rioration. They are useful additions to the international accumulation of case stories about concrete exposed to aggressive exposure conditions.

The 16 articles about $Ca(OH)_2$ in cement paste and mortars are useful contributions to basic clarification of the occurrence and effects of this integral component of cement paste. The introductory article expresses cement industrial interest in invention of low-lime cements. However, it does not indicate that such a novelty is right around the corner, and concrete engineers might ask whether it makes sense to sacrifice the beneficial effects of $Ca(OH)_2$. Meanwhile, a determined quest for the missing link between laboratory modeling and investigations of field concrete is wanted.

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Fundamentals of High-Performance Concrete (Second Edition) **Dr. Edward G. Nawy, P.E. CEng, Wiley, 2001**

Fundamentals of High-Performance Concrete (2nd edition) is a combined effort to address the interaction of concrete materials technology and design of normal-, as well as high-strength concrete elements. This book is intended for material technologists, engineering students and researchers, designers, and constructors. Needless to mention, the extent of author's knowledge on this subject matter is unsurpassed. The book closely delves into various discussions based on the author's past experience in concrete materials research, teaching, consulting, and forensic engineering. Thus, this book ranges from the very basics of high-performance concrete (HPC) to a detailed treatise on HPC, and what HPC ought to be in the millennium.

Unlike several other books on this subject, this book does not represent a compendium of papers by different authors with their own specialties within the domain of HPC. Instead, this book presents a unique recipe that is aimed both at the student and designer, who need to know the fundamentals of HPC, and also fully understand the pros and cons of selecting and proportioning high-performance durable concrete mixtures at an optimum cost.

American Concrete Institute defines HPC as "concrete meeting special combinations of performance and uniformity requirements that cannot always be achieved routinely using conventional constituents and normal mixing, placing, and curing practices." In this regard, the book begins (Chapter 1) with the general performance characteristics of cement and its performance criteria. The subsequent chapters cover the fundamentals of the performance of durable, normal-, and high-strength concrete, including a detailed discussion on the roles of mineral and chemical admixtures in producing very-high-strength concretes, and mixture proportioning of concrete to achieve desired concrete strength and durability.

Chapter 5 deals with lightweight aggregate high-strength concrete and its performance. Similarly, Chapters, 6, 7, and 8 detail the mechanisms of long-term creep and shrinkage and their prediction, and materials behavior characteristics of high-strength concrete, and present the micro- and macromechanics of HPC, respectively. In effect, these chapters cover the durability and serviceability requirements for design in the modern era.

Chapter 9 covers the state-of-the-art of high-performance fiber-reinforced concrete and fiber-reinforced plastic reinforcement and its applications. The remaining chapters in the book deal with the economics of high-strength HPC and the principal factors affecting cost.

This book presents a novel orientation of concrete materials technology and design of both normal- and high-strength concrete. It covers different approaches on the development of high-performance, normal-, and high-strength concrete, with particular emphasis on long-term durability considerations.

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