

RÃ³bert KovÃ¡cs

List of Publications by Year in descending order

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Version: 2024-02-01

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 | Generalized heat conduction in heat pulse experiments. International Journal of Heat and Mass Transfer, 2015, 83, 613-620. | 4.8 | 104 |
| 2 | Deviation from the Fourier law in room-temperature heat pulse experiments. Journal of Non-Equilibrium Thermodynamics, 2016, 41, 41-48. | 4.2 | 75 |
| 3 | Guyer-Krumhansl type heat conduction at room temperature. Europhysics Letters, 2017, 118, 50005. | 2.0 | 62 |
| 4 | Second sound and ballistic heat conduction: NaF experiments revisited. International Journal of Heat and Mass Transfer, 2018, 117, 682-690. | 4.8 | 36 |
| 5 | Analytic solution of Guyer-Krumhansl equation for laser flash experiments. International Journal of Heat and Mass Transfer, 2018, 127, 631-636. | 4.8 | 32 |
| 6 | Thermal analysis of the SMOG-1 PocketQube satellite. Applied Thermal Engineering, 2018, 139, 506-513. | 6.0 | 31 |
| 7 | Emergence of Non-Fourier Hierarchies. Entropy, 2018, 20, 832. | 2.2 | 30 |
| 8 | Thermodynamical consistency of the dual-phase-lag heat conduction equation. Continuum Mechanics and Thermodynamics, 2018, 30, 1223-1230. | 2.2 | 29 |
| 9 | Implicit numerical schemes for generalized heat conduction equations. International Journal of Heat and Mass Transfer, 2018, 126, 1177-1182. | 4.8 | 28 |
| 10 | Models of Ballistic Propagation of Heat at Low Temperatures. International Journal of Thermophysics, 2016, 37, 1. | 2.1 | 26 |
| 11 | 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 |
| 12 | Size Effects and Beyond-Fourier Heat Conduction in Room-Temperature Experiments. Journal of Non-Equilibrium Thermodynamics, 2021, 46, 403-411. | 4.2 | 21 |
| 13 | Generalized heat-transport equations: parabolic and hyperbolic models. Continuum Mechanics and Thermodynamics, 2018, 30, 1245-1258. | 2.2 | 20 |
| 14 | On the evaluation of non-Fourier effects in heat pulse experiments. International Journal of Engineering Science, 2021, 169, 103577. | 5.0 | 19 |
| 15 | Lagging heat models in thermodynamics and bioheat transfer: a critical review. Continuum Mechanics and Thermodynamics, 2022, 34, 637-679. | 2.2 | 19 |
| 16 | Variational principles and nonequilibrium thermodynamics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190178. | 3.4 | 13 |
| 17 | Ballistic-Diffusive Model for Heat Transport in Superlattices and the Minimum Effective Heat Conductivity. Entropy, 2020, 22, 167. | 2.2 | 13 |
| 18 | Non-equilibrium theories of rarefied gases: internal variables and extended thermodynamics. Continuum Mechanics and Thermodynamics, 2021, 33, 307-325. | 2.2 | 13 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Thermodynamic hierarchies of evolution equations. Proceedings of the Estonian Academy of Sciences, 2015, 64, 389. | 1.5 | 12 |
| 20 | On the Rarefied Gas Experiments. Entropy, 2019, 21, 718. | 2.2 | 11 |
| 21 | On the two-temperature description of heterogeneous materials. International Journal of Heat and Mass Transfer, 2022, 194, 123021. | 4.8 | 11 |
| 22 | First report of long term measurements of the MGGL laboratory in the MÄ¼tra mountain range. Classical and Quantum Gravity, 2017, 34, 114001. | 4.0 | 10 |
| 23 | 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 |
| 24 | Continuum Modeling Perspectives of Non-Fourier Heat Conduction in Biological Systems. Journal of Non-Equilibrium Thermodynamics, 2021, 46, 371-381. | 4.2 | 9 |
| 25 | Kinetics of autothermal thermophilic aerobic digestion â€œ application and extension of Activated Sludge Model No 1 at thermophilic temperatures. Water Science and Technology, 2007, 56, 137-145. | 2.5 | 8 |
| 26 | Open Mathematical Aspects of Continuum Thermodynamics: Hyperbolicity, Boundaries and Nonlinearities. Symmetry, 2020, 12, 1469. | 2.2 | 7 |
| 27 | Four Spacetime Dimensional Simulation of Rheological Waves in Solids and the Merits of Thermodynamics. Entropy, 2020, 22, 1376. | 2.2 | 6 |
| 28 | Analytical treatment of nonhomogeneous initial states for non-Fourier heat equations. International Communications in Heat and Mass Transfer, 2022, 134, 106021. | 5.6 | 6 |
| 29 | Long term measurements from the MÄ¼tra Gravitational and Geophysical Laboratory. European Physical Journal: Special Topics, 2019, 228, 1693-1743. | 2.6 | 5 |
| 30 | 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 |
| 31 | Failure Analysis Methods in Electronics Assembly Technology. Materials Science Forum, 2008, 589, 349-354. | 0.3 | 4 |
| 32 | New perspectives for modelling ballistic-diffusive heat conduction. Continuum Mechanics and Thermodynamics, 2021, 33, 2007-2026. | 2.2 | 4 |
| 33 | 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 |
| 34 | Spectral Properties of Dissipation. Journal of Non-Equilibrium Thermodynamics, 2022, 47, 95-102. | 4.2 | 2 |
| 35 | 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 |
| 36 | Entropy and Non-Equilibrium Statistical Mechanics. Entropy, 2020, 22, 507. | 2.2 | 1 |

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|----|---|-----|-----------|
| 37 | 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 |
| 38 | Thermal Processes in Vacuum. Power Systems, 2020, , 105-121. | 0.5 | 1 |
| 39 | Notes on the Solutions of PDE Systemsâ€™ Duality Between Two Worlds. Power Systems, 2020, , 165-195. | 0.5 | 1 |
| 40 | Applications in Renewable Energy. Power Systems, 2020, , 43-103. | 0.5 | 0 |
| 41 | The Way of Problem Solving in Thermal Engineering. Power Systems, 2020, , 1-14. | 0.5 | 0 |
| 42 | General Aspects of Thermodynamical Modeling. Power Systems, 2020, , 15-42. | 0.5 | 0 |
| 43 | Nature Knows Better. Power Systems, 2020, , 123-164. | 0.5 | 0 |