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| Altri autori (Persone)  | ValiashkoV. M (Vladimir Mikhailovich)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| Nota di contenuto       | Hydrothermal Experimental Data; Contents; CD Table of Contents; Foreword; Preface; Acknowledgements; 1: Phase Equilibria in Binary and Ternary Hydrothermal Systems; 1.1 INTRODUCTION; 1.2 EXPERIMENTAL METHODS FOR STUDYING HYDROTHERMAL PHASE EQUILIBRIA; 1.2.1 Methods of visual observation; 1.2.2 Methods of sampling; 1.2.3 Methods of quenching; 1.2.4 Indirect methods; 1.3 PHASE EQUILIBRIA IN BINARY SYSTEMS; 1.3.1 Main types of fluid phase behavior; 1.3.2 Classification of complete phase diagrams; 1.3.3 Graphical representation and experimental examples of binary phase diagrams 1.4 PHASE EQUILIBRIA IN TERNARY SYSTEMS1.4.1 Graphical representation of ternary phase diagrams; 1.4.2 Derivation and classification of ternary phase diagrams; REFERENCES; 2: pVTx Properties of Hydrothermal Systems; 2.1 BASIC PRINCIPLES AND DEFINITIONS; 2.2 EXPERIMENTAL METHODS; 2.2.1 Constant volume |

piezometers (CVP); 2.2.2 Variable volume piezometers (VVP); 2.2.3 Hydrostatic weighing technique (HWT); 2.2.4 Vibrating tube densimeter (VTD); 2.2.5 Synthetic fluid inclusion technique; 2.3 THEORETICAL TREATMENT OF pVTx DATA; 2.3.1 Excess volume; 2.3.2 Models for the standard partial molar volume

2.4 pVTx DATA FOR HYDROTHERMAL SYSTEMS 2.4.1 Laboratory activities; 2.4.2 Summary table; REFERENCES; 3: High Temperature Potentiometry; 3.1 INTRODUCTION; 3.1.1 Reference electrodes; 3.1.2 Indicator electrodes; 3.1.3 Diffusion, thermal diffusion, thermoelectric, and streaming potentials; 3.1.4 Reference and buffer solutions; 3.2 EXPERIMENTAL METHODS; 3.2.1 Hydrogen-electrode concentration cell; 3.2.2 Flow-through conventional potentiometric cells; 3.3 DATA TREATMENT; REFERENCES; 4: Electrical Conductivity in Hydrothermal Binary and Ternary Systems; 4.1 INTRODUCTION

4.2 BASIC PRINCIPLES AND DEFINITIONS 4.3 EXPERIMENTAL METHODS; 4.3.1 Static high temperature and pressure conductivity cells; 4.3.2 Flow-through conductivity cell; 4.3.3 Measurement procedure; 4.4 DATA TREATMENT; 4.4.1 Dissociated electrolytes; 4.4.2 Associated electrolytes; 4.4.3 Getting information from electrical conductivity data; 4.5 GENERAL TRENDS; 4.5.1 Specific conductivity as a function of temperature, concentration and density; 4.5.2 The limiting molar conductivity; 4.5.3 Concentration dependence of the molar conductivity and association constants

4.5.4 Molar conductivity as a function of temperature and density 4.5.5 Conductivity in ternary systems; REFERENCES; 5: Thermal Conductivity; 5.1 INTRODUCTION; 5.2 EXPERIMENTAL TECHNIQUES; 5.2.1 Parallel-plate technique; 5.2.2 Coaxial-cylinder technique; 5.2.3 Transient hot-wire technique; 5.2.4 Conclusion; 5.3 AVAILABLE EXPERIMENTAL DATA; 5.3.1 Temperature dependence; 5.3.2 Pressure dependence; 5.3.3 Concentration dependence; 5.4 DISCUSSION OF EXPERIMENTAL DATA; REFERENCES; 6: Viscosity; 6.1 INTRODUCTION; 6.2 EXPERIMENTAL TECHNIQUES; 6.2.1 Capillary-flow technique

6.2.2 Oscillating-disk technique

## Sommario/riassunto

Hydrothermal Properties of Materials: Experimental Data on Aqueous Phase Equilibria and Solution Properties at Elevated Temperatures and Pressures is designed for any scientists and engineer who deals with hydrothermal investigations and technologies. The book is organized into eight chapters, each dealing with a key physical property of behavior of solutions, so that a reader can obtain information on: hydrothermal experimental methods; available experimental data and the main features of properties behavior in a wide range of temperatures and pressures; and possible ways of experime