Supporting Information

To

Effect of peptide C-terminal amino acid on the structure and mechanical properties alginate-peptide hydrogels across length-scales

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Rheology of alginate/peptide hydrogels:

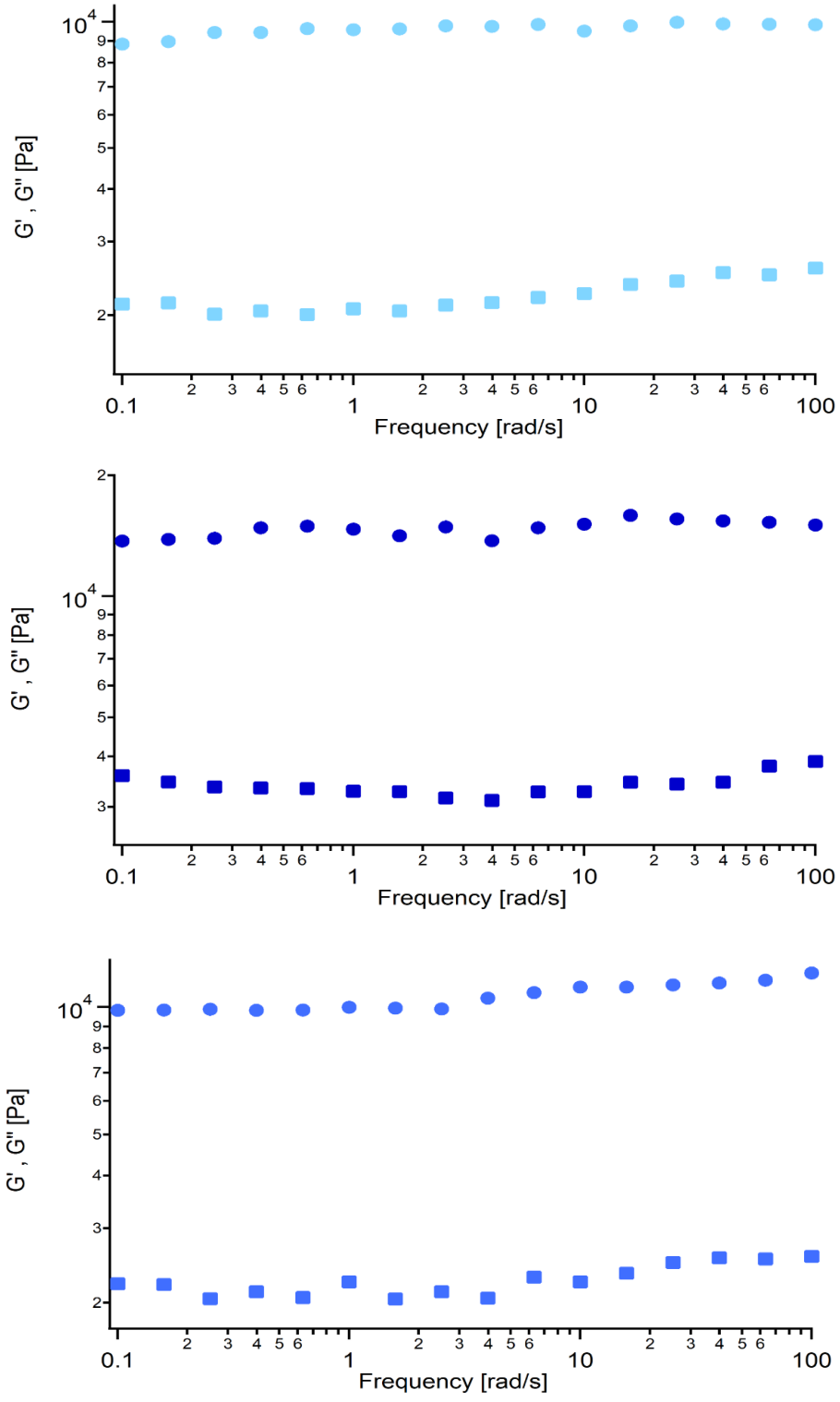

Figure 1. Frequency sweep experiments curves of alginate gels in water. A. alginate-A_6KRGDS (■). B. alginate-V_6KRGDS (◆). C. alginate-G_6KRGDS (▲). G' (●), G'' (■).

SAXS of alginate-peptide hydrogels

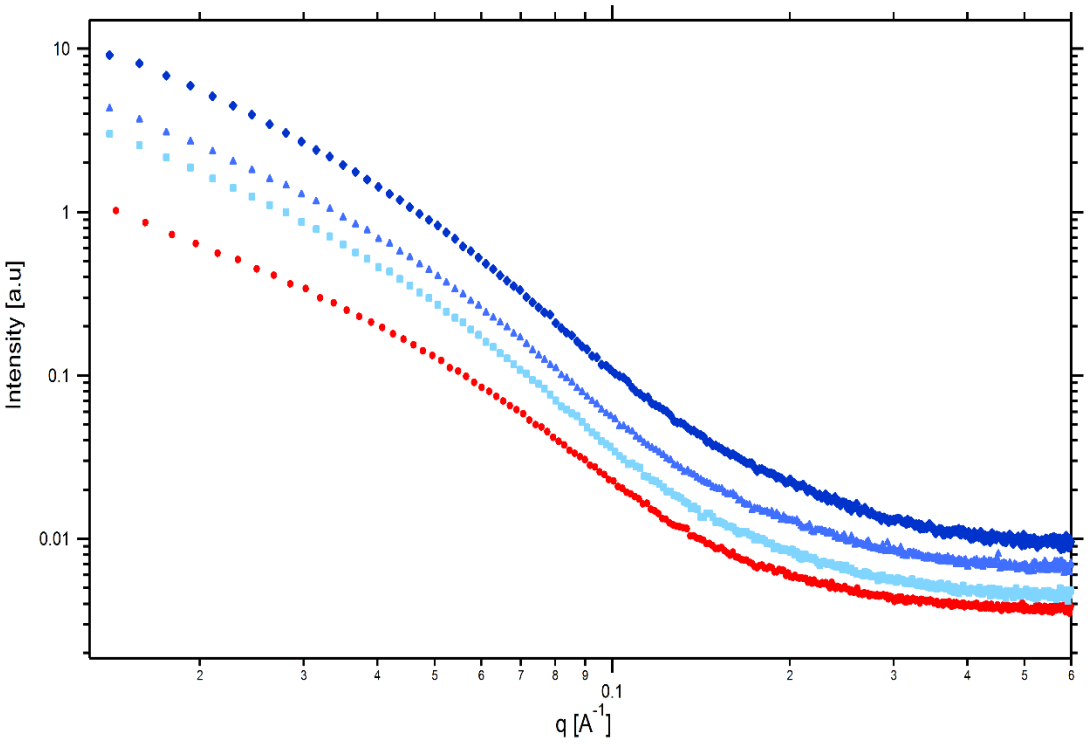

Figure S2. Small angle scattering curves of 1% wt. alginate gels in water. Alginate (●), alginate-A_6KRGDS (■), alginate-V_6KRGDS (◆) and alginate-G_6KRGDS(▲). The curves are shifted for better visualization.

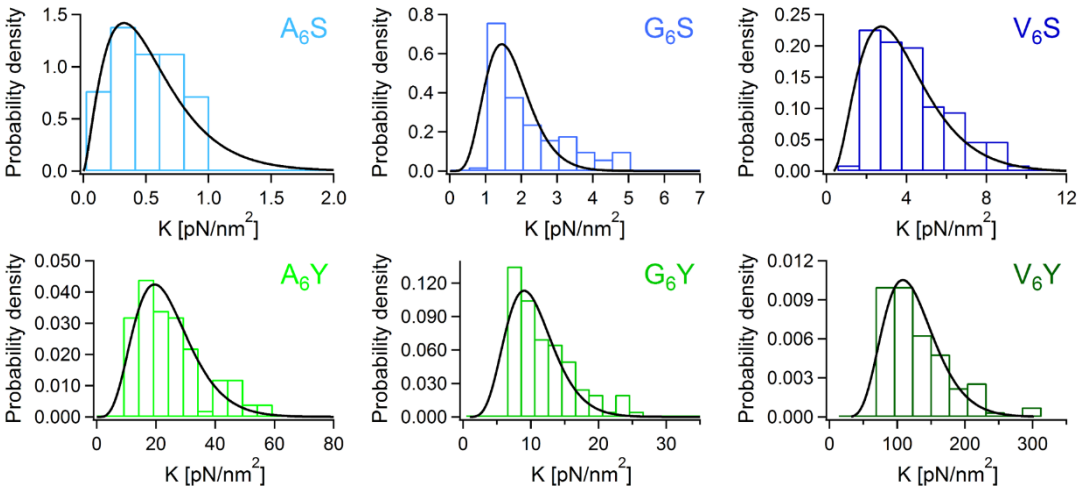

Figure S3. Local stiffness modulus probability distribution functions from nanoindentation measurements fitted with Gamma distribution.

Table S1: Local stiffness moduli (in [pN/nm^2], as obtained from the fitting), with their corresponding *G*' values, estimated for each hydrogel. The values are represented as mean ± standard deviation.

	K [pN/nm^2]	*G*' [Pa]
Alginate	0.17 ± 0.08	1700 ± 100
A_6KRGDS	0.5 ± 0.3	9300 ± 700
A_6KRGDY	24 ± 10	79000 ± 7000
G_6KRGDS	1.9 ± 0.9	11400 ± 1000
G_6KRGDY	11 ± 4	22000 ± 2000
V_6KRGDS	4 ± 1	15200 ± 1000
V_6KRGDY	105± 40	120000 ± 10000

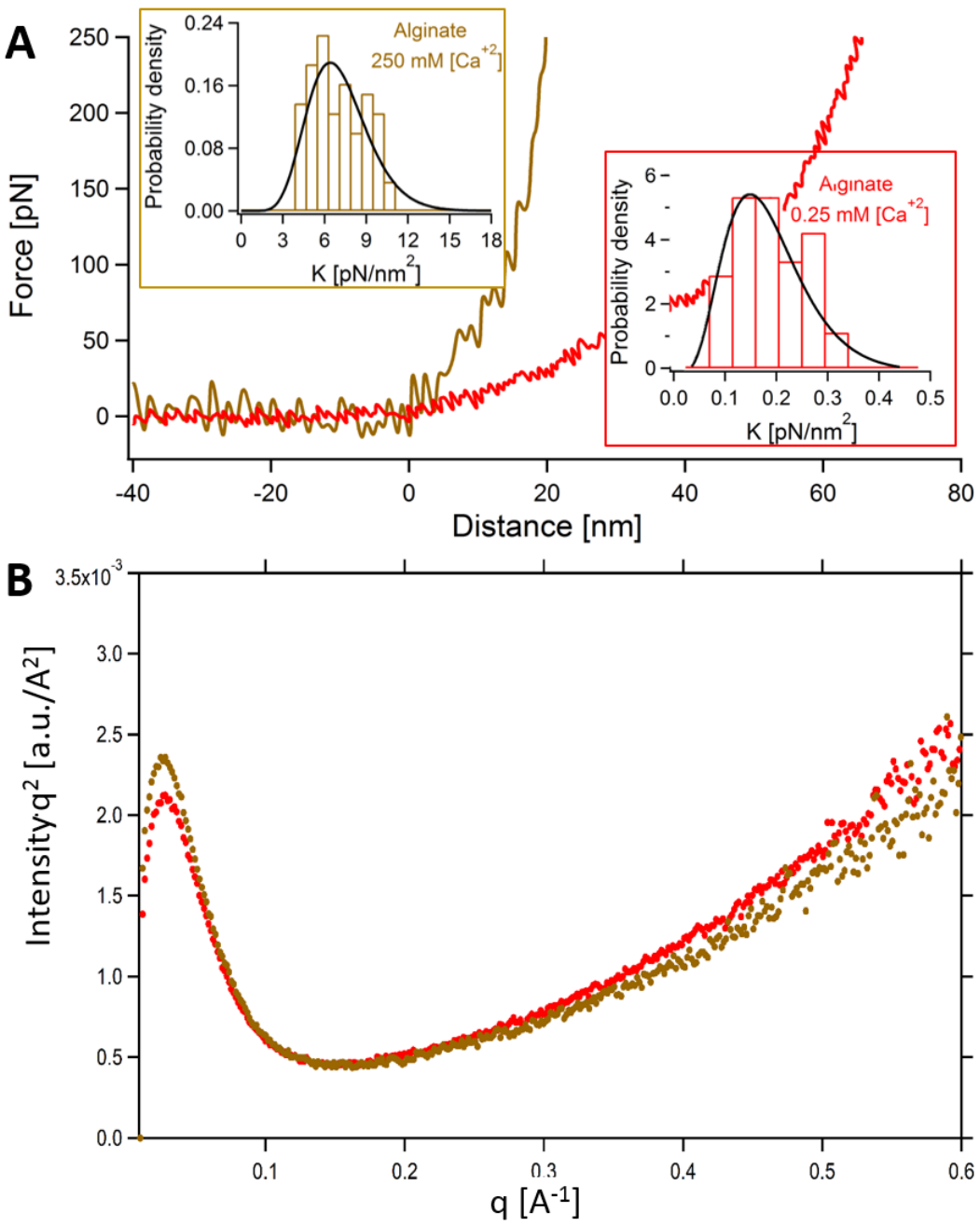

Figure S4. A. Nano-indentation force-distance curves of alginate hydrogels with different Ca^{2+} concentrations in HEPES buffer. B. Kratky plots for alginate hydrogels with different Ca2+ concentrations. 25 mM (red) and 250 mM (brown).