

Book Review

Elementary Physico-chemical Processes on Solid Surfaces

by V. P. Zhdanov, published by Plenum Publishing Corporation, 1991, 314 pp., US \$85.-.

This monograph surveys the rate theory of some simple processes occurring on solid-adsorbate interfaces under thermal conditions. These range from vibrational relaxation to adsorption, desorption, surface diffusion as well as the kinetics of catalytic reactions. The general formulas are given. The reader interested in applying these formulas to particular experiments is frequently referred to the original papers. Very little space is however dedicated to experimental results. The very few reported data relate only to chemisorption on metals.

In particular the impressive experimental achievements of the modern surface tools (photoelectron spectroscopy, especially in the synchrotron radiation version, ion scattering, scanning tunnelling and atomic force microscopy, etc.) are not even mentioned.

Considering that the theory of rate processes on surfaces are only at the first stage of development this book may be useful for theory oriented catalysis communities.

Professor S. Pignataro
Dipartimento Scienze Chimiche
Università degli Studi di Catania
viale A. Doria 6
95125 Catania
Italy