

8<sup>th</sup> Annual Congress on **TRADITIONAL AND ALTERNATIVE MEDICINE**

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**Physicochemical, Phytochemical, HPTLC and Antioxidant study of Medicinal Plant drug *Butea monosperma*****Rakhi Mishra***Delhi University, India*

**B**utea monosperma (Family Fabaceae) popularly known as 'dhak' or 'palas', commonly known as 'Flame of forest' is an important plant and is extensively utilized for lac cultivation. Butea monosperma is found in countries like India, Bangladesh, Nepal, Pakistan, Sri Lanka, Myanmar, Thailand, Laos, Cambodia, Vietnam, Malaysia, and western Indonesia. The main active constituents of Butea monosperma are oreopsin, isocoreopsin, sulphurein, butein, butin, isobutrin, monospermoside and isomonospermoside, aurones, chalcones, flavonoids (palasitrin, prunetin) and steroids. It has strong antioxidant, hepatoprotective, anthelmintic, anti-diabetic, anti-stress, antifungal, astringent, aphrodisiac, laxative properties. It acts as anti-diarrheal and anti-inflammatory drug. Butea monosperma traditionally used for the treatment of piles, eye diseases, inflammation, diseases of the anus, dysentery, hydrocele, ulcers, tumours, dysmenorrhea, liver disorder, gonorrhoea and it also purifies the blood. Butea monosperma flower and seeds are consumed by children as remedy against intestinal worms. Its leaf & flower used as an appetizer, astringent, carminative, anthelmintic, aphrodisiac, tonic, lessens inflammation and lumbago, cures boils and piles. Also helps to cure cough, cold and stomach disorders. Butea monosperma gum is astringent to bowel, good in stomatitis, cough, pterygium, corneal opacities and cures excessive perspiration, goitre of human being and body swellings. Its bark is acrid, bitter, appetiser, aphrodisiac, laxative, anthelmintic properties. Present study reveals the results of Physicochemical, Phytochemical and High Performance Thin Layer Chromatography study of Butea monosperma flower. The result of Physicochemical study, LOD (2.85%), Total Ash (5.43%), Alcohol extractive values (13.26%), Water extractive values (29.00%), Total solids (3.30%), Wt/ml (0.92g) and Alcohol content (53.2%). In UV Spectroscopy  $\lambda_{max}$  observed at 325nm in in-house sample. HPTLC analysis of chloroform extract of in-house sample were performed by using toluene ethylacetate (9:1, v/v) as mobile phase. Visualizing under UV light (254 nm), five spots appear at Rf. 0.21, 0.32, 0.65 and 0.71 (all brown). Under U.V light (366nm), six spots appear at Rf. 0.21(brown), 0.28(yellow), 0.32(brown), 0.48(blue), 0.60(blue) and 0.70(brown). After derivatization with Anisaldehyde Sulphuric acid reagent at 366 nm five spots appear at Rf. 0.21, 0.32, 0.42, 0.68 and 0.70(all blue) which confirms the presence of active constituent in Butea monosperma flower extract. The present physicochemical, phytochemical and HPTLC data are to be considered as monograph of pharmacopoeial standards for aforesaid drug

**Biography**

Rakhi Mishra has her expertise in natural medicinal plant chemistry. Her recent research work on Drug standardization study of various medicinal plant drugs helps to define quality, safety and efficacy of the traditional drugs. Her research creates new pathways for improving traditional healthcare system. She had a lot of research paper on analytical techniques used to study chemistry of indigenous and exotic plants. She did this research after years of experience in research, evaluation and administration both in government research institute and pharmaceutical research industries. She has good research experience in characterization, method development and validation of natural medicinal plant drugs by using analytical instruments like High Performance Thin Layer Chromatography, UPLC-MS, NMR and FTIR.