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Determination of the Protonation Constants of 2-[4-Dimethylaminocinnamalmino] Benzoic Acid (DACAB) in Dioxane - Water Medium and Preparation of Some of its Transition Metal Complexes

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**Abstract:** In this study, the Schiff base 2-[4-Dimethylaminocinnamalmino]- benzoic acid  $[(CH_3)_2N.C_6H_4.CH:CH.N.C_6H_4.COOH]$  (DACAB) was prepared by the reaction of 2-Aminobenzoic acid with p-Dimethylaminocinnamaldehyde. The protonation constants of the ligand were determined in a 50% (v/v) dioxane - water medium using the Irving-Rossotti and PKAS-BEST computer methods. The complexes of Fe(III), Co(II), Ni(II), Cu(II) with DACAB were synthesized and the structures of these complexes were elucidated by means of data obtained from elemental analysis, using IR,  $^1H$ -NMR methods. The magnetic properties of the solid complexes were measured.

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