

2,4,6-triaminopyrimidine and its associates with bis(hydroxymethyl) phosphinic acid. State in solution, protolytic, and complexing properties

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Abstract

Protolytic and complexing properties of 2,4,6-triaminopyrimidine and its associates with bis(hydroxymethyl)phosphinic acid in aqueous solution were studied using pH measurements, spectrophotometry (298 K), and mathematical simulation of equilibria (CPESSP software). The stability constants of the associates formed in solution were calculated. It was found that the said associates and the nitrogen base in their composition did not form inner-sphere complexes with typical complexing agents like doubly charged cations of d-elements and lanthanum(III). 2,4,6-Triaminopyrimidine forms an outer-sphere complex with copper(II) ions to affording tetrachlorocuprate(II) with diprotonated 2,4,6-triaminopyrimidine. © 2012 Pleiades Publishing, Ltd.

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