

PLENARY PRESENTATIONS

SECONDARY METABOLITES OF GENUS OF FERULA GROWING IN THE FLORA OF UZBEKISTAN AND THEIR BIOLOGICAL ACTIVITY

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Uzbek flora is a rich source of medicinal plants. Plants of the genus *Ferula*, are widely distributed in Uzbekistan and are a rich source of biological activity of compounds. Representatives of these genera are successfully used in traditional and alternative medicine as antitumor, hepatoprotective, antioxidant, anti-inflammatory, anti-RSV, antimutagenic, neuroprotective, anxiolytic, and other activities. We studied the secondary metabolites of some species from these genera. Therefore, the search for plants containing secondary metabolites, methods for their isolation, the establishment of their chemical structure and the study of biological activity based on the chemical structure in order to create effective new drugs is an important and urgent problem of modern bioorganic chemistry. From the studied plants *Ferula tadshikorum*, *F. kokanica*, *F. ferganenses*, *F. lehmannii*, *F. tenuisecta*, *F. lapidosa*, *Ferula samarcandika*, *F. ovina*, *F. kuhistanika*, *F. feruloides*, *F. foetida* more than 200 new and known terpenoids, esters, alkaloids, coumarins, iridoids, sterols, flavonoids and their glycosides have been isolated.

The structures of isolated compounds were established on the basis of their physical and chemical properties, IR, UV, PMR, ^{13}C , ^1H NMR, HSQC, HMBC, COSY and DEPT spectral data and also TLC analysis. Among isolated compounds founded compounds with diabetic, cardioprotector, antioxidant, relaxant, hypotensive, antitumor, hepatoprotective, anti-inflammatory, neuroprotective, and other activities.