1 Supporting Information of:

2 A rapid scan vacuum FTIR method for determining diffusion coefficients

3 in viscous and glassy aerosol particles

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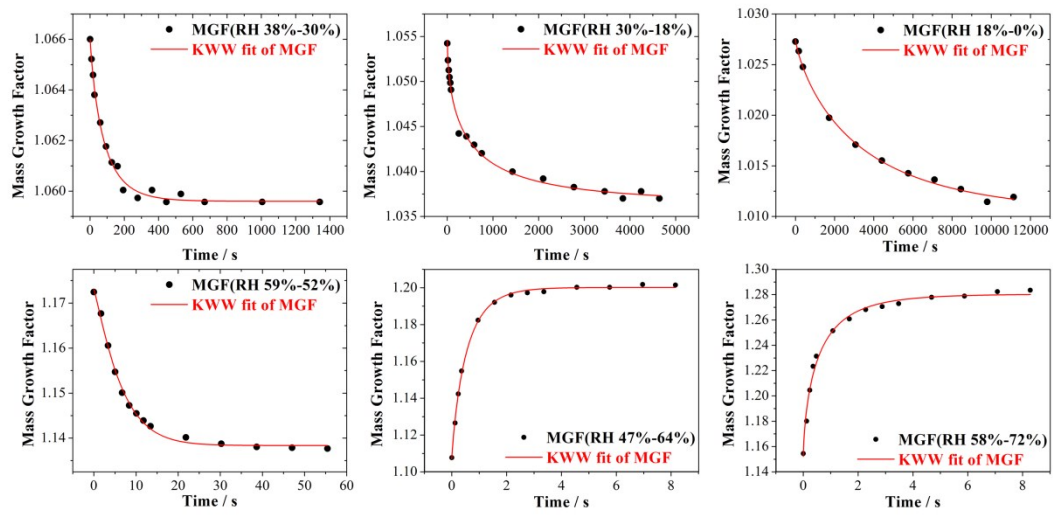9 *Peking University, Beijing 100871, People's Republic of China*

10　**Table S1.** Comparison between KWW function fitted parameters of RH steps with or without
11　limitation of β=1.

RH / %	τ / s	β	τ / s	β
Experiment 1	No limitation		$\beta = 1$	
61-56	12	0.97	13	1
56-50	20	0.83	22	1
44-38	198	0.56	178	1
39-32	131	1	130	1
32-26	341	0.76	380	1
26-20	939	0.71	934	1
20-13	2811	0.63	3166	1
13-0	4790	0.72	5028	1
0-22	743	0.65	700	1
22-45	39	3.42	35	1
48-0	868	0.58	936	1
Experiment 2	No limitation		$\beta = 1$	
59-52	7	1.1	7	1
38-30	80	0.84	80	1
30-18	472	0.51	498	1
18-0	3448	0.79	3734	1
Experiment 3	No limitation		$\beta = 1$	
58-72	0.6	0.68	1	1
48-64	0.55	0.84	1	1

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13 **Figure S1.** Sucrose mass growth factor curves and correspond KWW fitting in experiment 1.

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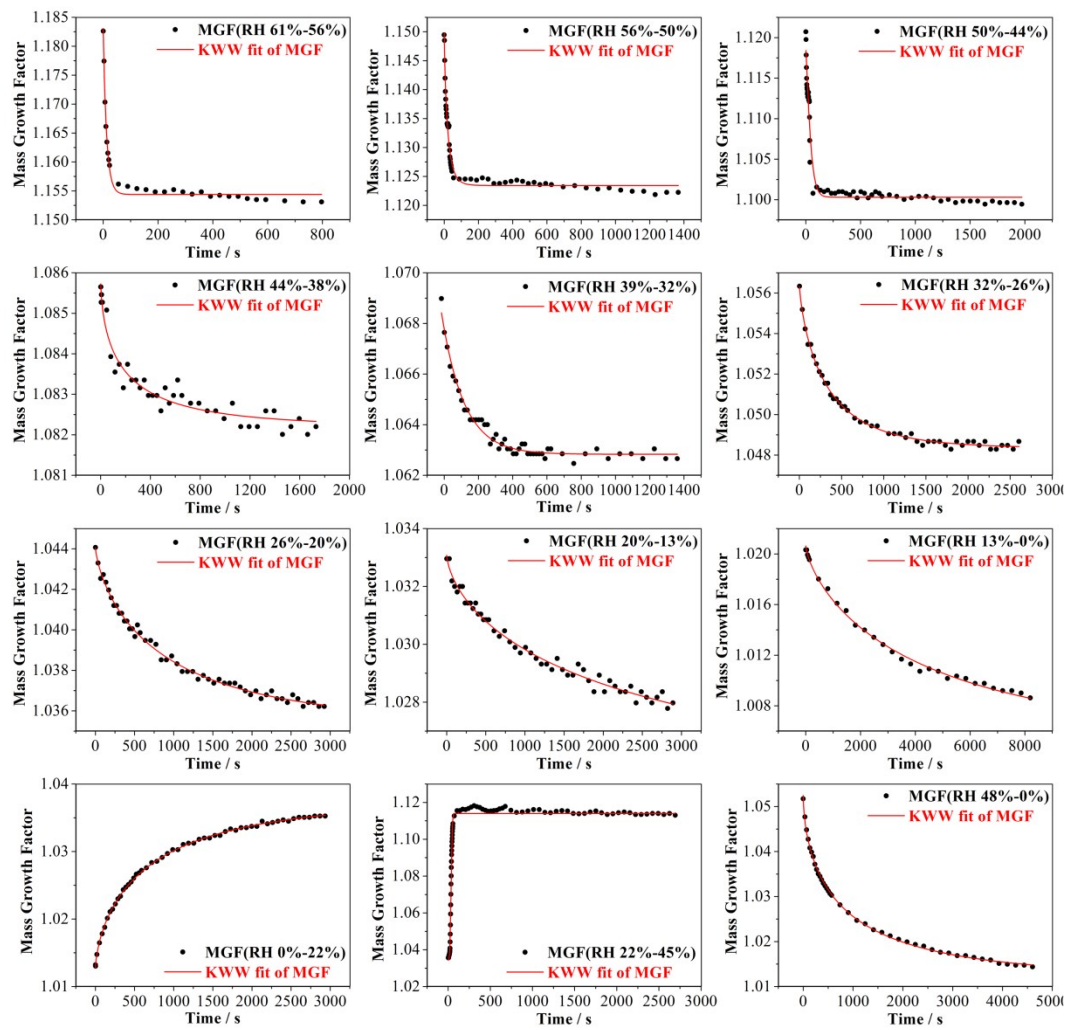
15 **Figure S2.** Sucrose mass growth factor curves and correspond KWW fitting in experiment 2 &
16 experiment 3.

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