

## The effect of surfactant type and concentration on the preparation and stability of colloidal liquid aphrons

여길환, 전상준, 이홍기<sup>1</sup>, 홍원희\*  
한국과학기술원; <sup>1</sup>한국생산기술연구원  
(hongwh@kaist.c.kr\*)

Colloidal Liquid Aphrons (CLAs) were prepared from various solvents such as nonpolar hydrocarbons, alcohols, and amines. The effect of surfactant type and concentration on CLA preparation was studied and maximum phase volume ratio (PVR: volume ratio of the dispersed solvent phase to the water phase) was also investigated. The CLA preparation from nonpolar hydrocarbons or alcohols was possible with a high PVR. However, stable CLA preparation was possible using cationic or nonionic water-soluble surfactant in case of a basic solvent. The effect of surfactant types, concentrations, and solvent types were investigated under various continuous phase conditions.