Among the organic pollutants of wastewater an important group are low molecular mass organic acids: including, volatile fatty acids, and also dicarboxylic, aromatic, hydroxy- and keto - acids.

Volatile fatty acids such as acetic, propionic, butyric, valeric, hexanoic acids are most often determined by gas chromatography. If also non - volatile acids are to be monitored then liquid chromatography, especially ion chromatography should be used. At high pH the acids are in ionized form and can be separated as carboxylate by means of anion exchange chromatography. Organic acids can also be separated at low pH by ion exclusion chromatography or by reverse phase chromatography.

The method was developed to determine low molecular mass organic acids, both volatile acids (formic, acetic, propionic, butyric) and non – volatile (citric, malonic, oxalic acids). The use was made of Dionex-3000 with a Acclaim Organic Acid, OA column dedicated to separation of organic acids with UV-Vis detector, which is of rather low sensitivity especially that the samples injected are generally small and light path is short.

Effect of such parameters as sample volume, column temperature, eluent gradient, flow rate on the resolution was studied. The best separation was achieved for a column temperature at 30°C, with variable flow rate (0.3 ml/min – 0.6 ml/min) and the changing composition of the methanesulfonylic acid – acetonitrile eluent.

The method was successfully applied to analyze cattle, pig and poultry farm wastewater for the content of the above acids.

KEYWORDS: organic acids, wastewater, ion chromatography