SUPPORTING INFORMATION

Cobalamin reduction with dithionite. Evidence for the formation of a six-coordinate Cbl(II) complex

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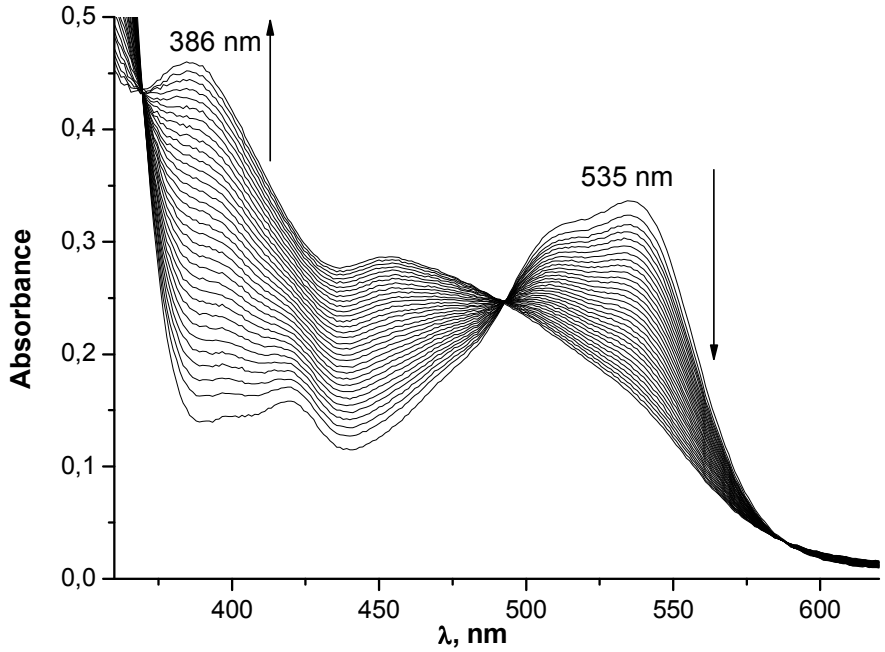

Figure S1. UV-Vis spectral changes registered during the reduction of OHCbl by sodium dithionite. Experimental conditions: $[OHCbl]_0$ = 3.4 x 10^{-5} M; $[S_2O_4^{2-}]$ = 2 x 10^{-4} M; [NaOH] = 0.1 M; 298 K; anaerobic conditions. The spectra were recorded at 60 s intervals.

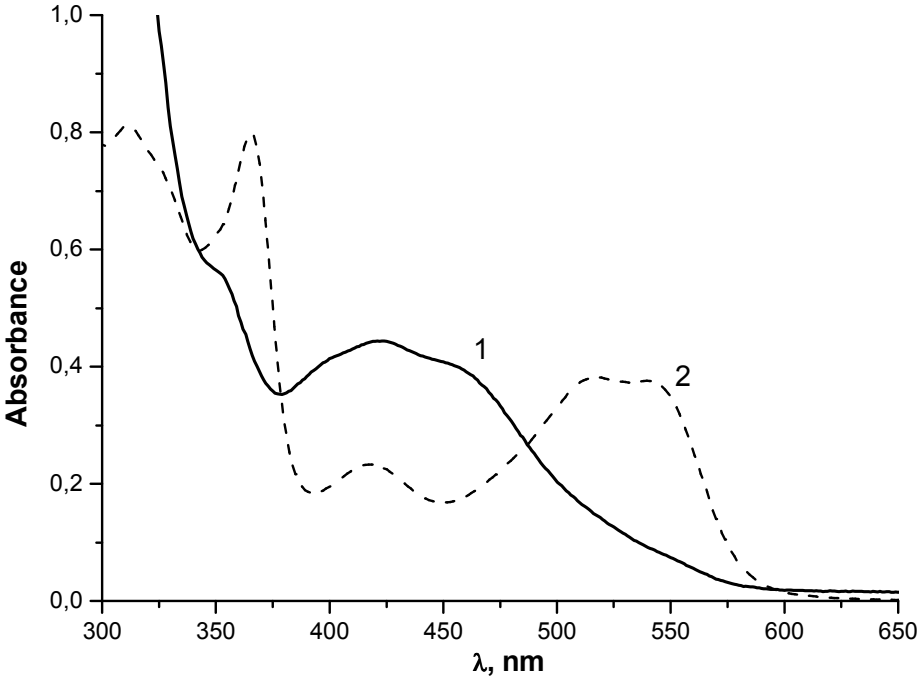

Figure S2. UV-vis spectrum of the system Cbl(III)-sulfite. Experimental conditions: $[OHCbl]_0$ = 5 x 10^{-5} M; $[SO_3^{2-}]$ = 0.1 M; pH = 0 (1), 2.8 (2); T = 298 K

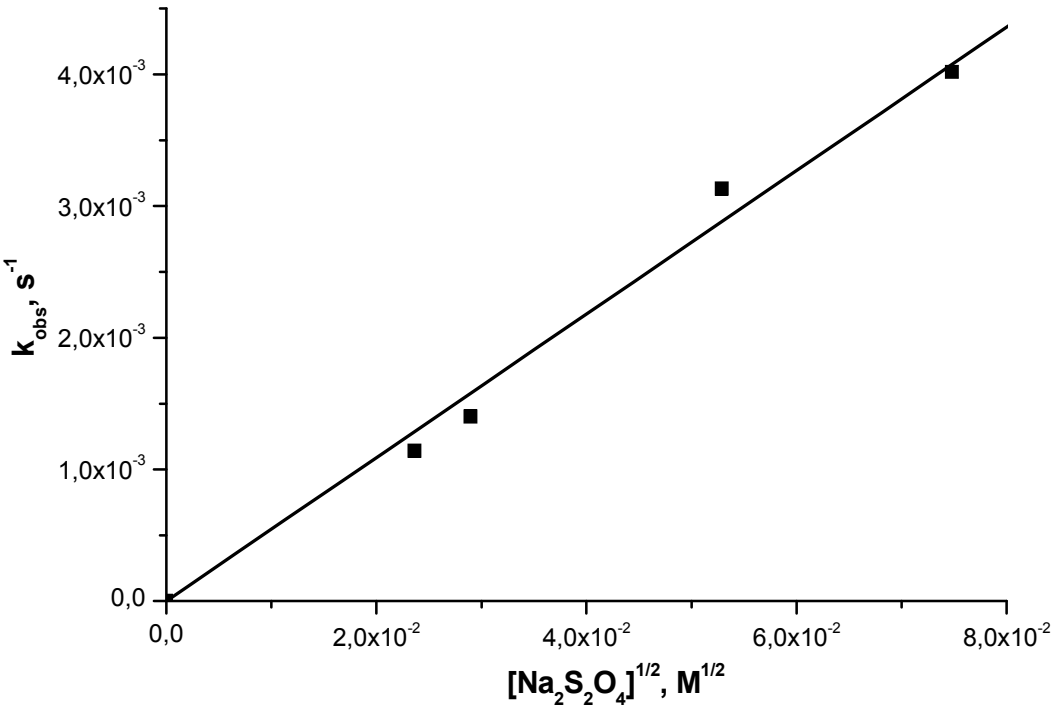

Figure S3. Plot of k_{obs} versus $[S_2O_4^{2-}]^{1/2}$ for the reaction between Cbl(III) and sodium dithionite. Experimental conditions: $[OHCbl]_0 = 5 \times 10^{-5}$; [NaOH] = 0.1 M; 298 K.

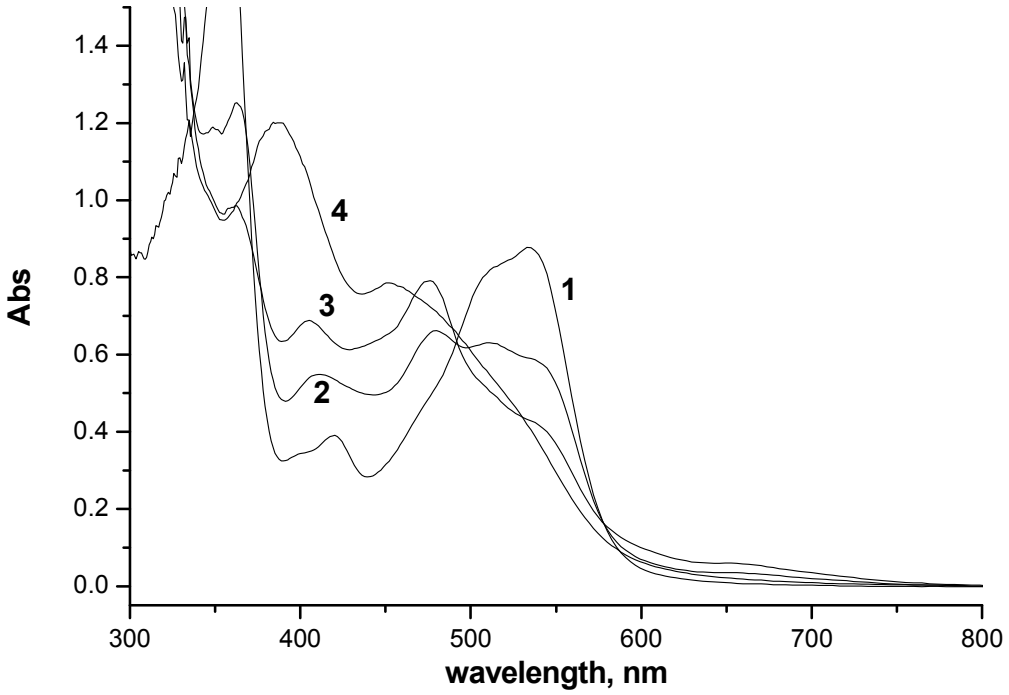

Figure S4. UV-Vis spectra of solutions containing different concentrations of dithionite; Experimental conditions: $[OHCbl]_0$ = 1 x 10^{-4} M; $[S_2O_4^{2-}]$ = 0 (1), 0.25 x 10^{-4} (2), 0.5 x 10^{-4} (3), 1.8 x 10^{-4} (4) M; pH = 8.5; 298 K