Two New Sulfated Furostanol Saponins from Tribulus terrestris

Ivanka Kostova^{a,*}, Dragomir Dinchev^a, Gudrun Hopp Rentsch^b, Vladimir Dimitrov^b, and Antoaneta Ivanova^a

^a Institute of Organic Chemistry with Centre of Phytochemistry, Bulgarian Academy of Sciences, Sofia 1113, Bulgaria. *E-mail*: kostiv1@yahoo.com
 ^b Institute of Organic Chemistry, University of Zürich, Winterthurerstrasse 190,

CH-8057 Zürich, Switzerland

* Author for correspondence and reprint request.

Z. Naturforsch. **57 c**, 33–38 (2002); received July 13/October 15, 2001

Tribulus terrestris, Sulfated Furostanol Saponins, Furostanol Saponins

The known furostanol saponins methylprotodioscin and protodioscin and two new sulfated saponins, sodium salt of 26-O- β -glucopyranosyl-22 α -methoxy-(25R)-furost-5-ene-3 β ,26-diol-3-O- α -rhamnopyranosyl-(1 \rightarrow 2)- β -4-O-sulfo-glucopyranoside (methylprototribestin) and sodium salt of 26-O- β -glucopyranosyl-22 α -hydroxy-(25R)-furost-5-ene-3 β ,26-diol-3-O- α -rhamnopyranosyl-(1 \rightarrow 2)- β -4-O-sulfo-glucopyranoside (prototribestin) have been isolated from the aerial parts of *Tribulus terrestris* L. growing in Bulgaria. The structures of the new compounds were elucidated on the basis of 1D and 2D (DQF-COSY, TOCSY, HSQC-TOCSY, HSQC, HMBC, ROESY) NMR data, ESI mass spectra and chemical transformation.