Highly sensitive detection of melanin in melanomas using multi-harmonic low frequency EPR

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Supplementary Fig.1.

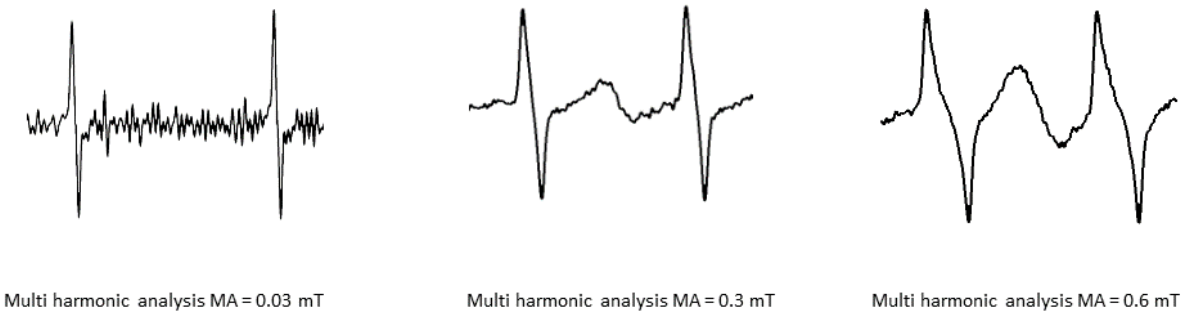

Fig. S1: Multi-harmonic reconstruction of the signal recorded on a melanin phantom. The EPR spectrum contains signals coming from melanin (center) and the doublet of ^{15}N-PDT (low and high field signals) used as a reference. The analysis allows the reconstruction for a given modulation amplitude. At high modulation amplitude, the signal of melanin (that presents a large EPR linewidth, around 0.5-0.6 mT) is clearly visible without distortion while the ^{15}N-PDT appears distorted. Using a reconstruction with low modulation amplitude, the signal of melanin is almost invisible while the ^{15}N-PDT signal is not distorted with its inherent narrow linewidth (0.03 mT).