

Abstract:

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Title of Thesis: Physico-chemical Properties of Newly Synthesized Drugs

Dissociation constants of some newly synthesized drugs based on pyrazine-2-carboxylic acid were measured in this diploma thesis. Three methods, having a sufficient instrumental background in the Department of Biophysics and Physical Chemistry, were proposed for the measurement, i. e. potentiometric method, spectrophotometry in UV-VIS region method and extraction spectrophotometry method.

pK values of all studied substances were successfully determined by the potentiometric method, whilst each of the optic methods gave just one pK result. Hence a comparison of the three methods is not possible.

Accuracy of the potentiometric method results is documented by a very good agreement of the measured and literary pK values of pyrazine-2-carboxylic acid.