

1. Record Nr.	UNINA9910830998203321
Titolo	Acid gas injection and related technologies // edited by Ying (Alice) Wu and John J. Carroll ; cover design by Russell Richardson
Pubbl/distr/stampa	Salem, Massachusetts ; ; Hoboken, New Jersey : , : Scrivener Publishing : , : John Wiley & Sons, , 2011 ©2011
ISBN	1-118-09426-3 1-118-09427-1
Descrizione fisica	1 online resource (470 p.)
Collana	Advances in Natural Gas Engineering
Disciplina	622 622.3385 622/.3382
Soggetti	Oil wells - Gas lift Gas engineering
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 and index.
Nota di contenuto	""Acid Gas Injection and Related Technologies""; ""Contents""; ""Preface""; ""Acid Gas Injection: Past, Present, and Future""; ""Section 1: Data and Correlation""; ""1. Equilibrium Water Content Measurements For Acid Gas Mixtures""; ""1.1 Introduction""; ""1.2 Available Literature Data""; ""1.3 Equilibration Vessels / Techniques""; ""1.3.1 The Visual Dew Point Cell, VDP""; ""1.3.2 The Stirred Autoclave, SA, and Basic Equilibrium Cell, EQ""; ""1.3.3 The Isolated Floating Piston with Micro Sampler, IFP/I?S""; ""1.4 Water Analysis""; ""1.5 Sampling Issues for Analytic Methods"" ""1.6 Some Recent Results and Future Directions""""References""; ""2. The Performance of State of the Art Industrial Thermodynamic Models for the Correlation and Prediction of Acid Gas Solubility in Water""; ""2.1 Introduction""; ""2.2 Thermodynamic Modeling""; ""2.3 Water Content""; ""2.4 Conclusions and Recommendations""; ""Acknowledgements""; ""Nomenclature""; ""Subscripts""; ""Superscripts""; ""Greek Letters""; ""References""; ""3. The Research on Experiments and Theories about Hydrates in High-Sulfur Gas Reservoirs""; ""3.1 Introduction""

3.1.1 The Progress of Experimental Test in High-CO₂ or H₂S-containing System; 3.1.2 The Progress of Prediction Model of High-CO₂ or H₂S-containing System; 3.2 Experimental Tests; 3.2.1 Experimental Process; 3.2.2 Experimental Samples; 3.2.3 Experimental Results; 3.2.4 Alcohol and Glycol Systems; 3.2.5 Electrolytes Systems; 3.3 Thermodynamic Model; 3.3.1 The Improvement of Chemical Potential of Hydration Phase; 3.3.2 Calculation of Activity of Water Phase; 3.3.3 The Phase Equilibrium Calculation of Water-gas- Electrolytes- Alcohols; 3.3.4 The Definition of Freezing Point in Inhibitors-containing System; 3.3.5 Improved Prediction Model of Hydrate; 3.4 Experimental Evaluation; 3.4.1 Experimental Evaluation of Thermodynamics Prediction Model of Hydrate; 3.4.2 The Error Evaluation of the Improved Model for Experimental Data; 3.4.3 Pure Water is Water-rich in System; 3.4.4 The Alcohol Solution is Water-rich in System; 3.4.5 The Electrolytes Solution is Water-rich in System; 3.4.6 The Mixed of Electrolytes and Methanol Solution is Water-rich in System; 3.5 Conclusions; Acknowledgements; References; 4. An Association Model for the Correlation of the Solubility of Elemental Sulfur in Sour Gases; 4.1 Introduction; 4.2 Derivation of an Association Model; 4.3 Calculation and Analysis of Solubility; 4.4 Conclusions; Acknowledgements; References; 5. Properties of CO₂ Relevant To Sequestration a€? Density; 5.1 Introduction; 5.2 Review and Correlation; 5.2.1 Equations of State; 5.3 Density; References; 6. The Experimental Study of the Effect of the CO₂ Content on Natural Gas Properties at Gathering Conditions; 6.1 Introduction

Sommario/riassunto

Large producers have started to use gas injection for their applications and in the future it is predicted that this trend will increase. This book is the most comprehensive and up-to-date coverage of this technique, which is rapidly increasing in importance and usage in the natural gas and petroleum industry. The authors, a group of the most well-known and respected in the field, discuss, in a series of papers, this technology and related technologies as to how they can best be used by industry to creating a safer, cleaner environment.
