Jean Christophe Harmand

List of Publications by Year in descending order

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47006 66911 7,061 191 47 78 citations h-index g-index papers 192 192 192 4384 docs citations citing authors all docs times ranked

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| 1 | Why Does Wurtzite Form in Nanowires of III-V Zinc Blende Semiconductors?. Physical Review Letters, 2007, 99, 146101. | 7.8 | 669 |
| 2 | Growth kinetics and crystal structure of semiconductor nanowires. Physical Review B, 2008, 78, . | 3.2 | 276 |
| 3 | Analysis of vapor-liquid-solid mechanism in Au-assisted GaAs nanowire growth. Applied Physics Letters, 2005, 87, 203101. | 3.3 | 249 |
| 4 | Crystal Phase Quantum Dots. Nano Letters, 2010, 10, 1198-1201. | 9.1 | 233 |
| 5 | Theoretical analysis of the vapor-liquid-solid mechanism of nanowire growth during molecular beam epitaxy. Physical Review E, 2006, 73, 021603. | 2.1 | 163 |
| 6 | Predictive modeling of self-catalyzed III-V nanowire growth. Physical Review B, 2013, 88, . | 3.2 | 158 |
| 7 | Au-assisted molecular beam epitaxy of InAs nanowires: Growth and theoretical analysis. Journal of Applied Physics, 2007, 102, 094313. | 2.5 | 136 |
| 8 | Arsenic Pathways in Self-Catalyzed Growth of GaAs Nanowires. Crystal Growth and Design, 2013, 13, 91-96. | 3.0 | 133 |
| 9 | New Mode of Vaporâ^'Liquidâ^'Solid Nanowire Growth. Nano Letters, 2011, 11, 1247-1253. | 9.1 | 132 |
| 10 | Critical diameters and temperature domains for MBE growth of Ill–V nanowires on lattice mismatched substrates. Physica Status Solidi - Rapid Research Letters, 2009, 3, 112-114. | 2.4 | 116 |
| 11 | Epitaxy of GaN Nanowires on Graphene. Nano Letters, 2016, 16, 4895-4902. | 9.1 | 115 |
| 12 | Atomic Step Flow on a Nanofacet. Physical Review Letters, 2018, 121, 166101. | 7.8 | 113 |
| 13 | Temperature-dependent valence band offset and band-gap energies of pseudomorphic GaAsSb on GaAs. Journal of Applied Physics, 2001, 89, 5473-5477. | 2.5 | 112 |
| 14 | Growth and Characterization of InP Nanowires with InAsP Insertions. Nano Letters, 2007, 7, 1500-1504. | 9.1 | 110 |
| 15 | Growth of GaN free-standing nanowires by plasma-assisted molecular beam epitaxy: structural and optical characterization. Nanotechnology, 2007, 18, 385306. | 2.6 | 109 |
| 16 | Temperature conditions for GaAs nanowire formation by Au-assisted molecular beam epitaxy. Nanotechnology, 2006, 17, 4025-4030. | 2.6 | 107 |
| 17 | Comparison of nitrogen incorporation in molecular-beam epitaxy of GaAsN, GalnAsN, and GaAsSbN. Applied Physics Letters, 2000, 77, 2482-2484. | 3.3 | 106 |
| 18 | Nucleation Antibunching in Catalyst-Assisted Nanowire Growth. Physical Review Letters, 2010, 104, 135501. | 7.8 | 100 |

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| 19 | Room-temperature defect-engineered spin filter based on a non-magnetic semiconductor. Nature Materials, 2009, 8, 198-202. | 27.5 | 94 |
| 20 | GaNAsSb: how does it compare with other dilute IIIÂV-nitride alloys?. Semiconductor Science and Technology, 2002, 17, 778-784. | 2.0 | 93 |
| 21 | GaAsSbN: a new low-bandgap material for GaAs substrates. Electronics Letters, 1999, 35, 1246. | 1.0 | 90 |
| 22 | Role of nonlinear effects in nanowire growth and crystal phase. Physical Review B, 2009, 80, . | 3.2 | 90 |
| 23 | Growth kinetics of a single <mml:math display="inline" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mtext>InP</mml:mtext><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^'< Physical Review B, 2010, 81, .</mml:mo></mml:mrow></mml:msub></mml:math> | /m sn 2:mo> | > <r881:mi>x<!--</td--></r |
| 24 | Phase Selection in Self-catalyzed GaAs Nanowires. Nano Letters, 2020, 20, 1669-1675. | 9.1 | 83 |
| 25 | Facet and in-plane crystallographic orientations of GaN nanowires grown on Si(111). Nanotechnology, 2008, 19, 155704. | 2.6 | 82 |
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| 38 | N-Polar GaN Nanowires Seeded by Al Droplets on Si(111). Crystal Growth and Design, 2012, 12, 2724-2729. | 3.0 | 54 |
| 39 | Zinc blende GaAsSb nanowires grown by molecular beam epitaxy. Nanotechnology, 2008, 19, 275605. | 2.6 | 53 |
| 40 | Effect of temperature on the optical properties of GaAsSbN/GaAs single quantum wells grown by molecular-beam epitaxy. Journal of Applied Physics, 2003, 93, 4475-4479. | 2.5 | 52 |
| 41 | Investigations on GalnNAsSb quinary alloy for 1.5 \hat{l} 4m laser emission on GaAs. Applied Physics Letters, 2003, 83, 1298-1300. | 3.3 | 50 |
| 42 | Photoreflectance investigations of the energy level structure in GalnNAs-based quantum wells. Journal of Physics Condensed Matter, 2004, 16, S3071-S3094. | 1.8 | 50 |
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| 44 | Role of nitrogen in the mobility drop of electrons in modulation-doped GaAsN/AlGaAs heterostructures. Solid State Communications, 2003, 126, 333-337. | 1.9 | 49 |
| 45 | Morphology and composition of highly strained InGaAs and InGaAsN layers grown on GaAs substrate. Applied Physics Letters, 2004, 84, 203-205. | 3.3 | 49 |
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| 47 | between delocalized and localized states in Gall <mml:math display="inline" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow></mml:mrow><mml:mrow>0.02</mml:mrow></mml:msub></mml:math> As <mml:math display="inline" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow< td=""><td>3.2</td><td>49</td></mml:mrow<></mml:msub></mml:math> | 3.2 | 49 |
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| 61 | Determination of n-Type Doping Level in Single GaAs Nanowires by Cathodoluminescence. Nano Letters, 2017, 17, 6667-6675. | 9.1 | 35 |
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| 130 | Effects of repulsive and attractive ionized impurities on the resistivity of semiconductor heterostructures in the quantum Hall regime. Physical Review B, 2009, 80, . | 3.2 | 7 |
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