

## Method development and validation of ceftibuten in bulk and its pharmaceutical dosage form by RP-HPLC method

Varaprasad Adepu<sup>1</sup> and K. E. V. Nagoji<sup>2</sup>

<sup>1</sup>Jyothishmathi Institute of Pharmaceutical Sciences, India

<sup>2</sup>Sri venkateswara College of Pharmacy, India

To establish a method and validation for the determination of ceftibuten in its pure form as well as dosage form by reverse phase high performance liquid chromatographic method. Chromatography was carried out on a Symmetry C18 (4.6x150 mm, 5µm, Make: XTerra) column using a mixture of phosphate buffer and acetonitrile HPLC grade (30:70) as the mobile phase at a flowrate 1.0 mL/min, the detection was carried out at 228 nm. The retention time of the drug was 2.430 minutes. The method produced linear response in the concentration range of 20 mcg/ml and 60 mcg/ml. The method precision for the determination of assay was below 1.0% RSD. The developed method was validated and this method is useful in the quality control of bulk and pharmaceutical formulations.

## Pharmacognostical studies of *Callicarpa macrophylla* Vahl. root

Swaha Satpathy and Arjun Patra

Guru Ghasidas Vishwavidyalaya, India

*Callicarpa macrophylla* Vahl. (Fam-Verbenaceae) commonly known as Priyangu in Hindi is an erect shrub which is globally distributed across India, Nepal, Bhutan, Myanmar, South East Asia, and China. In India it is distributed in Jammu & Kashmir, Himachal Pradesh, Uttar Pradesh, Bihar, Sikkim, West Bengal, Arunachal Pradesh, Assam, Meghalaya, Nagaland, Manipur, Mizoram, Tripura, and Andhra Pradesh upto an altitude of 1800 meters. The present study deals with the pharmacognostical evaluation of the root of the plant. Root is cylindrical and branched, 5-22 cm long and 0.2 to 1.2 cm in diameter. The outer surface is brownish and fresh peeled root is light yellow in colour. The drug has slight characteristic odour and astringent taste. Various characteristics in the transverse section of both young and matured roots were established. Total ash (2.9%), acid insoluble ash (1.1%), water soluble ash (0.2%), alcohol soluble extractive (12.5%), water soluble extractive (17.7%), moisture content (10.6%), fluorescence analysis of the drug have been determined. The organic components found in the drug are carbohydrates, steroids, flavonoids, proteins and tannins; the inorganic elements found are potassium, phosphates, iron and sulphate. TLC of alcoholic extract was observed under naked eye and UV light. By establishing the quality parameters, it can be a better used plant for further research and for trade and commerce.

## An approach to extraction of natural products

Sinduri Gunapati and Priti Jain

Birla Institute of Technology and Science, India

Plants have been used as medicine since ancient time. Nowadays pharmaceutical companies are interested in the processing of medicinal and aromatic plants into their formulation by using extraction of the active substances. Extraction of plant components depends upon their composition and their boiling point. Several techniques are available for the extraction of plant components like distillation, enfleurage, maceration, solvent extraction and fluid extraction. This review also summarizes the characters of phytoconstituents, choice of solvents, influence of solvents, extraction strategy, approaches, procedures for extraction of herbal drugs and treatment of drug residue after extraction.

## Biography

Sinduri Gunapati has completed her B.Pharmacy from the teegala Krishna reddy college of pharmacy affiliated to JNTUH. She is doing her M.Pharmacy specialization in Pharmaceutical chemistry from Birla Institute of Technology and Science.