

Frédéric Fossard

List of Publications by Year in descending order

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91
papers

2,383
citations

361413

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214800

47
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all docs

93
docs citations

93
times ranked

4617
citing authors

#	ARTICLE	IF	CITATIONS
1	Photooxidation and quantum confinement effects in exfoliated black phosphorus. <i>Nature Materials</i> , 2015, 14, 826-832.	27.5	1,149
2	Linking growth mode to lengths of single-walled carbon nanotubes. <i>Carbon</i> , 2017, 113, 231-236.	10.3	75
3	Growth kinetics of N-face polarity GaN by plasma-assisted molecular-beam epitaxy. <i>Applied Physics Letters</i> , 2004, 84, 3684-3686.	3.3	65
4	Molecular-beam epitaxial growth and characterization of quaternary III-V nitride compounds. <i>Journal of Applied Physics</i> , 2003, 94, 3121-3127.	2.5	60
5	Polarized front-illumination response in intraband quantum dot infrared photodetectors at 77K. <i>Physical Review B</i> , 2001, 63, .	3.2	55
6	Intraband absorptions in GaN/AlN quantum dots in the wavelength range of 1.27-2.4 μ m. <i>Applied Physics Letters</i> , 2003, 82, 868-870.	3.3	54
7	Characterization methods dedicated to nanometer-thick hBN layers. <i>2D Materials</i> , 2017, 4, 015028.	4.4	46
8	Chromophore Ordering by Confinement into Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2014, 118, 19462-19468.	3.1	40
9	Synthesis of multi-walled carbon nanotubes for NH ₃ gas detection. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2007, 37, 54-57.	2.7	39
10	Highly doped Si and Ge formed by GILD (gas immersion laser doping); from GILD to superconducting silicon. <i>Thin Solid Films</i> , 2008, 517, 75-79.	1.8	39
11	Natural occurrence of the diamond hexagonal structure in silicon nanowires grown by a plasma-assisted vapour-liquid-solid method. <i>Nanoscale</i> , 2017, 9, 8113-8118.	5.6	34
12	Infrared spectroscopy of self-organized InAs nanostructures grown on InAlAs/InP(001) for infrared photodetection applications. <i>Infrared Physics and Technology</i> , 2001, 42, 443-451.	2.9	33
13	Effects of stacking on the structural and optical properties of self-organized GaN/AlN quantum dots. <i>Applied Physics Letters</i> , 2004, 84, 4224-4226.	3.3	30
14	Environmental transmission electron microscopy investigations of Pt-Fe ₂ O ₃ nanoparticles for nucleating carbon nanotubes. <i>Carbon</i> , 2016, 110, 243-248.	10.3	27
15	Momentum-Resolved Dielectric Response of Free-Standing Mono-, Bi-, and Trilayer Black Phosphorus. <i>Nano Letters</i> , 2019, 19, 8303-8310.	9.1	27
16	A deep learning approach for determining the chiral indices of carbon nanotubes from high-resolution transmission electron microscopy images. <i>Carbon</i> , 2020, 169, 465-474.	10.3	27
17	Confinement of Dyes inside Boron Nitride Nanotubes: Photostable and Shifted Fluorescence down to the Near Infrared. <i>Advanced Materials</i> , 2020, 32, e2001429.	21.0	27
18	New method for the growth of single-walled carbon nanotubes from bimetallic nanoalloy catalysts based on Prussian blue analog precursors. <i>Carbon</i> , 2017, 123, 583-592.	10.3	26

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19	Unveiling the Evolutions of Nanotube Diameter Distribution during the Growth of Single-Walled Carbon Nanotubes. ACS Nano, 2017, 11, 3081-3088.	14.6	25
20	Epitaxial growth of Ge on a thin SiO ₂ layer by ultrahigh vacuum chemical vapor deposition. Journal of Crystal Growth, 2007, 308, 26-29.	1.5	21
21	Structural Properties of Double-Walled Carbon Nanotubes Driven by Mechanical Interlayer Coupling. ACS Nano, 2017, 11, 4840-4847.	14.6	21
22	Angle-resolved electron energy loss spectroscopy in hexagonal boron nitride. Physical Review B, 2017, 96, .	3.2	18
23	Quality factor control of Si-based two-dimensional photonic crystals with a Bragg mirror. Applied Physics Letters, 2006, 88, 091122.	3.3	16
24	Lateral epitaxial growth of germanium on silicon oxide. Applied Physics Letters, 2008, 93, .	3.3	16
25	Tuning bimetallic catalysts for a selective growth of SWCNTs. Nanoscale, 2019, 11, 4091-4100.	5.6	16
26	Spectroscopy of the electronic states in InAs quantum dots grown on In _x Al _{1-x} As/InP(001). Physical Review B, 2004, 69, .	3.2	15
27	Assessing the reliability of the Raman peak counting method for the characterization of SWCNT diameter distributions: a cross characterization with TEM. Carbon, 2021, 171, 968-979.	10.3	15
28	Highly Ordered Boron Nitride/Epigraphene Epitaxial Films on Silicon Carbide by Lateral Epitaxial Deposition. ACS Nano, 2020, 14, 12962-12971.	14.6	14
29	Experimental and theoretical investigation of interband and intersubband transitions in type-II InAs/AlSb superlattices. Physical Review B, 2001, 64, .	3.2	13
30	Dislocation and antiphase domain free microscale GaAs crystals grown on SiO ₂ from (001) Si nano-areas. Applied Physics Letters, 2013, 102, 191915.	3.3	13
31	Colloidal synthesis of nanoparticles: from bimetallic to high entropy alloys. Nanoscale, 2022, 14, 9832-9841.	5.6	13
32	Recent progress in growth and physics of GaN/AlN quantum dots. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 1445-1450.	0.8	12
33	Optical and electrical properties of laser doped Si:B in the alloy range. Applied Surface Science, 2012, 258, 9228-9232.	6.1	12
34	Role of structural defects in the ultraviolet luminescence of multiwall boron nitride nanotubes. Journal of Applied Physics, 2015, 118, 234307.	2.5	12
35	Dynamic saturation of an intersublevel transition in self-organized InAs/In _x Al _{1-x} As quantum dots. Physical Review B, 2003, 67, .	3.2	11
36	Size effect on Ge nanowires growth kinetics by the vapor-liquid-solid mechanism. Thin Solid Films, 2012, 520, 3314-3318.	1.8	11

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37	Interplay of interfacial compounds, catalyst thickness and carbon precursor supply in the selectivity of single-walled carbon nanotube growth. Carbon, 2014, 80, 599-609.	10.3	11
38	Fe Ti O based catalyst for large-chiral-angle single-walled carbon nanotube growth. Carbon, 2016, 107, 865-871.	10.3	11
39	Catalytic hydrothiolation of alkenes and alkynes using bimetallic RuRh nanoparticles on carbon nanotubes. Green Chemistry, 2022, 24, 1231-1237.	9.0	11
40	^{63}Ni Precipitation Study of a Co-Ni-Based Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 3854-3864.	2.2	10
41	Gold(Au^{I})-silver(Ag^{I})-calix[8]arene complexes, precursors of bimetallic alloyed $\text{Au}^{\text{I}}\text{Ag}^{\text{I}}$ nanoparticles. Nanoscale Advances, 2020, 2, 2768-2773.	4.6	10
42	Heteroepitaxial growth of sp^2 -hybridized boron nitride multilayer on nickel substrates by CVD: the key role of the substrate orientation. 2D Materials, 2020, 7, 045018.	4.4	10
43	GaN quantum dots by molecular beam epitaxy. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 21, 540-545.	2.7	9
44	Influence of the Si cap layer on the SiGe islands morphology. Micron, 2009, 40, 122-125.	2.2	9
45	Gold anchoring on Si sawtooth faceted nanowires. Europhysics Letters, 2011, 95, 18004.	2.0	9
46	Faceting mechanisms of Si nanowires and gold spreading. Journal of Materials Science, 2012, 47, 1609-1613.	3.7	9
47	Gas Immersion Laser Doping for superconducting nanodevices. Applied Surface Science, 2014, 302, 209-212.	6.1	9
48	Ultrasonication-induced extraction of inner shells from double-wall carbon nanotubes characterized via in situ spectroscopy after density gradient ultracentrifugation. Carbon, 2021, 185, 113-125.	10.3	9
49	Nickel platinum ($\text{Ni}_x\text{Pt}_{1-x}$) nanoalloy monodisperse particles without the core-shell structure by colloidal synthesis. Nanoscale Advances, 2020, 2, 3882-3889.	4.6	8
50	Femtosecond measurement of electron capture and intersubband relaxation in self-organized InAs quantum wires on $\text{In}_{1-x}\text{Al}_x\text{As}/\text{InP}$. Physical Review B, 2001, 63, .	3.2	7
51	Kinetics of selective epitaxial growth of Si and relaxed Ge by ultrahigh vacuum chemical vapor deposition in Si(001) windows. Materials Science in Semiconductor Processing, 2006, 9, 460-464.	4.0	7
52	Growth kinetics of Ge crystals on silicon oxide by nanoscale silicon seed induced lateral epitaxy. Journal of Applied Physics, 2009, 106, .	2.5	7
53	Intraband spectroscopy of self-organized GaN/AlN quantum dots. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 17, 60-63.	2.7	6
54	Intraband light absorption in InAs/GaAs quantum dots covered with InGaAs quantum wells. Semiconductor Science and Technology, 2006, 21, 1341-1347.	2.0	6

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55	Ge growth over thin SiO ₂ by UHV-CVD for MOSFET applications. Thin Solid Films, 2008, 517, 401-403.	1.8	6
56	Synthesis of strained SiGe on Si(100) by pulsed laser induced epitaxy. Thin Solid Films, 2010, 518, 2542-2545.	1.8	6
57	The formation of the smallest fullerene-like carbon cages on metal surfaces. Nanoscale, 2016, 8, 2561-2567.	5.6	6
58	Quantitative first-principles calculations of valence and core excitation spectra of solid C_{60} . Physical Review B, 2017, 95, .	3.2	6
59	Gold nanocluster distribution on faceted and kinked Si nanowires. Thin Solid Films, 2012, 520, 3304-3308.	1.8	5
60	Supramolecular organization of pi-conjugated molecules monitored by single-walled carbon nanotubes. Journal of Nanophotonics, 2015, 10, 012514.	1.0	5
61	Exciton-exciton annihilation in hBN. Applied Physics Letters, 2019, 114, 232103.	3.3	5
62	Intraband spectroscopy of self-organized InAs/InAlAs nanostructures grown on. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 17, 82-83.	2.7	4
63	Some Insights into the Relaxation Mechanisms of Germanium Growing on (001) Si by Ultrahigh Vacuum Chemical Vapor Deposition. ECS Transactions, 2006, 3, 569-583.	0.5	4
64	Interband light absorption and Pauli blocking in InAs/GaAs quantum dots covered by InGaAs quantum wells. Semiconductor Science and Technology, 2007, 22, 814-818.	2.0	4
65	Selective Si growth on partially desorbed SiO ₂ /Si(001) surfaces. Superlattices and Microstructures, 2008, 44, 348-353.	3.1	4
66	Localized laser thermal annealing of nanometric SiGe layers protected by a dielectric Bragg mirror. Thin Solid Films, 2008, 517, 327-330.	1.8	4
67	Composition and local strain mapping in Au-catalyzed axial Si/Ge nanowires. Nanotechnology, 2012, 23, 395701.	2.6	4
68	Photoconductive spectral analysis of InAs quantum dot under normal incidence. Infrared Physics and Technology, 2003, 44, 509-512.	2.9	3
69	Spectroscopy of the electron states in self-organized GaN/AlN quantum dots. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 1456-1460.	0.8	3
70	Intraband polaron dynamics of excited carriers in InAs _{1-x} Al _{1-x} As quantum dots. Physical Review B, 2005, 71, .	3.2	3
71	Pseudomorphic SiGe _{1-x} Si(001) layers synthesized by gas immersion laser doping. Applied Physics Letters, 2008, 93, 021911.	3.3	3
72	Nanoscale concentration and strain distribution in pseudomorphic films Si _{1-x} Ge _x /Si processed by pulsed laser induced epitaxy. Applied Surface Science, 2012, 258, 9208-9212.	6.1	3

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73	Properties of self-assembled Ga-polar and N-polar GaN/AlN quantum dots. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 2504-2507.	0.8	2
74	Selective Epitaxial Growth Of Si And Relaxed Ge By UHV-CVD In Si(001) Windows. ECS Transactions, 2006, 3, 593-598.	0.5	2
75	Lateral growth of monocrystalline Ge on silicon oxide by ultrahigh vacuum chemical vapor deposition. Materials Science in Semiconductor Processing, 2008, 11, 214-216.	4.0	2
76	Localisation of silicon nanowires grown by UHV-CVD in (111)-oriented apertures opened in Si (001). IOP Conference Series: Materials Science and Engineering, 2009, 6, 012015.	0.6	2
77	Investigation on Mn doping of Ge nanowires for spintronics. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 315-319.	0.8	2
78	Investigations of the Co-Pt alloy phase diagram with neutron diffuse scattering, inverse cluster variation method, and Monte Carlo simulations. Physical Review B, 2020, 102, .	3.2	2
79	MOCVD Growth and Structural Properties of ZnS Nanowires: A Case Study of Polytypism. Nanomaterials, 2022, 12, 2323.	4.1	2
80	<title>Light absorption and emission in InAs/GaAs quantum dots and stepped quantum wells</title> . , 2002, 5023, 209.		1
81	Enhanced photoconductive signal in InAs quantum dots due to plasma confined microcavities. Physical Review B, 2003, 68, .	3.2	1
82	Formation and properties of selectively grown Ge/Si quantum dots. Superlattices and Microstructures, 2004, 36, 193-199.	3.1	1
83	Photostability of Single-Walled Carbon Nanotubes/Polymer Core-Shell Hybrids as Telecom Wavelength Emitters. ACS Applied Nano Materials, 2020, 3, 7291-7296.	5.0	1
84	Structural, Optoelectronic and Electrical Properties of GaAs Microcrystals Grown from (001) Si Nano-areas. NATO Science for Peace and Security Series B: Physics and Biophysics, 2015, , 485-486.	0.3	1
85	Synthesis of highly calibrated CsPbBr ₃ nanocrystal perovskites by soft chemistry. Chemical Communications, 2022, 58, 5960-5963.	4.1	1
86	Spectroscopy of Intraband Electron Confinement in Self-Assembled GaN/AlN Quantum Dots. Materials Research Society Symposia Proceedings, 2003, 798, 575.	0.1	0
87	Intraband Transitions on GaN/AlN Quantum Wells Grown on Sapphire (0001) and 6H-SiC Substrates. Materials Science Forum, 2004, 457-460, 1589-1592.	0.3	0
88	Intersubband absorptions in doped and undoped GaN/AlN quantum wells at telecommunication wavelengths. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 1451-1455.	0.8	0
89	Si-based two-dimensional photonic crystals coupled to one-dimensional Bragg mirrors. Journal of Luminescence, 2006, 121, 286-289.	3.1	0
90	Evolution and ripening of Ge crystals grown by nanoscale induced lateral epitaxy on localized oxide. Journal of Applied Physics, 2011, 109, 103516.	2.5	0

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91	Pseudomorphic and relaxed SiGe/Si(001) layer synthesis by gas immersion laser doping (GILD). Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 915-918.	0.8	0