Dr. Anuruddha Rajapakse (Research Fellow)

The catalytic cycle of P450 enzymes involves two potential oxidizing species, Compound 0 ($Fe^{3+}O_2^{-1}$) and Compound I (FeO^{3+}). We have found that both of these can be involved in the P450 cataysis of a single substrate (lanosterol) and that a Baeyer-Villiger product can also be involved. These investigations are being extended to explore the involvement of the two oxidants in other reactions particularly those involving carbonyls and other electrophilic species.



