

Denis Scalbert

List of Publications by Year in descending order

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94
papers

1,596
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331670

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37
g-index

94
all docs

94
docs citations

94
times ranked

1153
citing authors

#	ARTICLE	IF	CITATIONS
1	Polariton-polariton interaction constants in microcavities. Physical Review B, 2010, 82, .	3.2	173
2	Photon Bloch Oscillations in Porous Silicon Optical Superlattices. Physical Review Letters, 2004, 92, 097401.	7.8	127
3	Nature of the lowest electron states in short period GaAs-AlAs superlattices of type II. Solid State Communications, 1989, 70, 945-949.	1.9	73
4	Electron and hole spin relaxation in modulation-doped CdMnTe quantum wells. Physical Review B, 2001, 64, .	3.2	69
5	Chemical equilibrium between excitons, electrons, and negatively charged excitons in semiconductor quantum wells. Physical Review B, 1999, 59, 1602-1604.	3.2	67
6	Spin-lattice relaxation in paramagnetic CdMnTe. Solid State Communications, 1988, 66, 571-574.	1.9	65
7	Wigner-Seitz approach to spin splitting. Physical Review B, 1992, 46, 9853-9856.	3.2	63
8	Giant second-harmonic generation in a one-dimensional GaN photonic crystal. Physical Review B, 2004, 69, .	3.2	44
9	Resonant raman scattering on low energy excited states of Fe ²⁺ in Cd _{1-x} FexSe. Solid State Communications, 1989, 69, 453-456.	1.9	43
10	Anticrossing of Raman lines in Cd _{1-x} FexSe: Van Vleck-type bound magnetic polaron. Physical Review Letters, 1989, 62, 2865-2868.	7.8	35
11	Spin-lattice relaxation in diluted magnetic semiconductors. Physica Status Solidi (B): Basic Research, 1996, 193, 189-204.	1.5	35
12	Measurements of nuclear spin dynamics by spin-noise spectroscopy. Applied Physics Letters, 2015, 106, .	3.3	33
13	Giant photoinduced Faraday rotation due to the spin-polarized electron gas in an n -GaAs microcavity. Physical Review B, 2012, 85, .	3.2	31
14	Recombination Processes in Short-Period GaAs δ -AlAs Superlattices of Type II. Physica Status Solidi (B): Basic Research, 1992, 170, 637-651.	1.5	26
15	Nonlinear optical spectroscopy of indirect excitons in coupled quantum wells. Physical Review B, 2015, 91, .	3.2	26
16	High field magnetization and exchange integrals in Cd _{1-x} FexSe. Solid State Communications, 1990, 76, 977-980.	1.9	24
17	Observation of spin beats at the Rabi frequency in microcavities. Physical Review B, 2006, 74, .	3.2	23
18	Polarization controlled nonlinear transmission of light through semiconductor microcavities. Physical Review B, 2009, 79, .	3.2	23

#	ARTICLE	IF	CITATIONS
19	Nondestructive Measurement of Nuclear Magnetization by Off-Resonant Faraday Rotation. Physical Review Letters, 2013, 111, 087603.	7.8	23
20	Magneto-optical properties of the Van Vleck semimagnetic semiconductor $\text{Cd}_{1-x}\text{Fe}_x\text{Se}$. I. The electronic structure of Fe^{2+} . Physical Review B, 1991, 43, 7102-7108.	3.2	21
21	Magnetic relaxation studied by transient reflectivity in $\text{Cd}_{1-x}\text{Mn}_x\text{Te}$. Physical Review B, 1996, 53, R10461-R10464.	3.2	21
22	Coherent spin dynamics of exciton-polaritons in diluted magnetic microcavities. Physical Review B, 2006, 73, .	3.2	21
23	Quantum limited heterodyne detection of spin noise. Review of Scientific Instruments, 2016, 87, 093111.	1.3	21
24	Spin temperature concept verified by optical magnetometry of nuclear spins. Physical Review B, 2018, 97, .	3.2	21
25	Zeeman splittings of excitonic transitions at the Γ_4 point in wurtzite GaN: A magnetorefectance investigation. Physical Review B, 1997, 56, R7108-R7111.	3.2	20
26	Dynamics of the localized spins interacting with two-dimensional electron gas: Coexistence of mixed and pure modes. Physical Review B, 2008, 78, .	3.2	20
27	Atomic-like spin noise in solid-state demonstrated with manganese in cadmium telluride. Nature Communications, 2015, 6, 8121.	12.8	20
28	Nuclear spin relaxation in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"> \langle \text{mml:mi} \rangle \text{n} \langle / \text{mml:mi} \rangle \langle / \text{mml:math} \rangle$ -GaAs: From insulating to metallic regime. Physical Review B, 2017, 95, .	3.2	20
29	Optically induced nuclear magnetic field in InP. Physical Review B, 1998, 57, 4713-4719.	3.2	18
30	Electron spin dephasing in Mn-based II-VI diluted magnetic semiconductors. Physical Review B, 2013, 88, .	3.2	18
31	Bound magnetic polaron in Cr-based diluted magnetic semiconductors. Physical Review B, 1998, 58, 7024-7034.	3.2	16
32	Optically induced instability of spin precession in magnetic quantum wells. Physical Review B, 2003, 67, .	3.2	16
33	Optical Pump-Probe Detection of Manganese Hyperfine Beats in $(\text{Cd},\text{Mn})\text{Te}$ Crystals. Physical Review Letters, 2013, 110, 077403.	7.8	16
34	Donor bound or negatively charged excitons in thin $\text{CdTe}/\text{Cd}_{1-x}\text{Mn}_x\text{Te}$ quantum wells. Physical Review B, 1998, 58, 4082-4088.	3.2	15
35	Anisotropy of magnetic polarons bound to acceptors in $\text{Cd}_{1-x}\text{Mn}_x\text{Se}$. Physical Review B, 1986, 33, 4418-4420.	3.2	14
36	Multiple-scattering corrections in diluted magnetic semiconductors: A plane-wave expansion. Physical Review B, 1993, 48, 17752-17757.	3.2	14

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37	Charged excitons trapped on monomolecular CdTe islands in wide ZnTe-(Zn,Mg)Te quantum wells. Physical Review B, 1998, 58, 15408-15411.	3.2	14
38	Collective nature of two-dimensional electron gas spin excitations revealed by exchange interaction with magnetic ions. Physical Review B, 2010, 82, .	3.2	14
39	Spatiotemporal Spin Noise Spectroscopy. Physical Review Letters, 2019, 123, 017401.	7.8	14
40	Magneto-optical determination of the valence-band offset in aCdTe/Cd $_{1-x}$ MnxTeheterostructure. Physical Review B, 1999, 59, 10276-10282.	3.2	13
41	Exciton radiative lifetime in short period GaAs-AlAs superlattices of type II. Surface Science, 1990, 229, 464-467.	1.9	11
42	Slow Spin Relaxation Observed in InGaN/GaN Multiple Quantum Wells. Physica Status Solidi (B): Basic Research, 1999, 216, 341-345.	1.5	11
43	Softening of spin resonance at low temperature in p-dopedCd $_{1-x}$ MnxTequantum wells. Physical Review B, 2004, 70, .	3.2	11
44	Spin waves in magnetic quantum wells with Coulomb interaction and s-d exchange coupling. Physical Review B, 2011, 83, .	3.2	11
45	Resonant Raman scattering on low energy excited states of Fe ²⁺ in Cd $_{1-x}$ FexSe. Journal of Crystal Growth, 1990, 101, 940-943.	1.5	10
46	Magneto-optical properties of the Van Vleck semimagnetic semiconductorCd $_{1-x}$ FexSe. II. The bound magnetic polaron. Physical Review B, 1991, 43, 7109-7126.	3.2	10
47	Antiferromagnetic exchange contribution to Van Vleck paramagnetism in Fe-based magnetic semiconductors. Journal of Applied Physics, 1991, 70, 6383-6385.	2.5	10
48	$\hat{\Gamma}^c$ -Xz mixing in GaAs/AlAs superlattices of type II. Solid State Communications, 1992, 81, 35-40.	1.9	10
49	Diluted Magnetic Semiconductors: Basic Physics and Optical Properties. Springer Series in Solid-state Sciences, 2008, , 389-431.	0.3	10
50	Pattern formation in paramagnetic diluted magnetic semiconductors. Physical Review B, 2005, 71, .	3.2	9
51	Interface roughness from $\hat{\Gamma}^c$ and X luminescence in type II GaAs superlattices with composition gradient. Solid State Communications, 1992, 84, 511-515.	1.9	8
52	Time-resolved photoluminescence of delta-doped AlGaAs/GaAs heterostructures. Journal of Luminescence, 2008, 128, 1317-1322.	3.1	8
53	Influence of magnetic quantum confined Stark effect on the spin lifetime of indirect excitons. Physical Review B, 2016, 93, .	3.2	8
54	Nuclear polaron beyond the mean-field approximation. Physical Review B, 2017, 95, .	3.2	8

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55	Type-II GaAs/AlAs superlattices under high excitation. <i>Physica Status Solidi (B): Basic Research</i> , 1994, 183, 309-320.	1.5	7
56	Complexity of the dipolar exciton Mott transition in GaN/(AlGa)N nanostructures. <i>Physical Review B</i> , 2021, 103, .	3.2	7
57	Spin quantum beats in CdMnTe microcavity. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 3876-3879.	0.8	6
58	Effect of holes on the dynamic polarization of nuclei in semiconductors. <i>Physical Review B</i> , 2006, 73, .	3.2	6
59	Linear dichroism in a GaAs microcavity. <i>Superlattices and Microstructures</i> , 2007, 41, 429-433.	3.1	6
60	Electron spin relaxation in very diluted CdMnTe quantum wells. <i>Superlattices and Microstructures</i> , 2008, 43, 427-430.	3.1	6
61	Electron-induced nuclear magnetic ordering in $\text{In}_x\text{Ga}_{1-x}\text{As}$ semiconductors. <i>Physical Review B</i> , 2021, 103, .	3.2	5
62	Simultaneous measurements of nuclear-spin heat capacity, temperature, and relaxation in GaAs microstructures. <i>Physical Review B</i> , 2022, 105, .	3.2	5
63	Bistability of magnetic polarons bound to acceptors in a wurtzite semimagnetic semiconductor. <i>Physical Review B</i> , 1988, 38, 13246-13256.	3.2	4
64	Spin relaxation of indirect excitons in asymmetric coupled quantum wells. <i>Superlattices and Microstructures</i> , 2018, 122, 643-649.	3.1	4
65	Anti-crossing of Raman lines: bound magnetic polaron in $\text{Cd}_{1-x}\text{Fe}_x\text{Se}$. <i>Journal of Crystal Growth</i> , 1990, 101, 900-904.	1.5	3
66	Optical path modulation in transient photoreflectance of CdMnTe layers. <i>Physical Review B</i> , 1998, 57, 8770-8773.	3.2	3
67	Imaging electron spin vector in semiconductors. <i>Solid State Communications</i> , 2003, 128, 403-406.	1.9	3
68	Diluted Magnetic Semiconductors: Basic Physics and Optical Properties. Springer Series in Solid-state Sciences, 2017, , 477-524.	0.3	3
69	Fundamental limits for nondestructive measurement of a single spin by Faraday rotation. <i>Physical Review B</i> , 2019, 99, .	3.2	3
70	Long-range spin jump diffusion revealed by dynamic light scattering. <i>Physical Review B</i> , 2021, 103, .	3.2	3
71	Optical anisotropy in GaN grown onto SiC plane sapphire. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1999, 59, 159-162.	3.5	2
72	Photoluminescence of dark excitons in CdMnTe quantum well, embedded in a microcavity. <i>Superlattices and Microstructures</i> , 2007, 41, 386-391.	3.1	2

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73	Polariton spin beats in semiconductor quantum well microcavities. Superlattices and Microstructures, 2008, 43, 417-426.	3.1	2
74	Intrinsic limitation of cavity-enhanced Faraday detection of spin noise in quantum wells and quantum dots. Superlattices and Microstructures, 2016, 92, 348-352.	3.1	2
75	Magnetic-field-induced sign reversal of transient photorefectance in Cd _{1-x} Mn _x Te: Paramagnetic shift at low manganese concentration. Physical Review B, 1998, 58, 4522-4530.	3.2	1
76	Negatively charged exciton formation in an asymmetric double CdTe/(Cd,Mn)Te QWs. Journal of Crystal Growth, 1999, 197, 680-683.	1.5	1
77	Anomalous Mn Spin Resonance Detected by Time-Resolved Kerr Effect in CdMnTe Quantum Wells. Physica Status Solidi A, 2002, 190, 715-718.	1.7	1
78	Magnetic field switching of spin injection and spin coherence in magnetic quantum structures. Physica Status Solidi (B): Basic Research, 2004, 241, 688-691.	1.5	1
79	Exciton quantum beats in CdMnTe quantum wells. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 910-913.	0.8	1
80	Spin Precession In A Model Structure For Spintronics. AIP Conference Proceedings, 2005, , .	0.4	1
81	Exciton and polariton spin beats in a CdMnTe based microcavity. AIP Conference Proceedings, 2007, , .	0.4	1
82	Dynamics of collective spin excitations in CdMnTe quantum wells. , 2009, , .		1
83	Carrier spin relaxation in diluted magnetic quantum wells: Effect of Mn spin correlations. Physical Review B, 2017, 96, .	3.2	1
84	High excitation effects in type II GaAs/AlAs superlattices. Solid State Communications, 1992, 84, 417-420.	1.9	0
85	Determination of Zeeman splittings of excitonic transitions in wurtzite GaN by mean of magnetocircular dichroism technique. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 50, 126-129.	3.5	0
86	Transient photo-reflectance of CdMnTe MBE layers: optical path modulation. Journal of Crystal Growth, 1998, 184-185, 980-983.	1.5	0
87	The s,p-d exchange interaction of Cd _{0.997} Cr _{0.003} S. Journal of Crystal Growth, 1998, 184-185, 1000-1004.	1.5	0
88	Anti-Stokes luminescence in nitrogen doped GaAs _{1-x} P _x alloys. EPJ Applied Physics, 1998, 1, 35-38.	0.7	0
89	Spontaneous magnetization patterning in diluted paramagnetic semiconductors: theory and experiment. , 2006, , .		0
90	Anomalously large spin susceptibility enhancement in n-doped CdMnTe quantum wells. , 2013, , .		0

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91	Optically enhanced nuclear spin polarization in InP. AIP Conference Proceedings, 2007, , .	0.4	0
92	Type II GaAs/AlAs superlattices under high excitation. European Physical Journal Special Topics, 1993, 03, 245-248.	0.2	0
93	Transient Photoreflectance of DMS: Thermo-Magnetic Modulations and Magnetic Relaxation. Acta Physica Polonica A, 1998, 94, 177-187.	0.5	0
94	ANISOTROPIC BOUND MAGNETIC POLARON IN Cd _{1-x} MnxSe. Journal De Physique Colloque, 1988, 49, C8-879-C8-880.	0.2	0