Jonas Johansson

List of Publications by Year
in descending order

102 papers	4,618 citations	186209 28 h-index	98753 67 g-index
104 all docs	104 docs citations	104 times ranked	3653 citing authors

#	Article	IF	Citations
1	Simulating Vaporâ€“Liquidâ€“Solid Growth of Au-Seeded InGaAs Nanowires. ACS Nanoscience Au, 2022, 2, 239-249.	2.0	7
2	Improved quality of InSb-on-insulator microstructures by flash annealing into melt. Nanotechnology, 2021, 32, 165602.	1.3	7
3	General Trends in Coreâ€“Shell Preferences for Bimetallic Nanoparticles. ACS Nano, 2021, 15, 8883-8895.	7.3	51
4	Sintering Mechanism of Core@Shell Metal@Metal Oxide Nanoparticles. Journal of Physical Chemistry C, 2021, 125, 16220-16227.	1.5	6
5	Compositional Correlation between the Nanoparticle and the Growing Au-Assisted In_{<i>x</i>}Ga_{1â€“<i>x</i>}As Nanowire. Journal of Physical Chemistry Letters, 2021, 12, 7590-7595.	2.1	12
6	Dissipation Reduction and Information-to-Measurement Conversion in DNA Pulling Experiments with Feedback Protocols. Physical Review X, 2021, 11, .	2.8	5
7	Surface energy driven miscibility gap suppression during nucleation of IIIâ€“V ternary alloys. CrystEngComm, 2021, 23, 5284-5292.	1.3	4
8	Aerotaxy: gas-phase epitaxy of quasi 1D nanostructures. Nanotechnology, 2021, 32, 025605.	1.3	11
9	Assembling your nanowire: an overview of composition tuning in ternary IIIâ€“V nanowires. Nanotechnology, 2021, 32, 072001.	1.3	18
10	Calculation of Hole Concentrations in Zn Doped GaAs Nanowires. Nanomaterials, 2020, 10, 2524.	1.9	2
11	Role of Thermodynamics and Kinetics in the Composition of Ternary III-V Nanowires. Nanomaterials, 2020, 10, 2553.	1.9	10
12	Dislocationâ€Free and Atomically Flat GaN Hexagonal Microprisms for Device Applications. Small, 2020, 16, 1907364.	5.2	10
13	Limits of IIIâ€“V Nanowire Growth Based on Droplet Dynamics. Journal of Physical Chemistry Letters, 2020, 11, 2949-2954.	2.1	14
14	Realization of Ultrahigh Quality InGaN Platelets to be Used as Relaxed Templates for Red Micro-LEDs. ACS Applied Materials & Interfaces, 2020, 12, 17845-17851.	4.0	24
15	The compositional homogeneity of the metal particle during vaporâ€“liquidâ€“solid growth of nanowires. Scientific Reports, 2020, 10, 11041.	1.6	0
16	Effect of Radius on Crystal Structure Selection in IIIâ€“V Nanowire Growth. Crystal Growth and Design, 2020, 20, 5373-5379.	1.4	7
17	Embedded sacrificial AlAs segments in GaAs nanowires for substrate reuse. Nanotechnology, 2020, 31, 204002.	1.3	8
18	Independent Control of Nucleation and Layer Growth in Nanowires. ACS Nano, 2020, 14, 3868-3875.	7.3	31

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19	Nucleation-limited composition of Al_{1-x}In_xAs nanowires. Journal of Physics: Conference Series, 2019, 1199, 012022.	0.3	0
20	In situ analysis of catalyst composition during gold catalyzed GaAs nanowire growth. Nature Communications, 2019, 10, 4577.	5.8	49
21	From diffusion limited to incorporation limited growth of nanowires. Journal of Crystal Growth, 2019, 525, 125192.	0.7	15
22	Thermodynamics of oxidation and reduction during the growth of metal catalyzed silicon nanowires. Journal of Crystal Growth, 2019, 505, 52-58.	0.7	7
23	Zinc blende and wurtzite crystal structure formation in gold catalyzed InGaAs nanowires. Journal of Crystal Growth, 2019, 509, 118-123.	0.7	10
24	Simulation of GaAs Nanowire Growth and Crystal Structure. Nano Letters, 2019, 19, 1197-1203.	4.5	27
25	Nucleation-limited composition of ternary IIIâ€“V nanowires forming from quaternary gold based liquid alloys. CrystEngComm, 2018, 20, 1649-1655.	1.3	32
26	Self-assembled InN quantum dots on side facets of GaN nanowires. Journal of Applied Physics, 2018, 123, .	1.1	14
27	Understanding GaAs Nanowire Growth in the Agâ€“Au Seed Materials System. Crystal Growth and Design, 2018, 18, 6702-6712.	1.4	5
28	The Role of Gender When Faculty Members Assign Consequences for Academic Dishonesty. New Directions for Community Colleges, 2018, 2018, 73-82.	0.3	0
29	Composition of Gold Alloy Seeded InGaAs Nanowires in the Nucleation Limited Regime. Crystal Growth and Design, 2017, 17, 1630-1635.	1.4	32
30	Phase diagrams for understanding gold-seeded growth of GaAs and InAs nanowires. Journal Physics D: Applied Physics, 2017, 50, 134002.	1.3	16
31	Thermodynamic assessment and binary nucleation modeling of Sn-seeded InGaAs nanowires. Journal of Crystal Growth, 2017, 478, 152-158.	0.7	1
32	Kinetically limited composition of ternary III-V nanowires. Physical Review Materials, 2017, 1, .	0.9	27
33	Broadening of length distributions of Au-catalyzed InAs nanowires. AIP Conference Proceedings, 2016, , .	0.3	1
34	Length Distributions of Nanowires Growing by Surface Diffusion. Crystal Growth and Design, 2016, 16, 2167-2172.	1.4	38
35	Quaternary Chemical Potentials for Gold-Catalyzed Growth of Ternary InGaAs Nanowires. Crystal Growth and Design, 2016, 16, 4526-4530.	1.4	17
36	The probability density function tail of the Kardarâ€“Parisiâ€“Zhang equation in the strongly non-linear regime. Journal of Physics A: Mathematical and Theoretical, 2016, 49, 505001.	0.7	1

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37	Stochastic analysis of nucleation rates. Physical Review E, 2016, 93, 022801.	0.8	1
38	Demonstration of Hexagonal Phase Silicon Carbide Nanowire Arrays with Vertical Alignment. Crystal Growth and Design, 2016, 16, 2887-2892.	1.4	7
39	Polytype Attainability in IIIâ€“V Semiconductor Nanowires. Crystal Growth and Design, 2016, 16, 371-379.	1.4	23
40	Phase Transformation in Radially Merged Wurtzite GaAs Nanowires. Crystal Growth and Design, 2015, 15, 4795-4803.	1.4	27
41	Zn-doping of GaAs nanowires grown by Aerotaxy. Journal of Crystal Growth, 2015, 414, 181-186.	0.7	28
42	Thermodynamic assessment of the Asâ€“Zn and Asâ€“Gaâ€“Zn systems. Journal of Alloys and Compounds, 2015, 638, 95-102.	2.8	8
43	Size- and shape-dependent phase diagram of Inâ€“Sb nano-alloys. Nanoscale, 2015, 7, 17387-17396.	2.8	39
44	Molecular motor efficiency is maximized in the presence of both power-stroke and rectification through feedback. New Journal of Physics, 2015, 17, 065011.	1.2	22
45	Disciplinary action for academic dishonesty: does the studentâ€™s gender matter?. International Journal for Educational Integrity, 2015, 11, .	5.1	14
46	Bonding in intermetallics may be deceptive â€“ The case of the new type structure Au2InGa2. Intermetallics, 2014, 46, 40-44.	1.8	6
47	Morphology and composition controlled Ga_xIn_{1âˆ’x}Sb nanowires: understanding ternary antimonide growth. Nanoscale, 2014, 6, 1086-1092.	2.8	19
48	The phase equilibria in the Auâ€“Inâ€“Ga ternary system. Journal of Alloys and Compounds, 2014, 588, 474-480.	2.8	6
49	The thermodynamic assessment of the Auâ€“Inâ€“Ga system. Journal of Alloys and Compounds, 2014, 600, 178-185.	2.8	18
50	InN quantum dots on GaN nanowires grown by MOVPE. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 421-424.	0.8	4
51	Pedagogical Visualization of a Nonideal Carnot Engine. Journal of Thermodynamics, 2014, 2014, 1-7.	0.8	1
52	Cu particle seeded InPâ€“InAs axial nanowire heterostructures. Physica Status Solidi - Rapid Research Letters, 2013, 7, 850-854.	1.2	5
53	Diameter Limitation in Growth of III-Sb-Containing Nanowire Heterostructures. ACS Nano, 2013, 7, 3668-3675.	7.3	45
54	Geometric model for metalorganic vapour phase epitaxy of dense nanowire arrays. Journal of Crystal Growth, 2013, 366, 15-19.	0.7	23

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55	Demonstration of Defect-Free and Composition Tunable Ga_{<i>x</i>}In_{1â€“<i>x</i>}Sb Nanowires. Nano Letters, 2012, 12, 4914-4919.	4.5	44
56	Controlling the Abruptness of Axial Heterojunctions in IIIâ€“V Nanowires: Beyond the Reservoir Effect. Nano Letters, 2012, 12, 3200-3206.	4.5	121
57	Combinatorial Approaches to Understanding Polytypism in IIIâ€“V Nanowires. ACS Nano, 2012, 6, 6142-6149.	7.3	59
58	Simultaneous growth mechanisms for Cu-seeded InP nanowires. Nano Research, 2012, 5, 297-306.	5.8	25
59	Recent advances in semiconductor nanowire heterostructures. CrystEngComm, 2011, 13, 7175.	1.3	104
60	Crystal Phases in III--V Nanowires: From Random Toward Engineered Polytypism. IEEE Journal of Selected Topics in Quantum Electronics, 2011, 17, 829-846.	1.9	156
61	Growth of Straight InAs-on-GaAs Nanowire Heterostructures. Nano Letters, 2011, 11, 3899-3905.	4.5	44
62	Parameter space mapping of InAs nanowire crystal structure. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, 04D103.	0.6	43
63	Microcanonical Entropy of the Infinite-State Potts Model. Research Letters in Physics, 2011, 2011, 1-5.	0.2	1
64	A comparative study of the effect of gold seed particle preparation method on nanowire growth. Nano Research, 2010, 3, 506-519.	5.8	43
65	Control of IIIâ€“V nanowire crystal structure by growth parameter tuning. Semiconductor Science and Technology, 2010, 25, 024009.	1.0	219
66	Diameter Dependence of the Wurtziteâ˘'Zinc Blende Transition in InAs Nanowires. Journal of Physical Chemistry C, 2010, 114, 3837-3842.	1.5	129
67	Preferential Interface Nucleation: An Expansion of the VLS Growth Mechanism for Nanowires. Advanced Materials, 2009, 21, 153-165.	11.1	309
68	The use of gold for fabrication of nanowire structures. Gold Bulletin, 2009, 42, 172-181.	3.2	61
69	Controlled polytypic and twin-plane superlattices in iiiâ€“v nanowires. Nature Nanotechnology, 2009, 4, 50-55.	15.6	646
70	Effects of Supersaturation on the Crystal Structure of Gold Seeded IIIâ˘'V Nanowires. Crystal Growth and Design, 2009, 9, 766-773.	1.4	147
71	Effects of growth conditions on the crystal structure of gold-seeded GaP nanowires. Journal of Crystal Growth, 2008, 310, 5102-5105.	0.7	15
72	Monte Carlo investigation of the phase transition in the 2D Potts model with open boundary conditions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 6301-6304.	0.9	2

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73	Focused ion beam fabrication of novel coreâ€“shell nanowire structures. Nanotechnology, 2008, 19, 445610.	1.3	4
74	Structural Characterisation of GaP <111>B Nanowires by HRTEM. Springer Proceedings in Physics, 2008, , 229-232.	0.1	1
75	Diameter-dependent growth rate of InAs nanowires. Physical Review B, 2007, 76, .	1.1	148
76	The structure of ã€ˆ111ã€‰B oriented GaP nanowires. Journal of Crystal Growth, 2007, 298, 635-639.	0.7	31
77	Regime change for nanowire growth. Nature Nanotechnology, 2007, 2, 534-535.	15.6	8
78	Growth related aspects of epitaxial nanowires. Nanotechnology, 2006, 17, S355-S361.	1.3	100
79	Structural properties of ã€ˆ111ã€‰B -oriented IIIâ€“V nanowires. Nature Materials, 2006, 5, 574-580.	13.3	412
80	Mass Transport Model for Semiconductor Nanowire Growth. Journal of Physical Chemistry B, 2005, 109, 13567-13571.	1.2	205
81	Adatom diffusion on strained (111) surfaces: A molecular dynamics study. Physical Review B, 2004, 69, .	1.1	2
82	Growth of one-dimensional nanostructures in MOVPE. Journal of Crystal Growth, 2004, 272, 211-220.	0.7	278
83	Correlation between overgrowth morphology and optical properties of single self-assembled InP quantum dots. Physical Review B, 2003, 68, .	1.1	11
84	Single InP/GaInP quantum dots studied by scanning tunneling microscopy and scanning tunneling microscopy induced luminescence. Applied Physics Letters, 2002, 80, 494-496.	1.5	20
85	Kinetics of self-assembled island formation: Part Iâ€"Island density. Journal of Crystal Growth, 2002, 234, 132-138.	0.7	27
86	Kinetics of self-assembled island formation: Part IIâ€“Island size. Journal of Crystal Growth, 2002, 234, 139-144.	0.7	28
87	Electron beam pre-patterning for site-control of self-assembled InAs quantum dots on Inp surfaces. Journal of Electronic Materials, 2001, 30, 482-486.	1.0	6
88	Electron beam prepatterning for site control of self-assembled quantum dots. Applied Physics Letters, 2001, 78, 1367-1369.	1.5	19
89	Size control of self-assembled quantum dots. Journal of Crystal Growth, 2000, 221, 566-570.	0.7	1
90	Surface morphology of MnAs overlayers grown by MBE on GaAs(111)B substrates. Applied Surface Science, 2000, 166, 247-252.	3.1	12

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91	Effects of substrate doping and surface roughness on self-assembling InAs/InP quantum dots. Applied Surface Science, 2000, 165, 241-247.	3.1	13
92	Indium enrichment in Ga1â^'xInxP self-assembled quantum dots. Journal of Applied Physics, 2000, 88, 6378-6381.	1.1	3
93	Manipulations of Densities and Sizes during Self-Assembling Quantum Dots in Metal-Organic Vapour Phase Epitaxy. Japanese Journal of Applied Physics, 1999, 38, 7264-7267.	0.8	5
94	Kinetic effects on the size homogeneity of Stranskiâ€"Krastanow islands. Applied Surface Science, 1999, 148, 86-91.	3.1	12
95	Continuous and discontinuous metal-organic vapour phase epitaxy of coherent self-assembled islands:. Journal of Crystal Growth, 1999, 197, 19-24.	0.7	7
96	Sizes of self-assembled quantum dots â€" effects of deposition conditions and annealing. Journal of Crystal Growth, 1998, 195, 546-551.	0.7	7
97	Fluorescence imaging of light absorption for axial-beam geometry in capillary electrophoresis. Electrophoresis, 1998, 19, 2233-2238.	1.3	9
98	Manipulations of size and density of self-assembled quantum dots grown by MOVPE. Physica E: Low-Dimensional Systems and Nanostructures, 1998, 2, 667-671.	1.3	25
99	Size reduction of self assembled quantum dots by annealing. Applied Surface Science, 1998, 134, 47-52.	3.1	18
100	Mean-Field Theory of Quantum Dot Formation. Physical Review Letters, 1997, 79, 897-900.	2.9	143
101	In situ growth of nano-structures by metal-organic vapour phase epitaxy. Journal of Crystal Growth, 1997, 170, 39-46.	0.7	80
102	Manipulations of densities and sizes during self-assembling quantum dots in MOVPE. , 0, , .		0