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# A STUDY ON EXTRACTION, CHARACTERIZATION AND PURIFICATION OF ALKALOIDS FROM CAYENNE PEPPER AND BELL PEPPER

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## Abstract

Nature has been playing the role of absolute storehouse of remedies to treat all ailments of mankind. Our ancestors had used herbal remedies for more than thousands of years. Herbal medicines are often preferred because they tend to provide first-line and basic health service. Medicinal plants are considered to be an important source for pharmaceutical manufacturing. Cayenne Pepper and Bell Pepper are considered to be important spices throughout the world. These spices are also being used in Ayurveda since centuries. Samples were purchased from local market. These samples were air dried and powdered. Soxhlet extraction of the powdered samples using water, ethanol and chloroform as solvent were carried out. Qualitative biochemical tests and wavelength scan were performed to confirm the presence of alkaloids. Further characterization was carried out using FTIR technique and the peaks of the crude samples were compared with the standard. The crude samples were further purified using Silica column. The purified samples were characterized using FTIR and was compared with the standard. Later on the crude samples and purified samples were quantified by Tropaeolin OO. In future the purified samples are to be further purified by HPLC and then carried on for application studies.

**Keywords :** Alkaloids; Capsaicin; FTIR; Soxhlet Extraction and Tropaeolin OO

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