ABSTRACT
The work extends the original method of biological titration with the concrete assessment of the stability of an active form of T 12 in two creams of functionally usable composition. The work compiles basic information on the skin barrier, chemically modulated penetration of drugs through the skin, especially transkarbam 12 (T 12) as an accelerator. Its influence on the permeation characteristics of caffeine as a marker is a basis of the experiment itself.
The principal experimental results have been obtained by measuring of in vitro (pig skin ear samples) fluxes of caffeine dispersed always in 1% concentration in hydrophobic creams containing 0.2% and 0.4% of T 12. The average results of the pertinent fluxes were for the 0.2% cream **J = 6,4** ± 2,0 in one week after manufacturing, and **J = 7,2** ± 2,3 in 210 days after manufacturing.
Analogical values for the 0.4% lotion were **J = 6,7** ± 1, in one week after manufacturing, and **J =** 5,5 ± 1,2 after 165 days after manufacturing.
The evaluation of these results by non-pair t-tests with the level of reliability of 0.95% has proved that the permeation characteristics of both creams (with 0.2% and 0.4% of T 12) in the scrutinized period (210 days or 165 days, respectively). It is thus possible to treat them as equal from the permeation point of view, and the existence of T 12 in its active form as proven.