

SUMMARY (ABSTRACT)

Petra Dadakova: Phytochemical Research of the Aerial Part of *Schizandra Chinensis* (TURZ.) BAILL.

The work was aimed at isolating of at least one constituent from the polar n-butanolic extract

of the leaves and cauloms of *Schizandra chinensis* (TURZ.) BAILL., Schizandraceae, and

at physico-chemical characterization of the isolated substance. The separation was performed

by means of column and preparatory thin layer chromatography. Two pure compounds were

obtained - stigmasterol glucoside and shikimic acid - and their structures were determined

by NMR spectroscopy. Moreover, 18 crystalline fractions containing mainly one compound or

a mixture of several compounds were separated. According to TLC combined with the usage

of specific detection reagents, these fractions contain predominantly flavonoid substances,

e.g. quercetin, kaempferol, rutin and/or their glycosides, other phenolic substances such

as cinnamic acid, and saccharides.

The constituents typical for fruits (seeds), *i.e.* essential oil and approximately 60

lignans of dibenzo[*a, c*]cyclooctadiene type, are contained in individual morphological parts,

i.e. cauloms, leaves and seeds in the approximate ratio 2.4 : 1 : 11.4, respectively. Hence,

cauloms and leaves cannot serve as primary source of lignans with strong antioxidative,

chemoprotective and agaptogenic properties. They can only be used as a secondary raw

materials.

The presence of flavonoids, derived from kaempferol and quercetin, and (*E*)-cinnamic

acid is a logical explanation of the fact that the aerial parts have been recommended as

a substitute for tea in the regions of original occurrence of the plant. Both classes of compounds

have a favourable effects similar to that of the green tea and are useful in the *Helicobacter*

pylori eradication.