The determination of total Antioxidant capacity of medicinal plants from romania by nIR Spectroscopy

HĂRMĂNESCU Monica, MOISUC A. - USAMVB Timisoara DRĂGAN Simona - University of Medicine and Pharmacy "Victor Babes", Timișoara GERGEN I. - USAMVB Timisoara

In this study are presented our researches regarding the determination of total antioxidant capacity of 17 medicinal plants from Romania using NIR Spectroscopy. For this it were realized correlations between the values obtained for total antioxidant capacity (mM/g) using chemical FRAP method and the reflectance values of frequencies from NIR spectra. To obtain the main parameters of the regression model for total antioxidant capacity determination using NIR Spectroscopy it was used PLSLaverage method of UNSCRAMBLE software. The correlation coefficient R2 obtained for regression equation was equal with 0.993230. The good quality of prediction of obtained PLS-Leverage model was done by the small values of the deviation, around 2-3%.