Daniele Ercolani

List of Publications by Year in Descending Order

102 papers	2,085 citations	25 h-index	40 g-index
114 ext. papers	2,373 ext. citations	6.2 avg, IF	4.54 L-index

#	Paper	IF	Citations
102	High-Mobility Free-Standing InSb Nanoflags Grown on InP Nanowire Stems for Quantum Devices. *ACS Applied Nano Materials*, **2021**, 4, 5825-5833	5.6	2
101	Self-Catalyzed InSb/InAs Quantum Dot Nanowires. *Nanomaterials*, **2021**, 11,	5.4	3
100	Electrical probing of carrier separation in InAs/InP/GaAsSb core-dualshell nanowires. *Nano Research* , **2020**, 13, 1065-1070	10	6
99	Morphology control of single-crystal InSb nanostructures by tuning the growth parameters. *Nanotechnology*, **2020**, 31, 384002	3.4	4
98	Orbital Tuning of Tunnel Coupling in InAs/InP Nanowire Quantum Dots. *Nano Letters*, **2020**, 20, 1693-1699	11.5	9
97	Growth and Strain Relaxation Mechanisms of InAs/InP/GaAsSb Core-Dual-Shell Nanowires. *Crystal Growth and Design*, **2020**, 20, 1088-1096	3.5	5
96	Growth dynamics of InAs/InP nanowire heterostructures by Au-assisted chemical beam epitaxy. *Nanotechnology*, **2019**, 30, 094003	3.4	10
95	Charge localization and reentrant superconductivity in a quasi-ballistic InAs nanowire coupled to superconductors. *Science Advances*, **2019**, 5, eaav1235	14.3	10
94	III-V semicondutor nanostructures and iontronics: InAs nanowire-based electric double layer field effect transistors **2019**,		3
93	Ionic Liquid Gating of Semiconductor Nanostructure-Based Devices. *Proceedings (mdpi)*, **2019**, 3, 5	0.3	
92	Thermoelectric Conversion at 30 K in InAs/InP Nanowire Quantum Dots. *Nano Letters*, **2019**, 19, 3033-3039	11.5	34
91	Strong Modulations of Optical Reflectance in Tapered Core-Shell Nanowires. *Materials*, **2019**, 12,	3.5	8
90	Ionic-Liquid Gating of InAs Nanowire-Based Field-Effect Transistors. *Advanced Functional Materials*, **2019**, 29, 1804378	15.6	25
89	Field Effect Transistors: Ionic-Liquid Gating of InAs Nanowire-Based Field-Effect Transistors (Adv. Funct. Mater. 3/2019). *Advanced Functional Materials*, **2019**, 29, 1970014	15.6	1
88	Manipulation of polarization anisotropy in bare InAs and InAs/GaSb core-shell nanowires. *Applied Physics Letters*, **2018**, 112, 153104	3.4	
87	Nanoparticle Stability in Axial InAs-InP Nanowire Heterostructures with Atomically Sharp Interfaces. *Nano Letters*, **2018**, 18, 167-174	11.5	16
86	Mapping the Coulomb Environment in Interference-Quenched Ballistic Nanowires. *Nano Letters*, **2018**, 18, 124-129	11.5	2

85	Suspended InAs Nanowire-Based Devices for Thermal Conductivity Measurement Using the 3ω Method. *Journal of Materials Engineering and Performance*, **2018**, 27, 6299-6305	1.6	11
84	Heterogeneous nucleation of catalyst-free InAs nanowires on silicon. *Nanotechnology*, **2017**, 28, 065603	3.4	6
83	Crystal Phases in Hybrid Metal-Semiconductor Nanowire Devices. *Nano Letters*, **2017**, 17, 2336-2341	11.5	4
82	Magnetically-driven colossal supercurrent enhancement in InAs nanowire Josephson junctions. *Nature Communications*, **2017**, 8, 14984	17.4	25
81	Near-field terahertz probes with room-temperature nanodetectors for subwavelength resolution imaging. *Scientific Reports*, **2017**, 7, 44240	4.9	30
80	InAs nanowire superconducting tunnel junctions: Quasiparticle spectroscopy, thermometry, and nanorefrigeration. *Nano Research*, **2017**, 10, 3468-3475	10	8
79	Self-Assembled InAs Nanowires as Optical Reflectors. *Nanomaterials*, **2017**, 7,	5.4	14
78	GHz Electroluminescence Modulation in Nanoscale Subwavelength Emitters. *Nano Letters*, **2016**, 16, 5521-7	11.5	9
77	Length distributions of Au-catalyzed and In-catalyzed InAs nanowires. *Nanotechnology*, **2016**, 27, 375602	3.4	27
76	Catalyst Composition Tuning: The Key for the Growth of Straight Axial Nanowire Heterostructures with Group III Interchange. *Nano Letters*, **2016**, 16, 7183-7190	11.5	22
75	Local noise in a diffusive conductor. *Scientific Reports*, **2016**, 6, 30621	4.9	21
74	Laser induced photothermal effects on InAs nanowires: tuning the hole density. *Journal of Materials Chemistry C*, **2016**, 4, 2339-2344	7.1	5
73	Tunable Esaki Effect in Catalyst-Free InAs/GaSb Core-Shell Nanowires. *Nano Letters*, **2016**, 16, 7950-7955	11.5	26
72	Nucleation and growth mechanism of self-catalyzed InAs nanowires on silicon. *Nanotechnology*, **2016**, 27, 255601	3.4	19
71	Assessing the thermoelectric properties of single InSb nanowires: the role of thermal contact resistance. *Semiconductor Science and Technology*, **2016**, 31, 064001	1.8	13
70	Type II band alignment in InAs zinc-blende/wurtzite heterostructured nanowires. *Nanotechnology*, **2016**, 27, 415201	3.4	4
69	Noise thermometry applied to thermoelectric measurements in InAs nanowires. *Semiconductor Science and Technology*, **2016**, 31, 104001	1.8	10
68	Gate-Tunable Spatial Modulation of Localized Plasmon Resonances. *Nano Letters*, **2016**, 16, 5688-93	11.5	20

67	Rapid method for the interconnection of single nano-objects. *Materials Research Express*, **2015**, 2, 055011	1.7	
66	Towards a Hybrid High Critical Temperature Superconductor Junction With a Semiconducting InAs Nanowire Barrier. *Journal of Superconductivity and Novel Magnetism*, **2015**, 28, 3429-3437	1.5	10
65	Suspended InAs nanowire Josephson junctions assembled via dielectrophoresis. *Nanotechnology*, **2015**, 26, 385302	3.4	13
64	Strain-induced band alignment in wurtzite/zinc-blende InAs heterostructured nanowires. *Physical Review B*, **2015**, 92,	3.3	9
63	Mapping of axial strain in InAs/InSb heterostructured nanowires. *Applied Physics Letters*, **2015**, 107, 093103	3.4	4
62	Ultrafast Infrared Nanoscopy with Sub-Cycle Temporal Resolution. *Microscopy and Microanalysis*, **2015**, 21, 2163-2164	0.5	
61	Controlling the diameter distribution and density of InAs nanowires grown by Au-assisted methods. *Semiconductor Science and Technology*, **2015**, 30, 115012	1.8	44
60	Complete thermoelectric benchmarking of individual InSb nanowires using combined micro-Raman and electric transport analysis. *Nano Research*, **2015**, 8, 4048-4060	10	22
59	Catalyst-free growth of InAs nanowires on Si (111) by CBE. *Nanotechnology*, **2015**, 26, 415604	3.4	25
58	Pb/InAs nanowire josephson junction with high critical current and magnetic flux focusing. *Nano Letters*, **2015**, 15, 1803-8	11.5	29
57	One dimensional semiconductor nanostructures: An effective active-material for terahertz detection. *APL Materials*, **2015**, 3, 026104	5.7	13
56	Detection of a 2.8 THz quantum cascade laser with a semiconductor nanowire field-effect transistor coupled to a bow-tie antenna. *Applied Physics Letters*, **2014**, 104, 083116	3.4	19
55	Nanoscale spin rectifiers controlled by the Stark effect. *Nature Nanotechnology*, **2014**, 9, 997-1001	28.7	42
54	Large thermal biasing of individual gated nanostructures. *Nano Research*, **2014**, 7, 579-587	10	10
53	Ultrafast multi-terahertz nano-spectroscopy with sub-cycle temporal resolution. *Nature Photonics*, **2014**, 8, 841-845	33.9	171
52	Electrostatic spin control in multi-barrier nanowires. *Journal Physics D: Applied Physics*, **2014**, 47, 394015	3	4
51	Terahertz photodetectors based on tapered semiconductor nanowires. *Applied Physics Letters*, **2014**, 105, 231112	3.4	13
50	Nanowire Terahertz detectors with a resonant four-leaf-clover-shaped antenna. *Optics Express*, **2014**, 22, 8996-9003	3.3	15

49	Raman scattering study of InAs nanowires under high pressure. *Nanotechnology*, **2014**, 25, 465704	3.4	8
48	High-performance room-temperature THz nanodetectors with a narrowband antenna **2014**,		2
47	Growth of defect-free GaP nanowires. *Nanotechnology*, **2014**, 25, 205601	3.4	28
46	Nanowire-based field effect transistors for terahertz detection and imaging systems. *Nanotechnology*, **2013**, 24, 214005	3.4	33
45	Electrical properties and band diagram of InSb-InAs nanowire type-III heterojunctions. *Journal of Applied Physics*, **2013**, 113, 104307	2.5	3
44	Giant thermovoltage in single InAs nanowire field-effect transistors. *Nano Letters*, **2013**, 13, 3638-42	11.5	48
43	Electronic band structure of wurtzite GaP nanowires via temperature dependent resonance Raman spectroscopy. *Applied Physics Letters*, **2013**, 103, 023108	3.4	18
42	Readsorption Assisted Growth of InAs/InSb Heterostructured Nanowire Arrays. *Crystal Growth and Design*, **2013**, 13, 878-882	3.5	32
41	Internal field induced enhancement and effect of resonance in Raman scattering of InAs nanowires. *Solid State Communications*, **2013**, 160, 26-31	1.6	5
40	Crystal phase induced bandgap modifications in AlAs nanowires probed by resonant Raman spectroscopy. *ACS Nano*, **2013**, 7, 1400-7	16.7	21
39	Suppression of lateral growth in InAs/InAsSb heterostructured nanowires. *Journal of Crystal Growth* , **2013**, 366, 8-14	1.6	18
38	**2013**,		1
37	Se-doping dependence of the transport properties in CBE-grown InAs nanowire field effect transistors. *Nanoscale Research Letters*, **2012**, 7, 159	5	24
36	Large-area ohmic top contact to vertically grown nanowires using a free-standing Au microplate electrode. *ACS Applied Materials & Interfaces*, **2012**, 4, 1860-4	9.5	6
35	Semiconductor nanowire field-effect transistors: towards high-frequency THz detectors **2012**,		1
34	Terahetz detection by heterostructed InAs/InSb nanowire based field effect transistors. *Applied Physics Letters*, **2012**, 101, 141103	3.4	23
33	Electrostatic spin control in InAs/InP nanowire quantum dots. *Nano Letters*, **2012**, 12, 4490-4	11.5	24
32	Growth of InAs/InAsSb heterostructured nanowires. *Nanotechnology*, **2012**, 23, 115606	3.4	43

31	Modeling of InAs-InSb nanowires grown by Au-assisted chemical beam epitaxy. *Nanotechnology*, **2012**, 23, 095602	3.4	33
30	Raman sensitivity to crystal structure in InAs nanowires. *Applied Physics Letters*, **2012**, 100, 143101	3.4	20
29	Room-temperature terahertz detectors based on semiconductor nanowire field-effect transistors. *Nano Letters*, **2012**, 12, 96-101	11.5	145
28	Semiconductor nanowires for highly sensitive, room-temperature detection of terahertz quantum cascade laser emission. *Applied Physics Letters*, **2012**, 100, 241101	3.4	37
27	Electron beam induced current in InSb-InAs nanowire type-III heterostructures. *Applied Physics Letters*, **2012**, 101, 063116	3.4	12
26	Manipulation of electron orbitals in hard-wall InAs/InP nanowire quantum dots. *Nano Letters*, **2011**, 11, 1695-9	11.5	41
25	Unit cell structure of crystal polytypes in InAs and InSb nanowires. *Nano Letters*, **2011**, 11, 1483-9	11.5	110
24	Hot-electron effects in InAs nanowire Josephson junctions. *Nano Research*, **2011**, 4, 259-265	10	32
23	Synthesis of AlAs and AlAs□GaAs Core□Shell Nanowires. *Crystal Growth and Design*, **2011**, 11, 4053-4058	3.5	10
22	Growth mechanism of InAs□InSb heterostructured nanowires grown by chemical beam epitaxy. *Journal of Crystal Growth*, **2011**, 323, 304-306	1.6	13
21	InAs/InP/InSb Nanowires as Low Capacitance n□ Heterojunction Diodes. *Physical Review X*, **2011**, 1,	9.1	19
20	Electronic properties of quantum dot systems realized in semiconductor nanowires. *Semiconductor Science and Technology*, **2010**, 25, 024007	1.8	27
19	Faceting of InAs□InSb Heterostructured Nanowires. *Crystal Growth and Design*, **2010**, 10, 4038-4042	3.5	47
18	Pd-Assisted Growth of InAs Nanowires. *Crystal Growth and Design*, **2010**, 10, 4197-4202	3.5	19
17	Coexistence of vapor-liquid-solid and vapor-solid-solid growth modes in Pd-assisted InAs nanowires. *Small*, **2010**, 6, 1935-41	11	17
16	InAs/InSb nanowire heterostructures grown by chemical beam epitaxy. *Nanotechnology*, **2009**, 20, 505605	3.4	112
15	Transport anisotropy in In0.75Ga0.25As two-dimensional electron gases induced by indium concentration modulation. *Physical Review B*, **2008**, 77,	3.3	16
14	Transport anisotropy in InGaAs 2D electron gases. *Physica E: Low-Dimensional Systems and Nanostructures*, **2008**, 40, 1392-1394	3	3

13	Focused ion beam patterned Hall nano-sensors. *Journal of Magnetism and Magnetic Materials*, **2007**, 310, 2752-2754	2.8	3
12	Chemistry and formation process of Ga(Al)As oxide during local anodic oxidation nanolithography. *Surface Science*, **2006**, 600, 3739-3743	1.8	8
11	Hall nano-probes fabricated by focused ion beam. *Nanotechnology*, **2006**, 17, 2105-2109	3.4	15
10	X-ray induced variation of the chemistry of GaAs/AlAs oxide nanostructures. *Nuclear Instruments & Methods in Physics Research B*, **2006**, 246, 39-44	1.2	6
9	Desorption dynamics of oxide nanostructures fabricated by local anodic oxidation nanolithography. *Journal of Applied Physics*, **2005**, 97, 114324	2.5	16
8	Scattering mechanisms in undoped In0.75Ga0.25As/In0.75Al0.25As two-dimensional electron gases. *Journal of Crystal Growth*, **2005**, 278, 538-543	1.6	18
7	LEEM and XPEEM studies of C-AFM induced surface modifications of thermally grown SiO2. *Journal of Electron Spectroscopy and Related Phenomena*, **2005**, 144-147, 1163-1166	1.7	5
6	GaAs Oxide Desorption under Extreme Ultraviolet Photon Flux. *Advanced Functional Materials*, **2005**, 15, 587-592	15.6	11
5	Strain induced effects on the transport properties of metamorphic InAlAs/InGaAs quantum wells. *Thin Solid Films*, **2005**, 484, 400-407	2.2	66
4	Evidence of material mixing during local anodic oxidation nanolithography. *Journal of Applied Physics*, **2005**, 98, 114303	2.5	9
3	Behavior of SiO2 nanostructures under intense extreme ultraviolet illumination. *Journal of Applied Physics*, **2005**, 97, 104333	2.5	4
2	Magnetic field and temperature dependence of an atomic force microscope-defined quantum point contact. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **2004**, 22, 570		8
1	The graphon-polyelectrolytes interface as a model for coal slurries. *Colloids and Surfaces*, **1990**, 48, 231-241		9