SUMMARY

Analytical evaluation of drugs using chromatographic methods VI.

Diploma thesis

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There was worked out the method for simultanious determination of vitamins B_1 (thiamine), B_3 (nicotinamide), B_6 (pyridoxine) a vitamin C (ascorbic acid) using high performance liquid chromatoghaphy in multivitamin tablets in this work. This method was used for determination of these vitamins in effervescent multivitamine substance used as food supplement. Acquired results were compared with value declared by the producer. Best results were reached by using chromatographic column Lichrosphere 100 RP C18, 250 mm x 4 mm I.D. (5 μm) Merck, Germany with mobile phase methanol : water (pH adjusted to 2,8 by acetic acid 10%) 0,005 mol/l sodium hexanesulfonic acid + 0,1% triethylamine) in proportion 20:80 (v/v). There was used spectrofotometric detector with wavelenght 270 nm for detection. Flow rate was 1 ml/min, time of analysis didn´t exceed 13 minutes. Substances were eluated in order: ascorbic acid, nicotinamide, pyridoxine and thiamine. The method will be validated.