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Nota di contenuto	Sole of Concrete - Mix Proportion -- Important Raw Material -Coarse Aggregate -- Core Raw Material - Cement -- Alkali aggregate reaction, where are you?- Is Air-entraining agent a panacea for solving frost resistance problem?- Breeding and False Setting, Which Is Better?- Fiber, When Is Useful?- Cancer of Modern Concrete - Cracks -- Fly Ash, Really Only Advantages?- Admixtures - All medicines have their own side-effects -- Fatal Factor for Durability - Drying Shrinkage -- Doctor of Concrete - self-healing -- High Performance Concrete, Really High Performance?- Where Is the Correct Idea for Durability Research?- Scientific Foundation of Modern Concrete -- Summary report of

Experimental study on dehydration crack appearing in the construction of Turpan civil airport cement concrete pavement.

Sommario/riassunto

This book is devoted to two primary objectives. The first is to present the errors, inadaptability, and mistakes arising when the current theory on concrete is applied to explaining practical construction of concrete; the second is to put forward viewpoints in modern concrete science. Taking a number of engineering cases as examples, we experimentally studied and theoretically analyzed the errors, inadaptability, and mistakes when the current theory on concrete is applied to explaining practical construction of concrete. Moreover, we investigated the use of mixing ratios, aggregates, cement, high-performance concrete and fibers, as well as the frost resistance, cracking behavior, durability, dry shrinkage and autogenous healing to address and remedy the shortcomings in today's concrete science, put forward new proposals, and make a number of innovative achievements in the field, particularly in modern theory on concrete science. The results and topics which will be of particular interest to engineers and researchers include: corrections to several one-sided, even mistaken views on concrete construction in the field and a new theory that can be adopted to improve the durability of concrete projects, to control and improve the implementation quality of concrete projects, and to guide teaching in universities. Wenke Yang is a distinguished senior engineer at China Airport Construction Group Corporation, General Administration of Civil Aviation of China (CAAC).