

Table 1 ^1H - (300 MHz) and ^{13}C -NMR (75 MHz) spectral data for **5** and **6** ($\text{DMSO}-d_6$) (Varian Unity 300).

position	5		6	
	^1H	^{13}C	^1H	^{13}C
Aglycone				
2		156.0		156.0
3		132.6		132.6
4		176.8		176.8
5		161.0		161.0
6	6.18 d (2)	98.7	6.18 d (2)	98.7
7		164.0		164.0
8	6.39 d (2)	93.4	6.39 d (2)	93.4
9		155.9		155.9
10		103.7		103.7
1'		121.8		122.2
2'	7.53 d (2)	115.0	7.49 d (2)	115.0
3'		144.7		144.7
4'		148.3		148.3
5'	6.86 d (8)	115.8	6.83 d (8)	115.5
6'	7.60 dd (2/8)	120.8	7.70 dd (2/8)	120.8
3-O-glycosyl				
1''	5.79 d (8)	98.5	5.75 d (8)	98.1
2''	4.99 dd (8/9)	74.1	5.29 dd (8/9)	71.1
3''	*	74.2	*	72.6
4''	*	70.1	*	68.2
5''	*	77.7	*	75.9
6''	*	60.7	*	60.0
2''-O-Galloyl				
1'''		119.7		119.6
2''' ,6'''	7.04 s	108.8	7.04 s	108.8
3''' ,5'''		145.2		145.2
4'''		138.1		138.0
7'''		164.9		165.1

* Not assigned due to overlapping.

analogues (**3**, **4**), and was in accord with spectral features reported for these compounds previously (13, 12).

Due to the known difficulty with the separation of glucosyl flavonoids from their galactosidic analogues we preferred to analyse them in mixtures, a procedure that appeared to be quite reliable by NMR spectroscopy, especially when components were in different proportions. Each of these mixtures could be resolved analytically by a TLC system proposed for the separation of glucosyl flavonoids from their galactosyl analogues (11), (precoated silica gel, Merck), $\text{AcOEt-HCOOH-H}_2\text{O}$, 50:3:10, upper phase: **1** 0.40, **2** 0.33, **3** 0.42, **4** 0.30, **5**

0.32, **6** 0.28). Due to the interest in collecting NMR data for flavonoids measured in $\text{DMSO}-d_6$ solutions at higher frequencies (17), we report such data for the galloyl-flavonoids (**5** + **6**) (Table 1). Information in detail on the work-up procedure and copies of the original spectra are obtainable from the author of correspondence.

Acknowledgements

The authors are grateful to Prof. K. Kukulczanka (Botanical Garden, University of Wrocław) for kind supply of plant material.

References

- Juniper, B. B., Robins, R. J., Joel, D. M. (1989) *The Carnivorous Plants*, chap. 13, pp. 244–247, Academic Press, London.
- Hauser, S. P. (1988) *Schweiz. Rundschau Med. (Praxis)* 77, 283–287.
- Kreher, B., Neszmelyi, A., Wagner, H. (1990) *Phytochemistry* 29, 605–606.
- Kukulczanka, K. (1991) *Bot. Gardens, Microprop. News (Kew)* 1, 37.
- Kukulczanka, K., Czastka, B. (1991) *Prace Ogr. Bot. Pan* 1, 55.
- Budzianowski, J., Pakulski, G. (1995) *Phytochemistry*, submitted.
- Mabry, T. J., Markham, K. R., Thomas, M. B. (1970) *The Systematic Identification of Flavonoids*, Springer, New York.
- Budzianowski, J., Skrzypczak, L., Wesolowska, M. (1990) *Sci. Pharm.* 58, 15–23.
- Bennini, B., Chulia, A. J., Kaouadji, M., Thomasson, F. (1992) *Phytochemistry* 31, 2483–2486.
- Markham, K. R., Chari, M. (1982) in: *The Flavonoids: Advances in Research*, (Harborne, J. B., Mabry, T. J., eds), chap. 2, pp. 19–134, Chapman & Hall, London.
- Budzianowski, J. (1991) *J. Chromatogr.* 540, 469–474.
- Nahrstedt, A., Dumkov, K., Janistyn, B., Pohl, R. (1974) *Tetrahedron Lett.* 559–562.
- Isohe, T., Fukushige, T., Noda, Y. (1979) *Chem. Lett.* 27–30.
- Iwagawa, T., Kawasaki, J., Hase, T., Soko, S., Okubo, T., Ishida, M., Kim, M. (1990) *Phytochemistry* 29, 1013–1014.
- Yazaki, K., Shida, S., Okuda, T. (1989) *Phytochemistry* 28, 607–609.
- Nielsen, J. K., Olsen, C. E., Petersen, M. K. (1993) *Phytochemistry* 34, 539–544.
- Markham, K. R., Geiger, H. (1993) in: *The Flavonoids – Advances in Research since 1986*, (Harborne J. B., ed.), Chap. 10, Chapman & Hall, London.

Erratum

Recio, M. C., Giner, R. M., Mánez, S., Talens, A., Cubells, L., Gueho, J., Julien, H. R., Hostettmann, K. and Rios, J. L. (1995) *Planta Med.* 61, 502–504.

In this paper, structure drawings of quercetin-3-*O*-rhamnoside and quercetin-3-*O*-xylosyl (1→2) rhamnoside show the incorrect configuration of the rhamnosyl moiety. Both compounds contain rhamnose in the usual α -L configuration.