

KATHARINA KRISCHER AND KONRAD SCHÖNLEBER

PHYSICS OF ENERGY CONVERSION

Covers the physical basis of the most important energy conversion processes used for energy supply. The aim of this textbook is to provide a unified view on the different energy converter systems ranging from thermal power plants to solar cells. The central theme is the treatment of energy converters as open thermodynamical systems and the performance of efficiency analyses, based on the concept of exergy.

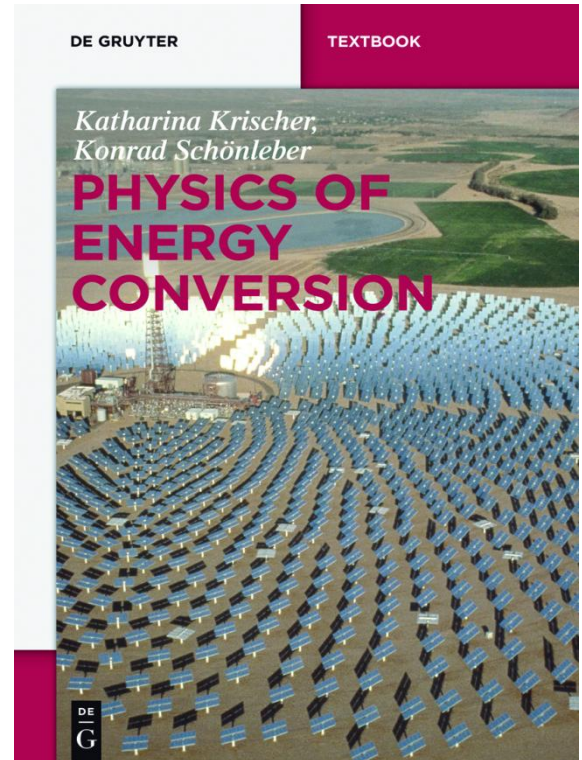
- Presents the physics behind the most important energy converters in a unified framework.
- Evaluates the performance of ideal and realistic energy converters in terms of energy and exergy efficiencies.
- Provides basic concepts needed for a discussion of energy converters, such as chemical and applied thermodynamics, electrochemistry and solid state physics.

Authorship

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