

1. Record Nr.	UNINA9910760259703321
Autore	Asmara Yuli Panca
Titolo	Concrete Reinforcement Degradation and Rehabilitation [[electronic resource]] : Damages, Corrosion and Prevention / / by Yuli Panca Asmara
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2024
ISBN	981-9959-33-0
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (176 pages)
Collana	Engineering Materials, , 1868-1212
Disciplina	620.13623
Soggetti	Concrete Mechanics, Applied Solids Continuum mechanics Solid Mechanics Continuum Mechanics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction to Reinforced Concrete -- Concrete structures -- Types and Causes of Concrete Damage -- Corrosion Theory -- Corrosion of Steel Reinforcement -- Reinforced Concrete Corrosion Experiments -- Reinforced Concrete Protection -- Concrete Reinforcement Inhibitors -- Geopolymer Concrete -- Concrete Treatment -- Cathodic Protection of Steel Reinforcement.
Sommario/riassunto	This book provides an overview of various methods of concrete reinforcement against corrosion. It consists of chapters, discussing reinforced concrete, concrete damages, causes of damages, protection, concrete maintenance, principles of corrosion, and how to conduct experiments to obtain reinforced concrete data. This book contributes to the infrastructure industry and is useful for the wider community to add insight into the field of corrosion and material damage. Reinforced concrete is a construction material that combines concrete and steel reinforcement. Thus, studying corrosion is useful for knowing when a material will break down and what will happen to the metal now and in the future. Knowing the corrosion process will prevent sudden damage,

so it can provide early preparation. For this reason, knowledge is needed on how to check for damage to concrete, the process of corrosion mechanisms, corrosion prevention, methods for calculating corrosion rates, and how to maintain reinforced concrete so that it lasts longer. This book caters to researchers, administrators, academicians, policymakers, entrepreneurs, practitioners, instructors, and students who are looking to enrich their understanding of concrete reinforcement against corrosion.
