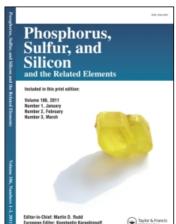
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Potentiometric and NMR Study of Aminoalkylphosphinic Acids ZWD their Complexing Properties

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POTENTIOMETRIC AND NMR STUDY OF AMINOALKYLPHOSPHINIC ACIDS AND THEIR COMPLEXING PROPERTIES

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Ethylenediamine-tetrakis- [methylene(phenylphosphinic) acid, piperidine [methylenephosphinic] acid and piperazine-bis- [methylenephosphinic] acid have been prepared by the method of Plaza and Grim and Maier². Their dissociation constants and stability constants with Mg²⁺, Ca²⁺, Sr²⁺, Ba²⁺, Mn²⁺, Fe²⁺, Co²⁺ and Ni²⁺ have been determined. Study of the dependence of the ¹H, ³¹P and ¹³C NMR spectra of solutions of the acids mentioned above on the pH indicates similarity to amino acids than to analogous phosphonic acids.

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