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## Analysis of Flavonols in the stems of *Messerschmidia sibirica* by HPLC

Jin-Hee Lee\*<sup>1</sup>, Hye-jung Park<sup>1</sup>, Jung-mun Ko<sup>1</sup>, Byung-mi Min<sup>2</sup> and Hyeon-Cheol Cha<sup>1</sup>

<sup>1</sup>Department of Biology, Dankook University, Cheon-an, Chungnam 330-714, South Korea

<sup>2</sup>Department of science education, Dankook University, Seoul, 140-210, South Korea

### Objectives

We carried out this study to search the effective components such as flavonoids for the medicinal property in the sand dune plant, *M. sibirica* for the subject of the Ministry of Environment.

### Materials and Methods

#### 1. Mererials

The stems of *M. sibirica* were collected from "Pyonsan peninsula", Buan-kun, Jeonrabukdo in August 2004.

#### 2. Method

Flavonoids from shade-dried stems were extracted in MeOH, and the extract was separated with chloroform and ethyl acetate. Purified flavonoids were analyzed by employing a combination of Rf value, retention time, and co-chromatography with standards using HPLC(Shimadzu SCA-10A system) by the methods of Harbone(1980) and Markham(1982).

### Results and Discussion

Because there were no reports about flavonoids of *M. sibirica*, we searched the related species to find *Lithospermum zollingeri*( *Boraginaceae*), in which two flavonoids rutin and caffeic acid were reported. From the analysis of flavonols in stems of *M. sibirica*, six flavonols were separated and their Rt values were 8.6, 9.3, 9.0, 11.8 and 17.7. Three compounds of six flavonols were major and the others were minor compounds. Now, we are processing the experiment to identify these compounds.

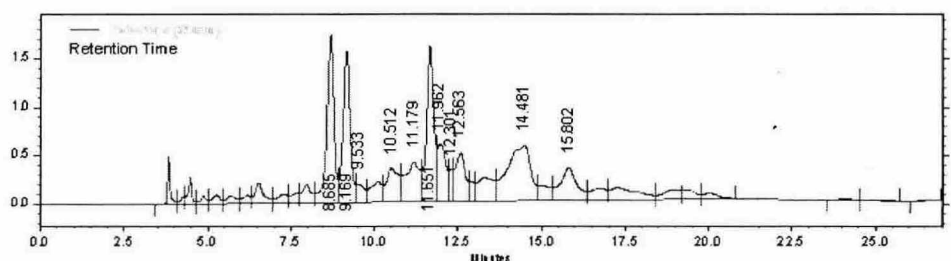


fig 1. Separation of flavonols in stem of *Messerschmidia sibirica* by HPLC