Stefano Roddaro

List of Publications by Year
in descending order

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101 papers	2,279 citations	201674 27 h-index	254184 43 g-index
101 all docs	101 docs citations	101 times ranked	2948 citing authors

#	Article	IF	Citations
1	The Optical Visibility of Graphene:â€‰ Interference Colors of Ultrathin Graphite on SiO₂. Nano Letters, 2007, 7, 2707-2710.	9.1	250
2	InAs/InSb nanowire heterostructures grown by chemical beam epitaxy. Nanotechnology, 2009, 20, 505605.	2.6	119
3	A Josephson quantum electron pump. Nature Physics, 2011, 7, 857-861.	16.7	92
4	InAs nanowire metal-oxide-semiconductor capacitors. Applied Physics Letters, 2008, 92, .	3.3	84
5	Spin States of Holes in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Ge</mml:mi><mml:mo>/</mml:mo><mml:mi>Si</mml:mi></mml:math>Nanowire Quantum Dots. Physical Review Letters, 2008, 101, 186802.	7.8	75
6	Waferâ€Scale Synthesis of Graphene on Sapphire: Toward Fabâ€Compatible Graphene. Small, 2019, 15, e1904906.	10.0	61
7	Thermoelectric Conversion at 30 K in InAs/InP Nanowire Quantum Dots. Nano Letters, 2019, 19, 3033-3039.	9.1	59
8	Nonlinear Quasiparticle Tunneling between Fractional Quantum Hall Edges. Physical Review Letters, 2003, 90, 046805.	7.8	58
9	Giant Thermovoltage in Single InAs Nanowire Field-Effect Transistors. Nano Letters, 2013, 13, 3638-3642.	9.1	56
10	Interedge Strong-to-Weak Scattering Evolution at a Constriction in the Fractional Quantum Hall Regime. Physical Review Letters, 2004, 93, 046801.	7.8	55
11	Investigation of the influence on graphene by using electron-beam and photo-lithography. Solid State Communications, 2011, 151, 1574-1578.	1.9	49
12	Controlled Coupling of Spin-Resolved Quantum Hall Edge States. Physical Review Letters, 2011, 107, 236804.	7.8	49
13	Manipulation of Electron Orbitals in Hard-Wall InAs/InP Nanowire Quantum Dots. Nano Letters, 2011, 11, 1695-1699.	9.1	48
14	Particle-Hole Symmetric Luttinger Liquids in a Quantum Hall Circuit. Physical Review Letters, 2005, 95, 156804.	7.8	46
15	Nanoscale spin rectifiers controlled by the Stark effect. Nature Nanotechnology, 2014, 9, 997-1001.	31.5	46
16	Magnetically-driven colossal supercurrent enhancement in InAs nanowire Josephson junctions. Nature Communications, 2017, 8, 14984.	12.8	40
17	Hybrid InAs nanowireâ€“vanadium proximity SQUID. Nanotechnology, 2011, 22, 105201.	2.6	39
18	Vectorial Control of the Spinâ€“Orbit Interaction in Suspended InAs Nanowires. Nano Letters, 2019, 19, 652-657.	9.1	36

#	Article	IF	Citations
19	Pb/InAs Nanowire Josephson Junction with High Critical Current and Magnetic Flux Focusing. Nano Letters, 2015, 15, 1803-1808.	9.1	35
20	Hot-electron effects in InAs nanowire Josephson junctions. Nano Research, 2011, 4, 259-265.	10.4	33
21	Electronic properties of quantum dot systems realized in semiconductor nanowires. Semiconductor Science and Technology, 2010, 25, 024007.	2.0	32
22	Complete thermoelectric benchmarking of individual InSb nanowires using combined micro-Raman and electric transport analysis. Nano Research, 2015, 8, 4048-4060.	10.4	32
23	Local noise in a diffusive conductor. Scientific Reports, 2016, 6, 30621.	3.3	31
24	Imaging Fractional Incompressible Stripes in Integer Quantum Hall Systems. Physical Review Letters, 2012, 108, 246801.	7.8	29
25	Selective control of edge-channel trajectories by scanning gate microscopy. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 1038-1041.	2.7	28
26	Tunable Esaki Effect in Catalyst-Free InAs/GaSb Coreâ€“Shell Nanowires. Nano Letters, 2016, 16, 7950-7955.	9.1	28
27	Analysing the capacitanceâ€“voltage measurements of vertical wrapped-gated nanowires. Nanotechnology, 2008, 19, 435201.	2.6	27
28	Spatially resolved analysis of edge-channel equilibration in quantum Hall circuits. Physical Review B, 2011, 83, .	3.2	27
29	Electrostatic Spin Control in InAs/InP Nanowire Quantum Dots. Nano Letters, 2012, 12, 4490-4494.	9.1	26
30	A Roadmap for Controlled and Efficient nâ€Type Doping of Selfâ€Assisted GaAs Nanowires Grown by Molecular Beam Epitaxy. Advanced Functional Materials, 2016, 26, 2836-2845.	14.9	23
31	Gate-Tunable Spatial Modulation of Localized Plasmon Resonances. Nano Letters, 2016, 16, 5688-5693.	9.1	23
32	Tuning Nonlinear Charge Transport between Integer and Fractional Quantum Hall States. Physical Review Letters, 2009, 103, 016802.	7.8	22
33	Conductometric Sensing with Individual InAs Nanowires. Sensors, 2019, 19, 2994.	3.8	22
34	InAs/InP/InSb Nanowires as Low Capacitance<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi><mml:mtext mathvariant="normal">â^’</mml:mtext><mml:mi>n</mml:mi></mml:math>Heterojunction Diodes. Physical Review X, 2011, 1, .	8.9	21
35	Probing the Gateâ^’Voltage-Dependent Surface Potential of Individual InAs Nanowires Using Random Telegraph Signals. ACS Nano, 2011, 5, 2191-2199.	14.6	20
36	Suspended InAs nanowire Josephson junctions assembled via dielectrophoresis. Nanotechnology, 2015, 26, 385302.	2.6	20

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37	Self-Assembled InAs Nanowires as Optical Reflectors. Nanomaterials, 2017, 7, 400.	4.1	20
38	Self-assembly and electron-beam-induced direct etching of suspended graphene nanostructures. Journal of Applied Physics, 2011, 110, .	2.5	19
39	Assessing the thermoelectric properties of single InSb nanowires: the role of thermal contact resistance. Semiconductor Science and Technology, 2016, 31, 064001.	2.0	19
40	Suspended InAs Nanowire-Based Devices for Thermal Conductivity Measurement Using the 3Ï‰ Method. Journal of Materials Engineering and Performance, 2018, 27, 6299-6305.	2.5	18
41	Electrostatic Field-Driven Supercurrent Suppression in Ionic-Gated Metallic Superconducting Nanotransistors. Nano Letters, 2021, 21, 10309-10314.	9.1	17
42	Growth of vertical InAs nanowires on heterostructured substrates. Nanotechnology, 2009, 20, 285303.	2.6	16
43	Dephasing in strongly anisotropic black phosphorus. Physical Review B, 2016, 94, .	3.2	16
44	Noise thermometry applied to thermoelectric measurements in InAs nanowires. Semiconductor Science and Technology, 2016, 31, 104001.	2.0	16
45	Imaging backscattering through impurity-induced antidots in quantum Hall constrictions. Physical Review B, 2012, 86, .	3.2	15
46	Tuning of quantum interference in top-gated graphene on SiC. Physical Review B, 2013, 88, .	3.2	15
47	Low-temperature quantum transport in CVD-grown single crystal graphene. Nano Research, 2016, 9, 1823-1830.	10.4	15
48	Aluminum arsenide cleaved-edge overgrown quantum wires. Applied Physics Letters, 2005, 87, 052101.	3.3	14
49	Nanoscale Mach-Zehnder interferometer with spin-resolved quantum Hall edge states. Physical Review B, 2015, 92, .	3.2	14
50	Controlling local deformation in graphene using micrometric polymeric actuators. 2D Materials, 2018, 5, 045032.	4.4	14
51	Mapping the mechanical properties of a graphene drum at the nanoscale. 2D Materials, 2019, 6, 025005.	4.4	14
52	Interedge backscattering in buried split-gate-defined graphene quantum point contacts. Physical Review B, 2016, 94, .	3.2	13
53	Ultrafast Photoacoustic Nanometrology of InAs Nanowires Mechanical Properties. Journal of Physical Chemistry C, 2022, 126, 6361-6372.	3.1	13
54	Disordered AlAs wires: Temperature-dependent resonance areas within the Fermi-liquid paradigm. Physical Review B, 2006, 74, .	3.2	12

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55	Towards a Hybrid High Critical Temperature Superconductor Junction With a Semiconducting InAs Nanowire Barrier. Journal of Superconductivity and Novel Magnetism, 2015, 28, 3429-3437.	1.8	12
56	Local anodic oxidation on hydrogen-intercalated graphene layers: oxide composition analysis and role of the silicon carbide substrate. Nanotechnology, 2017, 28, 105709.	2.6	12
57	Orbital Tuning of Tunnel Coupling in InAs/InP Nanowire Quantum Dots. Nano Letters, 2020, 20, 1693-1699.	9.1	12
58	Formation of axial metalâ€“semiconductor junctions in GaAs nanowires by thermal annealing. Semiconductor Science and Technology, 2014, 29, 054001.	2.0	11
59	Large thermal biasing of individual gated nanostructures. Nano Research, 2014, 7, 579-587.	10.4	11
60	Anisotropic straining of graphene using micropatterned SiN membranes. APL Materials, 2016, 4, .	5.1	11
61	InAs nanowire superconducting tunnel junctions: Quasiparticle spectroscopy, thermometry, and nanorefrigeration. Nano Research, 2017, 10, 3468-3475.	10.4	10
62	Impact of electron heating on the equilibration between quantum Hall edge channels. Physical Review B, 2011, 84, .	3.2	9
63	Tunnel and electrostatic coupling in graphene-LaAlO₃/SrTiO₃ hybrid systems. APL Materials, 2016, 4, 066101.	5.1	9
64	GHz Electroluminescence Modulation in Nanoscale Subwavelength Emitters. Nano Letters, 2016, 16, 5521-5527.	9.1	9
65	Measurement of the Thermoelectric Properties of Individual Nanostructures. Semiconductors and Semimetals, 2018, 98, 409-444.	0.7	9
66	Local tuning of WS2 photoluminescence using polymeric micro-actuators in a monolithic van der Waals heterostructure. Applied Physics Letters, 2019, 115, .	3.3	9
67	Unexpected Electron Transport Suppression in a Heterostructured Grapheneâ€“MoS₂Multiple Field-Effect Transistor Architecture. ACS Nano, 2022, 16, 1291-1300.	14.6	9
68	Charge pumping in InAs nanowires by surface acoustic waves. Semiconductor Science and Technology, 2010, 25, 024013.	2.0	8
69	Rectification and Photoconduction Mapping of Axial Metal-Semiconductor Interfaces Embedded in GaAs Nanowires. Physical Review Applied, 2015, 4, .	3.8	8
70	Quasi-particle tunneling at a constriction in a fractional quantum Hall state. Solid State Communications, 2004, 131, 565-572.	1.9	7
71	Bilayer-induced asymmetric quantum Hall effect in epitaxial graphene. Semiconductor Science and Technology, 2015, 30, 055007.	2.0	7
72	Scanning gate imaging of quantum point contacts and the origin of the 0.7 anomaly. Nano Research, 2015, 8, 948-956.	10.4	7

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73	Magnetotransport in variable-coupling one-dimensional ballistic constrictions. Journal of Applied Physics, 2002, 92, 5304-5309.	2.5	6
74	Contacts shielding in nanowire field effect transistors. Journal of Applied Physics, 2012, 111, 064301.	2.5	6
75	Quasi-particle tunneling between fractional quantum Hall edges. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 22, 185-188.	2.7	5
76	Magnetotransport investigation of conducting channels and spin splitting in high-density AlGaN/AlN/GaN two-dimensional electron gas. Physical Review B, 2011, 83, .	3.2	5
77	Quantification and minimization of disorder caused by focused electron beam induced deposition of cobalt on graphene. Microelectronic Engineering, 2011, 88, 2063-2065.	2.4	5
78	Perfecting the Growth and Transfer of Large Single-Crystal CVD Graphene: A Platform Material for Optoelectronic Applications. Carbon Nanostructures, 2017, , 113-124.	0.1	5
79	Cascaded Quantum Hall Bisection and Applications to Quantum Metrology. Physical Review Applied, 2020, 14, .	3.8	5
80	Strategy for accurate thermal biasing at the nanoscale. Nanotechnology, 2020, 31, 324004.	2.6	5
81	Electron localization in periodically strained graphene. Journal of Applied Physics, 2022, 131, 085103.	2.5	5
82	Light emission properties of mechanical exfoliation induced extended defects in hexagonal boron nitride flakes. 2D Materials, 2022, 9, 035018.	4.4	5
83	Analysis of shot-noise suppression in disordered quantum wires. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 19, 107-111.	2.7	4
84	Quantum transport in low-dimensional AlGaN/GaN systems. Journal of Nanoparticle Research, 2011, 13, 5699-5704.	1.9	4
85	Towards an Electronic Interferometer based on Spin-Resolved Quantum Hall Edge States. Journal of Physics: Conference Series, 2013, 456, 012019.	0.4	4
86	Electrostatic spin control in multi-barrier nanowires. Journal Physics D: Applied Physics, 2014, 47, 394015.	2.8	4
87	Crystal Phases in Hybrid Metalâ€“Semiconductor Nanowire Devices. Nano Letters, 2017, 17, 2336-2341.	9.1	4
88	Probing charge transfer during metal-insulator transitions in graphene-LaAlO3/SrTiO3 systems. APL Materials, 2018, 6, .	5.1	3
89	Stressâ€“strain in electron-beam activated polymeric micro-actuators. Journal of Applied Physics, 2020, 128, 115104.	2.5	3
90	Coherent edge mixing and interferometry in quantum Hall bilayers. Physical Review B, 2013, 87, .	3.2	2

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91	Fabâ€Compatible Graphene: Waferâ€Scale Synthesis of Graphene on Sapphire: Toward Fabâ€Compatible Graphene (Small 50/2019). Small, 2019, 15, 1970273.	10.0	2
92	Investigation of InAsâ€“based devices for topological applications. , 2019, , .		2
93	Particleâ€“hole symmetric Luttinger liquids in a quantum Hall circuit. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 34, 132-135.	2.7	1
94	Role of contact material on transport properties of InAs nanowire Josephson junctions. , 2011, , .		1
95	Magnetoresistance of galfenol-based magnetic tunnel junction. AIP Advances, 2015, 5, 127128.	1.3	1
96	Classical Effects in the Weak-Field Magnetoresistance of InGaAs/InAlAs Quantum Wells. JETP Letters, 2018, 107, 320-323.	1.4	1
97	Particle-hole symmetry in the quantum Hall transport. AIP Conference Proceedings, 2007, , .	0.4	0
98	Rapid method for the interconnection of single nano-objects. Materials Research Express, 2015, 2, 055011.	1.6	0
99	Ni-rich phases identification in GaAs nanowire devices by mean of electron diffraction tomography. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s328-s328.	0.1	0
100	Microphotoluminescence (Î¼PL) measurements of bidimensional materials in a custom-made setup. Journal of Physics: Conference Series, 2019, 1226, 012008.	0.4	0
101	Special Issue on hybrid quantum materials and devices. Semiconductor Science and Technology, 2019, 34, 030401.	2.0	0