

B099 Mentzeliol - a new compound from *Mentzelia chilensis* Gay "Cordillera Negra"F. Bucar^a, C. Seger^b, O. Kunert^b, F. Hadacek^c, D. Haussmann^a, E. Knauder^a and M. Weigend^d^a Institute of Pharmacognosy, University of Graz, Universitätsplatz 4/1, A-8010 Graz, Austria. ^b Institute of Pharmaceutical Chemistry and Pharmaceutical Technology, University of Graz, Universitätsplatz 1, A-8010 Graz, Austria. ^c Comparative and Ecological Phytochemistry Department, Institute of Botany, University of Vienna, Rennweg 14, A-1039 Wien, Austria. ^d Institute of Biology, Freie Universität Berlin, Altensteinstr. 6, D-14195 Berlin, Germany.

Decoctions of the aerial parts of *Mentzelia* sp. (Loasaceae), well known in Peruvian traditional medicine as *anguaráté*, are used as cicatrizant of gastric ulcers and for dyspeptic disorders (1,2). The wild growing and cultivated plant material obtained from Pamparomas, Departamento Ancash, and traded as *anguaráté* is here provisionally called *Mentzelia chilensis* Gay "Cordillera Negra", since the taxonomy of *Mentzelia* sp. in Peru has not yet been completely resolved (3). Previously we identified mentzeloside **1** as an antiinflammatory compound in *M. chilensis* (4). Continuing our phytochemical investigations we now isolated from the MeOH extract of the stems the C9-iridoids 5-OH-mentzeloside (scabroside) **2** and 11-β-D-Glucosyl-epoxydecaloside **3**, as well as a new natural compound, mentzeliol **4**. The latter was isolated by VLC on a cyclohexyl-RP-phase column and semipreparative HPLC on a polar endcapped reversed phase column. Structure elucidation using 1- and 2-dimensional NMR spectroscopy as well as GC-MS analysis revealed that **4** was (1*R**, 2*S**, 3*S**)-4-(hydroxymethyl)-3-(1-hydroxyprop-2-en-2-yl)-cyclopent-4-en-1,2-diol, a new natural compound which we designated as mentzeliol. **2** was previously identified only in *Deutzia* sp. (5), **3** in *Mentzelia* sp. (6). By TLC **4** could be detected in both, roots and stems of *M. chilensis*. Further investigations are in progress to clarify the role of **4** in the chemical taxonomy of *Mentzelia* sp. of Peru as well as its biological properties regarding the traditional use of *anguaráté*.

Acknowledgements: Alsitán GmbH, Greifenberg, Germany, is acknowledged for providing plant material and for financial support.

References: **1.** Hammond, GB. et al. (1998) J. Ethnopharmacology 61: 17-30. **2.** De Feo, V. (1992) Fitoterapia 63: 417-440 **3.** Weigend, M. et al. (2000) Am. J. Bot. 87: 1202-1210 and personal communication. **4.** Bucar, F. et al. (1998) Phytother. Res. 12: 275-278. **5.** Esposito, P. and Guiso, M. (1973) Gazz. Chim. Ital. 103: 517-523. **6.** Jensen, S.R. et al. (1981) Phytochemistry 20: 71-83.

B100 Five new medicagenic acid saponins from the roots of *Muraltia ononidifolia*M. Elbandy^a, T. Miyamoto^b, C. Delaude^c and M.A. Laccaille-Dubois^a^a Laboratoire de Pharmacognosie, Unité de Molécules d'Intérêt Biologique (UMIB JE 2244), Faculté de Pharmacie, Université de Bourgogne, 7 Bd Jeanne d'Arc, BP 87900, 21079 Dijon Cedex, France. ^b Graduate School of Pharmaceutical Sciences, Kyushu University, Fukuoka, Japan. ^c Centre de Recherche Phytochimique, Université de Liège, Institut de Chimie-B6, Sart Tilman B-4000-Liège I, Belgium.

In continuing our studies on the genus *Muraltia* (Polygalaceae) (1), we isolated five new triterpene saponins **1-5** from the ethanolic extract of the roots of *Muraltia ononidifolia* E. Mey which is an herbaceous plant indigenous to Southern Africa. The crude saponin mixture was fractionated by column chromatography over Sephadex LH-20 and repeated medium-pressure liquid chromatography (MPLC) over normal Silica gel, followed by semi-preparative HPLC on a reversed phase (C18) column yielding five pure compounds. Their structures were elucidated mainly by 600 MHz NMR analysis including 1D and 2D-NMR spectroscopy (COSY, TOCSY, NOESY, HSQC, HMBC) and FAB-MS as 3-*O*-β-D-glucopyranosyl-medicagenic acid-28-*O*-β-D-apiofuranosyl-(1→3)-β-D-xylopyranosyl-(1→4)-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranoside (**1**), 3-*O*-β-D-glucopyranosyl-medicagenic acid-28-*O*-β-D-xylopyranosyl-(1→4)-[β-D-apiofuranosyl-(1→3)]-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranoside (**2**), 3-*O*-β-D-glucopyranosyl-(1→2)-β-D-glucopyranosyl-medicagenic acid-28-*O*-β-D-xylopyranosyl-(1→4)-[β-D-apiofuranosyl-(1→3)]-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranoside (**3**), 3-*O*-β-D-glucopyranosyl-(1→2)-β-D-glucopyranosyl-medicagenic acid-28-*O*-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranoside (**4**) and 3-*O*-β-D-glucopyranosyl-(1→2)-β-D-glucopyranosyl-medicagenic acid (**5**), respectively.

Reference: **1.** Elbandy, M. et al. (2002) J. Nat. Prod. 65: 193-197.