

ABSTRACT

Lukášková, M.: Higher plants tissue cultures 28. Diploma thesis, Charles University in Prague, Faculty of Pharmacy in Hradec Králové, 2007.

A biotransformation possibility of the tissue culture *Centella asiatica* (L.) was studied. These cultures were added the precursors of arbutin: hydroquinone, tyrosine, 4-hydroxybenzoic acid and p-coumaric acid into the medium. The precursors were used in a concentration of 100 mg/l and the period of their action was 6, 12, 24, 48 and 168 hours.

Positive results (both TLC and HPLC) in arbutin production were obtained in the suspension culture after an addition of hydroquinone. The largest amount of arbutin was achieved after a week's cultivation with hydroquinone (0,0429%).