

Abstract Submitted  
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**Langmuir Layers of Bent-Core Liquid Crystals** JI WANG, LU ZOU, Physics Department, Kent State University, ANTAL JÁKLI, Liquid Crystal Institute, Kent State University, WOLFGANG WEISSFLOG, Institute of Physical Chemistry, University Halle Wittenberg, ELIZABETH MANN, Physics Department, Kent State University — Bent-core liquid crystals are confined at the air/water interface. They form discretely layered structures even where when the material does not form smectic liquid crystals in bulk samples. Structure and phase transitions are characterized by X-ray diffraction, surface pressure, Brewster angle microscopy, x-ray, and surface potential measurements. Optical anisotropy allows us to determine the tilt angle with respect to the film normal and to domain features, as well as the refractive index anisotropy. This material is based upon work supported by the National Science Foundation under Grant No.9984304. The surface potential work was supported by the Petroleum Research Fund, under grant ACS PRF# 35293-G 7. Use of the Advanced Photon Source was supported by the U.S. Department of Energy, Basic Energy Sciences, Office of Science, under Contract No W-31-109-Eng-38.

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