Róbert Kovács

List of Publications by Year
in descending order

43 papers	718 citations	623734 14 h-index	552781 26 g-index
44 all docs	44 docs citations	44 times ranked	241 citing authors

#	Article	IF	Citations
1	A Case Study of Non-Fourier Heat Conduction Using Internal Variables and GENERIC. Journal of Non-Equilibrium Thermodynamics, 2022, 47, 31-60.	4.2	5
2	Analytical treatment of nonhomogeneous initial states for non-Fourier heat equations. International Communications in Heat and Mass Transfer, 2022, 134, 106021.	5.6	6
3	Spectral Properties of Dissipation. Journal of Non-Equilibrium Thermodynamics, 2022, 47, 95-102.	4.2	2
4	Lagging heat models in thermodynamics and bioheat transfer: a critical review. Continuum Mechanics and Thermodynamics, 2022, 34, 637-679.	2.2	19
5	On the two-temperature description of heterogeneous materials. International Journal of Heat and Mass Transfer, 2022, 194, 123021.	4.8	11
6	Non-equilibrium theories of rarefied gases: internal variables and extended thermodynamics. Continuum Mechanics and Thermodynamics, 2021, 33, 307-325.	2.2	13
7	New perspectives for modelling ballistic-diffusive heat conduction. Continuum Mechanics and Thermodynamics, 2021, 33, 2007-2026.	2.2	4
8	Continuum Modeling Perspectives of Non-Fourier Heat Conduction in Biological Systems. Journal of Non-Equilibrium Thermodynamics, 2021, 46, 371-381.	4.2	9
9	Size Effects and Beyond-Fourier Heat Conduction in Room-Temperature Experiments. Journal of Non-Equilibrium Thermodynamics, 2021, 46, 403-411.	4.2	21
10	When theories and experiments meet: Rarefied gases as a benchmark of non-equilibrium thermodynamic models. International Journal of Engineering Science, 2021, 169, 103574.	5.0	1
11	On the evaluation of non-Fourier effects in heat pulse experiments. International Journal of Engineering Science, 2021, 169, 103577.	5.0	19
12	Open Mathematical Aspects of Continuum Thermodynamics: Hyperbolicity, Boundaries and Nonlinearities. Symmetry, 2020, 12, 1469.	2.2	7
13	Entropy and Non-Equilibrium Statistical Mechanics. Entropy, 2020, 22, 507.	2.2	1
14	Four Spacetime Dimensional Simulation of Rheological Waves in Solids and the Merits of Thermodynamics. Entropy, 2020, 22, 1376.	2.2	6
15	Variational principles and nonequilibrium thermodynamics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190178.	3.4	13
16	Ballistic-Diffusive Model for Heat Transport in Superlattices and the Minimum Effective Heat Conductivity. Entropy, 2020, 22, 167.	2.2	13
17	Numerical treatment of nonlinear Fourier and Maxwell-Cattaneo-Vernotte heat transport equations. International Journal of Heat and Mass Transfer, 2020, 150, 119281.	4.8	23
18	Thermal Processes in Vacuum. Power Systems, 2020, , 105-121.	0.5	1

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19	Notes on the Solutions of PDE Systemsâ€"Duality Between Two Worlds. Power Systems, 2020, , 165-195.	0.5	1
20	Thermodynamical Extension of a Symplectic Numerical Scheme with Half Space and Time Shifts Demonstrated on Rheological Waves in Solids. Entropy, 2020, 22, 155.	2.2	10
21	Applications in Renewable Energy. Power Systems, 2020, , 43-103.	0.5	0
22	The Way of Problem Solving in Thermal Engineering. Power Systems, 2020, , 1-14.	0.5	0
23	General Aspects of Thermodynamical Modeling. Power Systems, 2020, , 15-42.	0.5	0
24	Nature Knows Better. Power Systems, 2020, , 123-164.	0.5	0
25	On the Rarefied Gas Experiments. Entropy, 2019, 21, 718.	2.2	11
26	Long term measurements from the MÃ¡tra Gravitational and Geophysical Laboratory. European Physical Journal: Special Topics, 2019, 228, 1693-1743.	2.6	5
27	Generalized heat-transport equations: parabolic and hyperbolic models. Continuum Mechanics and Thermodynamics, 2018, 30, 1245-1258.	2.2	20
28	Thermodynamical consistency of the dual-phase-lag heat conduction equation. Continuum Mechanics and Thermodynamics, 2018, 30, 1223-1230.	2.2	29
29	Second sound and ballistic heat conduction: NaF experiments revisited. International Journal of Heat and Mass Transfer, 2018, 117, 682-690.	4.8	36
30	Emergence of Non-Fourier Hierarchies. Entropy, 2018, 20, 832.	2.2	30
31	Implicit numerical schemes for generalized heat conduction equations. International Journal of Heat and Mass Transfer, 2018, 126, 1177-1182.	4.8	28
32	Thermal analysis of the SMOG-1 PocketQube satellite. Applied Thermal Engineering, 2018, 139, 506-513.	6.0	31
33	Analytic solution of Guyer-Krumhansl equation for laser flash experiments. International Journal of Heat and Mass Transfer, 2018, 127, 631-636.	4.8	32
34	First report of long term measurements of the MGGL laboratory in the MÃ¡tra mountain range. Classical and Quantum Gravity, 2017, 34, 114001.	4.0	10
35	Guyer-Krumhanslâ€"type heat conduction at room temperature. Europhysics Letters, 2017, 118, 50005.	2.0	62
36	Models of Ballistic Propagation of Heat at Low Temperatures. International Journal of Thermophysics, 2016, 37, 1.	2.1	26

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37	Deviation from the Fourier law in room-temperature heat pulse experiments. Journal of Non-Equilibrium Thermodynamics, 2016, 41, 41-48.	4.2	75
38	Thermodynamic hierarchies of evolution equations. Proceedings of the Estonian Academy of Sciences, 2015, 64, 389.	1.5	12
39	Generalized heat conduction in heat pulse experiments. International Journal of Heat and Mass Transfer, 2015, 83, 613-620.	4.8	104
40	Failure Analysis Methods in Electronics Assembly Technology. Materials Science Forum, 2008, 589, 349-354.	0.3	4
41	Kinetics of autothermal thermophilic aerobic digestion â€" application and extension of Activated Sludge Model No 1 at thermophilic temperatures. Water Science and Technology, 2007, 56, 137-145.	2.5	8
42	Application of Activated Sludge Model No. 3 for the Modeling of Organic Matter Biodegradation at Thermophilic Temperatures. Water Environment Research, 2007, 79, 554-560.	2.7	1
43	Connection between oxygen uptake rate and carbon dioxide evolution rate in aerobic thermophilic sludge digestion. Periodica Polytechnica: Chemical Engineering, 2007, 51, 17.	1.1	3