

Abstract Submitted
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Rich Variety of Smectic Phases in an Achiral Bent-Core Liquid Crystal¹ RENFAN SHAO, CHEOL PARK, JOSEPH MACLENNAN, Department of Physics and Liquid Crystal Materials Research Center, University of Colorado, Boulder, CARLSON TSCHERSKE, Institute of Chemistry, Martin-Luther-University, Halle, Germany, NOEL CLARK, Department of Physics and Liquid Crystal Materials Research Center, University of Colorado, Boulder — The mesomorphic properties of an achiral bent-core liquid crystal (PAL30) have been recharacterized using polarizing optical microscopy, electro-optic response measurements and freely-suspended films. We find the phase sequence on cooling to be: I - SmA - SmCAPA' - SmCAPA - SmAPA - Crystal, and see no evidence of the orthogonal SmAPR and SmAP α phases reported previously [Y.P. Panarin et al., Phys. Rev. Lett. 107,247801,2011]. The tilted SmCAPA' and SmCAPA phases show novel 'tiger' pattern and stripe textures in the presence of applied electric field.

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