

1 **SUPPLEMENTARY INFORMATION**

2 **Multi-Scale Modeling and Synthesis of Polyester Ionomers**

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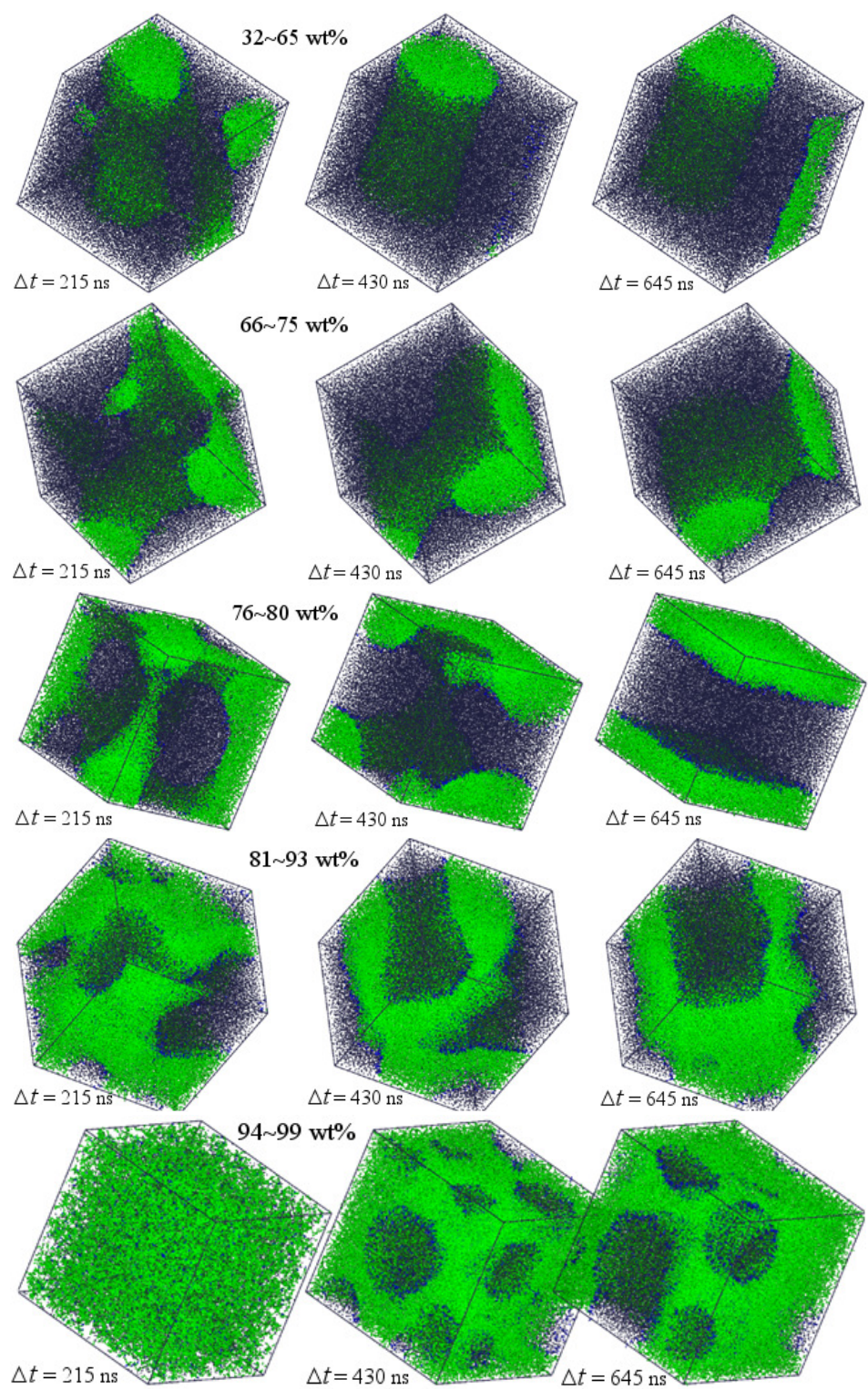


Figure S-1 DPD equilibration flow in the varying resin content (rows) at three time intervals (columns)

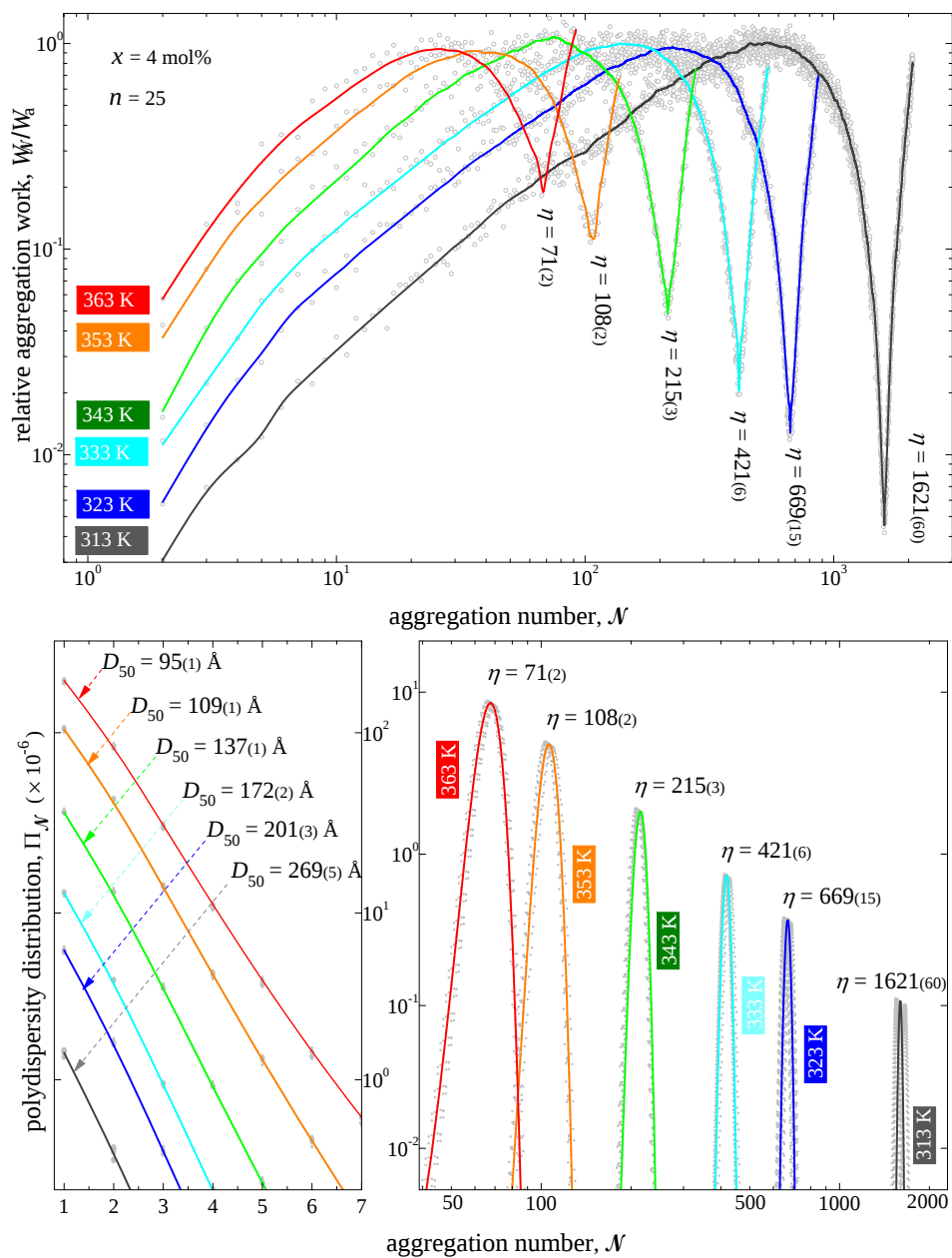


Figure S-2 Upper part: temperature-modulated relative aggregation barrier for $n = 25$ monomer chains in the aqueous solution with $x = 4$ % ionic content and 1 wt% solid load; Lower part: polydisperse equilibrium size distribution in premicellar (left) and proper micellar (right) growth regimes with the most probable diameters D_{50}

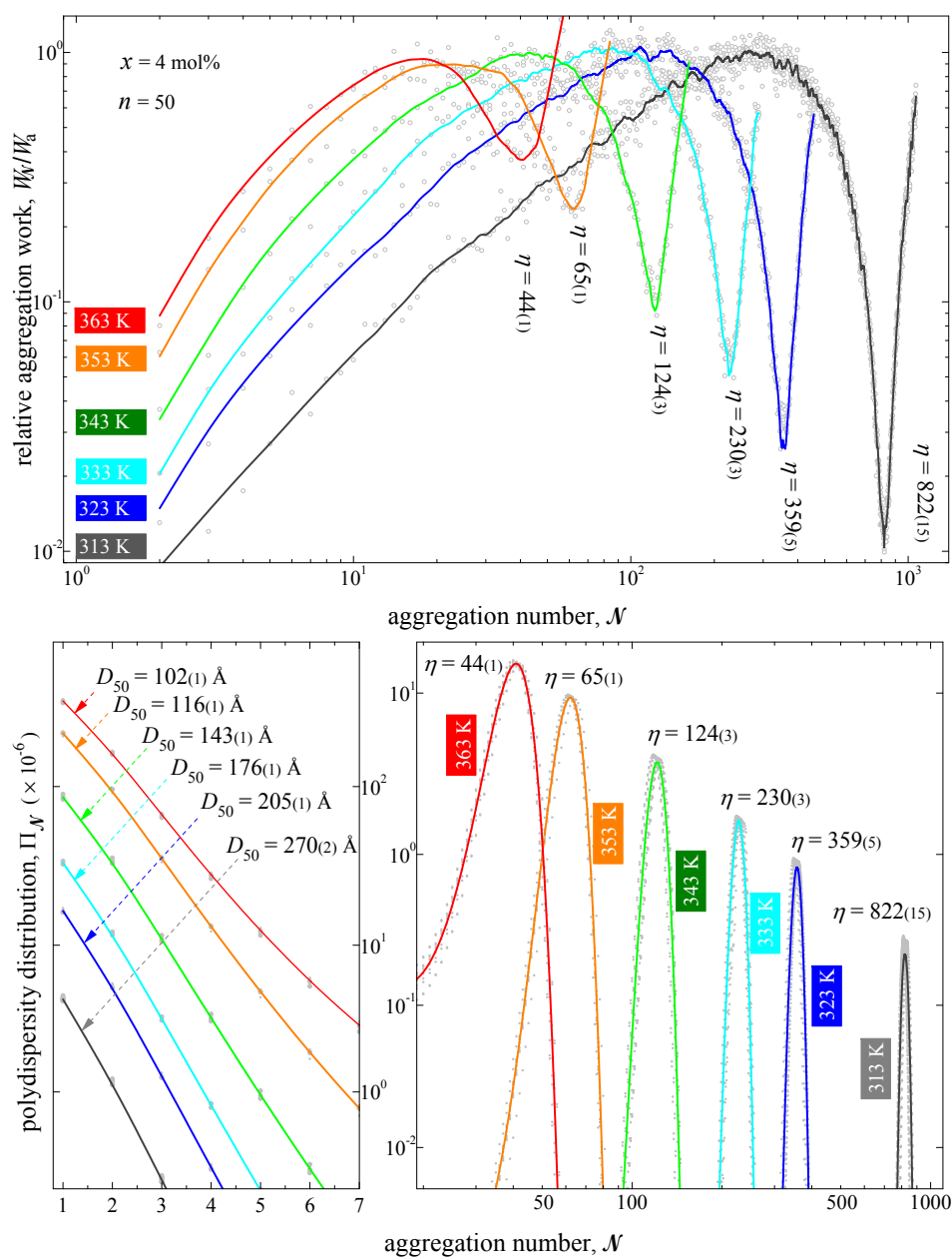


Figure S-3 Same as Fig. S-2 but for $n = 50$ monomer chains

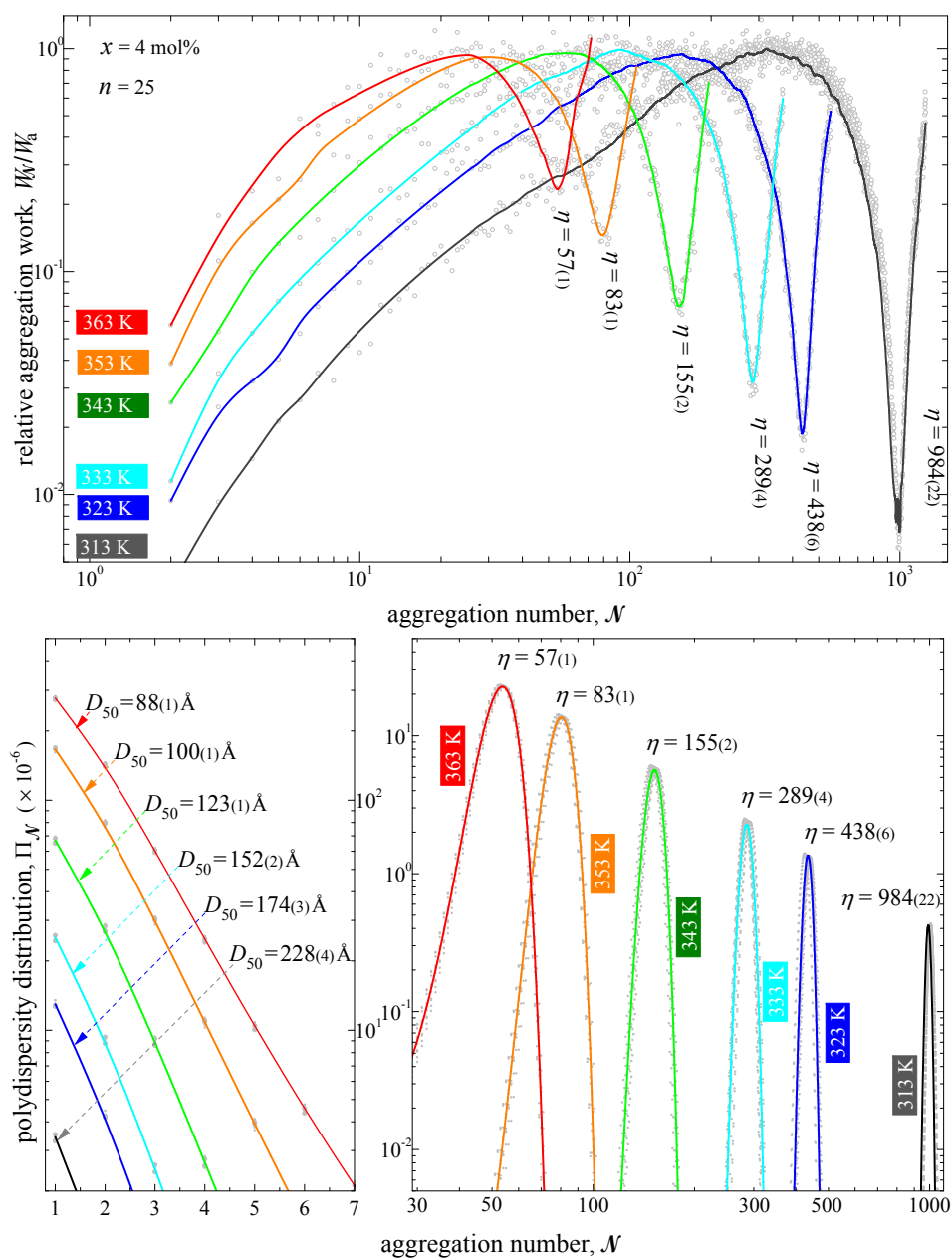


Figure S-4 Same as Fig. S-2 but for 2.0 wt% solid load

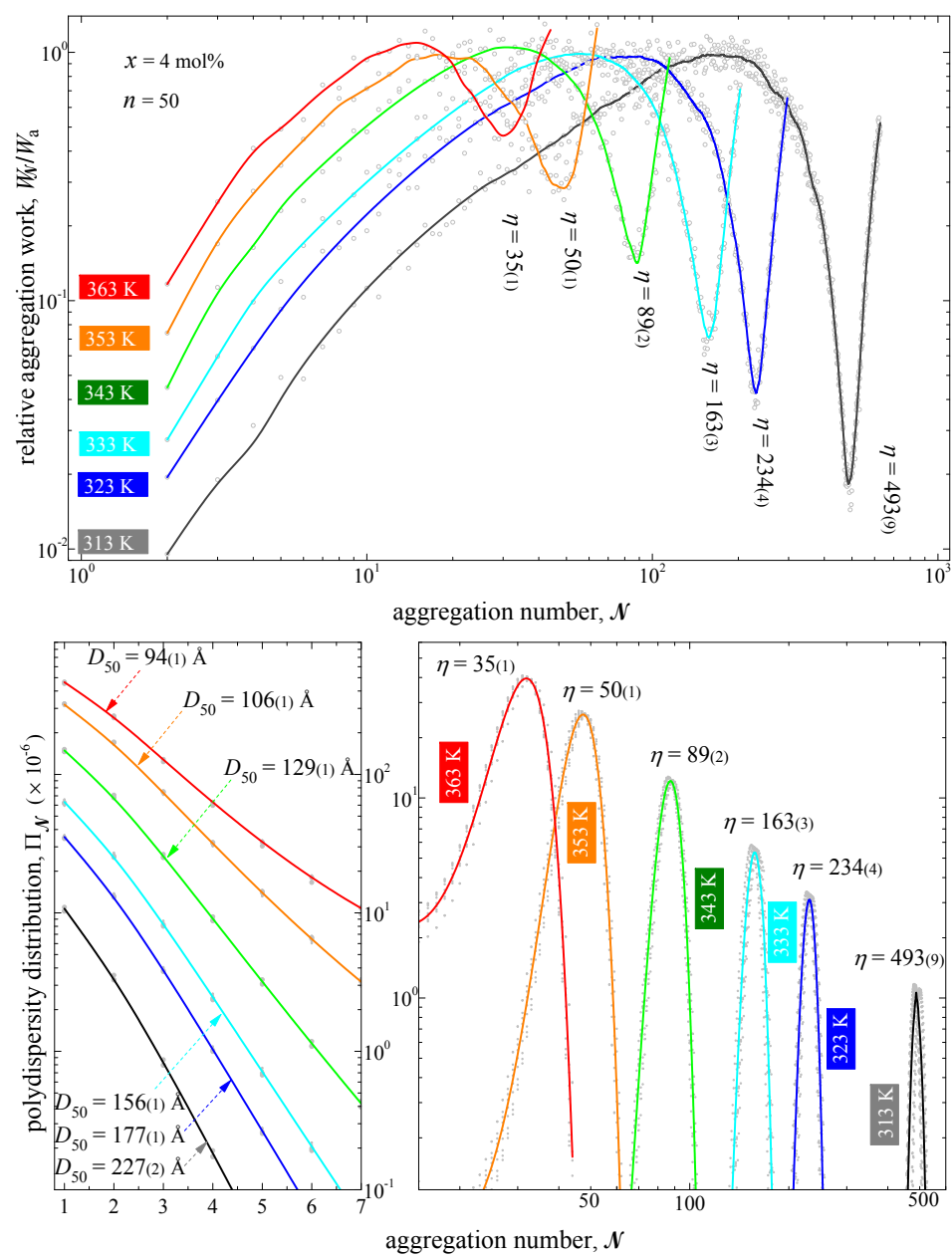


Figure S-5 Same as Fig. S-3 but for 2.0 wt% solid load

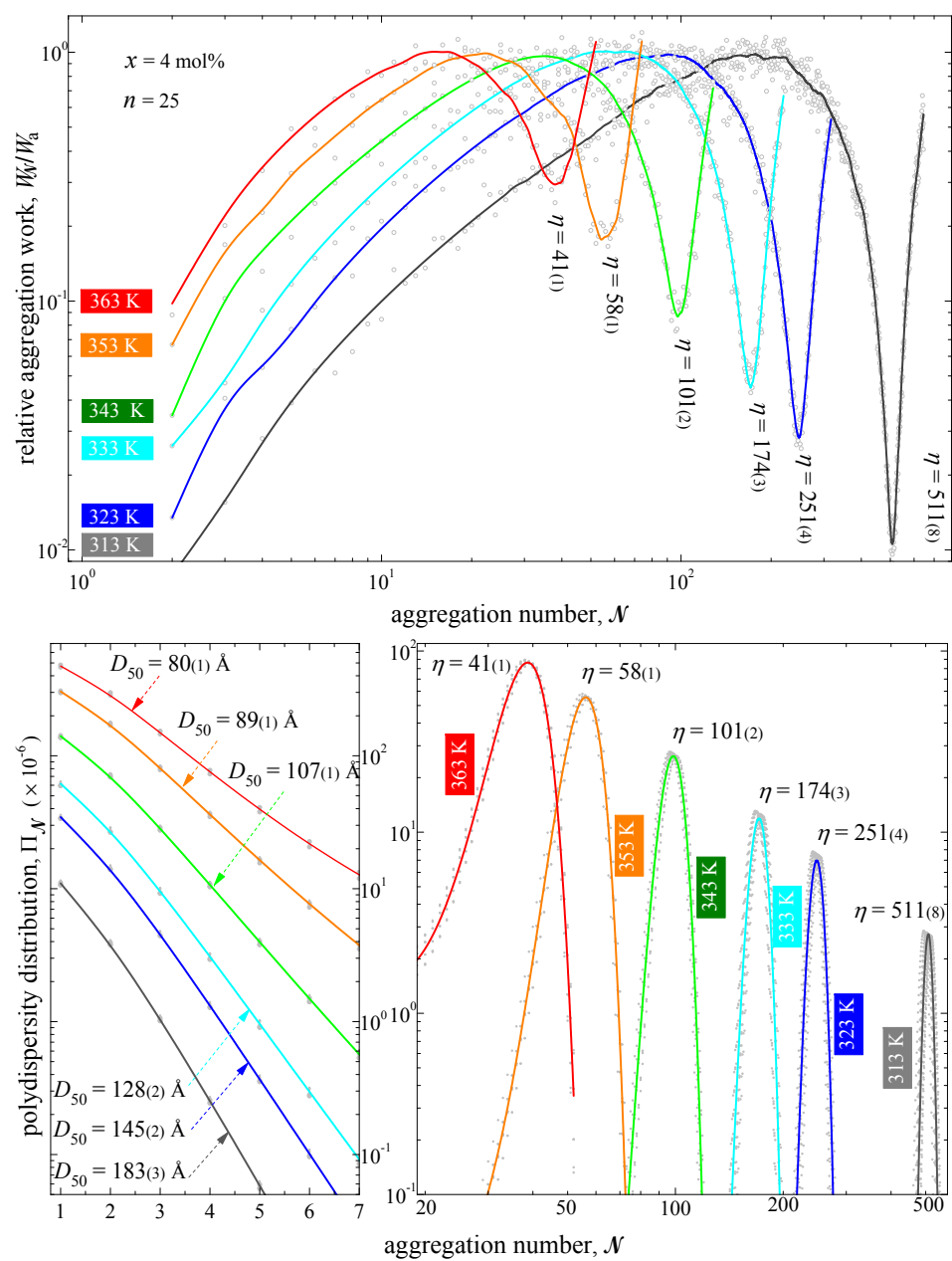


Figure S-6 Same as Fig. S-2 but for 5.2 wt% solid load

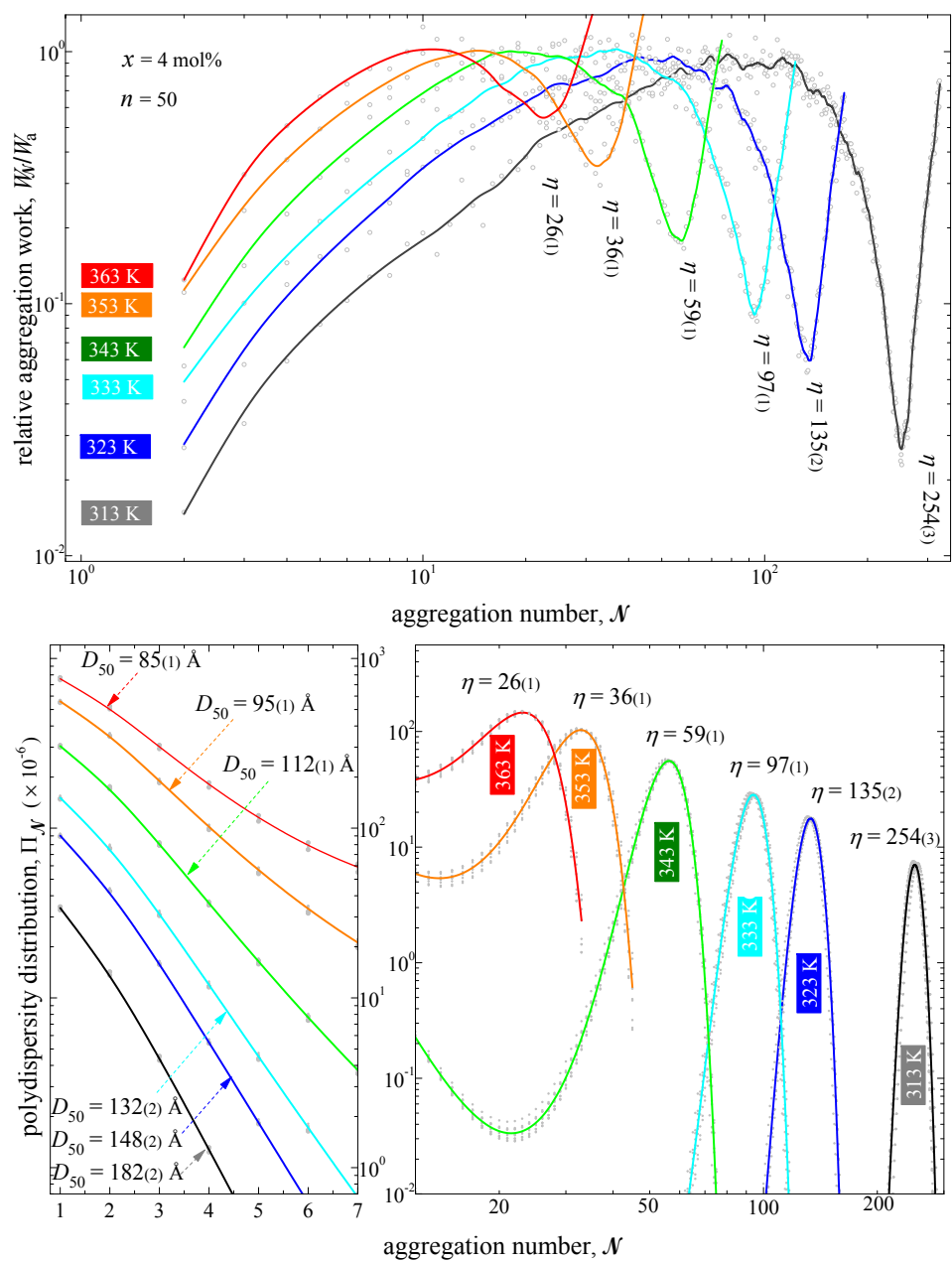


Figure S-7 Same as Fig. S-3 but for 5.2 wt% solid load

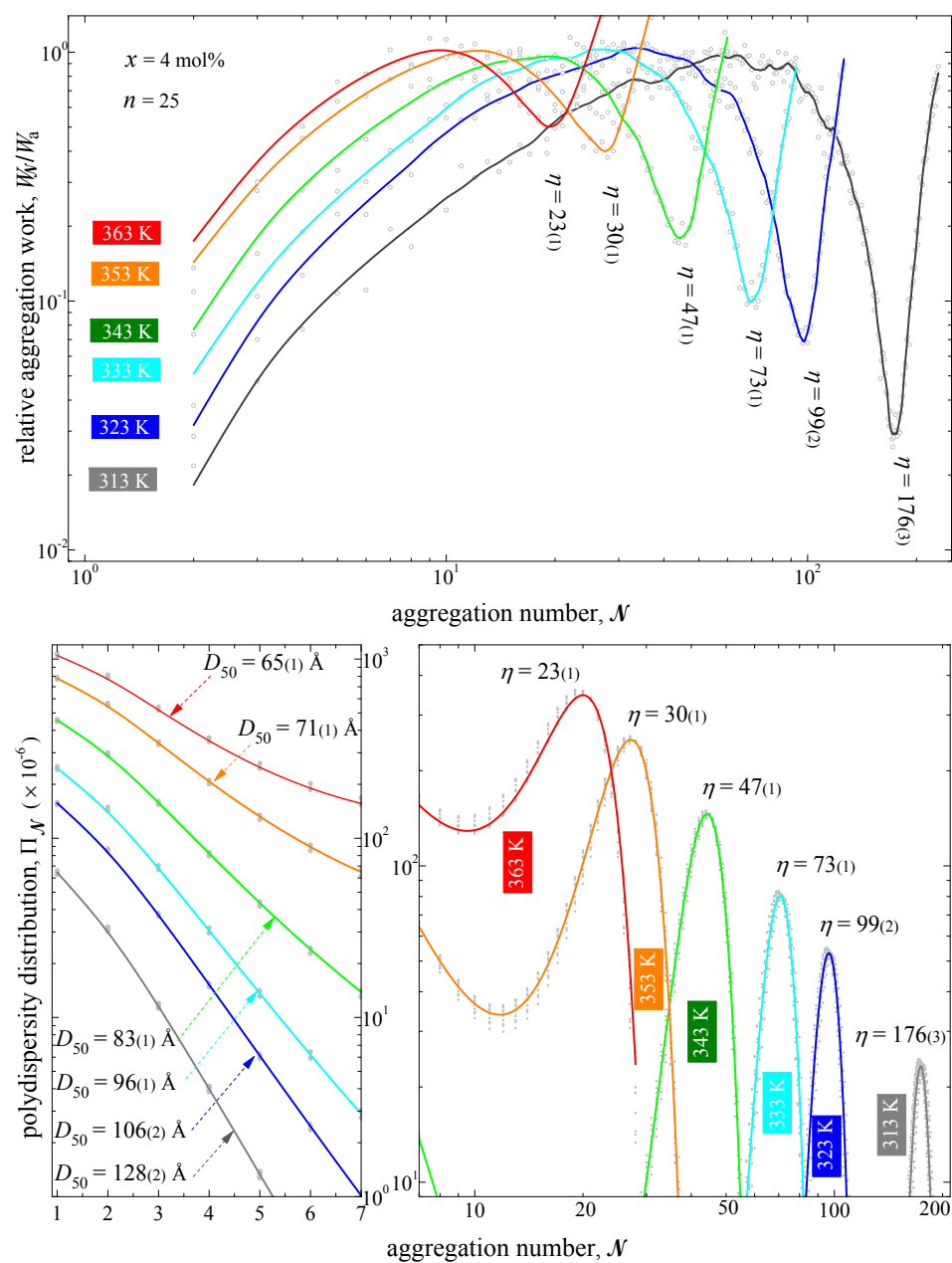


Figure S-8 Same as Fig. S-2 but for 10.3 wt% solid load

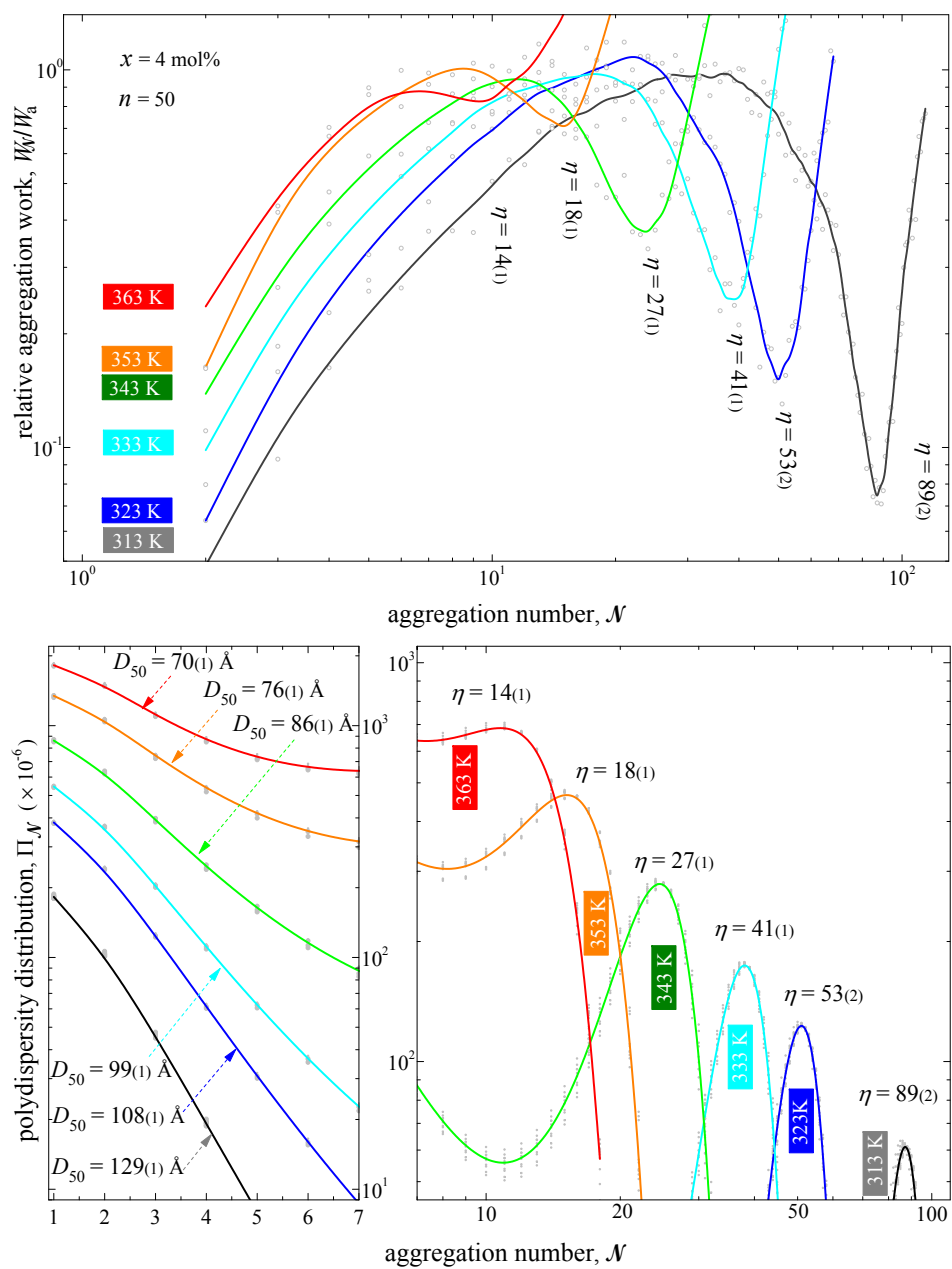


Figure S-9 Same as Fig. S-3 but for 10.3 wt% solid load

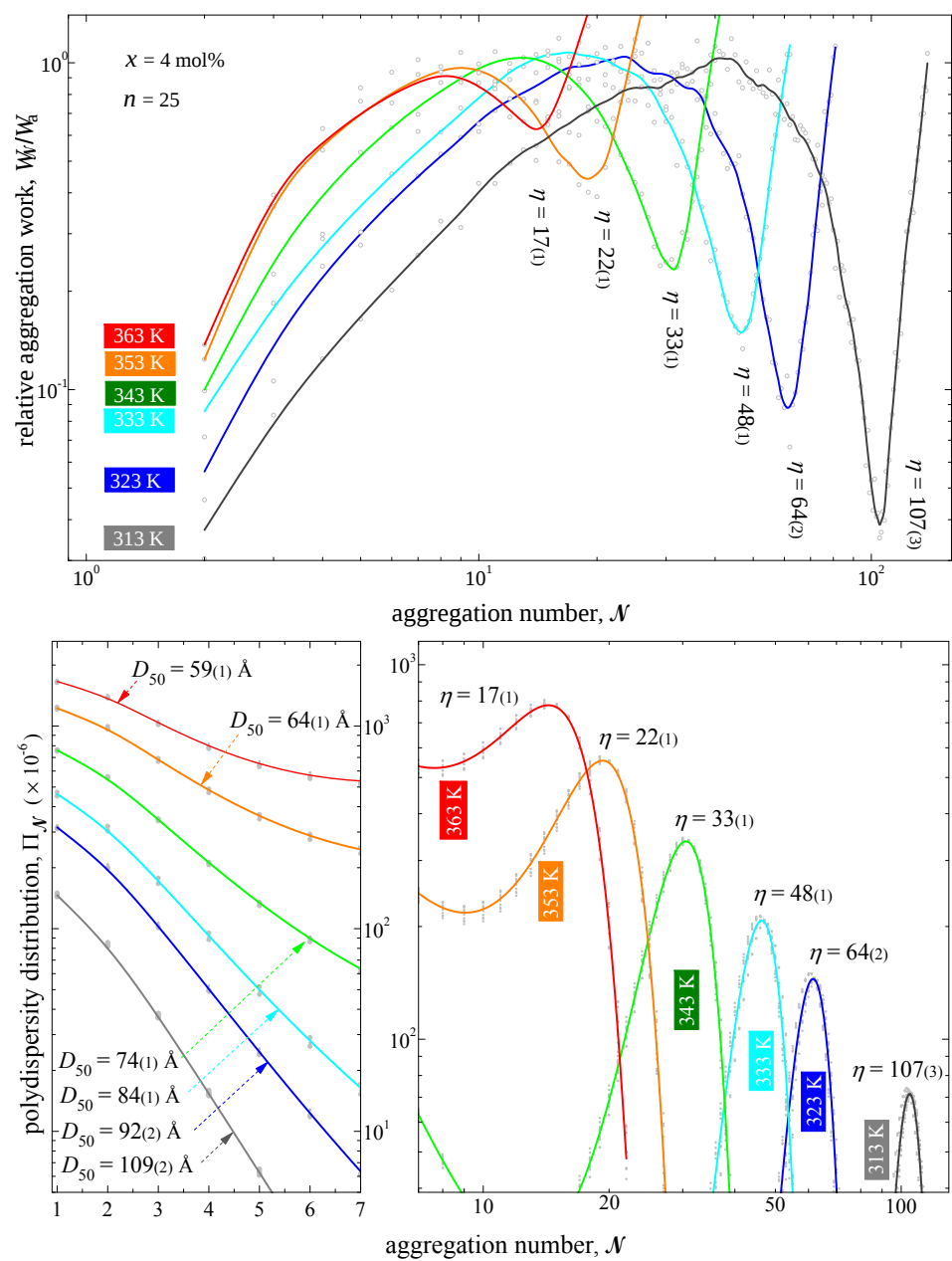


Figure S-10 Same as Fig. S-2 but for 15.7 wt% solid load

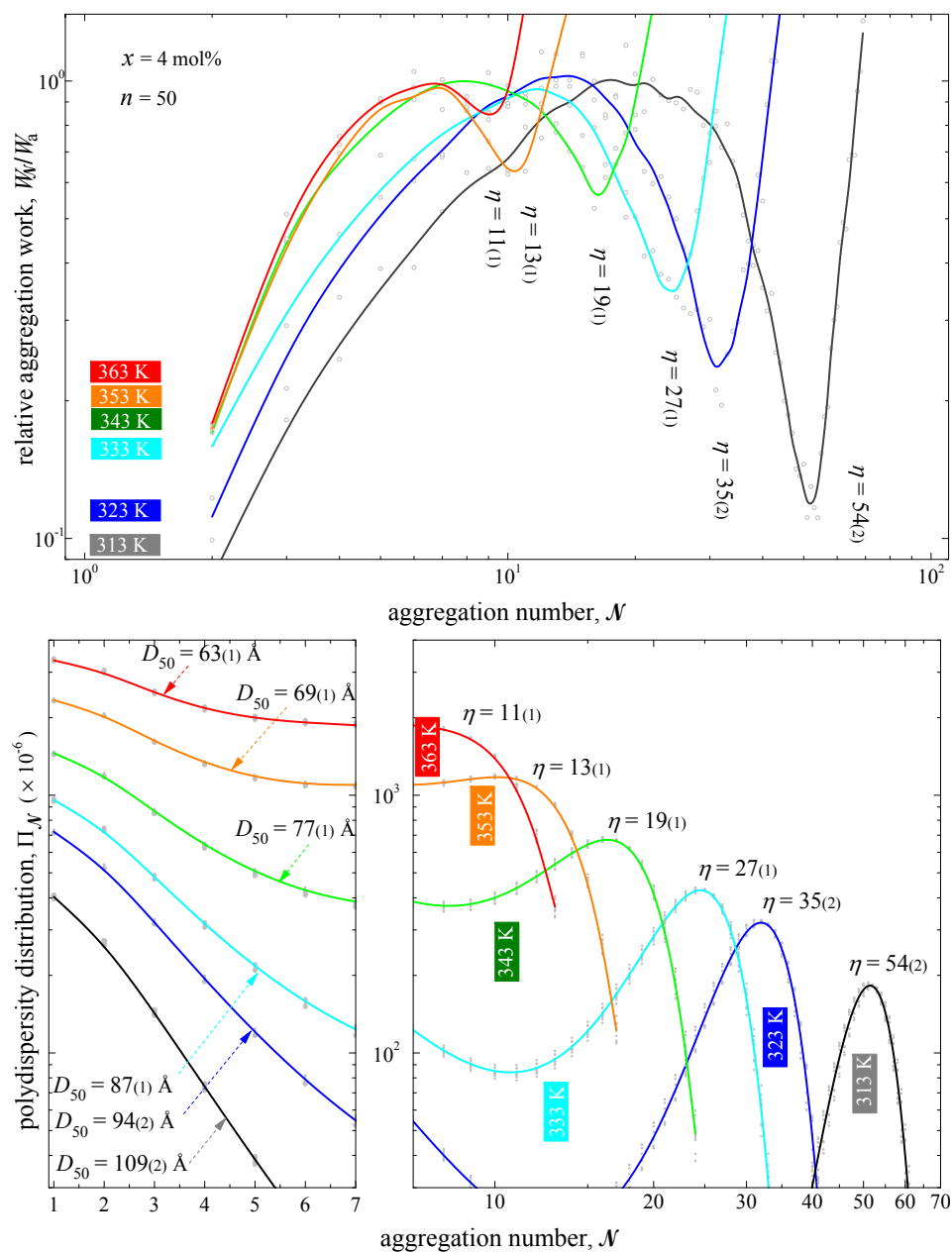


Figure S-11 Same as Fig. S-3 but for 15.7 wt% solid load

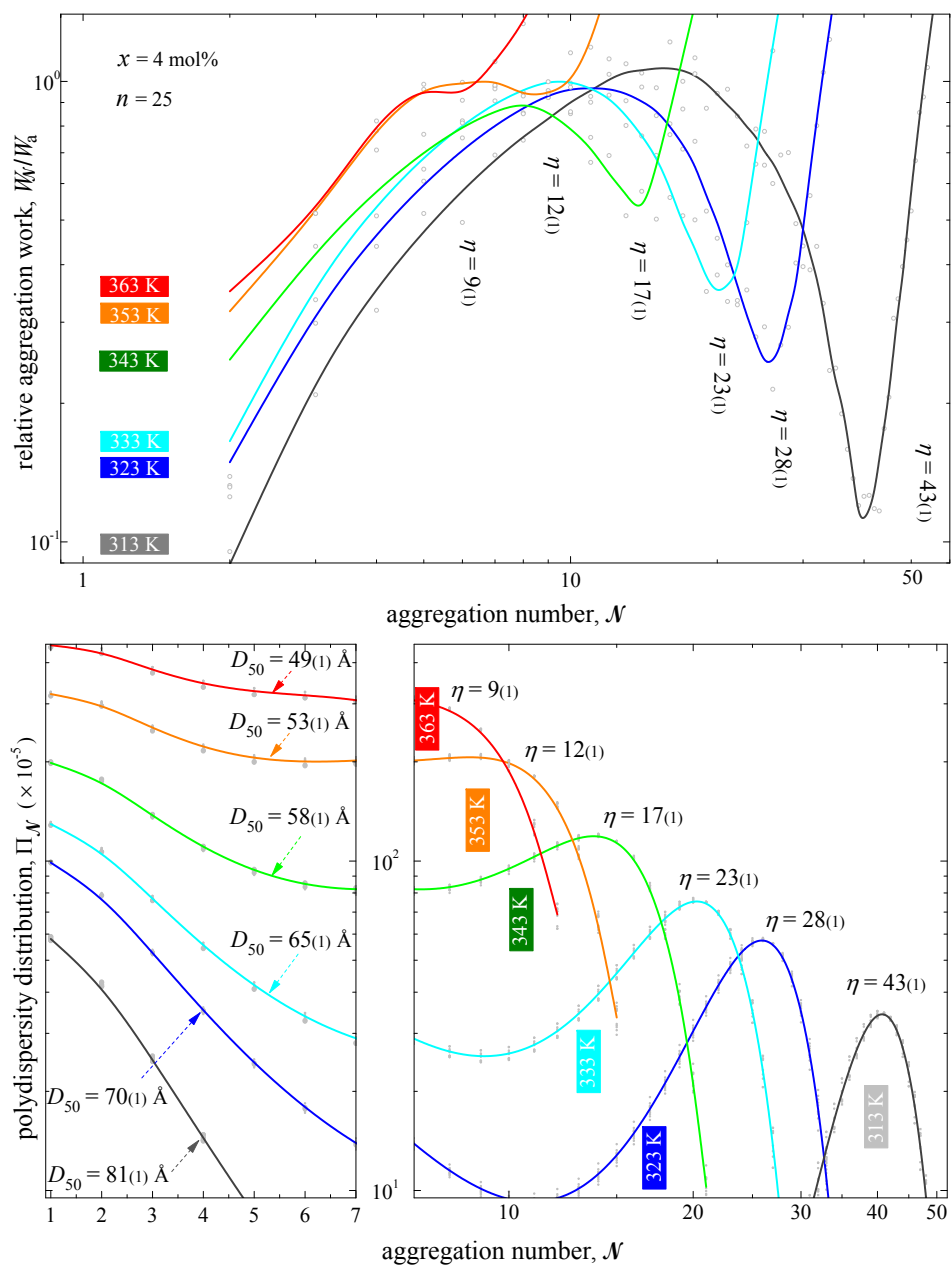


Figure S-12 Same as Fig. S-2 but for 22.3 wt% solid load

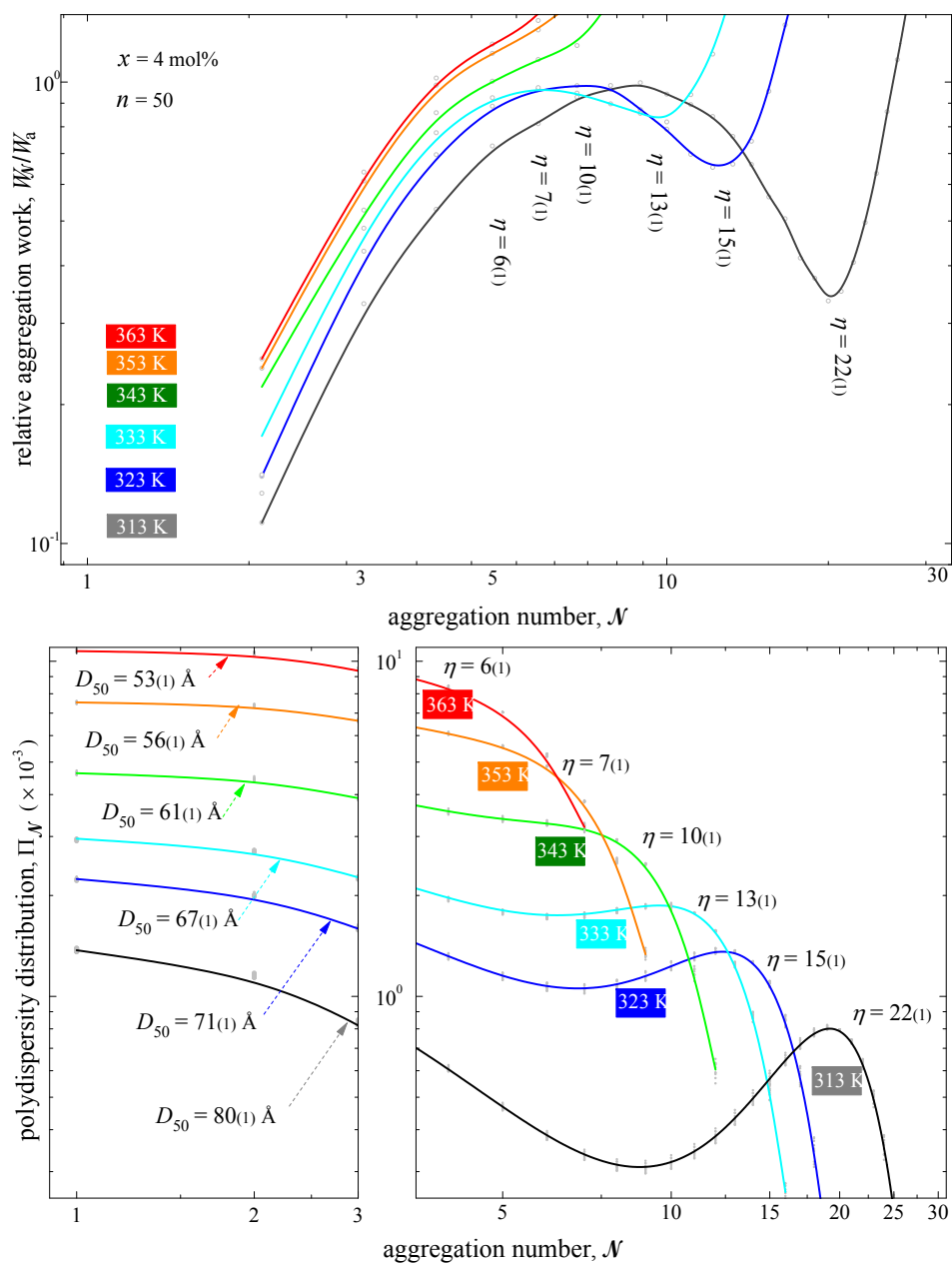


Figure S-13 Same as Fig. S-3 but for 22.3 wt% solid load