Patrick W Parkinson

List of Publications by Citations

71 papers	2,972 citations	25 h-index	54 g-index
97 ext. papers	3,392 ext. citations	7.9 avg, IF	4.84 L-index

#	Paper	IF	Citations
71	Optically pumped room-temperature GaAs nanowire lasers. *Nature Photonics*, **2013**, 7, 963-968	33.9	415
70	Carrier lifetime and mobility enhancement in nearly defect-free core-shell nanowires measured using time-resolved terahertz spectroscopy. *Nano Letters*, **2009**, 9, 3349-53	11.5	216
69	III□V semiconductor nanowires for optoelectronic device applications. *Progress in Quantum Electronics*, **2011**, 35, 23-75	9.1	215
68	Ultrafast transient terahertz conductivity of monolayer MoS□and WSe□grown by chemical vapor deposition. *ACS Nano*, **2014**, 8, 11147-53	16.7	161
67	Transient Terahertz Conductivity of GaAs Nanowires. *Nano Letters*, **2007**, 7, 2162-2165	11.5	156
66	Identification of a triplet pair intermediate in singlet exciton fission in solution. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 7656-61	11.5	151
65	Ultrafast delocalization of excitation in synthetic light-harvesting nanorings. *Chemical Science*, **2015**, 6, 181-189	9.4	90
64	Efficient generation of charges via below-gap photoexcitation of polymer-fullerene blend films investigated by terahertz spectroscopy. *Physical Review B*, **2008**, 78,	3.3	88
63	Role of Ultrafast Torsional Relaxation in the Emission from Polythiophene Aggregates. *Journal of Physical Chemistry Letters*, **2010**, 1, 2788-2792	6.4	84
62	Enhanced minority carrier lifetimes in GaAs/AlGaAs core-shell nanowires through shell growth optimization. *Nano Letters*, **2013**, 13, 5135-40	11.5	79
61	Single nanowire photoconductive terahertz detectors. *Nano Letters*, **2015**, 15, 206-10	11.5	78
60	Ultrafast charge separation at a polymer-single-walled carbon nanotube molecular junction. *Nano Letters*, **2011**, 11, 66-72	11.5	76
59	Ultrafast Terahertz Conductivity Dynamics in Mesoporous TiO2: Influence of Dye Sensitization and Surface Treatment in Solid-State Dye-Sensitized Solar Cells. *Journal of Physical Chemistry C*, **2010**, 114, 1365-1371	3.8	73
58	Modulation doping of GaAs/AlGaAs core-shell nanowires with effective defect passivation and high electron mobility. *Nano Letters*, **2015**, 15, 1336-42	11.5	69
57	Ultrafast energy transfer in biomimetic multistrand nanorings. *Journal of the American Chemical Society*, **2014**, 136, 8217-20	16.4	67
56	Electron mobilities approaching bulk limits in "surface-free" GaAs nanowires. *Nano Letters*, **2014**, 14, 5989-94	11.5	64
55	Long minority carrier lifetime in Au-catalyzed GaAs/AlxGa1□As core-shell nanowires. *Applied Physics Letters*, **2012**, 101, 023111	3.4	63

54	Chromophores in Molecular Nanorings: When Is a Ring a Ring?. *Journal of Physical Chemistry Letters*, **2014**, 5, 4356-61	6.4	59
53	Distinct photocurrent response of individual GaAs nanowires induced by n-type doping. *ACS Nano*, **2012**, 6, 6005-13	16.7	59
52	Dual-channel spontaneous emission of quantum dots in magnetic metamaterials. *Nature Communications*, **2013**, 4, 2949	17.4	52
51	Noncontact measurement of charge carrier lifetime and mobility in GaN nanowires. *Nano Letters*, **2012**, 12, 4600-4	11.5	51
50	Three-dimensional in situ photocurrent mapping for nanowire photovoltaics. *Nano Letters*, **2013**, 13, 1405-9	11.5	34
49	Surface Energy Relay Between Cosensitized Molecules in Solid-State Dye-Sensitized Solar Cells. *Journal of Physical Chemistry C*, **2011**, 115, 23204-23208	3.8	28
48	Towards substrate engineering of graphene-silicon Schottky diode photodetectors. *Nanoscale*, **2018**, 10, 3399-3409	7.7	27
47	Broadband Phase-Sensitive Single InP Nanowire Photoconductive Terahertz Detectors. *Nano Letters*, **2016**, 16, 4925-31	11.5	27
46	A plasmonic staircase nano-antenna device with strong electric field enhancement for surface enhanced Raman scattering (SERS) applications. *Journal Physics D: Applied Physics*, **2012**, 45, 305102	3	25
45	Structure-Directed Exciton Dynamics in Templated Molecular Nanorings. *Journal of Physical Chemistry C*, **2015**, 119, 6414-6420	3.8	23
44	Large-Scale Statistics for Threshold Optimization of Optically Pumped Nanowire Lasers. *Nano Letters*, **2017**, 17, 4860-4865	11.5	23
43	Polarization tunable, multicolor emission from core-shell photonic III-V semiconductor nanowires. *Nano Letters*, **2012**, 12, 6428-31	11.5	23
42	Improved Performance of GaAs-Based Terahertz Emitters via Surface Passivation and Silicon Nitride Encapsulation. *IEEE Journal of Selected Topics in Quantum Electronics*, **2011**, 17, 17-21	3.8	23
41	Rapid Energy Transfer Enabling Control of Emission Polarization in Perylene Bisimide Donor-Acceptor Triads. *Journal of Physical Chemistry Letters*, **2015**, 6, 1170-6	6.4	21
40	Dynamic terahertz polarization in single-walled carbon nanotubes. *Physical Review B*, **2010**, 82,	3.3	21
39	High vertical yield InP nanowire growth on Si(111) using a thin buffer layer. *Nanotechnology*, **2013**, 24, 465602	3.4	20
38	Defect formation and thermal stability of H in high dose H implanted ZnO. *Journal of Applied Physics*, **2013**, 114, 083111	2.5	18
37	Dimensionality-dependent energy transfer in polymer-intercalated SnS2 nanocomposites. *Physical Review B*, **2007**, 75,	3.3	18

36	Size-Independent Energy Transfer in Biomimetic Nanoring Complexes. *ACS Nano*, **2016**, 10, 5933-40	16.7	18
35	The influence of surfaces on the transient terahertz conductivity and electron mobility of GaAs nanowires. *Journal Physics D: Applied Physics*, **2017**, 50, 224001	3	17
34	Optical Study of p-Doping in GaAs Nanowires for Low-Threshold and High-Yield Lasing. *Nano Letters*, **2019**, 19, 362-368	11.5	17
33	Emission Properties and Ultrafast Carrier Dynamics of CsPbCl3 Perovskite Nanocrystals. *Journal of Physical Chemistry C*, **2019**, 123, 2651-2657	3.8	16
32	Graphene-silicon-on-insulator (GSOI) Schottky diode photodetectors. *Nanoscale*, **2018**, 10, 18926-18935	7.7	16
31	Direct laser write process for 3D conductive carbon circuits in polyimide. *Journal of Materials Chemistry C*, **2017**, 5, 4923-4930	7.1	15
30	Heterostructure and -factor engineering for low-threshold and persistent nanowire lasing. *Light: Science and Applications*, **2020**, 9, 43	16.7	15
29	Single n-i-n InP nanowires for highly sensitive terahertz detection. *Nanotechnology*, **2017**, 28, 125202	3.4	14
28	Highly Strained III-V-V Coaxial Nanowire Quantum Wells with Strong Carrier Confinement. *ACS Nano*, **2019**, 13, 5931-5938	16.7	13
27	Conductivity of nanoporous InP membranes investigated using terahertz spectroscopy. *Nanotechnology*, **2008**, 19, 395704	3.4	13
26	Characterization, Selection, and Microassembly of Nanowire Laser Systems. *Nano Letters*, **2020**, 20, 1862-1868	11.5	12
25	Low ensemble disorder in quantum well tube nanowires. *Nanoscale*, **2015**, 7, 20531-8	7.7	11
24	Rapid, substrate-independent thickness determination of large area graphene layers. *Applied Physics Letters*, **2011**, 99, 234106	3.4	11
23	Visible and infrared photocurrent enhancement in a graphene-silicon Schottky photodetector through surface-states and electric field engineering. *2D Materials*, **2019**, 6, 041004	5.9	10
22	Precursor flow rate manipulation for the controlled fabrication of twin-free GaAs nanowires on silicon substrates. *Nanotechnology*, **2012**, 23, 415702	3.4	10
21	Visualizing the role of photoinduced ion migration on photoluminescence in halide perovskite grains. *Journal of Materials Chemistry C*, **2020**, 8, 7509-7518	7.1	8
20	Raman probing of competitive laser heating and local recrystallization effect in ZnO nanocrystals. *Optics Express*, **2012**, 20, 23281-9	3.3	6
19	Carrier dynamics and recombination mechanisms in InP twinning superlattice nanowires. *Optics Express*, **2020**, 28, 16795-16804	3.3	6

18	Defect-Free Axially Stacked GaAs/GaAsP Nanowire Quantum Dots with Strong Carrier Confinement. *Nano Letters*, **2021**, 21, 5722-5729	11.5	6
17	Effect of Size on the Luminescent Efficiency of Perovskite Nanocrystals. *ACS Applied Energy Materials*, **2019**, 2, 6998-7004	6.1	5
16	Modal refractive index measurement in nanowire lasers□ correlative approach. *Nano Futures*, **2018**, 2, 035004	3.6	5
15	Threshold reduction and yield improvement of semiconductor nanowire lasers via processing-related end-facet optimization. *Nanoscale Advances*, **2019**, 1, 4393-4397	5.1	5
14	Direct-write non-linear photolithography for semiconductor nanowire characterization. *Nanotechnology*, **2012**, 23, 335704	3.4	4
13	Measuring, controlling and exploiting heterogeneity in optoelectronic nanowires. *JPhys Photonics*, **2021**, 3, 022004	2.5	3
12	Two-Dimensional Diffusion of Excitons in a Perylene Diimide Monolayer Quenched by a Fullerene Heterojunction. *Journal of Physical Chemistry C*, **2019**, 123, 12249-12254	3.8	2
11	Three-dimensional direct laser written graphitic electrical contacts to randomly distributed components. *Applied Physics A: Materials Science and Processing*, **2018**, 124, 1	2.6	2
10	The role of ultrafast torsional relaxation in the emission from polythiophene aggregates **2010**,		2
9	Self-Catalyzed AlGaAs Nanowires and AlGaAs/GaAs Nanowire-Quantum Dots on Si Substrates. *Journal of Physical Chemistry C*, **2021**, 125, 14338-14347	3.8	2
8	Single Nanowire Terahertz Detectors **2015**,		1
7	InP nanowires grown by SA-MOVPE **2012**,		1
6	Nanowire solar cells for next-generation photovoltaics. *SPIE Newsroom*, **2013**,		1
5	Distinguishing cap and core contributions to the photoconductive terahertz response of single GaAs based core□shell□ap nanowire detectors. *Lithuanian Journal of Physics*, **2018**, 58,	1.1	1
4	Characterization of a silica-PVA hybrid for high density and stable silver dissolution. *Materials Chemistry and Physics*, **2016**, 177, 19-24	4.4	1
3	Ultrafast Charge Separation at a Single-walled Carbon Nanotube □Polymer Interface. *Materials Research Society Symposia Proceedings*, **2011**, 1286, 7		
2	Physics and applications of semiconductor nanowire lasers. *Frontiers of Nanoscience*, **2021**, 20, 389-438	0.7	
1	Facet-Related Non-uniform Photoluminescence in Passivated GaAs Nanowires. *Frontiers in Chemistry*, **2020**, 8, 607481	5	