Supporting Information

Structure and Properties of a Metallocene Polypropylene Resin with Low Melting Temperature for Melt Spinning Fiber Application

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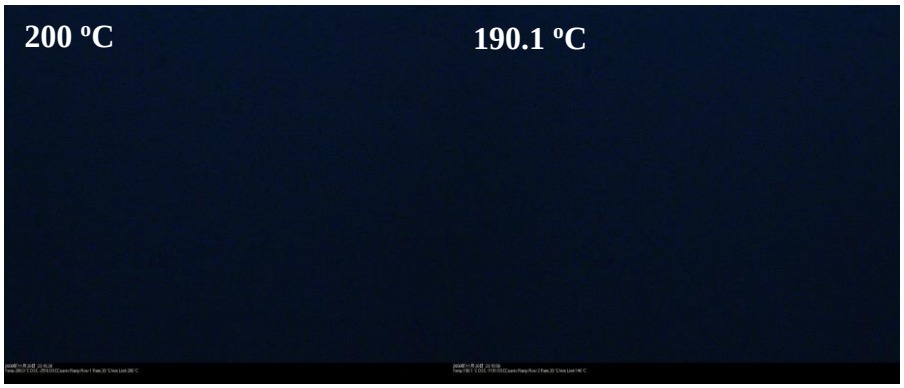
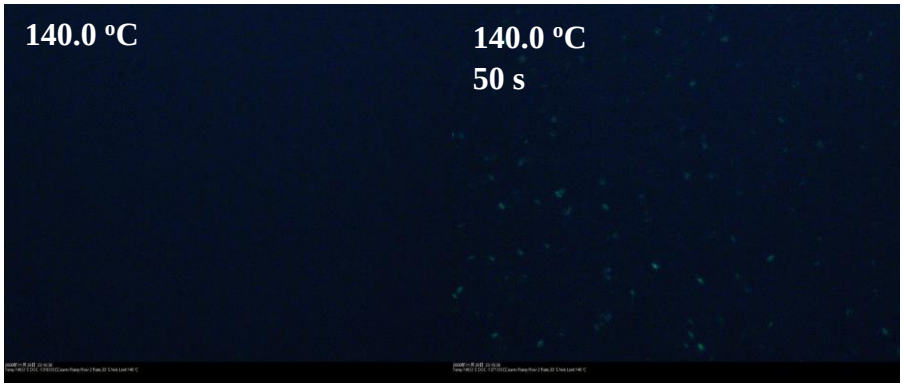
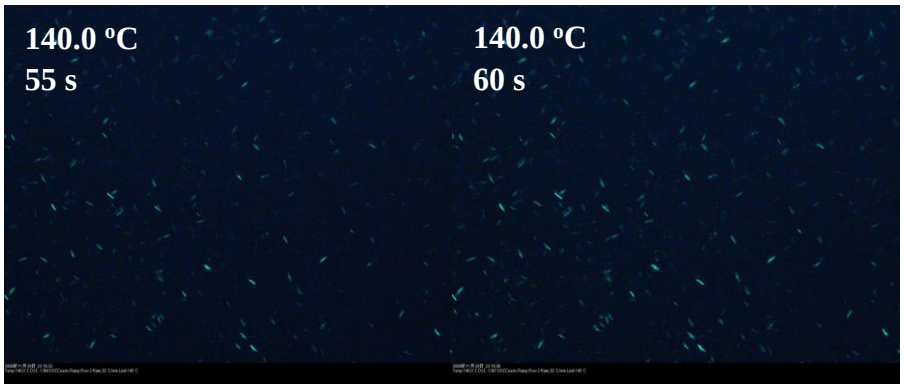

200 ºC
190.1 ºC

180.2 ºC
170.1 ºC

160.2 ºC
150.2 ºC


140.0 ºC
140.0 ºC
50 s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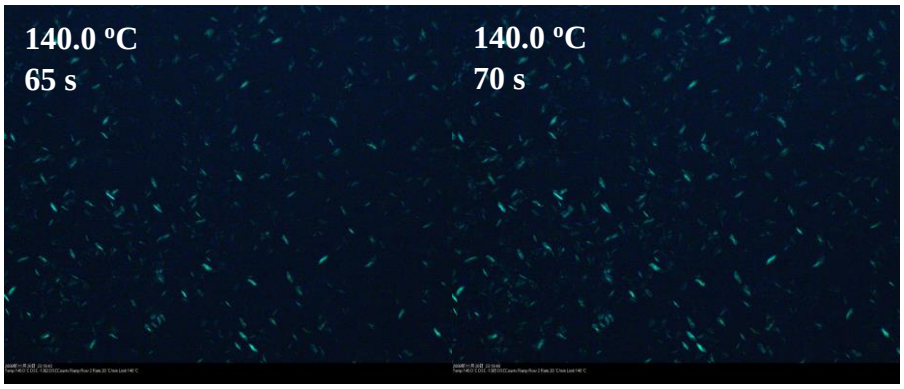
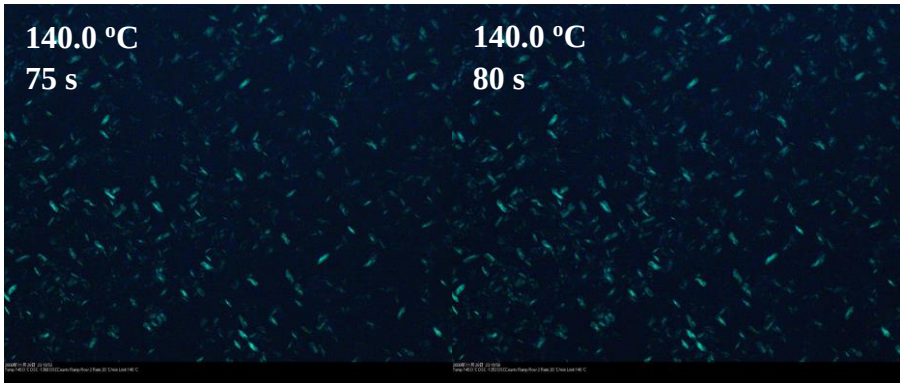
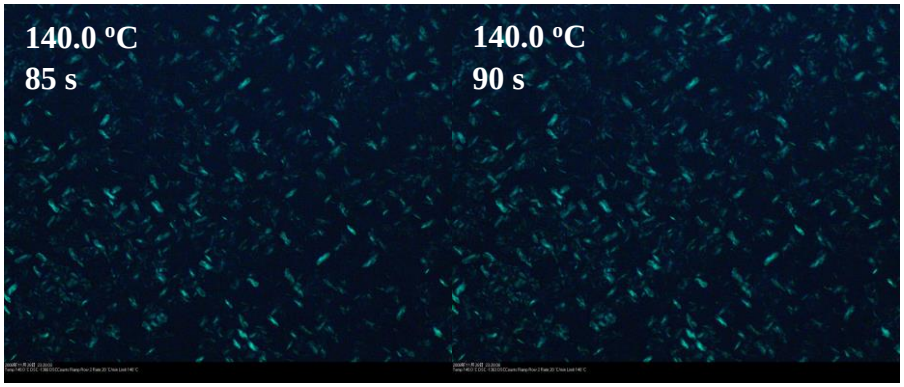
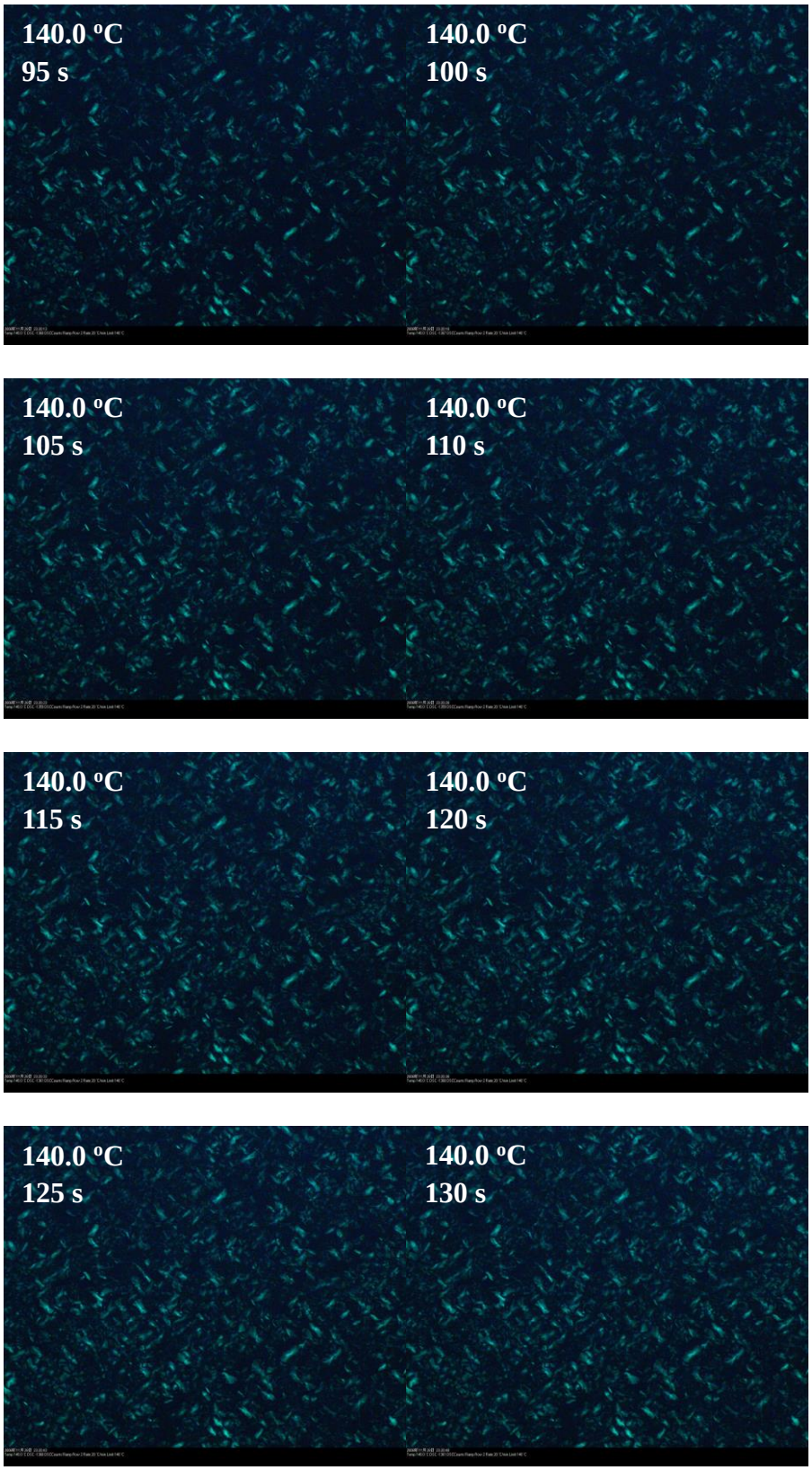
55 s
140.0 ºC
60 s


140.0 ºC
65 s
140.0 ºC
70 s


140.0 ºC
75 s
140.0 ºC
80 s

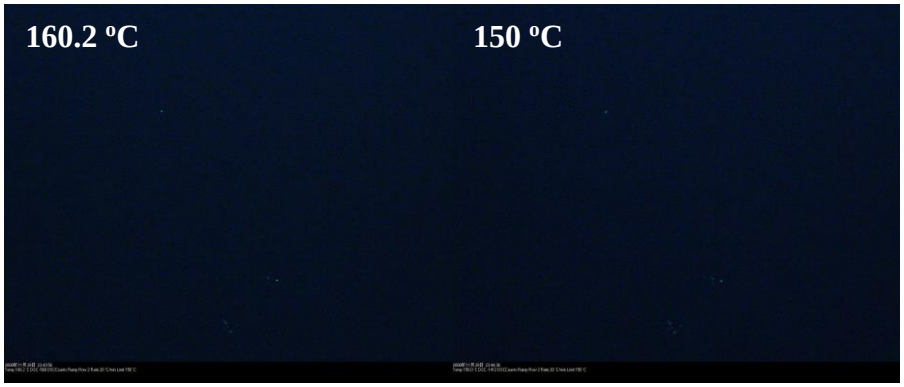

140.0 ºC
85 s
140.0 ºC
90 s

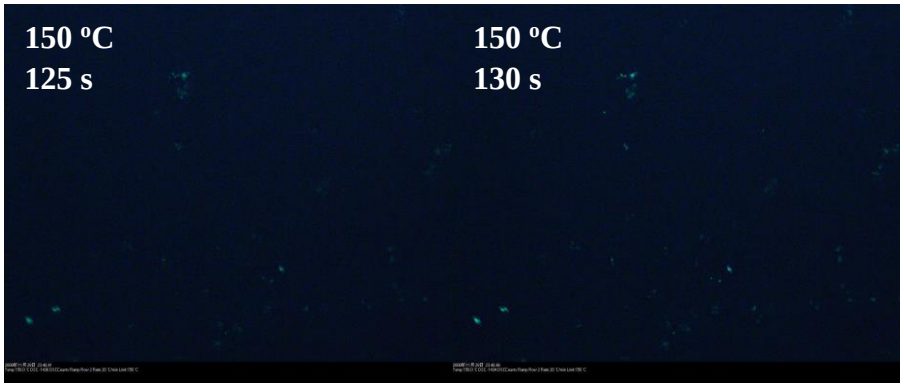

140.0 ºC
95 s
140.0 ºC
100 s
140.0 ºC
105 s
140.0 ºC
110 s
140.0 ºC
115 s
140.0 ºC
120 s
140.0 ºC
125 s
140.0 ºC
130 s

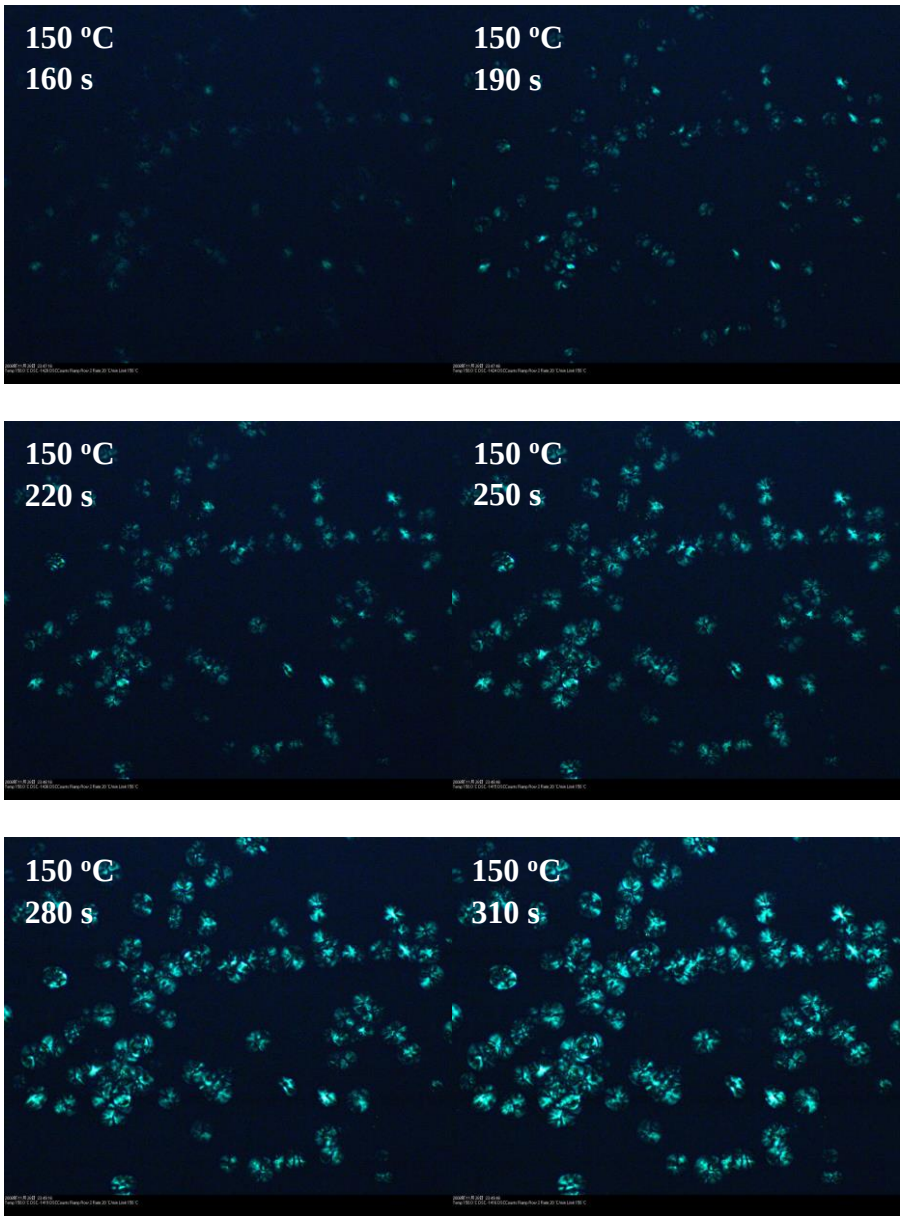
iPP-1

200 ºC
190.2 ºC

180.2 ºC
170.2 ºC


160.2 ºC
150 ºC

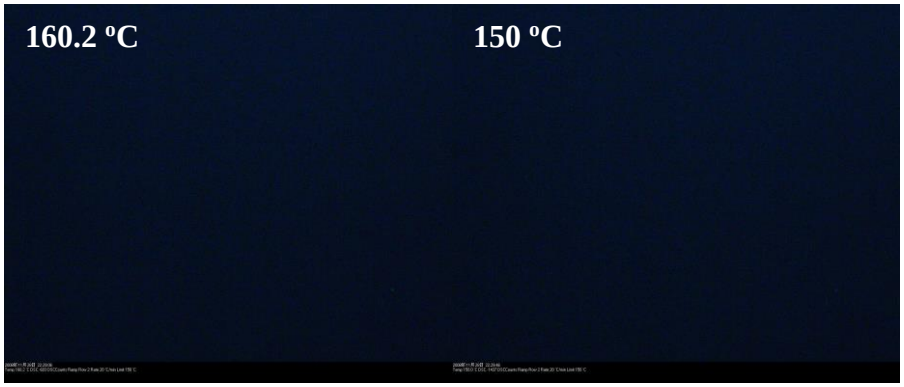

150 ºC
125 s
150 ºC
130 s

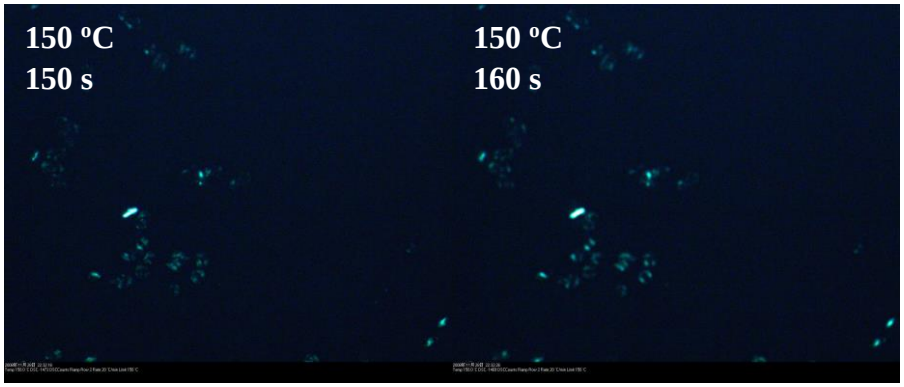

150 ºC
160 s
150 ºC
190 s
150 ºC
220 s
150 ºC
250 s
150 ºC
280 s
150 ºC
310 s

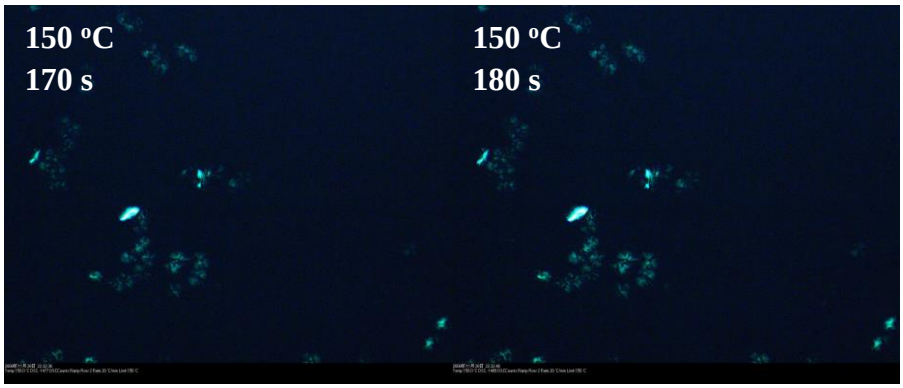
iPP-2

200 ºC
190.1 ºC

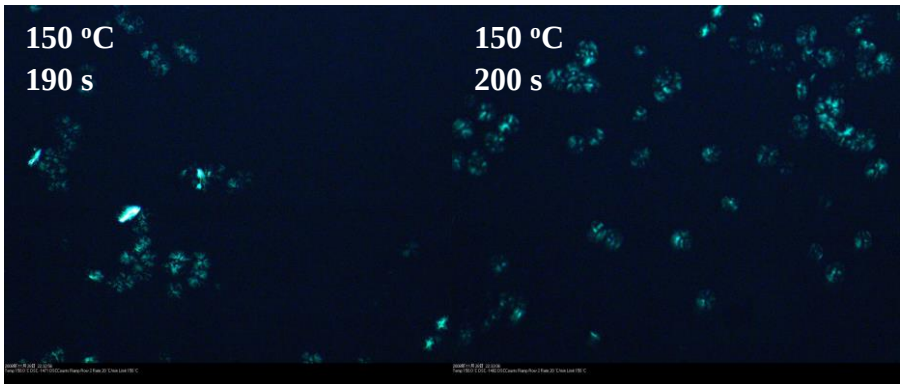
180.2 ºC
170.1 ºC


160.2 ºC
150 ºC

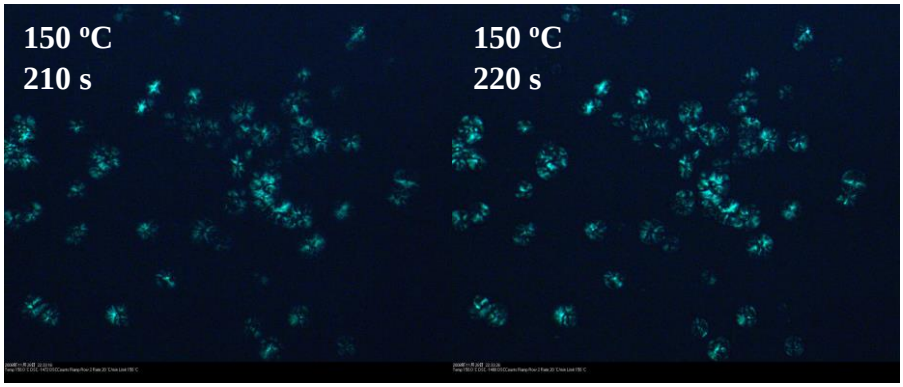

150 ºC
150 s
150 ºC
160 s


150 ºC
170 s

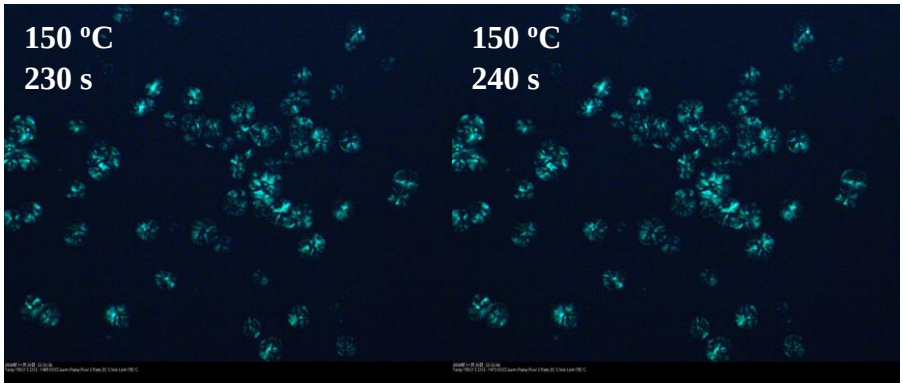
150 ºC
180 s


150 ºC
190 s

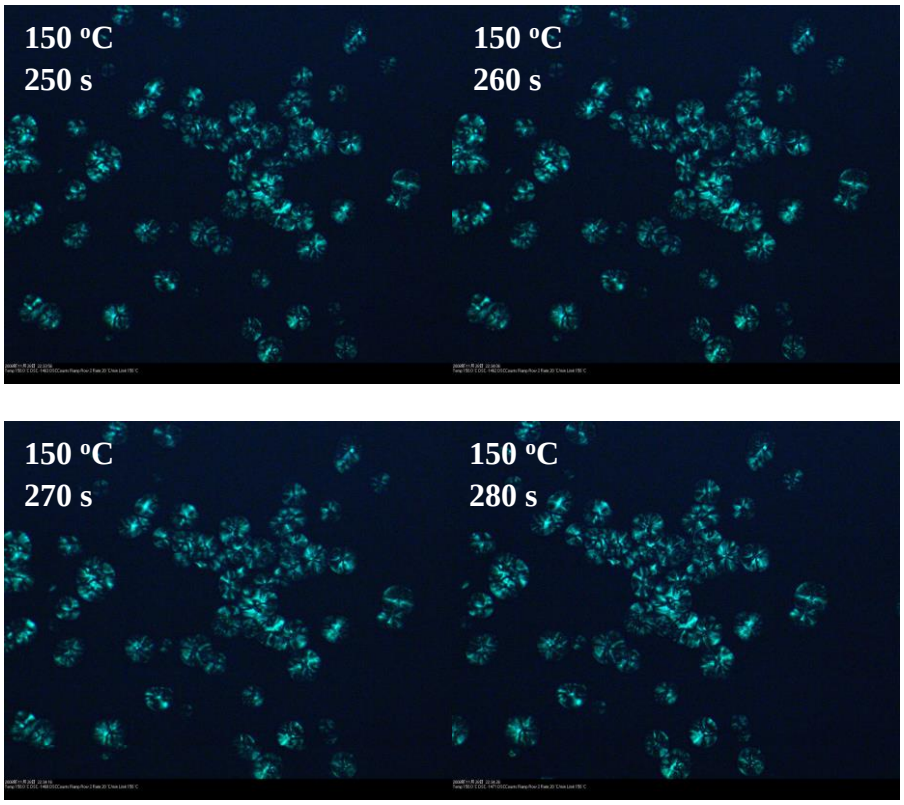
150 ºC
200 s


150 ºC
210 s

150 ºC
220 s


150 ºC
230 s

150 ºC
240 s



iPP-3

Figure S1. Morphologies of the iPP samples under a polarizing microscope.

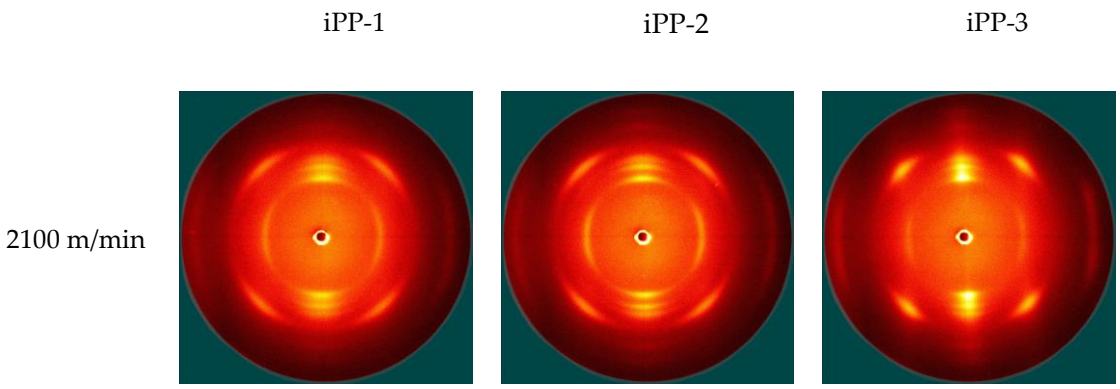


Figure S2. 2D WAXD patterns of as-spun iPP fibers.

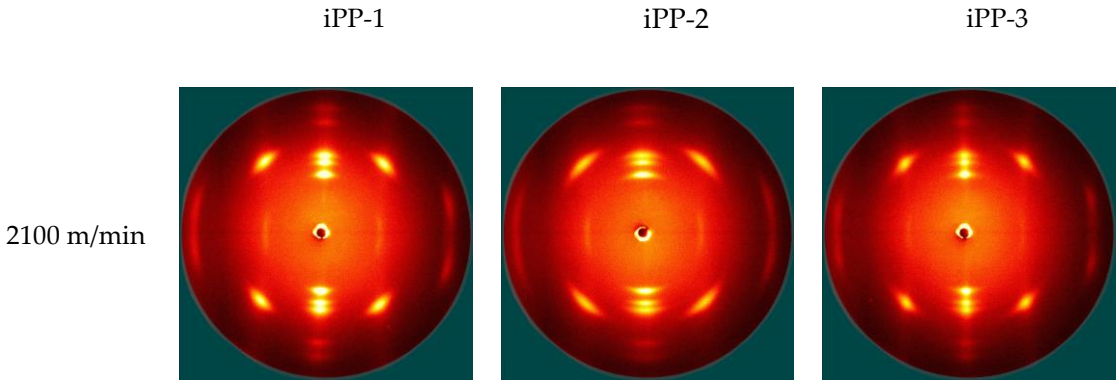


Figure S3. 2D WAXD patterns of drawn iPP fibers (draw ratio: 1.6).

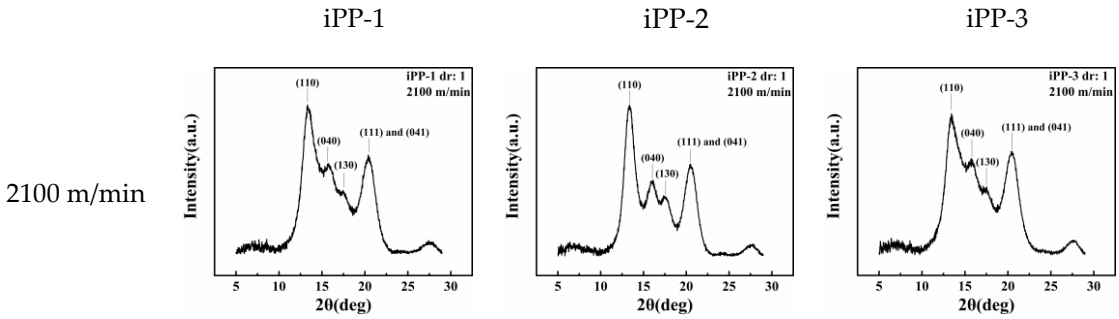


Figure S4. 1D WAXD curves of as-spun iPP fibers.

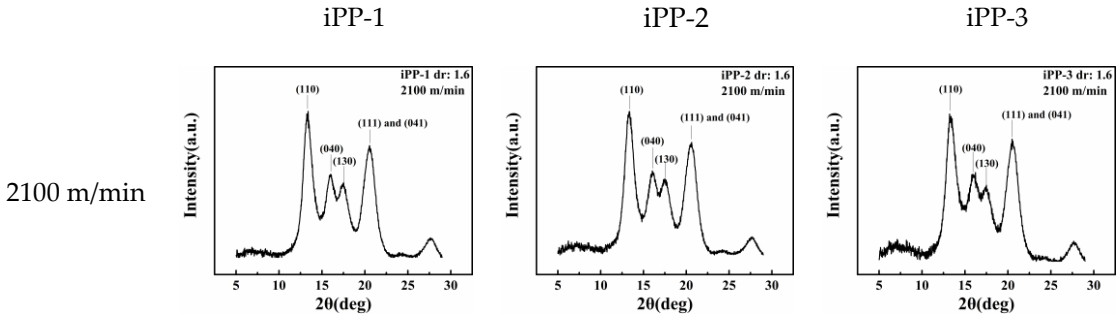


Figure S5. 1D WAXD curves of drawn iPP fibers (draw ratio: 1.6).