

1. Record Nr.	UNINA9910298460903321
Autore	Peka Miloslav
Titolo	The thermodynamics of linear fluids and fluid mixtures // Miloslav Pekar, Ivan Samohyl
Pubbl/distr/stampa	Cham [Switzerland] : , : Springer, , 2014
ISBN	3-319-02514-7
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (x, 308 pages) : illustrations
Collana	Gale eBooks
Disciplina	536.7 54 541 541.369
Soggetti	Thermodynamics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Thermodynamics and its Concepts in Non-equilibrium -- Thermodynamics of Uniform Systems -- Continuum Thermodynamics of a Single Fluid -- Continuum Thermodynamics of Mixtures of Linear Fluids.
Sommario/riassunto	In this book, Samohyl and Peka offer a consistent and general non-equilibrium thermodynamic description for a model of chemically reacting mixtures. This type of model is frequently encountered in practice and up until now, chemically reacting systems (out of equilibrium) have rarely been described in books on non-equilibrium thermodynamics. Readers of this book benefit from the systematic development of the theory; this starts with general principles, going through the applications to single component fluid systems, and finishing with the theory of mixtures, including chemical reactions. The authors describe the simplest mixture model – the linear fluid – and highlight many practical and thermodynamically consistent equations for describing transport properties and reaction kinetics for this model. Further on in the book, the authors also describe more complex models. Samohyl and Peka take special care to clearly explain all methodology and starting axioms and they also describe in detail applied assumptions and simplifications. This book is suitable for

graduate students in chemistry, materials science and chemical engineering as well as professionals working in these and related areas.
