Supplementary Material

Non-isothermal crosslinking of ethylene vinyl acetate initiated by crosslinking agents: A kinetic modelling

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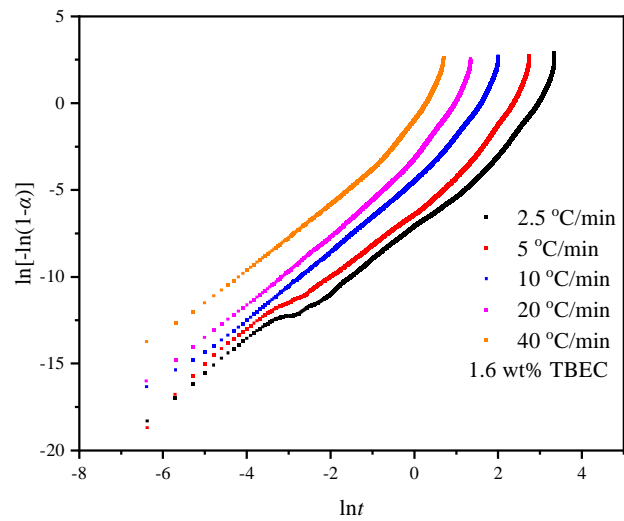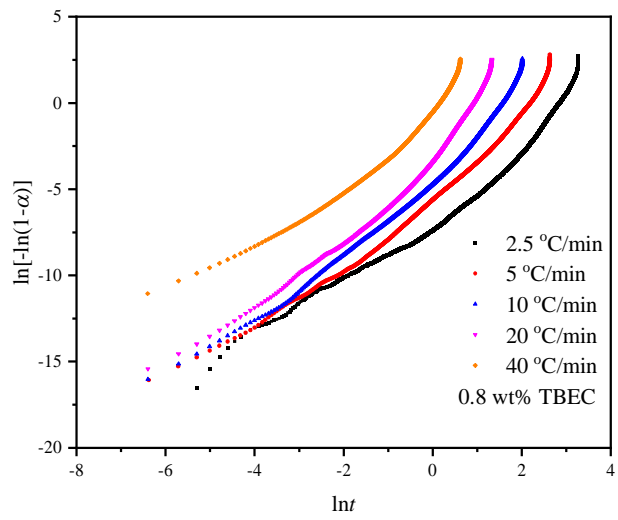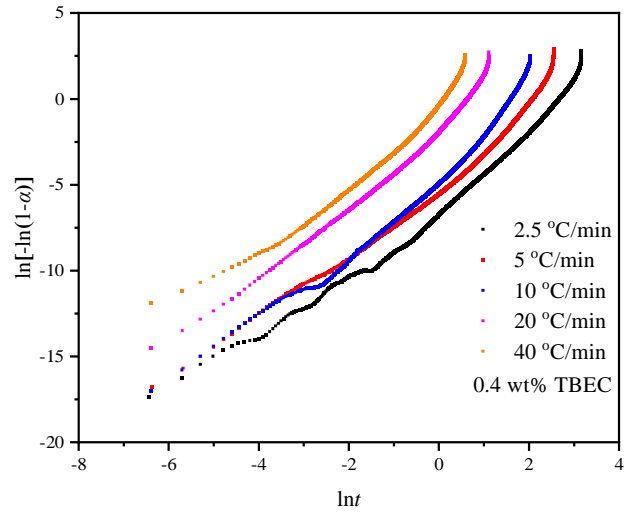*Email: sunli@ecust.edu.cn; liuzhen@ecust.edu.cn*

Fig. S1. Avrami plots for EVA samples with different TBEC contents at different heating rates.

Table S1. Avrami kinetic parameters calculated from the double log plot.

TBEC content	ϕ (°C/min)	n	Z_c	$t_{1/2}$ (min)	r
	2.5	2.56	0.03	3.24	0.9911
	5	2.59	0.34	1.31	0.9846
0.4 wt%	10	2.83	0.64	1.03	0.9835
	20	2.56	0.93	0.89	0.9887
	40	2.53	1.00	0.87	0.9828
	2.5	2.65	0.05	2.74	0.9769
	5	2.60	0.32	1.34	0.9860
0.8 wt%	10	2.75	0.65	1.02	0.9839
	20	2.92	0.87	0.93	0.9798
	40	2.41	0.99	0.86	0.9752
	2.5	2.59	0.02	3.79	0.9789
	5	2.70	0.28	1.40	0.9765
1.6 wt%	10	2.66	0.66	1.02	0.9828
	20	2.75	0.88	0.92	0.9830
	40	2.62	0.98	0.87	0.9801

Table S2. Activation energies for each extent of conversion (α) of the crosslinking reaction calculated by FWO method.

TBEC content	α	E_a	r
	0.1	117.31	0.9974
	0.2	117.75	0.9995
	0.3	117.57	0.9999
	0.4	117.71	0.9999
0.4 wt%	0.5	118.21	0.9999
	0.6	119.34	0.9998
	0.7	120.86	0.9997
	0.8	122.65	0.9993
	0.9	124.89	0.9988
	0.1	121.32	0.9951
	0.2	121.53	0.9970
	0.3	120.14	0.9978
	0.4	119.12	0.9980
0.8 wt%	0.5	118.90	0.9980
	0.6	119.82	0.9979
	0.7	121.42	0.9979
	0.8	123.30	0.9982
	0.9	124.98	0.9986
	0.1	123.91	0.9989
	0.2	123.71	0.9993
	0.3	123.74	0.9995
	0.4	125.77	0.9996
1.6 wt%	0.5	128.18	0.9997
	0.6	129.91	0.9997
	0.7	131.20	0.9997
	0.8	132.39	0.9995
	0.9	133.49	0.9992