

High-Performance Thin Layer Chromatography Data of Representative Crude Drugs Available on the Japanese Market

(Received: January 28, 2014; Accepted: April 24, 2014)

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Summary

As a part of a project to create a Comprehensive Medicinal Plant Database of crude drugs, a high-performance thin layer chromatography (HPTLC) analysis of 19 representative crude drugs was performed according to the identification test in the sixteenth edition of the Japanese Pharmacopoeia (JP16). The crude drugs included in this study were: Angelicae Radix, Astragali Radix, Bupleuri Radix, Cinnamomi Cortex, Cnidii Rhizoma, Coptidis Rhizoma, Ephedrae Herba, Evodiae Fructus, Gardeniae Fructus, Ginseng Radix, Glycyrrhizae Radix, Moutan Cortex, Paeoniae Radix, Perillae Herba, Persicae Semen, Plantaginis Semen, Puerariae Radix, Rhei Rhizoma, and Zingiberis Rhizoma. More than five (5-25) products for each crude drug available on the market in Japan were compared in their HPTLC features imaging composition of the constituents. Crude drugs, for which a TLC confirmatory method has not been included in JP16, were investigated suitable analytical conditions. Thus, we were able to obtain HPTLC image data with good separation for all samples. The HPTLC data, which can be visually verified, would not only provide useful material in the database, but also constitute a rare example of estimation of chemical equivalence of a large number of crude drug products from the Japanese market.

Key words

Crude drug, Japanese Pharmacopoeia, HPTLC, Image data, Database