

Spectral Properties of Benzimidazoles

Marie Lukešová

Charles University in Prague, Faculty of Pharmacy in Hradec Králové

Department of Biophysics and Physical Chemistry

Abstract:

This diploma thesis deals with the spectral properties of benzimidazoles. Most of benzimidazoles are anthelmintic active drug, used primarily in veterinary medicine. Some substances are used as fungicides.

The main aim of this study was to clarify the influence of solvents on the absorption spectra and especially on the fluorescence of benzimidazoles. The influence of aprotic and protic solvent, the influence of polarity of solvent and the influence of pH of solvents were studied.

The thesis includes two parts: theoretical and practical. In the theoretical part physicochemical properties of benzimidazoles, benzimidazoles possibility of detection, UV-VIS and fluorescence spectrophotometry are summarized. In the practical part results of the measurement are processed into tables and graphs. It was found that the influence of solvent depends on the structure of the substance. Therefore it is necessary to check each substance separately.