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ACCEPTED MANUSCRIPT

Application of mid-infared spectroscopy with multivariate analysis for the discrimination of toxic plant, Gelsemium elegans

Chiew Hoong Ng^a, Ying Chen^b, Yung Sing Ch'ng^a, Chu Shan Tan^a, Zhao Qin Yeap^a, Yean Chun Loh^a, Shui-Sheng Wu^b, Mun Fei Yam^a*

^aSchool of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800, Minden, Pulau Pinang, Malaysia.

^bFaculty of Pharmacy, Fujian University of Traditional Chinese Medicine, 1 Qiuyang Road,

Shangjie, Minhou, Fuzhou 350122, Fujian, P.R. China.

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*Corresponding author

Dr. Yam Mun Fei

School of Pharmaceutical Sciences,

Universiti Sains Malaysia,

11800, Pulau Pinang, Malaysia.

Email: yammunfei@yahoo.com

Phone number: +604-653 4586

Fax no.: 604-6570017

Highlights

- Different parts of the *Gelsemium elegans* plant were studied by FT-IR, SD-IR and 2D-IR.
- Similarities and differences of 1D, SD and 2D FT-IR spectra among the three different parts and different plants were shown.
- 75 Gelsemium elegans samples and 70 other traditional Chinese medicines were objectively classified by SIMCA based on 1D-FTIR spectra.
- Tri-step FT-IR method combined with SIMCA can rapidly discriminate the three different parts and different traditional Chinese medicines.

Abstract

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