

INFLUENCE OF THE SURFACE STRUCTURE OF METAL ELECTRODES
ON DOUBLE LAYER PARAMETERS AND THE REACTION KINETICS.

ANTOINETTE HAMELIN
L.E.F. C.N.R.S.
MENDON - FRANCE

Electrochemical results are more easily understood with crystal faces which have a controlled, well defined, atomic arrangement than with polycrystalline metal electrodes. Experimentally, a chemically clean and physically precisely controlled interphase has to be obtained and maintained. Results will be given for gold and silver, two FCC metals. The PZCS, the adsorption of anions, the UPD and the reduction of solvated protons are very sensitive to the crystallographic orientation.

ELECTROCHEMISTRY OF CONDUCTIVE POLYMERS

Jan Przyłuski
Institute of Solid State Technology
Warsaw University of Technology
ul.Noakowskiego 3,00-064 Warsaw, Poland

An intensive search for new and promising materials for electrochemistry and the possibility of the use of electrochemical methods for preparation of them are presently the main interest for several laboratories in the world. The progress in this field is rapidly developing by scientist with diverse backgrounds - electrochemistry, solid state physics, material science.

The most interesting materials are undoubtedly conductive polymers. It is not surprising that conductive polymers having properties of plastics and variable electric properties can be compete with metals, semiconductors and charge transfer complexes. The electrical conductivity of these materials can be changed in the wide range e.g. from the values characteristic for insulators up to values for metals. This is shown in Fig.1.

Much emphasis has been given to doping of different kind of polymers. Some of them are presented in Fig.2. The increase of the electrical conductivity after

