrical and Mechanical Properties of Chemically Cross-Linked Carbon-Nanotube-Based Fibers and Their Application in High-Performance Supercapacitors. ACS Nano, 2020, 14, 632-639.	14.6	44
2	Coherent Atomic-Scale Ripples on Metallic Glasses Patterned by Low-Energy Ion Irradiation for Large-Area Surface Structuring. ACS Applied Nano Materials, 2020, 3, 12025-12033.	5.0	4
3	Chevron-type graphene nanoribbons with a reduced energy band gap: Solution synthesis, scanning tunneling microscopy and electrical characterization. Nano Research, 2020, 13, 1713-1722.	10.4	12
4	Imaging of Carbon Nanotube Electronic States Polarized by the Field of an Excited Quantum Dot. ACS Nano, 2019, 13, 1012-1018.	14.6	3
5	Strain Modulation of Graphene by Nanoscale Substrate Curvatures: A Molecular View. Nano Letters, 2018, 18, 2098-2104.	9.1	62
6	Orientation-dependent imaging of electronically excited quantum dots. Journal of Chemical Physics, 2018, 148, 064701.	3.0	13
7	STM Imaging of Localized Surface Plasmons on Individual Gold Nanoislands. Journal of Physical Chemistry Letters, 2018, 9, 1970-1976.	4.6	11
8	Imaging and Manipulating Energy Transfer Among Quantum Dots at Individual Dot Resolution. ACS Nano, 2017, 11, 6328-6335.	14.6	17
9	Intrinsic nanoscale patterning. Nature Materials, 2017, 16, 706-707.	27.5	0
10	Solution-Synthesized Chevron Graphene Nanoribbons Exfoliated onto H:Si(100). Nano Letters, 2017, 17, 170-178.	9.1	49
11	Interfacial Self-Assembly of Atomically Precise Graphene Nanoribbons into Uniform Thin Films for Electronics Applications. ACS Applied Materials & Interfaces, 2017, 9, 693-700.	8.0	22
12	Laterally extended atomically precise graphene nanoribbons with improved electrical conductivity for efficient gas sensing. Nature Communications, 2017, 8, 820.	12.8	113
13	Composition-dependent metallic glass alloys correlate atomic mobility with collective glass surface dynamics. Physical Chemistry Chemical Physics, 2016, 18, 16856-16861.	2.8	9
14	Role of Pressure in the Growth of Hexagonal Boron Nitride Thin Films from Ammonia-Borane. Chemistry of Materials, 2016, 28, 4169-4179.	6.7	85
15	Nitrogen-Doped Graphene and Twisted Bilayer Graphene <i>via</i> Hyperthermal Ion Implantation with Depth Control. ACS Nano, 2016, 10, 3714-3722.	14.6	65
16	Sub-nanometer glass surface dynamics induced by illumination. Journal of Chemical Physics, 2015, 142, 234505.	3.0	9
17	Imaging Excited Orbitals of Quantum Dots: Experiment and Electronic Structure Theory. Journal of the American Chemical Society, 2015, 137, 14743-14750.	13.7	18
18	Solution-Mediated Selective Nanosoldering of Carbon Nanotube Junctions for Improved Device Performance. ACS Nano, 2015, 9, 4806-4813.	14.6	16

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19	Optoelectronic Switching of a Carbon Nanotube Chiral Junction Imaged with Nanometer Spatial Resolution. ACS Nano, 2015, 9, 10563-10570.	14.6	23
20	Variability of graphene mobility and contacts: Surface effects, doping and strain. , 2014, , .		0
21	Transparent Metal Films for Detection of Single-Molecule Optical Absorption by Scanning Tunneling Microscopy. Journal of Physical Chemistry C, 2014, 118, 13196-13202.	3.1	15
22	Scanning tunneling spectroscopy and density functional calculation of silicon dangling bonds on the Si(100)-2Ã—1:H surface. Surface Science, 2013, 609, 147-151.	1.9	18
23	Nanosoldering Carbon Nanotube Junctions by Local Chemical Vapor Deposition for Improved Device Performance. Nano Letters, 2013, 13, 5844-5850.	9.1	36
24	Growth mechanism and surface atomic structure of AgInSe2. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	2.1	5
25	Atomic-scale study of scattering and electronic properties of CVD graphene grain boundaries. , 2012, , .		1
26	Improved graphene growth and fluorination on Cu with clean transfer to surfaces. , 2012, , .		2
27	Nanosoldering carbon nanotube junctions with metal via local chemical vapor deposition for improved device performance. , 2012, , .		0
28	Scanning tunneling microscopic analysis of Cu(In,Ga)Se2 epitaxial layers. Journal of Applied Physics, 2010, 107, .	2.5	11
29	Separation-Dependent Electronic Transparency of Monolayer Graphene Membranes on IIIâˆ'V Semiconductor Substrates. Nano Letters, 2010, 10, 3446-3452.	9.1	31
30	Scanning tunneling microscopy as a probe of defects in CuInSe<inf>2</inf>. , 2010, , .		0
31	Direct Imaging of Room Temperature Optical Absorption with Subnanometer Spatial Resolution. Nano Letters, 2010, 10, 4897-4900.	9.1	14
32	The influence of edge structure on the electronic properties of graphene quantum dots and nanoribbons. Nature Materials, 2009, 8, 235-242.	27.5	1,270
33	A simple approach to superlattices. Nature Nanotechnology, 2009, 4, 545-546.	31.5	1
34	Carbon nanotubes on partially depassivated<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi></mml:math>-doped<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mtext>Si</mml:mtext><mml:mrow><mml:mo>(</mml:mo><mml:mrow><mml:mn>100</mml:mn> Physical Review B, 2009, 80, .	3.2	8
35	Charge transfer between semiconducting carbon nanotubes and their doped GaAs(110) and InAs(110) substrates detected by scanning tunnelling spectroscopy. Nanotechnology, 2007, 18, 215202.	2.6	16
36	Frequency-Modulated, Single-Molecule Absorption Detected by Scanning Tunneling Microscopy. Journal of Physical Chemistry C, 2007, 111, 3314-3321.	3.1	20

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37	Lateral Manipulation of Single-Walled Carbon Nanotubes on H-Passivated Si(100) Surfaces with an Ultrahigh-Vacuum Scanning Tunneling Microscope. Small, 2007, 3, 146-152.	10.0	28
38	Metal-Induced Gap States at a Carbon-Nanotube Intramolecular Heterojunction Observed by Scanning Tunneling Microscopy. Small, 2007, 3, 280-284.	10.0	23
39	Laser Absorption Scanning Tunneling Microscopy of Carbon Nanotubes. Nano Letters, 2006, 6, 45-49.	9.1	32
40	Depth Dependence of Dopant Induced Features on The Si(100)2x1:H Surface and Its Application for Three Dimensional Dopant Profiling. Materials Research Society Symposia Proceedings, 2001, 699, 451.	0.1	1
41	Scanning Tunneling Microscopy Observation Of Single Dangling Bonds on the Si(100)2Ã—1:H Surface. Materials Research Society Symposia Proceedings, 2001, 705, 661.	0.1	4
42	Fundamental connection between hydrogen/deuterium desorption at silicon surfaces in ultrahigh vacuum and at oxide/silicon interfaces in metalâ€“oxideâ€“semiconductor devices. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 1119.	1.6	4
43	Secondary ion mass spectroscopy characterization of the deuterium sintering process for enhanced-lifetime complementary metalâ€“oxideâ€“semiconductor transistors. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 1762-1766.	2.1	22
44	An Alternative Approach for Modeling the Hot Carrier Degradation of the Si/SiO2 Interface. Materials Research Society Symposia Proceedings, 1998, 513, 313.	0.1	0