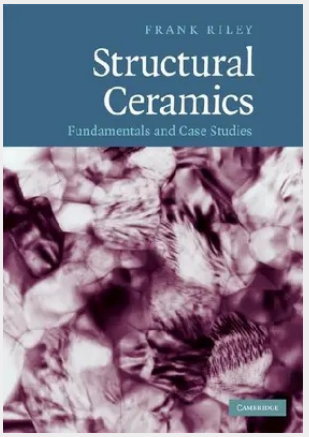
Riley

Structural Ceramics

This book provides an introduction to the structural ceramics, their processing and properties. Five important groups of materials, porcelain, alumina, silicon carbide, silicon nitride and zirconia, are presented as case studies. Historical developments, the properties of constituent components, and relationships between production methods, resulting microstructures, and materials properties, are explained. The structural ceramics have many commercial applications, ranging from high voltage insulation and hot-gas filtration, to metal machining tools and surgical implants. These applications depend on combinations of chemical, physical and mechanical properties, which include structural stability over wide temperature ranges, strength, hardness, and resistance to wear. Over 200 diagrams and photographs provide visual aids to learning, and end of chapter summaries pull together key points. With numerous review questions to test understanding of the topics covered, and extensive referencing, this book is ideal for those studying materials science and engineering, or starting research in the structural ceramics area.

This book provides an introduction to the structural ceramics, their processing and properties. Five important groups of materials, porcelain, alumina, silicon carbide, silicon nitride and zirconia, are presented as case studies. Historical developments, the properties of constituent components, and relationships between production methods, resulting microstructures, and materials properties, are explained. The structural ceramics have many commercial applications, ranging from high voltage insulation and hot-gas filtration, to metal machining tools and surgical implants. These applications depend on combinations of chemical, physical and mechanical properties, which include structural stability over wide temperature ranges, strength, hardness, and resistance to wear. Over 200 diagrams and photographs provide visual aids to learning, and end of chapter summaries pull together key points. With numerous review questions to test understanding of the topics covered, and extensive referencing, this book is ideal for those studying materials science and engineering, or starting research in the structural ceramics area.



114,30 €
114,30 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9780521845861
Medium: Buch
ISBN: 978-0-521-84586-1
Verlag: Cambridge University Press
Erscheinungstermin: 14.05.2009
Sprache(n): Englisch
Auflage: Erscheinungsjahr 2009
Produktform: Gebunden
Gewicht: 840 g
Seiten: 418
Format (B x H): 175 x 250 mm

Kundenservice Verlag Dr. Otto Schmidt KG
Neumannstraße 10, 40235 Düsseldorf | kundenservice@otto-schmidt.de | 0221-93738-997 (Inland)