Electronic supplementary information

Orientation direction dependency of cavitation in pre-oriented isotactic polypropylene at large strains

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Fig. S1. Schematic diagram for measuring the width of tensile bar during stretching.

\[ b_0 = 106.66 \text{ mm} \]
\[ b = 137.29 \text{ mm} \]

\( \varepsilon \) increased

Fig. S2. Fitting curves of sum, of new-born crystallites (peak1), and of original crystallites (peak2) in the iPP580K after die-drawn at 140°C using Lorentz-corrected SAXS curve. The fraction of original crystallites is calculated using the equation of \( A_1/(A_1+A_2) \) (A1 and A2 represent the scattering peak area of peak1 and peak2, respectively.).
According to the fitting results, the scattering area of A1 and A2 are 102539.1639 and 4735.4088 a.u., meaning the fraction of new-born crystallites and un-melted original crystallites are 70.6% and 29.4% in the iPP580K system after die-drawn at 140 °C.