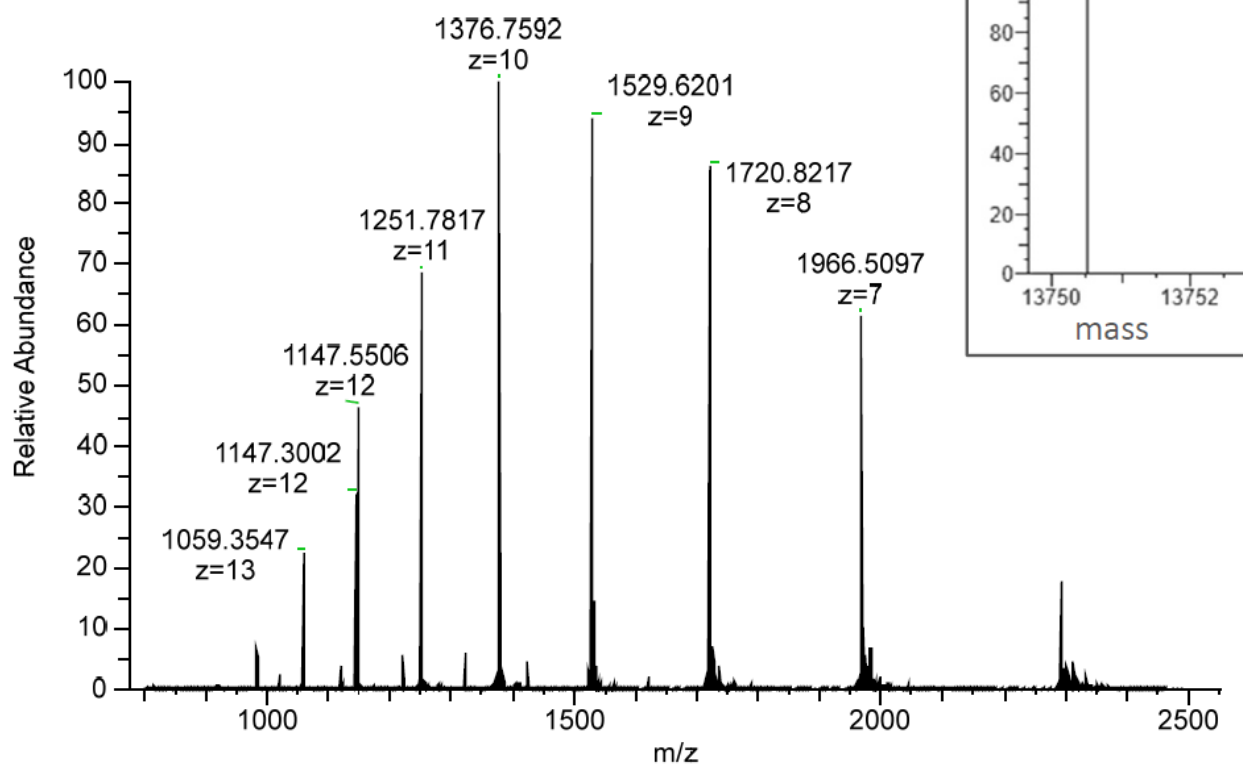
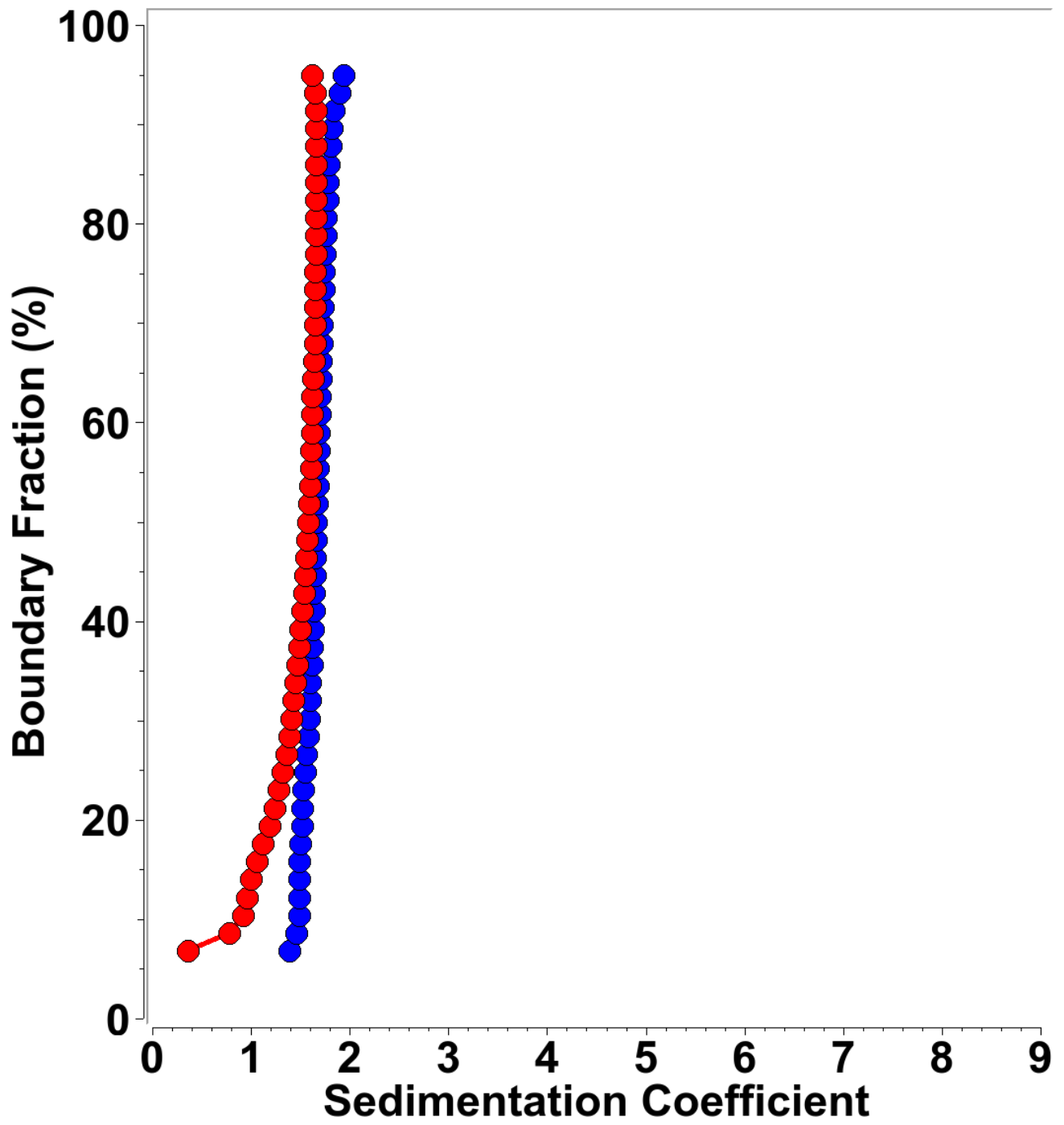


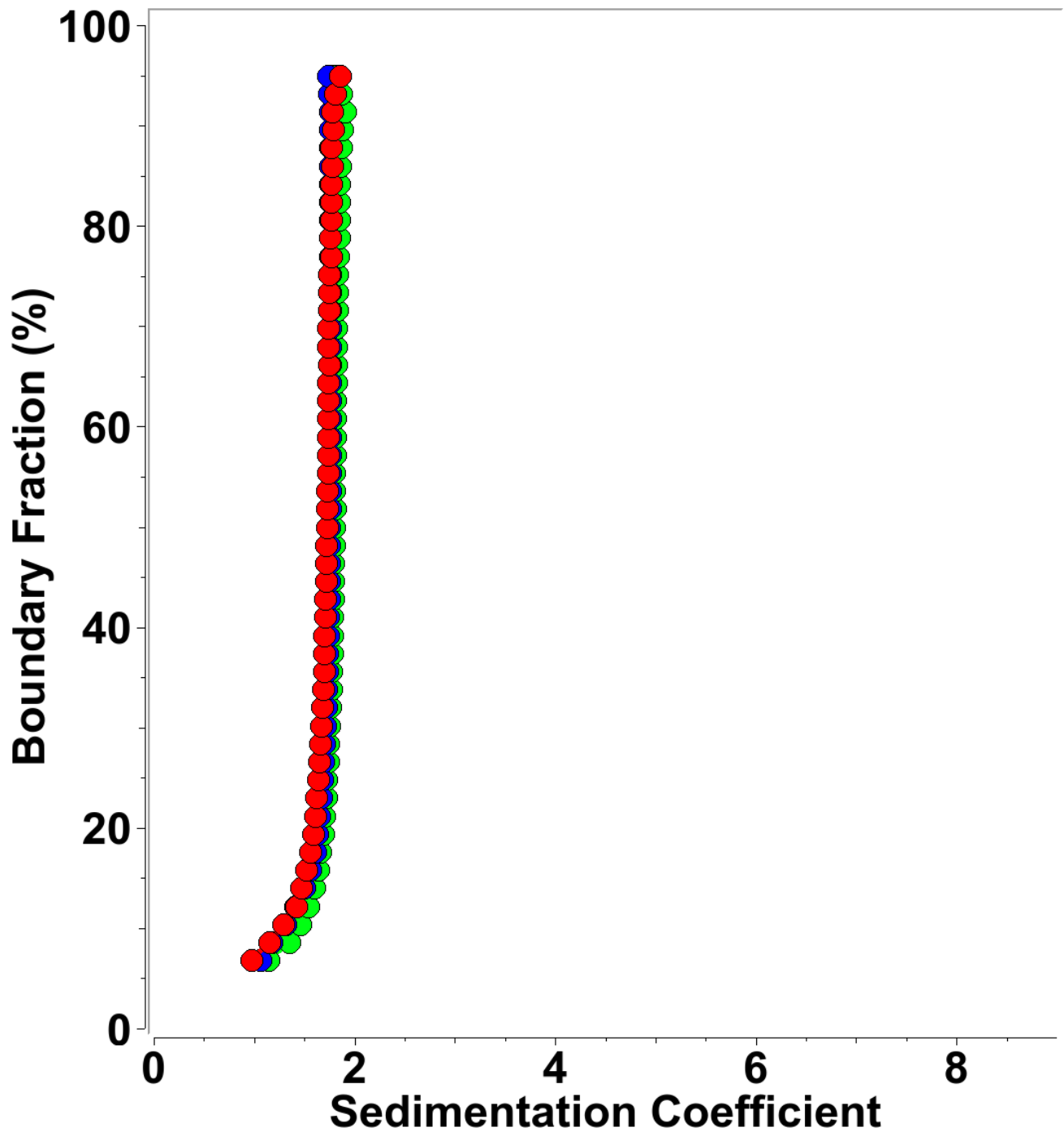
2021\_07\_28\_ctrl\_Mt-II\_140k #1-11 RT: 0.04-0.41 AV: 11 NL: 3.73E+006  
T: FTMS + p ESI Full ms [800.0000-2500.0000]



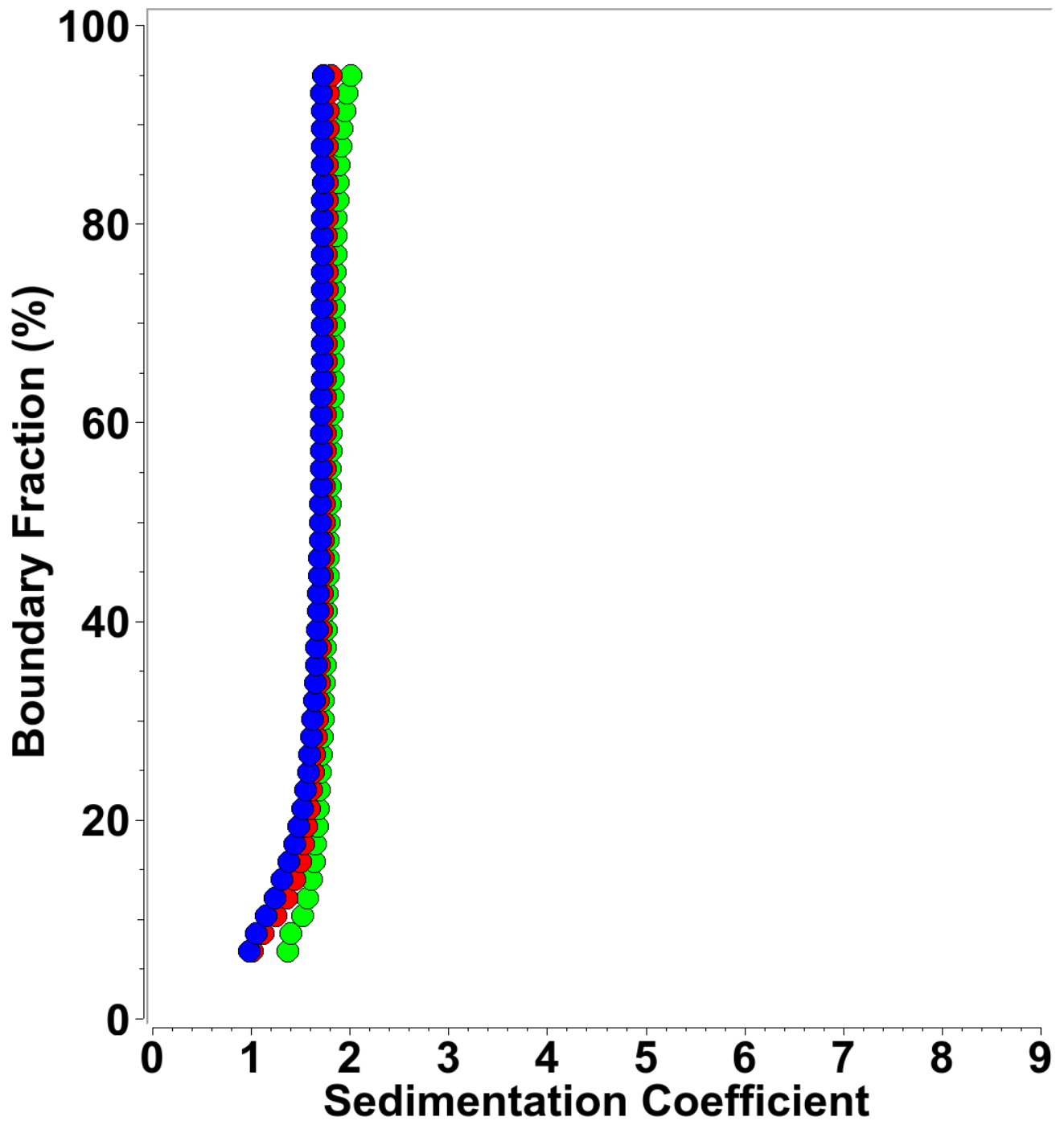
SI 1: ESI-MS analysis of mt-II showing its monoisotopic mass (inset).



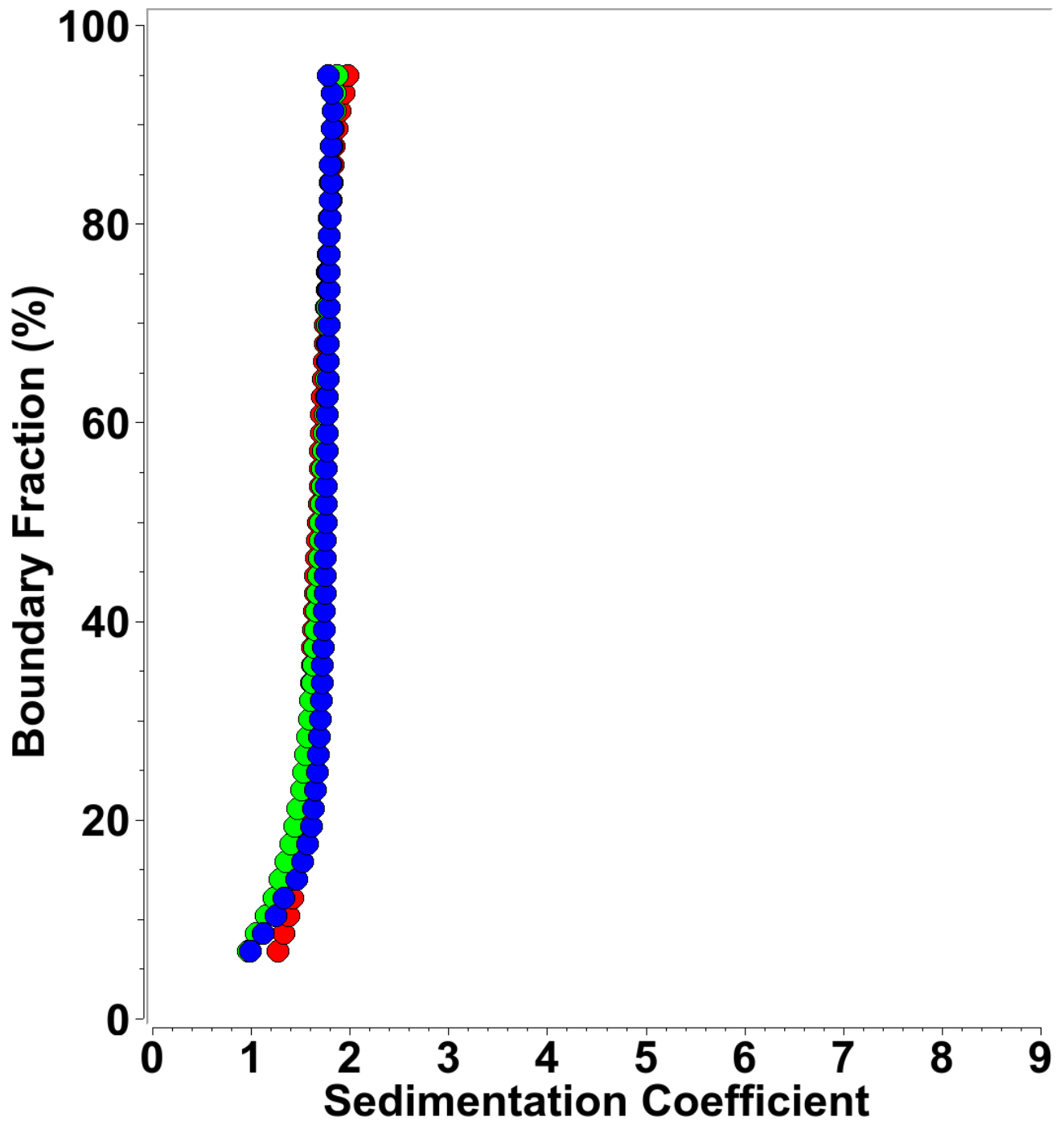
SI 2: Integral sedimentation coefficient distribution for mt-II in Sarcosyl. Blue: 3.6 mM, red: 26 μM.



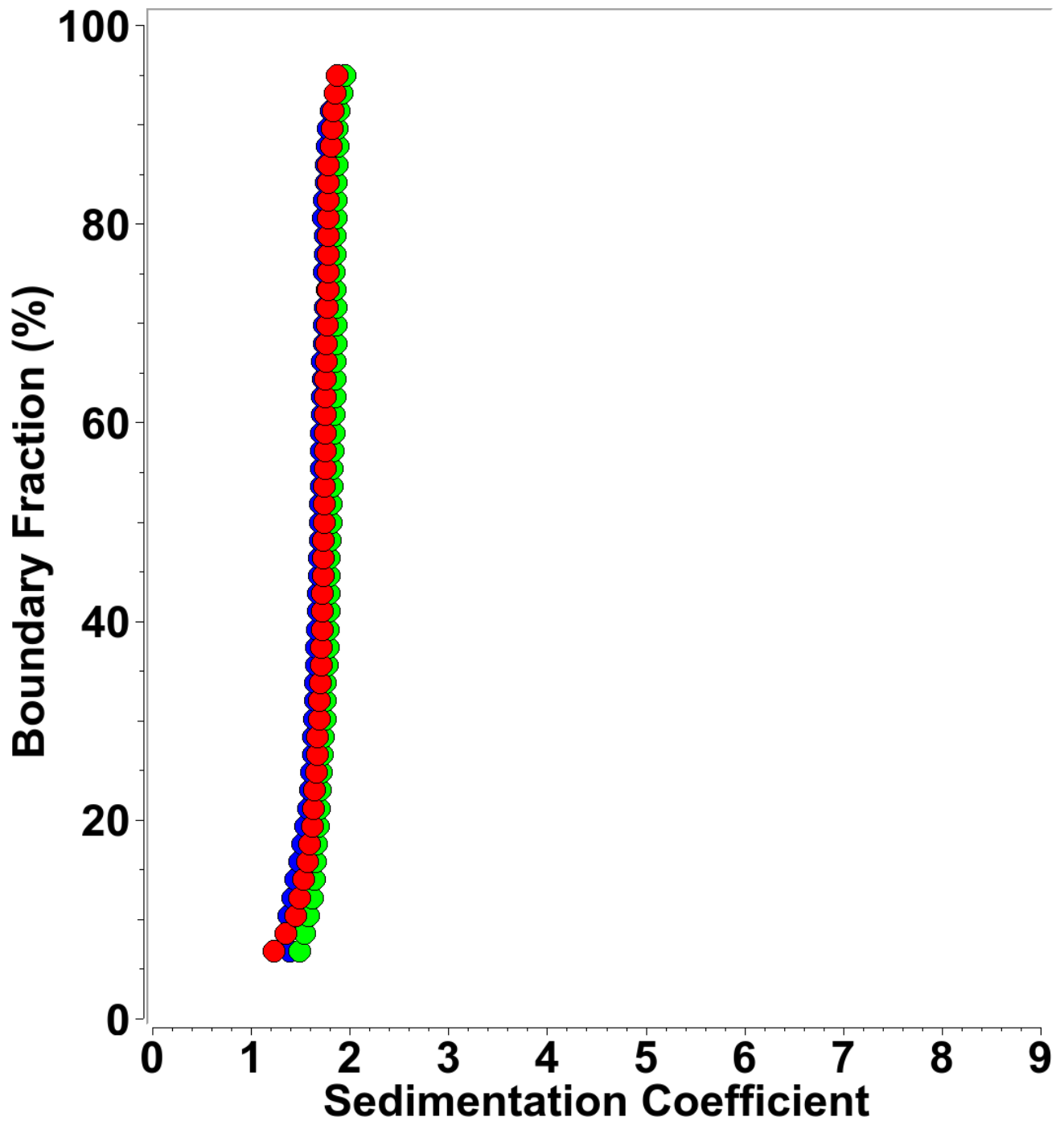
SI 3: Integral sedimentation coefficient distribution for mt-II in CYMAL-5. Blue: 0.9 mM, green: 2 mM, red: 26  $\mu$ M.



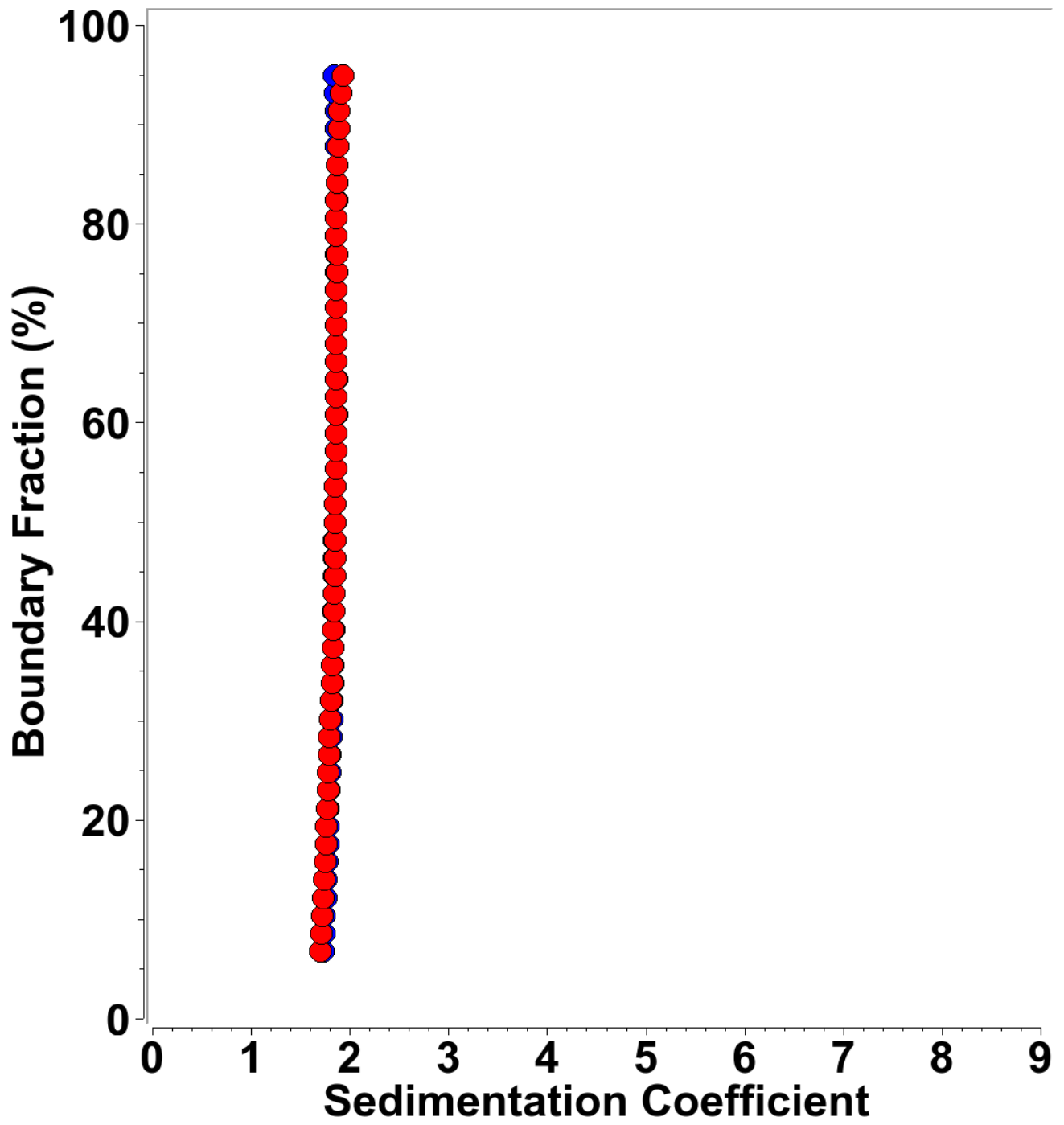
SI 4: Integral sedimentation coefficient distribution for mt-II in U300LA. Red: 0.3 mM, green: 0.59 mM, red: 26  $\mu$ M.



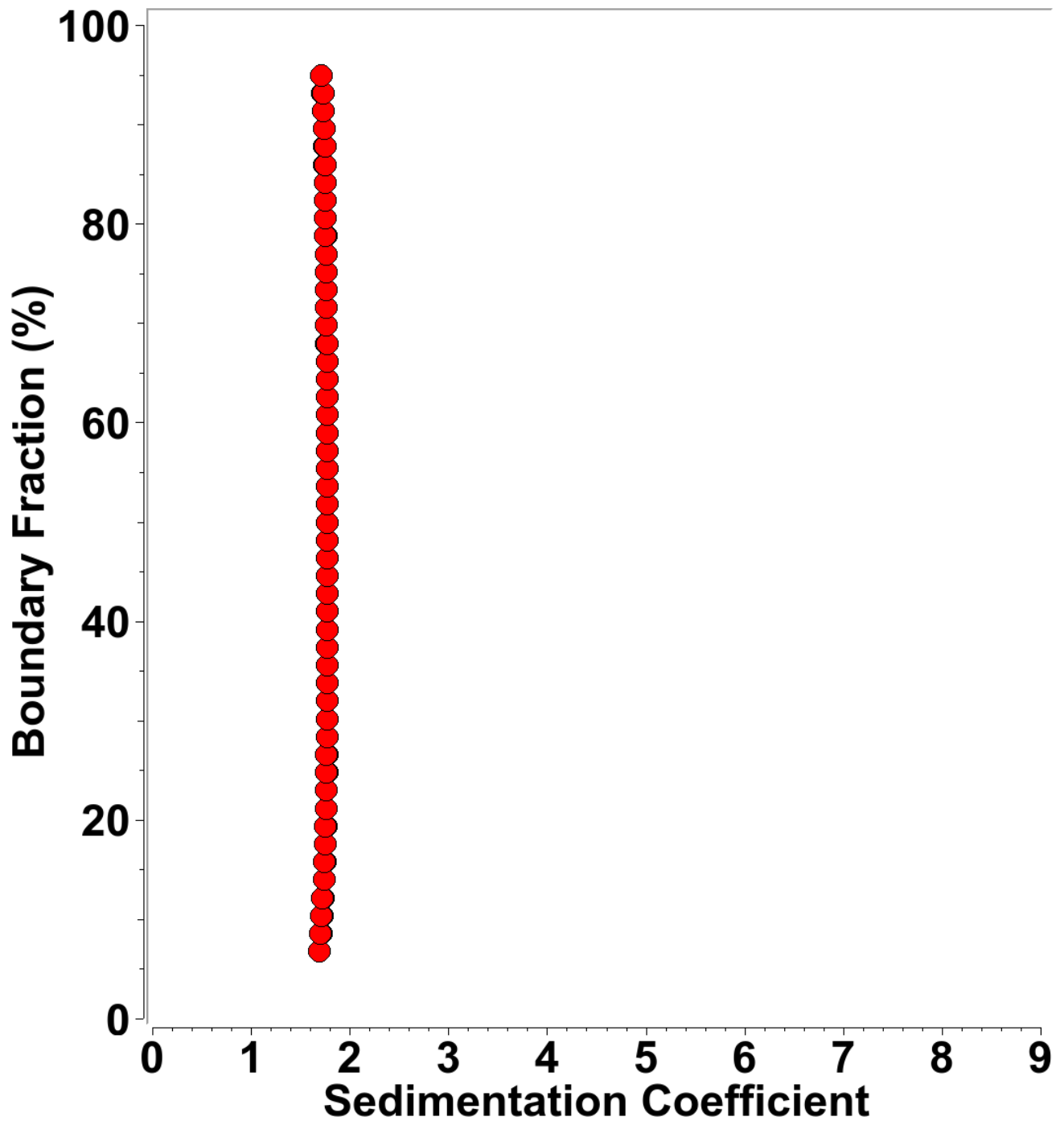
SI 5: Integral sedimentation coefficient distribution for mt-II in U310. Blue: 0.6 mM, green: 1.2 mM, red: 26  $\mu$ M.



SI 6: Integral sedimentation coefficient distribution for mt-II in D310LA. Blue: 0.6 mM, green: 1.2 mM, red: 26 μM.

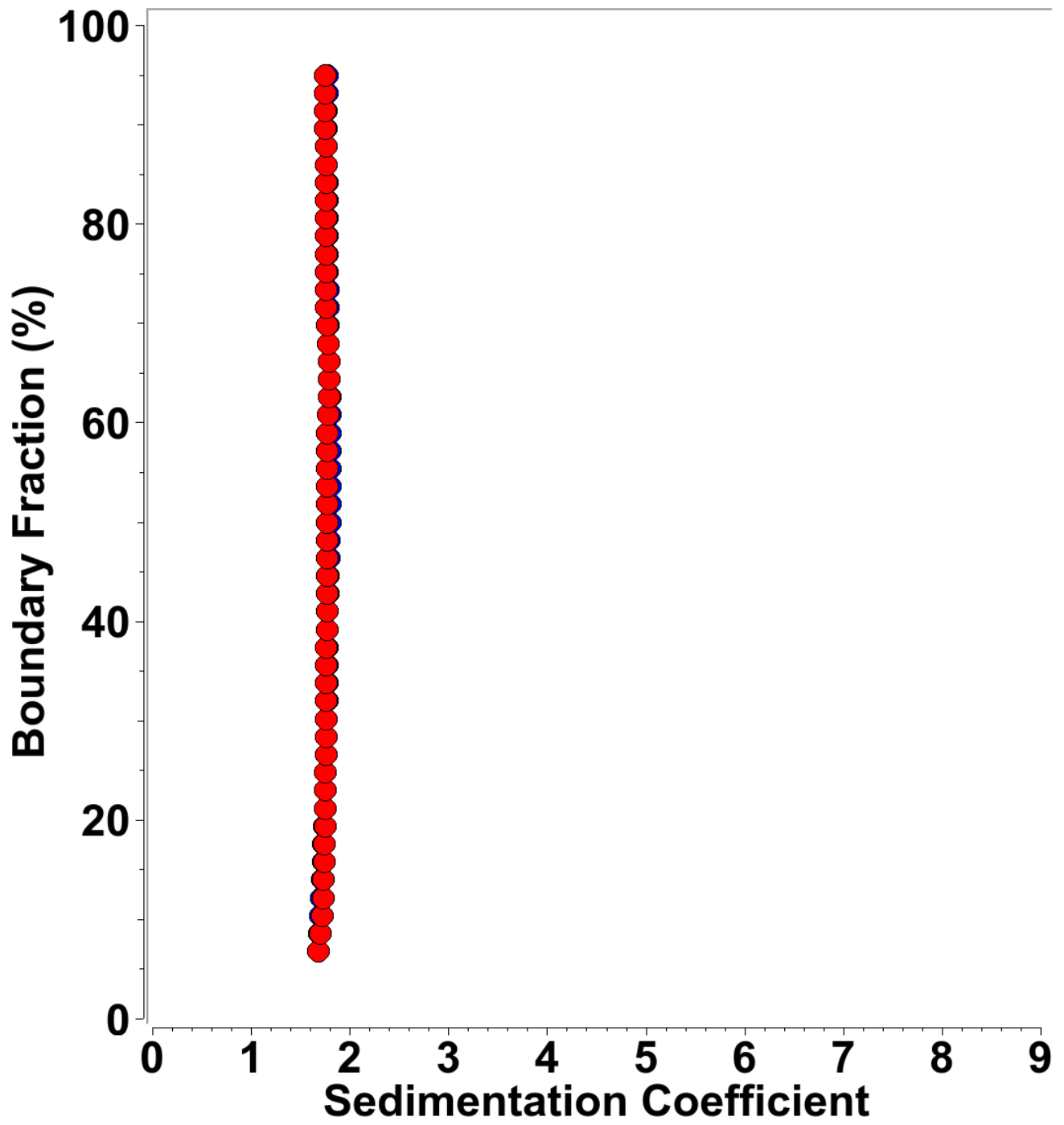


SI 7: Integral sedimentation coefficient distribution for mt-II in LMPG. Blue: 26  $\mu$ M, red: 52  $\mu$ M.

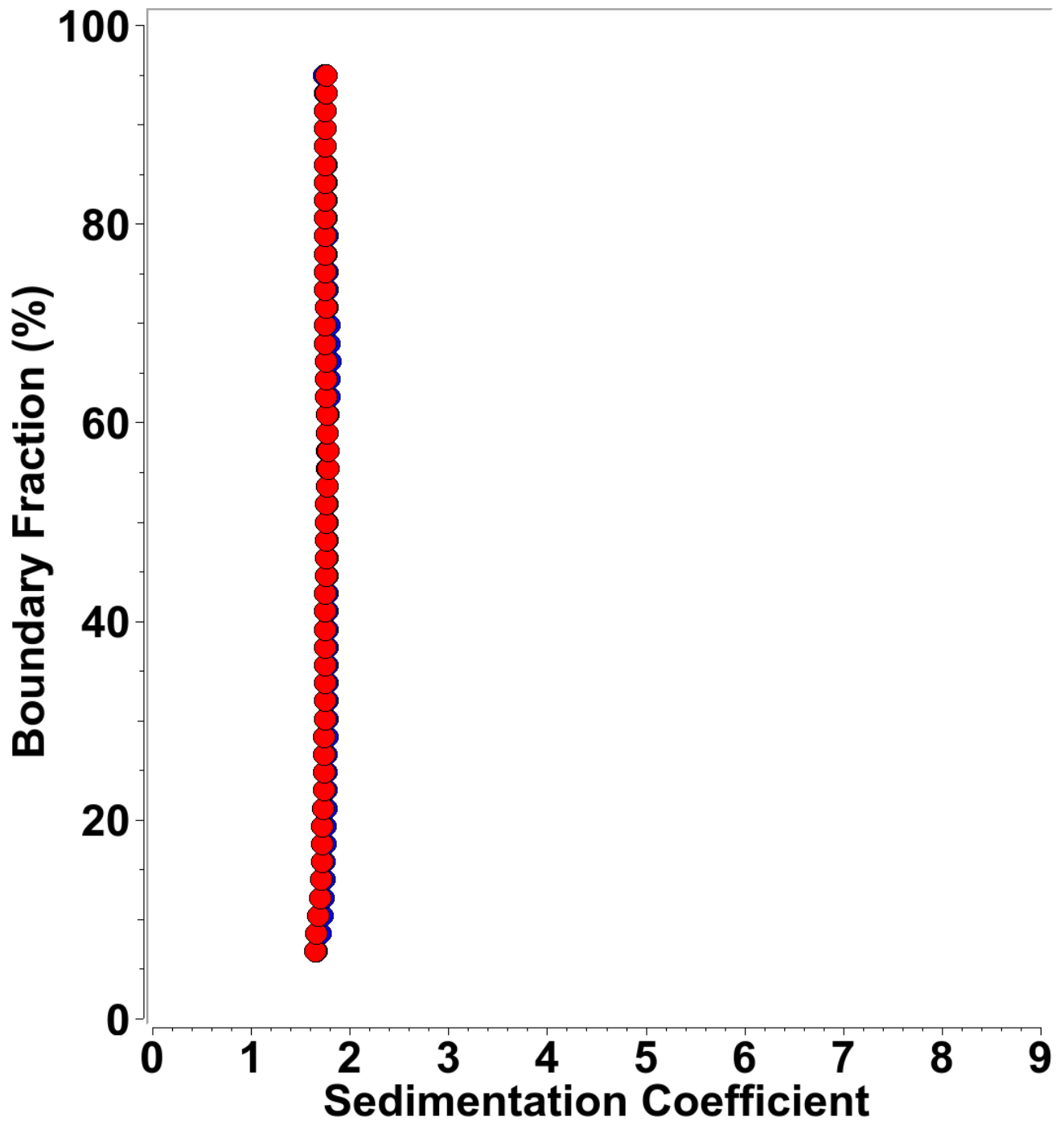


SI 8: Integral sedimentation coefficient distribution for mt-II in LPPG. Blue: 26  $\mu$ M, red: 52  $\mu$ M.

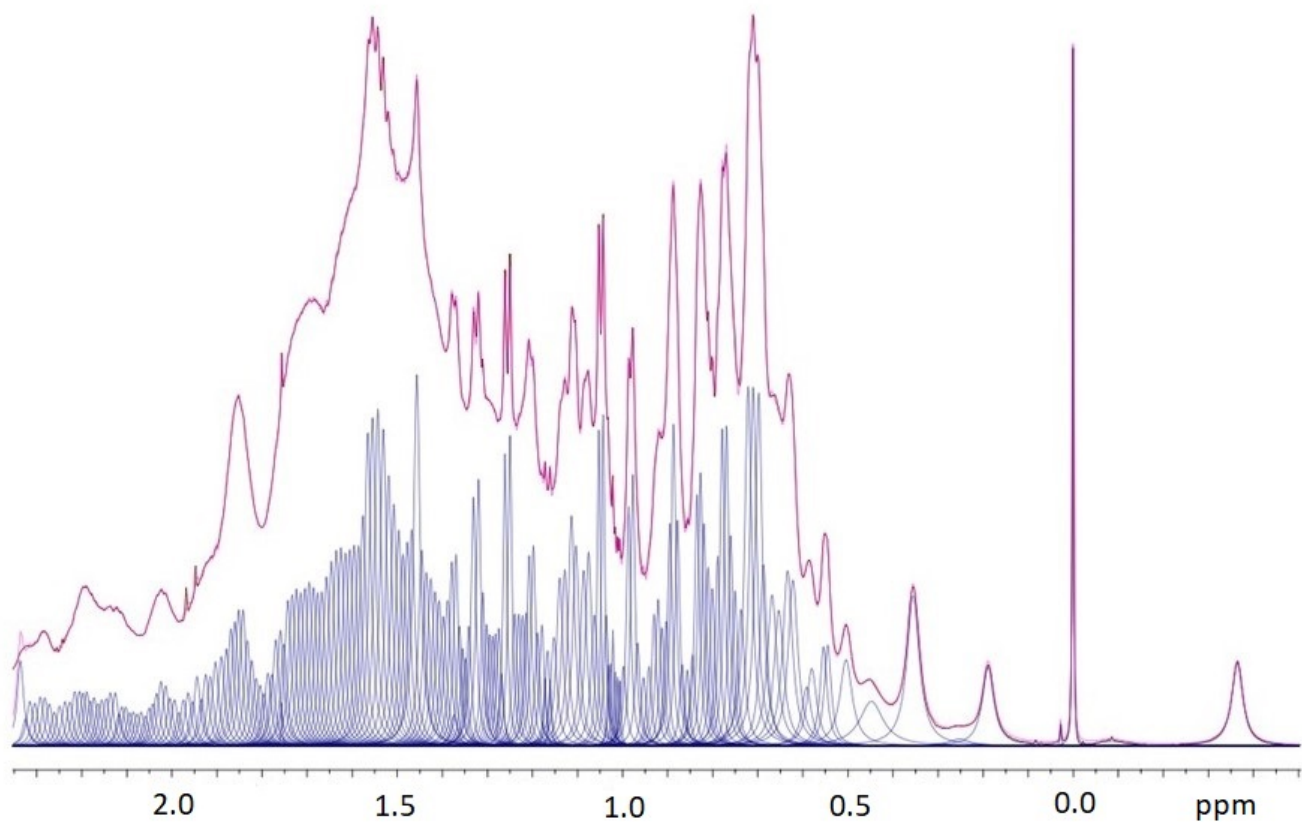




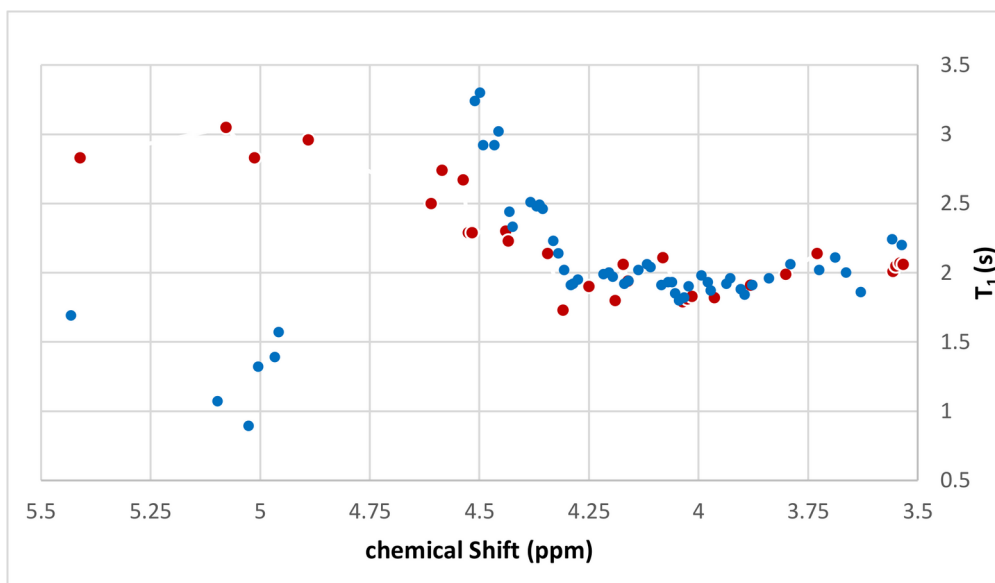
SI 9: Integral sedimentation coefficient distribution for mt-II in LPPC. Blue: 26 μM, red: 52 μM.



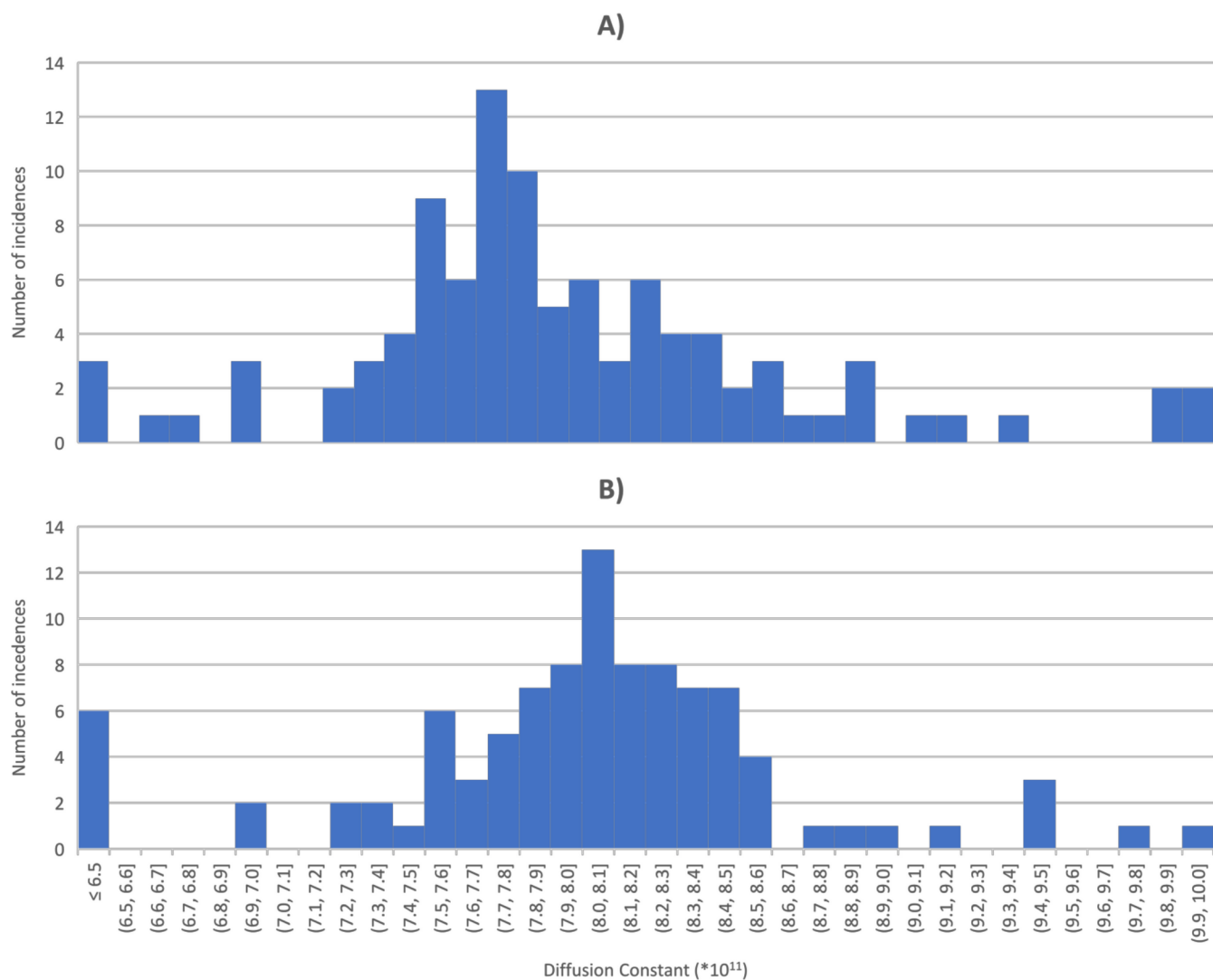
SI 10: Integral sedimentation coefficient distribution for mt-II in LSPG. Blue: 26  $\mu$ M, red: 52  $\mu$ M



SI 11: Deconvolution of the methyl region of the 700 MHz  $^1\text{H}$  Spectrum of mt-II in Phosphate buffer at  $10^\circ\text{C}$



SI 12: Spin-Lattice relaxation times of the  $H_\alpha$  signals for mtII in buffer (red) and with SDS (blue) at 295 K and pH 7.9.



SI 13: Diffusion constant distributions from DOSY of **A)** mt-II in buffer and **B)** mt-II in buffer with 0.2 % SDS.