1. Record Nr. UNINA9910707316503321

Autore	Kroposki Ben
Titolo	Advanced power electronic functionality for renewable energy integration with the power grid / / Ben Kroposki
Pubbl/distr/stampa	[Golden, Colo.] : , : National Renewable Energy Laboratory, , 2016
Descrizione fisica	1 online resource (16 pages) : color illustrations
Collana	NREL/PR ; ; 5D00-66741
Soggetti	Renewable energy sources Building-integrated photovoltaic systems Electric power systems - Technological innovations Smart power grids Interconnected electric utility systems Conference papers and proceedings.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from title screen (viewed on July 20, 2016). "Power Systems Engineering Center." "2016 8th International Power Electronics and Motion Control Conference - ECCE Asia (IPEMC 2016-ECCE Asia), Hefei, China, May 22-25, 2016."
Nota di bibliografia	Includes bibliographical references.

2. Record Nr. UNINA9910324955003321

Autore	Matsoukas Themis
Titolo	Generalized Statistical Thermodynamics : Thermodynamics of Probability Distributions and Stochastic Processes / / by Themis Matsoukas
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-030-04149-2
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (XXI, 363 p. 57 illus., 55 illus. in color.)
Collana	Understanding Complex Systems, , 1860-0832
Disciplina	530.13 536.70727
Soggetti	Statistical physics Coding theory Information theory Probabilities Chemical engineering Statistical Physics and Dynamical Systems Coding and Information Theory Probability Theory and Stochastic Processes Industrial Chemistry/Chemical Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter1: Evolution of Ideas on Entropy -- Chapter2: The Cluster Ensemble -- Chapter3: Thermodynamic Limit (ThL) -- Chapter4: The Most Probable Distribution in the Continuous Limit.-Chapter5: Phase Transitions – The Giant Cluster -- Chapter6: The Bicomponent Ensemble -- Chapter7: Generalized Thermodynamics -- Chapter8: Irreversible Clustering -- Chapter9: Kinetic Gelation -- Chapter10: Fragmentation and Shattering.
Sommario/riassunto	This book gives the definitive mathematical answer to what thermodynamics really is: a variational calculus applied to probability distributions. Extending Gibbs's notion of ensemble, the Author imagines the ensemble of all possible probability distributions and assigns probabilities to them by selection rules that are fairly general.

The calculus of the most probable distribution in the ensemble produces the entire network of mathematical relationships we recognize as thermodynamics. The first part of the book develops the theory for discrete and continuous distributions while the second part applies this thermodynamic calculus to problems in population balance theory and shows how the emergence of a giant component in aggregation, and the shattering transition in fragmentation may be treated as formal phase transitions. While the book is intended as a research monograph, the material is self-contained and the style sufficiently tutorial to be accessible for self-paced study by an advanced graduate student in such fields as physics, chemistry, and engineering.