



Figure 4. EPR (top) and UV/Vis (bottom) spectra of synthetic Hb hybrids. Reductive nitrosylation [24] of met-Hb (prepared from Hb A₀ by potassium ferricyanide oxidation followed by G-25 chromatography) with one equivalent of NO give Hb[(α -Fe(III))₂(β -Fe(II)NO)₂] (left), while limited air oxidation of Hb(NO)₄ furnishes Hb[(α -Fe(II)NO)₂(β -Fe(III))₂] (right). Solid lines are the experimental spectra, the dotted line on the UV/Vis spectra represents a simulation constructed from equal mixtures of heme-Fe(III) and heme-Fe(II)NO standard Hb spectra. EPR spectra were obtained at X-band (9.3 GHz), with samples at 76 K, and detected with a field modulation amplitude of 5 G and frequency of 100 kHz.