

ORAL PRESENTATIONS

PHYTOCHEMICAL INVESTIGATION OF *Phlomis bucharica*

**D.Sh. Akhmedova¹, Zh. Wei², B. Zhao², J. Zhao², Kh.M. Bobakulov¹,
D.R. Siddikov¹, S.Z. Nishanbaev¹**

¹ S.Y. Yunusov Institute of the Chemistry of Plant Substances, 77, Mirzo-Ulugbek Str.,
Tashkent, 100170, Uzbekistan

² Xinjiang Technical Institute of Physics and Chemistry, Chinese Academy of Sciences,
40-1 South Beijing Road, Urumqi 830011, Xinjiang, P. R. China

Phlomis bucharica of the genus *Phlomis* (Lamiaceae) endemic to the Central Asia. Numerous species of *Phlomis* are used in traditional medicine because of their anti-inflammatory, antimicrobial, antioxidant and gastroprotective properties. Although the phytochemistry of several *Phlomis* species has been investigated, however information on the chemical constituents of the *Ph. bucharica* remains limited. Phytochemically investigation of *Ph. bucharica* is of particular interest because of this species represents a valuable source of secondary metabolites and may contribute to the development of phytopharmaceuticals. Therefore, the aim of this study was to investigate the phytochemical profile of *Ph. bucharica*.

Air-dried and powdered plant material was extracted with methanol by percolation. The concentrated extract was fractionated with chloroform, ethyl acetate and *n*-butanol. The ethyl acetate fraction was further separated by silica gel column chromatography followed by purification on Sephadex LH-20 and reversed-phase preparative HPLC. As a result, a sesquiterpene (**1**) and six phenolic compounds (**2-7**) were isolated and structurally identified by 1D and 2D NMR spectroscopy (Figure 1). The isolated compounds were identified as shonachalin A (**1**), protocatechuic acid (**2**), 5,5'-bivanillic acid (**3**), 4,5-di-*O*-(4-hydroxy-3,5-dimethoxybenzoyl)shikimic acid (**4**), eucommin A (**5**), isorhamnetin 3-*O*-(6''-*O*-(*Z*)-*p*-coumaroyl)- β -*D*-glucopyranosid (**6**), (7*S*,8*R*)-9'-*O*-methyl dehydrodiconiferyl alcohol-9-*O*- β -*D*-glucopyranoside (**7**).

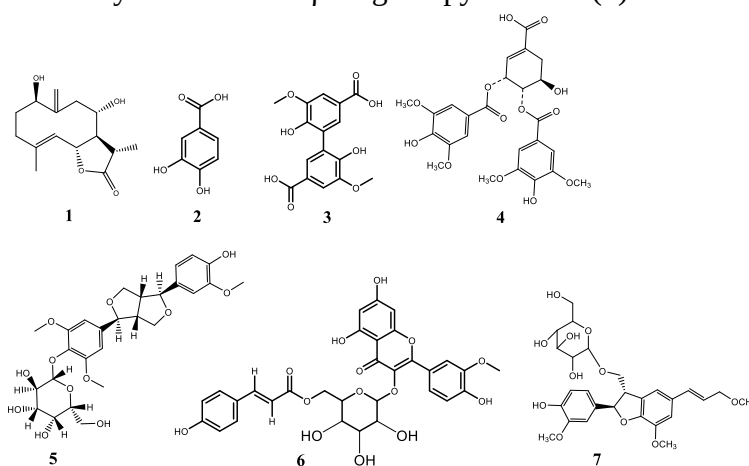


Figure 1. Structure of isolated compounds from *Ph. bucharica*

It can be concluded that the chemical constituents isolated from *Ph. bucharica* growing in Uzbekistan are reported here for the first time.

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