

Metal content in medicinal herbs – empirical and chemometric approach

Abstract

The content of metals: Cr (0.01 – 13.9 ppm), Zn (25 – 96 ppm), Fe (84 – 2240 ppm), Mn (20 – 91 ppm), Ni (0.2 -5.4 ppm), Cu (1.5 -10 ppm) and Mg (0.3 – 1.3%) was determined in dried medicinal herbs, namely folium *Melissae*, flos *Matricariae*, herba *Urticae*, folium *Menthae piperitae*, fructus *Foeniculi amari*, flos *Tiliae*, herba *Hyperici* and herba *Filipendulae ulmariae* originated from the Czech Republic, Poland and France. The samples of the herbs were decomposed by microwave-assisted mineralization and the metal ions were determined by atomic-absorption spectrophotometry. The results were subjected to statistical analysis in order to point out metals that could serve as indicators of the country of origin of the drugs.