Supporting information

Direct high temperature form I crystallization of isotactic poly(1-

butene) assisted by oriented isotactic polypropylene

Zhixin Guo,¹ Rui Xin,² Jian Hu,² Yunpeng Li,¹ Xiaoli Sun^{1*} and Shouke Yan^{1, 2*}

- 1. State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology Beijing, 100029, China
- 2. Key Laboratory of Rubber-Plastics, Qingdao University of Science & Technology, Qingdao 266042, China

a b

Figure S1. BF electron micrograph (a) and electron diffraction pattern (b) of melt-drawn iPP thin films. The white arrows indicate the drawing direction during film stretching, i.e., the iPP molecular chain direction.



Figure S2: BF electron micrograph (a) and electron diffraction pattern (b) of melt-drawn iPBu thin films. The white arrows indicate the drawing direction during film stretching, i.e., the iPBu molecular chain direction.

*Email: skyan@mail.buct.edu.cn; xiaolisun@mail.buct.edu.cn



Figure S3: DSC melting curves of iPBu/iPP melt-drawn thin films after melting at 155 °C for 15 min and then cooled down directly to room temperature (left) or crystallized isothermally at 90 °C for 5 h.



Figure S4: IR spectra of (a) the iPP melt-drawn thin films and (b) the iPBu/iPP blend films after melt recrystallization of iPBu at 90 °C for 5 h.