Polypropylene glycol adducts as sensors for ion-selective electrodes. Jaber, A. M. Y.; Moody, G. J.; Thomas, J. D. R. Chem. Dep., Univ. Wales Inst. Sci. Technol., Cardiff, UK. Editor(s): Pungor, Erno; Buzas, I. Ion-Sel. Electrodes, Conf. (1978), Meeting Date 1977, 411-17. Publisher: Elsevier, Amsterdam, Neth CODEN: 38VFAF Conference written in English. CAN 89:156806 AN 1978:556806 CAPLUS

Abstract

Alkali and alk. earth metal cations form cationic complexes with polypropylene glycols (PPG 1025 and 2025). The prepn. of some tetraphenylborates of these complexes and the solvent extn. of their picrates into dichloromethane were studied. The tetraphenylborate complexes were evaluated as sensors for ion-selective electrodes for alkali and alk. earth metals. The best electrode was a Ca ion-selective electrode based on PVC matrix membranes contg. Ca(PPG 1025)x2+(BPh4-)2 sensors with dioctyl phenylphosphonate solvent. This electrode showed a wide linear calibration range, a good pH range, a long lifetime, and good selectivity.