



Atomic Scale Characterization and First-Principles Studies of Si₃N₄ Interfaces (Springer Theses)

Weronika Walkosz

Download now

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

Atomic Scale Characterization and First-Principles Studies of Si₃N₄ Interfaces (Springer Theses)

Weronika Walkosz

Atomic Scale Characterization and First-Principles Studies of Si₃N₄ Interfaces (Springer Theses)

Weronika Walkosz

This thesis presents results from a combined atomic-resolution Z-contrast and annular bright-field imaging and electron energy loss spectroscopy in the Scanning Transmission Electron Microscopy, as well as first principles studies of the interfaces between crystalline β -Si₃N₄ and amorphous (i) CeO_{2-x} as well as (ii) SiO₂ intergranular film (IGF). These interfaces are of a great fundamental and technological interest because they play an important role in the microstructural evolution and mechanical properties of Si₃N₄ ceramics used in many high temperature and pressure applications. The main contribution of this work is its detailed description of the bonding characteristics of *light* atoms, in particular oxygen and nitrogen, at these interfaces, which has not been achieved before. The atomic-scale information on the arrangement of both light and heavy atoms is critical for realistic modeling of interface properties, such as interface strength and ion transport, and will facilitate increased control over the performance of ceramic and semiconductor materials for a wide-range of applications.

 [Download Atomic Scale Characterization and First-Principles ...pdf](#)

 [Read Online Atomic Scale Characterization and First-Principles ...pdf](#)

Download and Read Free Online Atomic Scale Characterization and First-Principles Studies of Si?N? Interfaces (Springer Theses) Weronika Walkosz

From reader reviews:

Robert Bell:

Within other case, little people like to read book Atomic Scale Characterization and First-Principles Studies of Si?N? Interfaces (Springer Theses). You can choose the best book if you like reading a book. As long as we know about how is important some sort of book Atomic Scale Characterization and First-Principles Studies of Si?N? Interfaces (Springer Theses). You can add knowledge and of course you can around the world by way of a book. Absolutely right, because from book you can understand everything! From your country until eventually foreign or abroad you will end up known. About simple point until wonderful thing you may know that. In this era, you can open a book or searching by internet product. It is called e-book. You need to use it when you feel weary to go to the library. Let's read.

Sylvia Cunningham:

Here thing why this Atomic Scale Characterization and First-Principles Studies of Si?N? Interfaces (Springer Theses) are different and trusted to be yours. First of all examining a book is good but it really depends in the content than it which is the content is as delicious as food or not. Atomic Scale Characterization and First-Principles Studies of Si?N? Interfaces (Springer Theses) giving you information deeper and in different ways, you can find any e-book out there but there is no guide that similar with Atomic Scale Characterization and First-Principles Studies of Si?N? Interfaces (Springer Theses). It gives you thrill reading journey, its open up your personal eyes about the thing that will happened in the world which is perhaps can be happened around you. You can bring everywhere like in park, café, or even in your means home by train. Should you be having difficulties in bringing the paper book maybe the form of Atomic Scale Characterization and First-Principles Studies of Si?N? Interfaces (Springer Theses) in e-book can be your alternate.

Catherine Acevedo:

Information is provisions for individuals to get better life, information nowadays can get by anyone with everywhere. The information can be a knowledge or any news even a problem. What people must be consider while those information which is in the former life are challenging be find than now's taking seriously which one is suitable to believe or which one the actual resource are convinced. If you have the unstable resource then you have it as your main information you will have huge disadvantage for you. All those possibilities will not happen with you if you take Atomic Scale Characterization and First-Principles Studies of Si?N? Interfaces (Springer Theses) as your daily resource information.

Kelli Smith:

As a student exactly feel bored to be able to reading. If their teacher requested them to go to the library or to make summary for some publication, they are complained. Just very little students that has reading's heart or real their leisure activity. They just do what the instructor want, like asked to go to the library. They go to presently there but nothing reading seriously. Any students feel that examining is not important, boring in

addition to can't see colorful photos on there. Yeah, it is to become complicated. Book is very important for yourself. As we know that on this period, many ways to get whatever we really wish for. Likewise word says, many ways to reach Chinese's country. Therefore this Atomic Scale Characterization and First-Principles Studies of Si?N? Interfaces (Springer Theses) can make you really feel more interested to read.

Download and Read Online Atomic Scale Characterization and First-Principles Studies of Si?N? Interfaces (Springer Theses)
Weronika Walkosz #756DX9VYSFG

Read Atomic Scale Characterization and First-Principles Studies of Si?N? Interfaces (Springer Theses) by Weronika Walkosz for online ebook

Atomic Scale Characterization and First-Principles Studies of Si?N? Interfaces (Springer Theses) by Weronika Walkosz 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 Atomic Scale Characterization and First-Principles Studies of Si?N? Interfaces (Springer Theses) by Weronika Walkosz books to read online.

Online Atomic Scale Characterization and First-Principles Studies of Si?N? Interfaces (Springer Theses) by Weronika Walkosz ebook PDF download

Atomic Scale Characterization and First-Principles Studies of Si?N? Interfaces (Springer Theses) by Weronika Walkosz Doc

Atomic Scale Characterization and First-Principles Studies of Si?N? Interfaces (Springer Theses) by Weronika Walkosz Mobipocket

Atomic Scale Characterization and First-Principles Studies of Si?N? Interfaces (Springer Theses) by Weronika Walkosz EPub