Francis Dujardin

List of Publications by Year
in descending order

123 papers	1,768 citations	257450 24 h-index	414414 32 g-index
123 all docs	123 docs citations	123 times ranked	536 citing authors

#	Article	IF	Citations
1	Optical and magneto-optical absorption of negatively charged excitons in three- and two-dimensional semiconductors. Physical Review B, 1998, 58, 9926-9932.	3.2	75
2	Hysteresis loops and susceptibility of a transverse Ising nanowire. Journal of Magnetism and Magnetic Materials, 2012, 324, 2434-2441.	2.3	70
3	Excitonic trionXâˆ’in semiconductor quantum wells. Physical Review B, 1997, 56, 12454-12461.	3.2	68
4	Linear and nonlinear optical properties of a single dopant in strained AlAs/GaAs spherical core/shell quantum dots. Optics Communications, 2017, 383, 231-237.	2.1	53
5	Thermodynamic properties and hysteresis behaviors of a mixed spin-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si37.gif" overflow="scroll"><mml:mrow><mml:mfrac><mml:mrow><mml:mn>3</mml:mn></mml:mrow><mml:mrow><mml:mn>2</mml:mn> spin-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si38.gif" overflow="scroll"><mml:mrow><mml:mfrac><mml:mrow><mml:mn>1</mml:mn></mml:mrow><mml:mrow><mml:mn>2</mml:mn> Superlattices and Microstructures, 2014, 75, 761-774.	3.1	46
6	Magnetic properties of a transverse spin-12Ising film. Physical Review B, 1999, 59, 6908-6918.	3.2	39
7	Temperature and hydrostatic pressure effects on single dopant states in hollow cylindrical core-shell quantum dot. Applied Surface Science, 2018, 441, 204-209.	6.1	37
8	Magneto-bound polaron in CdSe spherical quantum dots: strong coupling approach. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 25, 366-373.	2.7	36
9	Linear and nonlinear magneto-optical properties of an off-center single dopant in a spherical core/shell quantum dot. Physica B: Condensed Matter, 2017, 524, 64-70.	2.7	35
10	Exciton bound to an ionized donor impurity in semiconductor spherical quantum dots. Physical Review B, 1996, 54, 17785-17793.	3.2	32
11	Hysteresis loops and dielectric properties of a mixed spin Blumeâ€“Capel Ising ferroelectric nanowire. Physica A: Statistical Mechanics and Its Applications, 2018, 506, 499-506.	2.6	32
12	Magnetic field effect on the polarizability of bound polarons in quantum nanocrystallites. Physical Review B, 2003, 68, .	3.2	31
13	Electric Field Effect on the Energy of an Off-Centre Donor in Quantum Crystallites. Physica Scripta, 2001, 63, 329-335.	2.5	30
14	Phase diagrams of diluted transverse Ising nanowire. Journal of Magnetism and Magnetic Materials, 2013, 336, 75-82.	2.3	30
15	Photoionization cross section and binding energy of single dopant in hollow cylindrical core/shell quantum dot. Journal of Applied Physics, 2017, 121, .	2.5	30
16	Effect of a lateral electric field on an off-center single dopant confined in a thin quantum disk. Journal of Applied Physics, 2012, 111, .	2.5	28
17	The dielectric properties and the hysteresis loops of the spin-1 Ising nanowire system with the effect of a negative core/shell coupling: A Monte Carlo study. Superlattices and Microstructures, 2014, 73, 121-135.	3.1	28
18	Ground state energy and wave function of an off-centre donor in spherical core/shell nanostructures: Dielectric mismatch and impurity position effects. Physica B: Condensed Matter, 2014, 449, 261-268.	2.7	28

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19	Stark shift and dissociation process of an ionized donor bound exciton in spherical quantum dots. European Physical Journal B, 2010, 74, 507-516.	1.5	27
20	Theoretical investigation of single dopant in core/shell nanocrystal in magnetic field. Superlattices and Microstructures, 2015, 85, 581-591.	3.1	27
21	Donor impurity-related photoionization cross section in GaAs cone-like quantum dots under applied electric field. Philosophical Magazine, 2017, 97, 1445-1463.	1.6	27
22	Magnetic Field Influence on the Polarisability of Donors in Quantum Crystallites. Physica Scripta, 2000, 62, 88-91.	2.5	25
23	Binding energy of excitons in inhomogeneous quantum dots under uniform electric field. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 15, 99-106.	2.7	24
24	On the anomalous Stark effect in a thin disc-shaped quantum dot. Journal of Physics Condensed Matter, 2010, 22, 375301.	1.8	24
25	Phase diagrams of the site-diluted spin-12Ising superlattice. Physical Review B, 1999, 60, 4149-4157.	3.2	23
26	Size dependence of the polarizability and Haynes rule for an exciton bound to an ionized donor in a single spherical quantum dot. Journal of Applied Physics, 2015, 117, .	2.5	23
27	The order parameters of a spin-1 Ising film in a transverse field. Journal of Physics Condensed Matter, 1999, 11, 2087-2102.	1.8	22
28	Control of the binding energy by tuning the single dopant position, magnetic field strength and shell thickness in ZnS/CdSe core/shell quantum dot. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 84, 303-309.	2.7	21
29	Monte Carlo simulation of dielectric properties of a mixed spin-3/2 and spin-5/2 Ising ferrielectric nanowires. Ferroelectrics, 2017, 507, 58-68.	0.6	21
30	Landau levels of two-dimensional negatively charged three-particle Coulomb states. Journal of Physics Condensed Matter, 1996, 8, 5383-5392.	1.8	20
31	Spatial separation effect on the energies of uncorrelated and correlated electron-hole pair in CdSe/ZnS and InAs/InP core/shell spherical quantum dots. Superlattices and Microstructures, 2017, 109, 123-133.	3.1	20
32	Energy spectrum of an exciton in a CdSe/ZnTe type-II core/shell spherical quantum dot. Superlattices and Microstructures, 2017, 101, 40-48.	3.1	20
33	Theoretical comparative study of negatively and positively charged excitons inGaAs/Ga1â˘xAlxAssemiconductor quantum wells. Physical Review B, 2000, 61, 7231-7232.	3.2	19
34	Electric field effect on the photoionization cross section of a single dopant in a strained AlAs/GaAs spherical core/shell quantum dot. Journal of Applied Physics, 2018, 124, .	2.5	19
35	Wetting layer and size effects on the nonlinear optical properties of semi oblate and prolate Si0.7Ge0.3/Si quantum dots. Current Applied Physics, 2021, 25, 1-11.	2.4	19
36	Magnetic Properties of Diluted Magnetic Nanowire. Journal of Superconductivity and Novel Magnetism, 2013, 26, 201-211.	1.8	17

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37	Shallow donor inside core/shell spherical nanodot: Effect of nanostructure size and dielectric environment on energy spectrum. Superlattices and Microstructures, 2017, 111, 976-982.	3.1	17
38	The transverse spin-1 Ising film. Journal of Physics Condensed Matter, 2000, 12, 43-53.	1.8	16
39	Photovoltaic conversion efficiency of InN/In x Ga 1-x N quantum dot intermediate band solar cells. Physica B: Condensed Matter, 2018, 534, 10-16.	2.7	16
40	Refractive index changes and optical absorption involving 1sâ€"1p excitonic transitions in quantum dot under pressure and temperature effects. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	2.3	16
41	Internal polarization electric field effects on the efficiency of InN/In<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si54.svg"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mi>x</mml:mi></mml:mrow></mml:msub><mml:msub><mml:mrow><mml:mtext>Ga</mml:mtext></mml:mrow> multiple quantum dot solar cells. Solar Energy, 2020, 201, 339-347.	6.1	16
42	Pyroelectric, dielectric properties and hysteresis loops of a ferroelectric bilayer system described by the transverse Ising model with long-range interactions. Physica Scripta, 2012, 86, 045704.	2.5	15
43	Lateral induced dipole moment and polarizability of excitons in a ZnO single quantum disk. Journal of Applied Physics, 2013, 113, 064314.	2.5	15
44	Stark-shift of impurity fundamental state in a lens shaped quantum dot. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 89, 119-123.	2.7	15
45	Electronic state and photoionization cross section of a single dopant in GaN/InGaN core/shell quantum dot under magnetic field and hydrostatic pressure. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	2.3	15
46	The ferromagnet spin-1/2 Ising superlattice in a transverse field. Physica A: Statistical Mechanics and Its Applications, 1999, 269, 322-328.	2.6	14
47	Excitonic binding energy in prolate and oblate spheroidal quantum dots. Superlattices and Microstructures, 2018, 114, 296-304.	3.1	14
48	Electronic and optical properties of layered van der Waals heterostructure based on MS₂ (M = Mo, W) monolayers. Materials Research Express, 2019, 6, 065060.	1.6	13
49	Linear and nonlinear optical properties of a single dopant in GaN conical quantum dot with spherical cap. Philosophical Magazine, 2020, 100, 2503-2523.	1.6	13
50	Tunable excitonic transitions in strained GaAs ultra-thin quantum disk. Superlattices and Microstructures, 2017, 102, 382-390.	3.1	12
51	Tuning the binding energy of on-center donor in CdSe/ZnTe core/shell quantum dot by spatial parameters and magnetic field strength. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 94, 96-99.	2.7	12
52	Electronic states and optical properties of single donor in GaN conical quantum dot with spherical edge. Superlattices and Microstructures, 2018, 114, 214-224.	3.1	12
53	Low Magnetic Field Effect on the Polarisability of Excitons in Spherical Quantum Dots. Physica Scripta, 2001, 64, 504-508.	2.5	11
54	Magnetic properties of the site-diluted spin-1 Ising superlattice. Physical Review B, 2001, 63, .	3.2	11

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55	The magnetic properties of disordered Feâ€"Al alloy system. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 3427-3434.	2.6	11
56	Polarization effects on spectra of spherical core/shell nanostructures: Perturbation theory against finite difference approach. Physica B: Condensed Matter, 2015, 458, 73-84.	2.7	11
57	Modeling the simultaneous effects of thermal and polarization in InGaN/GaN based high electron mobility transistors. Optik, 2020, 207, 163883.	2.9	11
58	The site-diluted spin- Ising film. Physica A: Statistical Mechanics and Its Applications, 1999, 269, 329-343.	2.6	10
59	Magnetic Properties of a Transverse Ising Nanoparticle. Journal of Superconductivity and Novel Magnetism, 2015, 28, 885-890.	1.8	10
60	Hysteresis loops and dielectric properties of compositionally graded (Ba,Sr)TiO 3 thin films described by the transverse Ising model. Chinese Journal of Physics, 2016, 54, 533-544.	3.9	10
61	Etude de la resistivitÃ© de corps pulvÃ©rulents Ã base de carbone en fonction de la compression. Carbon, 1979, 17, 237-241.	10.3	9
62	Giant oscillator strengths of ionized donor bound excitons in semiconductor quantum crystallites. Solid State Communications, 1996, 100, 217-220.	1.9	9
63	Dielectric Properties and Hysteresis Loops of a Ferroelectric Nanoparticle System Described by the Transverse Ising Model. Journal of Superconductivity and Novel Magnetism, 2014, 27, 2153-2162.	1.8	9
64	Fundamental exciton transitions in SiO2/Si/SiO2 cylindrical core/shell quantum dot. Journal of Applied Physics, 2018, 124, 144303.	2.5	9
65	Modeling the impact of temperature effect and polarization phenomenon on InGaN/GaN-Multi-quantum well solar cells. Optik, 2019, 199, 163385.	2.9	9
66	Binding energy of an exciton in a GaN/AlN nanodot: Role of size and external electric field. Physica B: Condensed Matter, 2019, 559, 23-28.	2.7	9
67	Excitonic nonlinear optical properties in AlN/GaN spherical core/shell quantum dots under pressure. MRS Communications, 2019, 9, 663-669.	1.8	9
68	Optical Absorption of Excitons in Strained Quasi 2D GaN Quantum Dot. Physica Status Solidi (B): Basic Research, 2019, 256, 1800361.	1.5	9
69	Influence of Geometrical Shape on the Characteristics of the Multiple InN/InxGa1â^'xN Quantum Dot Solar Cells. Nanomaterials, 2021, 11, 1317.	4.1	9
70	Effect of charge carrierâ€"phonon coupling on the energy of shallow donors in CdSe quantum dots. Physica Status Solidi (B): Basic Research, 2003, 240, 106-115.	1.5	8
71	Thermodynamic Properties of the Core/Shell Antiferromagnetic Ising Nanocube. Journal of Superconductivity and Novel Magnetism, 2015, 28, 3127-3133.	1.8	8
72	Some hysteresis loop features of 2D magnetic spin-1 Ising nanoparticle: shape lattice and single-ion anisotropy effects. Chinese Journal of Physics, 2017, 55, 2224-2235.	3.9	8

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73	Magnetic field and dielectric environment effects on an exciton trapped by an ionized donor in a spherical quantum dot. Superlattices and Microstructures, 2017, 111, 1082-1092.	3.1	8
74	Polaronic effects on the off-center donor impurity in AlAs/GaAs/SiO2 spherical core/shell quantum dots. Superlattices and Microstructures, 2017, 111, 457-465.	3.1	8
75	Interplay between normal and abnormal stark shift according to the quantum dot spherical core/shell size ratio. Philosophical Magazine Letters, 2018, 98, 252-265.	1.2	8
76	Impact of heavy hole levels on the photovoltaic conversion efficiency of In Ga1â^'N/InN quantum dot intermediate band solar cells. Superlattices and Microstructures, 2019, 129, 202-211.	3.1	8
77	Role of a uniform magnetic field on the energy spectrum of a single donor in a core/shell spherical quantum dot. Chinese Journal of Physics, 2019, 57, 189-194.	3.9	8
78	Thermodynamic properties of SnO2/GaAs core/shell nanofiber. Physica A: Statistical Mechanics and Its Applications, 2020, 560, 125104.	2.6	8
79	Neutral acceptor bound excitons: Interparticle distances and validity of the pseudoâ€donor model. Physica Status Solidi (B): Basic Research, 1987, 140, K117.	1.5	7
80	Ground state energy of the negatively charged exciton Xâ^' in bidimensional semiconductors in a steady electric field. Solid State Communications, 1997, 103, 515-518.	1.9	7
81	Phase Transitions of Ferromagnetic Ising Films with Amorphous Surfaces. Physica Scripta, 1999, 59, 72-76.	2.5	7
82	Excitons in InP/InAs inhomogeneous quantum dots. Journal of Physics Condensed Matter, 2003, 15, 175-184.	1.8	7
83	Exact analytical solutions for shallow impurity states in symmetrical paraboloidal and hemiparaboloidal quantum dots. Open Physics, 2008, 6, 97-104.	1.7	7
84	On the electronic states in lens-shaped quantum dots. Physica Status Solidi (B): Basic Research, 2017, 254, 1700144.	1.5	7
85	Hysteresis loop behaviors of a decorated double-walled cubic nanotube. Physica B: Condensed Matter, 2017, 524, 137-143.	2.7	7
86	Pressure effect on an exciton in a wurtzite AlN/GaN/AlN spherical core/shell quantum dot. MRS Communications, 2018, 8, 527-532.	1.8	7
87	Hydrogenic donor in a CdSe/CdS quantum dot: Effect of electric field strength, nanodot shape and dielectric environment on the energy spectrum. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 104, 29-35.	2.7	7
88	Electric Field Effects on Charged Excitons in Semiconductors. Physica Status Solidi (B): Basic Research, 1997, 201, 521-528.	1.5	6
89	The Magnetic Properties of the Spin-1 Ising System withÂtheÂEffect of the Transverse Crystal Field. Journal of Superconductivity and Novel Magnetism, 2011, 24, 571-575.	1.8	6
90	Monte Carlo Study of Long-Range Interactions of a Ferroelectric Bilayer with Antiferroelectric Interfacial Coupling. Journal of Superconductivity and Novel Magnetism, 2013, 26, 3075-3083.	1.8	6

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91	Phase diagrams of a transverse cubic nanowire with diluted surface shell. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	6
92	Recombination energy for negatively charged excitons inside type-II core/shell spherical quantum dots. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 101, 125-130.	2.7	6
93	Neutral Bound Excitons in a Low Magnetic Field. Physica Status Solidi (B): Basic Research, 1984, 126, 329-334.	1.5	5
94	Existence of an exciton bound to an ionized donor impurity in semiconductor quantum crystallites. Solid State Communications, 1994, 90, 651-654.	1.9	5
95	Binding energy of negatively charged excitons in semiconductor quantum well with uniform electric field. Solid State Communications, 1997, 102, 579-582.	1.9	5
96	The effects of surface transition layers on the phase diagrams and the pyroelectric properties of ferroelectric thin films. Physica Status Solidi (B): Basic Research, 2009, 246, 1723-1730.	1.5	5
97	Magnetic behaviors of a transverse spin-1/2 Ising cubic nanowire with core/shell structure. Physica B: Condensed Matter, 2017, 507, 51-60.	2.7	5
98	New way for determining electron energy levels in quantum dots arrays using finite difference method. Superlattices and Microstructures, 2018, 118, 256-265.	3.1	5
99	Oscillator strength and quantum-confined Stark effect of excitons in a thin PbS quantum disk. International Journal of Modern Physics B, 2018, 32, 1750266.	2.0	5
100	Neutral Bound Excitons in a High Magnetic Field. Physica Status Solidi (B): Basic Research, 1987, 141, 559-566.	1.5	4
101	Magnetic properties of a diluted transverse spin- Ising film. Physica A: Statistical Mechanics and Its Applications, 1999, 262, 518-533.	2.6	4
102	The magnetic properties of a ferrimagnetic multilayer system with disordered interfaces. Surface Science, 2001, 482-485, 981-988.	1.9	4
103	Effect of conduction band non-parabolicity on bound polaron fundamental state in GaN/InN core shell quantum dots. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 103, 188-193.	2.7	4
104	Adjustment of Terahertz Properties Assigned to the First Lowest Transition of (D+, X) Excitonic Complex in a Single Spherical Quantum Dot Using Temperature and Pressure. Applied Sciences (Switzerland), 2021, 11, 5969.	2.5	4
105	Numerical modeling of the size effect in CdSe/ZnS and InP/ZnS-based Intermediate Band Solar Cells. Physica Scripta, 2021, 96, 035502.	2.5	4
106	Valence band structure of very narrow InGaAs/InP quantum wells. Solid State Communications, 1996, 98, 297-301.	1.9	3
107	The phase diagrams of the site-diluted spin- ising model of an alternating magnetic superlattice. Journal of Magnetism and Magnetic Materials, 2000, 210, 366-376.	2.3	3
108	The ferromagnetic spin-1 Ising superlattice in a transverse field. Physica A: Statistical Mechanics and Its Applications, 2001, 291, 399-409.	2.6	3

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109	Optical and magneto optical responses assigned to probable processes of formation of exciton bound to an ionized donor in quantum dot. Current Applied Physics, 2018, 18, 452-460.	2.4	3
110	Band structure of very narrow InGaAs/InP quantum wells with gradual interface effects. Superlattices and Microstructures, 1997, 22, 181-187.	3.1	2
111	Modeling the influence of the seeding layer on the transition behavior of a ferroelectric thin film. Thin Solid Films, 2011, 520, 646-650.	1.8	2
112	Some characteristic behaviours of a spin-1/2 Ising nanoparticle. Journal of Physics: Conference Series, 2016, 758, 012023.	0.4	2
113	The ferroelectric properties of films with defect layers. Physica Scripta, 2011, 83, 055704.	2.5	1
114	Effects of Biaxial Crystal Field on the Magnetic Properties onÂaÂSpin-1ÂIsingÂSystem. Journal of Superconductivity and Novel Magnetism, 2011, 24, 577-584.	1.8	1
115	Attempt to determine the band parameters of graphite by a theoretical calculation. Journal De Physique, 1981, 42, 1167-1174.	1.8	1
116	Binding Energies of Neutral Bound Excitons for Intermediate to High Magnetic Fields. Physica Status Solidi (B): Basic Research, 1988, 150, 201-209.	1.5	0
117	The critical behavior of an amorphous ferromagnet spinâˆ'1/2 Ising film with amorphous surfaces. Journal of Non-Crystalline Solids, 1999, 250-252, 735-739.	3.1	0
118	Surface effects in the ferromagnet spin-1/2 Ising model of an alternating magnetic superlattice. Surface Science, 2001, 482-485, 1068-1076.	1.9	0
119	The Ferromagnetic Spin-1 Ising Superlattice. Physica Scripta, 2001, 63, 416-421.	2.5	0
120	Effect of Seeding Layers on Hysteresis Loops and Phase Transition of the Ferroelectric Thin Film. Ferroelectrics, 2015, 478, 1-10.	0.6	0
121	The Magnetic Properties of Multi-surface Transverse Ferroelectric Ising Thin Films. Journal of Superconductivity and Novel Magnetism, 2015, 28, 877-883.	1.8	0
122	Neutral Bound Excitons at Intermediate to High Magnetic Fields. Springer Series in Solid-state Sciences, 1989, , 562-566.	0.3	0
123	Neutral bound excitons in a magnetic field. , 1983, , 276-280.		0