

Abstract:

Experiments are indisputably the most popular part of chemistry lessons for students. When an experiment is performed with the material commonly known like foodstuff then interest of students increases. Presented bachelor thesis shows experiments with chocolate lentils of two producers, Nestle and Mars, Inc. Interest is focused on colorants – a topic of organic chemistry which is directly mentioned in basic curricular documents RVP G. The experiments demonstrate influence of pH environment on sensitivity of artificial colorings and natural food dyes contained in chocolate lentils. By using these food colorings retention factor and its dependence on TLC (thin layer chromatography) conditions is explained. Absorbance spectra of colorants are included. The thesis presents new possibilities of scientific approach about lecture of colorants.

The aim of presented bachelor thesis is focused on importance of monitoring the composition in food products. Producers might change the composition of their products and that's why described experiments can't be followed easily. Certain problem was in case of Nestle producer who has changed food colorings in these chocolate candies. Although original food colorings had been natural food dyes (mix of carotenoids, anthocyanins), for the majority of people is more understandable when plant extract is used (e.g. extract of carrots, safflowers, radishes).