1. Record Nr. UNINA9910768195203321 Autore Song Yan Titolo Coalbed methane in China: geological theory and development / / Yan Song, Xinmin Zhang and Shaobo Liu Pubbl/distr/stampa Singapore:,: Springer,, [2021] ©2021 **ISBN** 981-334-725-2 Edizione [1st ed. 2021.] Descrizione fisica 1 online resource (XVII, 452 p. 423 illus., 72 illus. in color.) Disciplina 553 Geology, Economic Soggetti Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Review on exploration and development of Coalbed methane (CBM) --Origin of CBM -- Reservoir characterization and control factors -- Gas adsorption behavior on coals and gas content prediction model --Dynamic mechanism on CBM accumulation and dispersion --Formation and distribution of CBM enrichment areas -- Technical recoverable resource evaluation of CBM -- Seismic prediction technology of CBM favorable area -- CBM development comprehensive evaluation -- Gas desorption - flow during recovery process -- CBM production enhance mechanism and application. The coalbed methane (CBM) reserve in China ranks third in the world Sommario/riassunto with a total resource of 36.8×1012 m3. Exploitation of CBM has an important practical significance to ensure the long-term rapid development of China natural gas industry. Therefore, in 2002, the Ministry of Science and Technology of China set up a national 973 program to study CBM system and resolve problems of CBM exploration and exploitation in China. All the main research results and

new insights from the program are presented in this book. The book is divided into 11 chapters. The first chapter mainly introduces the present situation of CBM exploration and development in China and abroad. Chapters 2 through 9 illustrate the geological theory and prospect evaluation methods. Then chapters 10 and 11 discuss CBM recovery mechanisms and technology. The book systematically describes the origin, storage, accumulation and emission of CBM in

China, and also proposes new methods and technologies on resource evaluation, prospect prediction, seismic interpretation and enhanced recovery. The book will appeal to geologists, lecturers and students who are involved in the CBM industry and connected with coal and conventional hydrocarbon resources research.