



# ASOMPS-XIV

## 14<sup>th</sup> Asian Symposium on Medicinal Plants, Spices and Other Natural Products

December 9 - 12, 2013,  
Karachi, Pakistan

### Abstracts

Jointly organized by:

International Center for Chemical and Biological Sciences (ICCBS)  
(H.E.J. Research Institute of Chemistry and Dr. Panjwani Center for  
Molecular Medicine and Drug Research)

and

Pakistan Academy of Sciences (PAS)  
Pakistan Council for Science and Technology (PCST)  
Pakistan Science Foundation (PSF)  
Commission on Science and Technology for Sustainable  
Development in the South (COMSATS)



## The Development Process for the Production of Phytopreparation *Climacoptera subcrassa* and its Biological Activity

<sup>a</sup>B. K. Yeskaliyeva, <sup>a</sup>A. K. Kipchakbayeva, <sup>a</sup>G. Sh. Burasheva.,  
<sup>a</sup>Zh. A. Abilov, and <sup>b</sup>H. A. Aisa

<sup>a</sup>*Al-Farabi Kazakh National University, Faculty of Chemistry and  
Chemical Technology, Almaty, 050040, Kazakhstan;*

<sup>b</sup>*Xinjiang Technical Institute of Physics and  
Chemistry of CAS, Urumqi-830011, China;*

*E-mail: balakyz@yahoo.com*

The object of this study is the above-ground mass of plants in the genus *Climacoptera subcrassa* collected at different time phases of growth (flowering and vegetative) in 2012 from Almaty region. Analysis showed the following active substances: phenolic and amino acid, flavonoid glycosides, saponins, and polysaccharides, steroids, vitamins, carotenoids and coumarins.

*Climacoptera subcrassa* Moisture content (vegetative stag) - 5.35%, flowering, 24.17%; ash content (vegetative stag) - 5.89%, flowering 4.27%; extractive substances (vegetative stag) – 44.7%, flowering -52.70%.

During vegetative stag plants of the genus *Climacoptera subcrassa* found A - 0.57 mg/100g-4.5mg/100 g E-32. 5 mg/100 vitamins.

In order to optimize the extraction process isolation of biologically active compounds from plants of the genus *Climacoptera subcrassa* of the two phases of vegetation conducted the selection of solvents, optimized process conditions (temperature, time, the ratio of raw materials: solvent extraction multiplicity). The ethyl acetate extract of the determination of antioxidant activity by ABTS, showed  $78.85 \pm 1.11$ . Determination of antioxidant activity by DPPH showed  $292.29 \pm 5.97$ . Inhibition in comparison with standard antioxidant vitamin C.

Earlier, the over ground parts of *Climacoptera aralensis*, *Climacoptera obtusifolia* in biological screening showed antibacterial, antifungal, antioxidant, growth regulating, anti-amnesic activity, therefore conditional phytopreparation can be recommended for use in medicine and agriculture. Individual compounds of these herbal remedies are highly immunomodulatory effective. A study in this work continues.