

***Ausgewählte Veröffentlichungen/ Selected Publications***

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- Morina, K., Schulte, M., Hubrich, F., Dörner, K., Steimle, S., Stolpe, S. & Friedrich, T. (2011) Engineering the Respiratory Complex I to Energy-converting NADPH:Ubiquinone Oxidoreductase. *J. Biol. Chem.*, 286, 34627-34634.
- Steimle S., Bajzath C., Dörner K., Schulte M., Bothe V. & Friedrich T. (2011) Role of Subunit NuoL for Proton Translocation by Respiratory Complex I. *Biochemistry*, 50, 3386-3393.
- Pohl T., Spatzal T., Aksoyoglu M., Schleicher E., Rostas A.M., Lay H., Glessner U., Boudon C., Hellwig P., Weber S. & Friedrich T. (2010) Spin labeling of the *Escherichia coli* NADH:ubiquinone oxidoreductase (complex I). *Biochim. Biophys. Acta*, 1797, 1894-1900.
- Friedrich T. & Hellwig P. (2010) Redox-induced conformational changes within the *Escherichia coli* NADH:ubiquinone oxidoreductase (complex I): an analysis by mutagenesis and FT-IR spectroscopy. *Biochim. Biophys. Acta*, 1797, 659-663.
- Wittekindt, C., Schwarz, M., Friedrich, T. & Koslowski, T. (2009) Aromatic Acids as Stepping Stones in Charge Transfer in Respiratory Complex I: An Unusual Mechanism Deduced from Atomistic Theory and Bioinformatics. *J. Am. Chem. Soc.*, 131, 8134-8140.
- Kohlstädt, M., Dörner, K., Labatzke, R., Koç, C., Hielscher, R., Schiltz, E., Einsle, O., Hellwig, P. & Friedrich, T. (2008) Heterologous Production, Isolation, Characterization and Crystallization of a Soluble Fragment of the NADH:Ubiquinone Oxidoreductase (Complex I) from *Aquifex aeolicus*. *Biochemistry*, 47, 13036-13045.
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- Johannes, J., Unciuleac, M-C., Friedrich, T., Warkentin, E., Ermler, U. & Boll, M. (2008) Inhibitors of Molybdenum Cofactor Containing 4-Hydroxybenzoyl-CoA Reductase. *Biochemistry* 47, 4964-4972.
- Winkler, R., Zocher, G., Richter, I., Friedrich, T., Schulz, G.E. & Hertweck, C. (2007) A Binuclear Manganese Cluster catalyzing Radical-Mediated N-Oxygenation. *Angew. Chem. Int. Ed.* 46, 8605-8608.
- Pohl, T., Uhlmann, M., Kaufenstein, M. & Friedrich, T. (2007) Lambda Red-Mediated Mutagenesis and Efficient Large Scale Affinity Purification of the *Escherichia coli* NADH:Ubiquinone Oxidoreductase (complex I). *Biochemistry* 46, 10694-10702.
- Pohl, T., Walter, J., Stolpe, S., Defeu Soufo, H.J., Graumann, P.L. & Friedrich, T. (2007) Effects of the deletion of the *Escherichia coli* frataxin homologue CyaY on the respiratory NADH:ubiquinone oxidoreductase. *BMC Biochemistry* 8:13.

- Pohl, T., Bauer, T., Dörner, K., Stolpe, S., Sell, P., Zocher, G. & Friedrich, T. (2007) Iron-sulfur cluster N7 of the NADH:ubiquinone oxidoreductase (complex I) is essential for stability but not involved in electron transfer. *Biochemistry* 46, 6588-6596.
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- Boll, R., Hofmann, C., Heitmann, B., Hauser, G., Glaser, S., Koslowski, T., Friedrich, T. & Bechthold, A. (2006) The Active Conformation of Avilamycin A is Conferred by AviX12, a Radical SAM Enzyme. *J. Biol. Chem.* 281, 14756-14763.
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