

Supplementary Information Page S-1

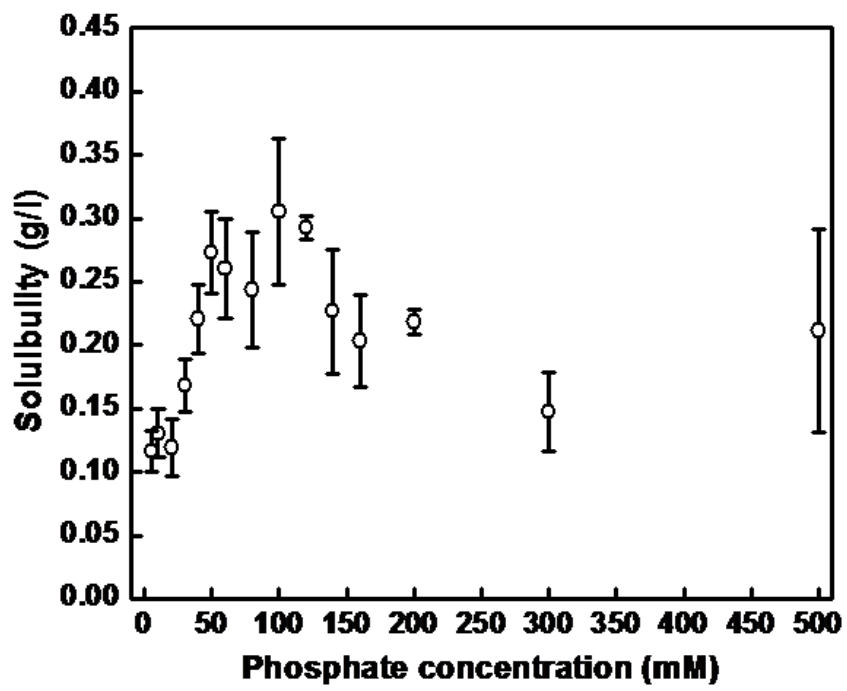
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**Title: “Structural dependency of collagen fibers on ion types revealed by *in situ* second harmonic generation (SHG) imaging method”**

**Materials:** Supplementary Figure S1 (Supplementary Information Page S-2) shows the solubility of collagen in samples prepared under **37 °C** and different concentrations of phosphate. Supplementary Figure S2 (Supplementary Information Page S-3) shows additional backscattered second harmonic generation (SHG) images from collagen materials assembled at pH 7.4, 37 °C and 40 mM, 50 mM, 80 mM, 100 mM, 120 mM, 140 mM, 180 mM, 300 mM and 500 mM phosphate concentrations. Supplementary Figure S3 (Supplementary Information Page S-4) shows backscattered second harmonic generation (SHG) images from collagen materials assembled at pH 7.4, 4 g/l collagen solid content, room temperature as well as 37 °C and different sodium chloride concentrations. Supplementary Figure S4 (Supplementary Information Page S-4) shows backscattered second harmonic generation (SHG) images from collagen materials assembled at pH 7.4, 27 °C, different sodium chloride concentrations and quantification of the collagen hydrogel parameters.

**Figure S1.**



**Figure S2.**

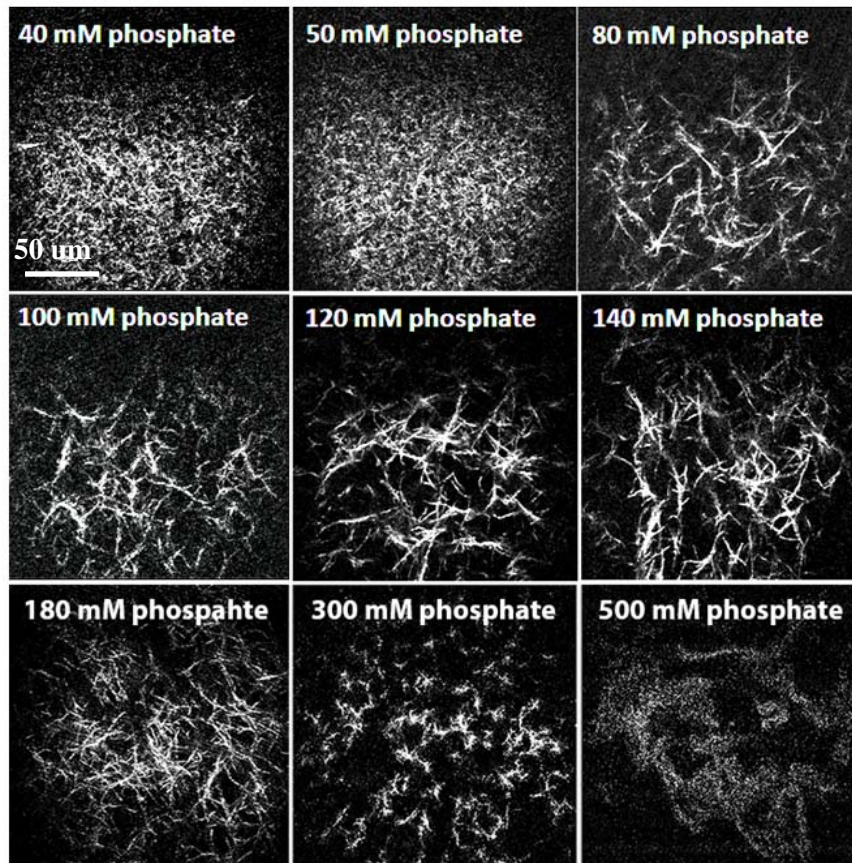


Figure S3.

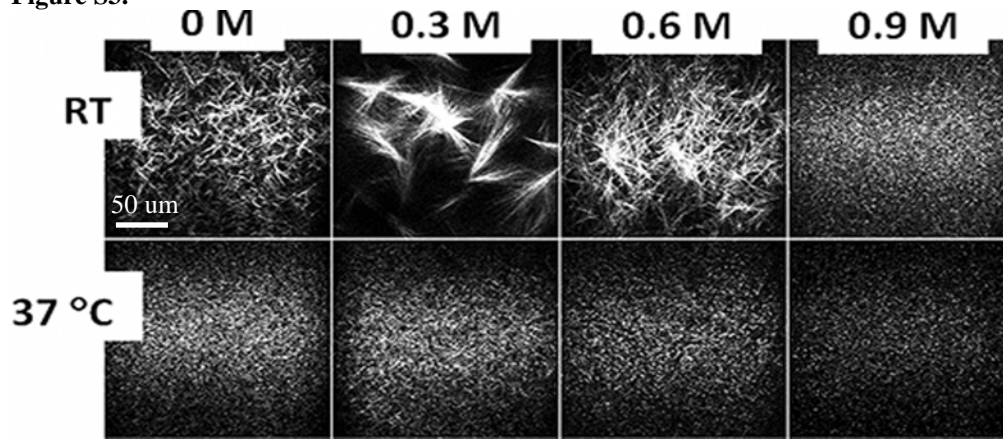


Figure S4.

