List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Generation of circular spin current in an AB magnetic ring with vanishing net magnetization: a new prescription. Journal of Physics Condensed Matter, 2022, 34, 015801.	0.7	0
2	New route to enhanced figure of merit at nano scale: effect of Aubry–Andre–Harper modulation. Journal Physics D: Applied Physics, 2022, 55, 085302.	1.3	5
3	Localization properties of a multi-stranded phononic ladder with FK type modulation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2022, 423, 127813.	0.9	2
4	Spin filtration in an antiferromagnetic ladder. Journal of Magnetism and Magnetic Materials, 2022, 546, 168813.	1.0	0
5	Localization Properties of a Quasiperiodic Ladder under Physical Gain and Loss: Tuning of Critical Points, Mixed-Phase Zone and Mobility Edge. Materials, 2022, 15, 597.	1.3	3
6	Thermoelectric Phenomena at Nanoscale Level. , 2022, , 241-309.		0
7	Localization phenomena and electronic transport in irradiated Aubry–André–Harper systems. Journal of Physics Condensed Matter, 2022, 34, 195303.	0.7	2
8	Mini band gap generation in magnetic beta-borophene: effects of optical phonon interaction. Journal Physics D: Applied Physics, 2022, 55, 255302.	1.3	5
9	Enhanced current rectification in graphene nanoribbons: effects of geometries and orientations of nanopores. Nanotechnology, 2022, 33, 255704.	1.3	5
10	Magnetic response of interacting electrons in a spatially non-uniform disordered multi-channel system: exact and mean-field results. European Physical Journal Plus, 2022, 137, 1.	1.2	2
11	Spin-dependent transport in a driven non-collinear antiferromagnetic fractal network. Journal of Physics Condensed Matter, 2022, , .	0.7	0
12	Thermoelectric phenomena of the molecular structure of a Thiolated Arylethynylene with a 9,10-Dihydroanthracene (AH) core. European Physical Journal Plus, 2022, 137, .	1.2	0
13	Magnetoresistive effect in a quantum heterostructure with helical spacer: interplay between helicity and external electric field. Journal of Physics Condensed Matter, 2022, 34, 305301.	0.7	1
14	Favorable thermoelectric performance in a Rashba spin-orbit coupled ac-driven graphene nanoribbon. Carbon, 2021, 172, 302-307.	5.4	12
15	A new prescription to achieve a high degree of spin polarization in a spin–orbit coupled quantum ring: efficient engineering by irradiation. Journal of Physics Condensed Matter, 2021, 33, 145305.	0.7	0
16	Spin Dependent Transport through Driven Magnetic System with Aubry-Andre-Harper Modulation. Applied Sciences (Switzerland), 2021, 11, 2309.	1.3	6
17	Spin polarization in an ac-driven magnetic material with vanishing net magnetization: a new proposal. Journal Physics D: Applied Physics, 2021, 54, 215301.	1.3	2
18	Selective spin transmission through a driven quantum system: A new prescription. Journal of Applied Physics, 2021, 129, 123902.	1.1	6

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19	Conformational effect on spin filtration through a multi-terminal magnetic helix. Materials Today: Proceedings, 2021, 47, 4288-4288.	0.9	0
20	Circular charge and spin currents in a spatially varying Rashba ring in presence of Aharonov-Bohm flux. Materials Today: Proceedings, 2021, , .	0.9	2
21	Possible route to efficient thermoelectric applications in a driven fractal network. Scientific Reports, 2021, 11, 17049.	1.6	5
22	Possible Routes to Obtain Enhanced Magnetoresistance in a Driven Quantum Heterostructure with a Quasi-Periodic Spacer. Micromachines, 2021, 12, 1021.	1.4	1
23	Spin selective electron transmission through a layered structure subjected to light irradiation: Efficient engineering. Europhysics Letters, 2021, 136, 37004.	0.7	Ο
24	Non-volatile reconfigurable spin logic device: parallel operations. Journal Physics D: Applied Physics, 2021, 54, 095001.	1.3	2
25	An ordered-disordered separated graphene nanoribbon: high thermoelectric performance. Journal Physics D: Applied Physics, 2021, 54, 025301.	1.3	5
26	Controlled thermoelectric performance in a nanojunction: A theoretical approach. Journal of Applied Physics, 2020, 127, 024302.	1.1	2
27	Fractal lattice as an efficient thermoelectric device. Journal of Physics: Conference Series, 2020, 1579, 012004.	0.3	1
28	Spin selective transmission through a multi-terminal Rashba ring with AAH modulation. Journal of Physics: Conference Series, 2020, 1579, 012017.	0.3	0
29	A driven ferromagnetic chain with binary hopping as an efficient spin polarizer. Journal of Physics: Conference Series, 2020, 1579, 012015.	0.3	0
30	Spectral features of one dimensional phononic quasicrystals. Journal of Physics: Conference Series, 2020, 1579, 012018.	0.3	0
31	Engineering spin polarization in a driven multistranded magnetic quantum network. Physical Review B, 2020, 102, .	1.1	9
32	More current with less particles due to power-law hopping. Journal of Physics Condensed Matter, 2020, 32, 025303.	0.7	4
33	Magnetotransport in fractal network with loop sub-structures: Anisotropic effect and delocalization. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126378.	0.9	5
34	Manipulation of circular currents in a coupled ring system: effects of connectivity and non-uniform disorder. Journal of Physics Condensed Matter, 2020, 32, 325303.	0.7	4
35	Flux-driven circular current and near-zero field magnetic response in an Aubry ring: High-to-low conducting switching action. Europhysics Letters, 2020, 129, 47002.	0.7	6
36	Can a sample having zero net magnetization produce polarized spin current?. Journal of Physics Condensed Matter, 2020, 32, 505803.	0.7	5

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37	Magnetic response of interacting electrons in an ordered-disordered separated system: An exact result. AIP Conference Proceedings, 2020, , .	0.3	0
38	Generating pure spin current using spin battery: Effects of coupling and temperature. AIP Conference Proceedings, 2020, , .	0.3	0
39	Electronic transport through a driven quantum wire: possible tuning of junction current, circular current and induced local magnetic field. Journal of Physics Condensed Matter, 2020, 33, 045301.	0.7	2
40	High figure of merit in an ac driven graphene nanoribbon. Journal of Physics: Conference Series, 2020, 1579, 012005.	0.3	1
41	Localization to delocalization transition in a double stranded helical geometry: effects of conformation, transverse electric field and dynamics. Journal of Physics Condensed Matter, 2020, 32, 505301.	0.7	5
42	Unconventional localization phenomena in a spatially non-uniform disordered material. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 106, 312-318.	1.3	6
43	Particle current rectification in a quasi-periodic double-stranded ladder. Journal Physics D: Applied Physics, 2019, 52, 465304.	1.3	14
44	New proposal for efficient energy conversion in a molecular junction with multiple loops. Chemical Physics Letters, 2019, 731, 136601.	1.2	5
45	Relativistic Anyon Beam: Construction and Properties. Physical Review Letters, 2019, 123, 164801.	2.9	3
46	Thermal Properties of Ordered and Disordered DNA Chains: Efficient Energy Conversion. ChemPhysChem, 2019, 20, 3346-3353.	1.0	7
47	Spin-selective transmission through a single-stranded magnetic helix. Physical Review B, 2019, 100, .	1.1	22
48	Thermoelectricity in graphene nanoribbons: Structural effects of nanopores. Superlattices and Microstructures, 2019, 136, 106264.	1.4	8
49	Possible Routes for Efficient Thermoâ€Electric Energy Conversion in a Molecular Junction. ChemPhysChem, 2019, 20, 848-860.	1.0	12
50	Can a helical molecule be an efficient functional element to meet the present requirement of thermoelectric efficiency?. Europhysics Letters, 2019, 126, 27003.	0.7	7
51	A comparative study of spin polarization between square and triangular antidots in graphene nanoribbon. AIP Conference Proceedings, 2019, , .	0.3	0
52	Localization transitions and formation of mixed phase in a two-stranded ladder network modulated with incommensurate site potentials. AIP Conference Proceedings, 2019, , .	0.3	0
53	Engineering magnetoresistance: a new perspective. Journal of Physics Condensed Matter, 2019, 31, 355303.	0.7	8
54	Study of thermopower in a 1D lattice: Role of aperiodicity. AIP Conference Proceedings, 2019, , .	0.3	0

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55	Controlled charge and spin current rectifications in a spin polarized device. Journal of Magnetism and Magnetic Materials, 2019, 484, 408-417.	1.0	17
56	Quantum ring for thermoelectric power generation: Interplay between Aharonov-Bohm flux and disorder. AIP Conference Proceedings, 2019, , .	0.3	0
57	Bias-induced circular spin current: Effects of environmental dephasing and disorder. Physical Review B, 2019, 100, .	1.1	10
58	Tight-binding quantum network with cosine modulations: electronic localization and delocalization. European Physical Journal B, 2019, 92, 1.	0.6	15
59	Anomalous transport through algebraically localized states in one dimension. Physical Review B, 2019, 100, .	1.1	27
60	All-spin logic operations: Memory device and reconfigurable computing. Europhysics Letters, 2018, 121, 38004.	0.7	21
61	Analytical study of nano-scale logical operations. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 101, 151-156.	1.3	0
62	Logical operations using phenyl ring. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 420-422.	0.9	6
63	Controlled engineering of spin-polarized transport properties in a zigzag graphene nanojunction. Europhysics Letters, 2018, 124, 17005.	0.7	12
64	Unconventional charge and spin-dependent transport properties of a graphene nanoribbon with line-disorder. Europhysics Letters, 2018, 124, 57003.	0.7	9
65	Simultaneous spin-based Boolean logic operations with reprogrammable functionality. Europhysics Letters, 2018, 123, 58008.	0.7	3
66	Interface sensitivity on spin transport through a three-terminal graphene nanoribbon. Superlattices and Microstructures, 2018, 120, 650-658.	1.4	11
67	Charge-based re-programmable logic device with built-in memory: New era in molecular electronics. Organic Electronics, 2018, 62, 454-458.	1.4	5
68	Unconventional low-field magnetic response of a diffusive ring with spin–orbit coupling. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 221-226.	0.9	4
69	Modulation of circular current and associated magnetic field in a molecular junction: A new approach. Scientific Reports, 2017, 7, 43343.	1.6	24
70	Phase controlled metal–insulator transition in multi-leg quasiperiodic optical lattices. Annals of Physics, 2017, 382, 150-159.	1.0	17
71	Externally controlled high degree of spin polarization and spin inversion in a conducting junction: Two new approaches. Scientific Reports, 2017, 7, 14313.	1.6	42
72	High degree of current rectification at nanoscale level. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 93, 275-278.	1.3	10

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73	Anomalous magnetic response of a quasi-periodic mesoscopic ring in presence of Rashba and Dresselhaus spin-orbit interactions. European Physical Journal B, 2016, 89, 1.	0.6	16
74	Circulating persistent current and induced magnetic field in a fractal network. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 1741-1749.	0.9	5
75	Selective spin transport through a quantum heterostructure: Transfer matrix method. International Journal of Modern Physics B, 2016, 30, 1650184.	1.0	7
76	Circulating current in 1D Hubbard rings with long-range hopping: Comparison between exact diagonalization method and mean-field approach. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 84, 118-134.	1.3	5
77	Magnetic response of non-interacting and interacting electrons in a Möbius strip. Superlattices and Microstructures, 2016, 100, 1081-1093.	1.4	5
78	Characteristics of persistent spin current components in a quasi-periodic Fibonacci ring with spin–orbit interactions: Prediction of spin–orbit coupling and on-site energy. Annals of Physics, 2016, 375, 337-350.	1.0	12
79	Multiple mobility edges in a 1D Aubry chain with Hubbard interaction in presence of electric field: Controlled electron transport. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 83, 358-364.	1.3	6
80	Metal–insulator transition in an one-dimensional half-filled interacting mesoscopic ring with spinless fermions: Exact results. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 1450-1454.	0.9	3
81	Externally controlled local magnetic field in a conducting mesoscopic ring coupled to a quantum wire. Journal of Applied Physics, 2015, 117, 024306.	1.1	28
82	Externally controlled selective spin transfer through a two-terminal bridge setup. European Physical Journal B, 2015, 88, 1.	0.6	6
83	Conformation dependent magnetotransport in a single handed helical geometry. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 2848-2852.	0.9	1
84	Curvature effect on spin polarization in a three-terminal geometry in presence of Rashba spin–orbit interaction. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 361-366.	0.9	23
85	Electric field induced localization phenomena in a ladder network with superlattice configuration: Effect of backbone environment. AIP Advances, 2014, 4, 097126.	0.6	6
86	Persistent charge and spin currents in a quantum ring using Green׳s function technique: Interplay between magnetic flux and spin–orbit interactions. Physica E: Low-Dimensional Systems and Nanostructures, 2014, 64, 169-177.	1.3	8
87	Theoretical verification of experimentally obtained conformation-dependent electronic conductance in a biphenyl molecule. Physica E: Low-Dimensional Systems and Nanostructures, 2014, 61, 125-128.	1.3	9
88	Conformation-dependent electron transport through a biphenyl molecule: circular current and related issues. European Physical Journal B, 2013, 86, 1.	0.6	17
89	Mobility edge phenomenon in a Hubbard chain: A mean field study. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 1205-1209.	0.9	21
90	Positional dependence of energy gap on line defect in armchair graphene nanoribbons: Two-terminal transport and related issues. Journal of Applied Physics, 2013, 114, .	1,1	27

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91	Persistent current in an ordered-disordered separated cylinder. , 2013, , .		1
92	Spin Hall Effect in a kagome lattice. , 2013, , .		0
93	Spin-orbit interaction induced spin selective transmission through a multi-terminal mesoscopic ring. Journal of Applied Physics, 2013, 114, 164318.	1.1	33
94	Multi-Terminal Magneto-Transport in an Interacting Fractal Network: A Mean Field Study. Journal of Computational and Theoretical Nanoscience, 2013, 10, 504-509.	0.4	3
95	Magnetotransport in mesoscopic rings and cylinders: effects of electron-electron interaction and spin-orbit coupling. Nanotechnology Reviews, 2012, 1, 255-271.	2.6	Ο
96	Magnetic response in a zigzag carbon nanotube. European Physical Journal B, 2012, 85, 1.	0.6	8
97	Magneto-transport in a quantum network: evidence of a mesoscopic switch. European Physical Journal B, 2012, 85, 1.	0.6	5
98	Integer quantum Hall effect in a lattice model revisited: Kubo formalism. Journal of Applied Physics, 2012, 112, 044306.	1.1	23
99	Interplay of magnetic field and geometry in magneto-transport of mesoscopic loops with Rashba and Dresselhaus spin-orbit interactions. Journal of Applied Physics, 2012, 112, 024321.	1.1	15
100	Spin Hall effect in a kagome lattice driven by Rashba spin-orbit interaction. Journal of Applied Physics, 2012, 112, .	1.1	17
101	Integer quantum Hall effect in a square lattice revisited. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 1366-1370.	0.9	8
102	A proposal for the measurement of Rashba and Dresselhaus spin–orbit interaction strengths in a single sample. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 2147-2150.	0.9	13
103	Spin transport through a quantum network: Effects of Rashba spin-orbit interaction and Aharonov–Bohm flux. Journal of Applied Physics, 2011, 109, .	1.1	31
104	Determination of Rashba and Dresselhaus spin-orbit fields. Journal of Applied Physics, 2011, 110, .	1.1	30
105	Distribution of persistent currents in a multi-arm mesoscopic ring. European Physical Journal B, 2011, 79, 209-213.	0.6	10
106	Logical XOR gate response in a quantum interferometer: A spin dependent transport. European Physical Journal B, 2011, 80, 105-114.	0.6	29
107	On the way to meet the experimental observation of persistent current in a mesoscopic cylinder: A mean field study. Physica Status Solidi (B): Basic Research, 2011, 248, 1933-1940.	0.7	15
108	Effect of dephasing on electron transport in a molecular wire: Green's function approach. Organic Electronics, 2011, 12, 1017-1024.	1.4	59

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109	Magnetic field induced metal-insulator transition in a kagome nanoribbon. Journal of Applied Physics, 2011, 110, 094306.	1.1	11
110	Magneto-transport in a mesoscopic ring with Rashba and Dresselhaus spin-orbit interactions. Europhysics Letters, 2011, 95, 57008.	0.7	45
111	A Mesoscopic Ring as a NOT Gate: An Exact Result. Journal of Computational and Theoretical Nanoscience, 2010, 7, 594-599.	0.4	7
112	Magnetic quantum wire as a spin filter: An exact study. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 1522-1526.	0.9	29
113	Multi-terminal electron transport through single phenalenyl molecule: A theoretical study. Organic Electronics, 2010, 11, 1120-1128.	1.4	37
114	Multi-terminal quantum transport through a single benzene molecule: Evidence of a molecular transistor. Solid State Communications, 2010, 150, 1269-1274.	0.9	18
115	Magnetic response in mesoscopic Hubbard rings: A mean field study. Solid State Communications, 2010, 150, 2212-2217.	0.9	26
116	Magnetic response of interacting electrons in a fractal network: A mean-field approach. Physical Review B, 2010, 82, .	1.1	25
117	QUANTUM TRANSPORT THROUGH HETEROCYCLIC MOLECULES. International Journal of Modern Physics B, 2009, 23, 177-187.	1.0	Ο
118	Persistent Current in Metallic Rings and Cylinders. Solid State Phenomena, 2009, 155, 87-104.	0.3	10
119	Electron transport in a double quantum ring: Evidence of an AND gate. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 4470-4474.	0.9	40
120	Electron transport through honeycomb lattice ribbons with armchair edges. Solid State Communications, 2009, 149, 973-977.	0.9	32
121	Quantum transport in a mesoscopic ring: Evidence of an OR gate. Solid State Communications, 2009, 149, 1684-1688.	0.9	30
122	XOR gate response in a mesoscopic ring with embedded quantum dots. Solid State Communications, 2009, 149, 1623-1627.	0.9	27
123	NOR gate response in a double quantum ring: An exact result. Solid State Communications, 2009, 149, 2146-2150.	0.9	31
124	Flux-induced semiconducting behavior of a quantum network. Physical Review B, 2009, 79, .	1.1	24
125	Fractional Periodic Persistent Current in a Twisted Normal Metal Loop: An Exact Result. Journal of Computational and Theoretical Nanoscience, 2009, 6, 187-191.	0.4	2
126	A Mesoscopic Ring as a XNOR Gate: An Exact Result. Journal of the Physical Society of Japan, 2009, 78, 114602.	0.7	22

8

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127	Anomalous Quantum Transport in a Thin Film. Journal of Nanoscience and Nanotechnology, 2009, 9, 5664-5668.	0.9	2
128	Tuning of electron transport through molecular bridge systems: A study of shot noise. International Journal of Quantum Chemistry, 2008, 108, 135-141.	1.0	9
129	Anomalous quantum transport through a thin film of varying impurity density with the distance from the film surface. Transactions of the Indian Institute of Metals, 2008, 61, 211-215.	0.7	0
130	Metal-Insulator Transition in an Aperiodic Ladder Network: An Exact Result. Physical Review Letters, 2008, 101, 076803.	2.9	69
131	EFFECT OF ISOMERS ON QUANTUM TRANSPORT THROUGH MOLECULAR BRIDGE SYSTEM. International Journal of Modern Physics B, 2008, 22, 247-256.	1.0	3
132	PERSISTENT CURRENT IN ONE-DIMENSIONAL NON-SUPERCONDUCTING MESOSCOPIC RINGS: EFFECTS OF SINGLE HOPPING IMPURITY, IN-PLANE ELECTRIC FIELD AND FOREIGN ATOMS. International Journal of Modern Physics B, 2008, 22, 4951-4965.	1.0	3
133	Ladder network as a mesoscopic switch: An exact result. Physical Review B, 2008, 78, .	1.1	41
134	Electron Transport Through Molecular Bridge Systems. Journal of Nanoscience and Nanotechnology, 2008, 8, 4096-4100.	0.9	16
135	QUANTUM TRANSPORT THROUGH SINGLE PHENALENYL MOLECULE: EFFECT OF INTERFACE STRUCTURE. International Journal of Nanoscience, 2007, 06, 415-422.	0.4	2
136	MAGNETIC RESPONSE IN 1D NON-INTERACTING MESOSCOPIC RINGS: LONG-RANGE HOPPING IN SHORTEST PATH. International Journal of Modern Physics B, 2007, 21, 179-190.	1.0	6
137	TOPOLOGICAL EFFECT ON PERSISTENT CURRENTS AND THE SIGN OF LOW-FIELD CURRENTS IN n-FOLD TWISTED MOEBIUS STRIPS. International Journal of Modern Physics B, 2007, 21, 3001-3016.	1.0	4
138	Quantum transport through a molecule coupled with a mesoscopic ring. Physica Scripta, 2007, 75, 62-65.	1.2	22
139	Electron transport through polycyclic hydrocarbon molecules: A study of shot noise contribution to the power spectrum. Organic Electronics, 2007, 8, 575-583.	1.4	36
140	Effect of localizing groups on quantum transport through single conjugated molecules. Physica B: Condensed Matter, 2007, 394, 33-38.	1.3	31
141	Quantum transport through polycyclic hydrocarbon molecules. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 366, 114-119.	0.9	56
142	Enhancement of persistent current in mesoscopic rings and cylinders: shortest and next possible shortest higher-order hopping. Journal of Physics Condensed Matter, 2006, 18, 5349-5361.	0.7	28
143	Magnetic responses in 1D mesoscopic rings and cylinders. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 31, 117-124.	1.3	23
144	On the role of electron correlation and disorder on persistent currents in isolated one-dimensional rings. Solid State Communications, 2005, 135, 278-283.	0.9	16

SANTANU K MAITI

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145	Strange behavior of persistent currents in small Hubbard rings. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 332, 497-502.	0.9	24
146	Crack Detection in Geometrically Segmented Beams. Key Engineering Materials, 1999, 167-168, 343-353.	0.4	1
147	Quantum Transport in Bridge Systems. Solid State Phenomena, 0, 155, 71-85.	0.3	1
148	Thermoelectric properties of a diamond ribbon subjected to a transverse magnetic field. Europhysics Letters, 0, , .	0.7	0
149	Thermoelectric Effect in a Fibonacci Chain with AAH Modulation: A Theoretical Study. Annalen Der Physik, 0, , 2200190.	0.9	0