Electronic Supplementary Material (ESI) for RSC Advances.

Supplementary Information

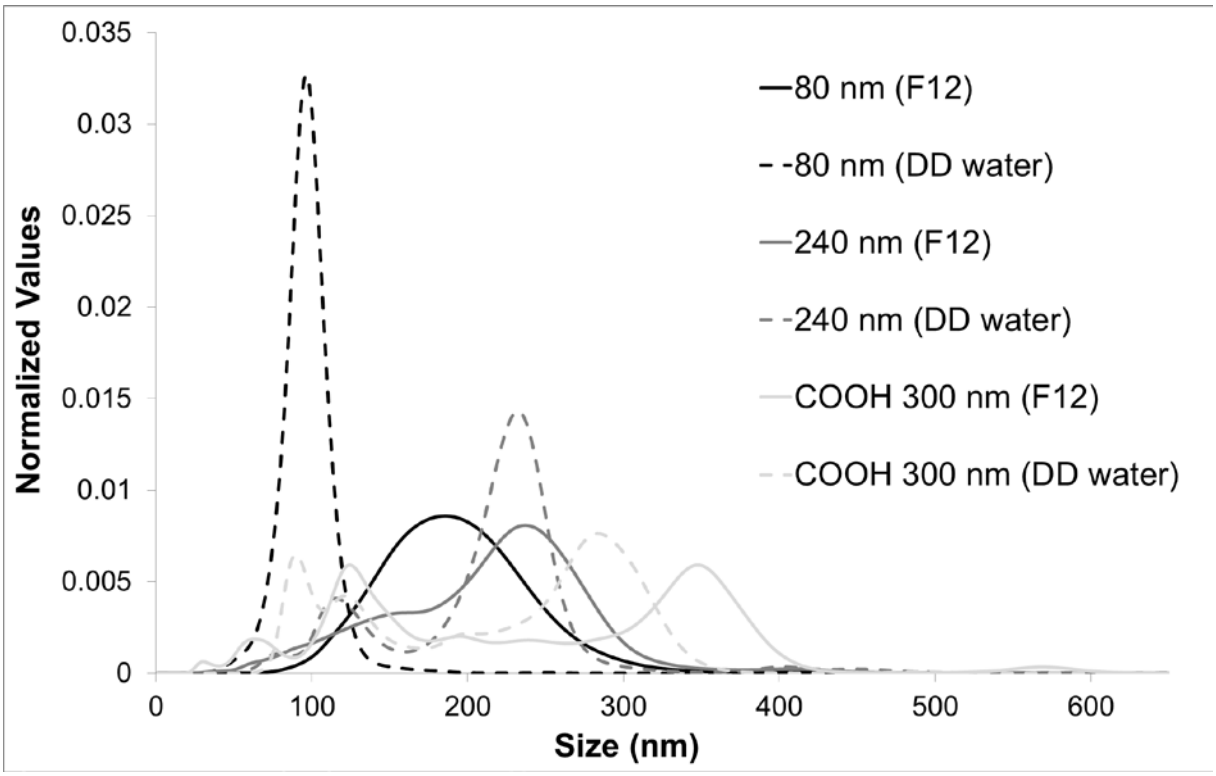
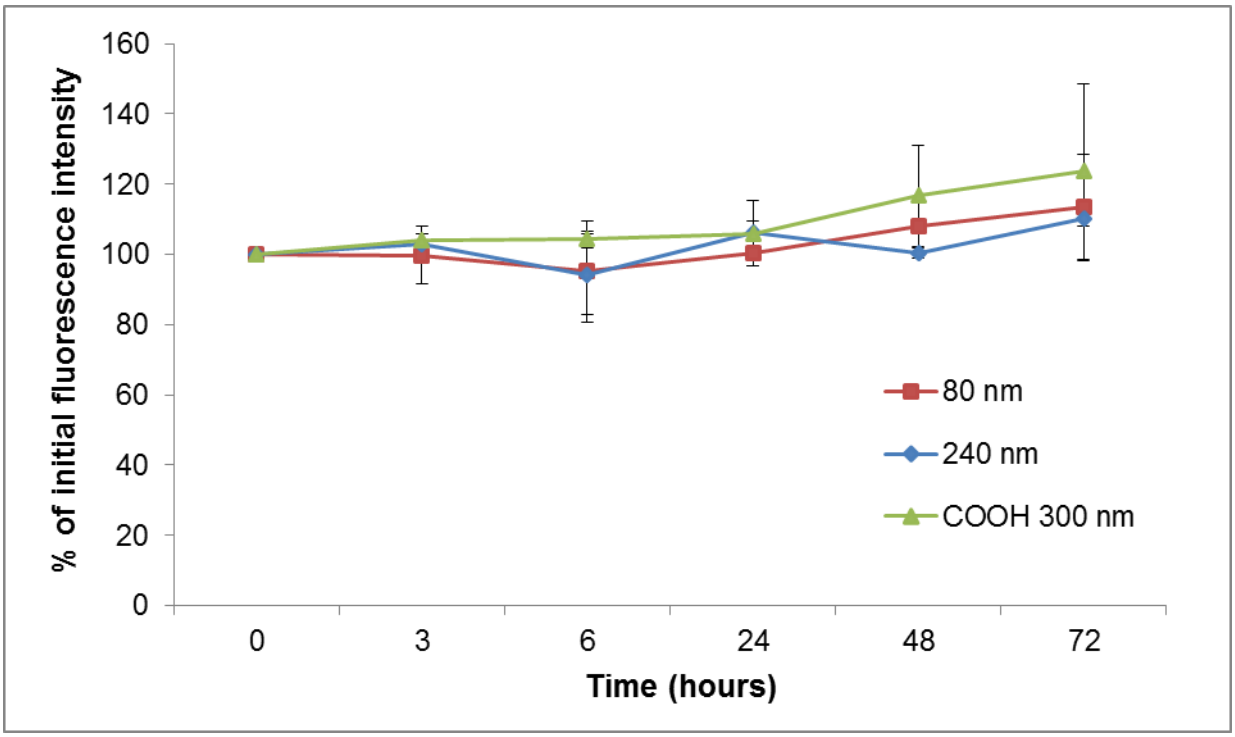


Figure 1. Size distribution of PS particles measured by nanoparticle tracking analysis. Size distributions were analyzed for 80 nm, 240 nm and COOH 300 nm PS particles diluted in either growth medium (F12) or DD water. For each particle, values were normalized to the area under the NP concentration/size curve.

A



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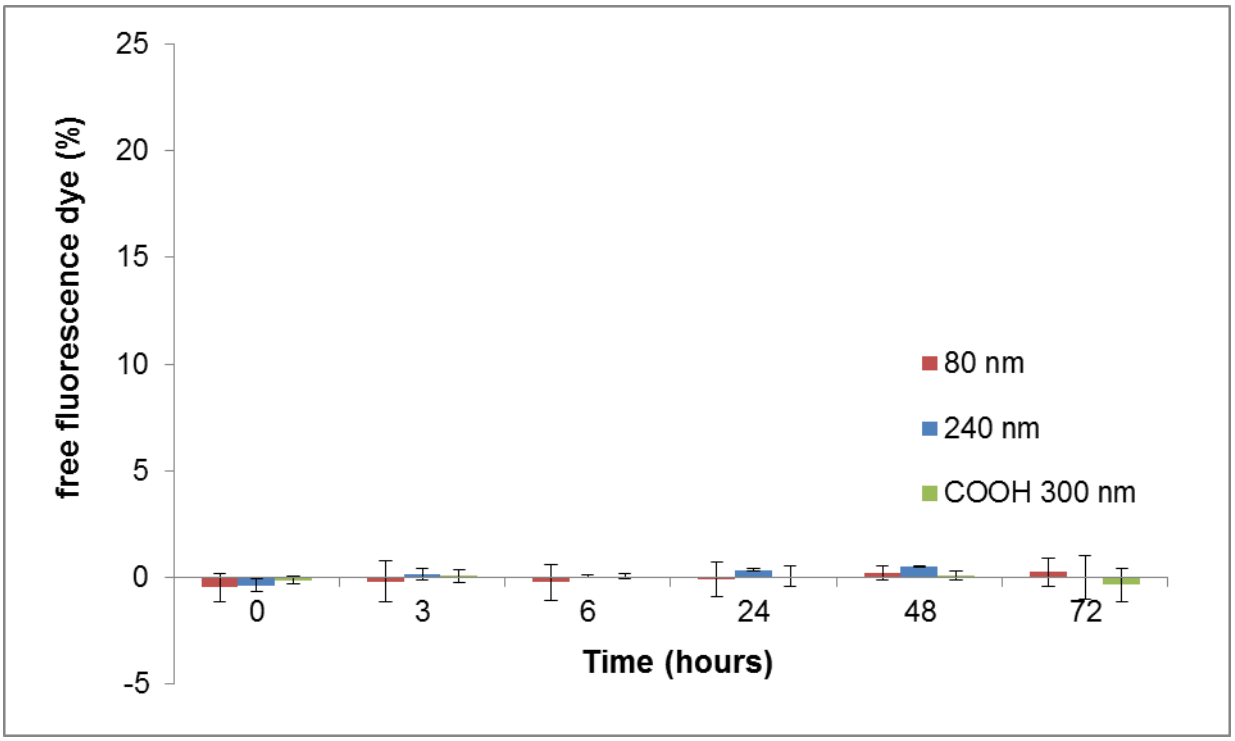
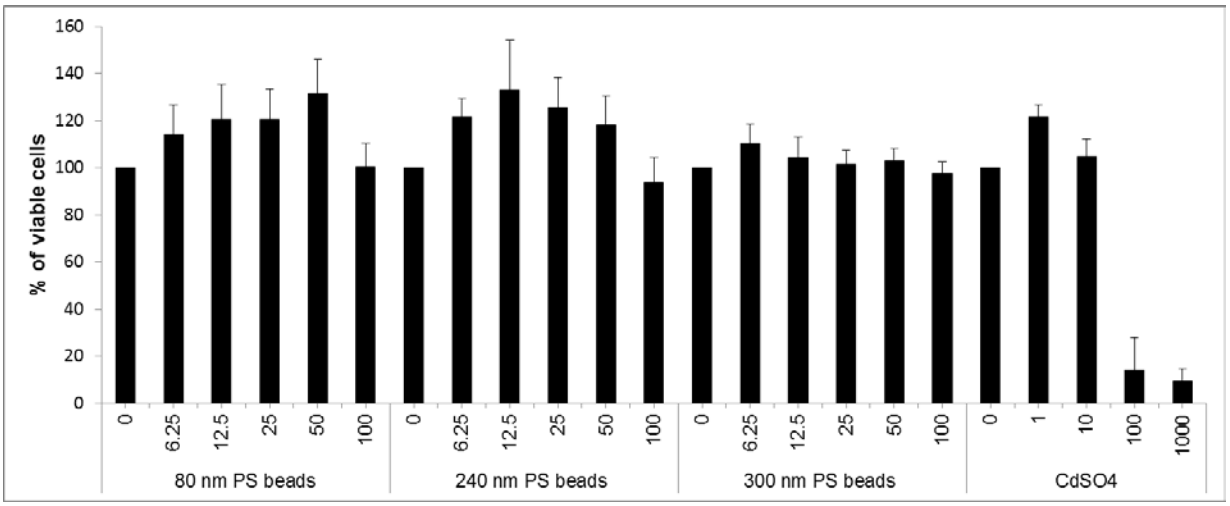


Figure 2. Fluorescence intensity measurements of PS particles. Fluorescence intensities of PS particles in growth medium at 37 °C were measured during 72 h. (A) Results are shown as the percentage of the initial fluorescence intensity at 0h. (B) Loss of the PS particle fluorescence in growth medium after filtration was determined over a time period of 72 h at 37 °C. Free fluorescence intensity is shown as percentage of total fluorescence intensity before filtration (mean ± SD, n=3).

A



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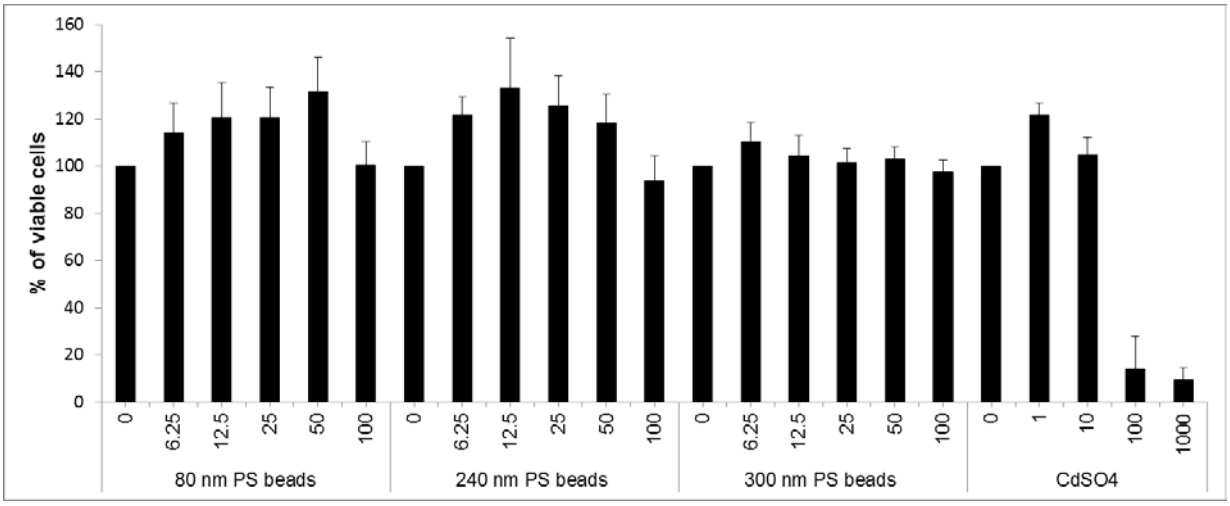

Figure 3. BeWo cell viability after exposure to PS particles. BeWo cell viability was assessed with a MTS assay after 3 h (A) and 24 h (B) of exposure to 80 nm, 240 nm and COOH 300 nm PS particles. $CdSO_4$ served as a positive control for cytotoxicity.

Data from 240 nm and COOH 300 nm PS particles have already been published by Grafmüller et al.[42] and were included in this figure to provide a complete overview on the cytotoxicity of all PS particles used in this study. Data represent the mean percentages of viable cells compared to the untreated control ± SD of 3 independent experiments.