

Fig.1 Observation gold nano particles on a micro glass bead.

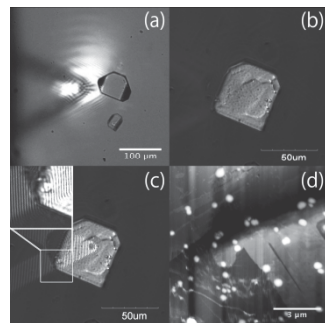


Fig. 2 Consecutive observation of crystal surface by OM, LCM-DIM, and AFM.

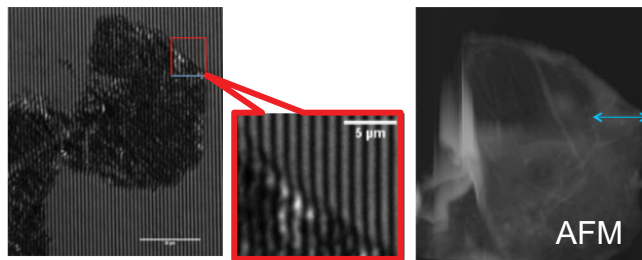


Fig.3 Interferometric observation of corneocyte

Content:

In this decade, integrated setup of an optical microscope (OM) and an optical microscope have been attractive instrument for the observation of soft materials and biological samples. I have obtained the following hybrid observation;

1. Observation of nano particles deposited on micro glass bead

Figure 1 shows the OM image and AFM images of gold nano particles deposited on micro glass bead. We successfully approached on a micro glass bead and observed the nano gold deposited on convex surface.

2. Consecutive observation of crystal surface (Fig. 2)

Crystal surface of potassium dihydrogen phosphate (KDP) was observed using a laser confocal microscope combined with differential interference microscope (LCM-DIM) and AFM. Nano-size particles are consecutively observed from mm scale.

3. Novel interference microscopy for the measurement of refractive index of a quite small volume (Fig. 3)

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