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**PHYTOCHEMICAL, PHYSICO-CHEMICAL AND ELEMENTAL ANALYSIS ON THE  
ROOTS OF SHAN KOKKAYA (ရှမ်းကွက္ကရာ) AND INDIA KOKKAYA (အိန္ဒိယကွက္ကရာ)**

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**ABSTRACT**

Shan Kokkaya (*Pimpinella candolleana* Wight & Arnott), family Apiaceae, distributed in Pindaya Townships, Southern Shan State is a valuable medicinal plant and which root is a commercial product substituted for the roots of India Kokkaya (*Anacyclus pyrethrum* DC), family Asteraceae, in Myanmar Traditional Crude Drug Market. The aim of this study is to compare their organoleptic properties, phytochemical compounds, physico-chemical properties and elemental components. The phytochemical screenings and the physico-chemical properties of these roots were analyzed by the methods of Harborne (1998), Raaman (2006) and WHO (2011) in Research Division, University of Traditional Medicine and WDXRF for the elemental components in Mandalay University Research Centre. It was observed that the presence of glycosides, phytosterols, reducing sugar and the absent of alkaloid in Shan Kokkaya whereas the alkaloid was present, and the glycosides, phytosterols and reducing sugar were absent in India Kokkaya. Shan Kokkaya has base properties and India Kokkaya has acid properties. Moisture content of Shan Kokkaya was less than India Kokkaya as well as pH values of 1% and 10% aqueous solutions more than one. The values of ash, solubility in various solvents and the elemental components in these two roots were different. Thus, these studies could be scientifically proved for the differences of phytochemicals, physico-chemical properties and elemental components of a Shan Kokkaya and India Kokkaya.

Key wards; Shan Kokkaya (*Pimpinella candolleana* Wight & Arnott), India Kokkaya (*Anacyclus pyrethrum* DC),