Propositions

1. The enhancement in photo-CIDNP MAS NMR intensities for the bacterial reaction centers increases as the magnetic field strength is decreased.
   Chapter 2 and 3, This Thesis.

2. The difference in the photo-CIDNP signals from the donor and the acceptor in *Rhodobacter sphaeroides* R26 is due to the slow relaxation of the triplet state of the donor.
   Chapter 3, This Thesis.

3. The photo-CIDNP effect in the photosynthetic reaction centers is anisotropic.
   Chapter 5, This Thesis.

4. It can be anticipated in the future that any viable artificial reaction center constructed would also show photo-CIDNP.
   This Thesis

5. The use of electron polarization to enhance NMR intensities represents a novel way of increasing sensitivity in NMR.
   This Thesis

6. If protein structure paves the way for the functional properties of the protein then the study of protein function is also in some cases the starting point for structural studies.

7. Recent studies show that for health, caffeine is not the important component present in coffee.
   *Critical reviews in Food Science and Nutrition* (2006) 46, 101-123.

8. In today’s civilized world, it is still very easy to colonize a country for its resources.

9. ‘Rebirth’ is the process which an Indian has to undergo several times for the Dutch authorities.

Propositions belonging to the thesis
“Photo-CIDNP studies on reaction centers of *Rhodobacter sphaeroides*”
Shipra Prakash
Leiden, 13 September 2006