Silvia Rubini

List of Publications by Year
in descending order

126 papers	2,284 citations	218592 26 h-index	276775 41 g-index
129 all docs	129 docs citations	129 times ranked	2167 citing authors

#	Article	IF	Citations
1	Covalent organic functionalization of graphene nanosheets and reduced graphene oxidevia1,3-dipolar cycloaddition of azomethine ylide. Nanoscale Advances, 2021, 3, 5841-5852.	2.2	11
2	Ga₂Se₃ Nanowires via Au-Assisted Heterovalent Exchange Reaction on GaAs. Journal of Physical Chemistry C, 2020, 124, 17783-17794.	1.5	1
3	Broadband enhancement of light-matter interaction in photonic crystal cavities integrating site-controlled quantum dots. Physical Review B, 2020, 101, .	1.1	14
4	Plasmon-induced resonant effects on the optical properties of Ag-decorated ZnSe nanowires. Nanotechnology, 2020, 31, 174001.	1.3	6
5	Strain related relaxation of the GaAs-like Raman mode selection rules in hydrogenated GaAs1â^'xNx layers. Journal of Applied Physics, 2019, 125, 175701.	1.1	3
6	Plasmon-assisted bandgap engineering in dilute nitrides. Nanophotonics, 2019, 8, 1465-1476.	2.9	4
7	Spatially Selective Hydrogen Irradiation/Removal of Dilute Nitrides: A Versatile Nanofabrication Tool for Photonic Applications. , 2019, , .		0
8	Scanning Photoelectron Spectroâ€Microscopy: A Modern Tool for the Study of Materials at the Nanoscale. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800308.	0.8	14
9	A lithographic approach for quantum dot-photonic crystal nanocavity coupling in dilute nitrides. Microelectronic Engineering, 2017, 174, 16-19.	1.1	10
10	Addressing the Fundamental Electronic Properties of Wurtzite GaAs Nanowires by High-Field Magneto-Photoluminescence Spectroscopy. Nano Letters, 2017, 17, 6540-6547.	4.5	10
11	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.	7.8	23
12	Native oxides formation and surface wettability of epitaxial IIIâ€“V materials: The case of InP and GaAs. Applied Surface Science, 2016, 383, 19-27.	3.1	12
13	Long-Lived Hot Carriers in IIIâ€“V Nanowires. Nano Letters, 2016, 16, 3085-3093.	4.5	42
14	Ultrafast carrier dynamics, band-gap renormalization, and optical properties of ZnSe nanowires. Physical Review B, 2016, 94, .	1.1	17
15	Schottky barrier measurements on individual GaAs nanowires by X-ray photoemission microscopy. Applied Surface Science, 2016, 386, 72-77.	3.1	0
16	Rectification and Photoconduction Mapping of Axial Metal-Semiconductor Interfaces Embedded in GaAs Nanowires. Physical Review Applied, 2015, 4, .	1.5	8
17	Single photon emitters in dilute nitrides: Towards a determinist approach of quantum dot-photonic crystal nanocavity coupling. , 2015, , .		0
18	Photoluminescence of GaAs nanowires at an energy larger than the zincblende band-gap: dependence on growth parameters. Semiconductor Science and Technology, 2015, 30, 055020.	1.0	12

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19	Optical properties of single wurtzite/zinc-blende ZnSe nanowires grown at low temperature. Journal of Applied Physics, 2015, 118, .	1.1	5
20	Nanoscale Tailoring of the Polarization Properties of Dilute-Nitride Semiconductors via H-Assisted Strain Engineering. Physical Review Applied, 2014, 2, .	1.5	10
21	Diameter-dependent morphology of vapourâ€“solidâ€“solid grown ZnSe nanowires. Journal Physics D: Applied Physics, 2014, 47, 394005.	1.3	11
22	H irradiation effects on the GaAs-like Raman modes in GaAs1-xNx/GaAs1-xNx:H planar heterostructures. Journal of Applied Physics, 2014, 116, .	1.1	3
23	Strong blue emission from ZnSe nanowires grown at low temperature. Physica Status Solidi - Rapid Research Letters, 2014, 8, 182-186.	1.2	10
24	Formation of axial metalâ€“semiconductor junctions in GaAs nanowires by thermal annealing. Semiconductor Science and Technology, 2014, 29, 054001.	1.0	11
25	Single Photons on Demand from Novel Site-Controlled GaAsN/GaAsN:H Quantum Dots. Nano Letters, 2014, 14, 1275-1280.	4.5	32
26	Tuning the growth mode of nanowires via the interaction among seeds, substrates and beam fluxes. Nanoscale, 2014, 6, 8392-8399.	2.8	18
27	Enhanced plasmonic properties of gold-catalysed semiconductor nanowires. Nanoscale, 2014, 6, 13651-13659.	2.8	7
28	Bundling of GaAs Nanowires: A Case of Adhesion-Induced Self-Assembly of Nanowires. ACS Nano, 2014, 8, 8932-8941.	7.3	12
29	Stopping and Resuming at Will the Growth of GaAs Nanowires. Crystal Growth and Design, 2013, 13, 3976-3984.	1.4	84
30	Determination of Exciton Reduced Mass and Gyromagnetic Factor of Wurtzite (InGa)As Nanowires by Photoluminescence Spectroscopy under High Magnetic Fields. ACS Nano, 2013, 7, 10717-10725.	7.3	15
31	Growth of semiconductor nanowires by molecular beam epitaxy. , 2013, , 55-93.		0
32	Excitonic recombination and absorption in In<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mi>x</mml:mi></mml:msub></mml:math>Ga<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>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>As/GaAs heterostructure nanowires. Physical Review B, 2013, 87, .	1.1	34
33	Monitoring the Fermi-level position within the bandgap on a single nanowire: A tool for local investigations of doping. Journal of Applied Physics, 2013, 114, 154308.	1.1	8
34	Resonant depletion of photogenerated carriers in InGaAs/GaAs nanowire mats. Applied Physics Letters, 2013, 102, .	1.5	11
35	The Mn site in Mn-doped GaAs nanowires: an EXAFS study. Semiconductor Science and Technology, 2012, 27, 085001.	1.0	5
36	Band-gap profiling by laser writing of hydrogen-containing III-N-Vs. Physical Review B, 2012, 86, .	1.1	18

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37	An all optical mapping of the strain field in GaAsN/GaAsN:H wires. Applied Physics Letters, 2012, 101, .	1.5	5
38	Microscopic origin of compressive strain in hydrogen-irradiated dilute GaAs<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>â^'</mml:mo><mml:mi>y</mml:mi></mml:mrow></mml:msub></mml:math>N<mml:m xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mi>y</mml:mi></mml:msub></mml:math>alloys: Role of N-H<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mml. Physical Revie	1.1	15
39	Optical reflectivity of GaAs nanowire arrays: Experiment and model. Journal of Applied Physics, 2012, 111, 114302.	1.1	22
40	Convergent beam electron-diffraction investigation of lattice mismatch and static disorder in GaAs/GaAs1â^'xNx intercalated GaAs/GaAs1â^'xNx:H heterostructures. Applied Physics Letters, 2012, 101, 111912.	1.5	1
41	Giant and reversible enhancement of the electrical resistance of GaAs1â^'xNxby hydrogen irradiation. Physical Review B, 2011, 84, .	1.1	10
42	Laser writing of the electronic activity of N- and H-atoms in GaAs. Applied Physics Letters, 2011, 99, 021105.	1.5	10
43	Self-catalyzed GaAs nanowire growth on Si-treated GaAs(100) substrates. Journal of Applied Physics, 2011, 109, .	1.1	42
44	Optical study of hydrogen-irradiated GaAsN/GaAs heterostructures. Journal of Applied Physics, 2011, 109, 123511.	1.1	11
45	Vapor-liquid-solid and vapor-solid growth of self-catalyzed GaAs nanowires. AIP Advances, 2011, 1, .	0.6	48
46	Imaging with low-voltage scanning transmission electron microscopy: A quantitative analysis. Ultramicroscopy, 2011, 111, 1018-1028.	0.8	3
47	InGaAs/GaAs Coreâ€"Shell Nanowires Grown by Molecular Beam Epitaxy. IEEE Journal of Selected Topics in Quantum Electronics, 2011, 17, 794-800.	1.9	18
48	On the growth of InAs nanowires by molecular beam epitaxy. Journal of Crystal Growth, 2011, 323, 297-300.	0.7	11
49	Fabrication of Siteâ€Controlled Quantum Dots by Spatially Selective Incorporation of Hydrogen in Ga(AsN)/GaAs Heterostructures. Advanced Materials, 2011, 23, 2706-2710.	11.1	41
50	Contactless monitoring of the diameter-dependent conductivity of GaAs nanowires. Nano Research, 2010, 3, 706-713.	5.8	25
51	Mn-induced growth of InAs nanowires. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, 478-483.	0.6	14
52	Detailed structure of the H-N-H center in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>GaAs</mml:mtext></mml:mrow><mml:mi>y</mml:mi></mml:msu by vibrational spectroscopy under uniaxial stress. Physical Review B, 2010, 81, .	1.1	19
53	Quantum confinement effects in hydrogen-intercalatedGa1â^'xAsxNx-GaAs1â^'xNx:Hplanar heterostructures investigated by photoluminescence spectroscopy. Physical Review B, 2010, 81, .	1.1	8
54	Hydrogen diffusion inGaAs1â^'xNx. Physical Review B, 2009, 80, .	1.1	26

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55	Light polarization control in strain-engineered GaAsN/GaAsN:H heterostructures. Applied Physics Letters, 2009, 94, 261905.	1.5	19
56	Local structure of nitrogen-hydrogen complexes in dilute nitrides. Physical Review B, 2009, 79, .	1.1	21
57	Lineshape analysis of Raman scattering from LO and SO phonons in III-V nanowires. Journal of Applied Physics, 2009, 106, .	1.1	19
58	Growth of IIIâ€“V semiconductor nanowires by molecular beam epitaxy. Microelectronics Journal, 2009, 40, 442-445.	1.1	31
59	High-resolution X-ray diffractionin situstudy of very small complexes: the case of hydrogenated dilute nitrides. Journal of Applied Crystallography, 2008, 41, 366-372.	1.9	22
60	Photoluminescence under magnetic field and hydrostatic pressure for probing the electronic properties of GaAsN. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 107-113.	0.8	4
61	Structural characterization of GaAs and InAs nanowires by means of Raman spectroscopy. Journal of Applied Physics, 2008, 104, 104311.	1.1	43
62	Room temperature luminescent InGaAs/GaAs core-shell nanowires. Applied Physics Letters, 2008, 93, .	1.5	37
63	Self-catalyzed growth of GaAs nanowires on cleaved Si by molecular beam epitaxy. Nanotechnology, 2008, 19, 275711.	1.3	141
64	Effect of hydrogen incorporation temperature inin plane-engineered GaAsNâˆ•GaAsN:H heterostructures. Applied Physics Letters, 2008, 92, 221901.	1.5	14
65	Vibrational properties of the H-N-H complex in dilute III-N-V alloys: Infrared spectroscopy and density functional theory. Physical Review B, 2008, 77, .	1.1	23
66	Photoreflectance and reflectance investigation of deuterium-irradiated GaAsN. Applied Physics Letters, 2007, 90, 091907.	1.5	33
67	Formation and dissolution of D-N complexes in dilute nitrides. Physical Review B, 2007, 76, .	1.1	42
68	Hydrogen-induced Nitrogen Passivation in Dilute Nitrides: A Novel Approach to Defect Engineering. Materials Research Society Symposia Proceedings, 2007, 994, 1.	0.1	0
69	Photoluminescence of Mn-catalyzed GaAs nanowires grown by molecular beam epitaxy. Nanotechnology, 2007, 18, 125603.	1.3	45
70	Photoluminescence under magnetic field and hydrostatic pressure in GaAs1âˆ’xNx for probing the compositional dependence of carrier effective mass and gyromagnetic ratio. AIP Conference Proceedings, 2007, , .	0.3	0
71	In-Plane Band Gap Engineering by Hydrogenation of Dilute Nitride Semiconductors. AIP Conference Proceedings, 2007, , .	0.3	0
72	Fabrication And Characterization Of Mn-catalyzed GaAs Nanowires. AIP Conference Proceedings, 2007, , .	0.3	0

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73	GaAs nanowires by Mn-catalysed molecular beam epitaxy. Journal of Physics: Conference Series, 2007, 61, 992-996.	0.3	6
74	Growth by molecular beam epitaxy and electrical characterization of GaAs nanowires. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 37, 134-137.	1.3	66
75	Thermal evolution of small N-D complexes in deuterated dilute nitrides revealed byin-situhigh resolution X-ray diffraction. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 2766-2771.	0.8	2
76	Evidence of a New Hydrogen Complex in Dilute Nitride Alloys. AIP Conference Proceedings, 2007, , .	0.3	0
77	Manganese-Induced Growth of GaAs Nanowires. Nano Letters, 2006, 6, 2130-2134.	4.5	61
78	Microphotoluminescence characterization of alloy fluctuations in InGaAsN/GaAs quantum wells emitting at 1.3 Âµm. Semiconductor Science and Technology, 2006, 21, 1207-1211.	1.0	0
79	In-Plane Bandgap Engineering by Modulated Hydrogenation of Dilute Nitride Semiconductors. Advanced Materials, 2006, 18, 1993-1997.	11.1	51
80	Controlling interface reactivity and Schottky barrier height in Auâˆ•ZnSe(001) junctions. Journal of Vacuum Science & Technology B, 2006, 24, 1259.	1.3	3
81	Catalyst incorporation in ZnSe nanowires. Philosophical Magazine Letters, 2006, 86, 261-266.	0.5	19
82	Hydrogen-nitrogen complexes in dilute nitride alloys: Origin of the compressive lattice strain. Applied Physics Letters, 2006, 89, 061904.	1.5	38
83	Influence of nitrogen-cluster states on the gyromagnetic factor of electrons inGaAs1âˆ’xNx. Physical Review B, 2006, 74, .	1.1	46
84	Nitrogen-induced hindering of In incorporation in InGaAsN. Applied Physics Letters, 2006, 88, 141923.	1.5	10
85	Interaction between conduction band edge and nitrogen states probed by carrier effective-mass measurements inGaAs1âˆ’xNx. Physical Review B, 2006, 73, .	1.1	106
86	Site of Mn in MnÎ´-doped GaAs: X-ray absorption spectroscopy. Physical Review B, 2006, 73, .	1.1	25
87	Epitaxial Al/GaN and Au/GaN junctions on as-grown GaN(0001)1 Ã— 1 surfaces. Physica Status Solidi (A) Applications and Materials Science, 2005, 202, 804-807.	0.8	1
88	InAsNâˆ•GaAs(N) quantum-dot and InGaNAsâˆ•GaAs quantum-well emitters: A comparison. Applied Physics Letters, 2005, 86, 233107.	1.5	17
89	Low-temperature synthesis of ZnSe nanowires and nanosaws by catalyst-assisted molecular-beam epitaxy. Applied Physics Letters, 2005, 86, 153103.	1.5	87
90	Selective growth of ZnSe and ZnCdSe nanowires by molecular beam epitaxy. Nanotechnology, 2005, 16, S139-S142.	1.3	32

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91	Inâ€“NandNâ€“Ncorrelation inInxGa1âˆ’xAs1âˆ’yNyâˆ•GaAsquasi-lattice-matched quantum wells: A cross-sectional scanning tunneling microscopy study. Physical Review B, 2005, 72, .	1.1	10
92	Structural and electronic properties of wide band gap Zn1âˆ’xMgxSe alloys. Journal of Applied Physics, 2004, 95, 4184-4192.	1.1	6
93	High-resolution potential mapping in semiconductor nanostructures by cross-sectional scanning tunneling microscopy and spectroscopy. Applied Physics Letters, 2003, 82, 1932-1934.	1.5	14
94	Atomic resolution composition analysis by scanning transmission electron microscopy high-angle annular dark-field imaging. Applied Physics Letters, 2003, 83, 662-664.	1.5	31
95	Cross sectional studies of buried semiconductor interfaces by means of photoemission microscopy. Applied Physics Letters, 2002, 80, 2511-2513.	1.5	4
96	Silicon clustering in Siâ€“GaAs Î´-doped layers and superlattices. Applied Physics Letters, 2002, 81, 1639-1641.	1.5	5
97	Metal/IIIâ€“V diodes engineered by means of Si interlayers: Interface reactions versus local interface dipoles. Applied Physics Letters, 2001, 79, 1462-1464.	1.5	0
98	Reflectionless tunneling in planar Nb/GaAs hybrid junctions. Applied Physics Letters, 2001, 78, 1772-1774.	1.5	9
99	Resonant Transport in Nb/GaAs/AlGaAs Heterostructures: Realization of the de Gennesâ€“Saint-James Model. Physical Review Letters, 2001, 87, 216808.	2.9	29
100	Excitonic properties and band alignment in lattice-matched ZnCdSe/ZnMgSe multiple-quantum-well structures. Applied Physics Letters, 2001, 78, 434-436.	1.5	1
101	Band discontinuities in ZnMgSe/ZnCdSe(001) lattice-matched heterostructures. Applied Physics Letters, 2001, 78, 1574-1576.	1.5	5
102	Resonant second harmonic generation in ZnSe bulk microcavity. Applied Physics Letters, 1999, 74, 1945-1947.	1.5	26
103	Zn0.85Cd0.15Se active layers on graded-composition InxGa1âˆ’xAs buffer layers. Journal of Applied Physics, 1999, 85, 8160-8169.	1.1	8
104	CdTe epitaxial layers in ZnSe-based heterostructures. Journal of Crystal Growth, 1999, 201-202, 465-469.	0.7	3
105	Ohmic versus rectifying contacts through interfacial dipoles: Al/InxGa1âˆ’xAs. Journal of Crystal Growth, 1999, 201-202, 769-772.	0.7	4
106	Lattice-matched Zn1âˆ’yCdySe/InxGa1âˆ’xAs(0 0 1) heterostructures. Journal of Crystal Growth, 1998, 184-185, 21-25.	0.7	1
107	Electrical properties of n-n ZnSe/In0.04Ga0.96As(001) heterojunctions. Applied Physics Letters, 1998, 73, 2033-2035.	1.5	0
108	Strain and surface morphology in lattice-matched ZnSe/InxGa1âˆ’xAs heterostructures. Journal of Applied Physics, 1998, 83, 2504-2510.	1.1	10

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109	NMR study of ordering kinetics inNi3Alalloys. Physical Review B, 1998, 57, 10462-10469.	1.1	12
110	Stacking faults in pseudomorphic ZnSe-GaAs and latticematched ZnSe-In0.04 Ga0.96 As layers. Philosophical Magazine Letters, 1997, 75, 219-226.	0.5	11
111	Electrical characterization of engineered ZnSeî—¸GaAs heterojunction diodes. Journal of Crystal Growth, 1997, 175-176, 603-607.	0.7	3
112	Tuning of ZnSeâ€“GaAs band discontinuities in heterojunction diodes. Applied Physics Letters, 1996, 69, 3233-3235.	1.5	15
113	Roughening Transition of an Amorphous Metal Surface: A Molecular Dynamics Study. Physical Review Letters, 1996, 77, 3169-3172.	2.9	11
114	Martensitic transformation and phonon localization in Ni-Al alloys by atomistic simulations. Meccanica, 1995, 30, 439-448.	1.2	4
115	Embedded-atom model of glass-forming Si-metal alloys. Physical Review B, 1995, 51, 14962-14975.	1.1	23
116	An embedded atom study of an amorphous metal surface: Pd80Si20. Surface Science, 1995, 342, L1116-L1120.	0.8	7
117	Phonon localization and martensitic transformation inNixAl1âˆ’xalloys. Physical Review B, 1994, 50, 1297-1300.	1.1	13
118	NMR investigation of the martensitic transformation in fine particles of Ni-Al alloys. Physical Review B, 1994, 49, 9331-9335.	1.1	5
119	Martensitic transformation in Ag-Cd and Cu-Zn alloys studied by nuclear magnetic resonance. Physical Review B, 1994, 49, 12590-12595.	1.1	4
120	An overview on recent NMR-NQR studies of high-T c superconductors and of their precursors AF. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1994, 16, 1743-1753.	0.4	4
121	139La NMR-NQR study of the oxygen diffusion in La2âˆ’x Sr x CuO4+Î´. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1994, 16, 1799-1802.	0.4	5
122	Oxygen diffusion in La2CuO4+Î´from 139La NMR-NQR relaxation. Physica C: Superconductivity and Its Applications, 1994, 235-240, 1717-1718.	0.6	8
123	Structural and dynamical properties of metastable Al:Si solid solutions calculated by the embedded-atom method. Physical Review B, 1994, 50, 9648-9651.	1.1	4
124	Quasiharmonic and molecular-dynamics study of the martensitic transformation in Ni-Al alloys. Physical Review B, 1993, 48, 99-111.	1.1	79
125	Electronic structure and the martensitic transformation in Î²-phase Ni-Al alloys:Al27NMR and specific-heat measurements. Physical Review B, 1992, 46, 10563-10572.	1.1	17
126	Martensitic transformation in a Cu-Zn-Al alloy studied byCu63andAl27NMR. Physical Review B, 1991, 44, 2019-2029.	1.1	14