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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.