

## Acid-base properties of $\alpha$ -aminomethylphosphine oxides

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### Abstract

Abstract-Ionization constants of a series of aminomethylphosphine oxides and respective amino precursors, as well as their isostructural amino phosphonates in water-2-propanol or water medium were determined. The main regularities of the effect of the phosphoryl group on the protolytic equilibria involving mono- and bisphosphorylated amines and diamines were found. The environment effect on the ionization constants of hydrophilic aminophosphoryl compounds and amines was estimated quantitatively. The relationship between the dissociation constants of aminophosphoryl compounds and related constants of amino precursors in the framework of the principle of linearity of free energies was demonstrated. ©Pleiades Publishing, Ltd., 2012.

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