Xanthones from *Polygala alpestris* (Rchb.)

Stefano Dall'Acqua[a], Giampietro Viola[a], Elsa Mariella Cappelletti[b], and Gabbriella Innocenti[a,*]

[a] Dipartimento di Scienze Farmaceutiche, Università degli Studi di Padova, via Marzolo 5, 35131 Padova, Italy. Fax: +39 049 827 53 66. E-mail: gabbriella.innocenti@unipd.it
[b] Dipartimento di Biologia, Università degli Studi di Padova, via U. Bassi, 35121 Padova

* Author for correspondence and reprint requests

Z. Naturforsch. **59 c**, 335–338 (2004); received October 27/November 21, 2003

Bioactivity-guided fractionation of *Polygala alpestris* L. (Rchb.) extracts led to the identification of two new xanthones, 1,3,7-trihydroxy-2,6-dimethoxyxanthone (**1**) and 2,3-methylenedioxy-4,7-dihydroxyxanthone (**2**). In addition five known compounds 3,4-dimethoxy-1,7-dihydroxyxanthone (**3**), 1,3-dihydroxy-7-methoxyxanthone (**4**), 1,7-dihydroxy-2,3-dimethoxyxanthone (**5**), 3′,6-*O*-disinapoyl sucrose (**6**) and 3′,5′-dimethoxybiphenyl-4-olo (**7**) were isolated. The structures of the isolated compounds were established by means of high resolution mass spectrometry, mono- and bi-dimensional NMR spectroscopy. All isolated compounds were tested for cytotoxic activity against three tumor cell lines (LoVo, HL-60, K 562).

Key words: Polygala alpestris, Xanthones, Cytotoxicity