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The escape-configuration lattice near the nematic-isotropic transition: tilt analogue of blue phases YASHODHAN HATWALNE, Raman Research Institute, C. V. Raman Avenue, Sadashivanagar, Bangalore 560080, India., BUDDHAPRIYA CHAKRABARTI, Department of Physics, University of Massachusetts, Amherst, MA 01003., N.V. MADHUSUDHANA, Raman Research Institute, C. V. Raman Avenue, Sadashivanagar, Bangalore 560080, India. — We predict the possible existence of a new phase of liquid crystals near the nematic-isotropic (NI) transition. This phase is an achiral, tilt analogue of the blue phase and is composed of a lattice of double-tilt, escape- configuration cylinders. We discuss the structure and the stability of this phase and provide an estimate of the lattice parameter.

Buddhapriya Chakrabarti Department of Physics, University of Massachusetts, Amherst, MA 01003

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