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## Therapeutic potential of Rhododendron arboretum Smith (Burans) flowers

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 $R^{hododendron\,arboretum}$  Smith, a tree from Ericaceae family is found in different states of Uttarakhand. The flower juice and the jelly from petals are traditionally known as source of drugs in traditional and modern system of medicines and hold lot of commercial value.

In the study carried out at AIPP, flowers of *R.arboretum* were taken as such (unprocessed), and after traditional processing (processed) (fried in ghee to check diarrhoea and blood dysentery).

Cold methanolic extracts of flowers were taken, filtered and distilled at 40°C which were then suspended in distilled water and finally fractionated in a separating funnel with n-hexane, chloroform and n-butanol. All the fractions were then concentrated under vacuum.

TLC fingerprints were developed using silica gel TLC 60  $F_{254}$  with mobile phase, consisting of Mobile phase: Chloroform: methanol: water: acetic acid (70:30:4:2) was developed with 7.5% dil. Sulphuric acid. One spot with  $R_f$  value at 0.408 was found. Pink fluorescence indicating a prominent mixture of Quercetin, Rutin, Coumaric acid which are responsible for the activity that is exhibited by the species.

## **Biography**

Harsha Kharkwal is Assistant Professor and Coordinator at Amity Center for Carbohydrate Research. She completed her Ph.D. from National Botanical Research Institute, CSIR and continued her research work at University Institute of Chemical Technology, Mumbai. She is the recipient of Lucid research Award for 2004, has published more than 35 papers in Journals of repute, she has edited 1 book and has filed more than 50 patents. In such a short span, she has even guided 2 Ph.D. students.

## Quantitative determination of duloxetine hydrochloride in pharmaceuticals and urineusing prepared ion selective membrane electrode

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A duloxetine ion selective membrane electrode is prepared. The electrode incorporates PVC membrane with duloxetinesilicomolybdate (DLX-SMA) ion pair complex with dioctylphthalate (DOP) as a plasticizer. The influence of membrane composition on the electrode response was studied. The electrode showed a fast, stable and Nernstian response over a wide duloxetine concentration range  $(1.0 \times 10^{-5}$  to  $1.0 \times 10^{-2}$ M) with a slope of 59.40 mV dec<sup>-1</sup> of concentration, a wide working pH range (4.3–8.4) and a fast response time (<15 s). The electrode showed good selectivity towards duloxetine with respect to some metal ions, sugars and amino acids. The electrode has been applied to the determination of duloxetine hydrochloride in different pharmaceutical preparations and in urine.

Keywords: Duloxetine hydrochloride (DLX), Ion selective electrodes, Potentiometric determination, Pharmaceutical preparations