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MIXING-DEMIXING TRANSITIONS IN DISCOTIC LIQUID CRYSTAL MIXTURES

Results from isothermal-isobaric molecular dynamics simulations of binary liquid crystals mixtures of discogens, using the generalized version of Gay-Berne potential, were performed. A comparison of isotropic-nematic and nematic-columnar transitions is made between the mixture and the monocomponent systems, considering the effects of the aspect ratios of the discs and different pressures. Mixing-demixing transitions are calculated, and the P-T phase diagrams are depicted in equimolar and non-equimolar mixtures.