Effect of Annealing Process and Molecular Weight on the Polymorphic Transformation from Form II to Form I of Poly(1-Butene)

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Table S1. The crystal Form I contents of five samples at different stepwise annealing condition.

Sample	$M_w(10^3$ g/mol)	$X_{I, T=-10℃}$(%)	$X_{I, Tl=-10℃, Th=40℃}$ (%)	$X_{I, Th=40℃}$ (%)
F1	23	1.02	6.03	0.78
F2	109	5.28	36.34	1.48
F3	201	15.23	59.62	4.12
F4	360	19.14	64.61	4.67
F5	710	18.66	46.15	3.88

Table S2. The crystal Form I contents of five samples at different low annealing temperatures (T_l).

Temperature	X_I (%)				
(°C)	23k	109k	201k	360k	710k
$T_l= -50$	1.51	1.75	23.17	52.25	20.06
$T_l= -20$	4.67	5.46	38.88	57.42	37.97
$T_l= -10$	6.03	36.34	59.62	64.61	46.15
$T_l=0$	4.11	12.15	33.87	56.27	40.55
$T_l=10$	2.41	12.03	20.61	47.86	27.24
$T_l=40$	0.78	1.48	4.12	4.67	3.88

Table S3. The crystal Form I contents of five samples at different high annealing temperatures (T_h)

Temperature (°C)	X_I (%)				
	23k	109k	201k	360k	710k
T_h=10	1.77	15.17	45.18	53.00	38.31
T_h=20	2.43	36.03	59.06	63.44	45.97
T_h=30	4.43	18.62	46.85	48. 57	44.17
T_h=40	6.03	36.34	59.62	64.61	46.15
T_h=50	4.81	35.02	54.52	61.26	40.14
T_h=60	3.69	18.54	32.10	52.18	26.51

Table S4. The crystal Form I contents of five samples at different low annealing time (t_l)

Time(min)	X_I (%)				
	23k	109k	201k	360k	710k
t_l= 0	5.50	17.75	37.70	40.32	15.08
t_l= 10	5.81	18.73	52.71	56.82	30.54
t_l= 30	6.05	26.68	57.32	60.85	40.69
t_l= 60	6.60	36.53	60.98	64.06	46.79
t_l= 100	7.19	37.07	63.41	65.49	51.16
t_l= 150	8.19	39.70	63.96	66.79	54.16

Table S5. The crystal Form I contents of five samples at different high annealing time (t_h)

Time(min)	X_I (%)				
	23k	109k	201k	360k	710k
t_h= 0	0.21	2.35	7.62	9.44	4.04
t_h= 40	1.45	11.08	34.25	37.66	19.71
t_h= 100	2.41	20.84	49.77	53.30	32.96
t_h= 160	4.24	29.51	57.17	59.97	41.21
t_h= 220	6.07	36.34	61.21	64.33	46.15
t_h= 300	12.43	44.45	64.19	67.40	49.93