

REPORT SC 5183

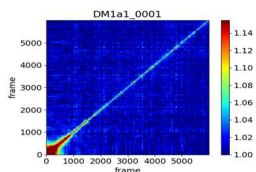
3 mm thickness capillary filled with mucin or mucin/DNA mixture in PBS solution were investigated.

We studied mucin solution at 4% and 8% with and without added particle probes. Silica particles of two size were applied 450 and 150 nm.

Problems:

Some problems of unclear oscillations of the correlation function occurred that was mainly resolved.

Evaluation of radiation damage was performed, and we found that sample containing DNA show strong radiation damage in the dynamic, not evident in the static SAXS measures at different delay times.



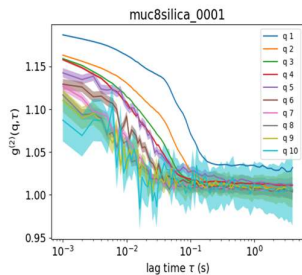
Attenuation of the beam attGe75.set(2) or set(3) were applied.

The optimal protocol two CF in the same spot,

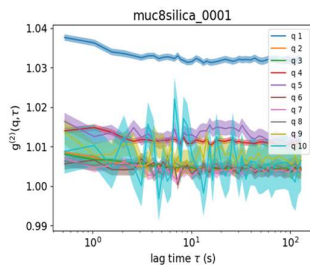
- long delay between frames: Ex.: sleeping time 0.5 and shutter between frames (up to sleeping time 2 seconds and 5h measurement for mucin/DNA samples)
- fast CF without sleeping time and with no shutter.

3 to 4 spots per sample. Best data for 8% concentration.

Example a)



Example b) long time CF



The addition of Ca++ in solution increased the correlation time as reported for a scan acquired with sleeping time 0.5

