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## **Analysis of isotretinoin and its metabolites by capillary electrophoresis with on-line pre-concentration technique**

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The reasons for acne formation are as follow: testosterone converted into dihydrotestosterone (DHT), and DHT combines with androgen receptors simultaneously. When hair follicle is clogged, sebaceous gland cells are stimulated to produce certain amounts of sebum. It causes the propionibacterium acnes to proliferate, which secrete lipase that goes on to decompose sebum into free fatty acid, and lead to inflammation. Isotretinoin is one of the acne therapeutic drugs which reduce acne formation by binding to the retinoid receptor. According to the literature study, the dosage of isotretinoin correlates with its adverse effects, such as dryness of the skin and mucosa, conjunctivitis, night blindness, etc. Therefore, it's desirable to develop an analytical method to detect and evaluate the concentrations of isotretinoin and its metabolites tretinoin, 4-oxo-isotretinoin. In this study, capillary electrophoresis with low solvent and sample consumption was chosen as the analytical instrument. The application of on-line pre-concentration technique can be used to enhance the sensitivity.

### **Biography**

Ying-Xuan Huang is currently studying Department of Fragrance and Cosmetic Science master's program the first grade at Kaohsiung Medical University. She has started his master's thesis of "Analysis of isotretinoin and its metabolites by capillary electrophoresis with online preconcentration technique" in 2016. Until now she specialize in the analytical chemistry.

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