



## DETERMINATION OF TWO COLOR AGENTS IN HARD BOILED CANDY BY LASER-BASED PHOTOACOUSTIC SPECTROSCOPY AND COLORIMETRY

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### ABSTRACT

Determination of color agents was performed by laser-based photoacoustic spectroscopy (LPAS) and colorimetry in hard boiled candies containing two different colorants (anthocyanin and beta carotene). LPAS and colorimetry are fast and direct methods which do not require any chemicals or complicated sample preparation such as extraction. Both LPAS and colorimetry were shown to be suitable for quick determination of anthocyanin and beta carotene content in hard boiled candies. The determination of anthocyanin content in colored hard-boiled candies is possible by LPAS at 532 nm or by colorimetry using  $\Delta E^*$ , while the beta carotene content can be measured by LPAS at 473 nm or by colorimetry using the Hue color index.

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