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Titolo	Directed molecular evolution of proteins : or how to improve enzymes for biocatalysis
Pubbl/distr/stampa	[Place of publication not identified], : Wiley VCH, 2002
ISBN	1-280-55837-7 9786610558377 3-527-60064-7
Descrizione fisica	1 online resource (359 pages)
Disciplina	660.6/34
Soggetti	Enzymes - Biotechnology Biocatalysis - Evolution Proteins - Chemical modification Proteins Molecular evolution Combinatorial chemistry Directed Molecular Evolution Protein Engineering Genetic Engineering Genetic Techniques Investigative Techniques Analytical, Diagnostic and Therapeutic Techniques and Equipment Biomedical Engineering Health & Biological Sciences Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
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Sommario/riassunto	Natural selection created optimal catalysts. However, optimal performance of enzyme catalysis does not necessarily refer to maximum reaction rate. Rather, it may be a compromise between specificity, rate, stability, and other chemical constraints that makes

enzymes capable of catalyzing reactions under mild conditions and with high substrate specificity, accompanied by high regio- and enantioselectivity. The book presented here focuses on the directed evolution of proteins, which has established itself as a powerful method for designing enzymes showing new substrate specificities. It includes a comprehensive repertoire of techniques for producing combinatorial enzyme libraries, while the functional gene expression in a suitable host helps in selecting the appropriate structure, making fast screening a necessity.

2. Record Nr.	UNINA9910961246003321
Titolo	Advanced concrete technology Constituent materials // edited by John Newman, Ban Seng Choo
Pubbl/distr/stampa	Oxford, : Elsevier, 2003
ISBN	0-08-052656-X 9780750651035 1-282-38133-4 9786612381331 1-281-00605-X 9786611006051 0-08-048998-2
Descrizione fisica	1 online resource (283 p.)
Altri autori (Persone)	NewmanJohn <1938-> (John Brian) ChooB. S
Disciplina	624.1/834 624.1834 620.136
Soggetti	Concrete Concrete construction
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Front Cover; Advanced Concrete Technology: Constituent Materials;

Copyright Page; Contents; Preface; List of contributors; Part 1: Cements; Chapter 1. Cements; 1.1 Introduction; 1.2 History of Portland cement manufacture; 1.3 Chemistry of clinker manufacture; 1.4 Cement grinding; 1.5 Portland cement hydration; 1.6 Portland cement types; 1.7 Cement production quality control; 1.8 Influence of cement quality control parameters on properties; 1.9 Relationship between laboratory mortar results and field concrete; 1.10 Applications for different cement types
 1.11 Health and safety aspects of cement useReferences; Chapter 2. Calcium aluminate cements; 2.1 Introduction; 2.2 Chemistry and mineralogy of CACs; 2.3 Properties of fresh CAC concrete - setting, workability, heat evolution; 2.4 Strength development; 2.5 Other engineering properties; 2.6 Supplementary cementing materials; 2.7 Durability/resistance to degradation; 2.8 Structural collapses associated with CAC concrete; 2.9 Modern uses of CAC concrete; 2.10 Use of CACs in mixed binder systems; 2.11 Summary; References; Part 2: Cementitious Additions; Chapter 3. Cementitious additions
 3.1 The pozzolanic reaction and concrete3.2 Fly ash as a cementitious addition to concrete; 3.3 Fly ash in special concretes; 3.4 Natural pozzolanas; 3.5 The use of ggbs in concrete; 3.6 Silica fume for concrete; 3.7 Metakaolin; 3.8 Limestone; References; Part 3: Admixtures; Chapter 4. Admixtures for concrete, mortar and grout; 4.1 Introduction; 4.2 Dispersing admixtures; 4.3 Retarding and retarding plasticizers/superplasticizing admixtures; 4.4 Accelerating admixtures; 4.5 Air-entraining admixtures; 4.6 Water resisting (waterproofing); 4.7 Corrosion-inhibiting admixtures
 4.8 Shrinkage-reducing admixtures4.9 Anti-washout/underwater admixtures; 4.10 Pumping aids; 4.11 Sprayed concrete admixtures; 4.12 Foamed concrete and CLSM; 4.13 Other concrete admixtures; 4.14 Mortar admixtures; 4.15 Grout admixtures; 4.16 Admixture supply; 4.17 Health and safety; Further reading; Part 4: Aggregates; Chapter 5. Geology, aggregates and classification; 5.1 Introduction; 5.2 Fundamentals; 5.3 Geological classification of rocks; 5.4 Sources and types of aggregates; 5.5 Classification of aggregates; 5.6 Aggregate quarry assessment; 5.7 Deleterious materials in aggregates
 ReferencesChapter 6. Aggregate prospecting and processing; 6.1 Aims and objectives; 6.2 Introduction; 6.3 Extraction and processing of sand and gravel; 6.4 Processing; 6.5 Extraction and processing of limestone; 6.6 Summary; Further reading; Chapter 7. Lightweight aggregate manufacture; 7.1 Introduction, definitions and limitations; 7.2 Lightweight aggregates suitable for use in structural concrete; 7.3 Brief history of lightweight aggregate production; 7.4 Manufacturing considerations for structural grades of lightweight aggregate
 7.5 Production methods used for various lightweight aggregates

Sommario/riassunto

Based on the Institute of Concrete Technology's advanced course, the Advanced Concrete Technology series is a comprehensive educational and reference resource for the concrete materials technologist. An expert international team of authors from research, academia, and industry have come together to produce this unique reference source. This first volume deals with the constituent materials of concrete. With worked examples, case studies and illustrations throughout, the book will be a key reference for the concrete specialist for years to come.*
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