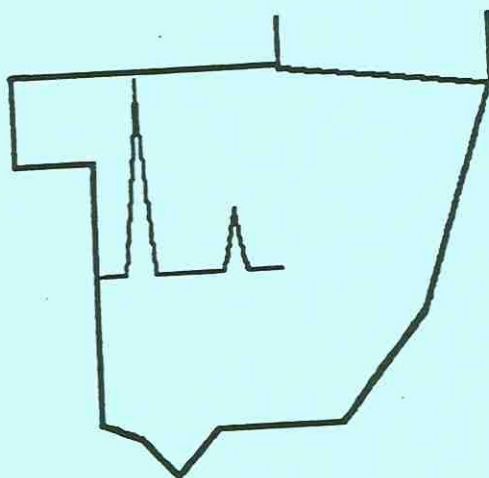


ELECTROSPAINANALYSIS '90

IN ASTURIAS

AN INTERNATIONAL CONFERENCE ON
ELECTROANALYTICAL CHEMISTRY



G I J O N, 4 - 8 June 1990

BOOK OF ABSTRACTS

SOME APPLICATIONS OF ADSORPTIVE VOLTAMMETRY IN BIOMEDICAL SCIENCE

José María Fernández Alvarez, Eileen Buckley, Paula Shearan and Malcolm R. Smyth

School of Chemical Sciences, Dublin City University, Dublin 9, IRELAND

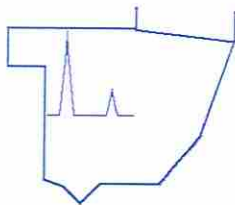
Adsorptive voltammetry has been proven to be a sensitive method for the determination of a wide variety of species such as metal ion complexes, drug compounds and biological macromolecules [1,2].

Our investigations in recent years have centred around the use of this technique for the determination of a large variety of globular and immunological proteins, cells and enzymes [3-6]. In addition, we have investigated the application of this technique to monitor some protein-substrate interactions, including the interaction of the anti-cancer drug cisplatin with both human serum albumin and cystine [7].

In this paper we will review the progress we have made so far in this area of biomedical research and report on recent results obtained on the electrochemical behaviour of the binding proteins avidin and streptavidin, monomeric and polymeric immunoglobulins, and native and modified enzymes such as alanine transaminase and creatinine kinase.

References

1. Wang, J., International Laboratory, 15 (1985) 68.
2. Smyth, W.F., in "Electrochemistry, Sensors and Analysis", ed. M.R. Smyth and J.G. Vos, Elsevier, Amsterdam, pp29-36 (1986).
3. Rodríguez Flores, J. and Smyth, M.R., J. Electroanal. Chem., 235 (1987) 317.
4. Smyth, M.R., Buckley, E., Rodríguez Flores, J. and O'Kennedy, R., Analyst, 113 (1988) 31.
5. Rodríguez Flores, J., O'Kennedy, R. and Smyth, M.R., Biosensors, 4 (1988) 1.
6. Lannon, B., O'Kennedy, R., Rodríguez Flores, J., Fennelly, J. and Smyth, M.R., Electroanalysis, 1 (1989) 431.
7. Shearan, P., Fernández Alvarez, J.M. and Smyth, M.R., J. Pharm. Biomed. Anal., in press.



ELECTROSPAIN ANALYSIS'90 IN ASTURIAS

AN INTERNATIONAL CONFERENCE ON
ELECTROANALYTICAL CHEMISTRY


GIJON, June 4-8 1990

The Organizing Committee of ElectroSpainAnalysis '90
in Asturias,

CERTIFIES that

Dr. JOSE MARIA FERNANDEZ ALVAREZ

has registered for, and has taken part in the scientific
sessions of the above Conference.



Prof. P. Tuñón Blanco
Chairman



