

### Production of Levulinic acid from Agar with Ionic Liquid

정귀택<sup>1,\*</sup>, 박돈희<sup>2,3</sup>

<sup>1</sup>부경대학교; <sup>2</sup>전남대학교;

<sup>3</sup>생명과학기술학부, 바이오에너지 및 바이오소재 협동과정

(gtjeong@pknu.ac.kr\*)

Agar is a gelatinous substance derived from red seaweed, primarily from the genera Gelidium and Gracilaria, or Sphaerococcus euchema. Chemically, agar is a polymer made up of subunits of the sugar galactose, which is mainly composed to D-galactose and 3,6-anhydro-L-galactopyranose. Levulinic acid and HMF are platform chemicals for synthesis of a wide range of chemicals. In this study, the acid- or ionic liquid- hydrolysis methods and agar are used as a potential process for production of levulinic acid. This study focused on the application of a statistical methodology for optimization of reaction conditions of chemical intermediates (levulinic acid) from agar. [This research was supported by Basic Science Research Program through the National Research Foundation of Korea (NRF) funded by the Ministry of Education, Science and Technology (KRF-2008-313-D00303).]