Crystallization of Cytochromes from *Thiocapsa Roseopersicina*

Ivana Tomčová[a], Ivana Kutá Smatanová[a,b], [a]*Institute of Physical Biology, University of South Bohemia, Nové Hrady, Czech Republic.* [b]*Institute of Landscape Ecology, Academy of Sciences of the Czech Republic, Nové Hrady, Czech Republic.* E-mail: tomiva@centrum.sk

Cytochromes belong to colored proteins that play an important role in live cells. They incorporate prosthetic group - molecule of heme - that facilitates as a member in process of electron transport. Due to this important function, it is essential to study structural features of cytochromes with modern X-ray crystallographic methods.

Cytochrome *c* (cyt *c*) is a low-mass protein (26 kDa) transporting electrons among cytochrome b-c_1 complex and complex of cytochromoxidase. Cyt *c* from the purple photosynthetic bacterium *Thiocapsa roseopersicina* was isolated and purified according to Bagyinka [1].

Cyt *c* was crystallized using standard methods [2] based on vapor diffusion. Crystallization trials were performed in hanging and sitting drops [3] at room temperature. The most suitable concentration of protein (10mg/ml) and the precipitation agent (50% ammonium sulfate) were found. Ranging pH value higher than 7.5 the phase separation of protein appeared. First crystal growth was observed at pH 6.0.

Preliminary crystallization conditions are now being to be optimized in order to prepare monocrystals of cyt *c* suitable for X-ray diffraction measurement.

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