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Unraveling the mechanism of multicopper oxidases : from ensemble to single molecule

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List of Publications

Gupta, A.; Aartsma, T.J.; Canters, G.W. "One at a Time: Intramolecular Electron-Transfer Kinetics in Small Laccase Observed during Turnover" *J. Am. Chem. Soc.* **2014**, *136*, 2707.

Hiruma, Y.; Gupta, A.; Kloosterman, A; Olijve, C.; Ölmez, B.; Hass, M.A.S.; Ubbink, M. "Hot spot residues in the cytochrome P450cam-putidaredoxin binding interface" *ChemBioChem* **2014**, *15*, 80. (*Featured on the journal cover*)

Gupta, A.; Nederlof, I.; Sottini, S.; Tepper, A.W.J.W.; Groenen, E.J.J.; Thomassen, E.A.J; Canters, G.W. "Involvement of Tyr108 in the Enzyme Mechanism of the Small Laccase from *Streptomyces coelicolor*" *J. Am. Chem. Soc.* **2012**, *134*, 18213.

Gupta, A.; Mukherjee, A.; Matsui, Kenji; Roth, J.P. "Evidence for Protein Radical-Mediated Nuclear Tunneling in Fatty Acid α -Oxygenase" *J. Am. Chem. Soc.* **2008**, *130*, 11274.

Joseph, R.; Gupta, A.; Rao, C. P. "Photophysical properties of the interaction of lower rim 1,3-bis(aminoethoxy)-calix[4]arene derivative with Pb^{2+} , Hg^{2+} and Cd^{2+} ions: Recognition of Hg^{2+} " *J. Photochem. Photobiol. A* **2007**, *188*, 325.

Joseph, R.; Gupta, A.; Ali, A.; Rao, C. P. "Fluorescence and absorption studies on the selective recognition of iodide by lower rim 1,3-bis(aminoethoxy)-*p-t*-butyl-calix[4]arene derivative" *Ind. J. Chem.* **2007**, *46A*, 1095.

Curriculum Vitae

Ankur Gupta was born in Agra, India, on July 14, 1983. He did his schooling in Kendriya Vidyalaya No. 1 in Jaipur and then in 2001 he moved to Mumbai for his undergraduate studies at the Indian Institute of Technology Bombay. After completing his integrated MSc in Chemistry in 2006, he attended the Johns Hopkins University (Baltimore, U.S.A.) to study Biochemistry and obtained his MA in Chemistry. There, in the group of Dr. Justine P. Roth, he studied tyrosyl radical mediated nuclear tunneling in a heme containing enzyme, Rice- α -oxygenase.

In 2009, he came to Netherlands to start his PhD research in the group of Prof. Gerard W. Canters and Prof. Thijs J. Aartsma at Leiden University. During his PhD research, he studied the mechanism of electron transfer and oxygen reduction by the multicopper oxidase SLAC. The results obtained are presented in this thesis. He presented his research at a number of national and international conferences including the NWO Biophysics and Protein Chemistry meetings in Veldhoven (2009–2013), the International Conference of Biological Inorganic Chemistry (ICBIC)–15 in Vancouver (2011), ICBIC–16 in Grenoble (2013) and the Gordon Research Conference – Metals in Biology in Ventura (2014).

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