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Lyotropic chromonic liquid crystals in the biphasic region XUXIA YAO, Georgia Institute of Technology, ALEJANDRO REY, McGill University, JUNG PARK, MOHAN SRINIVASARAO, Georgia Institute of Technology — Lyotropic chromonic liquid crystals have a wide coexistence temperature range where the isotropic and nematic phases are in equilibrium. Negative tactoids (isotropic droplets in the nematic medium) or positive tactoids (nematic droplets in the isotropic medium) form and grow as the nuclei of the new phases in the biphasic region. We studied the growth of tactoids as a function of temperature, the prolate shape of tactoids as well as their thermal fluctuation, based on which the viscoelastic properties of chromonic liquid crystals were obtained.

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