

R R Lapierre

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/9383121/r-r-lapierre-publications-by-year.pdf>

Version: 2024-04-23

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

97
papers

2,420
citations

25
h-index

46
g-index

106
ext. papers

2,730
ext. citations

3.8
avg. IF

5.51
L-index

#	Paper	IF	Citations
97	Modelling thermoelectric transport in III-V nanowires using a Boltzmann transport approach: a review. <i>Nanotechnology</i> , 2021 , 32, 042001	3.4	3
96	Simulation of optical absorption in conical nanowires. <i>Optics Express</i> , 2021 , 29, 9544-9552	3.3	1
95	Selective Area Growth by Hydride Vapor Phase Epitaxy and Optical Properties of InAs Nanowire Arrays. <i>Crystal Growth and Design</i> , 2021 , 21, 5158-5163	3.5	1
94	Long catalyst-free InAs nanowires grown on silicon by HVPE. <i>CrystEngComm</i> , 2021 , 23, 378-384	3.3	3
93	Conformal Growth of Radial InGaAs Quantum Wells in GaAs Nanowires. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 1275-1283	6.4	4
92	Characterization of InSb nanopillars for field emission applications. <i>Journal of Physics: Conference Series</i> , 2021 , 1765, 012004	0.3	2
91	Low temperature micro-photoluminescence spectroscopy of microstructures with InAsP/InP strained quantum wells. <i>Journal Physics D: Applied Physics</i> , 2021 , 54, 445106	3	0
90	Dynamics of Gold Droplet Formation on SiO ₂ /Si(111) Surface. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 11946-11951	3.8	7
89	Design and optimization of nanowire betavoltaic generators. <i>Journal of Applied Physics</i> , 2020 , 127, 244303	3.5	6
88	Formation Mechanism of Twinning Superlattices in Doped GaAs Nanowires. <i>Nano Letters</i> , 2020 , 20, 3344-3351	4.3	9
87	Genetic Algorithm Optimization of Core-Shell Nanowire Betavoltaic Generators. <i>Nanotechnology</i> , 2020 , 31, 455403	3.4	2
86	Modeling the dynamics of interface morphology and crystal phase change in self-catalyzed GaAs nanowires. <i>Nanotechnology</i> , 2020 , 31, 485602	3.4	2
85	Optical and structural analysis of ultra-long GaAs nanowires after nitrogen-plasma passivation. <i>Nano Express</i> , 2020 , 1, 020019	2	2
84	Be, Te, and Si Doping of GaAs Nanowires: Theory and Experiment. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 17299-17307	3.8	6
83	InAsSb pillars for multispectral long-wavelength infrared absorption. <i>Infrared Physics and Technology</i> , 2020 , 111, 103566	2.7	1
82	Field Emission Characteristics of InSb Patterned Nanowires. <i>Advanced Electronic Materials</i> , 2020 , 6, 2000602	4.02	8
81	Stacking defects in GaP nanowires: Electronic structure and optical properties. <i>Journal of Applied Physics</i> , 2019 , 126, 084306	2.5	2

80	Si Doping of Vapor-Liquid-Solid GaAs Nanowires: n-Type or p-Type?. <i>Nano Letters</i> , 2019 , 19, 4498-4504	11.5	17
79	Editorial for focus collection on nanophotonics and nano-optics. <i>Nanotechnology</i> , 2019 , 30, 360401	3.4	
78	Reverse Micelle Templating Route to Ordered Monodispersed Spherical Organo-Lead Halide Perovskite Nanoparticles for Light Emission. <i>ACS Applied Nano Materials</i> , 2019 , 2, 4121-4132	5.6	18
77	Inter-valley phonon-assisted Auger recombination in InGaAs/InP quantum well. <i>Journal of Applied Physics</i> , 2019 , 125, 155703	2.5	1
76	Simulation and optimization of current generation in gallium phosphide nanowire betavoltaic devices. <i>Journal of Applied Physics</i> , 2019 , 125, 165704	2.5	3
75	InSb nanowires for multispectral infrared detection. <i>Semiconductor Science and Technology</i> , 2019 , 34, 035023	1.8	8
74	Modeling selective-area growth of InAsSb nanowires. <i>Nanotechnology</i> , 2019 , 30, 285601	3.4	7
73	Pyrrolidinium containing perovskites with thermal stability and water resistance for photovoltaics. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 11104-11108	7.1	12
72	Photovoltaic Light Funnels Grown by GaAs Nanowire Droplet Dynamics. <i>IEEE Journal of Photovoltaics</i> , 2019 , 9, 1225-1231	3.7	2
71	Efficient wave optics modeling of nanowire solar cells using rigorous coupled-wave analysis. <i>Optics Express</i> , 2019 , 27, A133-A147	3.3	8
70	Epitaxial thin film transfer for flexible devices from reusable substrates. <i>Materials Research Express</i> , 2019 , 6, 025913	1.7	3
69	GaP nanowire betavoltaic device. <i>Nanotechnology</i> , 2019 , 30, 075401	3.4	4
68	Tuning the morphology of self-assisted GaP nanowires. <i>Nanotechnology</i> , 2018 , 29, 225603	3.4	14
67	GaAs quantum dots in a GaP nanowire photodetector. <i>Nanotechnology</i> , 2018 , 29, 124003	3.4	10
66	Microstructure development and photoluminescence of annealed nanosized Ce:YAG/Al ₂ O ₃ and Ce:YAG/Cr:Al ₂ O ₃ powder composites. <i>Materials Research Express</i> , 2018 , 5, 036207	1.7	1
65	Doping assessment in GaAs nanowires. <i>Nanotechnology</i> , 2018 , 29, 234001	3.4	30
64	Nanowires for energy: A review. <i>Applied Physics Reviews</i> , 2018 , 5, 041305	17.3	53
63	A review of III-V nanowire infrared photodetectors and sensors. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 123001	3	117

62	Three-fold Symmetric Doping Mechanism in GaAs Nanowires. <i>Nano Letters</i> , 2017 , 17, 5875-5882	11.5	22
61	Multispectral absorptance from large-diameter InAsSb nanowire arrays in a single epitaxial growth on silicon. <i>Nano Futures</i> , 2017 , 1, 035001	3.6	16
60	GaAsP nanowire-on-Si tandem solar cell. <i>Journal of Photonics for Energy</i> , 2017 , 7, 1	1.2	6
59	Methods of Ga droplet consumption for improved GaAs nanowire solar cell efficiency. <i>Nanotechnology</i> , 2016 , 27, 475403	3.4	19
58	Optical design of a mid-wavelength infrared InSb nanowire photodetector. <i>Nanotechnology</i> , 2016 , 27, 315202	3.4	13
57	Characterization of a Ga-Assisted GaAs Nanowire Array Solar Cell on Si Substrate. <i>IEEE Journal of Photovoltaics</i> , 2016 , 6, 661-667	3.7	32
56	Mapping electrostatic potentials across the p-n junction in GaAs nanowires by off-axis electron holography 2016 , 743-744		1
55	Resonant photo-thermal modification of vertical gallium arsenide nanowires studied using Raman spectroscopy. <i>Nanotechnology</i> , 2016 , 27, 245708	3.4	6
54	Recombination kinetics of photogenerated electrons in InGaAs/InP quantum wells. <i>Journal of Applied Physics</i> , 2016 , 119, 094301	2.5	1
53	Optimizations of GaAs Nanowire Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2016 , 6, 1494-1501	3.7	15
52	Magnetoconductance signatures of subband structure in semiconductor nanowires. <i>Physical Review B</i> , 2015 , 91,	3.3	11
51	Wavelength-selective absorptance in GaAs, InP and InAs nanowire arrays. <i>Nanotechnology</i> , 2015 , 26, 295202	3.4	21
50	Photoluminescence and photocurrent from InP nanowires with InAsP quantum dots grown on Si by molecular beam epitaxy. <i>Nanotechnology</i> , 2015 , 26, 315202	3.4	18
49	Nanowire dopant measurement using secondary ion mass spectrometry. <i>Journal of Applied Physics</i> , 2015 , 118, 114306	2.5	9
48	Conditions for high yield of selective-area epitaxy InAs nanowires on SiO ₂ /Si(111) substrates. <i>Nanotechnology</i> , 2015 , 26, 465301	3.4	20
47	Optimization of GaAs nanowire solar cell efficiency via optoelectronic modeling 2015 ,		2
46	Surface passivation of tellurium-doped GaAs nanowires by GaP: Effect on electrical conduction. <i>Journal of Applied Physics</i> , 2014 , 115, 234305	2.5	7
45	Enhanced photothermal conversion in vertically oriented gallium arsenide nanowire arrays. <i>Nano Letters</i> , 2014 , 14, 5820-6	11.5	14

44	Model of patterned self-assisted nanowire growth. <i>Nanotechnology</i> , 2014 , 25, 415304	3.4	33
43	Highly ordered vertical GaAs nanowire arrays with dry etching and their optical properties. <i>Nanotechnology</i> , 2014 , 25, 305303	3.4	42
42	Multi-spectral optical absorption in substrate-free nanowire arrays. <i>Applied Physics Letters</i> , 2014 , 105, 123113	3.4	12
41	Low resistance indium tin oxide contact to n-GaAs nanowires. <i>Semiconductor Science and Technology</i> , 2014 , 29, 054002	1.8	10
40	III-V nanowire photovoltaics: Review of design for high efficiency. <i>Physica Status Solidi - Rapid Research Letters</i> , 2013 , 7, 815-830	2.5	162
39	Electron transport in InAs-InAlAs core-shell nanowires. <i>Applied Physics Letters</i> , 2013 , 102, 043115	3.4	17
38	Study of radial growth in patterned self-catalyzed GaAs nanowire arrays by gas source molecular beam epitaxy. <i>Physica Status Solidi - Rapid Research Letters</i> , 2013 , 7, 845-849	2.5	21
37	Temperature-dependent electron mobility in InAs nanowires. <i>Nanotechnology</i> , 2013 , 24, 225202	3.4	17
36	Electrostatic model of radial pn junction nanowires. <i>Journal of Applied Physics</i> , 2013 , 114, 074317	2.5	21
35	Current matching and efficiency optimization in a two-junction nanowire-on-silicon solar cell. <i>Nanotechnology</i> , 2013 , 24, 065402	3.4	24
34	Trapped charge dynamics in InAs nanowires. <i>Journal of Applied Physics</i> , 2013 , 113, 024511	2.5	16
33	Unlocking doping and compositional profiles of nanowire ensembles using SIMS. <i>Nanotechnology</i> , 2013 , 24, 045701	3.4	16
32	Opportunities and pitfalls in patterned self-catalyzed GaAs nanowire growth on silicon. <i>Semiconductor Science and Technology</i> , 2013 , 28, 105025	1.8	35
31	Crystal structure and optical characterization of heterostructured GaAs/AlGaAs/GaAs nanowires. <i>Journal of Applied Physics</i> , 2013 , 113, 164311	2.5	8
30	Monitoring the Fermi-level position within the bandgap on a single nanowire: A tool for local investigations of doping. <i>Journal of Applied Physics</i> , 2013 , 114, 154308	2.5	8
29	Surface depletion and electrical transport model of AlInP-passivated GaAs nanowires. <i>Semiconductor Science and Technology</i> , 2013 , 28, 105026	1.8	8
28	Optical characteristics of GaAs nanowire solar cells. <i>Journal of Applied Physics</i> , 2012 , 112, 104311	2.5	49
27	Improved conductivity and long-term stability of sulfur-passivated n-GaAs nanowires. <i>Applied Physics Letters</i> , 2012 , 100, 203122	3.4	19

26	Effects of Be doping on InP nanowire growth mechanisms. <i>Applied Physics Letters</i> , 2012 , 101, 263106	3.4	22
25	Electrical transport and optical model of GaAs-AlInP core-shell nanowires. <i>Journal of Applied Physics</i> , 2012 , 111, 094319	2.5	26
24	Critical shell thickness for InAs-AlxIn1-xAs(P) core-shell nanowires. <i>Journal of Applied Physics</i> , 2012 , 112, 124305	2.5	26
23	Analytical model of surface depletion in GaAs nanowires. <i>Journal of Applied Physics</i> , 2012 , 112, 063705	2.5	44
22	Numerical model of current-voltage characteristics and efficiency of GaAs nanowire solar cells. <i>Journal of Applied Physics</i> , 2011 , 109, 034311	2.5	86
21	Sulfur passivation and contact methods for GaAs nanowire solar cells. <i>Nanotechnology</i> , 2011 , 22, 225402	3.4	78
20	Electron and hole scattering in short-period InGaAs/InP superlattices. <i>Journal of Applied Physics</i> , 2011 , 110, 073706	2.5	
19	Hybrid GaAs-Nanowire/Carbon-Nanotube Flexible Photovoltaics. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2011 , 17, 1070-1077	3.8	10
18	Contact planarization of ensemble nanowires. <i>Nanotechnology</i> , 2011 , 22, 245304	3.4	23
17	Theoretical conversion efficiency of a two-junction III-V nanowire on Si solar cell. <i>Journal of Applied Physics</i> , 2011 , 110, 014310	2.5	77
16	A study of disorder effects in random (AlxGa1-xAs)n(AlyGa1-yAs)m superlattices embedded in a wide parabolic potential. <i>Applied Physics Letters</i> , 2010 , 96, 113106	3.4	7
15	Dependence of InGaP nanowire morphology and structure on molecular beam epitaxy growth conditions. <i>Nanotechnology</i> , 2010 , 21, 165601	3.4	40
14	Photoluminescence model for a hybrid aptamer-GaAs optical biosensor. <i>Journal of Applied Physics</i> , 2010 , 107, 104702	2.5	19
13	Analytical description of the metal-assisted growth of III-V nanowires: Axial and radial growths. <i>Journal of Applied Physics</i> , 2009 , 105, 114304	2.5	77
12	A GaAs nanowire/P3HT hybrid photovoltaic device. <i>Nanotechnology</i> , 2009 , 20, 465205	3.4	46
11	A growth interruption technique for stacking fault-free nanowire superlattices. <i>Nanotechnology</i> , 2009 , 20, 025610	3.4	27
10	GaAs core-shell nanowires for photovoltaic applications. <i>Nano Letters</i> , 2009 , 9, 148-54	11.5	382
9	Structural and optical analysis of GaAsP/GaP core-shell nanowires. <i>Journal of Applied Physics</i> , 2009 , 106, 124306	2.5	36

8	Control of GaAs nanowire morphology and crystal structure. <i>Nanotechnology</i> , 2008 , 19, 495603	3.4	71
7	Growth and characterization of GaAs nanowires on carbon nanotube composite films: toward flexible nanodevices. <i>Nano Letters</i> , 2008 , 8, 4075-80	11.5	19
6	Growth and Characterization of p-n Junction Core-Shell GaAs Nanowires on Carbon Nanotube Composite Films. <i>Materials Research Society Symposia Proceedings</i> , 2008 , 1144, 1		
5	InGaAs/InP core-shell and axial heterostructure nanowires. <i>Nanotechnology</i> , 2007 , 18, 385305	3.4	21
4	GaP/GaAsP/GaP core-multishell nanowire heterostructures on (111) silicon. <i>Nanotechnology</i> , 2007 , 18, 445304	3.4	55
3	Onset of stacking faults in InP nanowires grown by gas source molecular beam epitaxy. <i>Applied Physics Letters</i> , 2007 , 90, 013116	3.4	44
2	Layer-by-layer and step-flow growth mechanisms in GaAsP/GaP nanowire heterostructures. <i>Journal of Materials Research</i> , 2006 , 21, 2801-2809	2.5	41
1	Group V incorporation in InGaAsP grown on InP by gas source molecular beam epitaxy. <i>Journal of Applied Physics</i> , 1996 , 79, 3021-3027	2.5	23