

1. Record Nr.	UNINA9910812784403321
Autore	Rogachev Alexander S.
Titolo	Combustion for material synthesis // Alexander S. Rogachev, Alexander S. Mukasyan
Pubbl/distr/stampa	Boca Raton, FL : , : CRC Press : , : Taylor & Francis Group, , 2015 ©2015
ISBN	1-04-005645-8 0-429-06862-X 1-4822-3952-3
Edizione	[1st ed.]
Descrizione fisica	1 online resource (422 p.)
Disciplina	620.143
Soggetti	Self-propagating high-temperature synthesis High temperature chemistry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Front Cover; Dedication; Contents; Preface; 1. Self-propagating High-temperature Synthesis: History and Present; 2. Thermodynamics and Kinetics of SHS; 3. Theory of Structural Macrokinetics; 4. Experimental Structural Macrokinetics of SHS Processes; 5. Commercialization and Industrial Applications of SHS Products; Endnotes; References; Acknowledgements; Color Insert
Sommario/riassunto	Exposes a Powerful Material-Making ToolDedicated to the physical, chemical, and structural transformations that take place during combustion synthesis (CS) of advanced materials, Combustion for Material Synthesis analyzes the nature of solid flame phenomenon and provides readers with undisputed proof that 'fire' is a powerful tool used in making materials. Of interest to specialists in the field of materials engineering, this book explores the physical and chemical principles of synthesis of materials in the self-sustained combustion mode. It describes mechanisms for a variety of solid-solid a