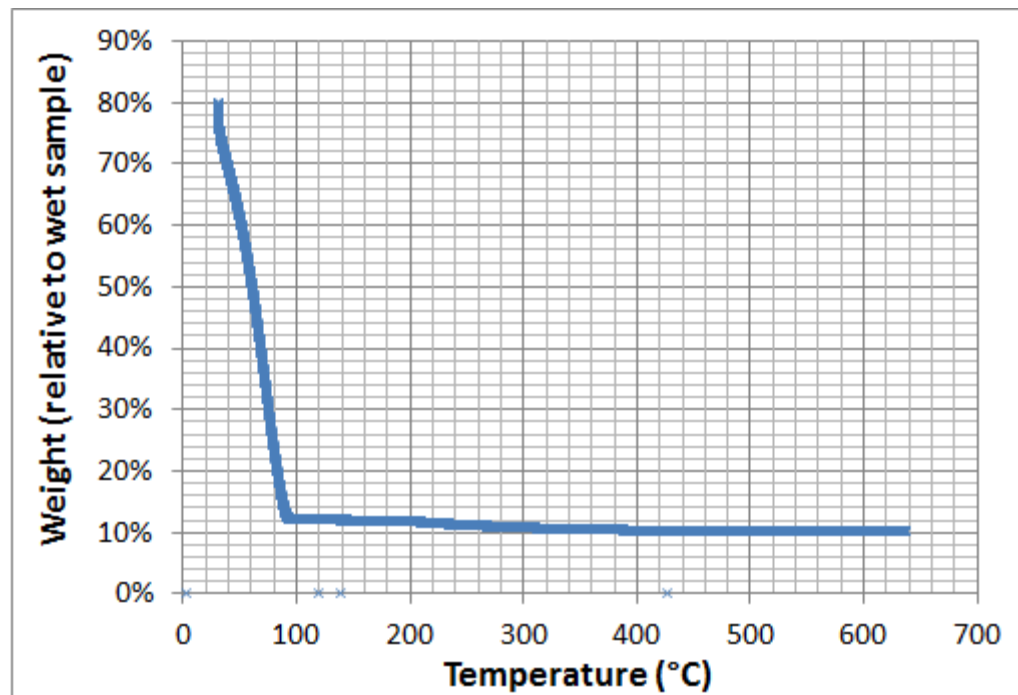
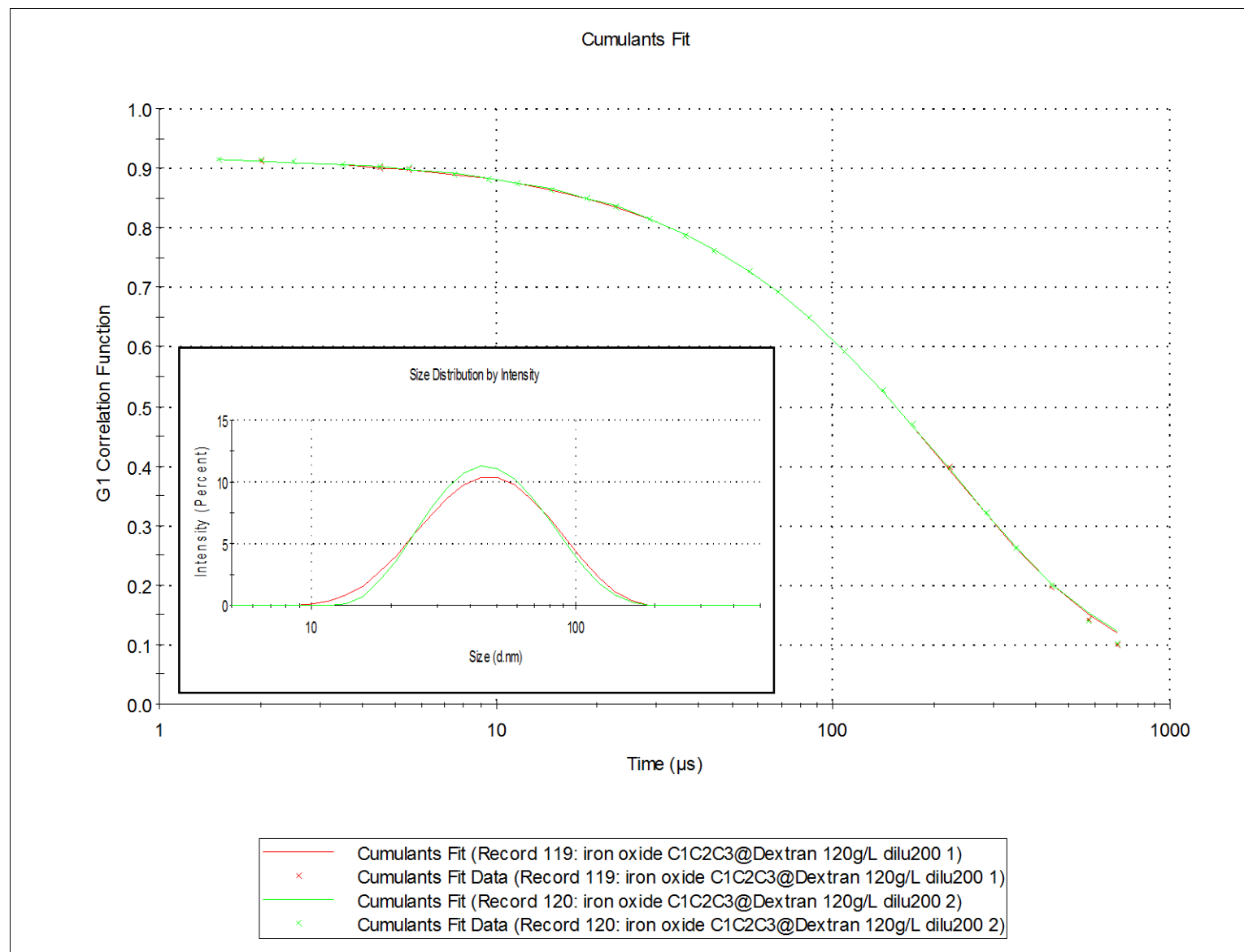


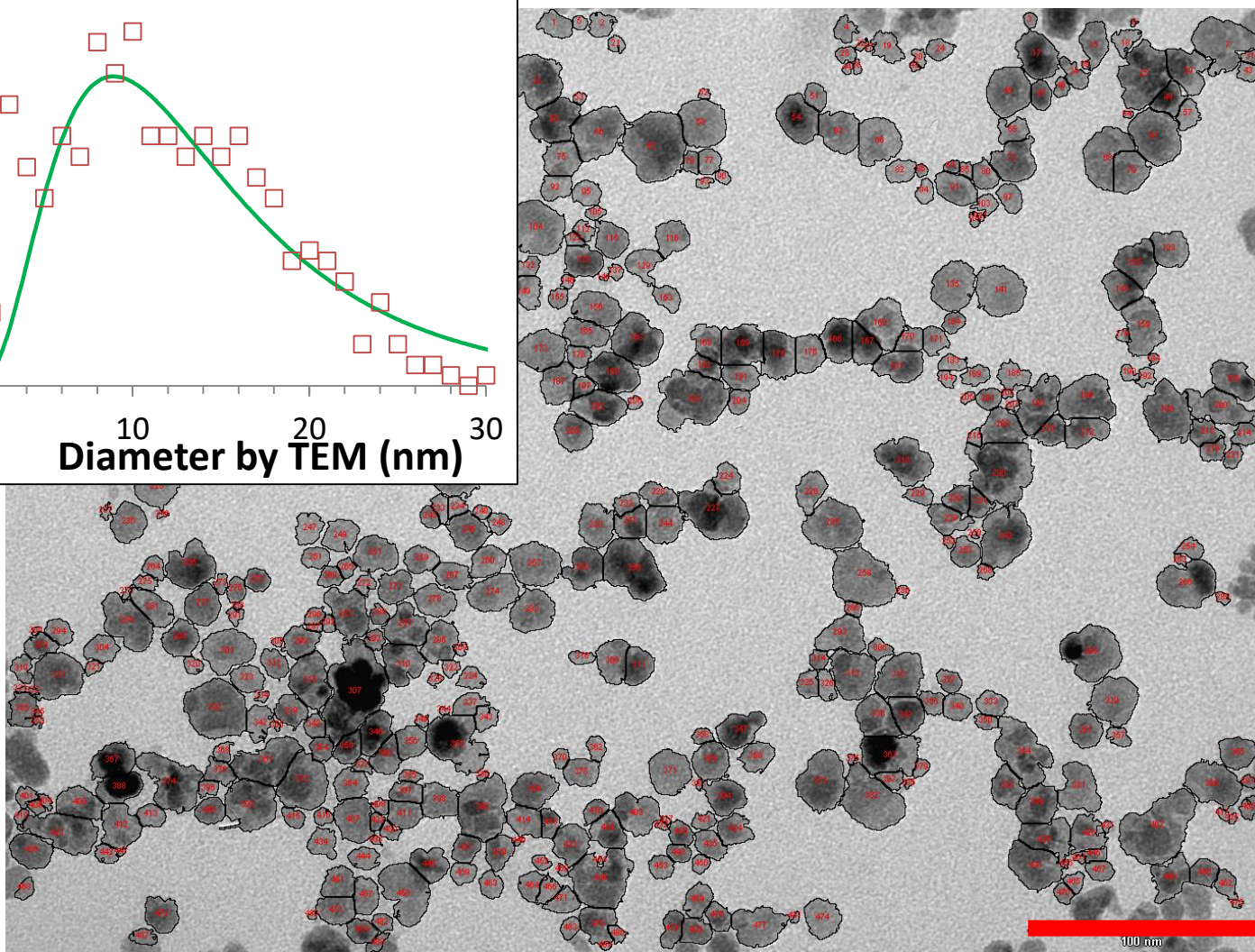
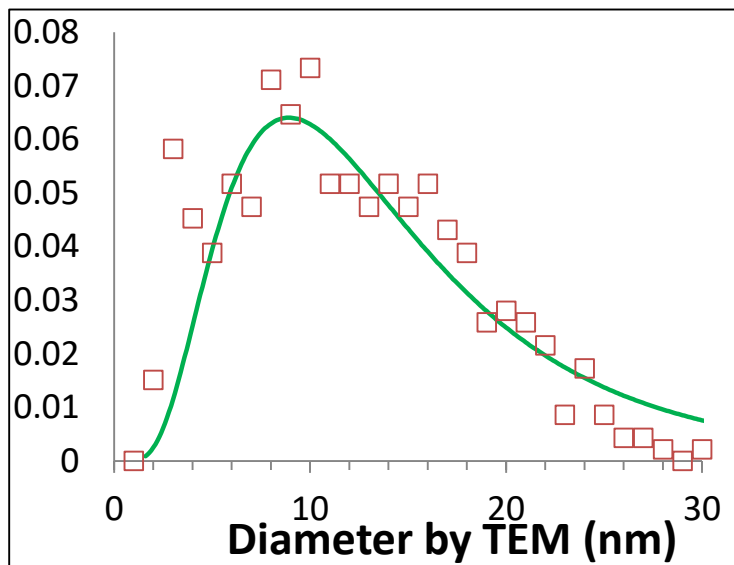
Supplementary materials



TGA curve of C1C2C3@dex MNPs (ramp curve in air, TA Instruments™ Q500): dry matter represents 12.0% of which 1.6% is polymer, 10.4% is iron oxide.

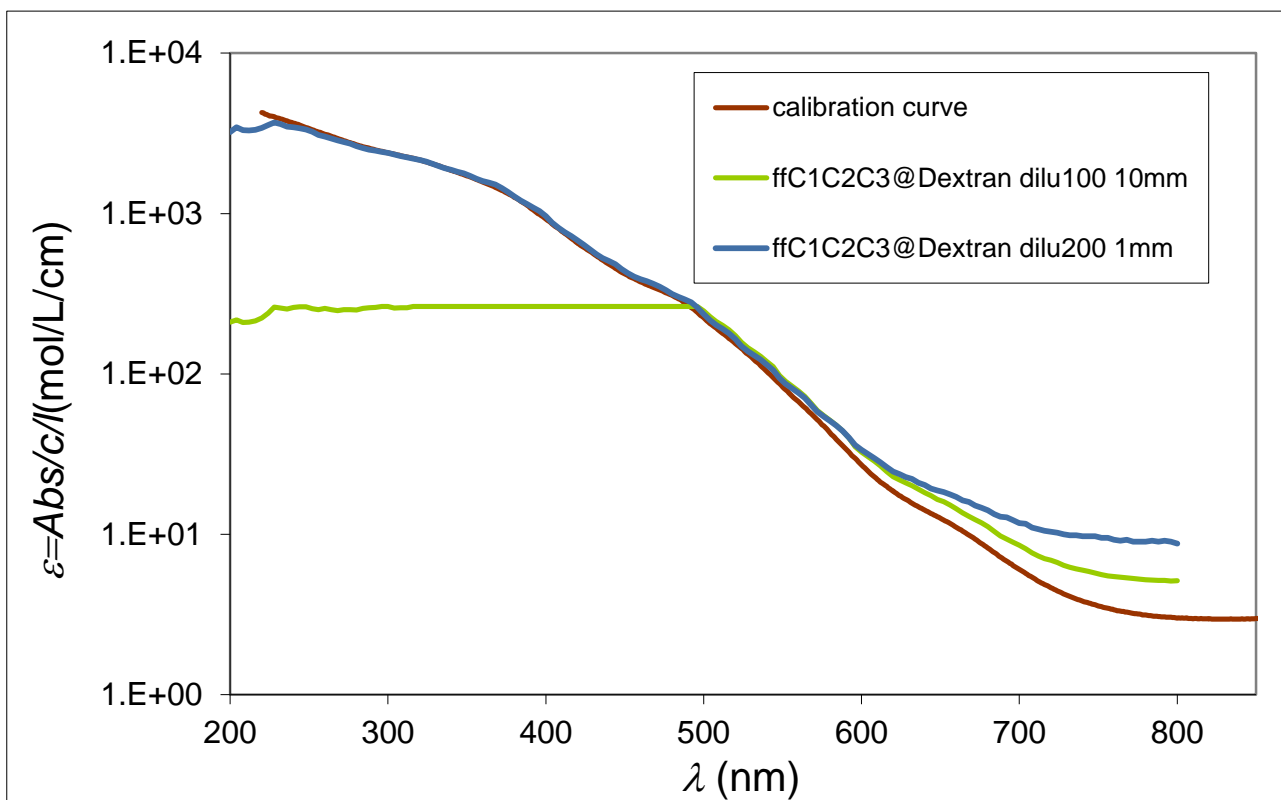


DLS curve (Malvern Nanosizer™) of C1C2C3@dex MNPs diluted 200 times in water: the fitting of the correlogram by the method of cumulants leads to a Z-average hydrodynamic diameter of 40.2 nm with a polydispersity index PDI= 0.215.



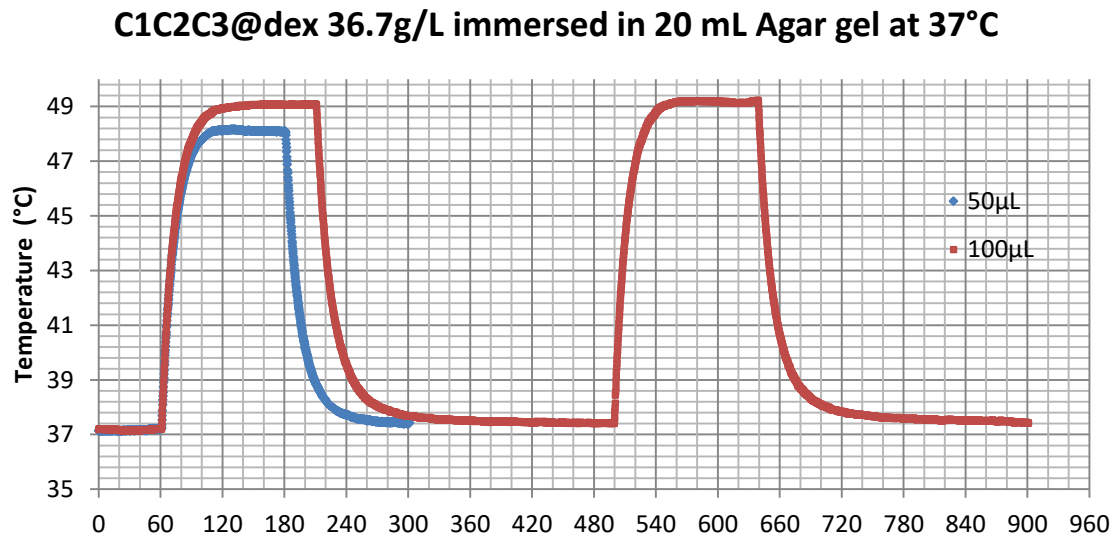
TEM image acquired at 80kV of C1C2C3 MNP cores diluted at 80 $\mu\text{g/mL}$ analyzed by automated particle counting using ImageJ (<https://imagej.nih.gov/ij/>). The scale bar length is 100 nm. The histogram shown in inset was built on 464 MNPs, leading to mean diameter and standard deviation: $d_{\text{TEM}} = 12.4 \pm 6.0$ nm.

Supporting information



UV-vis absorption spectrum (Spectramax™ M2E) of C1C2C3@dex MNPs diluted 200 times in water for two optical paths (1 and 10 mm). The calibration curve built on atomic emission spectroscopy enables measuring the iron oxide concentration, here 119.8 g/L.

Supporting information



Temperature profiles for C1C2C3@dex MNPs in droplets of two volumes (50 and 100 μL) in contact with 20 mL Agar hydrogel at 37°C. The slopes within the first 3 sec enable to deduce the specific heating rates of the MNPs: SAR=92.6 W/g (50 μL) or 95.3 W/g (100 μL).

Quantitative relationship between thermal dose and BLI signal for topical deposition of MTN droplet on mouse skin

Bioluminescence vs. thermal dose

