

6. Никулин И. А. Синдромный принцип диагностики болезней печени у крупного рогатого скота [Текст] / И. А. Никулин, Г. Е. Копытина, М.Н. Кочура // Ветеринария. - №1. - 2008. - С.41-43.

## SPECTROSCOPIC STUDY OF THE INTERACTION BETWEEN CUCURBITURIL AND FLUTAMIDE IN AQUEOUS SOLUTION

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Cucurbiturils (CB) are macrocyclic compounds built from glycoluril ( $=C_4H_2N_4O_2=$ ) mers connected by methylene groups ( $-CH_2-$ ). The name of these macrocycles is derived from the latin word *Cucurbitaceae* meaning a family of pumpkin-like plants. These oligomers can find their use as carriers of toxic neutral or cationic drugs for biomedical applications. Flutamide is an oral, non-steroidal antiandrogen drug, used for the treatment of benign prostatic hypertrophy and prostate cancer. Flutamide can impede the tumor growth. The usage of it is however limited because of many side effects for men, like gynecomastia.

The cavities and portals of cucurbituril macrocycles can bind cationic ligand which might be used to reduce side effects of transported drug. Cucurbituril are non-toxic and well tolerated by organism. The aim of our study was to assess the interactions between cucurbit[7]uril and flutamide molecules in aqueous solution at room temperature. UV spectroscopic results (Specord50, Analytic Jena) show that investigated drug molecules are combined by cucurbit[7]uril. The stoichiometry of flutamide–cucurbit[7]uril supramolecular complex was estimated.