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Titolo	High Strength Support for Soft Surrounding Rock in Deep Underground Engineering [[electronic resource] ] : Theory and Key Technology // by Qi Wang, Bei Jiang, Shuca Li
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Descrizione fisica	1 online resource (XVI, 183 p. 147 illus., 123 illus. in color.)
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Nota di contenuto	Introduction -- Development of the Support System with Confined Concrete -- Mechanical Mechanism Test on the Basic Components of Confined Concrete Arches -- Calculation Theory of the Confined Concrete Arch -- Experimental Study on the Bearing Behavior of Confined Concrete Arches -- Engineering Practice of the Confined Concrete Support System in Soft Rock Roadways in the Sea Area -- Engineering Practice of Confined Concrete Support System in Deep Roadways with High Stress.
Sommario/riassunto	This book examines the field of surrounding rock control mechanisms and support technologies in underground engineering, and proposes a high-strength support system to address the complex conditions in underground engineering, such as high stress, extremely soft rocks, fault fracture zone and strong mining activity. It also comprehensively discusses the concept and bearing mechanisms of the supporting system, design calculation methods, field application and key construction technologies. The book describes the design and

construction of a large-scale mechanical test system, independently developed by the author for high- strength confined concrete arches, which can also be used to define the mechanism of deformation and failure of confined concrete arches. Further, the book explores the application of the confined concrete support system in underground engineering with complex conditions, and its control effect on soft surrounding rock. The first international book presenting the theory and key technologies of high-strength, confined concrete support, it is a valuable reference resource for design, construction and supervision staff in the field of geotechnical engineering, as well as for teachers, students and researchers. .

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