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Protolytic equilibrium in water solutions of nicel(II) salts, ethylenedeminetetraacetic acid and diaminoethan

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Abstract

Equilibrium in triple systems containing nicel(II) salts, as well as 1,2-diaminoethan, ethylenedemine-tetraacetic acid were studied by spectrophotometry and potentiometry with NaClO₄ as supporting electrolyte (I = 0.1) at T = (20 ± 2) °C. The molar and proton compositions of heteroligand and polynuclear complexes and the pH ranges of their existence were determined. The stability constants of these complexes were calculated. The mole fractions of the complexes with reference to pH were characterized. Some mathematic models which provide the opportunity to evaluate the share of accumulation of complex compounds and find those that reflect the actual situation were used for the analysis of the experimental results.

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