

ammonium formate as eluent to obtain separation of MPA, EMPA and IMPA. However, under these conditions, addition of hydrochloric, nitric or citric acid did neither affect the retention, nor the peak width of the test solutes. Presumably, due to the rather high salt concentration in the eluent, ion exchange is suppressed and retention is based on hydrophobic interaction with the polymeric backbone of the PRP-X100 material (*cf.* Figure 4 in ref. 10). In order to verify this hypothesis, a hydrophobic displacer was added to the sample. n-Butanol was selected because of its moderate solubility in water (< *ca.* 10 vol.%) and good retention on PRP-X100 ($k' > 2$) under the present conditions. The alcohol was added to an IMPA-containing sample at final concentrations of up to 10% (*ca.* 80 mg/ml injected on the micro-LC column). Both peak compression and a decrease in retention were

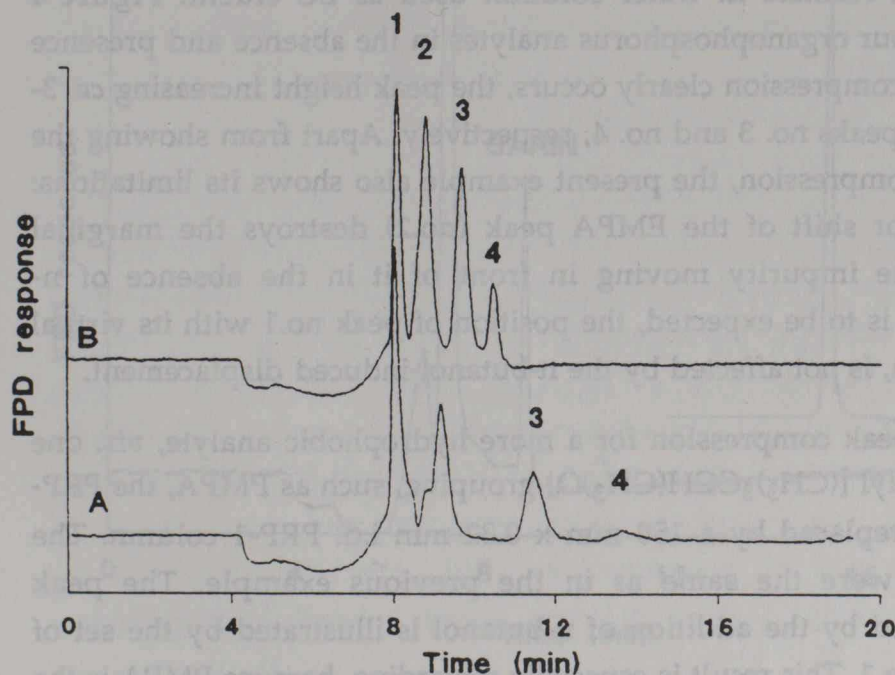


Fig. 4. Micro-LC-FPD chromatogram of several organophosphorus acids. A, without and B, with 9% n-butanol in sample; Column, 300 mm x 0.32 mm i.d. PRP-X100; eluent, 1% formic acid, 2% ammonia and 20% methanol in water; flow rate, 5 μ l/min. 1, Methylphosphonic acid; 2, ethyl methylphosphonic acid; 3, isopropyl methylphosphonic acid; 4, diethyl phosphoric acid. Concentrations, 1 μ g/ml.