1. Record Nr. UNINA9911019354603321

Titolo	Advances in solid oxide fuel cells III : a collection of papers presented at the 31st International Conference on Advanced Ceramics and Composites, January 21-26, 2007, Daytona Beach, Florida
Pubbl/distr/stampa	[Place of publication not identified], : Wiley Interscience, 2008
ISBN	0-470-33977-2 0-470-33953-5
Collana	Ceramic engineering and science proceedings Advances in Solid Oxide Fuel Cells III
Disciplina	621.31/2429
Soggetti	Solid oxide fuel cells Ceramic materials Composite materials Electrical & Computer Engineering Engineering & Applied Sciences Electrical Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph

2. Record Nr. UNINA9911039316103321

Autore	Miyashita Seiji
Titolo	Physics of Entropy : Impact of Frustration to Thermodynamics of Matter / / by Seiji Miyashita
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2025
ISBN	9789819517589 9789819517572
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (356 pages)
Collana	Springer Series in Solid-State Sciences, , 2197-4179 ; ; 212
Disciplina	530.41
Soggetti	Condensed matter Magnetism Thermodynamics Statistical physics Condensed Matter Physics Statistical Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Introduction -- Part I: What entropy is -- 2. Denition of Entropy -- 3. Examples of phenomena caused by entropy -- Part II: Frustration and Entropy -- 4. Ground state degeneracy in frustrated systems with discrete variables -- 5. Ordering in frustrated systems of continuous variables -- 6. Quantum eects -- Part III Entropy in non-equilibrium system -- 7. Entropy in non-equilibrium system -- Index.
Sommario/riassunto	This book presents a thorough discussion of the role of entropy in thermodynamic systems, with particular emphasis on its influence on the stability of matter. Challenging conventional energy-centric paradigms, the book explores how entropy leads to stable phases in systems, especially systems characterized by frustration. Through detailed explanations of key concepts of entropy, and concrete examples, such as entropic forces, adiabatic demagnetization, and entropy-driven phase transitions, the book elucidates the multifaceted nature of entropy. Special attention is given to the phenomenon of "order by disorder" in frustrated systems, where entropy plays a crucial role in determining thermodynamic stability. Both discrete and

continuous spin systems are analyzed to illustrate the mechanisms by which entropy governs ordering processes. The treatment also extends to quantum fluctuations and their contribution to phase transitions, offering a comprehensive perspective across classical and quantum regimes. Extension of entropy to non-equilibrium states and also to non-extensive states is also explained. Intended for researchers and graduate and advanced undergraduate students in physics and related disciplines, this volume offers a detailed explanation of the concept of entropy, giving theoretical insights with illustrative case studies. It serves as a valuable resource for those who would like to more deeply understand entropy and its foundational role in the thermodynamics of complex systems.