FrÃ©dÃ©ric Fossard

List of Publications by Year
in descending order

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91 papers	2,383 citations	361413 20 h-index	214800 47 g-index
93 all docs	93 docs citations	93 times ranked	4617 citing authors

#	Article	IF	Citations
1	Catalytic hydrothiolation of alkenes and alkynes using bimetallic RuRh nanoparticles on carbon nanotubes. Green Chemistry, 2022, 24, 1231-1237.	9.0	11
2	Synthesis of highly calibrated CsPbBr₃ nanocrystal perovskites by soft chemistry. Chemical Communications, 2022, 58, 5960-5963.	4.1	1
3	Colloidal synthesis of nanoparticles: from bimetallic to high entropy alloys. Nanoscale, 2022, 14, 9832-9841.	5.6	13
4	MOCVD Growth and Structural Properties of ZnS Nanowires: A Case Study of Polytypism. Nanomaterials, 2022, 12, 2323.	4.1	2
5	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
6	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
7	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
8	Nickel platinum (Ni_xPt_{1â^'x}) nanoalloy monodisperse particles without the coreâ€“shell structure by colloidal synthesis. Nanoscale Advances, 2020, 2, 3882-3889.	4.6	8
9	A deep learning approach for determining the chiral indices of carbon nanotubes from high-resolution transmission electron microscopy images. Carbon, 2020, 169, 465-474.	10.3	27
10	Highly Ordered Boron Nitride/Epigraphene Epitaxial Films on Silicon Carbide by Lateral Epitaxial Deposition. ACS Nano, 2020, 14, 12962-12971.	14.6	14
11	Confinement of Dyes inside Boron Nitride Nanotubes: Photostable and Shifted Fluorescence down to the Near Infrared. Advanced Materials, 2020, 32, e2001429.	21.0	27
12	Photostability of Single-Walled Carbon Nanotubes/Polymer Coreâ€“Shell Hybrids as Telecom Wavelength Emitters. ACS Applied Nano Materials, 2020, 3, 7291-7296.	5.0	1
13	Gold(<scp>i</scp>)â€“silver(<scp>i</scp>)-calix[8]arene complexes, precursors of bimetallic alloyed Auâ€“Ag nanoparticles. Nanoscale Advances, 2020, 2, 2768-2773.	4.6	10
14	Heteroepitaxial growth of sp2-hybridized boron nitride multilayer on nickel substrates by CVD: the key role of the substrate orientation. 2D Materials, 2020, 7, 045018.	4.4	10
15	Momentum-Resolved Dielectric Response of Free-Standing Mono-, Bi-, and Trilayer Black Phosphorus. Nano Letters, 2019, 19, 8303-8310.	9.1	27
16	Exciton-exciton annihilation in hBN. Applied Physics Letters, 2019, 114, 232103.	3.3	5
17	Tuning bimetallic catalysts for a selective growth of SWCNTs. Nanoscale, 2019, 11, 4091-4100.	5.6	16
18	Î³â€² 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

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19	Structural Properties of Double-Walled Carbon Nanotubes Driven by Mechanical Interlayer Coupling. ACS Nano, 2017, 11, 4840-4847.	14.6	21
20	Characterization methods dedicated to nanometer-thick hBN layers. 2D Materials, 2017, 4, 015028.	4.4	46
21	Natural occurrence of the diamond hexagonal structure in silicon nanowires grown by a plasma-assisted vapourâ€“liquidâ€“solid method. Nanoscale, 2017, 9, 8113-8118.	5.6	34
22	Unveiling the Evolutions of Nanotube Diameter Distribution during the Growth of Single-Walled Carbon Nanotubes. ACS Nano, 2017, 11, 3081-3088.	14.6	25
23	Quantitative first-principles calculations of valence and core excitation spectra of solid<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">C</mml:mi><mml:mn>60</mml:mn></mml:msub></mml:math>. Physical Review B, 2017, 95, .	3.2	6
24	Angle-resolved electron energy loss spectroscopy in hexagonal boron nitride. Physical Review B, 2017, 96, .	3.2	18
25	New method for the growth of single-walled carbon nanotubes from bimetallic nanoalloy catalysts based on Prussian blue analog precursors. Carbon, 2017, 123, 583-592.	10.3	26
26	Linking growth mode to lengths of single-walled carbon nanotubes. Carbon, 2017, 113, 231-236.	10.3	75
27	Environmental transmission electron microscopy investigations of Pt-Fe2O3 nanoparticles for nucleating carbon nanotubes. Carbon, 2016, 110, 243-248.	10.3	27
28	Fe Ti O based catalyst for large-chiral-angle single-walled carbon nanotube growth. Carbon, 2016, 107, 865-871.	10.3	11
29	The formation of the smallest fullerene-like carbon cages on metal surfaces. Nanoscale, 2016, 8, 2561-2567.	5.6	6
30	Role of structural defects in the ultraviolet luminescence of multiwall boron nitride nanotubes. Journal of Applied Physics, 2015, 118, 234307.	2.5	12
31	Photooxidation and quantum confinement effects in exfoliated black phosphorus. Nature Materials, 2015, 14, 826-832.	27.5	1,149
32	Supramolecular organization of pi-conjugated molecules monitored by single-walled carbon nanotubes. Journal of Nanophotonics, 2015, 10, 012514.	1.0	5
33	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
34	Gas Immersion Laser Doping for superconducting nanodevices. Applied Surface Science, 2014, 302, 209-212.	6.1	9
35	Chromophore Ordering by Confinement into Carbon Nanotubes. Journal of Physical Chemistry C, 2014, 118, 19462-19468.	3.1	40
36	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

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37	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
38	Dislocation and antiphase domain free microscale GaAs crystals grown on SiO2 from (001) Si nano-areas. Applied Physics Letters, 2013, 102, 191915.	3.3	13
39	Composition and local strain mapping in Au-catalyzed axial Si/Ge nanowires. Nanotechnology, 2012, 23, 395701.	2.6	4
40	Nanoscale concentration and strain distribution in pseudomorphic films Si1â^'xGex/Si processed by pulsed laser induced epitaxy. Applied Surface Science, 2012, 258, 9208-9212.	6.1	3
41	Optical and electrical properties of laser doped Si:B in the alloy range. Applied Surface Science, 2012, 258, 9228-9232.	6.1	12
42	Size effect on Ge nanowires growth kinetics by the vaporâ€“liquidâ€“solid mechanism. Thin Solid Films, 2012, 520, 3314-3318.	1.8	11
43	Gold nanocluster distribution on faceted and kinked Si nanowires. Thin Solid Films, 2012, 520, 3304-3308.	1.8	5
44	Faceting mechanisms of Si nanowires and gold spreading. Journal of Materials Science, 2012, 47, 1609-1613.	3.7	9
45	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
46	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
47	Gold anchoring on Si sawtooth faceted nanowires. Europhysics Letters, 2011, 95, 18004.	2.0	9
48	Synthesis of strained SiGe on Si(100) by pulsed laser induced epitaxy. Thin Solid Films, 2010, 518, 2542-2545.	1.8	6
49	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
50	Growth kinetics of Ge crystals on silicon oxide by nanoscale silicon seed induced lateral epitaxy. Journal of Applied Physics, 2009, 106, .	2.5	7
51	Influence of the Si cap layer on the SiGe islands morphology. Micron, 2009, 40, 122-125.	2.2	9
52	Selective Si growth on partially desorbed SiO2/Si(001) surfaces. Superlattices and Microstructures, 2008, 44, 348-353.	3.1	4
53	Highly doped Si and Ge formed by GILD (gas immersion laser doping); from GILD to superconducting silicon. Thin Solid Films, 2008, 517, 75-79.	1.8	39
54	Localized laser thermal annealing of nanometric SiGe layers protected by a dielectric Bragg mirror. Thin Solid Films, 2008, 517, 327-330.	1.8	4

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55	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
56	Ge growth over thin SiO2 by UHVâ€“CVD for MOSFET applications. Thin Solid Films, 2008, 517, 401-403.	1.8	6
57	Lateral epitaxial growth of germanium on silicon oxide. Applied Physics Letters, 2008, 93, .	3.3	16
58	Pseudomorphic SiGeâˆ•Si(001) layers synthesized by gas immersion laser doping. Applied Physics Letters, 2008, 93, 021911.	3.3	3
59	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
60	Synthesis of multi-walled carbon nanotubes for NH3 gas detection. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 37, 54-57.	2.7	39
61	Epitaxial growth of Ge on a thin SiO2 layer by ultrahigh vacuum chemical vapor deposition. Journal of Crystal Growth, 2007, 308, 26-29.	1.5	21
62	Intraband light absorption in InAs/GaAs quantum dots covered with InGaAs quantum wells. Semiconductor Science and Technology, 2006, 21, 1341-1347.	2.0	6
63	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
64	Si-based two-dimensional photonic crystals coupled to one-dimensional Bragg mirrors. Journal of Luminescence, 2006, 121, 286-289.	3.1	0
65	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
66	Selective Epitaxial Growth Of Si And Relaxed Ge By UHV-CVD In Si(001) Windows. ECS Transactions, 2006, 3, 593-598.	0.5	2
67	Quality factor control of Si-based two-dimensional photonic crystals with a Bragg mirror. Applied Physics Letters, 2006, 88, 091122.	3.3	16
68	Intraband polaron dynamics of excited carriers inInAsâˆ•InxAl1â^'xAsquantum dots. Physical Review B, 2005, 71, .	3.2	3
69	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
70	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
71	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
72	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

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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	Formation and properties of selectively grown Ge/Si quantum dots. Superlattices and Microstructures, 2004, 36, 193-199.	3.1	1
75	GaN quantum dots by molecular beam epitaxy. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 21, 540-545.	2.7	9
76	Growth kinetics of N-face polarity GaN by plasma-assisted molecular-beam epitaxy. Applied Physics Letters, 2004, 84, 3684-3686.	3.3	65
77	Effects of stacking on the structural and optical properties of self-organized GaN/AlN quantum dots. Applied Physics Letters, 2004, 84, 4224-4226.	3.3	30
78	Spectroscopy of the electronic states in InAs quantum dots grown onInxAl1â^'xAs/InP(001). Physical Review B, 2004, 69, .	3.2	15
79	Photoconductive spectral analysis of InAs quantum dot under normal incidence. Infrared Physics and Technology, 2003, 44, 509-512.	2.9	3
80	Intraband spectroscopy of self-organized GaN/AlN quantum dots. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 17, 60-63.	2.7	6
81	Intraband spectroscopy of self-organized InAs/InAlAs nanostructures grown on. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 17, 82-83.	2.7	4
82	Molecular-beam epitaxial growth and characterization of quaternary IIIâ€“nitride compounds. Journal of Applied Physics, 2003, 94, 3121-3127.	2.5	60
83	Spectroscopy of Intraband Electron Confinement in Self-Assembled GaN/AlN Quantum Dots. Materials Research Society Symposia Proceedings, 2003, 798, 575.	0.1	0
84	Enhanced photoconductive signal in InAs quantum dots due to plasma confined microcavities. Physical Review B, 2003, 68, .	3.2	1
85	Intraband absorptions in GaN/AlN quantum dots in the wavelength range of 1.27â€“2.4 Î¼m. Applied Physics Letters, 2003, 82, 868-870.	3.3	54
86	Dynamic saturation of an intersublevel transition in self-organizedInAs/InxAl1â^'xAsquantum dots. Physical Review B, 2003, 67, .	3.2	11
87	<title>Light absorption and emission in InAs/GaAs quantum dots and stepped quantum wells</title>. , 2002, 5023, 209.		1
88	Femtosecond measurement of electron capture and intersubband relaxation in self-organized InAs quantum wires onIn1â^'xAlxAs/InP. Physical Review B, 2001, 63, .	3.2	7
89	Polarized front-illumination response in intraband quantum dot infrared photodetectors at 77K. Physical Review B, 2001, 63, .	3.2	55
90	Infrared spectroscopy of self-organized InAs nanostructures grown on InAlAs/InP(001) for infrared photodetection applications. Infrared Physics and Technology, 2001, 42, 443-451.	2.9	33

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91	Experimental and theoretical investigation of interband and intersubband transitions in type-II InAs/AlSb superlattices. Physical Review B, 2001, 64, .	3.2	13