

Supporting Information for

**Study on Crystallization Structure and Thermal Behavior of iPP
Induced by a New Liquid Crystal Nucleator**

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Additional Data

Dispersibility of the polymer LCPs-P in the iPP

Liquid crystal to isotropic phase transition temperature of the polymer LCPs-P was 320.7°C, and the melting temperature of the α -crystal disappeared completely at 170°C, so we chose the blend temperature of 185 °C to investigate the dispersion effect of the LCPs-P in the iPP.

POM result showed that the clear liquid crystal properties or texture of the iPP blend sample with the LCPs-P content below 1.0% could not be observed at 185 °C. When the content of the LCPs-P was more than 1.5%, the liquid crystal properties could be observed at 185 °C. Figure S1 shows the iPP blend sample with 2.0% LCPs-P content. When heated to 185 °C, the iPP melted completely, but liquid crystal texture still existed, so the distribution of liquid crystal showed that the LCPs-P was more evenly dispersed in the iPP.



Figure S1. The iPP blend sample with 2.0% LCPs-P content