

THE METHODS OF MOLECULAR SPECTROSCOPY FOR OXALATE AND TARTRATE DETERMINATION

Reviews about molecular spectroscopy methods of oxalate and tartrate determination have been systematized. The special attention have been paid to the spectrophotometry techniques, which based on both competitive and redox reactions, and luminescence, including chemiluminescence. Spectrophotometric techniques earlier proposed for tartrate and oxalate determination were shown to be of low sensitivity and unsuitability for body fluids analysis. Kinetic techniques were found to be more sensitive, but the procedures are time-consuming. Luminescent techniques for the anions determination are as sensitive as the kinetic ones, and characterized with sufficient selectivity. Spectroscopic methods have been shown to be perspective for the anions above determination in blood and urine in order to diagnosis diseases and to carry out therapeutic drug monitoring. Moreover, the methods proposed were proved to be useful for quality control testing of drugs and food products, containing oxalate and tartrate.

Keywords: *spectrophotometry, luminescence, oxalate, tartrate.*