of Southeastern Serbia and Neighboring Regions,

Vlasina 13th-16th June, 2013

Book of abstracts Zbornik apstrakata

Ovaj Simpozijum je organizovan uz materijalnu podršku Ministarstva prosvete, nauke i tehnološkog razvoja Republike Srbije

Chemical composition of *Chaenomeles japonica* (Thunb.) Lindl. ex Spach flower diethyl ether extract

Radulović, N.1, Živković, M.1

¹Department of Chemistry, Faculty of Science and Mathematics, University of Niš, Serbia

e-mail: mika.zivkovic1987@gmail.com

Chaenomeles japonica (Thunb.) Lindl. ex Spach is a commonly cultivated thorny deciduous shrub of Japanese Quince belonging to the family Rosaceae. This edible plant species has received little scientific attention and there are only a few investigations done on its chemical composition, mostly of the fruits. In the present study we analyzed the diethyl ether extract of the fresh flowers of *C. japonica* by detailed GC and GC/MS. The extract was mostly comprised of wax *n*-alkanes with odd-numbered carbon dominance (C₂₂-C₃₀, maximum at C₂₉ with 17.3%). The second in abundance group of detected compounds-benzaldehyde (22.8%), benzaldehyde cyanohydrin (1.1%), benzoic acid (10.7%), methyl benzoate (0.1%), benzoyl nitrile (0.1%) and lactonitrile (0.4%), represented hydrolytic products of glycosides of benzaldehyde cyanohydrin or acetaldehyde cyanohydrin typical for Rosaceae species. Other minor constituents detected were the ubiquitous green leaf compounds with hexanal (<0.05%), octanal (0.1%), nonanal (0.1%) and decanal (0.1%) present in the highest percentage.

Long chain 5-alkylresorcinols from Scilla bifolia L.

Radulović, N.1, Đorđević, M.1

¹Department of Chemistry, Faculty of Science and Mathematics, University of Niš, Serbia

e-mail: miljanadjordjevic11@gmail.com

Scilla bifolia L. (Asparagaceae) is a herbaceous perennial native to Europe and western Russia. The two-leaf squill or alpine squill grows in shady places, woods of beech or deciduous trees, and mountain grasslands. Uses of squill are cited in the pharmacopoeias of many countries but this particular species is poorly chemically investigated. Herein, we describe the first GC and GC-MS analysis of the diethyl ether extract obtained from the aerial parts of *S. bifolia*. We identified in total seventeen compounds belonging to five series of homologous alkylresorcinols (mono- or di- *O*- and *C*-methylated 5-alkylresorcinols) with the aliphatic chain of 15 to 23 carbons. These were found for the first time in this species, whereas a number