

Abstract

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Use of DSC to determinate volume of active substances I.

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This paper studies the determination of active substances volume in suppositories with differential scanning calorimetry. This method is more expensive than other used methods but its advantage is in a speed and no separation of active substance from suppository base needed. We used suppositories Ben-U-Ron containing 125mg and 1000mg of paracetamol for our measurements. The samples were taken for the base and the tip of suppositories.

On the ground of the results we can state it is necessary to repeat DSC measurements several times to get values of substance volume. These values are in certain interval and the right result cannot be achieved from one single measuring.

It was also found that suppository with 125mg of paracetamol contained less amount of tested substance than is proclaimed by producer. This was very small reduction in a border of analytical mistake but it was in every tested samples. It is probably caused by melting of paracetamol in suppository base due to higher temperature (180°C).

This was only in case of 125mg suppository, 1000mg suppository samples were all in settled intervals.