Supplemental Information

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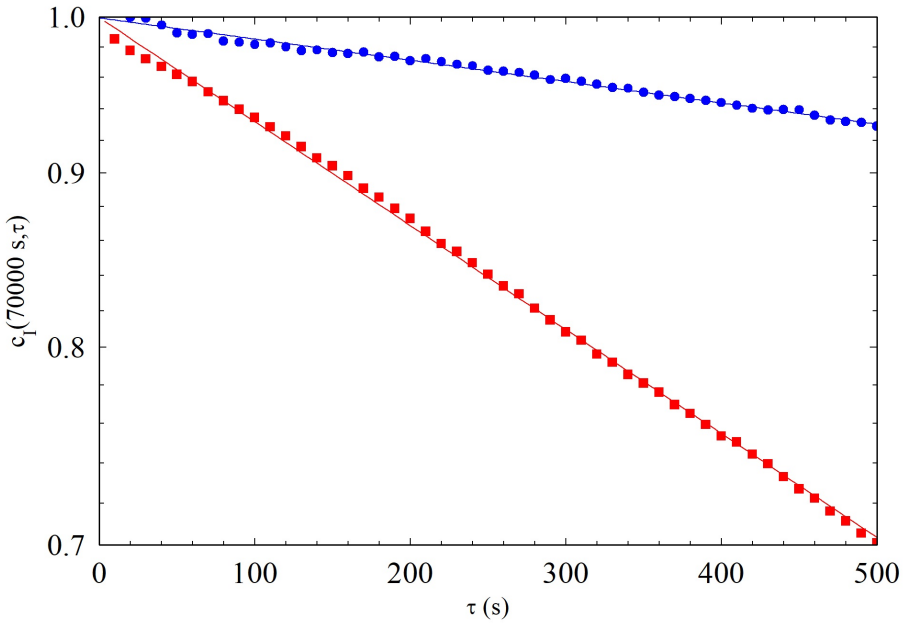

Figure 1: Correlations functions of the sample A (red squares) and C (blue dots) obtained about 20 h after the temperature is set at 52° C. The continuous lines are exponential fit.

1 Photon Correlation Imaging setup

In our setup the sample, illuminated by a vertical laser sheet ($\lambda = 532\,\mathrm{nm}$) with a thickness of $200\,\mu\mathrm{m}$, is imaged by an achromatic doublet on a CMOS sensor (Hamamatsu Orca-Flash 4.0, 2048×2048 square px. of side $6.5\,\mu\mathrm{m}$) set at $\vartheta = 90°$ with respect to the illumination plane. Selection of a specific scattering wave-vector $q = (4\pi/\lambda)n\sin(\vartheta/2) \cong 1.15/R \approx 23\,\mu\mathrm{m}^{-1}$ is obtained by suitably

stopping down the numerical aperture of the collection optics with a diaphragm placed in the focal plane of the imaging lens.
The cell consists of a quartz cuvette with outside dimensions (HxWxD) $40 \times 12.5 \times 12.5$ mm, an optical path length 10×2 mm and a filled volume of $400\,\mu$l (Hellma Cell 115-10-40). This cell geometry and the imaging optics allow us to laterally image a rectangular area S within the sample with a vertical extent $L \simeq 8.4$ mm and a horizontal width $W \simeq 7$ mm, which allows mapping the sample region between 1 mm from the right cell wall and 2 mm from the left wall. The cell is inserted into a cell holder that can be thermalized to $\pm 0.5^\circ$ C by a water–circulating unit. Further details can be found in [1].

2 Temperature adjustment effects on settled gels: Correlation functions

Figure 1 shows the correlation functions of the sample A (in red) and C (in blue) obtained about 20 h after the temperature is set at 52° C (see main text for details). The initial decay of the two functions, for $\tau < 500\,s$, can be fitted with an exponential curve. The characteristic decay time of the sample A ($\tau_A = 1424$ s) is almost 5 times faster than the one of the sample C ($\tau_A = 6965$ s).

References

[1] Z. Filiberti, R. Piazza, and S. Buzzaccaro, Phys. Rev. E, **100**, 042607 (2019).