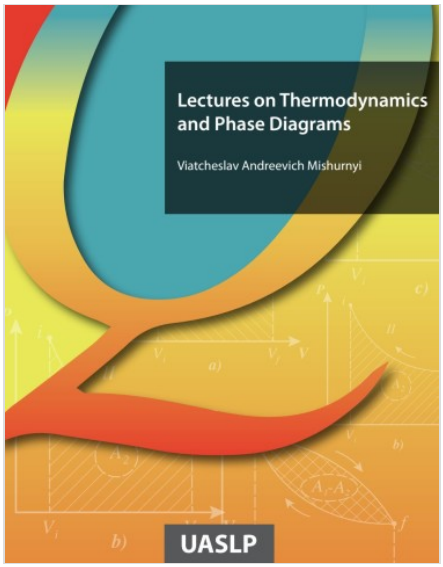
Lectures on Thermodynamics and Phase Diagrams

Autores

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Sinopsis

This book is the result of several years of teaching of the Faculty of Science in physical engineering and optoelectronics at the Autonomous University of San Luis Potosi (UASLP). It is devoted to the essential, in my opinion, area of material science and technology: thermodynamics related to various phase diagrams. I realized that there was a lack of appropriate literature that would clearly and thoroughly explain the necessary topics for students. I have tried to present the material simple, and accessible to students of different levels of education. Thus, to understand it, you only need to be familiar with the concepts of differential and integral calculus.The book consists of six chapters. The first and second chapters are concerned with the basic concepts of thermodynamics, that are used in the construction and analysis of various phase diagrams. In the third chapter, thermodynamic functions and the general conditions for thermodynamic equilibrium are studied. Chapters four, five, and six discuss phase diagrams of one-component, two-component, and multicomponent systems, including III-V systems and solid solutions, as well as experimental and theoretical methods for studying these diagrams.



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Specialist in the field of semiconductor physics and technology of epitaxial crystal growth by liquid-phase epitaxy.



Palabras clave

Thermodynamics; Phase diagrams; Material science; Physical engineering; Thermodynamic equilibrium; Thermodynamic functions

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A significant part of his activity, in addition to scientific work, was teaching. He is associated with the physical engineering and optoelectronics programs at the Autonomous University of San Luis Potosí.

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