

### 63.1 Introduction

Yinyanghuo, Herba Epimedii, is the dry above ground part of *Epimedium brevicornum* Maxim., *E. sagittatum* (Sieb. et Zucc.) Maxim., *E. pubescens* Maxim, or *E. koreanum* Nakai (Berberidaceae) collected in summer and fall when the plant is mature. The Chinese Pharmacopoeia requires a qualitative determination of the main flavone constituent icariin for this official herbal medicine by thin-layer chromatographic comparison with an authentic sample after extraction of the powdered herb with ethanol. It is used in traditional Chinese medicine as a tonic and in the treatment of rheumatic and paralytic diseases and involutinal hypertension.

### 63.2 Chemical Constituents

The main constituents in *Epimedium* plants are the prenylflavone glycosides. The isolation of icariin (63-1) from *E. brevicornum* [1–3] and *E. koreanum* [2, 3], and its demethyl analog epimedoside A (63-2) from *E. koreanum* [4] was reported.

The glycoside icariin was first isolated from *E. macranthum* [5]. By acidic hydrolysis of icariin, icariside I (63-3) was obtained by loss of a rhamnose [6]. Icariside I was also isolated from *E. brevicornum* [7] and *E. sagittatum* [8].

Icariin and other prenylflavone derivatives isolated from some *Epimedium* species are listed in Table 63.1.