

Supplementary

Additional Info – S_{Low}

The mixing procedure of slurry S_{Low} was conducted as depicted in Figure S1. A slow HSCM step was followed by 3 fast HSCM steps and finished by a slow SBR addition step and a fast SBR addition step.

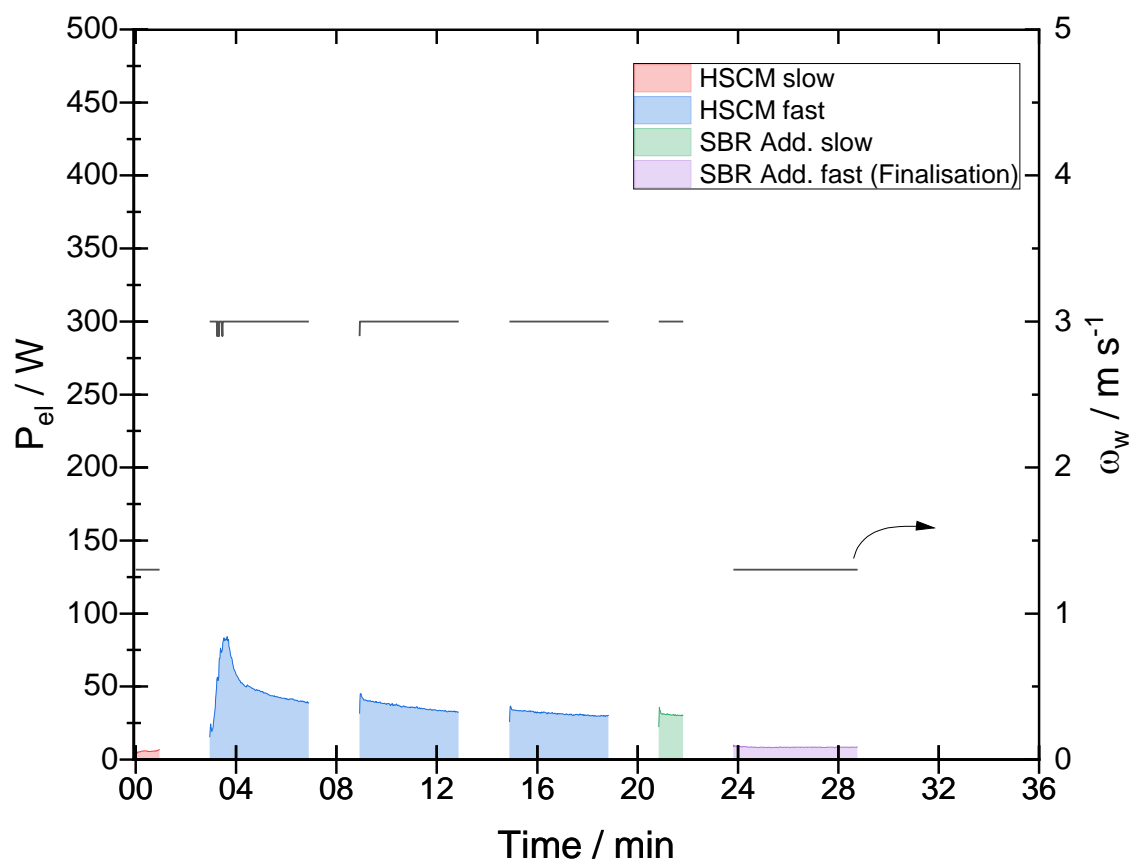


Figure S1: Mixing procedure of low-energy slurry

Additional Info – η_0 vs. C_{CMC}

Figure S2 shows the measured zero shear viscosity of CMC (500 and 875 kDa) vs. CMC concentration (C_{CMC}).

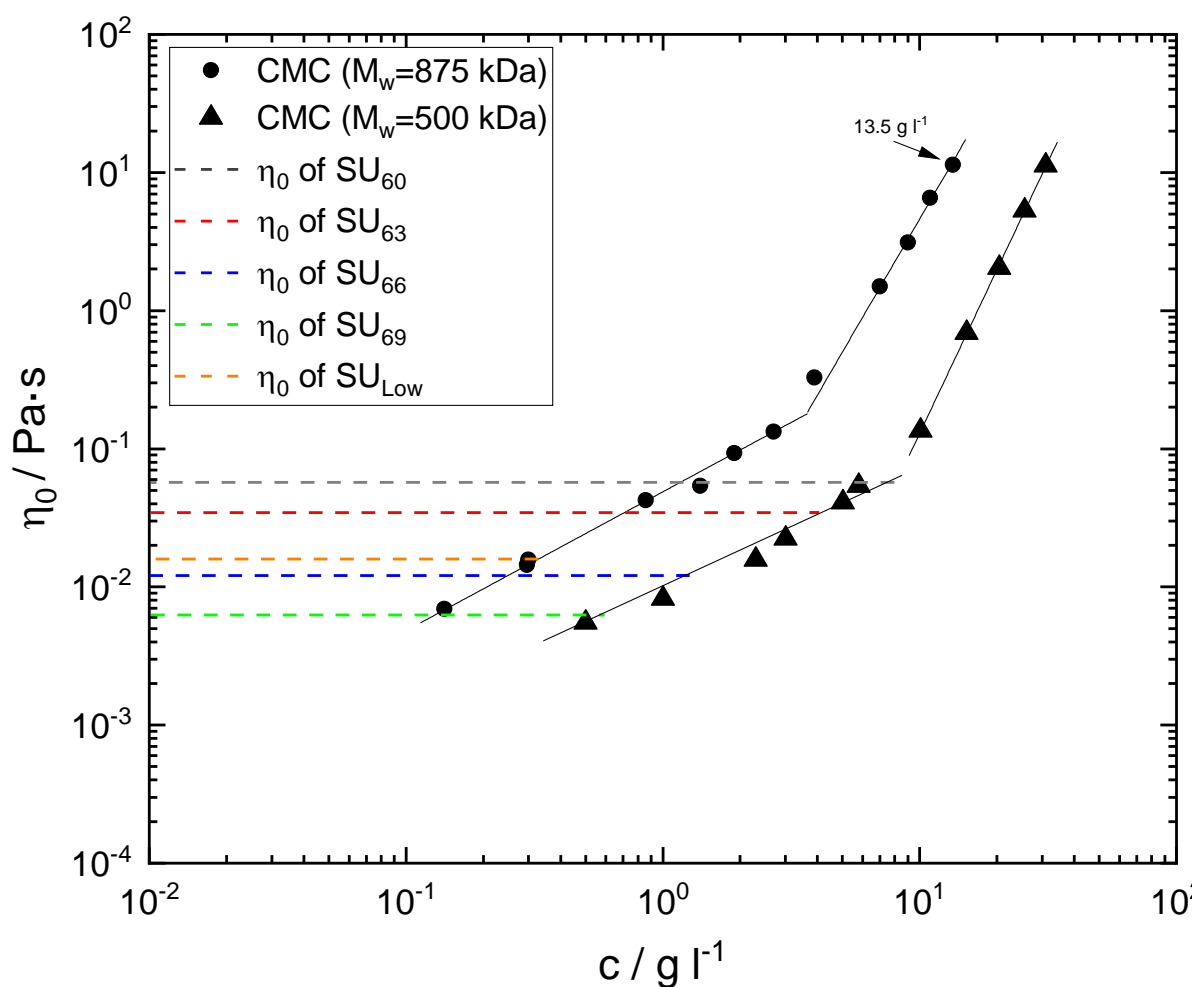


Figure S2: Zero shear viscosity of CMC solutions vs. CMC concentration; zero shear viscosity values of investigated supernatants as horizontal lines.

Calculation of adsorbed CMC

The amount of adsorbed CMC was calculated by dividing the CMC concentrations (875, 500) by the slurries' CMC concentrations, e.g., in the case of SU $_{60}$, 5.8 g/l divided by 13.5 g/l equals to 43 %, meaning that only 43 % of the 13.5 g/l CMC remains in the solvent and the rest was adsorbed. For SU $_{69}$, its dilution (1:26) was taken into account.