

Foreword

The SURFACE PHYSICS SYMPOSIUM LEIPZIG 1989 (25 Years of Cooperation between the Universities of Wrocław and Leipzig) took place at the Sektion Physik of the Karl-Marx-Universität Leipzig between the 12th and 15th of September 1989.

In 1964 common work began between the surface physics group at Wrocław University and a somewhat smaller group at the University of Leipzig within an agreement between the Universities. In fact two of the editors of this issue could realize the construction of field emission microscopes in Wrocław (R. Meclowski with support of R. Blaszczyzyn) and common and solely continued noise measurements of potassium on tungsten in Leipzig (Ch. Kleint). In pursuit of these first efforts a cooperation aroused which led to interesting results on electron emission noise, surface diffusion, phase transitions and adlayer soliton observations and related subjects. More details of this development are given in the introduction to the Proceedings [1] of the Second Surface Physics Symposium held in Wrocław in 1984. It followed a first symposium in commemoration of the first 15 years of the cooperation (Leipzig 1979).

Most of the papers of the present Proceedings were read at the 1989 Leipzig symposium. The organizers suggested that the talks should preferably review the progress in special fields of surface science. Several papers describe in fact the results of the cooperation, others cover related fields presented by guests and members of the Institutes involved. Here we are glad to mention the Institut für Festkörperphysik und Elektronenmikroskopie of the Akademie der Wissenschaften der DDR, Halle, where the German part of the common work has become part of an extended research programme. Financial support has been obtained mainly from the Universities and a Polish Research Project (CPBP 01.08.A). (A few additional, contributed papers are also included in the Proceedings which could not be presented at the symposium for personal or technical reasons.)

As is obvious from the table of contents with its headings: ALKALI ADSORBATE DIFFUSION AND PROPERTIES, SURFACE CHARACTERIZATION AND MOBILITY, and ELECTRON SPECTROSCOPY the main subject of these Proceedings are studies of alkali metals on transition metals where surface diffusion plays a dominant role. Other papers describe also diffusion phenomena determined by a refined electron microscopy which complements nicely the frequently used measurements of electron emission fluctuations in field emission microscopes. Surface (adsorbate) structure investigations are represented in the papers of Ch. Ammer and S. Mróz, the latter article belonging likewise to the section Electron Spectroscopy, there we included also the papers by T. Radon which represent another part of the long-standing cooperation.

We would like to express our gratitude to the authors fulfilling patiently all publication requirements and to the publisher, TRANS TECH PUBLICATIONS, especially Dr. F.H. Wöhlbier, for the efforts in creating a representative volume of the Proceedings.

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1) Proc. Solid State Surface Phys. Symp. Wrocław 1984, Acta Univ. Wratislaviensis, 1986, No. 936

