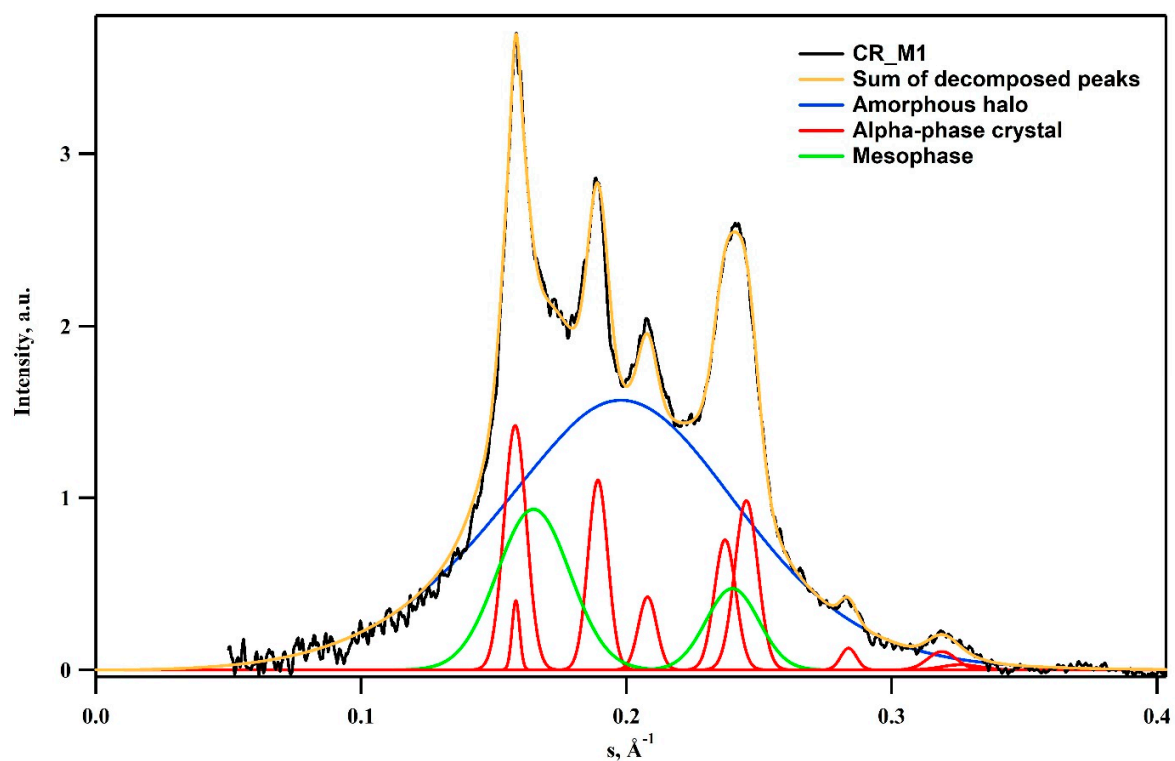
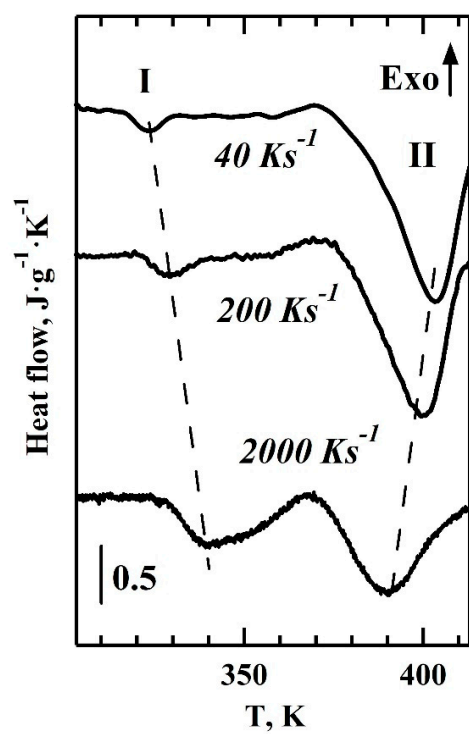


**Figure S1.** 2D WAXS of iPP fibre. (a) Highly oriented mesophase; (b) Close view of the small angle region with SAXS signal.



**Figure S2.** Example of decomposition of the 1D WAXS curve for CR\_M1 state showing the mesomorphic (green), crystalline (red) and amorphous (blue) components, the summed intensity of all the components (yellow) as well as the experimental data (black).



**Figure S3.** Heating endotherms of iPP mesophase at different rates ( $T_{\text{max}}=413 \text{ K}$ ). All the endotherms are normalized by the sample mass and the heating rates.