



Grain Boundaries: From Theory to Engineering: 172 (Springer Series in Materials Science)

Louisette Priester

Download now

[Click here](#) if your download doesn't start automatically

Grain Boundaries: From Theory to Engineering: 172 (Springer Series in Materials Science)

Louisette Priester

Grain Boundaries: From Theory to Engineering: 172 (Springer Series in Materials Science) Louisette Priester

Grain boundaries are a main feature of crystalline materials. They play a key role in determining the properties of materials, especially when grain size decreases and even more so with the current improvements of processing tools and methods that allow us to control various elements in a polycrystal. This book presents the theoretical basis of the study of grain boundaries and aims to open up new lines of research in this area. The treatment is light on mathematical approaches while emphasizing practical examples; the issues they raise are discussed with reference to theories. The general approach of the book has two main goals: to lead the reader from the concept of 'ideal' to 'real' grain boundaries; to depart from established knowledge and address the opportunities emerging through "grain boundary engineering", the control of morphological and crystallographic features that affect material properties.

The book is divided in three parts:

I 'From intergranular order to disorder' deals with the concept of the perfect grain boundary, at equilibrium, and questions the maintenance of its crystalline state.

II 'From the ideal to the real grain boundary' deals with the concept of the faulted grain boundary. It attempts to reveal the influence of the grain boundary structure on its defects, their formation and their accommodation.

III 'From free to constrained grain boundaries' is devoted to grain boundary ensembles starting from the triple junction (the elemental configuration) to real grain boundary networks in polycrystals

This part covers a new and topical development in the field. It presents for the first time an avenue for researchers working on macroscopic aspects, to approach the scale of description of grain boundaries.

Audience: graduate students, researchers and engineers in Materials Science and all those scientists pursuing grain boundary engineering in order to improve materials performance.



[Download](#) **Grain Boundaries: From Theory to Engineering: 172 ...pdf**



[Read Online](#) **Grain Boundaries: From Theory to Engineering: 17 ...pdf**

Download and Read Free Online Grain Boundaries: From Theory to Engineering: 172 (Springer Series in Materials Science) Louise Priester

From reader reviews:

Jaclyn Davis:

Throughout other case, little folks like to read book Grain Boundaries: From Theory to Engineering: 172 (Springer Series in Materials Science). You can choose the best book if you want reading a book. So long as we know about how is important some sort of book Grain Boundaries: From Theory to Engineering: 172 (Springer Series in Materials Science). You can add expertise and of course you can around the world by a book. Absolutely right, simply because from book you can learn everything! From your country till foreign or abroad you will be known. About simple issue until wonderful thing you could know that. In this era, we can easily open a book or perhaps searching by internet system. It is called e-book. You can utilize it when you feel bored to go to the library. Let's study.

Margaret Pinson:

Does one one of the book lovers? If yes, do you ever feeling doubt when you find yourself in the book store? Try to pick one book that you never know the inside because don't determine book by its handle may doesn't work here is difficult job because you are scared that the inside maybe not while fantastic as in the outside search likes. Maybe you answer can be Grain Boundaries: From Theory to Engineering: 172 (Springer Series in Materials Science) why because the great cover that make you consider regarding the content will not disappoint you. The inside or content will be fantastic as the outside as well as cover. Your reading sixth sense will directly guide you to pick up this book.

Royce Britton:

With this era which is the greater individual or who has ability to do something more are more precious than other. Do you want to become certainly one of it? It is just simple solution to have that. What you have to do is just spending your time not very much but quite enough to get a look at some books. One of several books in the top listing in your reading list will be Grain Boundaries: From Theory to Engineering: 172 (Springer Series in Materials Science). This book and that is qualified as The Hungry Slopes can get you closer in becoming precious person. By looking way up and review this book you can get many advantages.

Stanley Torres:

Some individuals said that they feel weary when they reading a book. They are directly felt it when they get a half portions of the book. You can choose often the book Grain Boundaries: From Theory to Engineering: 172 (Springer Series in Materials Science) to make your reading is interesting. Your own personal skill of reading proficiency is developing when you just like reading. Try to choose easy book to make you enjoy to see it and mingle the opinion about book and examining especially. It is to be initially opinion for you to like to wide open a book and learn it. Beside that the publication Grain Boundaries: From Theory to Engineering: 172 (Springer Series in Materials Science) can to be your new friend when you're really feel alone and confuse with what must you're doing of this time.

Download and Read Online Grain Boundaries: From Theory to Engineering: 172 (Springer Series in Materials Science) Louisette Priester #FS6WVOIHK48

Read Grain Boundaries: From Theory to Engineering: 172 (Springer Series in Materials Science) by Louisette Priester for online ebook

Grain Boundaries: From Theory to Engineering: 172 (Springer Series in Materials Science) by Louisette Priester Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Grain Boundaries: From Theory to Engineering: 172 (Springer Series in Materials Science) by Louisette Priester books to read online.

Online Grain Boundaries: From Theory to Engineering: 172 (Springer Series in Materials Science) by Louisette Priester ebook PDF download

Grain Boundaries: From Theory to Engineering: 172 (Springer Series in Materials Science) by Louisette Priester Doc

Grain Boundaries: From Theory to Engineering: 172 (Springer Series in Materials Science) by Louisette Priester Mobipocket

Grain Boundaries: From Theory to Engineering: 172 (Springer Series in Materials Science) by Louisette Priester EPub