1. Record Nr. UNINA9910970651503321

Titolo	Advanced fibers for high-temperature ceramic composites : advanced materials for the twenty-first century / / Committee on Advanced Fibers for High-Temperature Ceramic Composites, National Materials Advisory Board, Commission on Engineering and Technical Systems, National Research Council
Pubbl/distr/stampa	Washington, DC, : National Academy Press, 1998
ISBN	9786610186839 9780309174176 0309174171 9781280186837 1280186836 9780309569033 0309569036
Edizione	[1st ed.]
Descrizione fisica	1 online resource (111 p.)
Collana	Publication NMAB ; ; 494 Compass series
Disciplina	620.1/4
Soggetti	Ceramic-matrix composites Ceramic fibers Heat resistant materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references (p. 87-92).
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Sommario/riassunto

High-temperature ceramic fibers are the key components of ceramic matrix composites (CMCs). Ceramic fiber properties (strength, temperature and creep resistance, for example)-along with the debonding characteristics of their coatings-determine the properties of CMCs. This report outlines the state of the art in high-temperature ceramic fibers and coatings, assesses fibers and coatings in terms of future needs, and recommends promising avenues of research. CMCs are also discussed in this report to provide a context for discussing high-temperature ceramic fibers and coatings.