ABSTRACT

This diploma thesis is focused on theoretical and practical aspects of High performance liquid chromatography (HPLC). This method is introduced as one of the most frequently used current analytical methods. The theoretical part of thesis is focused on instrumentation of HPLC and particular components of HPLC analytical system. The most often used mobile phases and static phases are described as well. Based on these theoretical aspects, laboratory exercise using HPLC for future teachers is designed. Caffeine is used as ideal model material for this exercise. Caffeine is well-known substance, because of its traditional usage for example in food-processing industry. Final part of this thesis is brief view on framework educational programmes for primary and secondary education. As appendix of this thesis, manual for referenced laboratory exercise is provided.

KEYWORDS

chromatography, caffeine, HPLC, instrumentation of HPLC, teacher training, RVP