Patrick W Parkinson

List of Publications by Year in Descending Order

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	Physics and applications of semiconductor nanowire lasers. *Frontiers of Nanoscience*, **2021**, 20, 389-438	0.7	
70	Defect-Free Axially Stacked GaAs/GaAsP Nanowire Quantum Dots with Strong Carrier Confinement. *Nano Letters*, **2021**, 21, 5722-5729	11.5	6
69	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
68	Measuring, controlling and exploiting heterogeneity in optoelectronic nanowires. *JPhys Photonics*, **2021**, 3, 022004	2.5	3
67	Heterostructure and -factor engineering for low-threshold and persistent nanowire lasing. *Light: Science and Applications*, **2020**, 9, 43	16.7	15
66	Characterization, Selection, and Microassembly of Nanowire Laser Systems. *Nano Letters*, **2020**, 20, 1862-1868	11.5	12
65	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
64	Carrier dynamics and recombination mechanisms in InP twinning superlattice nanowires. *Optics Express*, **2020**, 28, 16795-16804	3.3	6
63	Facet-Related Non-uniform Photoluminescence in Passivated GaAs Nanowires. *Frontiers in Chemistry*, **2020**, 8, 607481	5	
62	Effect of Size on the Luminescent Efficiency of Perovskite Nanocrystals. *ACS Applied Energy Materials*, **2019**, 2, 6998-7004	6.1	5
61	Highly Strained III-V-V Coaxial Nanowire Quantum Wells with Strong Carrier Confinement. *ACS Nano*, **2019**, 13, 5931-5938	16.7	13
60	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
59	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
58	Threshold reduction and yield improvement of semiconductor nanowire lasers via processing-related end-facet optimization. *Nanoscale Advances*, **2019**, 1, 4393-4397	5.1	5
57	Emission Properties and Ultrafast Carrier Dynamics of CsPbCl3 Perovskite Nanocrystals. *Journal of Physical Chemistry C*, **2019**, 123, 2651-2657	3.8	16
56	Optical Study of p-Doping in GaAs Nanowires for Low-Threshold and High-Yield Lasing. *Nano Letters*, **2019**, 19, 362-368	11.5	17
55	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

54	Towards substrate engineering of graphene-silicon Schottky diode photodetectors. *Nanoscale*, **2018**, 10, 3399-3409	7.7	27
53	Modal refractive index measurement in nanowire lasers correlative approach. *Nano Futures*, **2018**, 2, 035004	3.6	5
52	Distinguishing cap and core contributions to the photoconductive terahertz response of single GaAs based core shell cap nanowire detectors. *Lithuanian Journal of Physics*, **2018**, 58,	1.1	1
51	Graphene-silicon-on-insulator (GSOI) Schottky diode photodetectors. *Nanoscale*, **2018**, 10, 18926-18935	7.7	16
50	Single n-i-n InP nanowires for highly sensitive terahertz detection. *Nanotechnology*, **2017**, 28, 125202	3.4	14
49	Direct laser write process for 3D conductive carbon circuits in polyimide. *Journal of Materials Chemistry C*, **2017**, 5, 4923-4930	7.1	15
48	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
47	Large-Scale Statistics for Threshold Optimization of Optically Pumped Nanowire Lasers. *Nano Letters*, **2017**, 17, 4860-4865	11.5	23
46	Broadband Phase-Sensitive Single InP Nanowire Photoconductive Terahertz Detectors. *Nano Letters*, **2016**, 16, 4925-31	11.5	27
45	Characterization of a silica-PVA hybrid for high density and stable silver dissolution. *Materials Chemistry and Physics*, **2016**, 177, 19-24	4.4	1
44	Size-Independent Energy Transfer in Biomimetic Nanoring Complexes. *ACS Nano*, **2016**, 10, 5933-40	16.7	18
43	Structure-Directed Exciton Dynamics in Templated Molecular Nanorings. *Journal of Physical Chemistry C*, **2015**, 119, 6414-6420	3.8	23
42	Single Nanowire Terahertz Detectors **2015**,		1
41	Low ensemble disorder in quantum well tube nanowires. *Nanoscale*, **2015**, 7, 20531-8	7.7	11
40	Ultrafast delocalization of excitation in synthetic light-harvesting nanorings. *Chemical Science*, **2015** , 6, 181-189	9.4	90
39	Single nanowire photoconductive terahertz detectors. *Nano Letters*, **2015**, 15, 206-10	11.5	78
38	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
37	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

36	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
35	Electron mobilities approaching bulk limits in "surface-free" GaAs nanowires. *Nano Letters*, **2014**, 14, 5989-94	11.5	64
34	Ultrafast energy transfer in biomimetic multistrand nanorings. *Journal of the American Chemical Society*, **2014**, 136, 8217-20	16.4	67
33	Chromophores in Molecular Nanorings: When Is a Ring a Ring?. *Journal of Physical Chemistry Letters*, **2014**, 5, 4356-61	6.4	59
32	Ultrafast transient terahertz conductivity of monolayer MoS_2 and WSe_2 grown by chemical vapor deposition. *ACS Nano*, **2014**, 8, 11147-53	16.7	161
31	Optically pumped room-temperature GaAs nanowire lasers. *Nature Photonics*, **2013**, 7, 963-968	33.9	415
30	Dual-channel spontaneous emission of quantum dots in magnetic metamaterials. *Nature Communications*, **2013**, 4, 2949	17.4	52
29	Three-dimensional in situ photocurrent mapping for nanowire photovoltaics. *Nano Letters*, **2013**, 13, 1405-9	11.5	34
28	Enhanced minority carrier lifetimes in GaAs/AlGaAs core-shell nanowires through shell growth optimization. *Nano Letters*, **2013**, 13, 5135-40	11.5	79
27	High vertical yield InP nanowire growth on Si(111) using a thin buffer layer. *Nanotechnology*, **2013**, 24, 465602	3.4	20
26	Defect formation and thermal stability of H in high dose H implanted ZnO. *Journal of Applied Physics*, **2013**, 114, 083111	2.5	18
25	Nanowire solar cells for next-generation photovoltaics. *SPIE Newsroom*, **2013**,		1
24	Polarization tunable, multicolor emission from core-shell photonic III-V semiconductor nanowires. *Nano Letters*, **2012**, 12, 6428-31	11.5	23
23	InP nanowires grown by SA-MOVPE **2012**,		1
22	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
21	Noncontact measurement of charge carrier lifetime and mobility in GaN nanowires. *Nano Letters*, **2012**, 12, 4600-4	11.5	51
20	Distinct photocurrent response of individual GaAs nanowires induced by n-type doping. *ACS Nano*, **2012**, 6, 6005-13	16.7	59
19	Direct-write non-linear photolithography for semiconductor nanowire characterization. *Nanotechnology*, **2012**, 23, 335704	3.4	4

18	Raman probing of competitive laser heating and local recrystallization effect in ZnO nanocrystals. *Optics Express*, **2012**, 20, 23281-9	3.3	6
17	Long minority carrier lifetime in Au-catalyzed GaAs/AlxGa1−xAs core-shell nanowires. *Applied Physics Letters*, **2012**, 101, 023111	3.4	63
16	Precursor flow rate manipulation for the controlled fabrication of twin-free GaAs nanowires on silicon substrates. *Nanotechnology*, **2012**, 23, 415702	3.4	10
15	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
14	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
13	III–V semiconductor nanowires for optoelectronic device applications. *Progress in Quantum Electronics*, **2011**, 35, 23-75	9.1	215
12	Ultrafast charge separation at a polymer-single-walled carbon nanotube molecular junction. *Nano Letters*, **2011**, 11, 66-72	11.5	76
11	Rapid, substrate-independent thickness determination of large area graphene layers. *Applied Physics Letters*, **2011**, 99, 234106	3.4	11
10	Ultrafast Charge Separation at a Single-walled Carbon Nanotube–Polymer Interface. *Materials Research Society Symposia Proceedings*, **2011**, 1286, 7		
9	Dynamic terahertz polarization in single-walled carbon nanotubes. *Physical Review B*, **2010**, 82,	3.3	21
8	The role of ultrafast torsional relaxation in the emission from polythiophene aggregates **2010**,		2
7	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
6	Role of Ultrafast Torsional Relaxation in the Emission from Polythiophene Aggregates. *Journal of Physical Chemistry Letters*, **2010**, 1, 2788-2792	6.4	84
5	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
4	Conductivity of nanoporous InP membranes investigated using terahertz spectroscopy. *Nanotechnology*, **2008**, 19, 395704	3.4	13
3	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
2	Dimensionality-dependent energy transfer in polymer-intercalated SnS2 nanocomposites. *Physical Review B*, **2007**, 75,	3.3	18
1	Transient Terahertz Conductivity of GaAs Nanowires. *Nano Letters*, **2007**, 7, 2162-2165	11.5	156