

**Interfacial water structure at polymer gel/quartz interfaces investigated by sum frequency
generation spectroscopy**

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Supplementary information

The parameters for the fits of the SFG spectra were listed in the following tables.

Supplementary Table S1. Parameters for the SFG spectral fits (Figure 2)

	A_1	ω_1	Γ_1	A_2	ω_2	Γ_2
(a)	154.1	3200	150.8	138.2	3420	150.9
(b)	108.5	3200	150.1	106.7	3420	150.2
(c)	73.58	3200	150.2	107.1	3420	155.1
(d)	69.79	3200	150.2	113.4	3420	155.1
(e)	62.56	3200	151.0	113.4	3420	155.0
(f)	51.58	3200	155.4	122.6	3420	155.1

Supplementary Table S2. Parameters for the SFG spectral fits (Figure 4)

	A_1	ω_1	Γ_1
(a)	-	-	-
(b)	27.54	3420	150.0
(c)	33.51	3420	150.1
(d)	35.78	3420	150.2
(e)	40.69	3420	150.1

Supplementary Table S3. Parameters for the SFG spectral fits (Figure 5)

	A_1	ω_1	Γ_1	A_2	ω_2	Γ_2	A_3	ω_3	Γ_3
(a), (b)	128.9	3200	150.9	43.59	3420	150.3	14.81	3650	55.18
(c)	144.5	3200	150.0	32.19	3420	150.7	-	-	-
(d)	136.5	3200	150.8	28.58	3420	150.8	-	-	-
(e)	124.9	3200	150.8	25.11	3420	150.9	-	-	-
(f)	120.7	3200	154.9	15.66	3420	150.2	-	-	-

Supplementary Table S4. Parameters for the SFG spectral fits (Figure 6)

	A_1	ω_1	Γ_1	A_2	ω_2	Γ_2	A_3	ω_3	Γ_3
(a)	300	3200	157.9	114.0	3420	158.1	-	-	-
(b)	150.5	3200	157	75.79	3420	157	6.37	3650	15

Supplementary Table S5. Parameters for the SFG spectral fits (Figure 7)

	A_1	ω_1	Γ_1	A_2	ω_2	Γ_2
(a)	380	3200	150	107.8	3420	150.0
(b)	167.0	3200	150.1	100.9	3420	150.0