

Swapan K Mandal

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Morphology controlled (CH ₃ NH ₃) ₃ Bi ₂ Cl ₉ thin film for lead free perovskite solar cell. Physica B: Condensed Matter, 2022, 625, 413536.	1.3	8
2	Evolution of magnetic and transport properties in the Cu-doped pyrochlore iridate $\text{Eu}_{1-x}\text{Cu}_x\text{Ir}_2\text{O}_7$ ($\text{Eu}_{1-x}\text{Cu}_x\text{Ir}_2\text{O}_7$). Physical Review B, 2022, 105, .		
3	A dielectric study of Br-doped lead-free methylammonium bismuth chloride (CH ₃ NH ₃) ₃ Bi ₂ Br _x Cl _{9-x} . Applied Physics A: Materials Science and Processing, 2022, 128, .	1.1	1
4	Frequency and temperature-dependent dielectric characteristics of lead-free Br doped perovskites (CH ₃ NH ₃) ₃ Bi ₂ Cl ₉ and (CH ₃ NH ₃) ₃ Bi ₂ Br _x Cl _{9-x} . Materials Today: Proceedings, 2022, 66, 3302-3306.	0.9	0
5	Spin state bistability in (Mn, Zn) doped Fe(phen) ₂ (NCS) ₂ molecular thin film nanocrystals on quartz. Physica B: Condensed Matter, 2022, 642, 414128.	1.3	1
6	Two-photon resonances, ac Stark splittings, and shifts of the resonance peaks in Doppler free absorptive lineshapes of a double-lambda type four level system. Chemical Physics Letters, 2020, 739, 136955.	1.2	4
7	Frequency Dependent Charge Transport and Spin State Switching Characteristics of Fe(phen) ₂ (NCS) ₂ in Polymer. Journal of Nanoscience and Nanotechnology, 2020, 20, 2803-2812.	0.9	3
8	Spin transition properties of metal (Zn, Mn) diluted Fe(phen) ₂ (NCS) ₂ spin-crossover thin films. EPJ Applied Physics, 2020, 91, 20301.	0.3	3
9	Role of $f\tilde{d}$ exchange interaction and Kondo scattering in the Nd-doped pyrochlore iridate (Eu _{1-x} Nd _{x}) ₂ Ir ₂ O ₇ . Physical Review B, 2020, 102, .	1.1	6
10	Magnetocaloric as a sensitive tool to study magnetic phase in Ca ₄ Mn ₃ O ₁₀ - \tilde{I} . Journal of Magnetism and Magnetic Materials, 2018, 448, 292-297.	1.0	1
11	Squeezing, mixed mode squeezing, amplitude squared squeezing and principal squeezing in a non-degenerate parametric oscillator. Optik, 2018, 157, 1035-1052.	1.4	10
12	Probing Spin-State Switching in Fe(phen) ₂ (NCS) ₂ Thin Film Nanocrystals on Different Substrates by Electrical Conductivity Measurements. Journal of Nanoscience and Nanotechnology, 2018, 18, 347-352.	0.9	3
13	Quantum phase fluctuations of coherent and thermal light coupled to a non-degenerate parametric oscillator beyond rotating wave approximation. Optics Communications, 2017, 398, 1-11.	1.0	6
14	Classical and quantum harmonic oscillators with time dependent mass and frequency: A new class of exactly solvable model. Optics Communications, 2017, 386, 37-42.	1.0	8
15	Electrically controllable molecular spin crossover switching in Fe(phen) ₂ (NCS) ₂ thin film. EPJ Applied Physics, 2016, 75, 30201.	0.3	4
16	On the quantum phase fluctuations of coherent light coupled to a degenerate parametric amplifier. Optik, 2016, 127, 2988-2991.	1.4	2
17	Derivation of multi-photon anharmonic oscillator model from its classical counterpart. Optik, 2016, 127, 10042-10048.	1.4	3
18	Multiferroicity in ZnO nanodumbbell/BiFeO ₃ nanoparticle heterostructures. International Journal of Modern Physics B, 2016, 30, 1650074.	1.0	4

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19	On the quantum phase fluctuations of coherent light in a chain of two anharmonic oscillators coupled through a linear one. Optics Communications, 2016, 366, 340-348.	1.0	5
20	Nonclassical properties of coherent light in a pair of coupled anharmonic oscillators. Optics Communications, 2016, 359, 221-233.	1.0	9
21	On-Surface Synthesis of Single Conjugated Polymer Chains for Single-Molecule Devices. Advances in Atom and Single Molecule Machines, 2016, , 167-179.	0.0	0
22	Size effect on the magnetic properties of oleic acid stabilized substrate free BiFeO ₃ nanocrystals. EPJ Applied Physics, 2015, 70, 10601.	0.3	2
23	UV emission from self-assembled ZnS nanowires on DNA templates. EPJ Applied Physics, 2015, 70, 20401.	0.3	0
24	Exact dynamics and squeezing in two harmonic modes coupled through angular momentum. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 165501.	0.6	4
25	Observation of Pronounced Electric Polarization and Strong Magnetization in Mn Doped BiFeO ₃ Nanocrystals. Advanced Science, Engineering and Medicine, 2015, 7, 952-957.	0.3	1
26	Semiconductor-metal-semiconductor transition in Bi and BiAg nanowires. Journal Physics D: Applied Physics, 2014, 47, 325302.	1.3	1
27	Ordered Monomolecular Layers as a Template for the Regular Arrangement of Gold Nanoparticles. Langmuir, 2013, 29, 7334-7343.	1.6	8
28	Pronounced Multiferroicity in Oleic Acid Stabilized BiFeO ₃ Nanocrystals at Room Temperature. Journal of Nanoscience and Nanotechnology, 2013, 13, 4090-4096.	0.9	5
29	Interconnects with single conjugated polymers. , 2013, , .		0
30	STRUCTURAL AND OPTICAL PROPERTIES OF SINGLE CRYSTALLINE BISMUTH NANOPARTICLES IN POLYMER. International Journal of Modern Physics Conference Series, 2013, 22, 654-659.	0.7	3
31	Squeezing and photon antibunching in second harmonic generation: an analytical approach. Journal of Modern Optics, 2012, 59, 555-564.	0.6	5
32	Controlled chain polymerisation and chemical soldering for single-molecule electronics. Nanoscale, 2012, 4, 3013.	2.8	68
33	High Ferromagnetic Transition Temperature in PbS and PbS:Mn Nanowires. ACS Applied Materials & Interfaces, 2012, 4, 205-209.	4.0	13
34	Methanol sensing characteristics of conducting polypyrrole-silver nanocomposites. EPJ Applied Physics, 2012, 58, 20402.	0.3	4
35	Rate-Determining Factors in the Chain Polymerization of Molecules Initiated by Local Single-Molecule Excitation. ACS Nano, 2011, 5, 2779-2786.	7.3	35
36	Chemical Wiring and Soldering toward All-Molecule Electronic Circuitry. Journal of the American Chemical Society, 2011, 133, 8227-8233.	6.6	93

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37	Fabrication of Luminescent Silver Doped PbS Nanowires in Polymer. Journal of Nanoscience and Nanotechnology, 2011, 11, 10234-10239.	0.9	5
38	A theoretical analysis on coherent double resonant absorptive lineshape in closely spaced transitions for λ -type five level system. Optics Communications, 2011, 284, 376-387.	1.0	6
39	The solutions of the generalized classical and quantum harmonic oscillators with time dependent mass, frequency, two-photon parameter and external force: The squeezing effects. Optics Communications, 2010, 283, 4685-4695.	1.0	8
40	Polymer stabilized Ni-Ag and Ni-Fe alloy nanoclusters: Structural and magnetic properties. Journal of Magnetism and Magnetic Materials, 2010, 322, 934-939.	1.0	17
41	An analytical study on absorptive lineshape of a driven N-type open four-level system: Quantum interference effects. Optics Communications, 2010, 283, 1832-1839.	1.0	5
42	Electron spin resonance in silver-doped PbS nanorods. Journal of Experimental Nanoscience, 2010, 5, 189-198.	1.3	9
43	Analytical studies on pump-induced optical resonances in an M-type six-level system. Journal of Physics B: Atomic, Molecular and Optical Physics, 2010, 43, 245505.	0.6	7
44	Coherent control on absorption and dispersion in closely spaced transitions for a four-level system with three closely-spaced upper levels. Journal of Modern Optics, 2010, 57, 1428-1436.	0.6	3
45	Connecting single conductive polymers to a single functional molecule. , 2010, , .		0
46	Doppler-free absorptive signal lineshape of a four-level double λ -type system: Rabi splitting and two-photon effects. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 145403.	0.6	5
47	Amplitude-squared squeezing of coherent light coupled to a driven quantum oscillator with time-dependent mass and frequency. Journal of Modern Optics, 2008, 55, 1387-1415.	0.6	2
48	Humidity-sensing properties of conducting polypyrrole-silver nanocomposites. Journal of Experimental Nanoscience, 2008, 3, 297-305.	1.3	25
49	COMMENTS ON "NTH-ORDER SQUEEZING OF THE FIELD AMPLITUDE IN RAMAN PROCESS AS A GENERALIZATION OF THE HIGHER-ORDER SQUEEZING". International Journal of Modern Physics B, 2008, 22, 2151-2156.	1.0	0
50	Phase fluctuations of coherent light coupled to a driven quantum oscillator with time-dependent mass and frequency. Journal of Modern Optics, 2008, 55, 1603-1628.	0.6	2
51	Amplitude-squared and amplitude-cubed squeezing in stimulated Raman and in spontaneous Raman scattering. Journal of Modern Optics, 2008, 55, 1697-1711.	0.6	13
52	Low frequency divergence of the dielectric constant and signature of the Meyer-Neldel rule in the ac conductivity of PbS and PbS:Mn nanorods in polymer. Journal of Applied Physics, 2008, 103, 064311.	1.1	2
53	SQUEEZING EFFECTS IN THE SUM AND DIFFERENCE OF THE FIELD AMPLITUDE IN THE RAMAN PROCESS. Modern Physics Letters B, 2007, 21, 1107-1110.	1.0	0
54	Quantum statistical properties of the radiation field in spontaneous Raman and stimulated Raman processes. Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, 1417-1427.	0.6	17

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55	Squeezing, photon bunching, photon antibunching and nonclassical photon statistics in degenerate hyper Raman processes. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2007, 40, 2901-2916.	0.6	8
56	Strong excitonic confinement effect in ZnS and ZnS:Mn nanorods embedded in polycarbonate membrane pores. <i>Journal of Applied Physics</i> , 2007, 101, 114315.	1.1	17
57	Polymer assisted preferential growth of PbS and PbS:Mn nanorods: structural and optical properties. <i>Journal of Experimental Nanoscience</i> , 2007, 2, 257-267.	1.3	10
58	Fluorescent magnetic emulsion droplets: Potential material for multiplexed optical coding of biomolecules. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 311, 88-91.	1.0	7
59	Electron spin resonance in DNA doped polypyrrole. <i>Journal Physics D: Applied Physics</i> , 2006, 39, 1944-1947.	1.3	0
60	Spontaneous decay controlled inversionless laser in a V-type four level system. <i>Optics Communications</i> , 2006, 264, 219-224.	1.0	6
61	DNA in Nanopores: Negative Capacitance and $\langle I \rangle$ -Relaxation at High Frequency. <i>Journal of Nanoscience and Nanotechnology</i> , 2006, 6, 1453-1457.	0.9	3
62	Direct electrical conduction in DNA molecules confined in nanoporous membrane. <i>Applied Physics Letters</i> , 2006, 89, 193102.	1.5	2
63	Comments on "Higher order squeezing of the electromagnetic field in spontaneous and in stimulated Raman processes". <i>Journal of Modern Optics</i> , 2006, 53, 2811-2814.	0.6	3
64	The approximate solution of a classical quartic anharmonic oscillator with periodic force: a simple analytical approach. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2005, 10, 341-352.	1.7	2
65	Encapsulation of Magnetic and Fluorescent Nanoparticles in Emulsion Droplets. <i>Langmuir</i> , 2005, 21, 4175-4179.	1.6	86
66	Squeezed states in spontaneous Raman and in stimulated Raman processes. <i>Journal of Modern Optics</i> , 2005, 52, 1789-1807.	0.6	37
67	Cobalt doped Fe^{3+} -Fe ₂ O ₃ nanoparticles: synthesis and magnetic properties. <i>Nanotechnology</i> , 2005, 16, 506-511.	1.3	61
68	ANALYTICAL SOLUTIONS OF ARBITRARY ORDERS TO THE CLASSICAL AND QUANTUM OSCILLATORS WITH VELOCITY-DEPENDENT QUARTIC ANHARMONICITIES. <i>Modern Physics Letters B</i> , 2004, 18, 1453-1466.	1.0	1
69	Photon-bunching, photon-antibunching and the nonclassical photon statistics of coherent light coupled to a driven harmonic oscillator of time dependent mass and frequency. <i>Optics Communications</i> , 2004, 240, 363-378.	1.0	11
70	On the squeezing of coherent light coupled to a driven damped harmonic oscillator with time dependent mass and frequency. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2004, 321, 308-318.	0.9	13
71	Approximate quantum statistical properties of a nonlinear optical coupler. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2004, 328, 144-156.	0.9	19
72	Electronic conduction processes in DNA-doped polypyrrole nanocomposite films. <i>Nanotechnology</i> , 2004, 15, 250-253.	1.3	18

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73	Synthesis of DNA-Polypyrrole Nanocapsule. Journal of Nanoscience and Nanotechnology, 2004, 4, 972-975.	0.9	11
74	Charge transport in chemically synthesized, DNA-doped polypyrrole. Journal Physics D: Applied Physics, 2004, 37, 2908-2913.	1.3	12
75	Effect of interfacial alloying on the surface plasmon resonance of nanocrystalline Au-Ag multilayer thin films. European Physical Journal B, 2003, 33, 109-114.	0.6	47
76	An ellipsometric investigation of Ag/SiO ₂ nanocomposite thin films. European Physical Journal B, 2003, 34, 25-31.	0.6	10
77	Synthesis of γ -Fe ₂ O ₃ nanoparticles coated on silica spheres: Structural and magnetic properties. European Physical Journal B, 2003, 34, 163-171.	0.6	16
78	Two electrons in a harmonic potential: an approximate analytical solution. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, 4483-4494.	0.6	8
79	Classical damped quartic anharmonic oscillator: a simple analytical approach. International Journal of Non-Linear Mechanics, 2003, 38, 1095-1101.	1.4	3
80	Effect of particle shape distribution on the surface plasmon resonance of Ag $\tilde{\text{A}}$ SiO ₂ nanocomposite thin films. Journal Physics D: Applied Physics, 2003, 36, 261-265.	1.3	50
81	On the Quantization Problem of a Driven Harmonic Oscillator with Time Dependent Mass and Frequency. Modern Physics Letters B, 2003, 17, 983-990.	1.0	7
82	Effects of Field-Induced Coherence on Laser Without Population Inversion and on Absorptionless Dispersion for a V-Type Three Level System. International Journal of Modern Physics B, 2003, 17, 2715-2733.	1.0	4
83	SQUEEZING, HIGHER-ORDER SQUEEZING, PHOTON-BUNCHING AND PHOTON-ANTIBUNCHING IN A QUADRATIC HAMILTONIAN. Modern Physics Letters B, 2002, 16, 963-973.	1.0	14
84	Surface plasmon resonance in nanocrystalline silver particles embedded in SiO ₂ matrix. Journal Physics D: Applied Physics, 2002, 35, 2198-2205.	1.3	71
85	Optical properties of Cd _{1-x} Zn _x S nanocrystallites in sol-gel silica matrix. Journal Physics D: Applied Physics, 2002, 35, 2636-2642.	1.3	39
86	Classical and quantum oscillators of sextic and octic anharmonicities. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 298, 259-270.	0.9	14
87	An intuitive approach to the higher order solutions for classical and quantum oscillators of quartic anharmonicity. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 299, 531-542.	0.9	14
88	A simplified approach to the closed form approximate analytical solutions for classical and quantum oscillators of (n+1)th anharmonicity. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 305, 37-51.	0.9	8
89	Classical and quantum oscillators of quartic anharmonicities: second-order solution. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 286, 261-276.	0.9	28
90	Phase fluctuations of coherent light coupled to a nonlinear medium of inversion symmetry. Physics Letters, Section A: General, Atomic and Solid State Physics, 2000, 272, 346-352.	0.9	16

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91	On the possibility of continuous generation of squeezed states in a quartic anharmonic oscillator. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 1029-1038.	0.6	11
92	Effects of field induced quantum coherence on the absorptive lineshape of a V-type three-level system. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 4581-4591.	0.6	6
93	Photon-number distribution of squeezed states: a graphical treatment. Physical Review A, 1998, 58, 752-754.	1.0	5
94	Au/CdS Schottky Diode Fabricated with Nanocrystalline CdS Layer. Physica Status Solidi A, 1997, 163, 433-443.	1.7	13
95	Line shape, frequency shift, Rabi splitting, and two-photon resonances in four-level double-resonance spectroscopy with closely spaced intermediate levels. Physical Review A, 1993, 47, 4934-4945.	1.0	15
96	Line shape and frequency shift of Lamb dip and crossover-resonance dip in closely spaced transitions. Physical Review A, 1992, 45, 4990-4997.	1.0	27
97	Signal line shapes in four-level double resonance spectroscopy with closely spaced levels. Spectrochimica Acta Part A: Molecular Spectroscopy, 1992, 48, 1563-1571.	0.1	7
98	Bloch-Siegert effect in three-level rfmw double resonance. Chemical Physics Letters, 1992, 193, 185-190.	1.2	4
99	Lineshape theory of doppler-free coupled closely spaced transitions in the presence of a strong radiation field: The effect of non-resonant interactions. Chemical Physics Letters, 1989, 164, 279-284.	1.2	12