

# SÃ©bastien Francoeur

## List of Publications by Year in descending order

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62  
papers

3,750  
citations

361296

20  
h-index

168321

53  
g-index

63  
all docs

63  
docs citations

63  
times ranked

4652  
citing authors

#	ARTICLE	IF	CITATIONS
1	Photooxidation and quantum confinement effects in exfoliated black phosphorus. Nature Materials, 2015, 14, 826-832.	13.3	1,149
2	Molecular beam epitaxy growth of GaAs $_{1-x}$ Bix. Applied Physics Letters, 2003, 82, 2245-2247.	1.5	425
3	Band gap of GaAs $_{1-x}$ Bix, 0<x<3.6%. Applied Physics Letters, 2003, 82, 3874-3876.	1.5	395
4	Giant Spin-Orbit Bowing in GaAs $_{1-x}$ Bix. Physical Review Letters, 2006, 97, 067205.	2.9	386
5	High quality GaN grown on Si(111) by gas source molecular beam epitaxy with ammonia. Applied Physics Letters, 1999, 75, 2073-2075.	1.5	194
6	Luminescence of as-grown and thermally annealed GaAsN/GaAs. Applied Physics Letters, 1998, 72, 1857-1859.	1.5	147
7	Excitons bound to nitrogen clusters in GaAsN. Applied Physics Letters, 1999, 75, 1538-1540.	1.5	85
8	Bi isoelectronic impurities in GaAs. Physical Review B, 2008, 77, .	1.1	77
9	Mid-infrared Polarized Emission from Black Phosphorus Light-Emitting Diodes. Nano Letters, 2020, 20, 3651-3655.	4.5	69
10	Band gaps of the dilute quaternary alloys Ga $_x$ As $_{1-x}$ Bi $_y$ and Ga $_x$ In $_y$ N $_x$ As $_{1-x}$ . Applied Physics Letters, 2005, 86, 112113.	1.5	66
11	High-quality AlN grown on Si(111) by gas-source molecular-beam epitaxy with ammonia. Applied Physics Letters, 1999, 75, 484-486.	1.5	65
12	Optical Spectroscopy of Single Impurity Centers in Semiconductors. Physical Review Letters, 2004, 93, 067403.	2.9	63
13	Oxidation dynamics of ultrathin GaSe probed through Raman spectroscopy. Applied Physics Letters, 2017, 110, .	1.5	61
14	Polarization-Resolved Raman Study of Bulk-like and Davydov-Induced Vibrational Modes of Exfoliated Black Phosphorus. Nano Letters, 2016, 16, 7761-7767.	4.5	59
15	Phonon Engineering in Isotopically Disordered Silicon Nanowires. Nano Letters, 2015, 15, 3885-3893.	4.5	36
16	Band gap of sphalerite and chalcopyrite phases of epitaxial ZnSnP $_2$ . Applied Physics Letters, 2010, 96, .	1.5	34
17	Second-Order Raman Scattering in Exfoliated Black Phosphorus. Nano Letters, 2018, 18, 1018-1027.	4.5	32
18	Initiation and evolution of phase separation in heteroepitaxial InAlAs films. Applied Physics Letters, 2002, 80, 3292-3294.	1.5	29

#	ARTICLE	IF	CITATIONS
19	Bi-induced vibrational modes in GaAsBi. Superlattices and Microstructures, 2005, 37, 394-400.	1.4	29
20	Observation of large optical anisotropy and valence band splitting in AlInAs self-assembled lateral quantum wells. Applied Physics Letters, 2002, 80, 243-245.	1.5	21
21	Spectral Responsivity and Photoconductive Gain in Thin Film Black Phosphorus Photodetectors. ACS Photonics, 2019, 6, 3092-3099.	3.2	21
22	Metalorganic molecular beam epitaxy of GaAsN with dimethylhydrazine. Applied Physics Letters, 1998, 72, 1999-2001.	1.5	20
23	Origin of the nitrogen-induced optical transitions in GaAs <sub>1-x</sub> N <sub>x</sub> . Physical Review B, 2003, 68, .	1.1	20
24	Ion beam characterization of GaAs <sub>1-x</sub> N <sub>x</sub> Bi <sub>y</sub> epitaxial layers. Nuclear Instruments & Methods in Physics Research B, 2004, 219-220, 671-675.	0.6	20
25	X-ray diffraction study of chalcopyrite ordering in epitaxial ZnSnP <sub>2</sub> grown on GaAs. Applied Physics Letters, 1999, 74, 3678-3680.	1.5	19
26	Charged excitons and biexcitons bound to isoelectronic centers. Physical Review B, 2010, 82, .	1.1	18
27	Complete quantum control of exciton qubits bound to isoelectronic centres. Nature Communications, 2014, 5, 3980.	5.8	18
28	Quantitative determination of the order parameter in epitaxial layers of ZnSnP <sub>2</sub> . Applied Physics Letters, 2000, 76, 2017-2019.	1.5	16
29	Tunable polychromatic filters based on semiconductor-superconductor-dielectric periodic and quasi-periodic hybrid photonic crystal. Optical Materials, 2021, 111, 110690.	1.7	15
30	Single nitrogen dyad magnetoluminescence in GaAs. Physical Review B, 2009, 80, .	1.1	13
31	Excitons bound to Te isoelectronic dyads in ZnSe. Physical Review B, 2010, 82, .	1.1	13
32	Superconductor-based quaternary photonic crystals for high sensitivity temperature sensing. Chinese Journal of Physics, 2022, 77, 176-188.	2.0	13
33	Effects of symmetry-breaking perturbations on excitonic states bound to systems of reduced symmetry. Journal of Applied Physics, 2010, 108, 043710.	1.1	12
34	Giant magneto-optical Faraday effect in GaP epilayers containing MnP magnetic nanoclusters. Journal of Applied Physics, 2010, 107, 09A949.	1.1	11
35	Optical properties of spontaneous lateral composition modulation in AlAs/InAs short-period superlattices. Applied Physics Letters, 2000, 77, 1765.	1.5	10
36	Field effect tuning of microwave Faraday rotation and isolation with large-area graphene. Applied Physics Letters, 2015, 107, 093106.	1.5	10

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37	Plasmonic enhancement of the magneto-optical response of MnP nanoclusters embedded in GaP epilayers. <i>Physical Review B</i> , 2012, 86, .	1.1	9
38	Dynamics of excitons bound to nitrogen isoelectronic centers in GaAs. <i>Physical Review B</i> , 2015, 91, .	1.1	9
39	Physics of Isoelectronic Dopants in GaAs. , 2005, , 179-221.		8
40	High spatial resolution confocal microscope with independent excitation and detection scanning capabilities. <i>Review of Scientific Instruments</i> , 2009, 80, 063101.	0.6	6
41	High-Fidelity and Ultrafast Initialization of a Hole Spin Bound to a Te Isoelectronic Center in ZnSe. <i>Physical Review Letters</i> , 2016, 117, 167401.	2.9	6
42	Two-dimensional array of self-assembled AlInAs quantum wires. <i>Applied Physics Letters</i> , 2002, 81, 529-531.	1.5	5
43	Visible Out-of-plane Polarized Luminescence and Electronic Resonance in Black Phosphorus. <i>Nano Letters</i> , 2022, , .	4.5	5
44	Optical properties of self-assembled lateral superlattices in AlInAs epitaxial layers and AlAs/InAs short-period superlattices. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2002, 88, 118-124.	1.7	4
45	Excitonic fine structure of out-of-plane nitrogen dyads in GaAs. <i>Journal of Luminescence</i> , 2011, 131, 2339-2341.	1.5	4
46	Recombination dynamics of excitons bound to nitrogen isoelectronic centers in $\delta$ -doped GaP. <i>Physical Review B</i> , 2014, 89, .	1.1	4
47	Light- and heavy-hole trions bound to isoelectronic centers. <i>Physical Review B</i> , 2015, 92, .	1.1	4
48	High Quality AlN and GaN Grown on Si(111) by Gas Source Molecular Beam Epitaxy with Ammonia. <i>MRS Internet Journal of Nitride Semiconductor Research</i> , 2000, 5, 467-473.	1.0	3
49	Electronic Structure of Heavily and Randomly Nitrogen Doped GaAs near the Fundamental Band Gap. <i>Physica Status Solidi (B): Basic Research</i> , 2001, 228, 287-291.	0.7	3
50	Photoluminescence from single nitrogen isoelectronic centers in gallium phosphide produced by ion implantation. <i>Journal of Applied Physics</i> , 2013, 114, .	1.1	3
51	Energy reversal of light- and heavy-hole excitons bound to isoelectronic centers. <i>Physical Review B</i> , 2018, 98, .	1.1	3
52	Single and Double Variant Cupt-B Ordered GaInAs. <i>Materials Research Society Symposia Proceedings</i> , 1999, 583, 249.	0.1	1
53	High Quality AlN and GaN Grown on Si(111) by Gas Source Molecular Beam Epitaxy with Ammonia. <i>Materials Research Society Symposia Proceedings</i> , 1999, 595, 1.	0.1	1
54	Restoring the Coherence of Quantum Emitters through Optically Driven Motional Narrowing Forces. <i>Nano Letters</i> , 2021, 21, 10193-10198.	4.5	1

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55	<title>Propagation of eigenmodes and transfer functions in waveguide WDM structures</title> , 1998, , .		0
56	X-ray Diffraction Study of Chalcopyrite ZnSnP2 Epitaxial Layers. Materials Research Society Symposia Proceedings, 1999, 583, 277.	0.1	0
57	In situ Pyrometric Interferometry For Molecular Beam Epitaxy of Al <sub>x</sub> Ga <sub>1-x</sub> N on Si (111). Materials Research Society Symposia Proceedings, 2000, 639, 6571.	0.1	0
58	Comparison of EMCCD post-processing methods for photon counting flux ranges. Proceedings of SPIE, 2014, , .	0.8	0
59	(Invited) Raman Spectroscopy of Confined Hyperbolic and Surface Phonon-Polaritons in 2D Materials. ECS Meeting Abstracts, 2021, MA2021-01, 599-599.	0.0	0
60	Disentangling phonon channels in nanoscale heat transport. Physical Review B, 2021, 104, .	1.1	0
61	(Invited) Rich Electron-Phonon Interactions in Atomically-Thin Black Phosphorus. ECS Meeting Abstracts, 2020, MA2020-01, 746-746.	0.0	0
62	Out-of-Plane Polarized Visible Luminescence and Electronic Resonance in Black Phosphorus. ECS Meeting Abstracts, 2022, MA2022-01, 852-852.	0.0	0