

**Chelometric titrations with polyaminocarboxylic acids using barium and lead PVC-membrane ion-selective electrodes.** Jaber, A. M. Y.. Department of Chemistry, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia. Arabian Journal for Science and Engineering (1994), 19(3), 497-508. CODEN: AJSEDY ISSN: 0377-9211. Journal written in English. CAN 122:95510 AN 1995:277451 CAPLUS (Copyright (C) 2008 ACS on SciFinder (R))

### **Abstract**

Ba and lead PVC-membrane ion-selective electrodes were tested as end-point detectors for the back titrn. of some metal ions with EDTA, ethyleneglycolbis(2-aminoethyl ether) tetraacetic acid (EGTA), and 1,2-diaminocyclohexanetetraacetic acid (DCTA). Metal ions studied were, Ca<sup>2+</sup>, Mg<sup>2+</sup>, Sr<sup>2+</sup>, Zn<sup>2+</sup>, Cu<sup>2+</sup>, Cd<sup>2+</sup>, Co<sup>2+</sup>, Ni<sup>2+</sup>, Mn<sup>2+</sup>, Al<sup>3+</sup>, and La<sup>3+</sup>. Titns. were carried out in the presence of either 10<sup>-3</sup> M NaOH or acetate buffer of pH 5.5, when using the Ba-ISE or the Pb-ISE resp. as end-point detectors. Ba<sup>2+</sup> or Pb<sup>2+</sup> std. solns. were used as the back titrants depending on the electrode used. Concns. of the tested metal ions in the final analyte solns. in all cases were at 5 × 10<sup>-5</sup>-1 × 10<sup>-4</sup> M. The two electrodes worked successfully for most metal ions studied with relative std. deviations of .apprx.1% and mean recoveries of .apprx.100%.