## The Extraction of Steroid Saponins from the *Liriopis* Tuber Using Supercritical Fluids

김현종. \*이은미. \*문광현, \*최봉영, \*\*정봉우

Department of Bioprocess Engineering, Chonbuk National University

\*Jeollabuk-do Center for Biotechnology and Bioventure, Jeonbuk

\*\*School of Chemical Engineering, Chonbuk National University

## **Abstract**

Liriopis tuber was a perennial plant grown in Korea, contained many kinds of functional components (steroid saponins, oligosaccharides, etc.). The components has been reported dropped blood sugar and acted as anti-inflammation agents, anti-diabetic, anti-thirst, resolution of fatigue and stamina. For the effective extraction of this functional components, we used supercritical fluids system instead of the hot water or organic solvents. Effects of modifier and soaking on extraction of steroid saponins were examined at 60 °C, 50 MPa for 2 hr, and flow rate of 3 mL/min, and steroid saponins content was analyzed by HPLC.

## References

- Catholic University of Daegu, "Functional Characteristics and Development of Multi-Functional Beverage Using Liriopis Tuber", Ministry of Agriculture & Forestry, 2001.
- 2. Kang, S. S., "Triterpenoid SAPONIN", Seoul National University, 1996.
- 3. Kang, S. S., Sohn, K. H., "The decision of Structure of Natural Components", *Seoul National University*, 2000.
- 4. Lee, W. W., "Supercritical Fluid Technology (I)", News & Information for Chemical Engineers, Vol. 19, No. 3, 2001.
- 5. Erdogan Kiran, Pablo G. Debenedetti, Cor J. Peters, "Supercritical Fluids ; Fundamentals and Applications", *NATO SCIENCE SERIES*, 2000.