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Introduction to Mechanics of Solids Engineering Mechanics Of Solids 2Nd Ed. Engineering Mechanics of Solids Engineering Mechanics of Solids Introduction to Mechanics of Solids Handbook of Contact Mechanics Mechanics of Materials, SI Version Functional Integrals and Collective Excitations Susceptibility Tensors for Nonlinear Optics Mechanics of Materials, SI Version : Solutions and Problems Egor P. Popov Method of Dimensionality Reduction in Contact Mechanics and Friction Contact Mechanics Mixed Fortunes Contact Mechanics and Friction Contact Mechanics and Friction Shape Memory Alloys Chess Lessons Corrosion Engineering Into the Lion's Mouth Advanced Nanotechnologies for Detection and Defence against CBRN Agents Mechanics of Engineering Materials Introduction to the Mechanics of Solids Structural Engineering and Structural Mechanics Continuum Theory of Plasticity Contact Problems for Soft, Biological and Bioinspired Materials Theory of Heavy-Fermion Compounds Classical and Computational Solid Mechanics Codename Tricycle Continuum Mechanics and Plasticity Heterogeneous Photocatalysis Multiscale Biomechanics and Tribology of Inorganic and Organic Systems Spall Fracture Nanoscience and Nanotechnology in Security and Protection against CBRN Threats Fundamentals of Biomechanics XIV International Scientific Conference “INTERAGROMASH 2021" How Stella Learned to Talk An Introduction to the Mechanics of Solids Thermo-Hydro-Mechanical Coupling in Fractured Rock Strength of Materials

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The only modern, up-to-date introduction to plasticity Despite phenomenal progress in plasticity research over the past fifty years, introductory books on plasticity have changed very little. To meet the need for an up-to-date introduction to the field, Akhtar S. Khan and Sujian Huang have written Continuum Theory of Plasticity--a truly modern text which offers a continuum mechanics approach as well as a lucid presentation of the essential classical contributions. The early chapters give the reader a review of elementary concepts of plasticity, the necessary background material on continuum mechanics, and a discussion of the classical theory of plasticity. Recent developments in the field are then explored in sections on the Mroz Multisurface model, the Dafalias and Popov Two Surface model, the non-linear kinematic hardening model, the endochronic theory of plasticity, and numerous topics in finite deformation plasticity theory and strain space formulation for plastic deformation. Final chapters introduce the fundamentals of the micromechanics of plastic deformation and the analytical coupling between deformation of individual crystals and macroscopic material response of the polycrystal aggregate. For graduate students and researchers in engineering mechanics, mechanical, civil, and aerospace engineering, Continuum Theory of Plasticity offers a modern, comprehensive introduction to the entire subject of plasticity. Vladimir Popov is a distinguished Russian chess coach whose two most celebrated pupils, Nadezhda and Tatiana Kosintseva, are both in the top 5 of women's chess. In Chess Lessons Popov offers his secrets of chess improvement. Popov shares many stories from his decades of coaching experience. By following his pupils' successes, and missteps, the reader can join them on the path to stronger chess.Chess is of course a complex game, but Popov has the ability as a coach and author to offer clear principles to help the reader achieve a deeper understanding. This book provides a working knowledge of the modeling and engineering applications of shape memory alloys (SMAs), beginning with a rigorous introduction to continuum mechanics and continuum thermodynamics as they relate to the development of SMA modeling.Modern SMAs can recover from large amounts of bending and deformation, and millions of

repetitions within recoverable ranges. SMAs are used in the medical industry to create stents, in the dental industry to create dental and orthodontic archwires, and in the aerospace industry to create fluid fittings. The text presents a unified approach to the constitutive modeling of SMAs, including modeling of magnetic and high temperature SMAs. Extensively revised from a successful first edition, this book features a wealth of clear illustrations, numerous worked examples, and many problem sets. It provides the quantitative perspective missing from more descriptive texts, without requiring an advanced background in mathematics, and as such will be welcomed for use in courses such as biomechanics and orthopedics, rehabilitation and industrial engineering, and occupational or sports medicine. Textbook on the mechanics and strength of materials. Illus. This open access book contains a structured collection of the complete solutions of all essential axisymmetric contact problems. Based on a systematic distinction regarding the type of contact, the regime of friction and the contact geometry, a multitude of technically relevant contact problems from mechanical engineering, the automotive industry and medical engineering are discussed. In addition to contact problems between isotropic elastic and viscoelastic media, contact problems between transversal-isotropic elastic materials and functionally graded materials are addressed, too. The optimization of the latter is a focus of current research especially in the fields of actuator technology and biomechanics. The book takes into account adhesive effects which allow access to contact-mechanical questions about micro- and nano-electromechanical systems. Solutions of the contact problems include both the relationships between the macroscopic force, displacement and contact length, as well as the stress and displacement fields at the surface and, if appropriate, within the half-space medium. Solutions are always obtained with the simplest available method - usually with the method of dimensionality reduction (MDR) or approaches which use the solution of the non-adhesive normal contact problem to solve the respective contact problem. This book describes for the first time a simulation method for the fast calculation of contact properties and friction between rough surfaces in a complete form. In contrast to existing simulation methods, the method of dimensionality reduction (MDR) is based on the exact mapping of various types of three-dimensional contact problems onto contacts of one-dimensional foundations. Within the confines of MDR, not only are three dimensional systems reduced to one-dimensional, but also the resulting degrees of freedom are independent from another. Therefore, MDR results in an enormous reduction of the development time for the numerical implementation of contact problems as well as the direct computation time and can ultimately assume a similar role in tribology as FEM has in structure mechanics or CFD methods, in hydrodynamics. Furthermore, it substantially simplifies analytical calculation and presents a sort of “pocket book edition” of the entirety contact mechanics. Measurements of the rheology of bodies in contact as well as their surface topography and adhesive properties are the inputs of the calculations. In particular, it is possible to capture the entire dynamics of a system – beginning with the macroscopic, dynamic contact calculation all the way down to the influence of roughness – in a single numerical simulation model. Accordingly, MDR allows for the unification of the methods of solving contact problems on different scales. The goals of this book are on the one hand, to prove the applicability and reliability of the method and on the other hand, to explain its extremely simple application to those interested. A wealthy lawyer, debonair ladies' man, consummate actor, and courageous gambler, Dusko Popov played the role of playboy amongst the top echelons of British society to become one of Germany's most trusted spies. In fact, he was one of Britain's most successful double agents, and, some say, the inspiration for James Bond. With full access to FBI and MI5 records, along with private family papers, his incredible adventures can now be told authoritatively for the first time. Recruited by the Abwehr in 1940, 27-year-old Popov immediately offered his services to the British. His code-name was Tricycle. Throughout the war he fed the Germans with a constant stream of military 'intelligence', all vetted by MI5, and came to be viewed as their most important and reliable agent in Britain. But when he was ordered by the Abwehr to the United States to report on the defences at Pearl Harbor, J. Edgar Hoover, Director of the FBI, failed to heed his warnings, distrusting all spies and detesting Popov in particular, whom he considered to be 'a moral degenerate'. Facing the danger of exposure, arrest and execution on a daily basis, Tricycle went on to build up a network known as the Yugoslav Ring, which not only delivered a stream of false information to Berlin but also supplied vital intelligence to the Allies on German rocketry, strategy and security. After the war Dusko Popov was granted British citizenship and awarded an OBE. The presentation was made, appropriately, in the cocktail bar at the Ritz. This book is based on the lectures and contributions of the NATO Advanced Study Institute on “Nanoscience and Nanotechnology in Security and Protection Against CBRN Threats” held in Sozopol, Bulgaria, September 2019. It gives a broad overview on this topic as it combines articles addressing the preparation and characterization of different nanoscaled materials (metals, oxides, glasses, polymers, carbon-based, etc.) in the form of nanowires, nanoparticles, nanocomposites, nanodots, thin films, etc. and contributions on their applications in diverse security and safety related fields. In addition, it presents an interdisciplinary approach drawing on the Nanoscience and Nanotechnology know-how of authors from Physics, Chemistry, Engineering, Materials Science and Biology. A further plus-point of the book, which represents the knowledge of experts from over 20 countries, is the combination of longer papers introducing the background on a certain topic, and brief contributions highlighting specific applications in different security areas. The rise of the West is often attributed the presence of certain features in Western countries from the 16th century that were absent in more traditional societies: the abolition of serfdom and Protestant ethics, the protection of property rights, and free universities. The problem with this reasoning is that, before the 16th century, there were many countries with social structures that possessed these same features that didn't experience rapid productivity growth. This book offers a new interpretation of the 'Great Divergence' and 'Great Convergence' stories. It explores how Western countries grew rich and why parts of the developing world (South and East Asia and the Middle East) did not catch up with the West from 1500 to 1950 but began to narrow the gap after 1950. It also examines why others (Latin America, South Africa, and Russia) were more successful at catching up from 1500 to 1950, but then experienced a slowdown in economic growth compared to other developing countries. Mixed Fortunes offers a novel interpretation of the rise of the West and of the subsequent development of 'the rest' and China and Russia, important examples of two groups of developing countries, are examined in greater detail. Shock-induced dynamic fracture of solids is of practical importance in many areas of materials science, chemical physics, engineering, and geophysics. This book, by an international roster of authors, comprises a systematic account of the current state of research in the field, integrating the large amount of work done in the former Soviet Union with the work done in the West. Topics covered include: Wave propagation, experimental techniques and measurements, spallation of materials of different classes (metals, ceramics, glasses, polymers), constitutive models of fracture processes, and computer simulations. Tremendous advances in computer technologies and methods have precipitated a great demand for refinements in the constitutive models of plasticity. Such refinements include the development of a model that would account for material anisotropy and produces results that compare well with experimental data. Key to developing such models-and to meeting many other challenges in the field- is a firm grasp of the principles of continuum mechanics and how they apply to the formulation of plasticity theory. Also critical is understanding the experimental aspects of plasticity and material anisotropy. Integrating the traditionally separate subjects of continuum mechanics and plasticity, this book builds understanding in all of those areas. Part I provides systematic, comprehensive coverage of continuum mechanics, from a review of Carteisian tensors to the relevant conservation laws and constitutive equation. Part II offers an exhaustive presentation of the continuum theory of plasticity. This includes a unique treatment of the experimental aspects of plasticity, covers anisotropic plasticity, and incorporates recent research results related to the endochronic theory of plasticity obtained by the author and his colleagues. By bringing all of these together in one book, Continuum Mechanics and Plasticity facilitates the learning of solid mechanics. Its readers will be well prepared for pursuing either research related to the mechanical behavior of engineering materials or developmental work in engineering analysis and design. This volume gives a broad overview of advanced technologies for detection and defence against chemical, biological, radiological and nuclear (CBRN) agents. It provides chapters addressing the preparation and characterization of different nanoscale materials (metals, oxides, glasses, polymers, carbon-based, etc.) and their applications in fields related to security and safety. In addition, it presents an interdisciplinary approach as the contributors come from different areas of research, such as physics, chemistry, engineering, materials science and biology. A major feature of the book is the combination of longer chapters introducing the basic knowledge on a certain topic, and shorter contributions highlighting specific applications in different security areas. This invaluable book has been written for engineers and engineering scientists in a style that is readable, precise, concise, and practical. It gives first priority to the formulation of problems, presenting the classical results as the gold standard, and the numerical approach as a tool for obtaining solutions. The classical part is a revision of the well-known text Foundations of Solid Mechanics, with a much-expanded

discussion on the theories of plasticity and large elastic deformation with finite strains. The computational part is all new and is aimed at solving many major linear and nonlinear boundary-value problems. This book explains modern and interesting physics in heavy-fermion (HF) compounds to graduate students and researchers in condensed matter physics. It presents a theory of heavy-fermion (HF) compounds such as HF metals, quantum spin liquids, quasicrystals and two-dimensional Fermi systems. The basic low-temperature properties and the scaling behavior of the compounds are described within the framework of the theory of fermion condensation quantum phase transition (FCQPT). Upon reading the book, the reader finds that HF compounds with quite different microscopic nature exhibit the same non-Fermi liquid behavior, while the data collected on very different HF systems have a universal scaling behavior, and these compounds are unexpectedly uniform despite their diversity. For the reader's convenience, the analysis of compounds is carried out in the context of salient experimental results. The numerous calculations of the non-Fermi liquid behavior, thermodynamic, relaxation and transport properties, being in good agreement with experimental facts, offer the reader solid grounds to learn the theory's applications. Finally, the reader will learn that FCQPT develops unexpectedly simple, yet completely good description of HF compounds. This book contains contributions from leading researchers in biomechanics, nanomechanics, tribology, contact mechanics, materials science and applications on various experimental techniques including atomic force microscopy (AFM) for studying soft, biomimetic and biological materials and objects. Biologists, physicists, researchers applying methods of contact mechanics and researchers testing materials using indentation techniques along with many other applied scientists will find this book a useful addition to their libraries. Moreover, several reviews in this book are written as introductions to several important and rather sophisticated research areas such as depth-sensing indentation, studying of biological cells by AFM probes, mechanics of adhesive contact and contact between viscoelastic (hereditary elastic) solids. The book containing new theoretical models, results of experimental studies and numerical simulations, along with reviews of above mentioned areas of contact mechanics in application to biological systems, would be beneficial for researchers in many areas of biology, medicine, engineering, mechanics and biomimetics. INSTANT NEW YORK TIMES BESTSELLER An incredible, revolutionary true story and surprisingly simple guide to teaching your dog to talk from speech-language pathologist Christina Hunger, who has taught her dog, Stella, to communicate using simple paw-sized buttons associated with different words. When speech-language pathologist Christina Hunger first came home with her puppy, Stella, it didn’t take long for her to start drawing connections between her job and her new pet. During the day, she worked with toddlers with significant delays in language development and used Augmentative and Alternative Communication (AAC) devices to help them communicate. At night, she wondered: If dogs can understand words we say to them, shouldn’t they be able to say words to us? Can dogs use AAC to communicate with humans? Christina decided to put her theory to the test with Stella and started using a paw-sized button programmed with her voice to say the word “outside” when clicked, whenever she took Stella out of the house. A few years later, Stella now has a bank of more than thirty word buttons, and uses them daily either individually or together to create near-complete sentences. How Stella Learned to Talk is part memoir and part how-to guide. It chronicles the journey Christina and Stella have taken together, from the day they met, to the day Stella “spoke” her first word, and the other breakthroughs they’ve had since. It also reveals the techniques Christina used to teach Stella, broken down into simple stages and actionable steps any dog owner can use to start communicating with their pets. Filled with conversations that Stella and Christina have had, as well as the attention to developmental detail that only a speech-language pathologist could know, How Stella Learned to Talk will be the indispensable dog book for the new decade. The English edition of “Contact Mechanics and Friction” lying before you is, for st the most part, the text of the 1 German edition (Springer Publishing, 2009). The book was expanded by the addition of a chapter on frictional problems in ear- quake research. Additionally, Chapter 15 was supplemented by a section on elasto-hydrodynamics. The problem sections of several chapters were enriched by the addition of new examples. This book would not have been possible without the active support of J. Gray, who translated it from the German edition. I would like to thank Prof. G. G. - charyan and Prof. S. Sobolev for discussions and critical comments on the chapter over earthquake dynamics. Dr. R. Heise made significant contributions to the - velopment and correction of new problems. I would like to convey my affecti- ate thanks to Dr. J. Starcevic for her complete support during the composition of this book. I want to thank Ms. Ch. Koll for her patience in creating figures and Dr. R. Heise, M. Popov, M. Heß, S. Kürscher, and B. Grzemba for their help in pro- reading. Berlin, November 2009 V.L. Popov Preface to the German Edition This application-oriented book introduces readers to the associations and relationships between contact mechanics and friction, providing them with a deeper understanding of tribology. It addresses the related phenomena of contacts, adhesion, capillary forces, friction, lubrication, and wear from a consistent point of view. The author presents (1) methods for rough estimates of tribological quantities, (2) simple and general methods for analytical calculations, and (3) the crossover into numerical simulation methods, the goal being to convey a consistent view of tribological processes at various scales of magnitude (from nanotribology to earthquake research). The book also explores the system dynamic aspects of tribological systems, such as squeal and its suppression, as well as other types of instabilities and spatial patterns. It includes problems and worked-out solutions for the respective chapters, giving readers ample opportunity to apply the theory to practical situations and to deepen their understanding of the material discussed. The second edition has been extended with a more detailed exposition of elastohydrodynamic lubrication, an updated chapter on numerical simulation methods in contact mechanics, a new section on fretting in the chapter on wear, as well as numerous new exercises and examples, which help to make the book an excellent reference guide. International bestseller! James Bond has nothing on Dusko Popov. A double agent for the Abwehr, MI5 and MI6, and the FBI during World War II, Popov seduced numerous women, spoke five languages, and was a crack shot, all while maintaining his cover as a Yugoslavian diplomat… On a cool August evening in 1941, a Serbian playboy created a stir at Casino Estoril in Portugal by throwing down an outrageously large baccarat bet to humiliate his opponent. The Serbian was a British double agent, and the money—which he had just stolen from the Germans—belonged to the British. From the sideline, watching with intent interest, was none other than Ian Fleming… The Serbian was Dusko Popov. As a youngster, he was expelled from his London prep school. Years later, he would be arrested and banished from Germany for making derogatory statements about the Third Reich. When World War II ensued, the playboy became a spy, eventually serving three dangerous masters: the Abwehr, MI5 and MI6, and the FBI. On August 10, 1941, the Germans sent Popov to the United States to construct a spy network and gather information on Pearl Harbor. He successfully made contact with the FBI in an attempt to warn the country, but J. Edgar Hoover blew his cover. Later, MI5 desperately needed Popov to deceive the Abwehr about the D-Day invasion, but they assured him that a return to the German Secret Service Headquarters in Lisbon would result in torture and execution. He went anyway… Into the Lion’s Mouth is a globe-trotting account of a man’s entanglement with espionage, murder, assassins, and lovers—including enemy spies and a Hollywood starlet. It is a story of subterfuge, seduction, patriotism, and cold-blooded courage. It is the story of Dusko Popov—the inspiration for James Bond. A distinguished physicist and leading researcher describes the theory and selected applications of one of the most important mathematical tools used in the theoretical investigation of collective excitations in statistical physics. This book presents a comprehensive, cross-referenced examination of engineering mechanics of solids. Traditional topics are supplemented by several newly-emerging disciplines, such as the probabilistic basis for structural analysis, and matrix methods. Although retaining its character as a complete traditional book on mechanics of solids with advanced overtones from the first edition, the second edition of Engineering Mechanics of Solids has been significantly revised. The book reflects an emphasis on the SI system of units and presents a simpler approach for calculations of axial stress that provides a more obvious, intuitive approach. It also now includes a greater number of chapters as well as an expanded chapter on Mechanical Properties of Materials and introduces a number of avant-garde topics. Among these topics are an advanced analytic expression for cyclic loading and a novel failure surface for brittle material. An essential reference book for civil, mechanical, and aeronautical engineers. The supply and protection of groundwater, the production of hydrocarbon reservoirs, land subsidence in coastal areas, exploitation of geothermal energy, the long-term disposal of critical wastes ... What do these issues have in common besides their high socio-economic impact? They are all closely related to fluid flow in porous and/or fractured rock. As the conditions of fluid flow in many cases depend on the mechanical behavior of rocks, coupling between the liquid phase and the rock matrix can generally not be neglected. For the past five years or so, studies of rock physics and rock mechanics linked to coupling phenomena have received increased attention. In recognition of this, a Euroconference on thermo-hydro-mechanical coupling in fractured rock was held at Bad Honnef, Germany, in November 2000. Most of the twenty papers collected in this volume were presented at this meeting. The

contributions lead to deeper insight in processes where such coupling is relevant. Susceptibility Tensors for Nonlinear Optics is a unique and invaluable reference book with accompanying software. Starting from basic principles, the book presents a detailed introduction to the concept of optical susceptibilities of crystalline media. Substantial appendices include useful tables of third-, fourth-, and fifth-rank susceptibility tensors for major nonlinear optical effects. Integral to the book is an entirely original TURBO RANK software package (compatible with PCs running MS-DOS and Windows) that allows the calculation of the symmetry of material tensors up to seventh rank, effectively superseding conventional reference tables of high rank tensors. This package is also useful for scientists working in solid state physics, crystallography, acoustics, and materials engineering. This open access book gathers authoritative contributions concerning multiscale problems in biomechanics, geomechanics, materials science and tribology. It is written in memory of Sergey Grigorievich Psakhie to feature various aspects of his multifaceted research interests, ranging from theoretical physics, computer modeling of materials and material characterization at the atomic scale, to applications in space industry, medicine and geotectonics, and including organizational, psychological and philosophical aspects of scientific research and teaching as well. This book covers new advances relating to orthopedic implants, concerning the physiological, tribological and materials aspects of their behavior; medical and geological applications of permeable fluid-saturated materials; earthquake dynamics together with aspects relating to their managed and gentle release; lubrication, wear and material transfer in natural and artificial joints; material research in manufacturing processes; hard-soft matter interaction, including adhesive and capillary effects; using nanostructures for influencing living cells and for cancer treatment; manufacturing of surfaces with desired properties; self-organization of hierarchical structures during plastic deformation and thermal treatment; mechanics of composites and coatings; and many more. Covering established knowledge as well as new models and methods, this book provides readers with a comprehensive overview of the field, yet also with extensive details on each single topic. This book contains original and fundamental research papers in the following areas: engineering technologies for precision agriculture, agricultural systems management and digitalization in agriculture, logistics in agriculture, and other topics. Selected materials of the largest regional scientific event—INTERAGROMASH 2021 conference–included in this book present the results of the latest research in the areas of precision agriculture and agricultural machinery industry. The book is aimed for professionals and practitioners, for researchers, scholars, and producers. The materials presented here are used in the educational process at specific agricultural universities or during vocational training at enterprises and become an indispensable helper to farm managers in making the best agronomic decisions. The book is also useful for representatives of regional authorities, as it gives an idea of existing high-tech solutions for agriculture. This book describes the solution of contact problems with an emphasis on idealized (mainly linear) elastic problems that can be treated with elementary analytical methods. General physical and mathematical features of these solutions are highlighted. Topics covered include the contact of rough surfaces and problems involving adhesive (e.g. van der Waals) forces. The author is a well-known researcher in the subject with hands-on experience of the topics covered and a reputation for lucid explanations. The target readership for the book includes researchers who encounter contact problems but whose primary focus is not contact mechanics. Coverage is also suitable for a graduate course in contact mechanics and end-of-chapter problems are included. Corrosion Engineering: Principles and Solved Problems covers corrosion engineering through an extensive theoretical description of the principles of corrosion theory, passivity and corrosion prevention strategies and design of corrosion protection systems. The book is updated with results published in papers and reviews in the last twenty years. Solved corrosion case studies, corrosion analysis and solved corrosion problems in the book are presented to help the reader to understand the corrosion fundamental principles from thermodynamics and electrochemical kinetics, the mechanism that triggers the corrosion processes at the metal interface and how to control or inhibit the corrosion rates. The book covers the multidisciplinary nature of corrosion engineering through topics from electrochemistry, thermodynamics, mechanical, bioengineering and civil engineering. Addresses the corrosion theory, passivity, material selections and designs Covers extensively the corrosion engineering protection strategies Contains over 500 solved problems, diagrams, case studies and end of chapter problems Could be used as a text in advanced/graduate corrosion courses as well self-study reference for corrosion engineers Discover the latest research in photocatalysis combined with foundational topics in basic physical and chemical photocatalytic processes In Heterogeneous Photocatalysis: From Fundamentals to Applications in Energy Conversion and Depollution, distinguished researcher and editor Jennifer Strunk delivers a rigorous discussion of the two main topics in her field—energy conversion and depollution reactions. The book covers topics like water splitting, CO_2 reduction, NOx abatement and harmful organics degradation. In addition to the latest research on these topics, the reference provides readers with fundamental information about elementary physical and chemical processes in photocatalysis that are extremely practical in this interdisciplinary field. It offers an excellent overview of modern heterogeneous photocatalysis and combines concepts from different viewpoints to allow researchers with backgrounds as varied as electrochemistry, material science, and semiconductor physics to begin developing solutions with photocatalysis. In addition to subjects like metal-free photocatalysts and photocarrier loss pathways in metal oxide absorber materials for photocatalysis explored with time-resolved spectroscopy, readers will also benefit from the inclusion of: Thorough introductions to kinetic and thermodynamic considerations for photocatalyst design and the logic, concepts, and methods of the design of reliable studies on photocatalysis Detailed explorations of in-situ spectroscopy for mechanistic studies in semiconductor photocatalysis and the principles and limitations of photoelectrochemical fuel generation Discussions of photocatalysis, including the heterogeneous catalysis perspective and insights into photocatalysis from computational chemistry Treatments of selected aspects of photoreactor engineering and defects in photocatalysis Perfect for photochemists, physical and catalytic chemists, electrochemists, and materials scientists, Heterogeneous Photocatalysis will also earn a place in the libraries of surface physicists and environmental chemists seeking up-to-date information about energy conversion and depollution reactions.