THE APPROACH FOR EXPRESS SPECTROMETRIC DETERMINATION OF THE REDUCED FORM OF NICOTINAMIDE ADENINE DINUCLEOTIDE (NADH) CONTENT

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It is known that nicotinamide adenine dinucleotide (NADH/NAD$^+$) serves as a cofactor for many enzymes involved in the cell metabolism, redox control, signaling, biodegradation and other processes. Thereby determination of NADH/NAD$^+$ production is commonly used for the measurement of NADH/NAD$^+$-dependent enzymes activities. However, NADH may be oxidized spontaneously to NAD$^+$ form, so the aim of this study was to develop new approach for spectrometric determination of real NADH content in a sample.

There had been used optical absorbance intensities at wavelengths 234, 260, 290, 340, and 400 nm in order to calculate the percent of NADH in a sample.

An original formula for the calculation of NADH percent in a sample was figure out, and the example of its application was presented.

The proposed calculation method could be applied for quick and routine NADH content determination at any laboratory equipped with spectrometer. Proposed method may be used for quick and routine determination of NADH content in any laboratory equipped with spectrometer.

**Key words:** NADH content determination, ultraviolet (UV) spectrometry.

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