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Colorimetric Determination of Albumin in Micellar Extraction System Mo(VI) – Bromopyrogallol Red – Triton X-100

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The possibility of quantitative colorimetric determination of cetylpyridinium chloride and albumin in water-micellar system Mo(VI) – bromopyrogallol red – Triton X-100 was investigated using different ways of analytical signal detection. The effect nature for metrological characteristics of calibration dependence of cationic substrate determination was established in a variety of experimental conditions such as different nonionic surfactants concentration, ratio of reacting components and ways of receiving of colorimetric signal. The best sensitivity of albumin determination was observed using webcam for signal registration of the dilute micellar phases and formed micellar phases without their separation. The colorimetric method with previous micellar-extraction in Triton X-100 for protein determination in urine was developed. The accuracy of method was tested on reaction of protein with coomassie brilliant blue by independent laboratory.

Keywords: fmicellar extraction, RGB–colorimetry, bromopyrogallol red, albumin, Triton X-100