

## Publications

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12. **Decker, A.**; Chow, M.S.; Kemsley, J.N.; Lehnert, N.; Solomon, E.I.: "Direct Hydrogen-Atom Abstraction by Activated Bleomycin: An Experimental and Computational Study." *J. Am. Chem. Soc.*, **2006**, accepted.
11. **Decker, A.**; Clay, M.D.; Solomon, E.I.: "Spectroscopy and Electronic Structures of Mono- and Binuclear High-Valent Non-Heme Iron-Oxo Systems." *J. Inorg. Biochem.*, **2006**, in press.
10. Neidig, M.L.; **Decker, A.**; Kavana, M.; Moran, G.R.; Solomon, E.I.: "Spectroscopic and Computational Studies of NTBC Bound to the Non-Heme Iron Enzyme (4-Hydroxyphenyl) pyruvate Dioxygenase: Active Site Contributions to Drug Inhibition." *Biochem. Biophys. Res. Commun.* **2005**, *338*, 206-214.
9. **Decker, A.**; Solomon, E.I.: "Dioxygen activation by copper, heme and non-heme iron enzymes: comparison of electronic structures and reactivities." *Curr. Opin. Chem. Biol.* **2005**, *9*, 152-163.
8. **Decker, A.**; Solomon, E.I.: "Comparison of Fe(IV)=O Heme and Non-Heme Species: Electronic Structures, Bonding, and Reactivities." *Angew. Chem.* **2005**, *117*, 2292-2295; *Angew. Chem. Int. Ed.* **2005**, *44*, 2252-2255.
7. **Decker, A.**; Rohde, J.-U.; Que, L.; Solomon, E.I.: "Spectroscopic and quantum chemical characterization of the electronic structure and bonding in a non-heme Fe(IV)=O complex." *J. Am. Chem. Soc.* **2004**, *126*, 5378-5379.
6. Solomon, E.I.; **Decker, A.**; Lehnert, N.: "Non-heme iron enzymes: Contrasts to heme catalysis." *Proc. Natl. Acad. Sci. U. S. A.* **2003**, *100*, 3589-3594.
5. Davis, M.I.; Wasinger, E.C.; **Decker, A.**; Pau, M.Y.M.; Vaillancourt, F.H.; Bolin, J.T.; Eltis, L.D.; Hedman, B.; Hodgson, K.O.; Solomon, E.I.: "Spectroscopic and electronic structure studies of 2,3-dihydroxybiphenyl 1,2-dioxygenase: O<sub>2</sub> reactivity of the non-heme ferrous site in extradiol dioxygenases." *J. Am. Chem. Soc.* **2003**, *125*, 11214-11227.
4. Kemsley, J.N.; Zaleski, K.L.; Chow, M.S.; **Decker, A.**; Shishova, E.Y.; Wasinger, E.C.; Hedman, B.; Hodgson, K.O.; Solomon, E.I.: "Spectroscopic studies of the interaction of ferrous bleomycin with DNA." *J. Am. Chem. Soc.* **2003**, *125*, 10810-10821.
3. **Decker, A.**; Landrum, G.A.; Dronskowski, R.: "Structural and electronic Peierls distortions in the elements (A): The crystal structure of tellurium." *Z. Anorg. Allg. Chem.* **2002**, *628*, 295-302.
2. **Decker, A.**; Landrum, G.A.; Dronskowski, R.: "Structural and electronic Peierls distortions in the elements (B): The antiferromagnetism of chromium." *Z. Anorg. Allg. Chem.* **2002**, *628*, 303-309.
1. Liu, X.H.; **Decker, A.**; Schmitz, D.; Dronskowski, R.: "Crystal structure refinement of lead cyanamide and the stiffness of the cyanamide anion." *Z. Anorg. Allg. Chem.* **2000**, *626*, 103-105.

## Oral and Poster Presentations

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5. "Oxygen Intermediates in Mononuclear Non-Heme Iron Sites: Electronic Structures, Reactivities and Comparison to Heme Systems." Oral presentation at the 10<sup>th</sup> Gordon Graduate Research Seminar on Bioinorganic Chemistry, Ventura, CA, **2005**.
4. "Mononuclear Non-Heme Fe(IV)=O Systems: Electronic Structures and Comparison to Heme and Copper Species." Poster presentation at the 12<sup>th</sup> International Conference on Biological Inorganic Chemistry (ICBIC), Ann Arbor, MI, **2005**.
3. "Oxygen intermediates in mononuclear non-heme iron sites: Electronic structure and reactivity." Poster presentation at the 227<sup>th</sup> National Meeting of the American Chemical Society (ACS), Anaheim, CA, **2004**.
2. "Computational Bioinorganic Chemistry: Interaction of Non-Heme Iron Enzymes with Dioxygen." Poster presentation at the 4<sup>th</sup> Biomedical Computation@Stanford (BCATS) Symposium, Stanford, CA, **2003**.
1. "Interactions of mononuclear non-heme iron sites with dioxygen: Studies on electronic structure and reactivity." Poster presentation at the 11<sup>th</sup> International Conference on Biological Inorganic Chemistry (ICBIC), Cairns, Australia, **2003**.