

Preface

This monograph presents recent developments in our research on a new thermodynamic concept—Entransy, specifically for phase change processes, such as boiling, condensation, absorption and desorption, etc. This body of work can be used by university postgraduate students as a textbook, by students for self-study, by researchers and professors as an academic reference book, and by engineers and designers as a guide for efficient energy system development.

The primary goal is to summarize our research results in energy systems where phase changes often occur. Entransy is a useful concept/tool for optimal design of such energy systems.

The book includes four chapters: (1) Introduction of the concept—entransy; (2) Fundamentals of Entransy and Entransy Dissipation Theory; (3) Application of Entransy Theory in Thermal Storage System; and (4) Application of Entransy Theory in Absorption Refrigeration System.

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