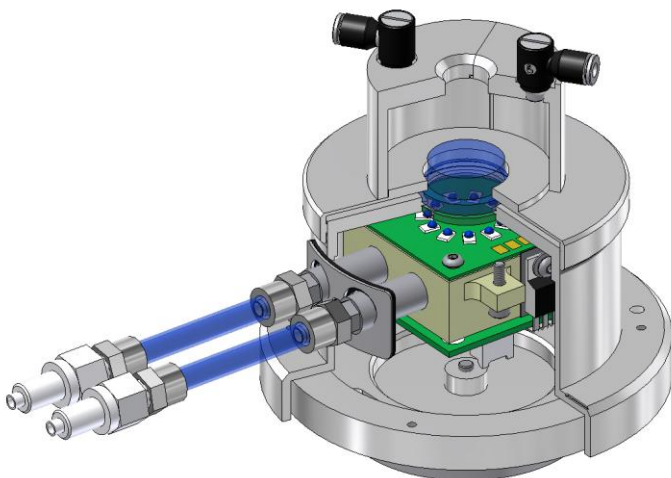
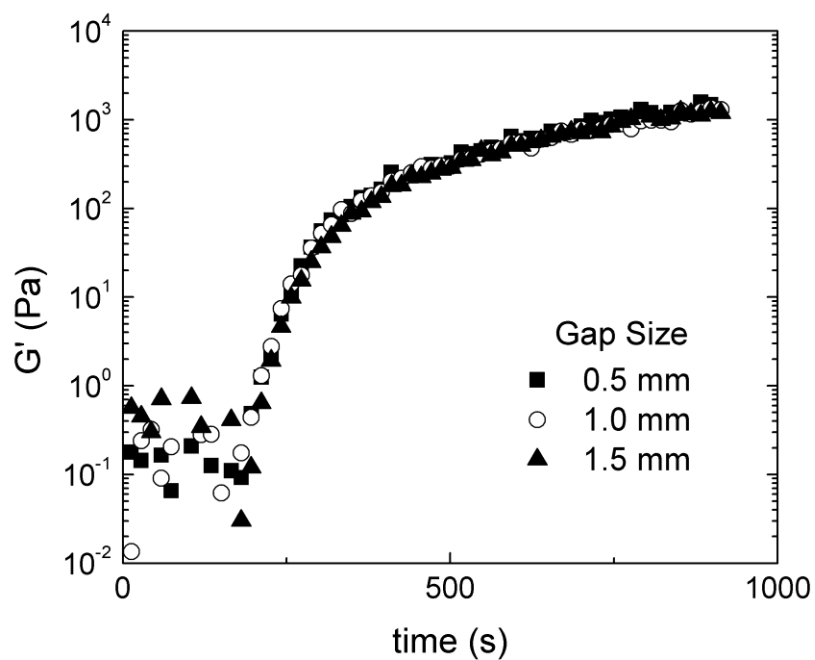


Supplemental Figure 1.



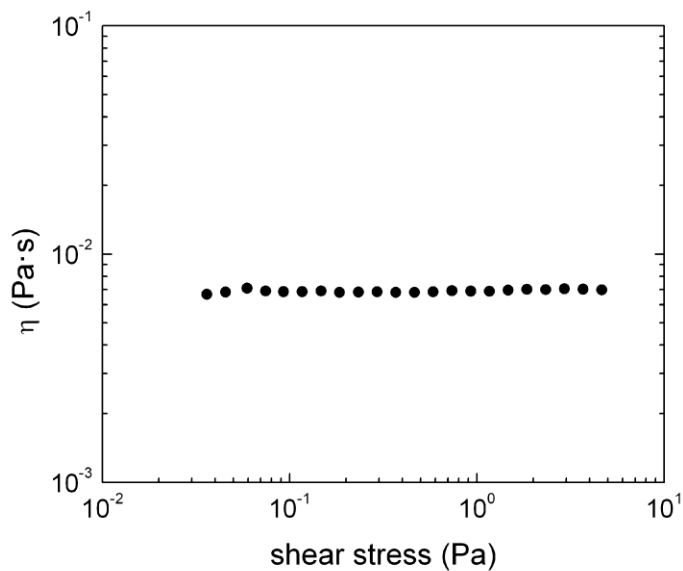
Supplemental Figure 1. Schematic of LED bottom plate fixture. For each measurement, a sample is placed between the 20 mm quartz window and 20 mm top parallel plate geometry (not shown). Irradiation from the 365 nm wavelength LED source passes through the quartz window onto the sample. A water jacket surrounds the LED light to cool the array. Reproduced with permission from TA Instruments.

Supplemental Figure 2.



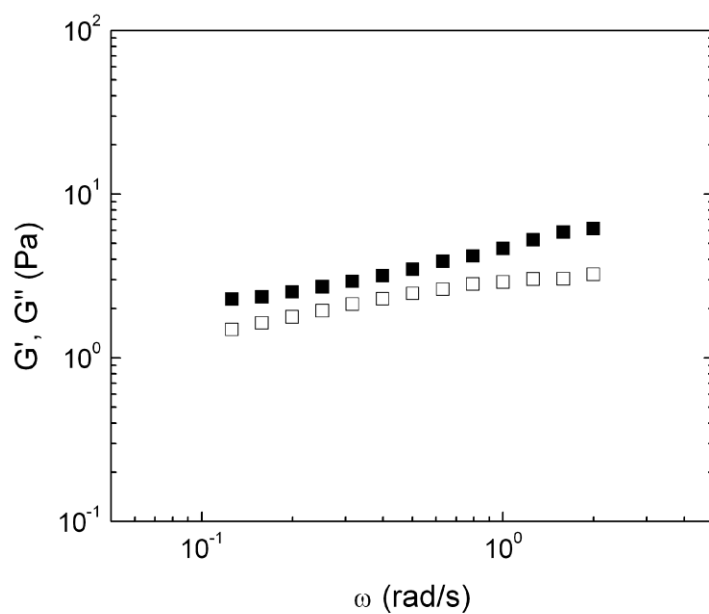
Supplemental Figure 2. Evolution of elastic and viscous moduli of alginate with 25% methacrylation by 20 mW/cm^2 irradiation at gap sizes 0.5 (■), 1.0 (○), and 1.5 (▲) mm. Similar dynamics for each gap height suggests that wall slip has minimal effects on the measurements.

Supplemental Figure 3.



Supplemental Figure 3. Steady shear viscosity profile of alginate solution prior to UV exposure. Zero shear viscosity is 0.007 ± 0.0004 Pa·s, obtained from averaging the first 10 data points in the Newtonian region. Shear stresses were applied from 0.005 to 5 Pa (10 points per decade) using a 40 mm, 2 degree cone and plate geometry, in the soft bearing mode.

Supplemental Figure 4.



Supplemental Figure 4. The elastic (G' , ■) and viscous (G'' , □) moduli of photocrosslinkable alginate (11% methacrylation) as a function of frequency, plotted after 1800 s exposure with 10 mW/cm^2 UV radiation.