

ABSTRACT

ANALYTICAL DETERMINATION OF ACTIVE COMPOUNDS BY LIQUID CHROMATOGRAPHY V.

Diploma Thesis

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This paper focused on determining of ibuprofen in plasma using off-line coupling solid phase microextraction (SPME) and high performance liquid chromatography (HPLC). For microextraction was used fiber coated with PDMS-DVB. The pH of mobile phase and the samples were adjusted to 3. Microextraction was composed of 30 min sorption and 20 min desorption to 250 ml of methanol. The mobile phase was methanol:water (75:25, v/v), column C18, flow rate was 1.2 ml / min. Evaluation was carried out at 222 nm. The influence on microextraction yield was examined on these conditions: concentration of ibuprofen in the sample, salting out, dilution of sample and multiple microextraction. Naproxen was chosen as internal standard. Using internal standard a calibration line was constructed and it was tested by model samples. Detection and quantification limits were determined for ibuprofen and naproxen.