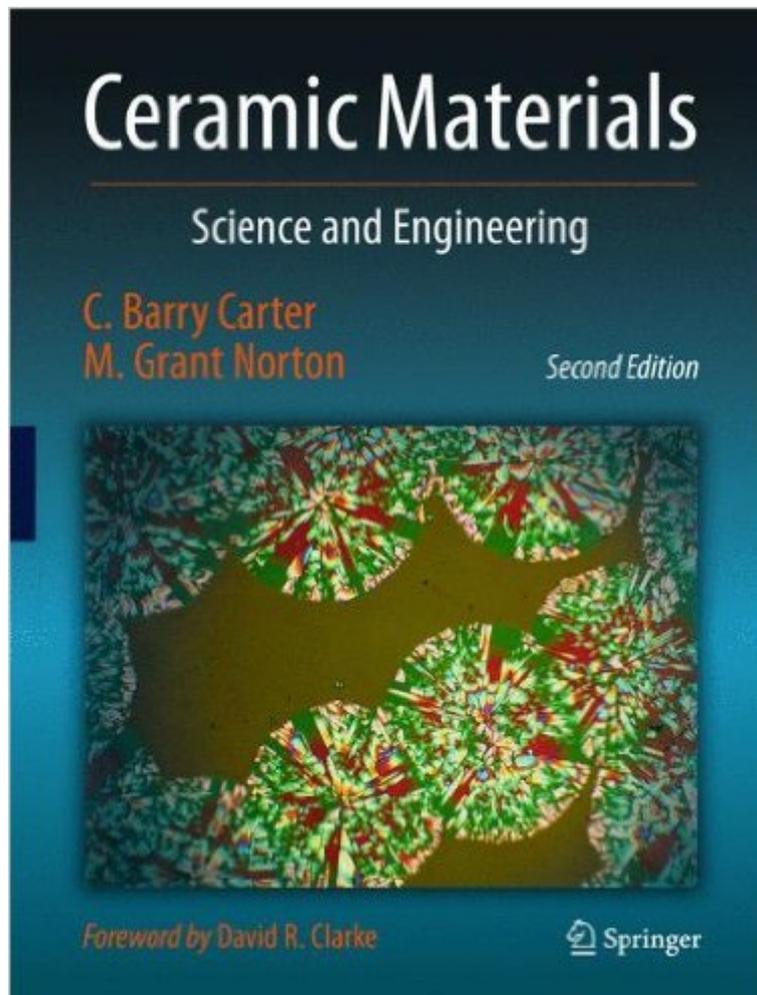


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# Ceramic Materials: Science And Engineering



## Synopsis

Ceramic Materials: Science and Engineering is an up-to-date treatment of ceramic science, engineering, and applications in a single, comprehensive text. Building on a foundation of crystal structures, phase equilibria, defects, and the mechanical properties of ceramic materials, students are shown how these materials are processed for a wide diversity of applications in today's society. Concepts such as how and why ions move, how ceramics interact with light and magnetic fields, and how they respond to temperature changes are discussed in the context of their applications. References to the art and history of ceramics are included throughout the text, and a chapter is devoted to ceramics as gemstones. This course-tested text now includes expanded chapters on the role of ceramics in industry and their impact on the environment as well as a chapter devoted to applications of ceramic materials in clean energy technologies. Also new are expanded sets of text-specific homework problems and other resources for instructors. The revised and updated Second Edition is further enhanced with color illustrations throughout the text.

## Book Information

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## Customer Reviews

I spent 4 weeks in the ceramics class without a text book. Consequently, I used lots of different ceramics text books during these 4 weeks in an attempt to stay in sync with the ceramics material, but I can now tell you that, this is so far the best book I have used, and I ended up buying the book; This is because the literature in the book is very clear, the print quality is better, and pages intended to be in color are actually in color; This book is perfect if you want to learn ceramics.

A few years back I quickly reviewed the first edition of this textbook. I thought it was fairly good and covered a lot of topics in a single text. Coming back to it in the recent months I've decided that this is much better than I initially decided. I'm going to break it down into points:

1. The most comprehensive textbook/reference book for ceramist in any sector.
2. Fantastic figures that really make the message clear.
3. Unbelievable breadth of topics covered. Each section is so well written that you could just buy the book for that section.
4. Initially I didn't like the format however I think it actually makes reading a little easier.
5. Great list of historical figures and references at the end of each chapter.
6. Highlighted grey boxes stand out to drive home important points.
7. A lot of focus on actual material systems (i.e Silica, Alumina ....)

D. Kingery's (Godfather of modern ceramics) "Introduction to Ceramics" is outstanding and surprisingly not too out-of-date. This text takes Kingery's and updates, expands, and clarifies it. I would say without hesitation that if you purchase this instead of Kingery's you'll still be getting all the goodness. The only thing that I still don't like is some concepts do not show the full derivation.

I already knew the book in the previous edition. The new edition has some interesting additions to justify the purchase of same. The content of the material is very good, with an excellent choice for teaching materials in courses in materials science and physical ceramics

Really great textbook, just started reading it, but for anybody interested in a deeper understanding of ceramics and other things. Very thorough in my opinion.

After I received this book, I can understand what the teacher said in class.the book is very beautiful ,I really love it although it's a little expensive

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