

Abstract Submitted
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Combination of separate smectic-C-alpha phases in binary mixtures¹ ZENGQIANG LIU, BRADLEY MCCOY, University of Minnesota, SUNTAO WANG, RON PINDAK, Brookhaven National Laboratory, WOLFGANG CALIEBE, German Electron Synchrotron, PHILIPPE BAROIS, PAULO FERNANDEZ, H.T. NGUYEN, Centre de Recherche Paul Pascal, CNRS, Université Bordeaux France, C.S. HSU, National Chiao Tung University, Taiwan, C.C. HUANG, University of Minnesota — Applying resonant x-ray diffraction, we showed that the two previously considered separate smectic- C_α^* phases were combined into a single phase in a series of binary mixtures. The pitch evolved continuously and smoothly, contradicting a previously successful theoretical model. New phase sequences found in our studies can be explained by a newer model. The comparison indicates long-range interactions exist in the smectics.

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