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Titolo	Crossroad of Maxwell Demon / / edited by Xavier Bouju, Christian Joachim
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Collana	Advances in Atom and Single Molecule Machines, , 2193-9705
Altri autori (Persone)	JoachimC
Disciplina	620.5
Soggetti	Nanoelectromechanical systems Nanotechnology Quantum chemistry Self-assembly (Chemistry) Nanoscale Devices Nanoscale Design, Synthesis and Processing Quantum Chemistry Molecular Self-assembly
Lingua di pubblicazione	Inglese
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Nota di contenuto	Information Flows in Nanomachines -- The Role of Initial Coherence in the Phase-space Entropy Production Rate -- How Small can Maxwell's Demon be? Lessons from Autonomous Electronic Feedback Models -- Many-body Thermal States on a Quantum Computer: A Variational Approach -- Implementing a Quantum Information Engine Using Spintronics -- Virtual Potential Created by a Feedback Loop: Taming the Feedback Demon to Explore Stochastic Thermodynamics of Underdamped Systems -- Symmetry, Chirality and Unidirectional Motion -- Asymmetric Energy Barriers in Unidirectional Molecule-rotors -- Driving a Single Chemisorbed Molecule-rotor by Thermal Energy and Tunneling Electrons.
Sommario/riassunto	Written by leading experts in this field, this proceedings volume originates from a workshop held in Toulouse on March 1–2, 2023, organized by the ESIM European project (Energy Storage Inside Molecule(s)). The book explores the intersection and convergence of various perspectives, disciplines, and research areas related to a

modern version of the Maxwell demon at the nanoscale. It presents interdisciplinary perspectives on topics such as intramolecular thermodynamics and single molecule motive power and overviews the realm of single objects, be it atoms or molecules, while also emphasizing on theoretical and experimental approaches, with or without the presence of supporting surfaces. Notably, this comprehensive collection represents the first instance where such intertwined contributions on diverse versions of the Maxwell demon are discussed within the context of the nanoscale. It is of great use to graduate students, postdoctoral fellows, and researchers who are interested in single molecule mechanics. .

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