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Descrizione fisica	1 online resource (331 p.)
Altri autori (Persone)	ShiXudong
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	pt. 1. Mechanical behavior of materials at elevated temperatures -- pt. 2. Temperature field on a cross section of a structural member -- pt. 3. Mechanical behavior of members and structures at elevated temperatures -- pt. 4. Theoretical analysis and practical calculation method.
Sommario/riassunto	"Comprehensive and readable, this book provides the tools and techniques to properly analyze the effects of high temperature on reinforced concrete, leading to safer, more stable structures. Based on years of the author's research, Reinforced Concrete at Elevated Temperatures' four part treatment starts with an unambiguous and thorough exposition of the mechanical behaviours of materials at elevated temperature, followed by a discussion of temperature field of member sections, mechanical behaviours of members and structures at elevated temperature, and theoretical analysis and practical calculation methods. The book provides unique insight into: - Coupling thermal-mechanical constitutive relation of concrete - Exceptional analyses of beams and columns of rectangular section with three surfaces and two

adjacent surfaces exposing to high temperature - Measurement and analysis of redistribution of internal forces of statically indeterminate structure during heating-loading process - Finite element analysis and calculation charts for two-dimensional temperature field of structural members With this book, engineers and architects can effectively analyze the result of high temperature on concrete and materials which will lead to better designs of fire resistant structures, as well as damage evaluation and treatment after fire"--
