El mustapha Feddi

List of Publications by Year
in descending order

110 papers	1,578 citations	257450 24 h-index	434195 31 g-index
110 all docs	110 docs citations	110 times ranked	596 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	Magneto-optical effect in GaAs/GaAlAs semi-parabolic quantum well. Thin Solid Films, 2019, 682, 10-17.	1.8	58
3	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
4	Electronic states in GaAs-(Al,Ga)As eccentric quantum rings under nonresonant intense laser and magnetic fields. Scientific Reports, 2019, 9, 1427.	3.3	46
5	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
6	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
7	Influence of position-dependent effective mass on the nonlinear optical properties in Al Ga1âˆ'As/GaAs single and double triangular quantum wells. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 115, 113707.	2.7	36
8	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
9	Effects of Geometry on the Electronic Properties of Semiconductor Elliptical Quantum Rings. Scientific Reports, 2018, 8, 13299.	3.3	33
10	Magnetic field effect on the polarizability of bound polarons in quantum nanocrystallites. Physical Review B, 2003, 68, .	3.2	31
11	Electric Field Effect on the Energy of an Off-Centre Donor in Quantum Crystallites. Physica Scripta, 2001, 63, 329-335.	2.5	30
12	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
13	Linear and nonlinear magneto-optical properties of monolayer MoS2. Journal of Applied Physics, 2018, 123, .	2.5	29
14	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
15	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
16	First principles study on the electronic properties and Schottky barrier of Graphene/InSe heterostructure. Superlattices and Microstructures, 2018, 122, 570-576.	3.1	28
17	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
18	Theoretical investigation of single dopant in core/shell nanocrystal in magnetic field. Superlattices and Microstructures, 2015, 85, 581-591.	3.1	27

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19	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
20	Strain effects on the electronic and optical properties of Van der Waals heterostructure MoS2/WS2: A first-principles study. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 116, 113799.	2.7	26
21	Excitonic trions in a low magnetic field. Physical Review B, 1987, 35, 4331-4337.	3.2	25
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	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
26	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
27	Effect of strains on electronic and optical properties of monolayer SnS: Ab-initio study. Physica B: Condensed Matter, 2018, 545, 255-261.	2.7	21
28	Effect of Conduction Band Non-Parabolicity on the Nonlinear Optical Properties in GaAs/Ga1â^'xAlxAs Double Semi-V-shaped Quantum Wells. Materials, 2019, 12, 78.	2.9	21
29	Forecasting and analysis of nonlinear optical responses by tuning the thickness of a doped hollow cylindrical quantum dot. Chinese Journal of Physics, 2020, 66, 444-452.	3.9	21
30	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
31	MD simulation-based study on the thermodynamic, structural and liquid properties of gold nanostructures. Materials Chemistry and Physics, 2018, 218, 116-121.	4.0	20
32	The effect of temperature, hydrostatic pressure and magnetic field on the nonlinear optical properties of AlGaAs/GaAs semi-parabolic quantum well. International Journal of Modern Physics B, 2019, 33, 1950325.	2.0	20
33	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
34	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
35	Impact of electron-LO-phonon correction and donor impurity localization on the linear and nonlinear optical properties in spherical core/shell semiconductor quantum dots. Journal of Alloys and Compounds, 2018, 753, 68-78.	5.5	17
36	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

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37	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
38	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
39	Lateral induced dipole moment and polarizability of excitons in a ZnO single quantum disk. Journal of Applied Physics, 2013, 113, 064314.	2.5	15
40	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
41	Tuning the Electronic and Optical Properties of Two-Dimensional Graphene-like $$hbox {C}_2hbox {N}$$ C 2 N Nanosheet by Strain Engineering. Journal of Electronic Materials, 2018, 47, 4594-4603.	2.2	15
42	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
43	Donor impurity energy and optical absorption in spherical sector quantum dots. Heliyon, 2020, 6, e03194.	3.2	15
44	Excitonic binding energy in prolate and oblate spheroidal quantum dots. Superlattices and Microstructures, 2018, 114, 296-304.	3.1	14
45	Optical Absorption and Electroabsorption Related to Electronic and Single Dopant Transitions in Holey Elliptical GaAs Quantum Dots. Physica Status Solidi (B): Basic Research, 2018, 255, 1700470.	1.5	13
46	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
47	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
48	Tunable excitonic transitions in strained GaAs ultra-thin quantum disk. Superlattices and Microstructures, 2017, 102, 382-390.	3.1	12
49	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
50	Low Magnetic Field Effect on the Polarisability of Excitons in Spherical Quantum Dots. Physica Scripta, 2001, 64, 504-508.	2.5	11
51	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
52	Modeling the simultaneous effects of thermal and polarization in InGaN/GaN based high electron mobility transistors. Optik, 2020, 207, 163883.	2.9	11
53	The nonlinear optical absorption in $$hbox {Al}_{{x}}hbox {Ga}_{1-x}$$As/GaAs double-graded quantum wells: magnetic field effect and the position-dependent effective mass effect. European Physical Journal Plus, 2021, 136, 1.	2.6	11
54	Quantum Confined Stark Effect on the Linear and Nonlinear Optical Properties of SiGe/Si Semi Oblate and Prolate Quantum Dots Grown in Si Wetting Layer. Nanomaterials, 2021, 11, 1513.	4.1	11

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55	Strain Effects on the Electronic and Optical Properties of Kesterite Cu2ZnGeX4 (X = S, Se): First-Principles Study. Nanomaterials, 2021, 11, 2692.	4.1	11
56	Parametrized equations for excitons in two-dimensional semiconductor quantum wells with arbitrary potential profiles. Semiconductor Science and Technology, 2003, 18, 377-384.	2.0	9
57	Fundamental exciton transitions in SiO2/Si/SiO2 cylindrical core/shell quantum dot. Journal of Applied Physics, 2018, 124, 144303.	2.5	9
58	Modeling the impact of temperature effect and polarization phenomenon on InGaN/GaN-Multi-quantum well solar cells. Optik, 2019, 199, 163385.	2.9	9
59	Excitonic nonlinear optical properties in AlN/GaN spherical core/shell quantum dots under pressure. MRS Communications, 2019, 9, 663-669.	1.8	9
60	Optical Absorption of Excitons in Strained Quasi 2D GaN Quantum Dot. Physica Status Solidi (B): Basic Research, 2019, 256, 1800361.	1.5	9
61	Effect of lattice deformation on electronic and optical properties of CuGaSe2: Ab-initio calculations. Thin Solid Films, 2020, 696, 137783.	1.8	9
62	Influence of Geometrical Shape on the Characteristics of the Multiple InN/InxGa1â^'xN Quantum Dot Solar Cells. Nanomaterials, 2021, 11, 1317.	4.1	9
63	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
64	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
65	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
66	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
67	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
68	Revisiting the adiabatic approximation for bound states calculation in axisymmetric and asymmetrical quantum structures. Superlattices and Microstructures, 2020, 138, 106384.	3.1	8
69	Thermodynamic properties of SnO2/GaAs core/shell nanofiber. Physica A: Statistical Mechanics and Its Applications, 2020, 560, 125104.	2.6	8
70	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
71	Excitons in InP/InAs inhomogeneous quantum dots. Journal of Physics Condensed Matter, 2003, 15, 175-184.	1.8	7
72	Exact analytical solutions for shallow impurity states in symmetrical paraboloidal and hemiparaboloidal quantum dots. Open Physics, 2008, 6, 97-104.	1.7	7

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73	Excitonic transitions in spherical inhomogeneous QD, new monocolor nanosource. Physica B: Condensed Matter, 2015, 477, 100-104.	2.7	7
74	On the electronic states in lens-shaped quantum dots. Physica Status Solidi (B): Basic Research, 2017, 254, 1700144.	1.5	7
75	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
76	Anisotropy of effective masses induced by strain in Janus MoSSe and WSSe monolayers. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 134, 114826.	2.7	7
77	Impact of loss mechanisms through defects on Sb2(S1-xSex)3/CdS solar cells with p-n structure. European Physical Journal Plus, 2022, 137, 1.	2.6	7
78	Electric Field Effects on Charged Excitons in Semiconductors. Physica Status Solidi (B): Basic Research, 1997, 201, 521-528.	1.5	6
79	One- and two-photon-induced magneto-optical properties of hyperbolic-type quantum wells. Optik, 2019, 185, 1261-1269.	2.9	6
80	Control of simultaneous effects of the temperature, indium composition and the impact ionization process on the performance of the InN/InxGa1-xN quantum dot solar cells. Opto-electronics Review, 2019, 27, 25-31.	2.4	6
81	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
82	Wetting layer effect on impurity-related electronic properties of different (In,Ga)N QD-shapes. Physica B: Condensed Matter, 2018, 537, 207-211.	2.7	5
83	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
84	Optoelectronic properties of phosphorene quantum dots functionalized with free base porphyrins. Computational Materials Science, 2020, 171, 109278.	3.0	5
85	LO-Phonons and dielectric polarization effects on the electronic properties of doped GaN/InN spherical core/shell quantum dots in a nonparabolic band model. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	2.3	5
86	Ab initio study on electronic and optical properties of Cu2NiGeS4 for photovoltaic applications. Solar Energy, 2022, 237, 333-339.	6.1	5
87	Binding Energy of the Excitonic Ions X^{âˆ’} and X in a Weak Electric Field. Physica Status Solidi (B): Basic Research, 1993, 175, 349-354.	1.5	4
88	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
89	Excitons in spherical quantum dots revisited: analysis of colloidal nanocrystals. European Physical Journal B, 2020, 93, 1.	1.5	4
90	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

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91	Non-resonant intense laser field effect on the nonlinear optical properties associated to the inter- and intra-band transitions in an anharmonic quantum well submitted to electric and magnetic field. Solid State Communications, 2021, 334-335, 114390.	1.9	4
92	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
93	Polaronic corrections on magnetization and thermodynamic properties of electronâ€“electron in 2D systems with Rashba spinâ€“orbit coupling. Journal of Magnetism and Magnetic Materials, 2022, 551, 169042.	2.3	4
94	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
95	Impact of conduction band non-parabolicity and dielectric mismatch on photoionization cross section of donor bound polaron in spherical GaN/InN core-shell nanoparticle. EPJ Applied Physics, 2021, 93, 10401.	0.7	3
96	A proposal to enhance SnS solar cell efficiency: the incorporation of SnSSe nanostructures. Journal Physics D: Applied Physics, 2021, 54, 505501.	2.8	3
97	Hydrothermal Synthesis and Characterization of Mn-Doped VO2 Nanowires. MRS Advances, 2019, 4, 829-836.	0.9	2
98	Phonons correction of the energy and photoionization cross section in polar semiconductors and hollow nanoparticles. Journal of Materials Research, 2020, 35, 2077-2086.	2.6	2
99	Optical Transitions in Strained Wurtzite GaN Ultrathin Quantum Disk Under Hydrostatic Pressure Effects. Current Nanoscience, 2017, 13, .	1.2	2
100	Geometrical confinement effects on fundamental thermal properties of rutile and anatase TiO₂ cylindrical and tubular nanostructures. Physica Scripta, 2020, 95, 105706.	2.5	2
101	Landau oscillations of excitonic trions. Journal of Physics C: Solid State Physics, 1986, 19, L699-L703.	1.5	1
102	Exact Analytical Expressions of GraÃ«tz Bridge Currents and Voltages Using Lambert W Function. , 2007, , .		1
103	Magnetic properties of exciton trapped by an off-center ionized donor in single quantum dot. Current Applied Physics, 2021, 23, 1-7.	2.4	1
104	Theoretical study of electronic properties and chemical stability of cubic phase zirconia nanowires. Physica Scripta, 2021, 96, 125879.	2.5	1
105	Finite difference numerical solution of Poisson equation in a Schottky barrier diode using maple. , 2011, , .		0
106	The simultaneous effects of the hydrostatic pressure and magnetic field on the donor confined in inhomogeneous quantum dots. , 2015, , .		0
107	Hydrogenic donor impurity in InAs/GaAs core/shell quantum dots: Effect of the dielectric environnement. , 2016, , .		0
108	Fluorescence Studies of Fe3O4-Au Hybrid Nanoparticles. MRS Advances, 2018, 3, 725-731.	0.9	0

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109	Characteristics and parameters extracting of sub cells in dual-junction solar cells via capacitance-voltage measurement. , 2018, , .		0
110	Optical Absorption Coefficient on-center donor impurity in a spherical core/shell quantum dots. MATEC Web of Conferences, 2020, 330, 01041.	0.2	0