

Table S1. Particle characteristics of P25 and A-100: The table displays the 10th and the 90th percentile of the particle size distribution, the mean percentage of particles below a particle size of 100 nm as well as the mean particle size together with the polydispersity index. This index provides information on the range of the particle size distribution. A value above 0.3 indicates unreliability of the measurement, due to masking of small particles by large ones. Additionally the zeta potential of the particles and their measured concentration in the test medium is given. nTiO₂ concentrations were measured following Dabrunz et al.¹.

| product | mean (±SD; n) particle size nm | 10 th percentile (mean±SD; n) of particle size distribution nm | 90 th percentile (mean±SD; n) of particle size distribution nm | mean percentage (mean±SD; n) of particles below a size of 100 nm | polydispersity index PI | mean (±SD; n) zeta potential mV | nominal concentration mg/L | mean (±SD; n) measured concentration mg/L | | |
|---------|--------------------------------------|--|--|---|-------------------------------|---------------------------------------|----------------------------------|---|----------------------|----------------------|
| | | | | | | | | 1 st week | 2 nd week | 3 rd week |
| P25 | 135.8 (±14.1; 30) | 76.2 (±7.4; 30) | 251.5 (±57.8; 30) | 31.30 (±6.62; 30) | 0.181-0.270 | -19.46 (±0.41; 3) | 0.00 | 0 | 0 | 0 |
| | | | | | | | 2.00 | 1.62 (±0.07; 3) | 1.64 (±0.02; 3) | 1.90 (±0.03; 3) |
| A-100 | 143.2 (±23.9; 22) | 74.8 (±6.4; 22) | 285.6 (±103.9; 22) | 31.89 (±5.01; 22) | 0.143-0.284 | -16.75 (±0.29; 3) | 0.00 | 0 | 0 | 0 |
| | | | | | | | 2.00 | 2.34 (±0.26; 3) | 2.39 (±0.17; 3) | 2.42 (±0.07; 3) |

Reference

1. Dabrunz A, Duyster L, Prasse C, Seitz F, Rosenfeldt RR, Schilde R, Schaumann GE, Schulz R (2011) Biological surface coating and molting inhibition as mechanisms of TiO₂ nanoparticle toxicity in *Daphnia magna*. PLoS One 6: e20112.