Dynamics in electron transfer protein complexes
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Stellingen

Behorende bij het proefschrift:

Dynamics in electron transfer protein complexes

1. Binding hot spots exist in transient protein complexes like in strong static complexes.
   This thesis, chapter 3

2. The encounter complex can be simulated considering long range electrostatic interactions only.
   This thesis, chapter 4

3. The right balance between the encounter complex and the specific complex is the consequence of biological function ensuring fast association, efficient function and high turn over.
   This thesis, chapter 4

4. The population of the encounter complex can be modulated by single residue interface mutations.
   This thesis, chapter 5

5. The energy landscape of a protein complex can be remodeled by judicious choice of interface mutations.
   This thesis, chapter 5

6. In weak protein complexes, specificity can be modified by rational engineering of interface residues.
   This thesis, chapter 6

7. Rigidity of the attached paramagnetic probe is crucial to determine the solution structure of a protein complex by docking with high precision.
   This thesis, chapter 6

8. The size of binding induced NMR chemical shift perturbations is a measure of the dynamics in transient protein complexes.
   This thesis, chapters 2, 3, 5 and 6
   Worrall et al. *Biochemistry*, 2003, 42, 7068-7076

9. A relative rotation of as little as a few degrees or a relative translation by a few Ångstroms is sufficient to break all specific interactions between the two proteins.
10. In science the credit goes to the man who convinces the world, not to the man to whom the idea first occurs.
   Sir Francis Darwin, *Eugenics Review*, April 1914

11. Every science begins as philosophy and ends as art.
    Will Durant, *The Story of Philosophy*, 1926

12. The way to do research is to attack the facts at the point of greatest astonishment.
    Celia Green, *The Decline and Fall of Science*, 1972

13. The two things you have to learn in Netherlands are cycling and punctuality.