Leigh M Smith

List of Publications by Year
in descending order

137	3,530	109137	149479
papers	citations	35 h-index	56 g-index

138	138	138	3169
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Band structure and polarization effects in photothermoelectric spectroscopy of a Bi2Se3 device. Applied Physics Letters, 2022, 120, .	1.5	1
2	A Raman probe of phonons and electronâ€“phonon interactions in the Weyl semimetal NbIrTe4. Scientific Reports, 2021, 11, 8155.	1.6	10
3	Ultrafast photoinduced band splitting and carrier dynamics in chiral tellurium nanosheets. Nature Communications, 2020, 11, 3991.	5.8	39
4	Exploring the band structure of Wurtzite InAs nanowires using photocurrent spectroscopy. Nano Research, 2020, 13, 1586-1591.	5.8	7
5	Strong Hot Carrier Effects in Single Nanowire Heterostructures. Nano Letters, 2019, 19, 5062-5069.	4.5	13
6	Revealing Optical Transitions and Carrier Recombination Dynamics within the Bulk Band Structure of Bi₂Se₃. Nano Letters, 2018, 18, 5875-5884.	4.5	21
7	Optical Properties of Semiconductor Nanowires. Semiconductors and Semimetals, 2016, 94, 17-74.	0.4	0
8	Doping-enhanced radiative efficiency enables lasing in unpassivated GaAs nanowires. Nature Communications, 2016, 7, 11927.	5.8	68
9	Thermal Delocalization of Excitons in GaAs/AlGaAs Quantum Well Tube Nanowires. Nano Letters, 2016, 16, 1392-1397.	4.5	8
10	Photocurrent spectroscopy of single GaAs/AlGaAs core-multishell nanowire devices. , 2015, , .		0
11	Antimony Induced {112}A Faceted Triangular GaAs_{1â^'x}Sb_x/InP Core/Shell Nanowires and Their Enhanced Optical Quality. Advanced Functional Materials, 2015, 25, 5300-5308.	7.8	40
12	Quantum Confined Stark Effect in a GaAs/AlGaAs Nanowire Quantum Well Tube Device: Probing Exciton Localization. Nano Letters, 2015, 15, 7847-7852.	4.5	21
13	Effects of Surface Passivation on Twin-Free GaAs Nanosheets. ACS Nano, 2015, 9, 1336-1340.	7.3	18
14	Polarized Light Absorption in Wurtzite InP Nanowire Ensembles. Nano Letters, 2015, 15, 998-1005.	4.5	44
15	Emergence of Localized States in Narrow GaAs/AlGaAs Nanowire Quantum Well Tubes. Nano Letters, 2015, 15, 1876-1882.	4.5	49
16	Spatially Resolved Doping Concentration and Nonradiative Lifetime Profiles in Single Si-Doped InP Nanowires Using Photoluminescence Mapping. Nano Letters, 2015, 15, 3017-3023.	4.5	43
17	Quantum confinement of excitons in wurtzite InP nanowires. Journal of Applied Physics, 2015, 117, .	1.1	19
18	Zn₃As₂ Nanowires and Nanoplatelets: Highly Efficient Infrared Emission and Photodetection by an Earth Abundant Material. Nano Letters, 2015, 15, 378-385.	4.5	17

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19	Measurement of doping concentration, internal quantum efficiency and non-radiative lifetime of InP nanowires. , 2014, , .		1
20	Tuning Band Energies in a Combined Axial and Radial GaAs/GaP Heterostructure. Materials Research Society Symposia Proceedings, 2014, 1659, 139-142.	0.1	0
21	Recent Advances in Semiconductor Nanowire Heterostructures. ECS Transactions, 2014, 64, 1-5.	0.3	2
22	Localization of Excitons in Thin Core-Multi-Shell Quantum Well Tubes. Materials Research Society Symposia Proceedings, 2014, 1659, 135-138.	0.1	0
23	Carrier Thermalization Dynamics in Single Zincblende and Wurtzite InP Nanowires. Nano Letters, 2014, 14, 7153-7160.	4.5	16
24	Optical, Structural, and Numerical Investigations of GaAs/AlGaAs Coreâ€“Multishell Nanowire Quantum Well Tubes. Nano Letters, 2013, 13, 1016-1022.	4.5	106
25	Illuminating the Second Conduction Band and Spinâ€“Orbit Energy in Single Wurtzite InP Nanowires. Nano Letters, 2013, 13, 5367-5372.	4.5	22
26	Transient Rayleigh scattering from single semiconductor nanowires. AIP Conference Proceedings, 2013, , .	0.3	1
27	Determining wurtzite band structure using optical spectroscopies on single InP nanowires. , 2013, , .		0
28	Optical spectroscopy of quantum confined states in GaAs/AlGaAs quantum well tubes. , 2013, , .		0
29	III-V COMPOUND SEMICONDUCTOR NANOWIRES FOR OPTOELECTRONIC DEVICE APPLICATIONS. , 2013, , .		0
30	Nonlinear Two-Photon Photocurrent Spectroscopy of CdS Nanosheets. Materials Research Society Symposia Proceedings, 2012, 1439, 77-81.	0.1	0
31	Growth and properties of IIIâ€“V compound semiconductor heterostructure nanowires. Semiconductor Science and Technology, 2012, 27, 059501.	1.0	4
32	Photomodulated Rayleigh Scattering from Single Semiconductor Nanowires. Materials Research Society Symposia Proceedings, 2012, 1408, 11.	0.1	0
33	Transient Rayleigh Scattering: A New Probe of Picosecond Carrier Dynamics in a Single Semiconductor Nanowire. Nano Letters, 2012, 12, 5389-5395.	4.5	22
34	Measuring the Energy Landscape in Single Semiconductor Nanowires. Acta Physica Polonica A, 2012, 122, 316-320.	0.2	0
35	Defect-Free GaAs/AlGaAs Coreâ€“Shell Nanowires on Si Substrates. Crystal Growth and Design, 2011, 11, 3109-3114.	1.4	42
36	Photomodulated Rayleigh Scattering of Single Semiconductor Nanowires: Probing Electronic Band Structure. Nano Letters, 2011, 11, 4329-4336.	4.5	20

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37	Photocurrent spectroscopy of single CdS nanosheets: Valence band structure and two photon absorption. Applied Physics Letters, 2011, 98, 143102.	1.5	7
38	Direct imaging of the spatial diffusion of excitons in single semiconductor nanowires. Applied Physics Letters, 2011, 99, 263110.	1.5	13
39	Probing the valence band structure of wurtzite InP nanowires by photoluminescence excitation spectroscopy. , 2011, , .		2
40	Direct Measure of Strain and Electronic Structure in GaAsâˆ•GaP Core-Shell Nanowires. , 2011, , .		0
41	IIIâ€“V semiconductor nanowires for optoelectronic device applications. Progress in Quantum Electronics, 2011, 35, 23-75.	3.5	256
42	III-V COMPOUND SEMICONDUCTOR NANOWIRES FOR OPTOELECTRONIC DEVICE APPLICATIONS. International Journal of High Speed Electronics and Systems, 2011, 20, 131-141.	0.3	1
43	The morphology and evolution of bipyramidal gold nanoparticles. Nanotechnology, 2011, 22, 275607.	1.3	14
44	Compound semiconductor nanowires for optoelectronic device applications. , 2011, , .		0
45	Growth and properties of IIIâ€“V compound semiconductor heterostructure nanowires. Semiconductor Science and Technology, 2011, 26, 014035.	1.0	31
46	Growth and characterization of compound semiconductor nanowires on Si. , 2011, , .		1
47	Vertical Integration of Nanotechnology Education. ACS Symposium Series, 2010, , 49-64.	0.5	2
48	Insights into single semiconductor nanowire heterostructures using time-resolved photoluminescence. Semiconductor Science and Technology, 2010, 25, 024010.	1.0	37
49	Probing valence band structure in wurtzite InP nanowires using excitation spectroscopy. Applied Physics Letters, 2010, 97, 023106.	1.5	44
50	Novel growth and properties of GaAs nanowires on Si substrates. Nanotechnology, 2010, 21, 035604.	1.3	38
51	Selective excitation of exciton transitions in PTCDA crystals and films. Physical Review B, 2010, 81, .	1.1	27
52	Direct Measure of Strain and Electronic Structure in GaAs/GaP Coreâˆ’Shell Nanowires. Nano Letters, 2010, 10, 880-886.	4.5	101
53	Improvement of morphology, structure, and optical properties of GaAs nanowires grown on Si substrates. , 2010, , .		0
54	Structural and optical characterization of vertical GaAs/GaP core-shell nanowires grown on Si substrates. , 2010, , .		0

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55	Epitaxy of III-V semiconductor nanowires towards optoelectronic devices. , 2009, , .		0
56	Effect of the crystal structure on the optical properties of InP nanowires. , 2009, , .		0
57	Room temperature photocurrent spectroscopy of single zincblende and wurtzite InP nanowires. Applied Physics Letters, 2009, 94, 193115.	1.5	50
58	Nanowires for optoelectronic device applications. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 2678-2682.	0.8	4
59	Carrier Dynamics and Quantum Confinement in type II ZB-WZ InP Nanowire Homostructures. Nano Letters, 2009, 9, 648-654.	4.5	168
60	Raman stress mapping of CdS nanosheets. Applied Physics Letters, 2009, 95, 083105.	1.5	17
61	Unexpected Benefits of Rapid Growth Rate for IIIâ^'V Nanowires. Nano Letters, 2009, 9, 695-701.	4.5	126
62	III-V compound semiconductor nanowires. , 2009, , .		3
63	The effect of V/III ratio and catalyst particle size on the crystal structure and optical properties of InP nanowires. Nanotechnology, 2009, 20, 225606.	1.3	99
64	High Purity GaAs Nanowires Free of Planar Defects: Growth and Characterization. Advanced Functional Materials, 2008, 18, 3794-3800.	7.8	97
65	Optical properties of single InP and GaAs nanowire heterostructures. , 2008, , .		0
66	Growth, Structural and Optical Properties of High Quality GaAs Nanowires for Optoelectronics. , 2008, , .		0
67	Nearly intrinsic exciton lifetimes in single twin-free GaAsâ^•AlGaAs core-shell nanowire heterostructures. Applied Physics Letters, 2008, 93, .	1.5	109
68	Tuning spin properties of excitons in single CdTe quantum dots by annealing. Nanotechnology, 2008, 19, 125706.	1.3	5
69	Ultralong spin memory of optically excited single magnetic quantum dots. Applied Physics Letters, 2008, 93, .	1.5	20
70	Spatially resolved photoluminescence mapping of single CdS nanosheets. Applied Physics Letters, 2008, 92, .	1.5	9
71	Polarized photoluminescence and time-resolved photoluminescence from single CdS nanosheets. Applied Physics Letters, 2008, 92, .	1.5	10
72	Optical Properties of Single CdS Nanosheets. Journal of the Korean Physical Society, 2008, 53, 3073-3076.	0.3	0

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73	Polarization and temperature dependence of photoluminescence from zincblende and wurtzite InP nanowires. Applied Physics Letters, 2007, 91, .	1.5	196
74	Resonant photoluminescence imaging and the origin of excited states in self-assembled quantum dots. Physical Review B, 2007, 76, .	1.1	13
75	Relaxation dynamics of bimodally distributed CdSe quantum dots. Physical Review B, 2007, 75, .	1.1	12
76	Resonant Excitation and Imaging of Nonequilibrium Exciton Spins in Single Coreâ^'Shell GaAsâ^'AlGaAs Nanowires. Nano Letters, 2007, 7, 588-595.	4.5	41
77	Spatially-resolved Photoluminescence Imaging of CdS and GaAs/AlGaAs Nanowires. AIP Conference Proceedings, 2007, , .	0.3	1
78	Dynamics of Strongly Degenerate Electronâ^'Hole Plasmas and Excitons in Single InP Nanowires. Nano Letters, 2007, 7, 3383-3387.	4.5	49
79	Low-temperature photoluminescence imaging and time-resolved spectroscopy of single CdS nanowires. Applied Physics Letters, 2006, 89, 053119.	1.5	38
80	Resonant Raman scattering from CdS nanowires. Applied Physics Letters, 2006, 88, 043118.	1.5	39
81	Temperature dependent photoluminescence of single CdS nanowires. Applied Physics Letters, 2006, 89, 123123.	1.5	56
82	Temperature dependence of photoluminescence from single core-shell GaAsâ€"AlGaAs nanowires. Applied Physics Letters, 2006, 89, 173126.	1.5	158
83	Spatial Diffusion Of Carriers In A Quantum Dot System Grown By Shadow Mask Controlled Epitaxy. AIP Conference Proceedings, 2005, , .	0.3	0
84	Morphology Of CdTe/ZnTe Self-Assembled Quantum Dots Studied By Excitation Spectroscopy. AIP Conference Proceedings, 2005, , .	0.3	0
85	Optically Induced Zero-Field Magnetization Of CdMnTe Quantum Dots. AIP Conference Proceedings, 2005, , .	0.3	0
86	Photoluminescence Imaging Of CdTe/ZnTe Self-Assembled Quantum Dots. AIP Conference Proceedings, 2005, , .	0.3	0
87	Exciton Spin Relaxation In Symmetric Self-Assembled Quantum Dots. AIP Conference Proceedings, 2005, , .	0.3	1
88	Exciton-controlled magnetization in single magnetic quantum dots. Applied Physics Letters, 2005, 87, 072502.	1.5	34
89	Sensitivity of exciton spin relaxation in quantum dots to confining potential. Applied Physics Letters, 2005, 86, 103101.	1.5	17
90	Probing the excited state distributions of CdTeâ^•ZnTe self-assembled quantum dots using resonant Raman scattering. Applied Physics Letters, 2005, 87, 183104.	1.5	4

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91	Exciton spin relaxation in quasiresonantly excitedCdTeâˆ•ZnTeself-assembled quantum dots. Physical Review B, 2004, 70, .	1.1	19
92	Publisher's Note: Exciton spin relaxation in quasiresonantly excited CdTe/ZnTe self-assembled quantum dots [Phys. Rev. B70, 245312 (2004)]. Physical Review B, 2004, 70, .	1.1	0
93	Resonant spectroscopy of II-VI self-assembled quantum dots: Excited states and excitonâ€“longitudinal optical phonon coupling. Physical Review B, 2004, 70, .	1.1	30
94	Optically-induced magnetization of CdMnTe self-assembled quantum dots. Applied Physics Letters, 2004, 84, 3337-3339.	1.5	62
95	Tuning the optical and magnetic properties of IIâ€“VI quantum dots by post-growth rapid thermal annealing. Physica Status Solidi (B): Basic Research, 2004, 241, 652-655.	0.7	5
96	Optically controlled magnetization of zero-dimensional magnetic polarons in CdMnTe self-assembled quantum dots. Physica Status Solidi (B): Basic Research, 2004, 241, 656-659.	0.7	1
97	Optical studies of spin relaxation in CdTe self-assembled quantum dots. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 937-940.	0.8	2
98	Exciton-LO phonon interaction in II-VI self-assembled quantum dots. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 767-770.	0.8	5
99	Subwavelength multichannel imaging using a solid immersion lens: Spectroscopy of excitons in single quantum dots. Applied Physics Letters, 2004, 85, 5463-5465.	1.5	16
100	Optical studies of zero-field magnetization of CdMnTe quantum dots: Influence of average size and composition of quantum dots. Journal of Applied Physics, 2004, 96, 7407-7413.	1.1	16
101	Spatial diffusion of carriers in a quantum dot system grown by shadow mask controlled epitaxy. , 2004, , .		0
102	Zero-field magnetization of a single CdMnTe quantum dot studied by spatially-resolved photoluminescence. , 2004, , .		0
103	Optical properties of annealed CdTe self-assembled quantum dots. Applied Physics Letters, 2003, 83, 254-256.	1.5	27
104	Tuning the properties of magnetic CdMnTe quantum dots. Applied Physics Letters, 2003, 83, 3575-3577.	1.5	37
105	Photoluminescence of CdSe self-assembled quantum dots:â€ƒExperiments and models. Physical Review B, 2003, 68, .	1.1	3
106	Exciton spin relaxation time in quantum dots measured by continuous-wave photoluminescence spectroscopy. Applied Physics Letters, 2003, 83, 5524-5526.	1.5	41
107	Optical Properties of Semimagnetic Quantum Dots. Materials Research Society Symposia Proceedings, 2002, 737, 242.	0.1	0
108	Resonant photoluminescence and excitation spectroscopy of CdSe/ZnSe and CdTe/ZnTe self-assembled quantum dots. Materials Research Society Symposia Proceedings, 2002, 737, 248.	0.1	0

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109	Probing CdSe/ZnSe self-assembled quantum dots by cw and time-resolved photoluminescence. Physica E: Low-Dimensional Systems and Nanostructures, 2001, 11, 59-62.	1.3	4
110	Interface Phonons in CdSe/ZnSe Self-Assembled Quantum Dot Structures. Physica Status Solidi (B): Basic Research, 2001, 224, 165-168.	0.7	7
111	Excited State Dynamics in In0.5Al0.04Ga0.46As/Al0.08Ga0.92As Self-Assembled Quantum Dots. Physica Status Solidi (B): Basic Research, 2001, 224, 447-451.	0.7	1
112	Using Exciton Dynamics to Probe the Internal Structure of CdSe/ZnSe Self-Assembled Quantum Dots. Physica Status Solidi (B): Basic Research, 2000, 221, 55-58.	0.7	1
113	Optical observation of quantum-dot formation in sub-critical CdSe layers grown on ZnSe. Journal of Crystal Growth, 2000, 214-215, 761-764.	0.7	16
114	Origin of two types of excitons in CdSe dots on ZnSe. Physical Review B, 2000, 61, R2405-R2408.	1.1	23
115	Evidence for 2D Precursors and Interdiffusion in the Evolution of Self-Assembled CdSe Quantum Dots on ZnSe. Physical Review Letters, 2000, 85, 1124-1127.	2.9	87
116	Phonons and exciton recombination in CdSe/ZnSe self-assembled quantum dots. Applied Physics Letters, 2000, 77, 1813.	1.5	21
117	Quantum Dot Exciton Dynamics through a Nanoaperture: Evidence for Two Confined States. Physical Review Letters, 1999, 83, 2797-2800.	2.9	47
118	Temperature-dependent micro-photoluminescence of individual CdSe self-assembled quantum dots. Applied Physics Letters, 1999, 75, 214-216.	1.5	95
119	Exciton spin thermalization in strained and relaxedZn1â^'xMnxSeepilayers. Physical Review B, 1999, 59, 7610-7619.	1.1	11
120	Time-dependent heterointerfacial band bending and quasi-two-dimensional excitonic transport in GaAs structures. Physical Review B, 1998, 58, 4728-4732.	1.1	4
121	Spectroscopic characterization of the evolution of self-assembled CdSe quantum dots. Applied Physics Letters, 1998, 73, 3399-3401.	1.5	40
122	Thermal relaxation of excitons in ZnSe andZn1â^'xMnxSe diluted magnetic semiconductors. Physical Review B, 1997, 55, 5062-5064.	1.1	15
123	Driven Spin-Transport of Exciton Magnetic Polarons in Zn0.86Mn0.14Se/ZnSe Quantum Wells. Physica Status Solidi A, 1997, 164, 547-551.	1.7	3
124	Mott ionization of excitons in nâ€type Zn1â^'xMnxSe epilayers. Applied Physics Letters, 1995, 67, 3150-3152.	1.5	0
125	Time-resolved study of electron-hole plasmas near the liquid-gas critical point in Si: Evidence for a second condensed phase. Physical Review B, 1995, 51, 7521-7543.	1.1	43
126	Observation of long-lived exciton magnetic polarons inZn1â^'xMnxSe/ZnSe multiple quantum wells. Physical Review B, 1994, 50, 18662-18665.	1.1	19

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127	Time Resolved Photoluminescence from Patterned GaAs/AlGaAs Multiple Quantum Well Structures. Materials Research Society Symposia Proceedings, 1993, 326, 531.	0.1	2
128	Intrinsic recombination and interface characterization in â€˜â€˜surface-freeâ€™â€™ GaAs structures. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1991, 9, 2369.	1.6	31
129	Radiative recombination in surfaceâ€freen+/nâ^'/n+GaAs homostructures. Applied Physics Letters, 1990, 57, 1572-1574.	1.5	8
130	Photoexcited carrier lifetimes and spatial transport in surface-free GaAs homostructures. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1990, 8, 787.	1.6	17
131	Phonon-wind-driven transport of photoexcited carriers in a semiconductor quantum well. Physical Review B, 1989, 39, 1862-1870.	1.1	58
132	Radiative Recombination and Carrier Lifetimes in Surface-Free GaAs Homostructures. Materials Research Society Symposia Proceedings, 1989, 163, 95.	0.1	7
133	Picosecond imaging of photoexcited carriers in quantum wells: Anomalous lateral confinement at high densities. Physical Review B, 1988, 38, 5788-5791.	1.1	68
134	Smith and Wolfe respond. Physical Review Letters, 1987, 58, 2823-2823.	2.9	3
135	Second Condensed Phase of Electron-Hole Plasma in Si. Physical Review Letters, 1986, 57, 2314-2317.	2.9	26
136	Magnetic interference effect in the electrical resistivity of amorphous simple metal alloys: Mg-Zn(Gd). Journal of Physics F: Metal Physics, 1982, 12, L101-L106.	1.6	5
137	Resonant nano-photoluminescence of single CdSe/ZnSe self-assembled quantum dots. , 0, , .		0