Ilaria Zardo

List of Publications by Year
in descending order

51 papers	2,385 citations	236925 25 h-index	223800 46 g-index
51 all docs	51 docs citations	51 times ranked	2884 citing authors

#	Article	IF	Citations
1	Structural and optical properties of high quality zinc-blende/wurtzite GaAs nanowire heterostructures. Physical Review B, 2009, 80, .	3.2	434
2	Direct Band Gap Wurtzite Gallium Phosphide Nanowires. Nano Letters, 2013, 13, 1559-1563.	9.1	262
3	Raman spectroscopy of wurtzite and zinc-blende GaAs nanowires: Polarization dependence, selection rules, and strain effects. Physical Review B, 2009, 80, .	3.2	222
4	Hexagonal Silicon Realized. Nano Letters, 2015, 15, 5855-5860.	9.1	142
5	Spontaneous Alloy Composition Ordering in GaAs-AlGaAs Coreâ€"Shell Nanowires. Nano Letters, 2013, 13, 1522-1527.	9.1	116
6	Thermal conductivity of GaAs nanowires studied by micro-Raman spectroscopy combined with laser heating. Applied Physics Letters, 2010, 97, .	3.3	96
7	Crystal Structure Transfer in Core/Shell Nanowires. Nano Letters, 2011, 11, 1690-1694.	9.1	93
8	Gallium assisted plasma enhanced chemical vapor deposition of silicon nanowires. Nanotechnology, 2009, 20, 155602.	2.6	68
9	A review on IIIâ€"V coreâ€"multishell nanowires: growth, properties, and applications. Journal Physics D: Applied Physics, 2017, 50, 143001.	2.8	63
10	High Mobility One- and Two-Dimensional Electron Systems in Nanowire-Based Quantum Heterostructures. Nano Letters, 2013, 13, 6189-6196.	9.1	56
11	High compositional homogeneity in In-rich InGaAs nanowire arrays on nanoimprinted SiO₂/Si (111). Applied Physics Letters, 2012, 101, 043116.	3.3	54
12	Growth study of indium-catalyzed silicon nanowires by plasma enhanced chemical vapor deposition. Applied Physics A: Materials Science and Processing, 2010, 100, 287-296.	2.3	49
13	Defect Formation in Ga-Catalyzed Silicon Nanowires. Crystal Growth and Design, 2010, 10, 1534-1543.	3.0	46
14	Role of microstructure on optical properties in high-uniformity In<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>1</mml:mn><mml:mo>âˆ'</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>Ga<mml: xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mi>x</mml:mi></mml:msub></mml:math>As nanowire arrays: Evidence of a wider wurtzite band gap. Physical Review B, 2013, 87, .	3.2	46
15	Diameter dependence of the thermal conductivity of InAs nanowires. Nanotechnology, 2015, 26, 385401.	2.6	45
16	Pressure Tuning of the Optical Properties of GaAs Nanowires. ACS Nano, 2012, 6, 3284-3291.	14.6	43
17	Effects of stacking variations on the lattice dynamics of InAs nanowires. Physical Review B, 2011, 84, .	3.2	39
18	Optical study of the band structure of wurtzite GaP nanowires. Journal of Applied Physics, 2016, 120, .	2.5	34

#	Article	IF	Citations
19	Local modification of GaAs nanowires induced by laser heating. Nanotechnology, 2011, 22, 325701.	2.6	33
20	E₁(A) Electronic Band Gap in Wurtzite InAs Nanowires Studied by Resonant Raman Scattering. Nano Letters, 2013, 13, 3011-3016.	9.1	32
21	Complete thermoelectric benchmarking of individual InSb nanowires using combined micro-Raman and electric transport analysis. Nano Research, 2015, 8, 4048-4060.	10.4	32
22	Crystalline, Phononic, and Electronic Properties of Heterostructured Polytypic Ge Nanowires by Raman Spectroscopy. Nano Letters, 2018, 18, 7075-7084.	9.1	32
23	Phonon Engineering in Twinning Superlattice Nanowires. Nano Letters, 2019, 19, 4702-4711.	9.1	31
24	Ballistic Phonons in Ultrathin Nanowires. Nano Letters, 2020, 20, 2703-2709.	9.1	30
25	Low-Charge-Noise Nitrogen-Vacancy Centers in Diamond Created Using Laser Writing with a Solid-Immersion Lens. ACS Photonics, 2021, 8, 1726-1734.	6.6	28
26	Single crystalline and coreâ€“shell indium-catalyzed germanium nanowiresâ€”a systematic thermal CVD growth study. Nanotechnology, 2009, 20, 245608.	2.6	25
27	Nanowires for heat conversion. Journal Physics D: Applied Physics, 2018, 51, 353001.	2.8	24
28	Crystal Phase Induced Bandgap Modifications in AlAs Nanowires Probed by Resonant Raman Spectroscopy. ACS Nano, 2013, 7, 1400-1407.	14.6	21
29	Assessing the thermoelectric properties of single InSb nanowires: the role of thermal contact resistance. Semiconductor Science and Technology, 2016, 31, 064001.	2.0	19
30	Measuring the Optical Absorption of Single Nanowires. Physical Review Applied, 2020, 14, .	3.8	19
31	Probing Lattice Dynamics and Electronic Resonances in Hexagonal Ge and Si_{<i>x</i>}Ge_{1â€“<i>x</i>} Alloys in Nanowires by Raman Spectroscopy. ACS Nano, 2020, 14, 6845-6856.	14.6	17
32	Spatially resolved Raman spectroscopy on indium-catalyzed coreâ€“shell germanium nanowires: size effects. Nanotechnology, 2010, 21, 105703.	2.6	13
33	Morphological and stoichiometric optimization of Cu2O thin films by deposition conditions and post-growth annealing. Thin Solid Films, 2021, 732, 138763.	1.8	12
34	Effects of dielectric stoichiometry on the photoluminescence properties of encapsulated WSe2 monolayers. Nano Research, 2018, 11, 1399-1414.	10.4	12
35	Experimental demonstration of the suppression of optical phonon splitting in 2D materials by Raman spectroscopy. 2D Materials, 2020, 7, 035017.	4.4	11
36	Pressure induced phase separation in optimally doped bilayer manganites. Applied Physics Letters, 2009, 94, .	3.3	10

#	Article	IF	Citations
37	Valence Band Splitting in Wurtzite InGaAs Nanoneedles Studied by Photoluminescence Excitation Spectroscopy. ACS Nano, 2014, 8, 11440-11446.	14.6	10
38	New insights in the lattice dynamics of monolayers, bilayers, and trilayers of WSe₂ and unambiguous determination of few-layer-flakesâ€™ thickness. 2D Materials, 2020, 7, 025004.	4.4	10
39	Manipulating phonons at the nanoscale: Impurities and boundaries. Current Opinion in Green and Sustainable Chemistry, 2019, 17, 1-7.	5.9	9
40	Unveiling Planar Defects in Hexagonal Group IV Materials. Nano Letters, 2021, 21, 3619-3625.	9.1	8
41	Quasi One-Dimensional Metalâ€“Semiconductor Heterostructures. Nano Letters, 2019, 19, 3892-3897.	9.1	7
42	Pressure dependence of Raman spectrum in InAs nanowires. Journal of Physics Condensed Matter, 2014, 26, 235301.	1.8	6
43	Spatially mapping thermal transport in graphene by an opto-thermal method. Npj 2D Materials and Applications, 2022, 6, .	7.9	6
44	Surfaceâ€directed molecular assembly of pentacene on aromatic organophosphonate selfâ€assembled monolayers explored by polarized Raman spectroscopy. Journal of Raman Spectroscopy, 2017, 48, 235-242.	2.5	5
45	Single-step Au-catalysed synthesis and microstructural characterization of coreâ€“shell Ge/Inâ€“Te nanowires by MOCVD. Materials Research Letters, 2018, 6, 29-35.	8.7	5
46	Raman Spectroscopy on Semiconductor Nanowires. , 0, , .		4
47	Addressing Crystal Structure in Semiconductor Nanowires by Polarized Raman Spectroscopy. , 2021, , 307-348.		3
48	Wurtzite Gallium Phosphide has a direct-band gap. , 2013, , .		2
49	Special issue on thermoelectric properties of nanostructured materials. Journal Physics D: Applied Physics, 2018, 51, 430301.	2.8	1
50	Direct band gap wurtzite GaP nanowires for LEDs and quantum devices. Proceedings of SPIE, 2014, , .	0.8	0
51	Thermal rectification. , 2018, , .		0