

## **Description of Additional Supplementary Files**

File Name: Supplementary Movie 1

Description: Visualization of the smectic nucleation and growth trajectory of the SCGB system. The tMC2, tCN, IScN, MC2, and CN molecules are shown in yellow, red, blue, white and violet, respectively. Molecules that belong to none of them are not depicted. Colour change of molecules means that the type of clusters the molecules belong to has been changed, and the disappearance means that the molecules no longer belong to any of the clusters.