

Mehdi Solaimani

List of Publications by Year in descending order

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196
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#	ARTICLE	IF	CITATIONS
1	Linear and nonlinear optical properties in spherical quantum dots: Inversely quadratic Hellmann potential. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2021, 397, 127262.	0.9	70
2	Linear and Nonlinear Optical Properties in Spherical Quantum Dots: Generalized Hulth�n Potential. <i>Few-Body Systems</i> , 2016, 57, 793-805.	0.7	46
3	Study of optical non-linear properties of a constant total effective length multiple quantum wells system. <i>Journal of Luminescence</i> , 2013, 134, 699-705.	1.5	40
4	Effect of the magnetic field on optical properties of GaN/AlN multiple quantum wells. <i>Journal of Luminescence</i> , 2013, 134, 88-95.	1.5	34
5	Linear and nonlinear optical properties in spherical quantum dots: Manning-Rosen potential. <i>Journal of Optics (India)</i> , 2017, 46, 254-264.	0.8	31
6	GaN/AlN constant total effective radius multi-wells quantum rings: Physical properties under well number variation effects. <i>Solid State Communications</i> , 2014, 200, 66-70.	0.9	22
7	Donor impurity effects on optical properties of GaN/AlN constant total effective radius multishell quantum dots. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2016, 33, 420.	0.9	21
8	Intersubband optical properties of a two electron GaN/AlN constant total effective radius multi-shells quantum rings. <i>Superlattices and Microstructures</i> , 2015, 82, 1-10.	1.4	20
9	Binding energy and diamagnetic susceptibility of donor impurities in quantum dots with different geometries and potentials. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2020, 262, 114694.	1.7	20
10	Optical rectification in quantum wells within different confinement and nonlinearity regimes. <i>Superlattices and Microstructures</i> , 2017, 111, 556-567.	1.4	18
11	Quantum information entropies of multiple quantum well systems in fractional Schr�dinger equations. <i>International Journal of Quantum Chemistry</i> , 2020, 120, e26113.	1.0	17
12	Approximate analytical versus numerical solutions of Schr�dinger equation under molecular Hua potential. <i>International Journal of Quantum Chemistry</i> , 2012, 112, 3706-3710.	1.0	16
13	Magnetic field dependence optical properties of GaN/AlN multiple quantum wells. <i>Optik</i> , 2013, 124, 3194-3197.	1.4	16
14	Electronic and optical properties of GaAs/AlGaAs Fibonacci ordered multiple quantum well systems. <i>Superlattices and Microstructures</i> , 2017, 112, 680-687.	1.4	15
15	Solutions of D-dimensional Schrodinger equation for Woods�Saxon potential with spin�orbit, coulomb and centrifugal terms through a new hybrid numerical fitting Nikiforov�Uvarov method. <i>Iranian Physical Journal</i> , 2016, 10, 53-59.	1.2	14
16	Dodecanacci superconductor-metamaterial photonic quasicrystal. <i>Optik</i> , 2020, 222, 165290.	1.4	14
17	Effects of interdiffusion and electric field on the optical rectification coefficient of GaAs/AlwGa1�wAs systems: crossover from single to multiple quantum wells. <i>Applied Physics A: Materials Science and Processing</i> , 2020, 126, 1.	1.1	14
18	Rashba coupling in three-electron-quantum dot: A numerical solution. <i>Solid State Communications</i> , 2011, 151, 1962-1967.	0.9	13

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19	Optical filters based on fixed length Thue-Morse plasma-dielectric photonic band multilayers: Comparing two, three, and four materials systems. <i>AIP Advances</i> , 2021, 11, .	0.6	12
20	A SEMIRELATIVISTIC TREATMENT OF SPINLESS PARTICLES SUBJECT TO THE YUKAWA POTENTIAL WITH ARBITRARY ANGULAR MOMENTA. <i>International Journal of Modern Physics E</i> , 2012, 21, 1250016.	0.4	11
21	Spatial soliton propagation through waveguides: rectangular and parabolic rectangular index profile. <i>Optical and Quantum Electronics</i> , 2016, 48, 1.	1.5	11
22	Optical rectification coefficients of cylindrical quantum dots: Rashba spin-orbit interaction effects. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2017, 34, 1989.	0.9	11
23	A quantum rings based on multiple quantum wells for 1.2-2.8 THz detection. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2018, 101, 162-166.	1.3	11
24	Intersubband optical properties of three electrons confined in multishell quantum dots: comparison of two semiconducting compounds. <i>Journal of Computational Electronics</i> , 2018, 17, 1135-1142.	1.3	11
25	The effect of vacancy-defects on the magnetic properties of Ising fullerene-like nano-structures: A Monte Carlo study. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 502, 166573.	1.0	11
26	Nonlinear optical absorption of a two electron GaN/AlN constant total effective radius multi-shells quantum rings. <i>Journal of Nonlinear Optical Physics and Materials</i> , 2014, 23, 1450050.	1.1	10
27	Miniband Formation in GaN/AlN Constant-Total-Effective-Radius Multi-shell Quantum Dots. <i>Chinese Physics Letters</i> , 2015, 32, 117304.	1.3	10
28	Magnetic field effects on linear optical properties of GaN/AlN multi-wells quantum rings and dots with constant total effective radiuses. <i>Optical and Quantum Electronics</i> , 2016, 48, 1.	1.5	9
29	Shannon information entropies for rectangular multiple quantum well systems with constant total lengths*. <i>Chinese Physics B</i> , 2018, 27, 040301.	0.7	9
30	Shannon entropies of asymmetric multiple quantum well systems with a constant total length. <i>European Physical Journal Plus</i> , 2021, 136, 1.	1.2	9
31	Discretized Euler-Lagrange variational study of nonlinear optical rectification coefficients. <i>Physica Scripta</i> , 2018, 93, 095803.	1.2	8
32	Optical transport properties of one dimensional plasma photonic crystals: Crossover from rectangular to semi-sinusoidal layers. <i>Results in Physics</i> , 2020, 16, 102843.	2.0	8
33	Refractive index changes in constant total effective length GaN/AlN multiple quantum well systems under external electric field. <i>International Journal of Modern Physics B</i> , 2014, 28, 1450204.	1.0	7
34	Optical properties of parabolic quantum wires in the presence of electron-electron interactions: An Euler-Lagrange variational application. <i>Optik</i> , 2018, 172, 353-358.	1.4	7
35	Wave transport in fractional Schrodinger equations. <i>Optical and Quantum Electronics</i> , 2019, 51, 1.	1.5	6
36	Fractional Young double-slit numerical experiment with Gaussian wavepackets. <i>Scientific Reports</i> , 2020, 10, 19458.	1.6	6

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37	Optical properties of two dimensional fractal shaped nanostructures: Comparison of Sierpinski triangles and Sierpinski carpets. Optics Communications, 2020, 474, 126185.	1.0	6
38	Effect of electric field on optical properties of GaN/AlN constant total effective length multiple quantum well systems. Optik, 2015, 126, 4372-4377.	1.4	5
39	Optical properties of GaN/AlN constant total effective radius multi-wells quantum rings. Optical and Quantum Electronics, 2015, 47, 1901-1910.	1.5	5
40	Optical absorption coefficient of GaN/AlN multi-shells quantum dots: Optical intensity and magnetic field effects. Optik, 2016, 127, 3934-3939.	1.4	5
41	Transport properties of a traveling wave packet through rectangular quantum wells and barriers. Optik, 2017, 136, 281-288.	1.4	5
42	Spatial soliton propagation through a triangular waveguide: A Runge Kutta study. Optik, 2017, 129, 200-206.	1.4	5
43	Electronic properties of a quantum ring perturbed with a quantum well in the presence of perpendicular magnetic flux. Optical and Quantum Electronics, 2018, 50, 1.	1.5	5
44	Optical Properties of Energy-Dependent Effective Mass GaAs/GaxIn1-xAs and GaAs/AlxGa1-xAs Quantum Well Systems: A Shooting Method Study. Journal of Electronic Materials, 2019, 48, 942-950.	1.0	5
45	Stark shift of binding energy for on and off-center donor impurities in quantum rings under the influence of charged rods electric fields. Solid State Sciences, 2020, 108, 106386.	1.5	5
46	Band gap engineering in constant total length nonmagnetized plasma-dielectric multilayers. Optik, 2020, 207, 164476.	1.4	5
47	Optical properties of a few semiconducting heterostructures in the presence of Rashba spin-orbit interactions: a two-dimensional finite-difference numerical approach. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 1774.	0.9	5
48	Control of optical absorption nonlinearity in multi-layers quantum dots and rings. International Journal of Modern Physics B, 2018, 32, 1850007.	1.0	4
49	Miniband formation engineering in GaN/AlN superlattices with constant total effective length. Optical and Quantum Electronics, 2019, 51, 1.	1.5	4
50	Analysis of filamentation instability in a current-carrying plasma using meshless method of lines coupled with radial basis functions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126839.	0.9	4
51	Nontrivial wave-packet collision and broadening in fractional Schrodinger equation Formalism. Journal of Modern Optics, 2020, 67, 1128-1137.	0.6	4
52	Optical rectification coefficient of GaAs/AlxGa1-xAs Morse multiple quantum wells. European Physical Journal Plus, 2020, 135, 1.	1.2	4
53	Enhancement of the optical absorption in photonic crystal waveguides. Indian Journal of Physics, 2022, 96, 565-573.	0.9	4
54	Nano-scale planar photodetector based on ring form MQWs for FIR regime. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 897.	0.9	4

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55	Behavior of Donor Impurity Binding Energy Confined In a GaAs Constant Total Effective Radius Multi-Shell Quantum Dots: Dielectric Mismatch Effects. Iranian Journal of Science and Technology, Transaction A: Science, 2017, 41, 1075-1081.	0.7	3
56	Wave localization in two dimensional parabolic periodic refractive index profiles: a 4th order Runge-Kutta study. Optical and Quantum Electronics, 2018, 50, 1.	1.5	3
57	Superarrival and spin polarization of spin-dependent wave-packets propagating through one-dimensional rectangular and inverse parabolic barriers: Rashba spin-orbit interaction and nonlinearity effects. Journal of Magnetism and Magnetic Materials, 2020, 513, 167247.	1.0	3
58	A hyper-block self-consistent approach to nonlinear Schrodinger equations: Breeding, metamorphosis, and killing of Hofstadter Butterflies. Communications in Nonlinear Science and Numerical Simulation, 2021, 97, 105724.	1.7	3
59	Competition of parabolic and periodic sinusoidal potential in the propagation of a soliton. Optik, 2018, 155, 185-189.	1.4	2
60	Wave packet broadening through different semiconducting mediums: A meshless multi-quadric radial base function study. International Journal of Modern Physics B, 2018, 32, 1850361.	1.0	2
61	A meshless method of line radial base function study of Gaussian wave packet broadening in few semiconducting mediums: electron-electron interaction effects. Optical and Quantum Electronics, 2018, 50, 1.	1.5	2
62	Saturation and Refractive Index Geometry Effects on Localization of a Spatial Soliton in a Waveguide with Parabolic Rectangular Index Profile. Journal of Electronic Materials, 2019, 48, 5797-5805.	1.0	2
63	A nonparabolic conduction band study of circular quantum dot optical properties: modeling of surface roughness by using Koch snowflakes. Journal of Nanoparticle Research, 2020, 22, 1.	0.8	2
64	Light absorption in semiconducting quantum dot clusters with fixed surface areas in an external tilted magnetic field. AIP Advances, 2020, 10, .	0.6	2
65	Spectra of PT-symmetric fractional Schrödinger equations with multiple quantum wells. Journal of Computational Electronics, 2020, 19, 1416-1425.	1.3	2
66	Investigation on Rashba spin-orbit interactions in two dimension quantum array for thermal imaging applications. Journal of Optics (United Kingdom), 2020, 22, 085001.	1.0	2
67	Persistent currents in the presence of the radial electric fields of charged rods and off-centre positively and negatively charged impurities. Philosophical Magazine, 2021, 101, 1679-1698.	0.7	2
68	Effect of electron-electron interactions on optical properties of GaN/AlN quantum wells: a nonlinear Schrödinger equation approach. Optical and Quantum Electronics, 2019, 51, 1.	1.5	1
69	Reply to comment on "Approximate analytical versus numerical solutions of Schrödinger equation under molecular Hua potential". International Journal of Quantum Chemistry, 2019, 119, e25956.	1.0	1
70	The effects of close packing and electric fields on the optical properties of three-dimensionally stacked quantum dots. Journal of Computational Electronics, 2020, 19, 160-169.	1.3	1
71	Spin filtering in GaAs/Al _{0.3} Ga _{0.7} As multiple quantum wells. Indian Journal of Physics, 2021, 95, 1141-1145.	0.9	1
72	Effects of geometry and electric and magnetic fields on the thermal properties of two-dimensional semiconducting nanoporous superlattices. Journal of Physics and Chemistry of Solids, 2021, 149, 109816.	1.9	1

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73	Frequency filtering and vibrational spectrum of multiple-valley one-dimensional phononic crystals. European Physical Journal Plus, 2021, 136, 1.	1.2	1
74	Thermodynamic Properties of a Quantum Ring Perturbed with Quantum Wells and Impurities. Journal of Nano- and Electronic Physics, 2018, 10, 06006-1-06006-4.	0.2	1
75	Solitons propagation dynamics in a saturable PT-symmetric fractional medium. Physica Scripta, 2021, 96, 125531.	1.2	1
76	Spectral tuning in quantum rings by magnetic field: detection from NIR to FIR regime. Optical and Quantum Electronics, 2022, 54, 1.	1.5	1
77	Soliton propagation through three types of Fibonacci-ordered photonic multilayers in the fractional medium. Pramana - Journal of Physics, 2022, 96, 1.	0.9	1
78	A New Efficient Method in Calculation of the Ground State and Few Excited States of Hubbard Chain Nanostructures. , 2006, , .		0
79	New formalism in evaluation of the ground and few excited states of Hubbard chain nanostructures. Proceedings of SPIE, 2007, 6831, 255.	0.8	0
80	CHALLENGES IN APPLICATION OF A MONTE CARLO METHOD TO STUDY AN EXCITON CONFINED IN AlGaAs/GaAs SINGLE QUANTUM WELL. International Journal of Modern Physics B, 2012, 26, 1250129.	1.0	0
81	Nonlinear optical properties of GaN/AlN constant total effective radius multi-wells quantum rings. Modern Physics Letters B, 2014, 28, 1450214.	1.0	0
82	Oscillating Binding Energy of a Donor Impurity Confined Within CdS-SiO ₂ Constant Total Effective Radius Multi-Shells Quantum Dots. International Journal of Nanoscience, 2016, 15, 1650003.	0.4	0
83	Electronic spectrum of linear Schrodinger equations by Sinc-Galerkin and Sinc-Collocation methods. Mathematical Sciences, 0, , 1.	1.0	0
84	Acoustic wave frequency filtering in constant total length phononic crystals of Al/Pb multilayer. International Journal of Modern Physics B, 2021, 35, .	1.0	0
85	Fractionality-induced deformation in Airy and Hermit-Gaussian wavepackets traveling through the Gaussian wells. Waves in Random and Complex Media, 0, , 1-14.	1.6	0
86	Electromagnetic wave transmission in hybrid fractal plasma photonic crystals through developing new kinds of productive quasi-periodic multilayers. Philosophical Magazine, 0, , 1-16.	0.7	0