Supporting Information for

Kinetic Study of Alkoxysilane Hydrolysis under Acidic Conditions by Fourier Transform Near Infrared Spectroscopy Combined with Partial Least Squares Model

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Composition of the Forty-six Standard Samples

Forty-six standard solution samples were applied to establish the PLS2-B models. The forty-six standard solution samples were prepared by mixing distilled H_2O, dried EtOH and MTES. The concentration ranges of H_2O, EtOH and MTES in the forty-six standard samples were 0.85-6.97 $mol \cdot L^{-1}$, 9.34-14.44 $mol \cdot L^{-1}$ and 1.22-1.79 $mol \cdot L^{-1}$, respectively. The concentrations of these three ingredients were nonlinear with all the correlation factors smaller than 0.7. The detailed compositions of the forty-six standard samples were shown in Table S1.

Table S1 Composition of the Forty-six Standard Samples

Sample No.	H_2O (mL)	EtOH (mL)	MTES (mL)
1	0.073	0.379	0.202
2	0.066	0.415	0.173
3	0.015	0.412	0.227
4	0.037	0.450	0.167
5	0.038	0.455	0.161
6	0.032	0.389	0.233
7	0.080	0.351	0.223
8	0.012	0.451	0.191
9	0.530	0.392	0.209
10	0.016	0.427	0.211
11	0.040	0.405	0.209
12	0.053	0.386	0.215
13	0.018	0.437	0.199
14	0.076	0.415	0.163
15	0.078	0.352	0.224
16	0.022	0.469	0.163
17	0.035	0.385	0.234
18	0.049	0.433	0.172
19	0.068	0.418	0.168
20	0.066	0.398	0.190
21	0.069	0.372	0.213

22	0.014	0.411	0.229
23	0.045	0.549	0.060
24	0.015	0.501	0.138
25	0.053	0.475	0.126
26	0.021	0.525	0.108
27	0.070	0.483	0.101
28	0.080	0.512	0.062
29	0.061	0.521	0.072
30	0.011	0.484	0.159
31	0.046	0.544	0.064
32	0.035	0.469	0.150
33	0.081	0.515	0.058
34	0.055	0.500	0.099
35	0.014	0.497	0.143
36	0.027	0.474	0.153
37	0.024	0.486	0.144
38	0.053	0.546	0.055
39	0.080	0.483	0.091
40	0.015	0.548	0.091
41	0.075	0.494	0.085
42	0.048	0.479	0.127
43	0.074	0.290	0.290
44	0.020	0.305	0.329
45	0.079	0.320	0.255
46	0.025	0.335	0.294