

Supplementary Information

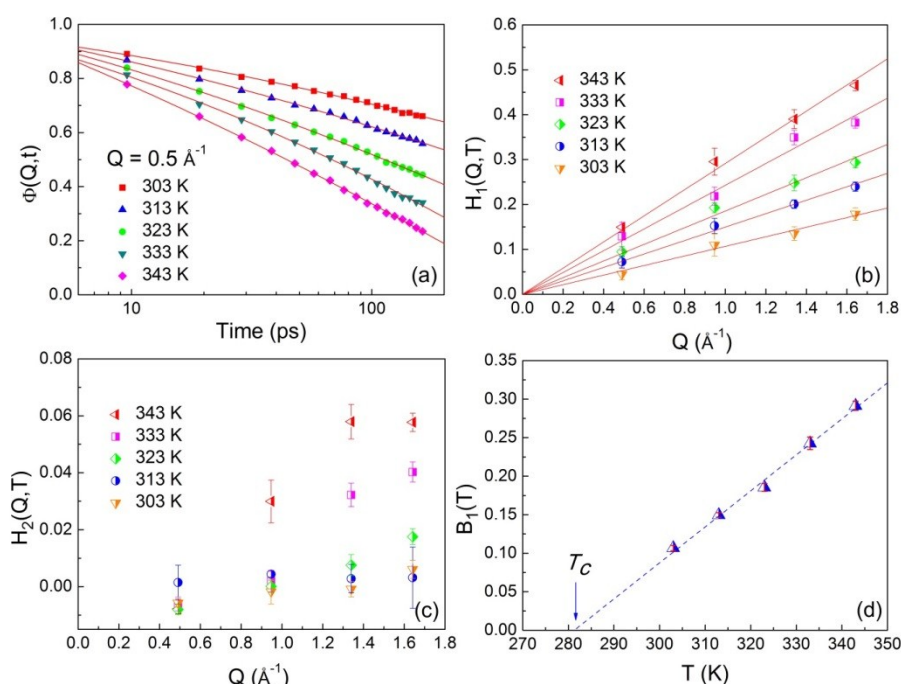


Figure 1S. The quasi-elastic neutron scattering data of bulk BPM. The self-intermediate scattering function measured at different temperatures (a), fitting parameter $H_1(Q,T)$ (b) and $H_2(Q,T)$ (c) as a function of Q at different temperatures and temperature dependence of fitting parameter $B_1(T)$ (d).

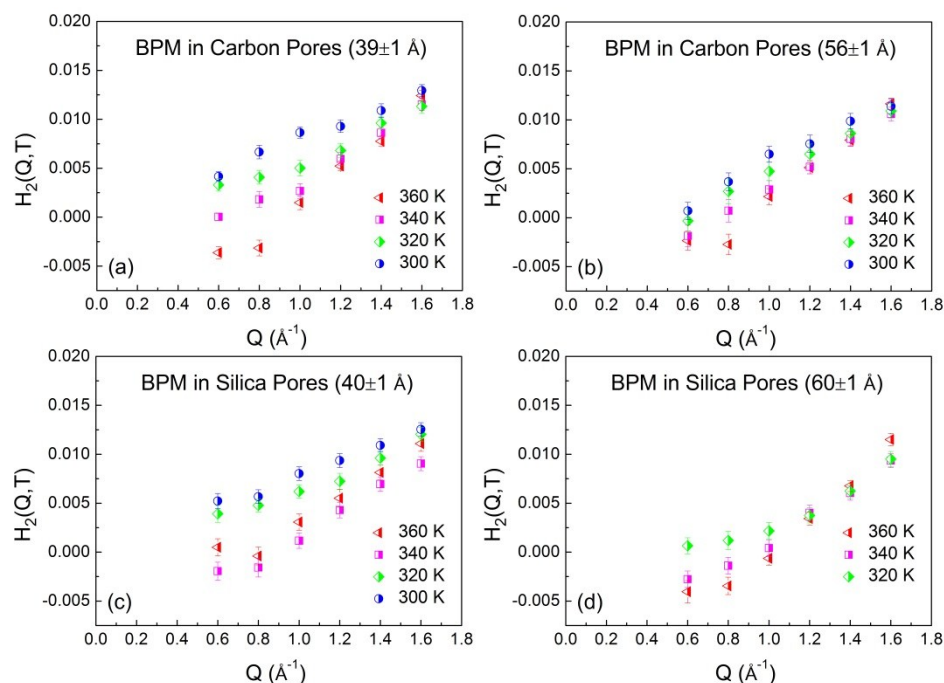


Figure 2S. The Q dependence of fitting parameter $H_2(Q,T)$ for BPM confined in carbon pores ($39 \pm 1 \text{ \AA}$) (a), carbon pores ($56 \pm 1 \text{ \AA}$) (b), silica pores ($40 \pm 1 \text{ \AA}$) (c) and silica pores ($60 \pm 1 \text{ \AA}$) (d) at different temperatures.

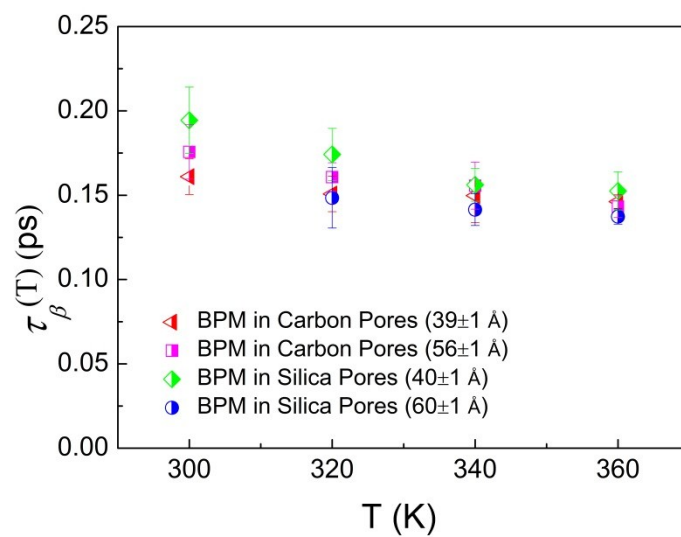


Figure 3S. The temperature dependence of fitting parameter $\tau_{\beta}(T)$ for BPM confined in carbon pores (39 ± 1 Å and 56 ± 1 Å) and in silica pores (40 ± 1 Å and 60 ± 1 Å) at different temperatures.