## **Supplementary Materials**

## Glass-Forming Tendency of Molecular Liquids and the Strength of the Intermolecular Attractions

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## **Supplementary Figures**



**Supplementary Figure 1. Orientation of the dipole moment.** Optimized geometry of (a) PC and (b) 3-methyl-cyclopentanone. Blue arrows indicate orientation of dipole moment with respect to principal inertial axes.



**Supplementary Figure 2. Results of the calorimetric measurements**. DSC thermograms for (a) PC and (b) 3-Methylocyclopentanone recorded on heating with different rates. No glass transition event was detected in DSC of 3-methylcyclopentanone.



Supplementary Figure 3. Results of the calorimetric measurements. DSC thermograms recorded for 3-Methylcyclopentanone on cooling with different rates.

## 3-Methylcyclopentanone



Supplementary Figure 4. CCT curve for PC and 3-methylcyclopentanone (inset).



Supplementary Figure 5. CHT curve for PC and 3-methylcyclopentanone (inset).



Supplementary Figure 6. Temperature evolution of the thermodynamic driving force towards crystallization. Possible temperature behavior of  $\Delta\mu$  for LJ system with varying strength of the intermolecular attractive forces, predicted using Eq. 3.



Supplementary Figure 7. Temperature evolution of the specific surface energy. Possible temperature behavior of  $\gamma_{int}$  for LJ system with varying strength of the intermolecular attractive forces, predicted using Eq. 4.