Supporting Information

Biocompatible melanin-functionalized $CaCO_3$ nanoparticles for cells protection against photoinduced oxidative stress

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Table of concept

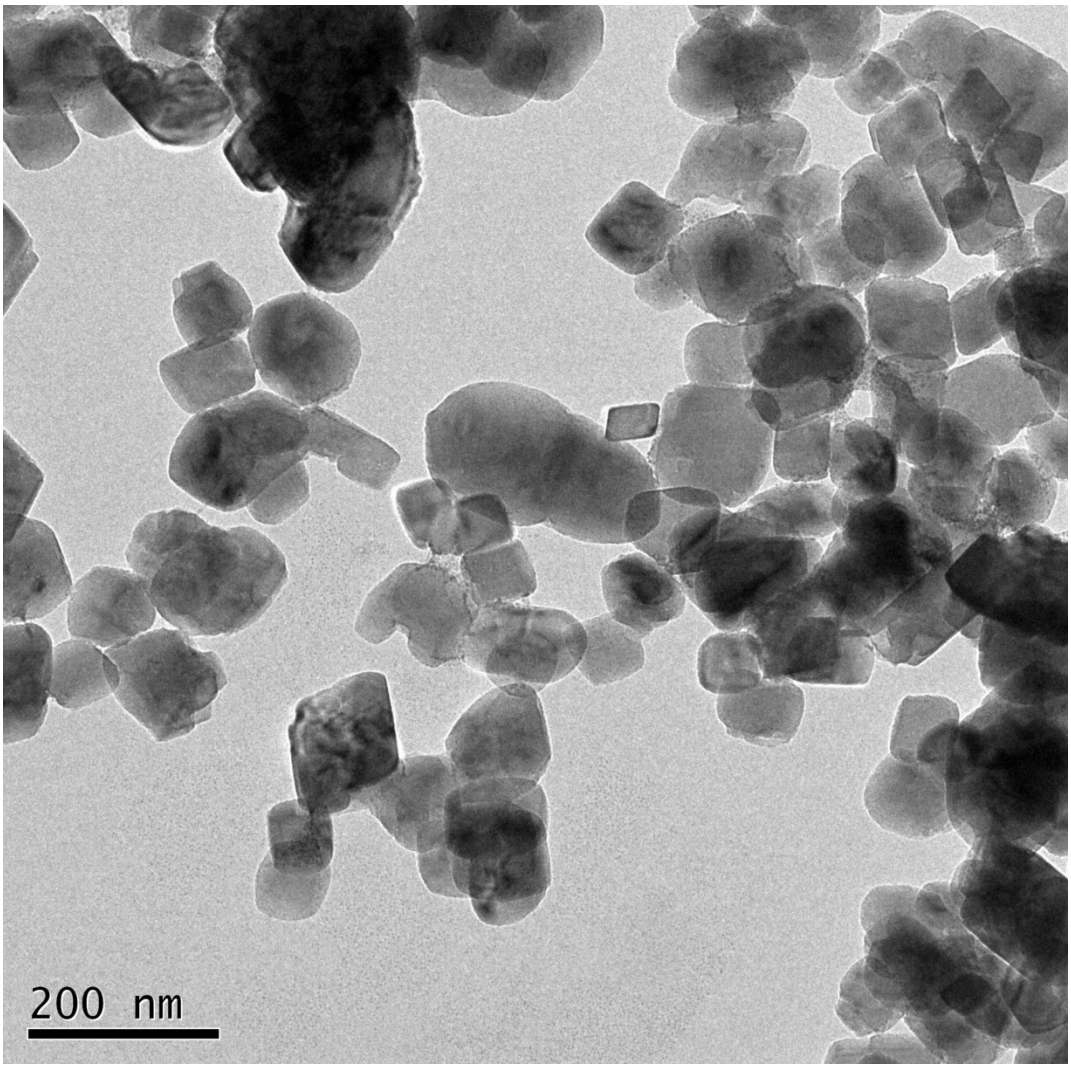

Figure S1. TEM image of $CaCO_3$ NPs. Scale bar 200 nm.

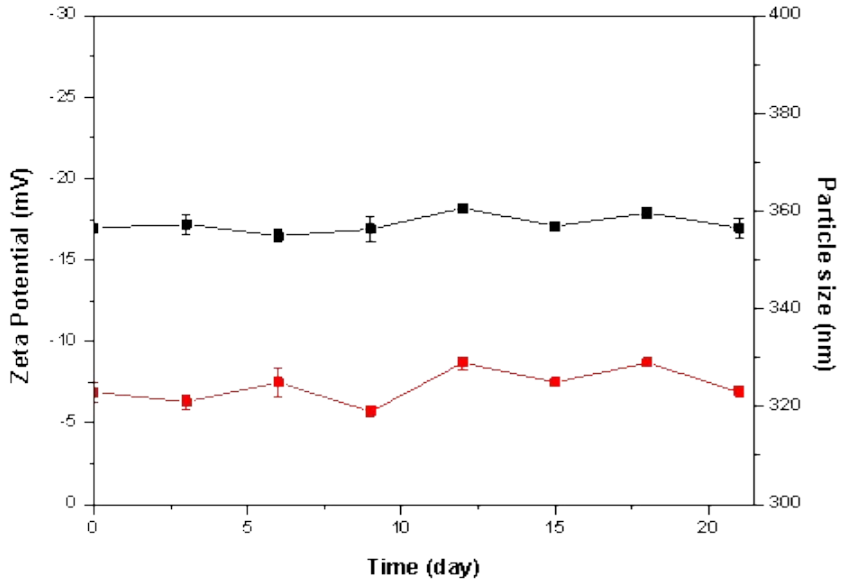

Figure S2. Stability characterization: Size (red line) and zeta potential (black line) measurements during 21 days.

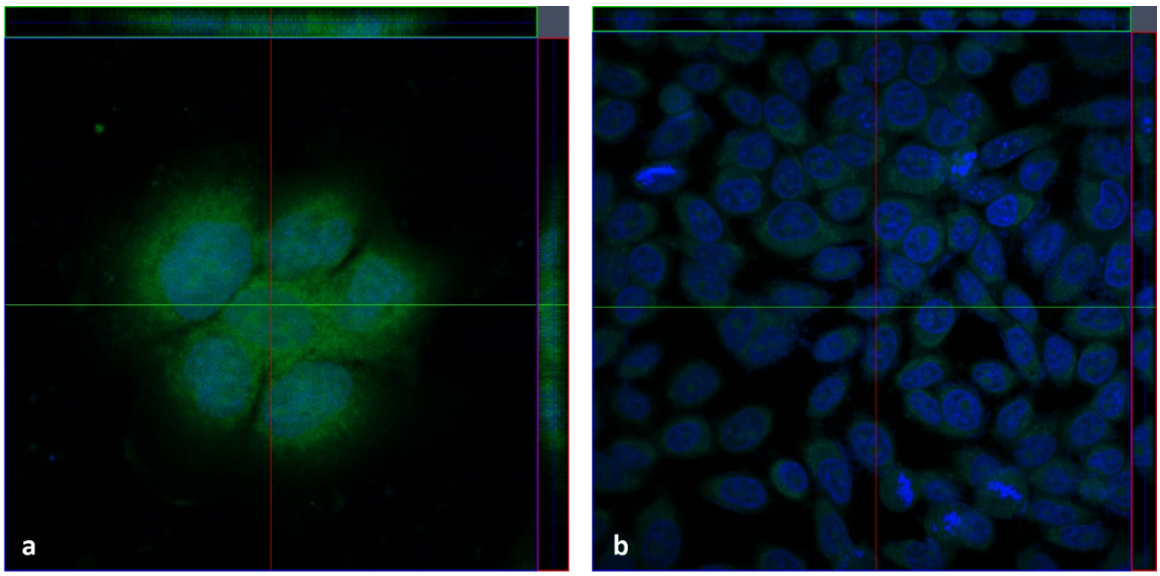

Figure S3. Orthogonal projection image of HaCaT (a) and WS1 (b) to confirm the internalization of melanin – $CaCO_3$ NPs.

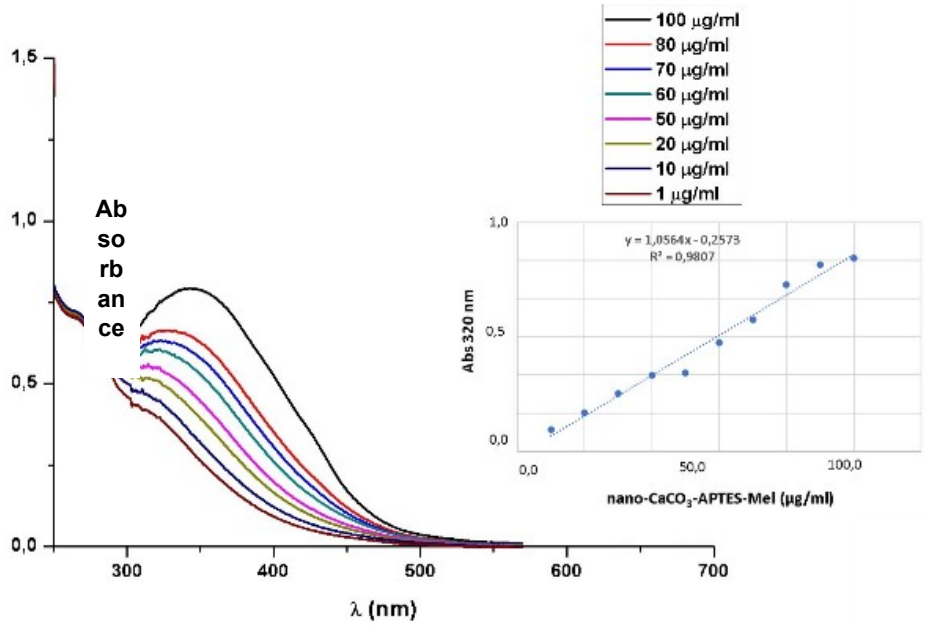

Figure S4. Quantification of internalized Melanin-$CaCO_3$ NPs recording the UV–vis spectra. Increasing concentrations (1–100 µg/mL) of Melanin-$CaCO_3$ NPs were used to build the calibration curves by plotting values of absorbance at 330 nm against Melanin-$CaCO_3$ NPs concentration.

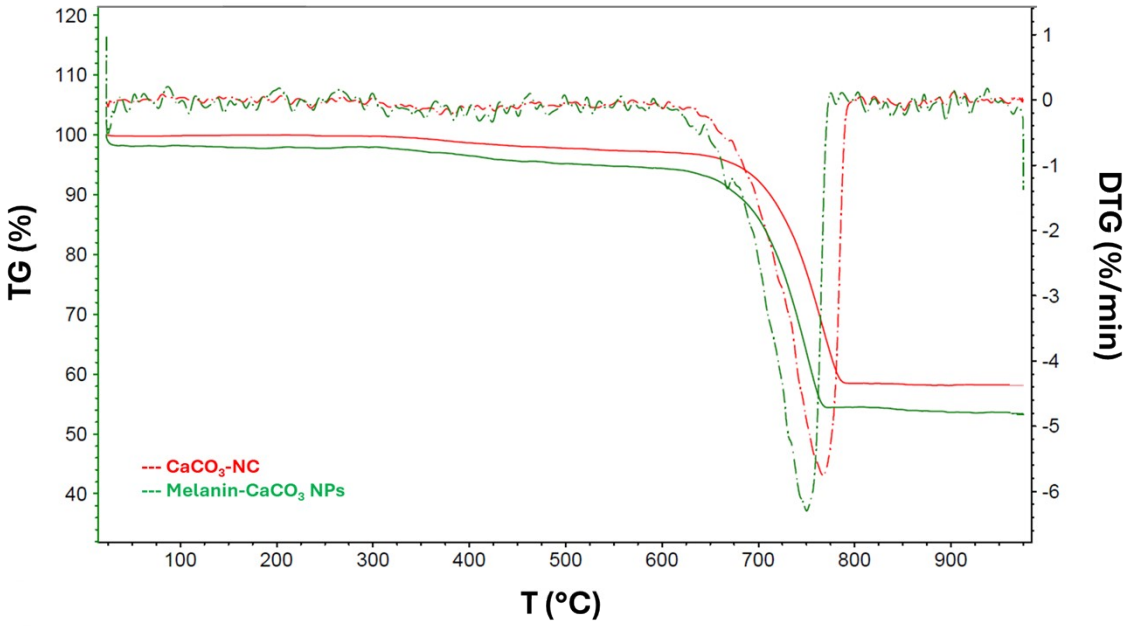

Figure S5 - TG and DTA curves of bare $CaCO_3$ NC (red line) and melanin-$CaCO_3$ NPs (green line).

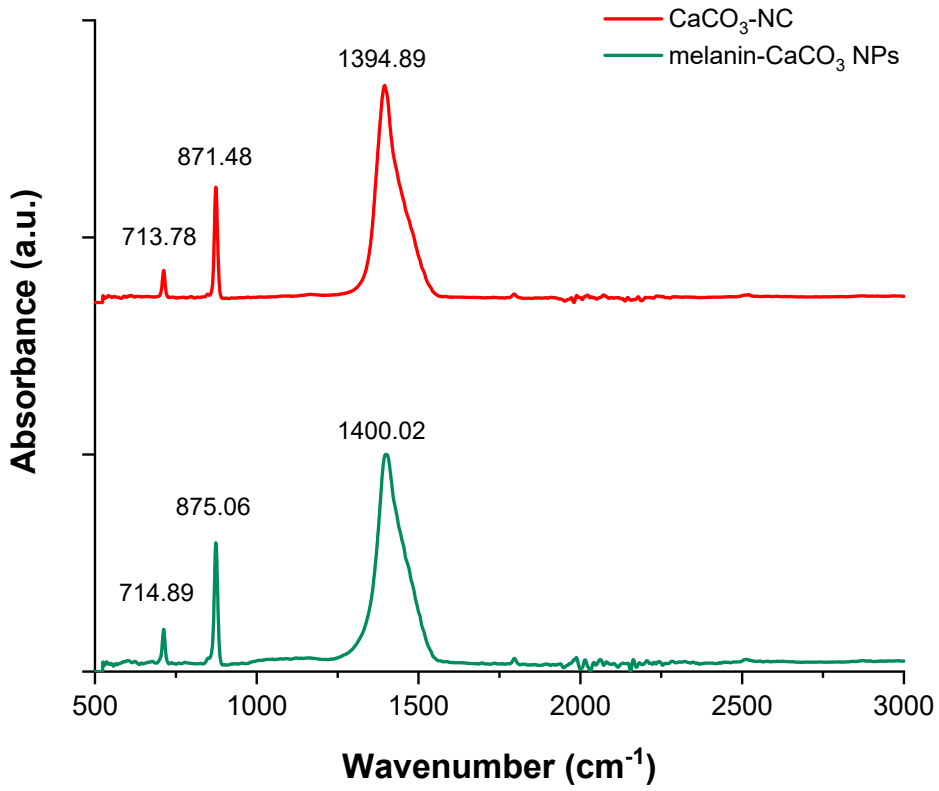

Figure S6 – FTIR spectra of bare $CaCO_3$ NC (red line) and melanin-$CaCO_3$ NPs (green line).