



Alkaloid Isomerization Induced by Spray Drying of *Uncaria tomentosa* Bark Extracts

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SUMMARY. Cat's claw (*Uncaria tomentosa* (Willd) DC) is an alkaloid rich-liana from the Peruvian Amazon rainforest. Regarding several oxindole alkaloids from cat's claw bark, the isomerization induced by pH, temperature and solvent polarity is reported in the literature. Some industrial drying processes, such as spray drying, can provide therefore favorable conditions of heating and moisture for isomerization, and it is expected to have effects on the alkaloid composition during technological processing. In this work we focused on the effect of spray drying on the isomerization of alkaloids of dried extracts obtained from *Uncaria tomentosa* bark. High isomerization levels were observed in all dried extracts. A loss in mitraphylline (15%) and pteropodine (12%) content is related to an equivalent content increase of isomitraphylline and isopteropodine, respectively. Since different biological and pharmacological activities had been ascribed to these alkaloids, the influence of the thermal effect inherent to the spray drying technique and excipient type should be worth of special attention.

KEY WORDS: Alkaloids, Column liquid chromatography Isomerization, Spray dried extracts, *Uncaria tomentosa*.

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