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	Electron localization in periodically strained graphene. Journal of Applied Physics, 2022, 131, 085103.	2.5	5
2	Ultrafast Photoacoustic Nanometrology of InAs Nanowires Mechanical Properties. Journal of Physical Chemistry C, 2022, 126, 6361-6372.	3.1	13
3	Unexpected Electron Transport Suppression in a Heterostructured Grapheneâ€“MoS₂Multiple Field-Effect Transistor Architecture. ACS Nano, 2022, 16, 1291-1300.	14.6	9
4	Light emission properties of mechanical exfoliation induced extended defects in hexagonal boron nitride flakes. 2D Materials, 2022, 9, 035018.	4.4	5
5	Electrostatic Field-Driven Supercurrent Suppression in Ionic-Gated Metallic Superconducting Nanotransistors. Nano Letters, 2021, 21, 10309-10314.	9.1	17
6	Stressâ€“strain in electron-beam activated polymeric micro-actuators. Journal of Applied Physics, 2020, 128, 115104.	2.5	3
7	Cascaded Quantum Hall Bisection and Applications to Quantum Metrology. Physical Review Applied, 2020, 14, .	3.8	5
8	Strategy for accurate thermal biasing at the nanoscale. Nanotechnology, 2020, 31, 324004.	2.6	5
9	Orbital Tuning of Tunnel Coupling in InAs/InP Nanowire Quantum Dots. Nano Letters, 2020, 20, 1693-1699.	9.1	12
10	Conductometric Sensing with Individual InAs Nanowires. Sensors, 2019, 19, 2994.	3.8	22
11	Waferâ€Scale Synthesis of Graphene on Sapphire: Toward Fabâ€Compatible Graphene. Small, 2019, 15, e1904906.	10.0	61
12	Local tuning of WS2 photoluminescence using polymeric micro-actuators in a monolithic van der Waals heterostructure. Applied Physics Letters, 2019, 115, .	3.3	9
13	Microphotoluminescence (Î¼PL) measurements of bidimensional materials in a custom-made setup. Journal of Physics: Conference Series, 2019, 1226, 012008.	0.4	0
14	Special Issue on hybrid quantum materials and devices. Semiconductor Science and Technology, 2019, 34, 030401.	2.0	0
15	Thermoelectric Conversion at 30 K in InAs/InP Nanowire Quantum Dots. Nano Letters, 2019, 19, 3033-3039.	9.1	59
16	Fabâ€Compatible Graphene: Waferâ€Scale Synthesis of Graphene on Sapphire: Toward Fabâ€Compatible Graphene (Small 50/2019). Small, 2019, 15, 1970273.	10.0	2
17	Mapping the mechanical properties of a graphene drum at the nanoscale. 2D Materials, 2019, 6, 025005.	4.4	14
18	Vectorial Control of the Spinâ€“Orbit Interaction in Suspended InAs Nanowires. Nano Letters, 2019, 19, 652-657.	9.1	36

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19	Investigation of InAsâ€“based devices for topological applications. , 2019, , .		2
20	Classical Effects in the Weak-Field Magnetoresistance of InGaAs/InAlAs Quantum Wells. JETP Letters, 2018, 107, 320-323.	1.4	1
21	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
22	Controlling local deformation in graphene using micrometric polymeric actuators. 2D Materials, 2018, 5, 045032.	4.4	14
23	Measurement of the Thermoelectric Properties of Individual Nanostructures. Semiconductors and Semimetals, 2018, 98, 409-444.	0.7	9
24	Probing charge transfer during metal-insulator transitions in graphene-LaAlO3/SrTiO3 systems. APL Materials, 2018, 6, .	5.1	3
25	Crystal Phases in Hybrid Metalâ€“Semiconductor Nanowire Devices. Nano Letters, 2017, 17, 2336-2341.	9.1	4
26	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
27	Magnetically-driven colossal supercurrent enhancement in InAs nanowire Josephson junctions. Nature Communications, 2017, 8, 14984.	12.8	40
28	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
29	InAs nanowire superconducting tunnel junctions: Quasiparticle spectroscopy, thermometry, and nanorefrigeration. Nano Research, 2017, 10, 3468-3475.	10.4	10
30	Self-Assembled InAs Nanowires as Optical Reflectors. Nanomaterials, 2017, 7, 400.	4.1	20
31	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
32	Tunnel and electrostatic coupling in graphene-LaAlO₃/SrTiO₃ hybrid systems. APL Materials, 2016, 4, 066101.	5.1	9
33	Tunable Esaki Effect in Catalyst-Free InAs/GaSb Coreâ€“Shell Nanowires. Nano Letters, 2016, 16, 7950-7955.	9.1	28
34	Dephasing in strongly anisotropic black phosphorus. Physical Review B, 2016, 94, .	3.2	16
35	Assessing the thermoelectric properties of single InSb nanowires: the role of thermal contact resistance. Semiconductor Science and Technology, 2016, 31, 064001.	2.0	19
36	Low-temperature quantum transport in CVD-grown single crystal graphene. Nano Research, 2016, 9, 1823-1830.	10.4	15

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37	Noise thermometry applied to thermoelectric measurements in InAs nanowires. Semiconductor Science and Technology, 2016, 31, 104001.	2.0	16
38	Gate-Tunable Spatial Modulation of Localized Plasmon Resonances. Nano Letters, 2016, 16, 5688-5693.	9.1	23
39	GHz Electroluminescence Modulation in Nanoscale Subwavelength Emitters. Nano Letters, 2016, 16, 5521-5527.	9.1	9
40	Interedge backscattering in buried split-gate-defined graphene quantum point contacts. Physical Review B, 2016, 94, .	3.2	13
41	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
42	Local noise in a diffusive conductor. Scientific Reports, 2016, 6, 30621.	3.3	31
43	Anisotropic straining of graphene using micropatterned SiN membranes. APL Materials, 2016, 4, .	5.1	11
44	Suspended InAs nanowire Josephson junctions assembled via dielectrophoresis. Nanotechnology, 2015, 26, 385302.	2.6	20
45	Rectification and Photoconduction Mapping of Axial Metal-Semiconductor Interfaces Embedded in GaAs Nanowires. Physical Review Applied, 2015, 4, .	3.8	8
46	Magnetoresistance of galfenol-based magnetic tunnel junction. AIP Advances, 2015, 5, 127128.	1.3	1
47	Complete thermoelectric benchmarking of individual InSb nanowires using combined micro-Raman and electric transport analysis. Nano Research, 2015, 8, 4048-4060.	10.4	32
48	Pb/InAs Nanowire Josephson Junction with High Critical Current and Magnetic Flux Focusing. Nano Letters, 2015, 15, 1803-1808.	9.1	35
49	Rapid method for the interconnection of single nano-objects. Materials Research Express, 2015, 2, 055011.	1.6	0
50	Bilayer-induced asymmetric quantum Hall effect in epitaxial graphene. Semiconductor Science and Technology, 2015, 30, 055007.	2.0	7
51	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
52	Nanoscale Mach-Zehnder interferometer with spin-resolved quantum Hall edge states. Physical Review B, 2015, 92, .	3.2	14
53	Scanning gate imaging of quantum point contacts and the origin of the 0.7 anomaly. Nano Research, 2015, 8, 948-956.	10.4	7
54	Electrostatic spin control in multi-barrier nanowires. Journal Physics D: Applied Physics, 2014, 47, 394015.	2.8	4

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55	Formation of axial metalâ€“semiconductor junctions in GaAs nanowires by thermal annealing. Semiconductor Science and Technology, 2014, 29, 054001.	2.0	11
56	Nanoscale spin rectifiers controlled by the Stark effect. Nature Nanotechnology, 2014, 9, 997-1001.	31.5	46
57	Large thermal biasing of individual gated nanostructures. Nano Research, 2014, 7, 579-587.	10.4	11
58	Giant Thermovoltage in Single InAs Nanowire Field-Effect Transistors. Nano Letters, 2013, 13, 3638-3642.	9.1	56
59	Coherent edge mixing and interferometry in quantum Hall bilayers. Physical Review B, 2013, 87, .	3.2	2
60	Tuning of quantum interference in top-gated graphene on SiC. Physical Review B, 2013, 88, .	3.2	15
61	Towards an Electronic Interferometer based on Spin-Resolved Quantum Hall Edge States. Journal of Physics: Conference Series, 2013, 456, 012019.	0.4	4
62	Imaging Fractional Incompressible Stripes in Integer Quantum Hall Systems. Physical Review Letters, 2012, 108, 246801.	7.8	29
63	Imaging backscattering through impurity-induced antidots in quantum Hall constrictions. Physical Review B, 2012, 86, .	3.2	15
64	Contacts shielding in nanowire field effect transistors. Journal of Applied Physics, 2012, 111, 064301.	2.5	6
65	Electrostatic Spin Control in InAs/InP Nanowire Quantum Dots. Nano Letters, 2012, 12, 4490-4494.	9.1	26
66	A Josephson quantum electron pump. Nature Physics, 2011, 7, 857-861.	16.7	92
67	Probing the Gateâ^'Voltage-Dependent Surface Potential of Individual InAs Nanowires Using Random Telegraph Signals. ACS Nano, 2011, 5, 2191-2199.	14.6	20
68	Manipulation of Electron Orbitals in Hard-Wall InAs/InP Nanowire Quantum Dots. Nano Letters, 2011, 11, 1695-1699.	9.1	48
69	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
70	Role of contact material on transport properties of InAs nanowire Josephson junctions. , 2011, , .		1
71	Self-assembly and electron-beam-induced direct etching of suspended graphene nanostructures. Journal of Applied Physics, 2011, 110, .	2.5	19
72	Investigation of the influence on graphene by using electron-beam and photo-lithography. Solid State Communications, 2011, 151, 1574-1578.	1.9	49

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73	Quantum transport in low-dimensional AlGaN/GaN systems. Journal of Nanoparticle Research, 2011, 13, 5699-5704.	1.9	4
74	Hot-electron effects in InAs nanowire Josephson junctions. Nano Research, 2011, 4, 259-265.	10.4	33
75	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
76	Spatially resolved analysis of edge-channel equilibration in quantum Hall circuits. Physical Review B, 2011, 83, .	3.2	27
77	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
78	Impact of electron heating on the equilibration between quantum Hall edge channels. Physical Review B, 2011, 84, .	3.2	9
79	Controlled Coupling of Spin-Resolved Quantum Hall Edge States. Physical Review Letters, 2011, 107, 236804.	7.8	49
80	Hybrid InAs nanowireâ€“vanadium proximity SQUID. Nanotechnology, 2011, 22, 105201.	2.6	39
81	Selective control of edge-channel trajectories by scanning gate microscopy. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 1038-1041.	2.7	28
82	Charge pumping in InAs nanowires by surface acoustic waves. Semiconductor Science and Technology, 2010, 25, 024013.	2.0	8
83	Electronic properties of quantum dot systems realized in semiconductor nanowires. Semiconductor Science and Technology, 2010, 25, 024007.	2.0	32
84	Tuning Nonlinear Charge Transport between Integer and Fractional Quantum Hall States. Physical Review Letters, 2009, 103, 016802.	7.8	22
85	Growth of vertical InAs nanowires on heterostructured substrates. Nanotechnology, 2009, 20, 285303.	2.6	16
86	InAs/InSb nanowire heterostructures grown by chemical beam epitaxy. Nanotechnology, 2009, 20, 505605.	2.6	119
87	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
88	InAs nanowire metal-oxide-semiconductor capacitors. Applied Physics Letters, 2008, 92, .	3.3	84
89	Analysing the capacitanceâ€“voltage measurements of vertical wrapped-gated nanowires. Nanotechnology, 2008, 19, 435201.	2.6	27
90	The Optical Visibility of Graphene:â€‰ Interference Colors of Ultrathin Graphite on SiO₂. Nano Letters, 2007, 7, 2707-2710.	9.1	250

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91	Particle-hole symmetry in the quantum Hall transport. AIP Conference Proceedings, 2007, , .	0.4	0
92	Particleâ€“hole symmetric Luttinger liquids in a quantum Hall circuit. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 34, 132-135.	2.7	1
93	Disordered AlAs wires: Temperature-dependent resonance areas within the Fermi-liquid paradigm. Physical Review B, 2006, 74, .	3.2	12
94	Particle-Hole Symmetric Luttinger Liquids in a Quantum Hall Circuit. Physical Review Letters, 2005, 95, 156804.	7.8	46
95	Aluminum arsenide cleaved-edge overgrown quantum wires. Applied Physics Letters, 2005, 87, 052101.	3.3	14
96	Interedge Strong-to-Weak Scattering Evolution at a Constriction in the Fractional Quantum Hall Regime. Physical Review Letters, 2004, 93, 046801.	7.8	55
97	Quasi-particle tunneling at a constriction in a fractional quantum Hall state. Solid State Communications, 2004, 131, 565-572.	1.9	7
98	Quasi-particle tunneling between fractional quantum Hall edges. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 22, 185-188.	2.7	5
99	Analysis of shot-noise suppression in disordered quantum wires. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 19, 107-111.	2.7	4
100	Nonlinear Quasiparticle Tunneling between Fractional Quantum Hall Edges. Physical Review Letters, 2003, 90, 046805.	7.8	58
101	Magnetotransport in variable-coupling one-dimensional ballistic constrictions. Journal of Applied Physics, 2002, 92, 5304-5309.	2.5	6