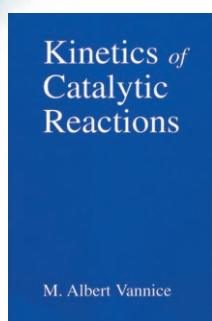




Kinetics of Catalytic Reactions



By M. Albert Vannice. Springer Verlag, Heidelberg 2005. 240 pp., hardcover
€ 76.95.—ISBN 0-387-24649-5

This book consists of nine chapters (233 pp.), which cover all the required material for someone working on kinetics. It deals with the design of kinetic experiments involving heterogeneous catalysts, for characterizing those catalysts, acquiring valid rate data, determining the presence or absence of heat and mass transfer limitations, selecting and simplifying reaction models, deriving rate expressions based on these models, and also assessing the consistency of these rate equations. It provides sufficient background information and discussion of the assumptions related to the derivation of adsorption isotherms and reaction models to enable the reader to understand the limitations of these models and to feel comfortable in applying them. Both ideal and non-ideal surfaces are considered, and enzymatic catalysis is also discussed. There are numerous worked-out examples and homework exercises. The material is well organized in a natural order in the corresponding chapters.

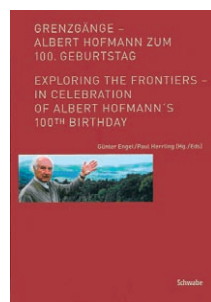
This book can be prescribed for undergraduate courses in kinetics and/or catalysis, as a supplement to advanced undergraduate chemical engineering courses on kinetics and reactor

design, and as a guide for researchers in catalysis in industry. It is most suitable for students of chemical engineering or physical chemistry, and for readers with a background in one of these disciplines. Nowadays many research groups around the world are involved in kinetic studies, mainly to understand the intricacies involved in the various commercial catalytic processes and possibly to improve them. The present book will be useful for these cases and researchers working in the area of heterogeneous catalysis.

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Grenzgänge – Albert Hofmann zum 100. Geburtstag



Exploring The Frontiers—In Celebration of Albert Hofmann's 100th Birthday. Edited by Günter Engel and Paul Herrling. Schwabe Verlag, Basel 2006.
225 pp., hardcover,
€ 33.50.—ISBN 3-7965-2210-6

Festschriften often commemorate a subject's 60th, 70th, 80th, or even 90th birthdays, but those written to celebrate someone's 100th birthday are very unusual. Centenarians are becoming more common, but prominent centenarian chemists are still rare. Two examples are the Frenchman Michel Eugène Chevreul (1786–1889) and the Americans Joel H. Hildebrand (1881–1983) and E. Emmet Reid (1872–1973). Although this Festschrift for Albert Hofmann (born January 11, 1906) may not be unique, it is certainly uncommon and worthy of careful consideration.

This beautiful bilingual volume (in German on the left-hand pages and

English on the right-hand pages; the number of pages is actually half of the cited number), published with the support of Novartis Pharma AG, Basel, is a balanced blend of science and art. It contains six meticulously referenced essays by scientist and nonscientist friends and former colleagues of Hofmann and is copiously illustrated with 118 numbered figures, which consist of black-and-white and many more full-color pictures (some full-page and two as two-page pullouts), formal and informal portraits, laboratory notebooks, structural formulas, and reaction schemes. The volume has made use of published studies, monographs, interviews, and personal recollections and records, and its aim is to present “a fully rounded portrait, but not one that is intended to serve as a formal biography”. The subjects and authors of the six essays are described below.

1. “Dr. Albert Hofmann's work on ergot alkaloids and its influence on the development of pharmaceuticals at Sandoz”—a predecessor company of Novartis (pp. 8–27, the shortest essay; 14 figures). Pharmaceutical chemists Günter Engel and Rudolf Giger trace the complex history of ergot and the tortuous course of Hofmann's research, the pharmaceuticals that he produced by modifying natural products, and the background leading up to his major discovery—LSD—which transformed him into a world-renowned figure.

2. “Natural products research at Novartis Pharmaceuticals—a historical overview” (pp. 28–73; 37 figures). Microbiologist Frank Petersen surveys the role of natural products in the pharmaceuticals industry at Sandoz, Ciba, and Novartis and places Hofmann's research in this area in a broad context. He describes how a small dye-stuffs factory, Sandoz, slowly blossomed and transformed itself into a pharmaceutical giant. In 1917 the director, Melchior Böniger, hired an academic, Professor Arthur Stoll, a Swiss natural products chemist at the Universität München. It took Stoll only three years to isolate pure ergotamine and introduce it onto the market as Gynergen. This success continued with the introduction of the breakthrough transplantation medicine Sandimmune in 1982.