

Supporting Information

Electrooptic Response of Colloidal Liquid Crystals of Inorganic Oxide Nanosheets Prepared by Exfoliation of a Layered Niobate

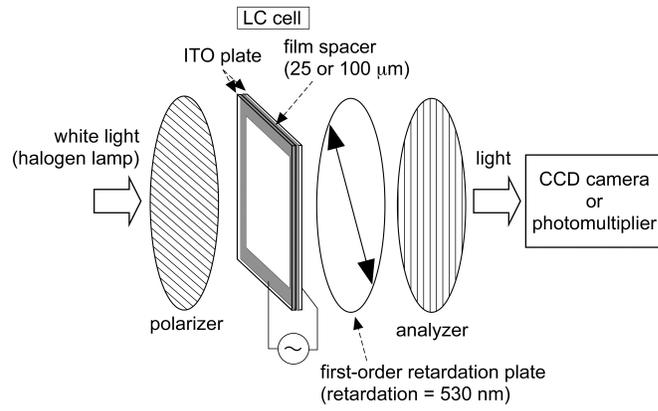
Teruyuki Nakato^{1,*}, Koichiro Nakamura¹, Yasuhiro Shimada¹, Yuko Shido¹, Takeshi Houryu², Yasufumi Iimura², and Hirokatsu Miyata³

¹ Graduate School of Bio-Applications and Systems Engineering (BASE), Tokyo University of Agriculture and Technology, 2-24-16 Naka-cho, Koganei-shi, Tokyo 184-8588, Japan

² Graduate School of Technology, Tokyo University of Agriculture and Technology, 2-24-16 Naka-cho, Koganei-shi, Tokyo 184-8588, Japan

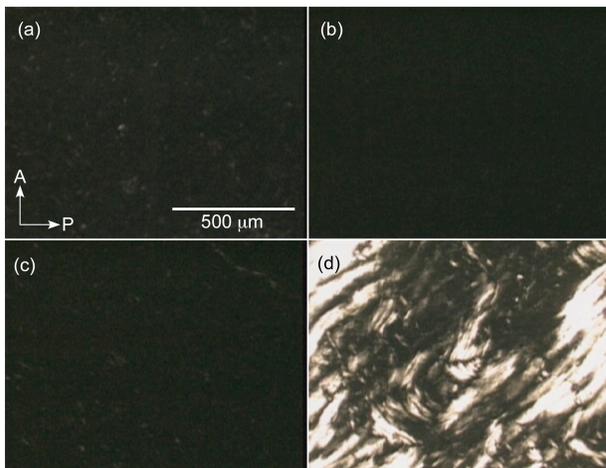
³ Frontier Research Center, Canon Inc., 3-30-2 Shimomaruko, Ohta-ku, Tokyo 146-8501, Japan

Figure S1



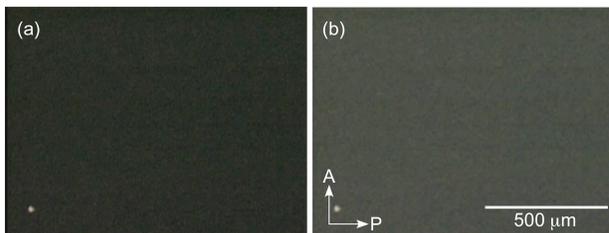
Experimental setup.

Figure S2



POM images the colloidal LCs of niobate nanosheets ($D = 2.3 \mu\text{m}$) with the concentration of (a) 2.5, (b) 5, (c) 10, and (d) 20 g L^{-1} in a 100- μm thick cell before the AC application. The directions of the polarizer and analyzer are indicated by the arrows P and A. Magnification and polarizer directions are the same for all of the images.

Figure S3



POM images of the isotropic colloid of the niobate nanosheets ($D = 0.65 \mu\text{m}$, 50 g L^{-1}) in the absence (a) and presence (b) of the $15 \times 10^2 \text{ V cm}^{-1}$ 50 kHz AC electric field. The directions of the polarizer and analyzer in the POM images are indicated by the arrows P and A. Magnification and polarizer directions are the same for both of the images.