Mehmet Åahin

List of Publications by Year
in descending order

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		257450	265206
50	1,781	24	42
papers	citations	h-index	g-index

50	50	50	878
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Linear and nonlinear optical absorption coefficients and binding energy of a spherical quantum dot. Superlattices and Microstructures, 2010, 47, 556-566.	3.1	170
2	Photoionization cross section and intersublevel transitions in a one- and two-electron spherical quantum dot with a hydrogenic impurity. Physical Review B, 2008, 77, .	3.2	144
3	The electric field effects on the binding energies and the nonlinear optical properties of a donor impurity in a spherical quantum dot. Journal of Applied Physics, 2011, 109, .	2.5	139
4	Third-order nonlinear optical properties of a one- and two-electron spherical quantum dot with and without a hydrogenic impurity. Journal of Applied Physics, 2009, 106, .	2.5	107
5	Mode structure of the L3 photonic crystal cavity. Applied Physics Letters, 2007, 90, 241117.	3.3	99
6	The inter-sublevel optical properties of a spherical quantum dot-quantum well with and without a donor impurity. Journal of Applied Physics, 2012, 112, .	2.5	66
7	Third-order nonlinear absorption spectra of an impurity in a spherical quantum dot with different confining potential. Physica Status Solidi (B): Basic Research, 2010, 247, 371-374.	1.5	64
8	A parabolic quantum dot with N electrons and an impurity. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 30, 143-149.	2.7	59
9	The electronic properties of a core/shell/well/shell spherical quantum dot with and without a hydrogenic impurity. Journal of Applied Physics, 2012, 111, 083702.	2.5	55
10	A detailed investigation of the electronic properties of a multi-layer spherical quantum dot with a parabolic confinement. Journal of Luminescence, 2012, 132, 1705-1713.	3.1	54
11	A detailed analysis of current-voltage characteristics of Au/perylene-monoimide/n-Si Schottky barrier diodes over a wide temperature range. Journal of Applied Physics, 2011, 110, .	2.5	53
12	Effective Neural Photostimulation Using Indium-Based Type-II Quantum Dots. ACS Nano, 2018, 12, 8104-8114.	14.6	52
13	Self-consistent computation of electronic and optical properties of a single exciton in a spherical quantum dot via matrix diagonalization method. Journal of Applied Physics, 2009, 106, .	2.5	51
14	Temperature dependence of currentâ€“voltage characteristics of Ag/p-SnSe Schottky diodes. Applied Surface Science, 2004, 233, 320-327.	6.1	43
15	The linear optical properties of a multi-shell spherical quantum dot of a parabolic confinement for cases with and without a hydrogenic impurity. Semiconductor Science and Technology, 2012, 27, 125011.	2.0	42
16	Cadmium-Free and Efficient Type-II InP/ZnO/ZnS Quantum Dots and Their Application for LEDs. ACS Applied Materials & Interfaces, 2021, 13, 32022-32030.	8.0	41
17	Analysis of Iâ€“V measurements on Ag/p-SnS and Ag/p-SnSe Schottky barriers. Solid-State Electronics, 2002, 46, 49-52.	1.4	37
18	Temperature-dependent barrier characteristics of Ag/p-SnS Schottky barrier diodes. Semiconductor Science and Technology, 2004, 19, 1098-1103.	2.0	35

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19	The photoionization cross section of a hydrogenic impurity in a multi-layered spherical quantum dot. Journal of Applied Physics, 2012, 111, .	2.5	34
20	Linear and nonlinear optical properties of GaAs/AlxGa1â^'xAs/GaAs/AlyGa1â^'yAs multi-shell spherical quantum dot. Journal of Applied Physics, 2013, 114, 183704.	2.5	31
21	Temperature dependence of currentâ€“voltage characteristics of Ag/p-SnS Schottky barrier diodes. Applied Surface Science, 2005, 242, 412-418.	6.1	29
22	Excitonic Condensation under Spin-Orbit Coupling and BEC-BCS Crossover. Physical Review Letters, 2007, 98, 166405.	7.8	27
23	QUANTUM GENETIC ALGORITHM METHOD IN SELF-CONSISTENT ELECTRONIC STRUCTURE CALCULATIONS OF A QUANTUM DOT WITH MANY ELECTRONS. International Journal of Modern Physics C, 2005, 16, 1379-1393.	1.7	26
24	A detailed investigation of electronic and optical properties of the exciton, the biexciton and charged excitons in a multi-shell quantum dot nanocrystal. Journal Physics D: Applied Physics, 2014, 47, 285301.	2.8	26
25	Reordering orbitals of semiconductor multi-shell quantum dot-quantum well heteronanocrystals. Journal of Applied Physics, 2012, 111, 023713.	2.5	25
26	A model for the recombination and radiative lifetime of trions and biexcitons in spherically shaped semiconductor nanocrystals. Applied Physics Letters, 2013, 102, 183103.	3.3	25
27	Series resistance calculation for Ag contacts on single crystal layered p-SnS and p-SnSe compound semiconductors in the wide temperature range. Microelectronic Engineering, 2005, 81, 125-131.	2.4	24
28	Electronic and optical properties of single excitons and biexcitons in type-II quantum dot nanocrystals. Journal of Applied Physics, 2014, 115, .	2.5	23
29	The self-consistent calculation of a spherical quantum dot: A quantum genetic algorithm study. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 28, 247-256.	2.7	21
30	A detailed investigation of electronic and intersubband optical properties of Al_xGa_{1â^'x}As/Al_{0.3}Ga_{0.7}As/Al_yGa<sub>1â^'y multi-shell quantum dots. Journal Physics D: Applied Physics, 2014, 47, 295302.	2.8	21
31	Quantum dot and electron acceptor nano-heterojunction for photo-induced capacitive charge-transfer. Scientific Reports, 2021, 11, 2460.	3.3	19
32	Electronic structure of a many-electron spherical quantum dot with an impurity. Physical Review B, 2005, 72, .	3.2	16
33	The electronic properties of a two-electron multi-shell quantum dot-quantum well heterostructure. Journal of Applied Physics, 2013, 114, 043706.	2.5	15
34	Colloidal Aluminum Antimonide Quantum Dots. Chemistry of Materials, 2019, 31, 4743-4747.	6.7	14
35	EFFICIENCY OF GENETIC ALGORITHM AND DETERMINATION OF GROUND STATE ENERGY OF IMPURITY IN A SPHERICAL QUANTUM DOT. International Journal of Modern Physics C, 2003, 14, 775-784.	1.7	13
36	Intensity and temperature dependence of photocurrent of a-Si:H Schottky diodes. Current Applied Physics, 2006, 6, 114-118.	2.4	11

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37	The effect of dilute nitrogen on nonlinear optical properties of the InGaAsN/GaAs single quantum wells. European Physical Journal B, 2012, 85, 1.	1.5	11
38	Currentâ€“voltage analysis of a-Si:H Schottky diodes. Applied Surface Science, 2006, 252, 6269-6274.	6.1	10
39	The intersubband optical properties of a two-electron quantum dot-quantum well heterostructure. Superlattices and Microstructures, 2015, 86, 292-299.	3.1	8
40	Optical Constants of CuInSe2Thin Films Prepared by Two-Stage Process. Physica Scripta, 2005, 71, 221-224.	2.5	6
41	Effect of the shell material and confinement type on the conversion efficiency of core/shell quantum dot nanocrystal solar cells. Journal of Physics Condensed Matter, 2018, 30, 205301.	1.8	6
42	The electronic and optical properties of an exciton, biexciton and charged excitons in CdSe/CdTe-based multi-shell type-II quantum dot nanocrystals. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	2.3	6
43	SELF-CONSISTENT CALCULATION OF SEMICONDUCTOR HETEROJUNCTIONS USING QUANTUM GENETIC ALGORITHM. International Journal of Modern Physics B, 2002, 16, 3883-3893.	2.0	5
44	The electronic and optical properties of a triexciton in CdSe/ZnS core/shell quantum dot nanocrystals. Philosophical Magazine, 2016, 96, 584-595.	1.6	4
45	Effect of a buffer layer between the shell and ligand on the optical properties of an exciton and biexciton in type-II quantum dot nanocrystals. Philosophical Magazine, 2017, 97, 201-211.	1.6	4
46	APPLICATION OF THE GENETIC ALGORITHM TO BLUMEâ€“EMERYâ€“GRIFFITHS MODEL: TEST CASES. International Journal of Modern Physics B, 2005, 19, 4229-4237.	2.0	3
47	The self-consistent calculation of the edge states at quantum Hall effect (QHE) based Machâ€“Zehnder interferometers (MZI). Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 1398-1400.	2.7	3
48	The angular electronic band structure and free particle model of aromatic molecules: High-frequency photon-induced ring current. International Journal of Modern Physics B, 2017, 31, 1750095.	2.0	3
49	Cation exchange mediated synthesis of bright Au@ZnTe coreâ€“shell nanocrystals. Nanotechnology, 2021, 32, 025603.	2.6	2
50	The ground state properties of two dimensional Fermi gas system confined in a potential composed of harmonic and a Gaussian terms. Chemical Physics, 2019, 517, 48-53.	1.9	0