# Visualization Study of Ellipsoidal Colloid Clusters

이현종, 안경현*, 이승종
서울대학교
(Ahnnet@snu.ac.kr*)

Anisotropic colloidal particles have received great interest from both the academic community and the industry because of their unique phase, alignment, and interaction behaviors. For prolate ellipsoid particles, such eccentricities lead to interesting phenomena such as prevention of coffee ring effect or liquid crystalline phase formation. However, because of the difficulty in obtaining well-characterized, monodisperse anisotropic particles, the fundamental study of these particles have been much rarer compared to spherical particles.
In the present study, monodisperse, density and refractive index matching ellipsoidal particles formed through mechanical deformation method were visualized using confocal laser scanning microscopy. Depletion mechanism through non-adsorbing polymers were used to control the attractive interaction between particles. Through image processing, a quantitative analysis of the structure has been conducted. Such study of controlled model system is expected to contribute to the understanding of the behavior of the anisotropic colloidal particles in various applications.