

# Mehmet Aahin

## List of Publications by Year in descending order

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50  
papers

1,781  
citations

257357

24  
h-index

265120

42  
g-index

50  
all docs

50  
docs citations

50  
times ranked

878  
citing authors

#	ARTICLE	IF	CITATIONS
1	Cadmium-Free and Efficient Type-II InP/ZnO/ZnS Quantum Dots and Their Application for LEDs. ACS Applied Materials & Interfaces, 2021, 13, 32022-32030.	4.0	41
2	Quantum dot and electron acceptor nano-heterojunction for photo-induced capacitive charge-transfer. Scientific Reports, 2021, 11, 2460.	1.6	19
3	Cation exchange mediated synthesis of bright Au@ZnTe core-shell nanocrystals. Nanotechnology, 2021, 32, 025603.	1.3	2
4	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.	1.1	6
5	Colloidal Aluminum Antimonide Quantum Dots. Chemistry of Materials, 2019, 31, 4743-4747.	3.2	14
6	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.	0.9	0
7	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.	0.7	6
8	Effective Neural Photostimulation Using Indium-Based Type-II Quantum Dots. ACS Nano, 2018, 12, 8104-8114.	7.3	52
9	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.	1.0	3
10	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.	0.7	4
11	The electronic and optical properties of a triexciton in CdSe/ZnS core/shell quantum dot nanocrystals. Philosophical Magazine, 2016, 96, 584-595.	0.7	4
12	The intersubband optical properties of a two-electron quantum dot-quantum well heterostructure. Superlattices and Microstructures, 2015, 86, 292-299.	1.4	8
13	Electronic and optical properties of single excitons and biexcitons in type-II quantum dot nanocrystals. Journal of Applied Physics, 2014, 115, .	1.1	23
14	A detailed investigation of electronic and intersubband optical properties of Al <sub>x</sub> Ga <sub>1-x</sub> As/Al <sub>0.3</sub> Ga <sub>0.7</sub> As/Al <sub>y</sub> Ga <sub>1-y</sub> As multi-shell quantum dots. Journal Physics D: Applied Physics, 2014, 47, 295302.	1.3	26
15	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.	1.3	26
16	Linear and nonlinear optical properties of GaAs/Al <sub>x</sub> Ga <sub>1-x</sub> As/GaAs/Al <sub>y</sub> Ga <sub>1-y</sub> As multi-shell spherical quantum dot. Journal of Applied Physics, 2013, 114, 183704.	1.1	31
17	The electronic properties of a two-electron multi-shell quantum dot-quantum well heterostructure. Journal of Applied Physics, 2013, 114, 043706.	1.1	15
18	A model for the recombination and radiative lifetime of trions and biexcitons in spherically shaped semiconductor nanocrystals. Applied Physics Letters, 2013, 102, 183103.	1.5	25

#	ARTICLE	IF	CITATIONS
19	The inter-sublevel optical properties of a spherical quantum dot-quantum well with and without a donor impurity. <i>Journal of Applied Physics</i> , 2012, 112, .	1.1	66
20	The effect of dilute nitrogen on nonlinear optical properties of the InGaAsN/GaAs single quantum wells. <i>European Physical Journal B</i> , 2012, 85, 1.	0.6	11
21	Reordering orbitals of semiconductor multi-shell quantum dot-quantum well heteronanocrystals. <i>Journal of Applied Physics</i> , 2012, 111, 023713.	1.1	25
22	The linear optical properties of a multi-shell spherical quantum dot of a parabolic confinement for cases with and without a hydrogenic impurity. <i>Semiconductor Science and Technology</i> , 2012, 27, 125011.	1.0	42
23	The electronic properties of a core/shell/well/shell spherical quantum dot with and without a hydrogenic impurity. <i>Journal of Applied Physics</i> , 2012, 111, 083702.	1.1	55
24	The photoionization cross section of a hydrogenic impurity in a multi-layered spherical quantum dot. <i>Journal of Applied Physics</i> , 2012, 111, .	1.1	34
25	A detailed investigation of the electronic properties of a multi-layer spherical quantum dot with a parabolic confinement. <i>Journal of Luminescence</i> , 2012, 132, 1705-1713.	1.5	54
26	A detailed analysis of current-voltage characteristics of Au/perylene-monoimide/n-Si Schottky barrier diodes over a wide temperature range. <i>Journal of Applied Physics</i> , 2011, 110, .	1.1	53
27	The electric field effects on the binding energies and the nonlinear optical properties of a donor impurity in a spherical quantum dot. <i>Journal of Applied Physics</i> , 2011, 109, .	1.1	139
28	Linear and nonlinear optical absorption coefficients and binding energy of a spherical quantum dot. <i>Superlattices and Microstructures</i> , 2010, 47, 556-566.	1.4	170
29	Third-order nonlinear absorption spectra of an impurity in a spherical quantum dot with different confining potential. <i>Physica Status Solidi (B): Basic Research</i> , 2010, 247, 371-374.	0.7	64
30	Third-order nonlinear optical properties of a one- and two-electron spherical quantum dot with and without a hydrogenic impurity. <i>Journal of Applied Physics</i> , 2009, 106, .	1.1	107
31	Self-consistent computation of electronic and optical properties of a single exciton in a spherical quantum dot via matrix diagonalization method. <i>Journal of Applied Physics</i> , 2009, 106, .	1.1	51
32	The self-consistent calculation of the edge states at quantum Hall effect (QHE) based Mach-Zehnder interferometers (MZI). <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008, 40, 1398-1400.	1.3	3
33	Photoionization cross section and intersublevel transitions in a one- and two-electron spherical quantum dot with a hydrogenic impurity. <i>Physical Review B</i> , 2008, 77, .	1.1	144
34	Excitonic Condensation under Spin-Orbit Coupling and BEC-BCS Crossover. <i>Physical Review Letters</i> , 2007, 98, 166405.	2.9	27
35	Mode structure of the L3 photonic crystal cavity. <i>Applied Physics Letters</i> , 2007, 90, 241117.	1.5	99
36	Intensity and temperature dependence of photocurrent of a-Si:H Schottky diodes. <i>Current Applied Physics</i> , 2006, 6, 114-118.	1.1	11

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37	Current-voltage analysis of a-Si:H Schottky diodes. Applied Surface Science, 2006, 252, 6269-6274.	3.1	10
38	Temperature dependence of current-voltage characteristics of Ag/p-SnS Schottky barrier diodes. Applied Surface Science, 2005, 242, 412-418.	3.1	29
39	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.	1.3	21
40	A parabolic quantum dot with N electrons and an impurity. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 30, 143-149.	1.3	59
41	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.	1.1	24
42	Electronic structure of a many-electron spherical quantum dot with an impurity. Physical Review B, 2005, 72, .	1.1	16
43	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.	0.8	26
44	APPLICATION OF THE GENETIC ALGORITHM TO BLUMENFELDER-EMERY-GRIFFITHS MODEL: TEST CASES. International Journal of Modern Physics B, 2005, 19, 4229-4237.	1.0	3
45	Optical Constants of CuInSe <sub>2</sub> Thin Films Prepared by Two-Stage Process. Physica Scripta, 2005, 71, 221-224.	1.2	6
46	Temperature-dependent barrier characteristics of Ag/p-SnS Schottky barrier diodes. Semiconductor Science and Technology, 2004, 19, 1098-1103.	1.0	35
47	Temperature dependence of current-voltage characteristics of Ag/p-SnSe Schottky diodes. Applied Surface Science, 2004, 233, 320-327.	3.1	43
48	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.	0.8	13
49	SELF-CONSISTENT CALCULATION OF SEMICONDUCTOR HETEROJUNCTIONS USING QUANTUM GENETIC ALGORITHM. International Journal of Modern Physics B, 2002, 16, 3883-3893.	1.0	5
50	Analysis of I-V measurements on Ag/p-SnS and Ag/p-SnSe Schottky barriers. Solid-State Electronics, 2002, 46, 49-52.	0.8	37