Turkish Journal of Chemistry

Turkish Journal

of

Chemistry

Preparation and Characterization of an Aromatic Polyimide and Its Use as a Selective Membrane for ${\rm H_2O_2}$

Ergun EKİNCİ, Süleyman KÖYTEPE, Aziz PAŞAHAN, Turgay SEÇKİN İnönü University, Faculty of Science and Arts, Department of Chemistry, 44280 Malatya-TURKEY e-mail: tseckin@inonu.edu.tr



Abstract: Selectivity behavior to electroactive and non-electroactive substances of a polyimide prepared from 2,2'-dimethyl-4,4'-diaminobiphenyl and the corresponding dianhydride was examined by electrochemical methods. From the excellent electrochemical findings obtained, it was observed that polyimide film was only permeable to hydrogen peroxide among the substances examined. Therefore, it is claimed that the mentioned polymeric film can be successfully used as a hydrogen peroxide-selective membrane in the presence of electroactive and non-electroactive interferents.



Key Words: Polyimide, thermally stable polymers, polymeric sensor

chem@tubitak.gov.tr

Scientific Journals Home Page Turk. J. Chem., 30, (2006), 277-286.

Full text: pdf

Other articles published in the same issue: Turk. J. Chem., vol. 30, iss. 3.