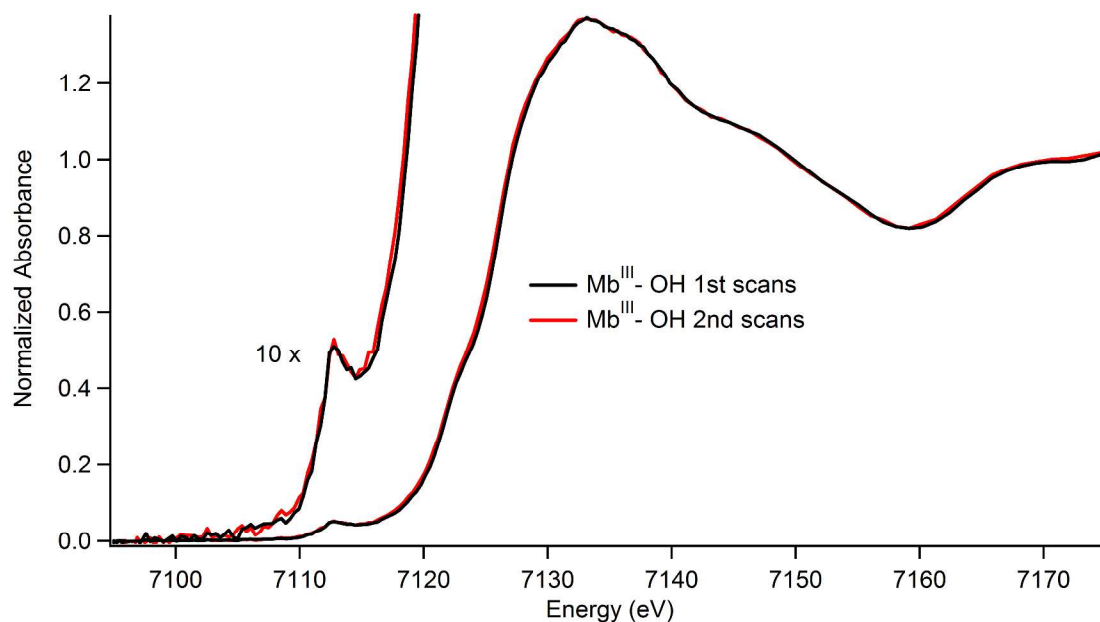


## Supporting Information

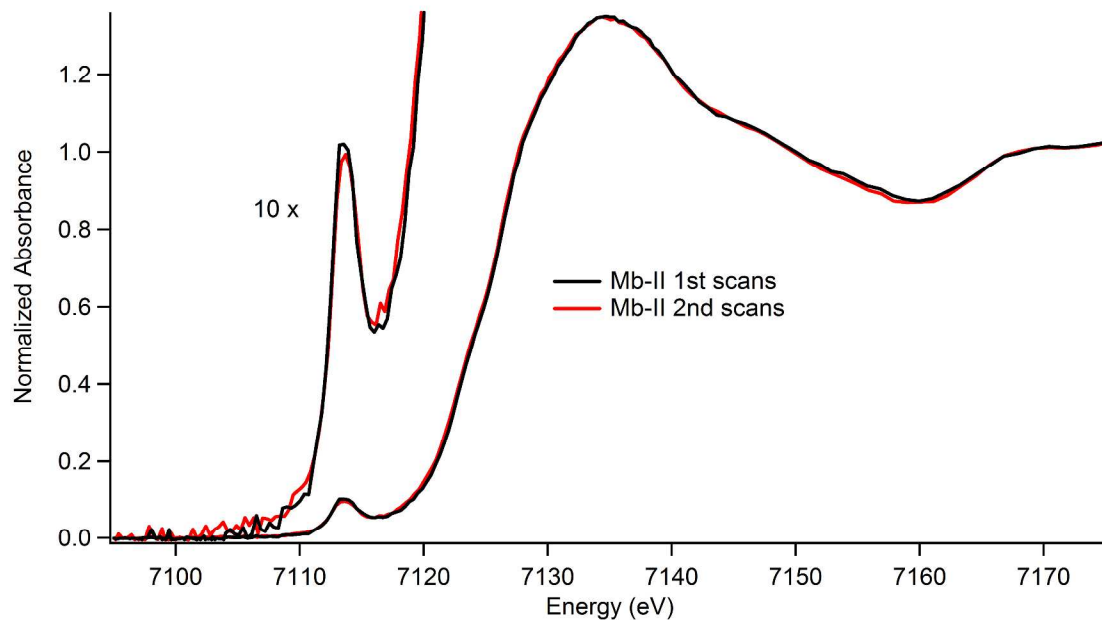
### *Setting an Upper Limit on the Myoglobin Iron(IV)Hydroxide pKa: Insight into Axial Ligand Tuning in Heme Protein Catalysis*

Timothy H. Yosca; Rachel K. Behan<sup>†</sup>; Courtney M. Krest; Elizabeth L. Onderko; Matthew C. Langston, and Michael T. Green\*

The Department of Chemistry, Pennsylvania State University, University Park, PA 16802



**Figure S1:** Comparison of 1<sup>st</sup> and 2<sup>nd</sup> scans of Mb<sup>III</sup>-OH. There was no significant change in either the absorption edge energy or the pre-edge intensity. An overlay of the 1<sup>st</sup> derivative spectra reveals no discernable differences.



**Figure S2:** Comparison of 1<sup>st</sup> and 2<sup>nd</sup> scans of Mb-II. There was no significant change in either the absorption edge energy or the pre-edge intensity. An overlay of the 1<sup>st</sup> derivative spectra reveals no discernable differences.