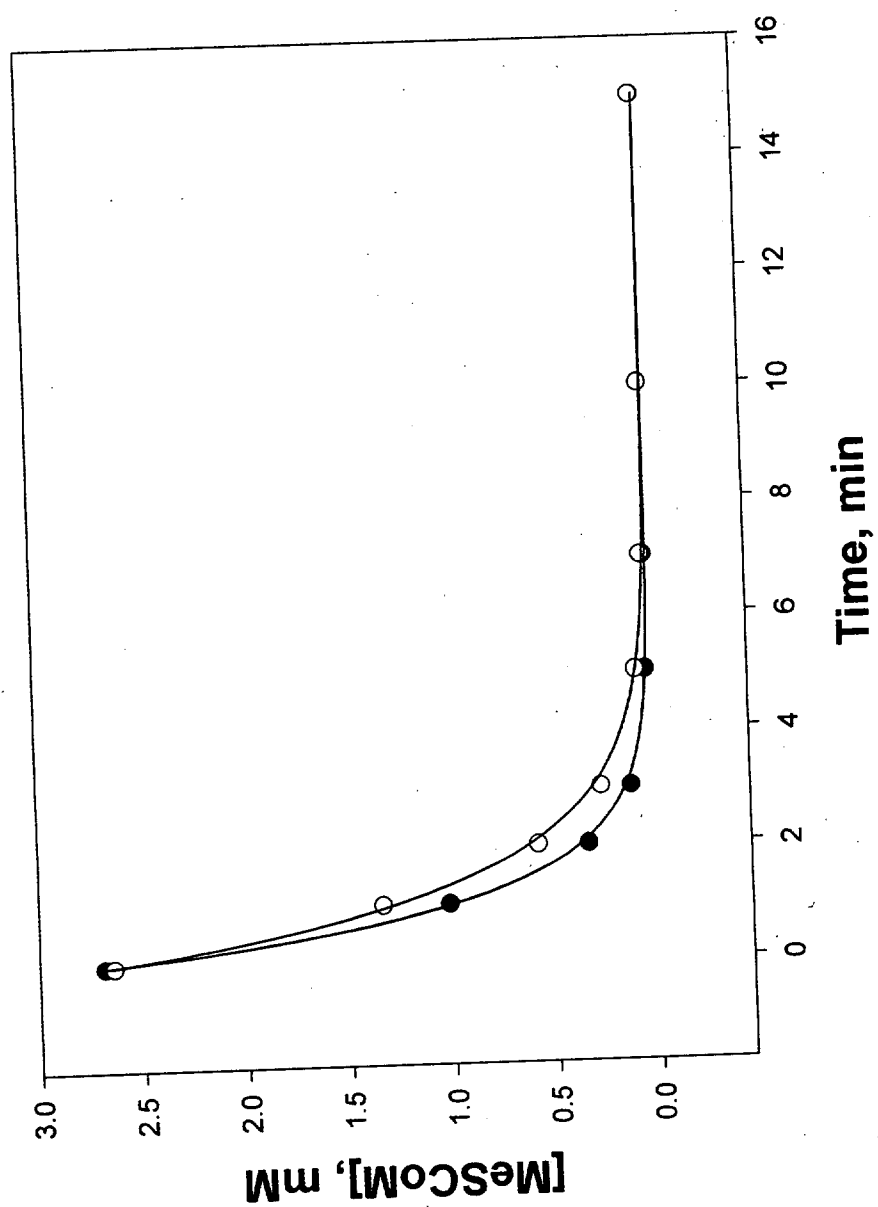


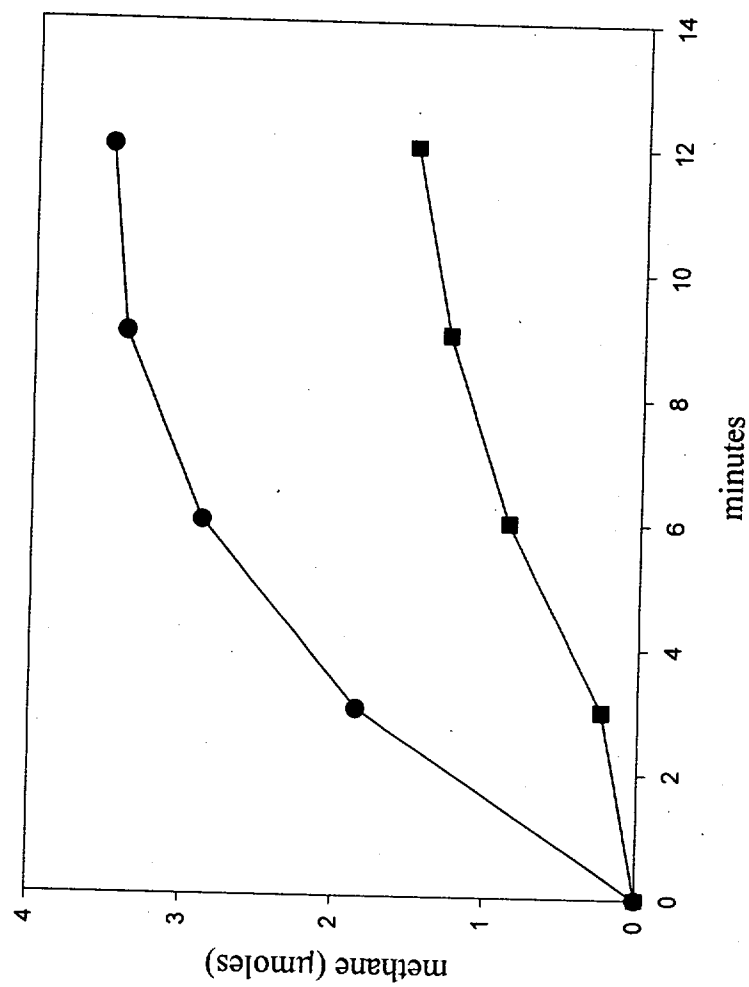
Supporting Information for World Wide Web Edition

Supplemental Figure 1. Steady-state reaction rates with CoBS-SCoB and reduced hydroxocobalamin *versus* CoBSH at 60 °C. The reaction was started with injecting MCRred1 (0.5 μ M, final concentration) solution into assay bottle containing 1M Tris-HCl (pH 7.2), 15.8 mM TiCitrate, 1.8 mM CoBSH and 0.57 mM hydroxocobalamin (O), or 2.1 mM CoBS-SCoB and 0.66 mM hydroxocobalamin (●) at 60 °C. The data were fitted with theoretical single-exponential equation. The rate constants (k) were determined to be $1.03 \pm 0.03 \text{ min}^{-1}$ (●) and $0.75 \pm 0.03 \text{ min}^{-1}$ (O).

Supplemental Figure 2. MCR (60 μ g) activity under rapid reaction conditions (1 mM Ti(III) citrate) at 65 °C (●) and 20 °C (■). The calculated specific activities were 10 and 0.6 units mg^{-1} , respectively.



Supplemental Figure 1. Horng et al.



Supplemental Figure 2. Horng et al.