Hye Won Kim et al., J Food Process Technol 2014, 5:4
http://dx.doi.org/10.4172/2157-7110.S1.006

OMICS Group Conferences
Accelerating Scientific Discovery

3rd International Conference and Exhibition on
Food Processing & Technology
July 21-23, 2014 Hampton Inn Tropicana, Las Vegas, USA

Optimization of allicin extraction method from welsh onion

Hye Won Kim and Sanghoon Ko
Sejong University, Korea

The objective of this study is to establish an extraction method for natural functional ingredient from the root of Welsh onion *(Allium fistulosum* L.*)* The root of Welsh onion contains functional compounds which are mainly sulfur-based substances. Allicin was detected using by standard compound among the various ingredients. The ratio between the powdered welsh onion and solvent was 15 g: 150 mL. This extraction was carried out with different types of solvent (water, 70% and 100% ethanol), extraction time (2 and 4hours) and temperature (40, 70 and 100^{0}C). Totally, 42 samples (A-101~C-142) were analyzed by high pressure liquid chromatographic (HPLC) method. The results of HPLC analysis indicated that under the 70% ethanol at 70^{0}C for 2hours, amount of allicin was 1.371mg (B-125). Especially, compared to 2 and 4hours, there was no difference. In conclusion, these results can be used to extraction of active ingredients from Welsh onion.

Biography

Hye Won Kim graduated from Sejong University in Korea, and then she earned degree in food science and technology. Now she is persuing Master's degree in Food Nanotechnology laboratory at Sejong University. She has interest in extraction of functional ingredients from natural sources.

hyewonwawa@naver.com