Protein Film Voltammetry of *Rhodobacter Capsulatus* Xanthine Dehydrogenase

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Supplementary Figures S1-S5

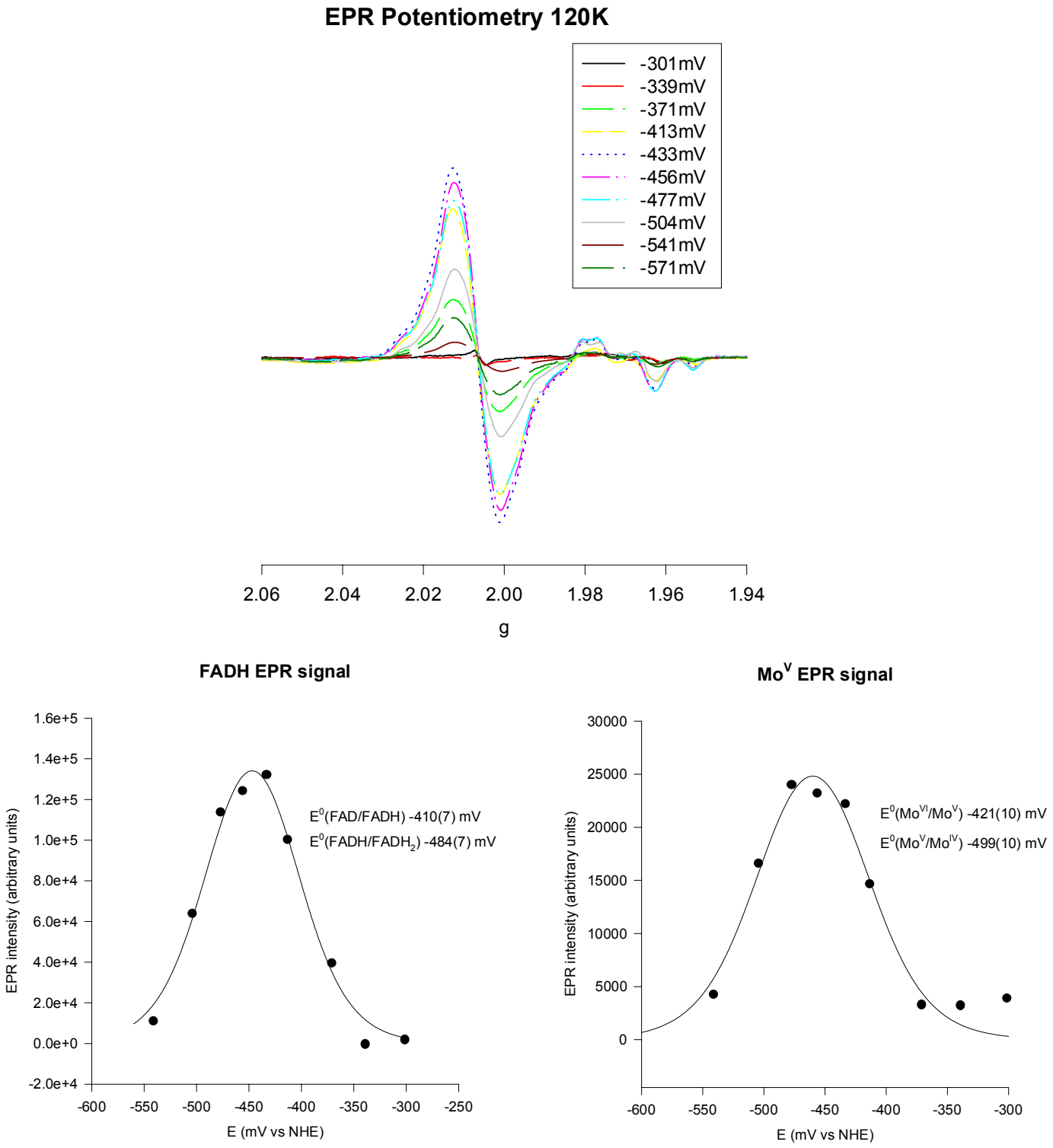
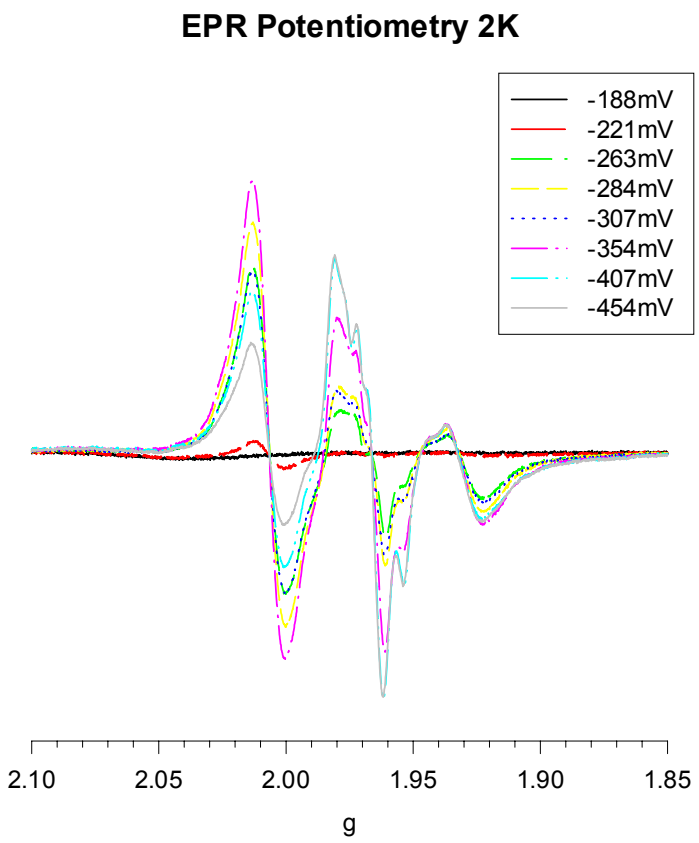


Figure S1. (top) Potential dependent EPR spectra of XDH at 120 K; (bottom left) signal intensity of g = 2.01 resonance (from FADH center) and (bottom right) the Mo^{V} center as a function of potential. Solid lines shows theoretical curve for the formal potentials given on each plot.



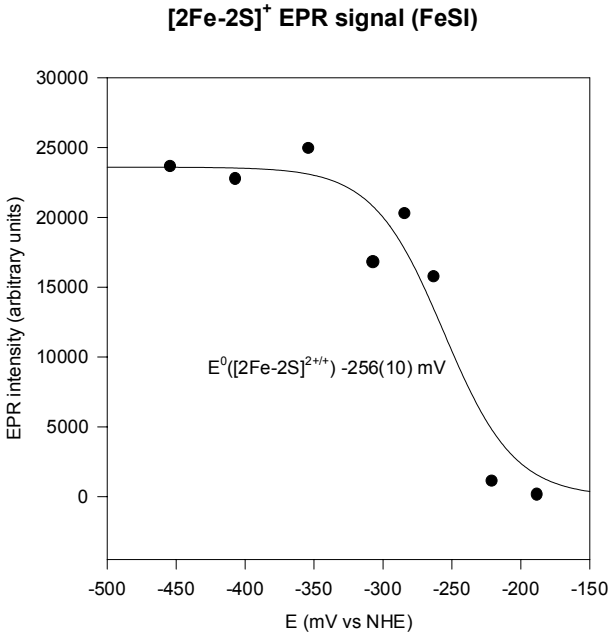


Figure S2. (top) Potential dependent EPR spectra of XDH at 2K and (bottom) signal intensity of g = 1.92 resonance (from FeSI center) as a function of potential. Solid line shows theoretical curve for a formal potential of -256 mV.

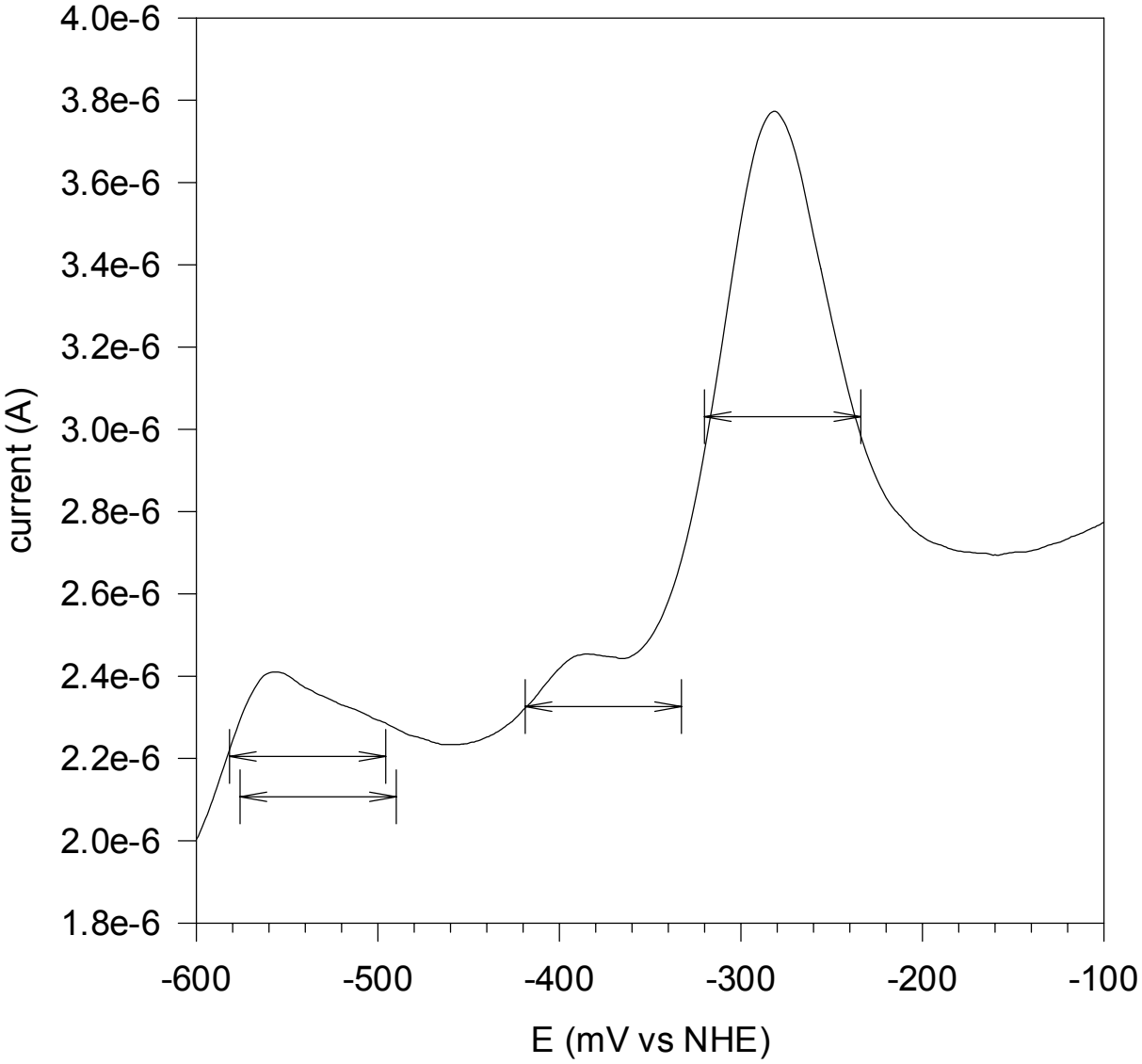


Figure S3. Expansion of the anodic voltammetric sweep of XDH (no xanthine present). The double-ended arrows spanning 90 mV (the theoretical peak width at half height for a single electron wave) are included for comparison. They do not represent an experimental determination of peak width.

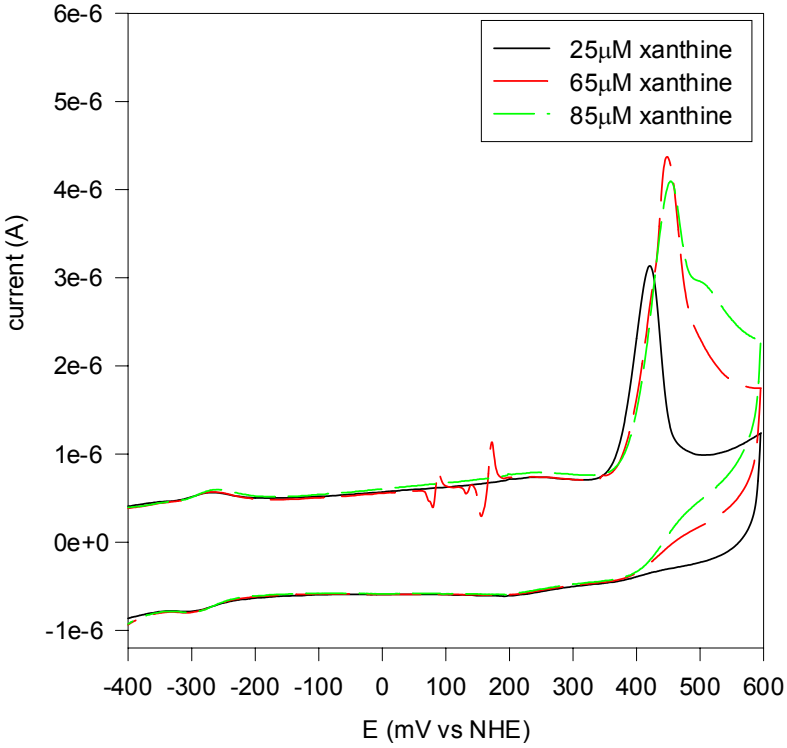


Figure S4. Catalytic voltammograms for XDH (pH 7.0) for xanthine concentrations 25, 65 and 85 μM at 25ºC. All other conditions as described in Experimental Section.

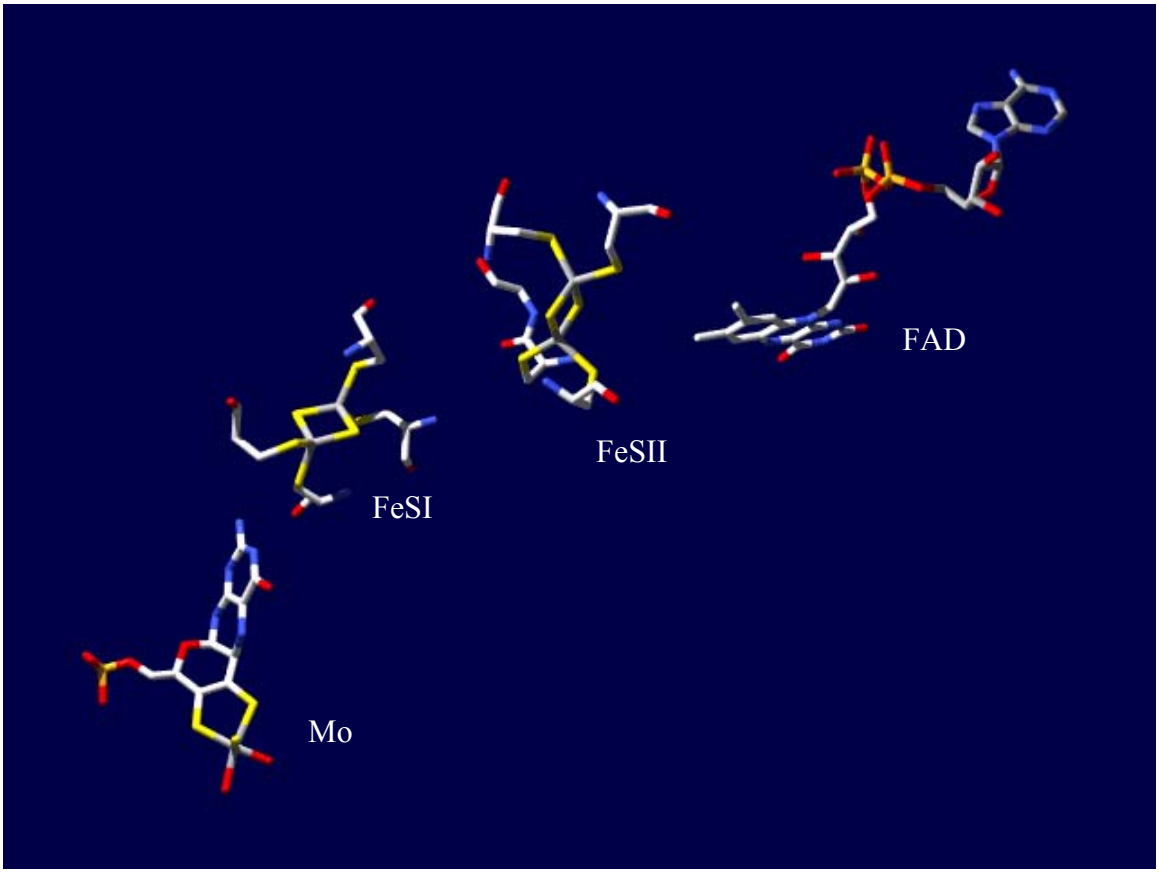


Figure S5. Spatial arrangement of the four co-factors in *R. capsulatus* XDH. Coordinates obtained from the Brookhaven Protein Data Bank and rendered with Swiss Protein Viewer and PovRay for the structure published in Ref. 11. Peptide backbone omitted for clarity.