Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

ELECTRONIC SUPPORTING INFORMATION

Stereodynamic insight of the thermal history effect on poly(vinyl chloride) calorimetric sub-glass and glass transitions as fragile glass model

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I. Sets of normalized C_p curves and fitting details from glass transition measurements

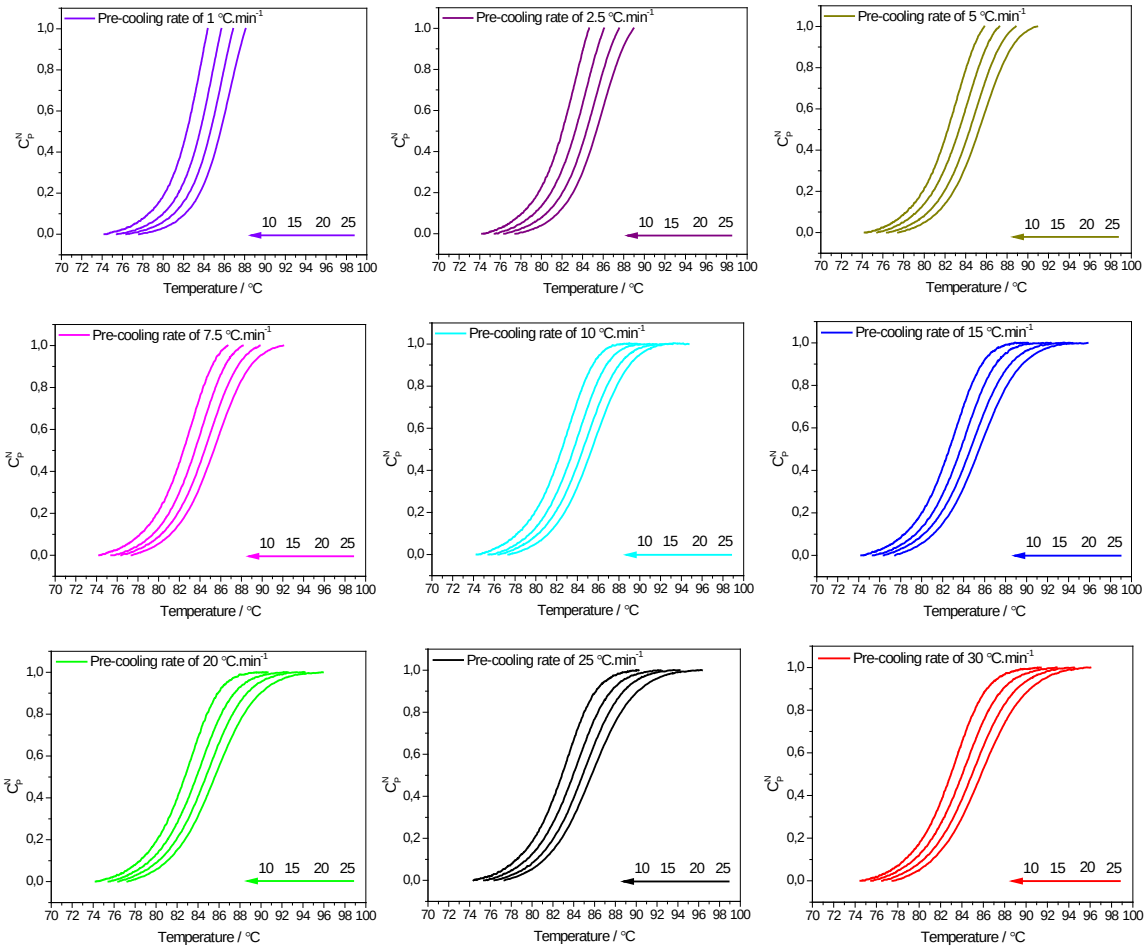
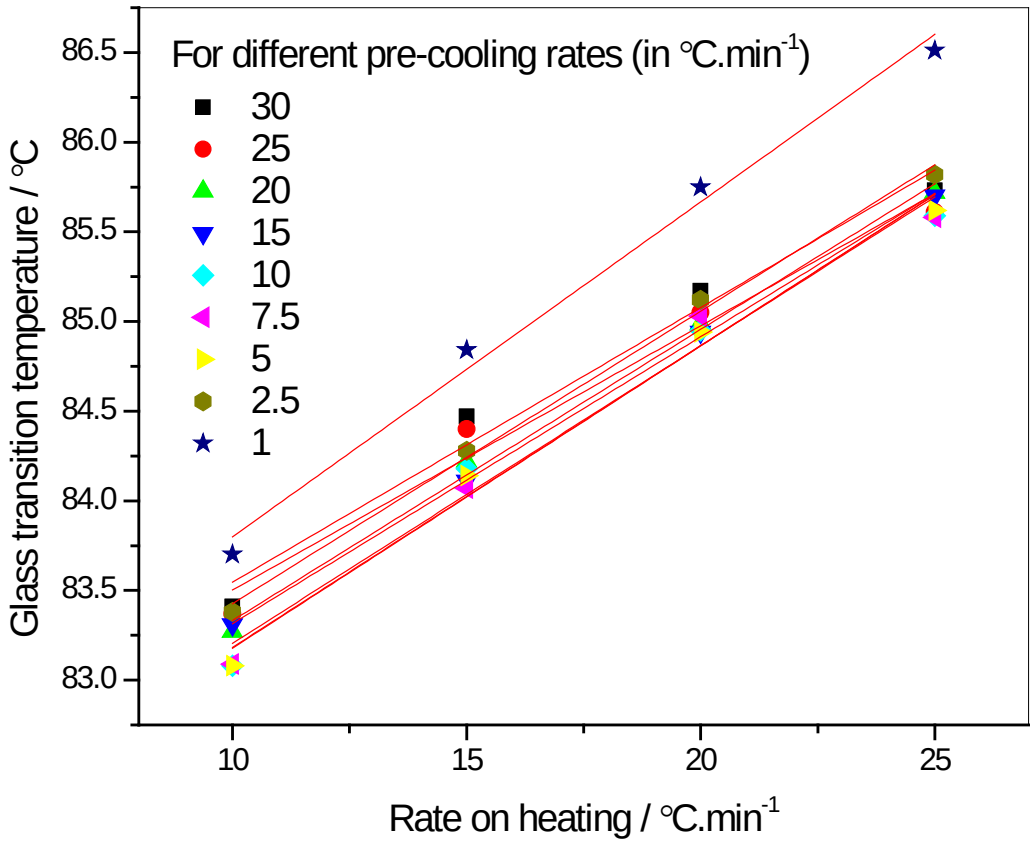


Figure S1. Normalized C_p curves assimilated to a conversion α, each graphic contain a set of four curves collected at the heating rates of 10, 15, 20, 25 ^{o}C.min^{-1} for a specific thermal history.



Equation	y = a + b*x								
Pre-cooling rate	1	2.5	5	7.5	10	15	20	25	30
Residual Sum of Squares	0.06492	0.05943	0.01308	9E-4	0.0549	0.05383	0.03708	0.01032	0.03642
Pearson's r	0.98912	0.98924	0.99802	0.99986	0.99212	0.99251	0.99481	0.99845	0.99585
Adj. R-Square	0.96753	0.96788	0.99407	0.99958	0.97647	0.97761	0.98447	0.99536	0.98758

Pre-cooling rate		Value	Std Error
1	Intercept	82.014	0.29604
	Slope	0.1532	0.01611
2.5	Intercept	82.028	0.28325
	Slope	0.1474	0.01542
5	Intercept	81.708	0.13288
	Slope	0.1624	0.00723
7.5	Intercept	81.715	0.03486
	Slope	0.16	0.0019
10	Intercept	81.545	0.27224
	Slope	0.166	0.01482
15	Intercept	81.492	0.26957
	Slope	0.1686	0.01467
20	Intercept	81.498	0.22374
	Slope	0.1684	0.01218
25	Intercept	81.794	0.11803
	Slope	0.1632	0.00642
30	Intercept	81.931	0.22174
	Slope	0.1868	0.01207

Figure S2. Fits of the glass transition temperatures for different pre-cooling rates.

II. Fitting details of the apparent activation energy surface

Polynomial fitted equation with related details can be found below:

z=z0+a*x+b*y+c*x^2+d*y^2+f*x*y;

		Value	Standard Error
1	z0	388.37694	2.92927
1	a	-9.47999	0.864
1	b	33.35855	8.09341
1	c	-0.77648	0.07748
1	d	-336.47117	6.88413
1	f	26.10906	0.64696

Number of Points	846
Degrees of Freedom	840
Reduced Chi-Sqr	173.80489
Residual Sum of Squares	145996.11025
Adj. R-Square	0.95362