Supplementary Information

Passive Microrheology in the Effective Time Domain: Analyzing Time Dependent Colloidal Dispersions

Bhavana M. Vyas,[a,b] Ashish V. Orpe,[a]* Manish Kaushal[b] and Yogesh M. Joshi[b]*

[a] Chemical Engineering Division, National Chemical, Laboratory, Pune 411 008, India.

[b] Department of Chemical Engineering, Indian Institute of Technology Kanpur, Kanpur 208016, India

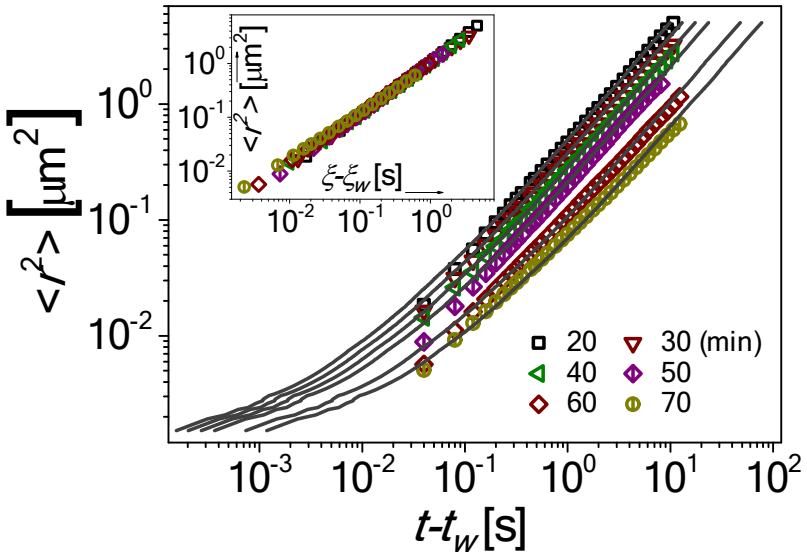

Figure SI-1. Mean square displacement $\left\langle\left(r\left(t-t_w\right)\right)^2\right\rangle = \left(k_BT/\pi a\right)J\left(t-t_w\right)$ is plotted as a function of $t-t_w$ for different t_w for 1.8 weight % suspension. The symbols represent the experimental data while the solid lines represent prediction using equation (10). Inset shows the transformed data (shown in main figure) in the effective time domain.

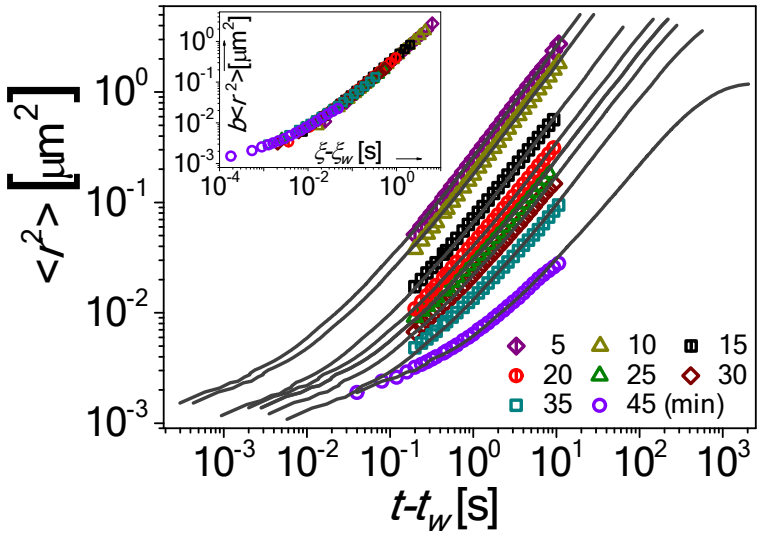

Figure SI-2. Mean square displacement $\left\langle\left(r\left(t-t_w\right)\right)^2\right\rangle=\left(k_BT/\pi a\right)J\left(t-t_w\right)$ is plotted as a function of $t-t_w$ for different t_w for 2.2 weight % suspension. The symbols represent the experimental data while the solid lines represent prediction using equation (10). Inset shows the transformed data (shown in main figure) in the effective time domain.

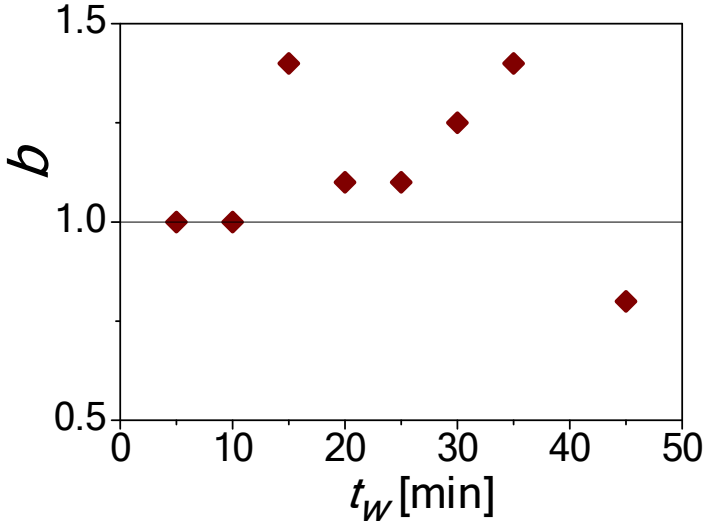

Figure SI-3. Vertical shift factor (b) is plotted as a function of t_w for 2.2 weight % suspension for superposition shown in the inset of figure SI-2.