

Finding the quantum thermoelectric with maximal efficiency production at given power output

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Thermodynamics of the mesoscopic thermoelectric heat engine beyond the linear-response regime. <i>Physical Review E</i> , 2015, 92, 042165.	0.8	41
2	Efficiency at maximum power of a quantum heat engine based on two coupled oscillators. <i>Physical Review E</i> , 2015, 91, 062134.	0.8	31
3	Thermodynamics of Micro- and Nano-Systems Driven by Periodic Temperature Variations. <i>Physical Review X</i> , 2015, 5, .	2.8	136
4	Reversible electron-hole separation in a hot carrier solar cell. <i>New Journal of Physics</i> , 2015, 17, 095004.	1.2	33
5	Hot carrier extraction using energy selective contacts and its impact on the limiting efficiency of a hot carrier solar cell. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	16
6	Quantum point contacts as heat engines. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2015, 74, 447-450.	1.3	4
7	Unified Approach to Thermodynamic Optimization of Generic Objective Functions in the Linear Response Regime. <i>Entropy</i> , 2016, 18, 161.	1.1	4
8	Quantum Coherent Three-Terminal Thermoelectrics: Maximum Efficiency at Given Power Output. <i>Entropy</i> , 2016, 18, 208.	1.1	17
9	Heat-charge mixed noise and thermoelectric efficiency fluctuations. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2016, 2016, 054015.	0.9	13
10	Optimisation of a three-terminal nonlinear heat nano-engine. <i>New Journal of Physics</i> , 2016, 18, 023050.	1.2	15
12	Thermoelectrics with Coulomb-coupled quantum dots. <i>Comptes Rendus Physique</i> , 2016, 17, 1109-1122.	0.3	33
13	Nonlinear phenomena in quantum thermoelectrics and heat. <i>Comptes Rendus Physique</i> , 2016, 17, 1060-1071.	0.3	55
14	Maximum efficiency of low-dissipation heat engines at arbitrary power. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2016, 2016, 073204.	0.9	56
15	Transitional steady states of exchange dynamics between finite quantum systems. <i>Physical Review E</i> , 2016, 94, 022136.	0.8	2
16	Nonlinear thermoelectric efficiency of superlattice-structured nanowires. <i>Physical Review B</i> , 2016, 94, .	1.1	30
17	Time-dependent thermoelectric transport for nanoscale thermal machines. <i>Physical Review B</i> , 2016, 93, .	1.1	28
18	Efficiency at maximum power of thermochemical engines with near-independent particles. <i>Physical Review E</i> , 2016, 93, 032125.	0.8	7
19	Maximum efficiency of steady-state heat engines at arbitrary power. <i>Physical Review E</i> , 2016, 93, 050101.	0.8	52

#	ARTICLE	IF	CITATIONS
20	Hybrid driven three-terminal thermoelectric refrigerators based on resonant tunneling quantum dots. <i>Modern Physics Letters B</i> , 2016, 30, 1650397.	1.0	3
21	Efficiency and its bounds of minimally nonlinear irreversible heat engines at arbitrary power. <i>Physical Review E</i> , 2016, 94, 052114.	0.8	30
22	Reprint of : Quantum point contacts as heat engines. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2016, 82, 310-313.	1.3	2
23	Reprint of : Thermoelectricity without absorbing energy from the heat sources. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2016, 82, 176-184.	1.3	5
24	Thermoelectric performance and optimization of three-terminal quantum dot nano-devices. <i>Energy</i> , 2016, 95, 593-601.	4.5	20
25	Thermoelectricity without absorbing energy from the heat sources. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2016, 75, 257-265.	1.3	35
26	Implementation of transmission functions for an optimized three-terminal quantum dot heat engine. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 085303.	0.7	5
27	Entropy production in photovoltaic-thermoelectric nanodevices from the non-equilibrium Green's function formalism. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 175301.	0.7	9
28	Perspective: Thermal and thermoelectric transport in molecular junctions. <i>Journal of Chemical Physics</i> , 2017, 146, .	1.2	144
29	Local-stability analysis of a low-dissipation heat engine working at maximum power output. <i>Physical Review E</i> , 2017, 96, 042128.	0.8	15
30	Route towards the optimization at given power of thermoelectric heat engines with broken time-reversal symmetry. <i>Physical Review E</i> , 2017, 96, 022133.	0.8	4
31	Powerful Coulomb-drag thermoelectric engine. <i>Physical Review B</i> , 2017, 96, .	1.1	33
32	Endoreversible quantum heat engines in the linear response regime. <i>Physical Review E</i> , 2017, 96, 012152.	0.8	8
33	Diverging, but negligible power at Carnot efficiency: Theory and experiment. <i>Physical Review E</i> , 2017, 96, 062107.	0.8	35
34	Underdamped stochastic heat engine at maximum efficiency. <i>Europhysics Letters</i> , 2017, 119, 50003.	0.7	42
35	Unified theory of resonances and bound states in the continuum in Hermitian tight-binding models. <i>Physical Review B</i> , 2017, 96, .	1.1	23
36	Fundamental aspects of steady-state conversion of heat to work at the nanoscale. <i>Physics Reports</i> , 2017, 694, 1-124.	10.3	470
37	Optimal Quantum Interference Thermoelectric Heat Engine with Edge States. <i>Physical Review Letters</i> , 2017, 118, 256801.	2.9	38

#	ARTICLE	IF	CITATIONS
38	Thermoelectric Power Factor Limit of a 1D Nanowire. Physical Review Letters, 2018, 120, 177703.	2.9	30
39	Superlattice design for optimal thermoelectric generator performance. Journal Physics D: Applied Physics, 2018, 51, 185301.	1.3	26
40	Superior Thermoelectric Design via Antireflection Enabled Lineshape Engineering. IEEE Transactions on Electron Devices, 2018, 65, 1896-1901.	1.6	13
41	Thermionic cooling devices based on resonant-tunneling AlGaAs/GaAs heterostructure. Journal of Physics Condensed Matter, 2018, 30, 064005.	0.7	10
42	Performance analysis for minimally nonlinear irreversible refrigerators at finite cooling power. Physica A: Statistical Mechanics and Its Applications, 2018, 496, 137-146.	1.2	6
43	Optimal performance at arbitrary power of minimally nonlinear irreversible thermoelectric generators with broken time-reversal symmetry. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 20-26.	0.9	2
44	Analytic treatment of the thermoelectric properties for two coupled quantum dots threaded by magnetic fields. Journal of Physics Communications, 2018, 2, 055026.	0.5	8
45	Quantum Thermodynamics of Nanoscale Thermoelectrics and Electronic Devices. Fundamental Theories of Physics, 2018, , 175-206.	0.1	2
46	Performance analysis of nanostructured Peltier coolers. Journal of Applied Physics, 2018, 124, 144901.	1.1	18
47	Interfacial thermal transport with strong system-bath coupling: A phonon delocalization effect. Physical Review B, 2018, 97, .	1.1	15
48	Coefficient of performance and its bounds of minimally nonlinear irreversible refrigerator at arbitrary optimal value. Modern Physics Letters B, 2018, 32, 1850232.	1.0	1
49	Optimized Peltier cooling via an array of quantum dots with stair-like ground-state energy configuration. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 3026-3030.	0.9	8
50	Thermodynamic Bound on Heat-to-Power Conversion. Physical Review Letters, 2018, 121, 080602.	2.9	24
51	Electronic Fabry-Perot Cavity Engineered Nanoscale Thermoelectric Generators. Physical Review Applied, 2019, 12, .	1.5	10
52	Thermoelectric cooling properties of quantum dot superlattice embedded nanowires. Materials Research Express, 2019, 6, 095071.	0.8	1
53	Numerically exact full counting statistics of the energy current in the Kondo regime. Physical Review B, 2019, 100, .	1.1	19
54	Optimal Thermoelectricity with Quantum Spin Hall Edge States. Physical Review Letters, 2019, 123, 186801.	2.9	16
55	Optimal efficiency and power, and their trade-off in three-terminal quantum thermoelectric engines with two output electric currents. Physical Review B, 2019, 100, .	1.1	12

#	ARTICLE	IF	CITATIONS
56	Power, Efficiency and Fluctuations in a Quantum Point Contact as Steady-State Thermoelectric Heat Engine. <i>Entropy</i> , 2019, 21, 777.	1.1	29
57	Optimal work-to-work conversion of a nonlinear quantum Brownian duet. <i>Physical Review A</i> , 2019, 99, .	1.0	24
58	Enhanced thermoelectric properties of graphene-based ferromagnetic-superconductor junctions, Andreev reflection effect. <i>Materials Research Express</i> , 2019, 6, 065021.	0.8	1
59	Effects of strong electron interactions and resonant scattering on power output of nano-devices. <i>Physical Review B</i> , 2019, 100, .	1.1	6
60	Comparative study of heat-driven and power-driven refrigerators with Coulomb-coupled quantum dots. <i>Physical Review B</i> , 2019, 100, .	1.1	19
61	Efficient and tunable Aharonov-Bohm quantum heat engine. <i>Physical Review B</i> , 2019, 100, .	1.1	20
62	Superlattice nanowire heat engines with direction-dependent power output and heat current. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 115, 113671.	1.3	3
63	Enhanced thermoelectric performance actuated by inelastic processes in the channel region. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 117, 113832.	1.3	3
64	Quantifying nonequilibrium thermodynamic operations in a multiterminal mesoscopic system. <i>Physical Review B</i> , 2020, 102, .	1.1	19
65	Quantum transport in a chain of quantum dots with inhomogeneous size distribution and manifestation of 1D Anderson localization. <i>Scientific Reports</i> , 2020, 10, 16701.	1.6	7
66	A realistic non-local heat engine based on Coulomb-coupled systems. <i>Journal of Applied Physics</i> , 2020, 127, 234903.	1.1	7
67	Entropy analyses of electronic devices with different energy selective electron tunnels. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 560, 125128.	1.2	4
68	Optically manipulating thermodynamic performances of a quantum-dot heat engine. <i>Superlattices and Microstructures</i> , 2020, 145, 106625.	1.4	2
69	Detailed study of nonlinear cooling with two-terminal configurations of topological edge states. <i>Physical Review B</i> , 2020, 102, .	1.1	5
70	Power, efficiency, and fluctuations in steady-state heat engines. <i>Physical Review E</i> , 2020, 102, 040103.	0.8	13
71	Wiedemann-Franz law in scattering theory revisited. <i>Physical Review B</i> , 2020, 102, .	1.1	6
72	Three-terminal vibron-coupled hybrid quantum dot thermoelectric refrigeration. <i>Journal of Applied Physics</i> , 2020, 128, 234303.	1.1	8
73	Thermoelectric power generation efficiency of zigzag monolayer nanoribbon of bismuth. <i>Nanotechnology</i> , 2020, 31, 375403.	1.3	13

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74	Maximum efficiency of low-dissipation refrigerators at arbitrary cooling power. <i>Physical Review E</i> , 2020, 101, 052124.	0.8	7
75	Thermodynamic efficiency of mesoscopic thermoelectric generators with broken time-reversal symmetry: Insights from an ecological optimization. <i>Modern Physics Letters B</i> , 2020, 34, 2050262.	1.0	1
76	Optimal performance of a three-level quantum refrigerator. <i>Physical Review E</i> , 2020, 101, 062121.	0.8	10
77	Anomalous Heat Transport in Classical Many-Body Systems: Overview and Perspectives. <i>Frontiers in Physics</i> , 2020, 8, .	1.0	28
78	Thermoelectric and electron heat rectification properties of quantum dot superlattice nanowire arrays. <i>AIP Advances</i> , 2020, 10, 045222.	0.6	8
79	Thermoelectric generator with finite-sized reservoir. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2021, 562, 125331.	1.2	1
80	Realistic nonlocal refrigeration engine based on Coulomb-coupled systems. <i>Physical Review E</i> , 2021, 103, 012131.	0.8	4
81	Learning the best nanoscale heat engines through evolving network topology. <i>Communications Physics</i> , 2021, 4, .	2.0	4
82	Thermoelectric cooling properties of a quantum Hall Corbino device. <i>Physical Review B</i> , 2021, 103, .	1.1	3
83	Thermodynamic bounds on coherent transport in periodically driven conductors. <i>Physical Review X</i> , 2021, 11, .	2.8	12
84	Efficiency at maximum power of thermoelectric heat engines with the symmetric semiconductor superlattice. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2021, 129, 114657.	1.3	1
85	Maximum efficiency of absorption refrigerators at arbitrary cooling power. <i>Physical Review E</i> , 2021, 103, 052125.	0.8	7
86	Thermoelectric properties of armchair phosphorene nanoribbons in the presence of vacancy-induced impurity band. <i>Nanotechnology</i> , 2021, 32, 375704.	1.3	11
87	Performance optimization of three-terminal energy selective electron generators. <i>Science China Technological Sciences</i> , 2021, 64, 1641-1652.	2.0	44
88	General Bounds on Electronic Shot Noise in the Absence of Currents. <i>Physical Review Letters</i> , 2021, 127, 136801.	2.9	13
89	Thermoelectric figure of merit enhancement in dissipative superlattice structures. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 095301.	1.3	5
90	Coherent Transport in Periodically Driven Mesoscopic Conductors: From Scattering Amplitudes to Quantum Thermodynamics. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , 2020, 75, 483-500.	0.7	5
91	Nonlinear regime for enhanced performance of an Aharonov-Bohm heat engine. <i>AVS Quantum Science</i> , 2021, 3, .	1.8	5

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92	Efficiency at arbitrary power for the Curzon-Ahlborn heat engine in linear and nonlinear heat transfer processes. Wuli Xuebao/Acta Physica Sinica, 2017, 66, 130502.	0.2	0
93	Regimes and quantum bounds of nanoscale thermoelectrics with peaked transmission function. Physica E: Low-Dimensional Systems and Nanostructures, 2022, 138, 115105.	1.3	0
94	Maximum efficiency of low-dissipation heat pumps at given heating load. Physical Review E, 2022, 105, 024139.	0.8	1
95	Readout of Quantum Screening Effects Using a Time-Dependent Probe. Physical Review Letters, 2021, 127, 246802.	2.9	1
96	Geometric bounds on the power of adiabatic thermal machines. Physical Review E, 2022, 105, .	0.8	10
97	Anomalous transport in low-dimensional systems: A pedagogical overview. Physica A: Statistical Mechanics and Its Applications, 2023, 631, 127779.	1.2	2
98	Direct mapping of edge states in bilayer zigzag phosphorene nanoribbons into a SSH ladder model and optimizing their thermoelectric performance via edge state engineering. European Physical Journal Plus, 2022, 137, .	1.2	2
99	Advances in Photovoltaic Technologies from Atomic to Device Scale. Photonics, 2022, 9, 837.	0.9	1
100	Multidirectional strain-induced thermoelectric figure of merit enhancement of zigzag bilayer phosphorene nanoribbons. Physica Scripta, 0, , .	1.2	1
101	Globally optimal band structure for thermoelectrics in realistic systems. Physical Review B, 2022, 106, .	1.1	0
102	Thermodynamic Performance of Hot-Carrier Solar Cells: A Quantum Transport Model. Physical Review Applied, 2023, 19, .	1.5	2
103	Multitask quantum thermal machines and cooperative effects. Physical Review B, 2023, 107, .	1.1	6
104	A Strongly Correlated Quantum Dot Heat Engine with Optimal Performance: A Nonequilibrium Green's Function Approach. Physica Status Solidi (B): Basic Research, 2023, 260, .	0.7	0