

7. LIST OF PUBLICATIONS

Barra, M., M. Haumann, and H. Dau. 2005. Specific loss of the extrinsic 18 KDa protein from photosystem II upon heating to 47 degrees C causes inactivation of oxygen evolution likely due to Ca release from the Mn-complex. *Photosynth Res* 84(1-3):231-237.

Barra, M., M. Haumann, P. Loja, R. Krivanek, A. Grundmeier, and H. Dau. 2006. Intermediates in assembly by photoactivation after thermally accelerated disassembly of the manganese complex of photosynthetic water oxidation. *Biochemistry* 45(48):14523-14532.

Haumann, M., M. Barra, P. Loja, S. Loscher, R. Krivanek, A. Grundmeier, L.E. Andreasson, and H. Dau. 2006. Bromide does not bind to the Mn₄Ca complex in its S₁ state in Cl(-)-depleted and Br(-)-reconstituted oxygen-evolving photosystem II: evidence from X-ray absorption spectroscopy at the Br K-edge. *Biochemistry* 45(43):13101-13107.

Haumann, M., P. Liebisch, C. Muller, M. Barra, M. Grabolle, and H. Dau. 2005. Photosynthetic O₂ formation tracked by time-resolved X-ray experiments. *Science* 310(5750):1019-1021.

Müller, C., P. Liebisch, M. Barra, H. Dau, and M. Haumann. 2005. The Location of Calcium in the Manganese Complex of Oxygenic Photosynthesis Studied by X-Ray Absorption Spectroscopy at the Ca K-Edge. *Physica Scripta T115*:847-850.

Conference Proceedings

Barra, M., M. Haumann, P. Pospisil and H. Dau. Response of the Photosystem II donor side to a Temperature Jump. Joint meeting of Belgian and German Biophysicists, 29. Mai - 1. Juni 2003, Hünfeld, (Poster).

Barra, M., M. Haumann, P. Pospisil and H. Dau. Response of the Photosystem II donor side to a Temperature Jump. XX Jornadas Argentinas de Botánica y XV Reunión Anual de la Sociedad Botánica de Chile, Octubre 2003. Universidad Nacional de San Luis. Argentina (Poster)

Barra, M., M. Haumann, and H. Dau. Specific loss of the extrinsic 18 KDa protein from photosystem II at 47 °C causes inactivation of oxygen evolution likely due to Ca release from the Mn-complex. 12. Photosynthese Workshop Nord-West, September 2004, Münster (Talk)

Barra, M., M. Haumann, and H. Dau. Intermediates in reassembly by photoactivation after heat-induced disassembly of the manganese complex of photosynthetic water oxidation. PS II Workshop, May 2006, Berlin (Poster)

Other Publications

M. Haumann, H. Dau, M. Barra, P. Liebisch und C. Müller. BioXAS with sub-millisecond time resolution on structural and oxidation state changes at protein-bound metal centers - The manganese complex of photosynthesis. ESRF - Annual Report, 2004.

P. Liebisch, A. Schöler, C. Müller, M. Barra, M. Haumann und H. Dau. Comparative study of biogenic and synthetic manganese oxides by X-ray absorption spectroscopy. BESSY-Annual Report, 2004.

P. Liebisch, M. Barra, M. Grabolle, C. Müller, A. Erko and H. Dau. On the evolutionary origin of the manganese complex of oxygenic photosynthesis: Possible formation of a bicarbonate precursor complex. BESSY - Annual Report, 2003.

H. Dau, M. Haumann, M. Barra, P. Liebisch and C. Müller. The manganese complex of photosynthetic water oxidation in all S-states at 10 K - Polarization dependent XAS. ESRF - Annual Report, 2003.

H. Dau, M. Haumann, M. Barra, P. Liebisch and C. Müller. Structural changes of the tetra-manganese complex of oxygenic photosynthesis during the oxygen-evolving transition induced by Laser-flashes and studied by time-resolved BioXAS. ESRF-Annual Report, 2003.

H. Dau, M. Haumann, M. Barra, P. Liebisch and C. Müller. The calcium binding site at the manganese complex of oxygenic photosynthesis: Investigations by calcium XAS on native and biochemical treated photosystem II. ESRF - Annual Report, 2003.

H. Dau, M. Haumann, M. Barra, P. Liebisch, C. Müller, T. Neisius and W. Meyer-Klaucke. Structural and oxidation state changes of the PSII manganese complex in its S-state cycle identified by XAFS at 20 K and at room temperature. (Abstract 132) 13th International Congress on Photosynthesis, Montreal, Québec, Canada.

C. Müller, P. Liebisch, M. Barra, H. Dau und M. Haumann. The location of calcium in the manganese complex of oxygenic photosynthesis studied by X-ray absorption spectroscopy at the Ca K-edge. XAFS12, 22. - 27. Juni 2003, Malmö, Schweden, (Poster).