

Foreign Rights

Spring Catalogue 2012

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CHINA AS A LEADER OF THE WORLD ECONOMY

by **Gregory C Chow** (Princeton University, USA)

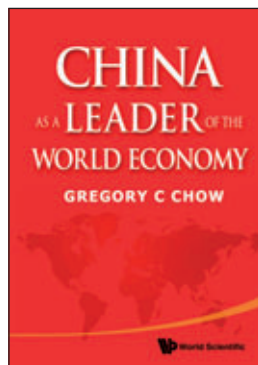
After the 1978 Economic Reform, China's economic development has been on a fast track ever since. Later on, the successful accession into the WTO in 2001 accelerated China's economic transformation and made it more integrated with the world. Today, as the second-largest economy in the world, China has earned herself a leading role on the world stage beyond dispute. This book provides readers with answers to why and how China functions as a leader in the world economy.

This book surveys China's economy in four parts — economic institutions, economic problems, economic policies and economic analyses. It is based on the author's latest findings from his scholarly research on China's economy, his involvement with China's economic reform and development, and his personal contacts with Chinese academics, entrepreneurs, government officials and ordinary citizens for over thirty years. The book is written in a style accessible to the general readers, since most chapters are based on articles published in three major Chinese newspapers, of which the author is a columnist. It can also serve as a reference book for professionals, an authoritative guide for general readers and a supplementary text for university students. The author uses it as a supplementary text for his course on the Chinese economy at Princeton University.

Readership: General readers, academics, professionals, students interested in China's economy.

"Gregory C Chow, a pioneer in China's march to a market system and a distinguished professor of economics at Princeton University, has written an important sequel to his recently published book, Interpreting China's Economy (2010). In his new book, China as a Leader of the World Economy, Chow explores the evolution of China's institutions (with an in-depth discussion of the 12th Five Year Plan), analyzes the problems China needs to overcome, provides policy proposals to solve those problems, and presents the results of several quantitative studies of the Chinese economy. In 31 clearly written and concise chapters, Chow covers a broad array of topics ranging from how to stop inflation to how to improve university education. As a master craftsman and long-time student of the Chinese economy, no one is better equipped to increase our understanding of China's economic development and the future of China in the global economy."

James A Dorn
Cato Institute, Washington, DC



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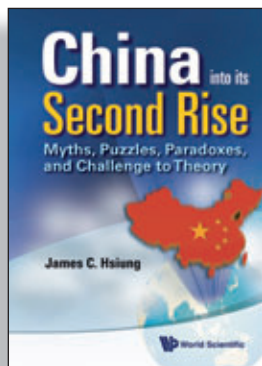
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US\$99 / £65

CHINA INTO ITS SECOND RISE

Myths, Puzzles, Paradoxes, and Challenge to Theory

by **James C Hsiung** (*New York University, USA*)

This book seeks to demystify the re-ascendancy of China as a civilization state. China's politics and society are examined in the light of its living civilization, which is the only one of the ancient civilizations that has survived to this day. The book also contrasts China's development with that of the West and Japan. By combining the impact of internal political and socio-economic developments in China and its external relations (from the silk routes, the tribute system, to the modern day), it unravels the existing myths, puzzles, and paradoxes surrounding China and questions the adequacy of most of the Western political theories (such as realism in international relations) in an attempt to explicate China's re-emergence as a world power. It attempts to tackle squarely the question: Is China a threat to world order?

The book traces the rationale for contemporary developments in China to the roots in the country's tradition as well as foreign influences and seeks to unravel the puzzle about the unique China Model that defies conventional thinking in political economy, with its sustained and incredibly rapid economic growth over the past three decades. This study on China's second rise provides a broad background that includes a meaningful scrutiny of the country's behavior during its first rise (713–1820) and beyond. In comparing China's ongoing second rise with its first ascent, the book not only refocuses on and reinterprets the example set during its first rise, but also takes into account the crucial lessons it learned during its century in eclipse in the interregnum, for the effects they have on the country's current orientation and behavior. The book follows an interdisciplinary approach, combining the cultural, intellectual-historical, normative-ideological, and social-scientific perspectives, to lend a more solid grasp of the present-day China. It ends with an educated speculation, based on the foregoing analyses, on the contours of a Pax Sinica that is likely to result from the impact of China's second rise as a world power.

Readership: Academics, undergraduate and graduate students, professionals, general readers interested in China Studies, China's history, culture, politics, economics and foreign relations.

CHINESE UNDER GLOBALIZATION

Emerging Trends in Language Use in China
 edited by **Jin Liu** (*Georgia Institute of Technology, USA*) & **Hongyin Tao** (*University of California, Los Angeles, USA*)

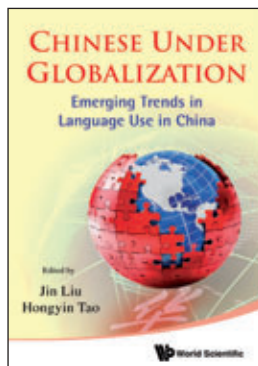
As China experiences tremendous economic and social transformation in the reform years, language use in China has also undergone remarkable changes in the past couple decades: the national obsession with learning the global English, which becomes both a resource for modernization and a source of contention; the expanding use of local languages and dialects in mass media, where standard Mandarin is promoted and legally prescribed as the principal language; the emergence of the Internet language that has become a creative source for constructing a distinct youth identity; the Cantonese writing movement that challenges the hegemony of the Chinese writing system, which is traditionally based on northern Mandarin, to name a few. The nine papers collected in this volume examine recent trends in language use in mainland China, and the associated social, economic, political, and cultural manifestations. Drawing on their backgrounds and expertise in sociolinguistics, cognitive linguistics, linguistic anthropology, and cultural studies, the authors offer interdisciplinary, insightful, and critical analysis of linguistic struggles and linguistic politics in contemporary China.

As such, the carefully presented details of emerging language use in this book will be of value to scholars interested in language and culture in contemporary China. It may be used as a supplementary text for students in Chinese (socio-)linguistics, Chinese language, Chinese cultural studies, Chinese anthropology, Chinese sociology, and Chinese studies in general.

Key Features:

- The first volume of its kind to present a scholarly, panoramic view of recent trends in language use in China
- Most updated and socio-culturally informed study on many interesting topics including the emerging Chinese Internet language, youth language, resurgence of local dialects, Chinglish, codemixing, Li Yang's Crazy English, and more

Readership: Undergraduate and graduate students, academics, professionals and general readers interested in new trends in language use in China, internet language, youth language, Chinese society and Chinese culture.



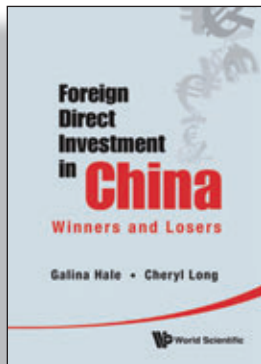
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US\$85 / £56

FOREIGN DIRECT INVESTMENT IN CHINA

Winners and Losers

by **Galina Hale** (*Federal Reserve Bank of San Francisco, USA*) & **Cheryl Long** (*Colgate University, USA*)

This book provides a comprehensive analysis of the effects that foreign direct investment into China has had on the productivity, exporting activity, and innovation of Chinese domestic firms, as well as on the nation's labor markets. The analysis relies on the most complete data available and state-of-the-art statistical analysis. The book also includes a critical overview of existing theoretical and empirical literature on these issues and is meant to provide guidance to researchers in the area of FDI effects in general, as well as those interested in studying the Chinese economy.

Key Features:

- It is the first book focusing on the effects of foreign direct investment on China in English
- It comprises chapters that contain rigorous econometric analysis of a variety of unique and comprehensive data sets
- It covers many other aspects of the effects of foreign direct investment — not just the most commonly studied effects on firms' productivity

Readership: Academics, graduate and undergraduate students, and professionals interested in foreign direct investment in China, China's economy and China's development.

HU JINTAO

China's Silent Ruler

by **Kerry Brown** (*Chatham House, UK*)

Over the six-month period from late 2012 to early 2013, Hu Jintao, the President of the People's Republic of China, Chair of the Central Military Commission, and Party Secretary of the Chinese Communist Party (CCP), will relinquish at least two of his three positions. According to the constitution of the CCP, his time as Party head will come to an end, given that he has already served for two terms. Well over the supposed retirement age of 68, he will have to hand over the leadership of China to a new generation of leaders at the 18th Party Congress in Beijing. In Chinese politics, the act of retirement is surprisingly difficult, but Hu Jintao is widely known for his reserve and reticence; there is little doubt that he could disappear into a quiet and anonymous retirement if he so desires.

This timely volume thus aims to provide an analytical assessment of Hu's period in charge of the world's most populous country. It concentrates briefly on his early life and entry into politics, then considers and evaluates his stewardship of the economy and of international affairs, as well as his ideological contribution and leadership of the communist party. In the process, the reader will also be afforded a broad overview of China's rapid developments over the last decade, since 2002.

Readership: Undergraduate and postgraduate students, academics & general public interested in China's politics, society and history.

"Kerry Brown has written an outstandingly insightful book on Hu Jintao. This is not only the first English-language biography of one of the most powerful and also most enigmatic political leaders in the world today, but also an invaluable guide to contemporary China and its prospects."

Dr Julia Lovell
Birkbeck, University of London

"In Hu Jintao: China's Silent Ruler, Kerry Brown offers a comprehensive and informative account of Hu Jintao's leadership of China during the crucial first decade of the twenty-first century. Brown assesses the policy successes and shortcomings of Hu's leadership in such critical areas as Chinese economics, foreign policy, the Chinese Communist Party, and social stability. Brown's wide-ranging analysis establishes the benchmark for any future study of Hu Jintao's presidency."

Professor Robert Ross
Boston College



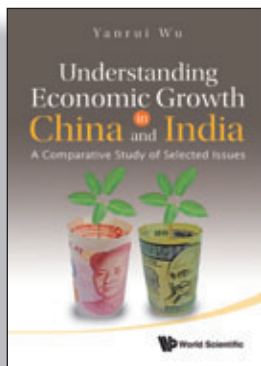
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US\$73 / £51

UNDERSTANDING ECONOMIC GROWTH IN CHINA AND INDIA

A Comparative Study of Selected Issues
by **Yanrui Wu** (*University of Western Australia, Australia*)

Due to their sheer size and stake in the global economy, China and India have long been identified as the two giant economies of Asia. This book presents a highly engaging comparative study on the economic growth of China and India by examining the significance of the role of productivity in economic growth as well as their relations with regional partners. Through detailed analysis of trade, services, energy and pollution, readers are invited to follow the two distinctive development trajectories taken by the two countries, as well as challenged to consider the issue of sustainability of growth in the future.

Key Features:

- Detailed analysis of key issues such as trade, services, international trade, energy and pollution
- Comparative study of economic growth, disparity and convergence of the Chinese and Indian economies

Readership: Economists, business analysts, China and India watchers.

BUSINESS GAMES FOR MANAGEMENT AND ECONOMICS

Learning by Playing

by **Leon Bazil** (*Stevens Institute of Technology, USA*)

Business Games for Management and Economics: Learning by Playing presents board and video business games which combine teamwork with individual decisions based on computer models. Business games support integration of learning experience for different levels of education and between different disciplines: economics, management, technological, environmental and social studies. The work is based on experience in adaptation, design and conducting of field, and board and video games played in college settings within standard schedules. Most of the games are played in Modeling and Simulation, Microeconomics, Logistics and Supply Chain Management courses. Game boards are 2- or 3-dimensional displays of subsystems, their components and phases of technological and business processes, which allow customization of games of the same type for different missions in schools, universities, and corporate training centers. The range of games applied to economics and management classes spreads from 2-person games for kid's "Aquarium" up to the REACTOR games for several teams of executives.

Readership: Advanced undergraduates and graduate students in economics, management and engineering; non-experts interested in business games for system studies.

"I had no idea microeconomics could be so much fun. I have learned so much from the text in Business Games."

Alex Gorod

Student at Pace University, New York

"Business games are such a powerful tool for overcoming economic, social, and cultural barriers between students and with the professor. They provide a most effective training platform for the success of global business people."

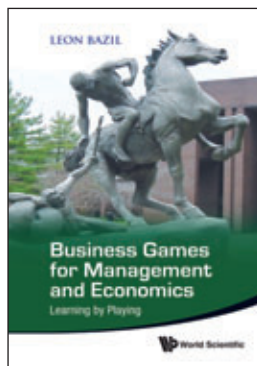
Dr Hong Zhen

Professor of Shanghai Maritime University, China

"Business Games offers a very informative exciting subject — 'colouring up' a dry subject to the point of enjoyment."

Student Bertha Sawidji

Stevens Institute of Technology



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Hardcover: 210pp (approx.)

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US\$88 / £61

CHINA-EU TRADE DISPUTES AND THEIR MANAGEMENT

by **Qingjiang Kong** (*China University of
Political Science and Law, China*)

The European Union (EU) has now become the largest trade partner of China. While Sino-US trade relations and particularly the high-profile trade disputes between the US and China get considerable academic attention for geopolitical reasons, less research has been done on the Sino-EU trade disputes that gradually loom large on the horizon. This book delves into the trade disputes between China and the EU and identifies the causes for trade disputes. It examines how the disputes will shape China-EU trade relations, and offers a macro overview on how the issues can be resolved or at least how they should be managed.

This timely book sheds light on Sino-EU trade disputes, putting these in global perspective and enriching the literature in this regard.

Readership: Trade specialists, trade lawyers, public policy makers, advanced undergraduates and graduate students in trade/business, law, and China Studies.

"The evolving economic relations between China and the European Union offer a rich canvass against which recent trade disputes are brilliantly analyzed in this book. The author makes a major contribution by carefully looking at the implementation efforts by the two members which shows the high degree of effectiveness that WTO law has reached. The institutional aspects of both the EU and China trade policies are meticulously discussed, shedding light on the intricacies of decision making and policy designs which will shape the future of the international economic order."

Professor Julien Chaisse
Faculty of Law,
The Chinese University of Hong Kong

"Until recently the trade relation between China and Europe was often underexposed. With this valuable book, Professor Kong breaks new ground in exploring the contours of trade conflicts between these two economic superpowers. This work is a must-read for anyone who is interested in finding out where China and the EU are heading next."

Dr Jan Hoogmartens
Ministry of Foreign Affairs, Belgium &
author of "EC Trade Law following China's
Accession to the WTO", Kluwer Law, 2004

THE CHANGING FACE OF INNOVATION

Is it Shifting to Asia?

by **Seeram Ramakrishna** (*National University of Singapore, Singapore*) & **Daniel Joo-Then Ng** (*Independent Strategic Advisor and Business Consultant, Singapore*)

This book provides a brief overview of the recent trends in innovations. Early inventions/innovations that began in Asia (i.e., compass, paper, gunpowder and printing) spread to the Atlantic (Europe and USA) by land and sea routes. However, with population growth, **economic expansion**, availability of skilled researchers and lower cost of research in Asia Pacific, there has been a shift in innovation activities in this region.

There has been a discernable trend of innovation (R&D) in countries like Japan, Korea, China, India and Singapore. This book attempts to create awareness of this trend and hopes to motivate business leaders and policy makers to take advantage of this shifting trend, as well as to encourage more global collaboration in innovations to face societal challenges in the 21st century.

Key Features:

- Easy-to-read book that presents the developing trends of innovation around the world and also focuses on global social perspectives of trends in innovation
- One of the few books to provide a snapshot of the shift of innovation from Atlantic to Asia Pacific

Readership: Students and academics who are, respectively, studying and teaching innovations; businessmen, entrepreneurs and general public.



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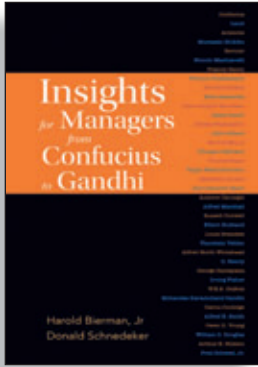
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US\$38 / £25



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US\$58 / £38

INSIGHTS FOR MANAGERS FROM CONFUCIUS TO GANDHI

by **Harold Bierman, Jr** (*Cornell University, USA*) &
Donald Schnedeker (*Cornell University, USA*)

This unique book brings together thoughts of great men and women, not found elsewhere as a complete set, that hold special interest for managers. The ideas contained within are universal and apply to all aspects of civilization; as such, they are relevant to both work and life.

The book also provides prime examples of how influential thinkers use language to effectively convey their arguments and intentions — an arguably invaluable tool for modern managers. It serves as a source of indispensable advice for business professionals and the general public.

Key Features:

- Delivers important messages to the business readers by famous figures in the field
- Contains highly relevant ideas by universally acknowledged thinkers
- Presents classic examples of applying language to argue effectively

Readership: Students and teachers studying and teaching general business and management courses; business professionals and managers; the general public.

WORK, MANAGEMENT AND THE BUSINESS OF LIVING

by Moneim El-Meligi

In the modern economic paradigm characterized by a multitude of business management theories aimed at maximizing profits, there is a danger of formalizing management techniques to the extent of dehumanizing individuals or reducing them to humanoids. This book deals with familiar concepts in the management literature, but always in light of the model of the human person. It sheds light on organizing processes in individuals, small groups, and organizations and other large social systems by covering empirical research on three central topics — modes of influence, intrapersonal communication, and change — through which the social context is constantly shifting.

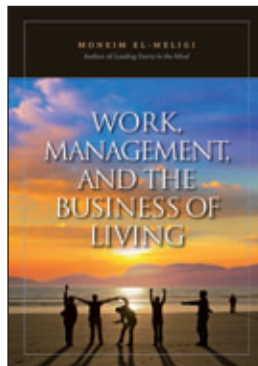
Concepts from other fields are also introduced by the author into the field of management, such as philosophy, biology, sociology, semantics, and mythology, to name a few. As a protest against behaviorism, materialism, objectivism, determinism, elitism, and many other “-ism’s” that degrade the human person, this book provides food for thought to students of management and organizational behavior, psychologists and sociologists, as well as political scientists and leaders of business and nonbusiness institutions.

Readership: Managers, psychologists, political scientists, sociologists, graduate students and researchers in social science.

About the Author

Dr Moneim El-Meligi received his earlier education in Egypt; he obtained his undergraduate degree in Philosophy from Alexandria University, a Diploma of Education from Ain-Shams University and an MA in Psychology from Cairo University. He pursued his graduate education in UK where he obtained his PhD in 1954 from the Institute of Psychiatry of London University.

His publications include several books (in English, Arabic and French) and over 100 articles and case studies. In addition, some of his psychological tests have been translated into French, Spanish, Italian, and Portuguese.



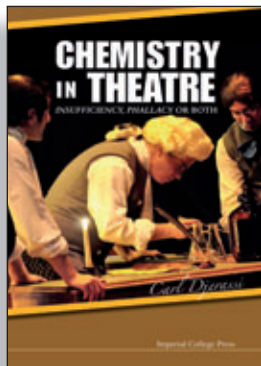
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US\$58 / £38

Paperback: 132pp

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US\$24 / £16

CHEMISTRY IN THEATRE

Insufficiency, Phallacy or Both

by **Carl Djerassi** (Stanford University, USA)

This book examines the questions “What can science do for the theatre?” and “What can the theatre do for science?” which raise challenges for both theatre professionals and scientists. Unusually, this book deals with plays first and foremost as reading material — as texts to be read alone or in dramatic readings — rather than emphasizing performances on the stage. Concrete examples are given to demonstrate the potential pedagogic value of using the dialogic style and plot structure of plays in science, with a special focus on chemistry.

Very few books have dealt with the subject of science-in-theatre and virtually none with chemistry-in-theatre. Texts of the author’s two recent plays, *Insufficiency* and *Phallacy*, are included in their entirety to offer concrete examples of plays dealing with actual (rather than invented) chemistry. *Insufficiency* represents an example from the field of beer and champagne bubbles, where the topics of academic tenure and fashion in chemistry are analyzed, whereas in *Phallacy*, a case history of the similarities and differences between science and art is presented for debate.

Readership: Students and professionals in the fields of science and theatre, as well as people who are interested in these two fields.

“First hook the fish and then bring it on board. This book is an excellent hook for arousing interest for chemistry and science by playfully uncovering high complexity behind apparent simplicity.”

Jean-Marie Lehn

Nobel Laureate in Chemistry

“In these tantalizing plays, Djerassi again delivers compelling science-in-fiction, superbly crafted and bristling with his inimitable verve and zest.”

Dudley Hershbach

Nobel Laureate in Chemistry

“Djerassi’s creativity and passion connect science and the arts. Chemistry, drama, ethics, sociology, humor, and more ... artistically conceived, engaging, and enriching to all.”

Bassam Z Shkhashiri

University of Wisconsin

President of the American Chemical Society

NONADIABATIC TRANSITION

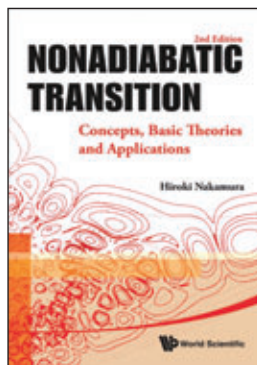
Concepts, Basic Theories and Applications
(2nd Edition)

by **Hiroki Nakamura** (*Institute for Molecular Science, National Institutes of Natural Sciences, Okazaki, Japan & National Chiao Tung University, Hsinchu, Taiwan*)

Nonadiabatic transition is a highly multidisciplinary concept and phenomenon, constituting a fundamental mechanism of state and phase changes in various dynamical processes of physics, chemistry and biology, such as molecular dynamics, energy relaxation, chemical reaction, and electron and proton transfer. Control of molecular processes by laser fields is also an example of time-dependent nonadiabatic transition.

In this new edition, the original chapters are updated to facilitate enhanced understanding of the concept and applications. Three new chapters — comprehension of nonadiabatic chemical dynamics, control of chemical dynamics, and manifestation of molecular functions — are also added.

Readership: Graduate Students and researchers in molecular science, physical chemistry, chemical dynamics, atomic and molecular physics, theoretical chemistry and physics, condensed matter and statistical physics, organic- and biochemistry.



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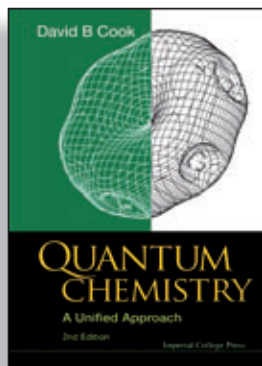
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US\$76 / £49

QUANTUM CHEMISTRY

A Unified Approach

(2nd Edition)

by **David B Cook** (*University of Sheffield, UK*)

This book is a presentation of a qualitative theory of chemical bonding, stressing the physical processes which occur on bond formation. It differs from most (if not all) other books in that it does not seek to “rationalise” the phenomena of bonding by a series of mnemonic rules. A principal feature is a unified and consistent treatment across all types of bonding in organic, inorganic, and physical chemistry.

Each chapter has an Assignment Section containing “problems” which might be usefully attempted to improve the understanding of the new material in that chapter.

The new edition has had several appendices added which give support to concepts which, if included in the main text, would have hindered the main thrust of the presentation. These new appendices are an attempt to clarify oversights and errors which have been tacitly ignored and which have now become part of the conventional wisdom.

Key Features:

- Addition of problems to some chapters with worked solutions or suggestion for solutions
- The concentration on localised descriptions of sigma bonds stressing the difference between these and pi bonds
- The systematic use of hybrid orbitals
- The free use of perspective diagrams of actual orbitals, not the standard ‘cartoons’

Readership: Undergraduate and beginning graduate students in chemistry-containing studies; students at a similar level in physical and biological sciences; tutors and lecturers.

Review of the First Edition

“The text is written in an easy-to-access style that is broken down into clear chapters of progression ... would consider the book to be valuable reading for anyone on a chemistry degree, or a degree in a related subject ... first year students in particular would welcome this text as a valuable guide to navigating the fields of chemistry, as it addresses the eternal question of students encountering quantum chemistry for the first time ... It should be essential reading for anyone who wishes to become an educator in the field of chemistry.”

Reviews

SUPPORTED METALS IN CATALYSIS

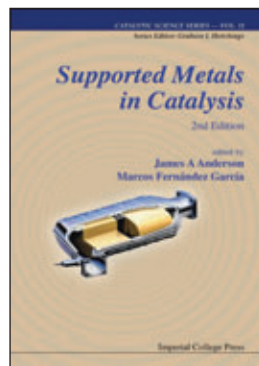
(2nd Edition)

edited by **James A Anderson** (*University of Aberdeen, UK*) & **Marcos Fernández García** (*Instituto de Catálisis y Petroleoquímica, (CSIC), Spain*)

With contributions from experts in supported metal catalysis from both the industry and academia, this book presents the latest developments in characterization and application of supported metals in heterogeneous catalysis. In addition to thorough and updated coverage of the traditional aspects of heterogeneous catalysis such as preparation, characterization and use in well-established technologies such as vehicle emission control, the book also includes emerging areas where supported metal catalysis will make significant contributions to future developments, such as fuel cells and fine chemicals synthesis.

The second edition of *Supported Metals in Catalysis* comes complete with new and updated chapters containing important summaries of research in a rapidly evolving field. Very few other books deal with this highly pertinent subject matter and, as such, it is a must-have for anyone working in the field of heterogeneous catalysis.

Readership: Postgraduate students and academic and industrial researchers working in the area of heterogeneous catalysis.



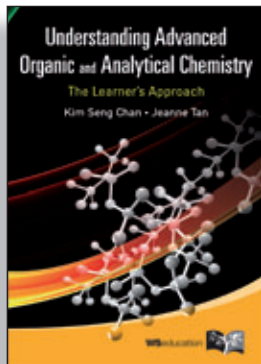
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US\$168 / £111



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Paperback: 556pp

Pub. date: Dec 2011

978-981-4374-98-9(pbk)

US\$38 / £25

UNDERSTANDING ADVANCED ORGANIC AND ANALYTICAL CHEMISTRY

The Learners' Approach

by **Kim Seng Chan** (*Raffles Institution, Singapore*)
& **Jeanne Tan** (*Raffles Institution, Singapore*)

Written for students taking either the University of Cambridge A-level examinations or the International Baccalaureate examinations, this textbook covers essential topics under both stipulated chemistry syllabi. The chapters on analytical techniques are also very enlightening to students doing higher level biology courses where a good understanding of the theoretical background of common analytical techniques is required. The book is written in such a way as to guide the reader through the understanding and applications of essential chemical concepts by introducing a discourse feature — the asking and answering of questions — that stimulates coherent thinking and hence, elucidates ideas. Based on the Socratic Method, questions are implanted throughout the book to help facilitate the reader's development in forming logical conclusions of concepts. The book helps students to master fundamental chemical concepts in a simple way.

Topics are explored through an explanatory and inquiry-based approach. They are interrelated and easy to understand, with succinct explanations/examples being included, especially in areas that students frequently find difficult. Topics address the whys and hows behind key concepts to be mastered, so that the concepts are made understandable and intuitive for students. The focus is on conceptual learning so as to equip students with knowledge for critical learning and problem solving.

Existing A-level textbooks and guidebooks generally introduce concepts in a matter-of-fact manner. This book adds a unique pedagogical edge which few can rival. Through their many years of teaching experience, the authors have acquired an acute awareness of students' common misconceptions which are relayed through the questions and thus help to reinforce concepts learnt.

Readership: Junior college students and teachers.

ROBUST MECHANISM DESIGN

The Role of Private Information and Higher Order Beliefs

by **Dirk Bergemann** (Yale University, USA) &
Stephen Morris (Princeton University, USA)

This volume brings together the collected contributions on the theme of robust mechanism design and robust implementation that Dirk Bergemann and Stephen Morris have been working on for the past decade. The collection is preceded by a comprehensive introductory essay, specifically written for this volume with the aim of providing the readers with an overview of the research agenda pursued in the collected papers.

The introduction selectively presents the main results of the papers, and attempts to illustrate many of them in terms of a common and canonical example, namely a single unit auction with interdependent values. It is our hope that the use of this example facilitates the presentation of the results and that it brings the main insights within the context of an important economic mechanism, namely the generalized second price auction.

Readership: Graduate students and researchers who are interested in Economic Theory.

"Equilibrium robustness in informational variables is critical, if one wants to use results from the mechanism design literature in real life applications. The papers included in the Bergemann and Morris book describe state of the art progress in this direction of research. The book is an excellent resource for established game theorists, who want to learn more about this subject; and for PhD students, who look for exciting problems to investigate."

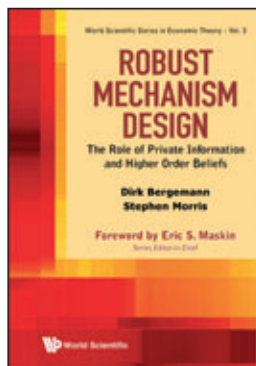
Ehud Kalai

**Kellogg School of Management,
Northwestern University**

"Mechanism design has been one of the great successes of economic theory in the last 30 years. Robust mechanism design, the study of optimal mechanisms in settings where the designer has less information about the beliefs of the agents, is the natural next step in the evolution of this field. Bergemann and Morris are two of the leading figures in developing this new theory, and this book combines many of their papers with an excellent introduction that overviews the field and explains how their papers fit together. Highly recommended to all students and practitioners of economic theory, and essential reading for would-be mechanism designers."

Drew Fudenberg

Department of Economics, Harvard University



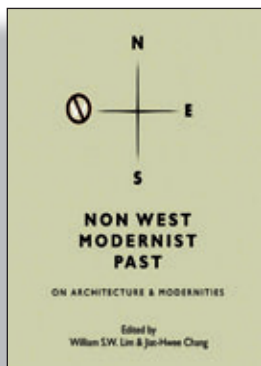
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Hardcover: 472pp

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978-981-4374-58-3

US\$158 / £104



Rights Information:
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rights available.

Hardcover: 224pp

Pub. date: Oct 2011

978-981-4365-94-9

US\$82 / £54

NON WEST MODERNIST PAST

On Architecture & Modernities

edited by **William S W Lim** (*AA Asia, Singapore & Asian Urban Lab, Singapore*) & **Jiat-Hwee Chang**

This book provides a comprehensive historical and theoretical overview of modern architecture in regions outside the “West” — Europe and North America. It brings together contributions from leading scholars in the interdisciplinary fields of architecture history, architecture theory, area studies, sociology and cultural studies. It interrogates Eurocentric views of modern architecture as autonomous and homogeneous and posits a heteronomous and heterogeneous understanding of modern architecture. Drawing from interdisciplinary theories, this book explores the complex relations between modernism, modernity and modernization and their entanglements with colonialism and postcolonialism, nationalism and development, globalization and regionalism. Closely examining the diverse cases of architectural modernisms in China, India, Indonesia, Singapore, Turkey, Brazil and South Africa, this book transcends the geographic division of labour in area studies to offer a broad comparative survey of modernisms beyond the West. It also covers heterogeneous temporalities of modernism today, tracing the continuities and discontinuities between the past and the present, from the proto-modern to the post-modern, from the west to the rest.

This book is an essential resource for understanding architectural modernism outside its “western” regions and mindsets. Its in-depth discussion and insights will be invaluable to specialists, academics and graduate students. It is also comprehensive enough to be used as a textbook for undergraduate students, and general enough for practitioners and the curious general reader.

Key Features:

- Presents a comprehensive survey of the history and theory of modern architecture in different parts of the world outside the west
- Includes contributions from leading international scholars in the fields of modern architecture and urbanism, such as Anthony D King, Mark Crinson, Leon van Schaik, Rahul Mehrotra and Li Shiqiao
- Explicitly addresses the connections between the past and the present, historical precedents and contemporary practices in modern architecture

Readership: Students and academics and researchers studying modern architecture, practitioners, heritage enthusiasts and general readers.

NOBEL PRIZES THAT CHANGED MEDICINE

edited by **Gilbert Thompson**
(Imperial College, London, UK)

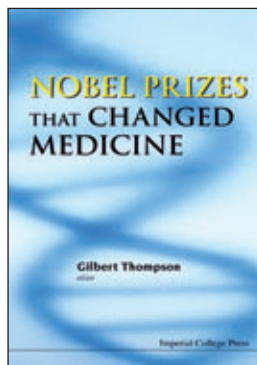
This book brings together in one volume fifteen Nobel Prize-winning discoveries that have had the greatest impact upon medical science and the practice of medicine during the 20th century and up to the present time. Its overall aim is to enlighten, entertain and stimulate. This is especially so for those who are involved in or contemplating a career in medical research.

Anyone interested in the particulars of a specific award or Laureate can obtain detailed information on the topic by accessing the Nobel Foundation's website. In contrast, this book aims to provide a less formal and more personal view of the science and scientists involved, by having prominent academics write a chapter each about a Nobel Prize-winning discovery in their own areas of interest and expertise.

Key Features:

- Many of the authors in this book have personal knowledge of the Nobel Laureates they write about
- All authors are distinguished authorities in their own fields of study
- No other book has brought together the Nobel Prizes in such a way-highlighting the greatest influences on the practice of Medicine, dating from the discovery of insulin in 1923 to the description of the gene-silencing effect of double-stranded RNA in 2006

Readership: Students, undergraduates, graduates, professionals and members of the general public interested in the impact of Nobel Prize-winning discoveries in medicine.



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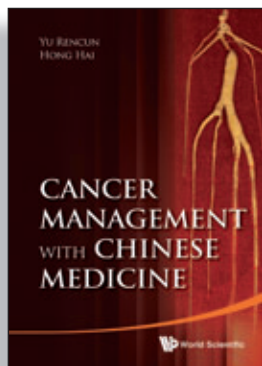
Hardcover: 372pp

Pub. date: Dec 2011

978-1-84816-825-1
US\$118 / £78

Paperback: 372pp

978-1-84816-826-8(pbk)
US\$48 / £32



Rights Information:
Non-English language
rights available.

Hardcover: 224pp

Pub. date: Feb 2012

978-981-4374-74-3

US\$58 / £38

CANCER MANAGEMENT WITH CHINESE MEDICINE

by **Rencun Yu** (*Beijing Hospital of Traditional Chinese Medicine, China*) & **Hai Hong** (*Nanyang Technological University, Singapore*)

Significant advances made by Western medicine in the treatment of cancer are well-documented, but little has been written in English on complementary holistic treatment with Chinese medical methods that manage its symptoms and ameliorate the side effects of surgery, chemotherapy or radiotherapy. This book explains the complementary approach using cases from the medical files of Professor Rencun Yu, who was trained in Western medical oncology but also practices Chinese medicine. In addition, introductory chapters explain the basic principles of Chinese medicine, while other chapters cover the prevention of cancers through appropriate nutrition and living habits. The book should command the attention of medical professionals as well as the layperson interested in preventing and understanding the illness.

There is no equivalent book in English that so skillfully combines an introduction to Chinese medical principles and cancer management for the general reader with detailed clinical studies of the crucial complementary role played by Chinese medicine in Western treatments for cancer patients.

Key Features:

- The book can be read by both medical professionals and the educated layman to understand a disease that affects many lives. It can be used as a guide to preventing the illness or managing it for oneself, friends and relatives
- It presents some cases from the medical files of a Western-trained oncologist who has used complementary treatment with Chinese medicine over many decades with considerable success
- It has chapters on the principles of diagnosis and therapy in Traditional Chinese Medicine and on a holistic approach to the prevention of cancers

Readership: (i) Medical professionals, both Western medical doctors and TCM practitioners, particularly those practicing in Australia, Europe and America and (ii) the lay reader who either wants general knowledge on how to prevent cancer or wishes to understand how TCM can help a friend, relative or loved one who suffers from the disease. (iii) Also, libraries of TCM professional associations and teaching institutes.

GENETICALLY MODIFIED CROPS

2nd Edition

by **Nigel G Halford** (*Rothamsted Research, UK*)

Plant molecular biology came to the fore in the early 1980s and there has been tremendous growth in the subject since then. The study of plant genes and genomes and the development of techniques for the incorporation of novel or modified genes into plants eventually led to the commercialisation of genetically modified (GM) crops in the mid-1990s. This was seen as the start of a biotechnological revolution in plant breeding. However, plant biotechnology has become one of the hottest debates of the age and, in Europe at least, one of the greatest challenges that plant scientists have ever faced.

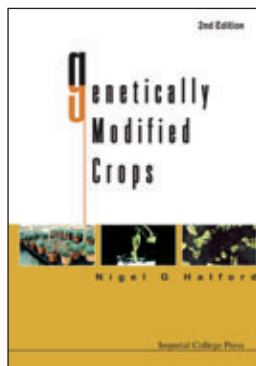
This book covers the history and development of the science and techniques that underpin plant biotechnology. It describes the GM crops that are or have been grown commercially around the world, including failures as well as successes, and the new varieties that are being developed. The safety record of GM crops is reviewed together with the legislation that has been adopted to cover their use. The book also deals with the concerns of consumers, the GM crop debate and the prospects for the technology. In the second edition, sections on current GM crops and future developments in plant biotechnology have been greatly expanded, while those on techniques, legislation and the GM crop debate have also been updated.

The book is a concise, comprehensive and readable study that is accessible to a general readership with a scientific background but also provides useful information for the specialist.

Readership: Students and professionals interested in current developments and debates that involve genetically modified crops.

"A slim volume discussing a large and increasingly important topic, Nigel Halford's book is both concise and comprehensive ... This book will be tremendously valuable for students and for the interested layperson — highly recommended!"

Journal of the Science of Food and Agriculture



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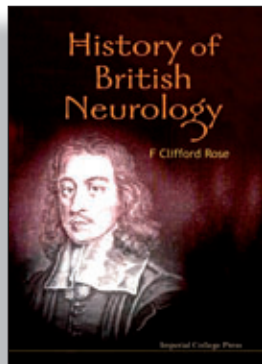
Non-English language rights available.

Hardcover: 192pp

Pub. date: Oct 2011

978-1-84816-838-1

US\$66 / £44



Rights Information:
Non-English language
rights available.

Hardcover: 340pp

Pub. date: Oct 2011

978-1-84816-668-4

US\$110 / £73

HISTORY OF BRITISH NEUROLOGY

by **F Clifford Rose** (*Imperial College School of
Medicine, UK*)

Diseases of the nervous system are a relatively small but vitally important part of medicine. There was no scientific basis for diagnosis or treatment until the seventeenth century when Dr Thomas Willis (1621–1675) and his team tackled anatomy by dissection of the nervous system, physiology by animal experiments and pathology by post-mortem analysis. It was Willis who first used the word “neurology” and his team, who were among the founders of the Royal Society, included Christopher Wren who, besides being famous as an architect of London’s churches, drew the first modern diagram of the human brain. Developments in our knowledge of the nervous system in the following centuries, and the unique importance of clinical neurology, became globally recognised through the work of Whytt, Heberden, Hughlings Jackson, Gowers and many others.

The work and discoveries of these eminent specialists were extended with the introduction of such neurosciences as neurophysiology, neuropathology and neuro-radiology, and this is the first comprehensive account of a battle with the unknown by determined practitioners.

Key Features:

- There is no other book tracing the unique development of British neurology from its beginnings and recounting its global importance in the 19th and early 20th centuries
- Describes the singular and named characters
- A thorough provision of the basis of the neurosciences

Readership: Members of neurological societies all over the world, neurologists, neuroscientists, historians, doctors, medical students, postgraduates and undergraduates.

Other titles by the author:

NEUROLOGY OF THE ARTS: Painting, Music,
Literature, Apr 04

NEUROLOGY OF MUSIC, Jul 10

TWENTIETH CENTURY NEUROLOGY: The British
Contribution, Nov 01

AN INTRODUCTION TO METABOLIC AND CELLULAR ENGINEERING

(Second Edition)

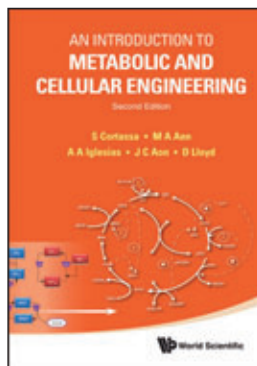
by **S Cortassa** (*Johns Hopkins University, USA*),
M A Aon (*Johns Hopkins University, USA*),
A A Iglesias (*Universidad del Litoral, Argentina*),
J C Aon (*GlaxoSmithKline, USA*) & **D Lloyd**
(*Cardiff University, UK*)

Metabolic and Cellular Engineering (MCE) is more than an exciting scientific enterprise. It has become the cornerstone for coping with the challenges ahead of mankind. Continuous developments, new concepts, and technological innovations will enable us to deal with emerging challenges, and solve problems once thought impossible ten years ago. Challenges in MCE are broad-from unraveling fundamental aspects of cellular function to meeting unsatiated energy and food demands that are rising in parallel with population growth.

In charting the progress of MCE during the last decade, we could not help but feel in awe of the enormous strides of progress made from the nascent Metabolic Engineering to the Systems Bioengineering of today. The burgeoning availability of genomic sequences from diverse species has been spectacular. It has become the engine that drives the genetic means for the modification of existing organisms and the generation of synthetic, man-made ones. From the initial attempts at purposeful genetic modification of a cell for the production of valuable compounds, we have now moved on to changing microbes genetically or metabolically.

The arsenal of experimental and theoretical tools available for Metabolic and Cellular Engineering has expanded enormously, driven by the re-emergence of Physiology as Systems Biology. The revival of the concept of networks fueled by new developments has become central to Systems Biology. Networks represent an integrative vision of how processes of disparate nature relate to each other, and as such is becoming a key analytical and conceptual tool for MCE. This book reflects and addresses all these ongoing changes while providing the essential conceptual and analytical tools needed to understand and work in the MCE research field.

Readership: Students, undergraduates, graduates and professionals contributing to or are in the field of Metabolic and Cellular Engineering.



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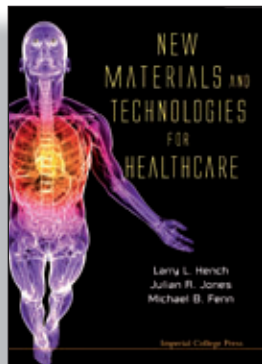
978-981-4365-71-0

US\$120 / £79

Paperback: 448pp

978-981-4365-72-7(pbk)

US\$60 / £40



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Non-English language
rights available.

Hardcover: 520pp

Pub. date: Nov 2011

978-1-84816-558-8

US\$168 / £111

NEW MATERIALS AND TECHNOLOGIES FOR HEALTHCARE

edited by **Larry L Hench** (*University of Florida, USA*),
Julian R Jones (*Imperial College London, UK*) &
Michael B Fenn (*University of Florida, USA*)

This volume summarizes recent developments in the use of new materials and technologies in healthcare. The emphasis is on new approaches that incorporate bioactive materials and scaffolds with cells in the emerging technologies of tissue engineering and regenerative medicine. The incorporation of nanotechnology, stem cells, and gene control of cells is included in the current research discussed. Clinical applications are described throughout the volume, along with economic and bioethics issues. The chapters are organized into four sections of clinical needs and an overview that summarizes the technologies that provide new approaches to clinical problems. The clinical areas addressed are Skeletal and Skin Repair, Heart and Cardiovascular Repair, Neuronal Repair, and Sensory Repair. The chapters were written by a multidisciplinary group of authors from six universities: the University of Arizona (US), the University of Central Florida (US), Imperial College London (UK), King's College, Guy's Hospital, University of London (UK), University of Florida (US) and Kyoto University (Japan). This book can be used as a reference book or as a textbook for advanced undergraduate or graduate courses in bioengineering, biomaterials or healthcare management.

Key Features:

- Up-to-date review of the latest technologies for healthcare, incorporating advances in tissue engineering, regenerative medicine, biomaterials, bioengineering, stem cells and nanobiotechnology
- No other publication encompasses this full range of new approaches to healthcare
- The book is at the introductory level such that it can be understood by science and bioengineering students, as well as healthcare professionals

Readership: Undergraduates or graduates in bioengineering, biomaterials and healthcare management, and healthcare professionals.

THE PICU BOOK

A Primer for Medical Students, Residents and Acute Care Practitioners

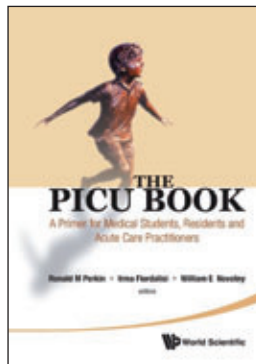
edited by **Ronald M Perkin** (*East Carolina University, USA*), **Irma Fiordalisi** (*East Carolina University, USA*) & **William E Novotny** (*East Carolina University, USA*)

This book is a clinical guide in the practice of pediatric critical care and can serve as a roadmap for an introductory journey through this broad and challenging subspecialty. Key topics intrinsic to the practice of pediatric critical care are addressed from an organ-system and disease-specific perspective, and tailored to the needs of new learners. Comprehensive, practical and up-to-date information is provided in a user-friendly format that facilitates both learning and care implications. Each topic is analyzed and discussed in a custom-built section to provide both an overview and the necessary detail to help the reader participate in and contribute to patient care. Definitions, etiologies, physical findings, laboratory and radiologic data, differential diagnoses, management, suggested consultations and prognosis are condensed using easy-to-find boxes, bulleted lists, decision trees, tables and illustrations.

Key Features:

- Written by experts who practice the discipline and teach pediatric critical care on a regular basis
- Dedicated to learners; explanations are clear, concise and no assumption is made regarding pre-existing knowledge of the discipline
- Useful as a bedside resource or as a bedtime reader

Readership: Students or house-officers working in pediatric intensive care unit (PICU); practicing Emergency Department physicians; nurse-practitioners, physician assistants, pediatric respiratory therapists, pediatric critical care nurses or medical professionals interested in understanding the scope of this discipline.



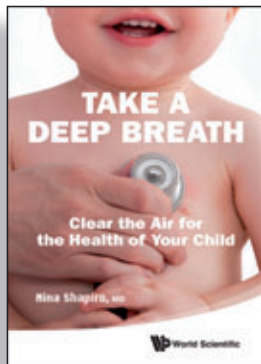
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US\$120 / £74

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Paperback: 264pp

Pub. date: Nov 2011

978-981-4354-97-4(pbk)

US\$16.95 / £11

TAKE A DEEP BREATH

Clear the Air for the Health of Your Child

by **Nina L Shapiro** (*Mattel Children's Hospital
UCLA, USA*)

Key Features:

- It is the first and only book focusing on the comprehensive issues of breathing in children; it is also written in a manner accessible to both non-medical and medical people alike
- It is written by Dr Nina Shapiro, Director of Pediatric Ear, Nose and Throat at the Mattel Children's Hospital at UCLA. An internationally-recognized specialist, she has treated tens of thousands of children with breathing disorders, along the spectrum of mild to life-threatening. She is a graduate of Harvard Medical School, where she also completed her training in Ear, Nose and Throat Surgery. She completed a combined fellowship in pediatric ear, nose, and throat at the Great Ormond Street Hospital for Sick Children in London, and the Children's Hospital of San Diego. She has appeared on numerous media venues as a commentator for pediatric breathing problems including television, radio, print, and the internet. She has been featured on the hit CBS Show "The Doctors", Discovery Health Channel "Medical Diary", and Extra TV "LifeChangers". She has published over 60 peer-reviewed medical articles, and is the editor of the upcoming text "Handbook of Pediatric Otolaryngology"
- In support of publication of the book, Dr Shapiro is determinably available to promote the sales of "Take a Deep Breath". As a veteran of many forms of media, in addition to being highly mediagenic, Dr Shapiro will be able to endorse this book in all forms of media. Her strong and lasting affiliations with all of the top medical societies in her field will also be powerful venues for book promotion. The Mattel Children's Hospital at UCLA has an expert team of media relations professionals, who would be able to market this book through the UCLA media outreach programs

Readership: Parents, caregivers, teachers, pediatricians, primary care physicians.

"Take a Deep Breath is a breath of fresh air for every parent and doctor who cares about children. Dr Nina Shapiro cuts through what we need to know, and reassuringly tells us what we don't need to worry about. A must read for every parent and grandparent."

Nancy Snyderman
NBC News Chief Medical Editor

INTRODUCTION TO MATHEMATICAL LOGIC

by **Michał Walicki** (*University of Bergen, Norway*)

This is a systematic and well-paced introduction to mathematical logic. Excellent as a course text, the book presupposes only elementary background and can be used also for self-study by more ambitious students.

Starting with the basics of set theory, induction and computability, it covers propositional and first-order logic — their syntax, reasoning systems and semantics. Soundness and completeness results for Hilbert's and Gentzen's systems are presented, along with simple decidability arguments. The general applicability of various concepts and techniques is demonstrated by highlighting their consistent reuse in different contexts.

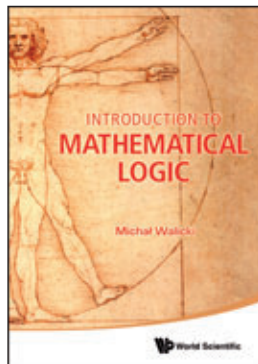
Unlike in most comparable texts, presentation of syntactic reasoning systems precedes the semantic explanations. The simplicity of syntactic constructions and rules — of a high, though often neglected, pedagogical value — aids students in approaching more complex semantic issues. This order of presentation also brings forth the relative independence of syntax from the semantics, helping to appreciate the importance of the purely symbolic systems, like those underlying computers.

An overview of the history of logic precedes the main text, while informal analogies precede introduction of most central concepts. These informal aspects are kept clearly apart from the technical ones. Together, they form a unique text which may be appreciated equally by lecturers and students occupied with mathematical precision, as well as those interested in the relations of logical formalisms to the problems of computability and the philosophy of logic.

Key Features:

- A well-paced and precise introduction to mathematical logic, combined in a unique way with the history of logic and analogies to informal understanding
- Simplicity of syntax, presented prior to semantics, aids students in grasping the differences and relations between the two areas
- Consistent presentation of the same techniques in various contexts highlights their general applicability
- An excellent course-text, which can be also used for self-study and as a reference
- Each chapter concludes with the exercises

Readership: Undergraduates learning logic, lecturers teaching logic, any professionals who are non-experts in the subject but wish to learn and understand more about logic.



Rights Information:

Non-English language rights available.

Hardcover: 280pp

Pub. date: Dec 2011

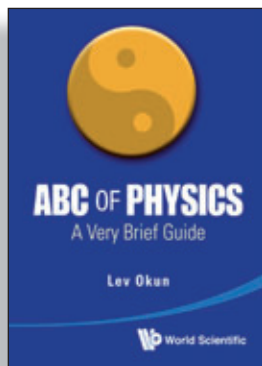
978-981-4343-86-2

US\$72 / £47

Paperback: 280pp

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US\$42 / £27

**Rights Information:**

Non-English (except Russian) language rights available.

Hardcover: 168pp

Pub. date: Mar 2012

978-981-4397-27-8

US\$28 / £18

ABC OF PHYSICS

A Very Brief Guide

by **Lev Okun** (*Institute of Theoretical and Experimental Physics (ITEP), Russia*)

This little book concentrates on the foundations of modern physics (its “ABC’s”) and its most fundamental constants: c — the velocity of light and \hbar — the quantum of action.

First of all, the book is addressed to professional physicists, but in order to achieve maximal concentration and clarity it uses the simplest (high school) mathematics. As a result many pages of the book will be useful to college students and may appeal to a more general audience.

Key Features:

- The book clarifies the relation between energy and mass
- The book stresses the key role of spin in physics
- The book introduces the concept of elementary quantum state whose properties are completely fixed by a few quantum numbers. It explains the probabilistic side of Quantum Mechanics by using the language of Feynman diagrams
- It is extremely important to distinguish between facts firmly established in certain fields of physics and hypothetical extrapolations to fields that await exploration

Readership: College students and interested readers in the physical sciences.

ADVANCED QUANTUM MECHANICS

(Second Edition)

by **Freeman Dyson** (*Institute for Advanced Study, Princeton, USA*) translated and transcribed by **David Derbes** (*Laboratory Schools, University of Chicago, USA*)

Freeman Dyson is Professor Emeritus at the Institute for Advanced Study in Princeton. He is the author of eight books and the recipient of numerous awards including the Enrico Fermi Award by the U.S. Department of Energy in 1995 and the 2000 Templeton Prize for Progress in Religion.

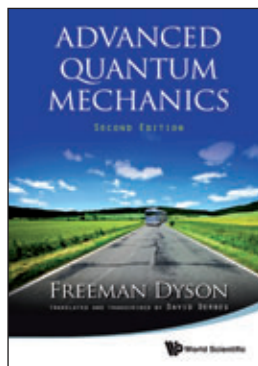
Renowned physicist and mathematician Freeman Dyson is famous for his work in quantum mechanics, nuclear weapons policy and bold visions for the future of humanity. In the 1940s, he was responsible for demonstrating the equivalence of the two formulations of quantum electrodynamics — Richard Feynman's diagrammatic path integral formulation and the variational methods developed by Julian Schwinger and Sin-Itiro Tomonaga — showing the mathematical consistency of QED.

This invaluable volume comprises the legendary lectures on quantum electrodynamics first given by Dyson at Cornell University in 1951. The late theorist Edwin Thompson Jaynes once remarked, "For a generation of physicists they were the happy medium: clearer and better motivated than Feynman, and getting to the point faster than Schwinger".

This edition has been printed on the 60th anniversary of the Cornell lectures, and includes a foreword by science historian David Kaiser, as well as notes from Dyson's lectures at the Les Houches Summer School of Theoretical Physics in 1954. The Les Houches lectures, described as a supplement to the original Cornell notes, provide a more detailed look at field theory, a careful and rigorous derivation of Fermi's Golden Rule, and a masterful treatment of renormalization and Ward's Identity.

Future generations of physicists are bound to read these lectures with pleasure, benefiting from the lucid style that is so characteristic of Dyson's exposition.

Readership: Physicists, graduate and undergraduate students.



Rights Information:

Non-English (except German) language rights available.

Hardcover: 316pp

Pub. date: Nov 2011

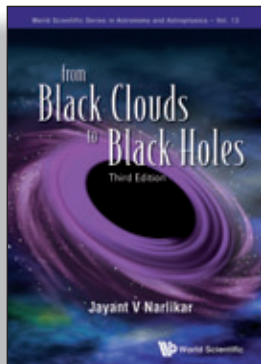
978-981-4383-40-0

US\$92 / £61

Paperback: 316pp

978-981-4383-41-7(pbk)

US\$39 / £26

**Rights Information:**

Non-English language rights available.

Hardcover: 216pp

Pub. date: Mar 2012

978-981-4350-37-2

US\$58 / £38

FROM BLACK CLOUDS TO BLACK HOLES

(Third Edition)

by **Jayant V Narlikar** (*Inter University Centre for Astronomy and Astrophysics, India*)

This book presents in a simple style the success story of modern astrophysics — how the application of known physics to models of stars can, together with the observational data, help us understand what stars are made of, how they live and how they die. The account is non-technical but scientifically accurate. It is interspersed with anecdotes and analogies to make the subject matter readable and understandable even to a lay reader with some basic scientific background.

Contents: On Stars and Humans; Light: The Storehouse of Information; The Vital Statistics of Stars; How Far are the Stars?; A Star is Born; The Secret of Stellar Energy; The Origin of Chemical Elements; When Stars Explode; Very Dense Stars; Black Holes; Binary and Variable Stars; The Quest Continues.

Key Features:

- Written as a primary introduction to the subject so that a student, after reading, is in a better position to appreciate the more technical accounts of standard texts
- Can be read and enjoyed even by a lay reader interested in astronomy
- Opens out new challenges for the bright student by presenting some unsolved questions

Readership: Any reader interested in astronomy.

NATURE LOVES TO HIDE

Quantum Physics and the Nature of Reality, a Western Perspective
(Revised Edition)

by **Shimon Malin** (Colgate University, USA)

It is naturally important for any of us to have a correct view of the universe we are in. Having realized that the Newtonian world-view is untenable, this book joins others that are searching for an alternative world-view. It is unique in using quantum physics to promote this search.

One aim of the book is to present a lucid exposition of quantum mechanics in terms accessible to the general reader. Another aim is to show that realism (the belief that the outside world exists "from its own side" regardless of acts of consciousness) and locality (the belief that nothing moves faster than light) are invalid, and should be replaced by a new paradigm according to which the universe is alive. A third aim is to show that the thinking of quantum physicists evokes the philosophies of Plato and Plotinus.

The revised edition will include a conversation between two fictional characters to elucidate the discussion of the meaning of wave functions.

Readership: General public; people interested in quantum physics and philosophy.

Reviews of the First Edition

"It will be informative and challenging to scientists and philosophers, and yet it is accessible to general readers."

Abner Shimony, American Journal of Physics

"A fascinating introduction to the strange world of quantum physics and its wider implications."

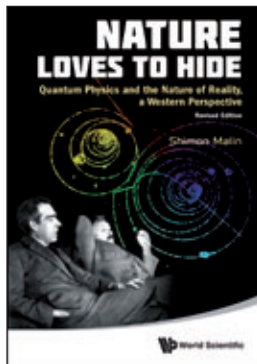
Christian Science Monitor

"The driving contention of this exciting book, the need for science to 'give up its self-sufficiency and the self-sufficiency of reason' is as breathtakingly thorough as it is humane and stylishly written."

Lia Purpura, The Antioch Review

About the Author

Shimon Malin is a Professor of Physics at Colgate University. He retired from teaching in 2007 after having taught there since 1968. A leading authority on quantum mechanics, general relativity and cosmology, and philosophy, he is the author or co-author of three books and some fifty scientific papers.



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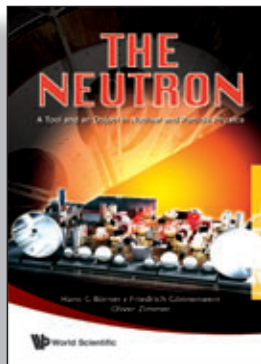
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US\$70 / £43

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Hardcover: 284pp

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US\$94 / £62

THE NEUTRON

A Tool and an Object in Nuclear and Particle Physics

by **Hans G Börner** (*Institut Laue Langevin, France*) & **Friedrich Gönnerwein** (*University of Tübingen, Germany*)

The reactor-based laboratory at the Institut Laue-Langevin is recognized as the world's most productive and reliable source of slow neutrons for the study of low energy particle and nuclear physics. The book highlights the impact of about 600 very diverse publications about work performed in these fields during the past more than 30 years of reactor operation at this institute. On one hand neutrons are used as a tool to generate nuclei in excited states for studying their structure and decay, in particular fission. Uniquely sensitive experiments can tell us a great deal about the symmetry characteristics of nuclei and their fission properties. On the other hand, studies with slow neutrons as the object of investigation are complementary to studies at huge particle accelerators. Experiments carried out at the ILL contribute to elucidate basic questions about the building blocks of the Universe by analyzing very precisely subtle neutron properties.

Readership: Researchers, postgraduates and graduate students in the nuclear and particle physics.

THE QUANTUM ADVENTURE

Does God Play Dice?

by **Alex Montwill** (*University College Dublin, Ireland*)
& **Ann Breslin** (*University College Dublin, Ireland*)

The Quantum Adventure deals with the birth and growth of quantum mechanics. It explains the “classical dilemma” which faced physics at the start of the 20th Century and goes on to show how quantum mechanics emerged and flourished. Difficult and abstract concepts are treated with minimal mathematics and maximal physical imagery. Snippets of information about the dramatis personae are woven into the text and add color to what is traditionally perceived as a complex and challenging topic. A must-read for anyone interested in quantum physics.

Contents:

- Prehistory — Isaac Newton
- Preparing for Quantum Mechanics
- The Pre-Quantum Atom — A Temporary Solution
- Max Planck — The Birth of the Quantum Adventure
- Light — Wave or Projectile?
- Einstein Enters the Scene
- Niels Bohr Introduces the Quantum into Atomic Physics
- Werner Heisenberg — An Equation for Uncertainty
- Louis de Broglie — Matter Waves
- Erwin Schrödinger — Wave Mechanics
- Eigenstates — The Theory of the Seen and Unseen
- Eigenstates in the Subnuclear World
- Paul Dirac — Tying Things Together
- Richard Feynman — The Strange Theory of Light and Matter
- Quantum Reality — The World of the Absurd

Readership: General public with an interest in science, quantum physics or history of science.



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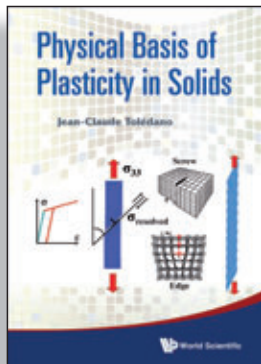
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US\$78 / £48

Paperback: 200pp (approx.)

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US\$34 / £21

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Non-English (except French) language rights available.

Hardcover: 280pp

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978-981-4374-05-7

US\$78 / £51

PHYSICAL BASIS OF PLASTICITY IN SOLIDS

by **Jean-Claude Tolédano**

(Ecole Polytechnique, France)

This book introduces the physical mechanism of the plastic deformation of solids, which relies essentially on the occurrence and motion of dislocations. These are linear defects, specific of crystalline solids whose motion under external stresses explains the relative ease by which solids (metals in particular) can be deformed in order to give them desired shapes. The objective is to introduce the topic to undergraduate students, restricting to the main ideas and showing their relevance in interpreting phenomena well known to everyone (e.g. why are certain metals harder than others?), and finally training the students in the practice of calculating the simplest properties of dislocations.

Contents: Introduction; The Structure of Crystalline Solids; Mechanics of Deformable Solids; Vacancies, an Example of Point Defects in Crystals; The Geometry of Dislocations; Strain Field of Dislocations; Interactions with the Lattice; Microscopic Mechanism of Plasticity.

Key Features:

- The topics (dislocations and plasticity) are of interest to a wide range of university departments: materials science, civil, mechanical, or aeronautical engineering, as well as geology, condensed matter physics, etc.
- Most books on the subject are monographs aimed at researchers. This is a textbook based on a recent teaching experience to undergraduate students, and adapted towards a concise introduction to the subject, in 8–10 lessons
- Previous treatises were essentially written around 1960 (with later updating), during the period of clarification of the main ideas of the field. The present book benefits from recent experimental developments, which have extensively validated the main concepts

Readership: Undergraduate and graduate students in materials science, condensed matter physics and mechanics.

Other title by the author:

THE LANDAU THEORY OF PHASE TRANSITIONS
Application to Structural, Incommensurate, Magnetic and Liquid Crystal Systems, Aug 1987

PHYSICS AROUND US

How and Why Things Work

by **Ernest M Henley** (*University of Washington, USA*)
& **J Gregory Dash** (*University of Washington, USA*)

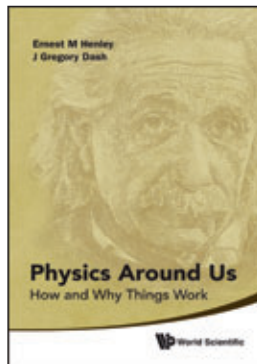
This book is suitable for a first year, non-calculus physics course. It covers mechanics, fluids, gravitation, thermal physics, electricity and magnetism, and modern physics, including atoms, an introduction to quantum mechanics, special relativity, and nuclear and particle physics. Trigonometric functions and vectors are introduced as needed.

Contents: Linear Motion, Kinematics, Vectors; Newtonian Mechanics; Impulse and Momentum; Rotational Dynamics; Oscillations and Waves; Thermal Physics; Static Electricity; Magnetism; Geometrical Optics; Atoms; Particles and Waves — An Introduction to Quantum Mechanics; and other topics in Modern Physics.

Readership: Advanced high school students, beginning college students and all individuals interested in transition school physics.

Other title by the author:

SUBATOMIC PHYSICS, Third Edition, July 2007

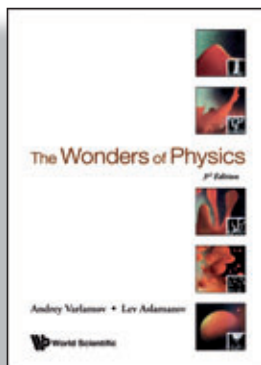


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US\$34 / £22



Rights Information:

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Hardcover: 328pp

Pub. date: Mar 2012

978-981-4374-15-6

US\$68 / £45

THE WONDERS OF PHYSICS

(3rd Edition)

by **Andrey Varlamov** (*Italian National Research Council, Italy*) & **Lev Aslamazov** (*Moscow Technological University, Russia*)

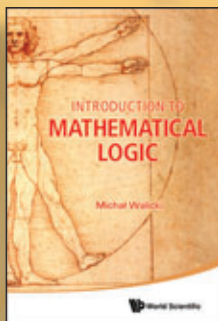
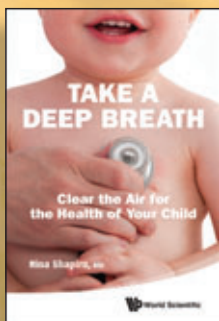
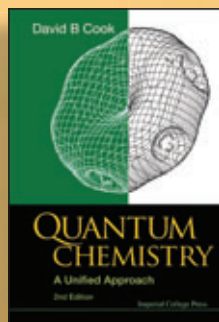
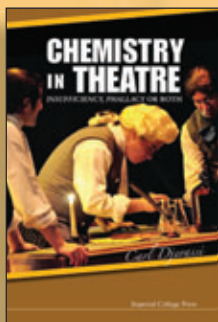
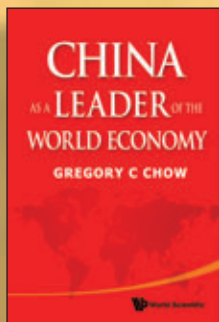
The book in your hands develops the best traditions of Russian scientific popular literature. Written in a clear and captivating manner by working theoretical physicists, who are, at the same time, dedicated popularizers of scientific knowledge, it brings to the reader the latest achievements in quantum solid-state physics, but along the way also shows how the laws of physics reveal themselves even in seemingly trivial episodes concerning the natural phenomena around us. Most importantly, it shows that we live in a world where scientists are capable of “proving harmony with algebra”. — *A A Abrikosov, 2003 Nobel Prize Winner in Physics*

The third edition is considerably extended with three new chapters where the author discusses exciting examples of applications of recent achievements of physics in medicine, nanotechnologies, and physics in cuisine.

Key Features:

- The authors are working physicists-theorists who all their lives have also devoted themselves to the popularization of science
- This is the ninth edition of the book (4 in Russian, 2 in English, 1 in Italian, 1 in Spanish); 25 years since the publication of the first edition, the book is still alive and has been appreciated by readers in many countries
- Superconductivity, nanophysics, and many other topics of the book are treated by the professionals in these fields
- In contrast to many other competing titles, this book popularizes physics with great care for the subject. It does not oversimplify the treated phenomena and when necessary uses the minimal number of formulas

Readership: General readers and individuals with an interest in physics.



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