



# Introduction to Surface Chemistry and Catalysis

*Gabor A. Somorjai, Yimin Li*

Download now

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

# Introduction to Surface Chemistry and Catalysis

Gabor A. Somorjai, Yimin Li

**Introduction to Surface Chemistry and Catalysis** Gabor A. Somorjai, Yimin Li  
**Now updated-the current state of development of modern surface science**

Since the publication of the first edition of this book, molecular surface chemistry and catalysis science have developed rapidly and expanded into fields where atomic scale and molecular information were previously not available. This revised edition of *Introduction to Surface Chemistry and Catalysis* reflects this increase of information in virtually every chapter. It emphasizes the modern concepts of surface chemistry and catalysis uncovered by breakthroughs in molecular-level studies of surfaces over the past three decades while serving as a reference source for data and concepts related to properties of surfaces and interfaces.

The book opens with a brief history of the evolution of surface chemistry and reviews the nature of various surfaces and interfaces encountered in everyday life. New research in two crucial areas-nanomaterials and polymer and biopolymer interfaces-is emphasized, while important applications in tribology and catalysis, producing chemicals and fuels with high turnover and selectivity, are addressed. The basic concepts surrounding various properties of surfaces such as structure, thermodynamics, dynamics, electrical properties, and surface chemical bonds are presented. The techniques of atomic and molecular scale studies of surfaces are listed with references to up-to-date review papers. For advanced readers, this book covers recent developments in in-situ surface analysis such as high- pressure scanning tunneling microscopy, ambient pressure X-ray photoelectron spectroscopy, and sum frequency generation vibrational spectroscopy (SFG). Tables listing surface structures and data summarizing the kinetics of catalytic reactions over metal surfaces are also included.

## **New to this edition:**

- A discussion of new physical and chemical properties of nanoparticles
- Ways to utilize new surface science techniques to study properties of polymers, reaction intermediates, and mobility of atoms and molecules at surfaces
- Molecular-level studies on the origin of the selectivity for several catalytic reactions
- A microscopic understanding of mechanical properties of surfaces
- Updated tables of experimental data
- A new chapter on "soft" surfaces, polymers, and biointerfaces

*Introduction to Surface Chemistry and Catalysis* serves as a textbook for undergraduate and graduate students taking advanced courses in physics, chemistry, engineering, and materials science, as well as researchers in surface science, catalysis science, and their applications.

 [Download Introduction to Surface Chemistry and Catalysis ...pdf](#)

 [Read Online Introduction to Surface Chemistry and Catalysis ...pdf](#)



## **Download and Read Free Online Introduction to Surface Chemistry and Catalysis Gabor A. Somorjai, Yimin Li**

---

### **From reader reviews:**

#### **Dorathy Byers:**

This Introduction to Surface Chemistry and Catalysis book is absolutely not ordinary book, you have after that it the world is in your hands. The benefit you obtain by reading this book is usually information inside this e-book incredible fresh, you will get facts which is getting deeper an individual read a lot of information you will get. This kind of Introduction to Surface Chemistry and Catalysis without we recognize teach the one who studying it become critical in thinking and analyzing. Don't become worry Introduction to Surface Chemistry and Catalysis can bring if you are and not make your handbag space or bookshelves' become full because you can have it with your lovely laptop even phone. This Introduction to Surface Chemistry and Catalysis having very good arrangement in word and also layout, so you will not experience uninterested in reading.

#### **Charles Green:**

In this period of time globalization it is important to someone to obtain information. The information will make you to definitely understand the condition of the world. The healthiness of the world makes the information better to share. You can find a lot of personal references to get information example: internet, newspapers, book, and soon. You can observe that now, a lot of publisher which print many kinds of book. Often the book that recommended for your requirements is Introduction to Surface Chemistry and Catalysis this book consist a lot of the information from the condition of this world now. This particular book was represented how can the world has grown up. The language styles that writer use to explain it is easy to understand. Often the writer made some analysis when he makes this book. Honestly, that is why this book appropriate all of you.

#### **Shawn Jones:**

Don't be worry in case you are afraid that this book can filled the space in your house, you will get it in e-book technique, more simple and reachable. That Introduction to Surface Chemistry and Catalysis can give you a lot of pals because by you checking out this one book you have matter that they don't and make you more like an interesting person. This book can be one of one step for you to get success. This reserve offer you information that maybe your friend doesn't realize, by knowing more than various other make you to be great people. So , why hesitate? Let me have Introduction to Surface Chemistry and Catalysis.

#### **Joyce Hynes:**

Some people said that they feel bored when they reading a guide. They are directly felt the idea when they get a half portions of the book. You can choose the book Introduction to Surface Chemistry and Catalysis to make your current reading is interesting. Your personal skill of reading expertise is developing when you such as reading. Try to choose easy book to make you enjoy to learn it and mingle the idea about book and reading through especially. It is to be initially opinion for you to like to available a book and learn it. Beside

that the book Introduction to Surface Chemistry and Catalysis can to be your friend when you're really feel alone and confuse using what must you're doing of these time.

**Download and Read Online Introduction to Surface Chemistry and Catalysis Gabor A. Somorjai, Yimin Li #0F89P1C7AGS**

## **Read Introduction to Surface Chemistry and Catalysis by Gabor A. Somorjai, Yimin Li for online ebook**

Introduction to Surface Chemistry and Catalysis by Gabor A. Somorjai, Yimin Li 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 Introduction to Surface Chemistry and Catalysis by Gabor A. Somorjai, Yimin Li books to read online.

### **Online Introduction to Surface Chemistry and Catalysis by Gabor A. Somorjai, Yimin Li ebook PDF download**

#### **Introduction to Surface Chemistry and Catalysis by Gabor A. Somorjai, Yimin Li Doc**

**Introduction to Surface Chemistry and Catalysis by Gabor A. Somorjai, Yimin Li Mobipocket**

**Introduction to Surface Chemistry and Catalysis by Gabor A. Somorjai, Yimin Li EPub**