

1. Record Nr.	UNINA9910377835003321
Autore	Wang Hao
Titolo	Water-resisting Property and Key Technologies of Grouting Reconstruction of the Upper Ordovician Limestone in North China's Coalfields [[electronic resource] /] / by Hao Wang
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-40116-2
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XVI, 183 p. 98 illus., 83 illus. in color.)
Collana	Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5053
Disciplina	622.5
Soggetti	Geology Geotechnical engineering Hydrogeology Geotechnical Engineering & Applied Earth Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Paleosedimentary Environments And Karst Characteristics Of Ordovician Limestone In North China Coalfields -- Water-Bearing And Water-Resisting Properties Of Top Of Ordovician Limestone In North China Coalfields -- Utilizability Of Weathered And Filled Zone Of Top Of Ordovician Limestone In North China Coalfields -- Criterion For Utilization And Grouting Reconstruction Of Top Of Ordovician Limestone -- Technical System Of Grouting Reconstruction Of Top Of Ordovician Limestone -- Case Study Of Utilization And Grouting Reconstruction Of Top Of Ordovician Limestone -- Conclusions And Innovation Points.
Sommario/riassunto	This book examines the water resistance capacity of the Upper Ordovician limestone and its feasibility as a water barrier to achieve safe and green mining. Mine water inrush events often occur during coal mine construction and production; they account for a large proportion of the coal mine disasters and accidents in China, second only to gas explosions. As mining depths and mining intensity continue to increase, the hydrogeological conditions encountered are becoming more complex. This book describes in-situ methods designed to test

the water resistance of the limestone layer, as well as specific grouting techniques developed to transform this layer into a barrier that can prevent water inrush during mining. The innovative technologies, which were applied and validated in two coal mines, are applicable to other coal mines or any underground engineering works.
