# Antonio Polimeni

List of Publications by Year
in descending order



| 248 | 4,831 | 81743 | 155451 |
|---|---|---|---|
| papers | citations | 39 h-index | 55 g-index |

| 249 | 249 | 249 | 3054 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
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| 1 | Temperature dependence of the optical properties ofInAs/AlyGa1â^'yAsself-organized quantum dots. Physical Review B, 1999, 59, 5064-5068. | 1.1 | 202 |
| 2 | Effect of temperature on the optical properties of (InGa)(AsN)/GaAs single quantum wells. Applied Physics Letters, 2000, 77, 2870-2872. | 1.5 | 112 |
| 3 | Interaction between conduction band edge and nitrogen states probed by carrier effective-mass measurements inGaAs1â^'xNx. Physical Review B, 2006, 73, . | 1.1 | 106 |
| 4 | Trends in the electronic structure of dilute nitride alloys. Semiconductor Science and Technology, 2009, 24, 033001. | 1.0 | 101 |
| 5 | Evidence of the direct to indirect band gap transition in strained two-dimensional <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi>WS</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math>, <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi>MoS</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math>, and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi>WSe</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math> | 1.3 | 100 |
| 6 | Effect of hydrogen on the electronic properties ofInxGa1â^'xAs1â^'yNy/GaAsquantum wells. Physical Review B, 2001, 63, . | 1.1 | 96 |
| 7 | Influence of bismuth incorporation on the valence and conduction band edges of GaAs1â^'xBix. Applied Physics Letters, 2008, 92, 262105. | 1.5 | 92 |
| 8 | Electronic structure of self-assembled InAs quantum dots in GaAs matrix. Applied Physics Letters, 1998, 73, 1092-1094. | 1.5 | 86 |
| 9 | Hydrogen-induced band gap tuning of (InGa)(AsN)/GaAs single quantum wells. Applied Physics Letters, 2001, 78, 3472-3474. | 1.5 | 84 |
| 10 | Effect of nitrogen on the temperature dependence of the energy gap inInxGa1â^'xAs1â^'yNy/GaAssingle quantum wells. Physical Review B, 2001, 63, . | 1.1 | 72 |
| 11 | Strain-tuning of the electronic, optical, and vibrational properties of two-dimensional crystals. Applied Physics Reviews, 2021, 8, . | 5.5 | 67 |
| 12 | Linewidth analysis of the photoluminescence ofInxGa1â^'xAs/GaAs quantum wells (x=0.09, 0.18, 1.0). Physical Review B, 1995, 52, 2784-2788. | 1.1 | 66 |
| 13 | Early manifestation of localization effects in diluted Ga(AsN). Applied Physics Letters, 2003, 82, 4474-4476. | 1.5 | 60 |
| 14 | Controlled Micro/Nanodome Formation in Protonâ€Irradiated Bulk Transitionâ€Metal Dichalcogenides. Advanced Materials, 2019, 31, e1903795. | 11.1 | 60 |
| 15 | Self-aggregation of quantum dots for very thin InAs layers grown on GaAs. Physical Review B, 1996, 53, R4213-R4216. | 1.1 | 58 |
| 16 | Nitrogen-hydrogen complex inGaAsxN1â^'xrevealed by x-ray absorption spectroscopy. Physical Review B, 2005, 71, . | 1.1 | 56 |
| 17 | Hydrogen-induced improvements in optical quality of GaNAs alloys. Applied Physics Letters, 2003, 82, 3662-3664. | 1.5 | 55 |
| 18 | Nitrogen passivation induced by atomic hydrogen:â€ƒTheGaP1â^'yNycase. Physical Review B, 2003, 67, . | 1.1 | 53 |

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| 19 | Effect of the order-disorder transition on the optical properties of Cu2ZnSnS4. Applied Physics Letters, 2016, 108, . | 1.5 | 53 |
| 20 | Structure and Passivation Effects of Mono- and Dihydrogen Complexes inGaAsyN1â^'yAlloys. Physical Review Letters, 2002, 89, 216401. | 2.9 | 52 |
| 21 | In-Plane Bandgap Engineering by Modulated Hydrogenation of Dilute Nitride Semiconductors. Advanced Materials, 2006, 18, 1993-1997. | 11.1 | 51 |
| 22 | Compositional dependence of the exciton reduced mass inGaAs1â^'xBix(x=0â€“10%). Physical Review B, 2010, 81, . | 1.1 | 48 |
| 23 | Temperature Dependence of Interband Transitions in Wurtzite InP Nanowires. ACS Nano, 2015, 9, 4277-4287. | 7.3 | 48 |
| 24 | Thermal effects in quantum dot lasers. Journal of Applied Physics, 1999, 85, 625-627. | 1.1 | 47 |
| 25 | Bandgap Energy of Wurtzite InAs Nanowires. Nano Letters, 2016, 16, 5197-5203. | 4.5 | 47 |
| 26 | Optical properties and device applications of (InGa)As self-assembled quantum dots grown on (311)B GaAs substrates. Applied Physics Letters, 1998, 73, 1415-1417. | 1.5 | 46 |
| 27 | Influence of nitrogen-cluster states on the gyromagnetic factor of electrons inGaAs1â^'xNx. Physical Review B, 2006, 74, . | 1.1 | 46 |
| 28 | Piezoelectric effects in In0.5Ga0.5As self-assembled quantum dots grown on (311)B GaAs substrates. Applied Physics Letters, 2000, 77, 2979-2981. | 1.5 | 45 |
| 29 | Polarized Light Absorption in Wurtzite InP Nanowire Ensembles. Nano Letters, 2015, 15, 998-1005. | 4.5 | 44 |
| 30 | High-temperature light emission from InAs quantum dots. Applied Physics Letters, 1999, 75, 814-816. | 1.5 | 42 |
| 31 | Magnetophotoluminescence studies of (InGa)(AsN)/GaAs heterostructures. Physical Review B, 2003, 67, . | 1.1 | 42 |
| 32 | Global changes of the band structure and the crystal lattice of Ga(N,As) due to hydrogenation. Physical Review B, 2003, 67, . | 1.1 | 42 |
| 33 | Electron Mass in Dilute Nitrides and its Anomalous Dependence on Hydrostatic Pressure. Physical Review Letters, 2007, 98, 146402. | 2.9 | 42 |
| 34 | Formation and dissolution of D-N complexes in dilute nitrides. Physical Review B, 2007, 76, . | 1.1 | 42 |
| 35 | Bi-induced p-type conductivity in nominally undoped Ga(AsBi). Applied Physics Letters, 2012, 100, . | 1.5 | 42 |
| 36 | Long-Lived Hot Carriers in IIIâ€“V Nanowires. Nano Letters, 2016, 16, 3085-3093. | 4.5 | 42 |

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| 37 | Vibrational spectroscopy of hydrogenatedGaAs1â^'yNy:â€ƒA structure-sensitive test of anH2*(N)model. Physical Review B, 2004, 69, . | 1.1 | 41 |
| 38 | 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 |
| 39 | Tunable variation of the electron effective mass and exciton radius in hydrogenatedGaAs1â^'xNx. Physical Review B, 2004, 69, . | 1.1 | 40 |
| 40 | Defect passivation in strain engineered InAs/(InGa)As quantum dots. Materials Science and Engineering C, 2005, 25, 830-834. | 3.8 | 39 |
| 41 | Lattice relaxation by atomic hydrogen irradiation ofIIIâ^'Nâ^'Vsemiconductor alloys. Physical Review B, 2003, 68, . | 1.1 | 38 |
| 42 | Hydrogen-nitrogen complexes in dilute nitride alloys: Origin of the compressive lattice strain. Applied Physics Letters, 2006, 89, 061904. | 1.5 | 38 |
| 43 | Engineered Creation of Periodic Giant, Nonuniform Strains in MoS<sub>2</sub> Monolayers. Advanced Materials Interfaces, 2020, 7, 2000621. | 1.9 | 38 |
| 44 | Stokes shift in quantum wells: Trapping versus thermalization. Physical Review B, 1996, 54, 16389-16392. | 1.1 | 37 |
| 45 | Carrier thermalization within a disordered ensemble of self-assembled quantum dots. Physical Review B, 2000, 62, 11084-11088. | 1.1 | 36 |
| 46 | Experimental Adhesion Energy in van der Waals Crystals and Heterostructures from Atomically Thin Bubbles. Physical Review Letters, 2021, 127, 046101. | 2.9 | 36 |
| 47 | Experimental evidence of different hydrogen donors in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi></mml:math>-type InN. Physical Review B, 2008, 77, . | 1.1 | 35 |
| 48 | Quantum-dot phonons in self-assembled InAs/GaAs quantum dots: Dependence on the coverage thickness. Applied Physics Letters, 2000, 77, 3556-3558. | 1.5 | 34 |
| 49 | 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 |
| 50 | Emission of electrons from the ground and first excited states of self-organized InAs/GaAs quantum dot structures. Journal of Electronic Materials, 1999, 28, 486-490. | 1.0 | 33 |
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| 54 | Single Photons on Demand from Novel Site-Controlled GaAsN/GaAsN:H Quantum Dots. Nano Letters, 2014, 14, 1275-1280. | 4.5 | 32 |

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| 56 | InAs quantum dots grown on nonconventionally oriented GaAs substrates. Journal of Crystal Growth, 1998, 187, 126-132. | 0.7 | 30 |
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| 58 | Spectral analysis of InGaAs/GaAs quantum-dot lasers. Applied Physics Letters, 1999, 75, 2169-2171. | 1.5 | 29 |
| 59 | Giant photoluminescence enhancement in deuterated highly strained InAs/GaAs quantum wells. Applied Physics Letters, 1994, 65, 1254-1256. | 1.5 | 28 |
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| 68 | Nanoscale Measurements of Elastic Properties and Hydrostatic Pressure in H<sub>2</sub>â€Bulged MoS<sub>2</sub> Membranes. Advanced Materials Interfaces, 2020, 7, 2001024. | 1.9 | 26 |
| 69 | Hydrogen-induced passivation of nitrogen inGaAs1â^'yNy. Physical Review B, 2002, 65, . | 1.1 | 25 |
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| 71 | Ferromagnetism and Conductivity in Hydrogen Irradiated Co-Doped ZnO Thin Films. ACS Applied Materials & Interfaces, 2016, 8, 12925-12931. | 4.0 | 25 |
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| 79 | Passivation of an isoelectronic impurity by atomic hydrogen: The case of ZnTe:O. Applied Physics Letters, 2006, 88, 101910. | 1.5 | 22 |
| 80 | 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 |
| 81 | Resonant tunneling and photoluminescence spectroscopy in quantum wells containing self-assembled quantum dots. Journal of Applied Physics, 2000, 88, 2005-2012. | 1.1 | 21 |
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| 86 | 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 |
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| 88 | Giant magneto-optical response in H<sup>+</sup> irradiated Zn<sub>1â^'x</sub>Co<sub>x</sub>O thin films. Journal of Materials Chemistry C, 2019, 7, 78-85. | 2.7 | 19 |
| 89 | Modulation of the luminescence spectra of InAs self-assembled quantum dots by resonant tunneling through a quantum well. Physical Review B, 2000, 62, 13595-13598. | 1.1 | 18 |
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| 91 | Band-gap profiling by laser writing of hydrogen-containing III-N-Vs. Physical Review B, 2012, 86, . | 1.1 | 18 |
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| 99 | Azetidinium lead iodide: synthesis, structural and physico-chemical characterization. Journal of Materials Chemistry A, 2018, 6, 10135-10148. | 5.2 | 16 |
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| 103 | Experimental studies of the multimode spectral emission in quantum dot lasers. Journal of Applied Physics, 2000, 87, 1943-1946. | 1.1 | 14 |
| 104 | Effect of hydrogen incorporation temperature inin plane-engineered GaAsNâ•GaAsN:H heterostructures. Applied Physics Letters, 2008, 92, 221901. | 1.5 | 14 |
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| 107 | Deuterium Adsorption on Free-Standing Graphene. Nanomaterials, 2021, 11, 130. | 1.9 | 14 |
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