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Transient interactions between photosynthetic proteins

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Stellingen

behorende bij het proefschrift

Transient interactions between photosynthetic proteins

1. The C-terminal copper coordinating histidine of fern plastocyanin titrates at low pH, contrary to what was previously reported.
Chapter II
Kohzuma, T. *et al.* (1999), *J. Biol. Chem.* **274**, 11817-11823
Dennison, C. *et al.* (2002), *Biochemistry* **41**, 552-560
2. The use of NMR spectroscopy to study proteins in solution can prevent misunderstandings that arise from interpreting crystallographic data as representative of the solution state of proteins.
Chapter II
3. The plastocyanin - cytochrome *f* complex from *P. hollandica* can be used to study the equilibrium between the dynamic encounter state and well-defined complex.
Chapter III
4. The large violations of distances derived from paramagnetic relaxation enhancement in the simulated ensembles of *Nostoc* sp. PCC 7119 cytochrome *c*₆-cytochrome *f* complex show that this complex exists as an unevenly distributed ensemble.
Chapter IV
5. The use of high concentrations of macromolecules in order to mimick macromolecular crowding *in vitro* should be encouraged as a routine variable to study.
Ellis, R. J. (2001) *Trends Biochem. Sci.* **26**, 597-604
6. Static structures are of limited use for understanding protein function, because the functions of proteins are governed ultimately by their dynamic character.
Henzler-Wildman, K. & Kern, D. (2007) *Nature* **450**, 964-972
7. We desperately need more accessible and readable scientific contributions to attract bright future researchers to science and produce integrated understanding.
How to write consistently boring scientific literature;
Sand-Jensen K. (2007) *Oikos*
8. Dynamic complexes require flexibility from the researchers studying them.
9. In modern day science, all results are equal, but some results are more equal than others.
10. The Arab world should be recognised for its contribution to the development of two of the pillars of science: algebra and coffee.