PROPOSITIONS

accompanying the dissertation

Transfer of Triplet Excitons in Singlet Fission-Silicon Solar Cells Experiment and Theory Towards Breaking the Detailed-Balance Efficiency Limit

by

Benjamin Daiber

- 1. Quenching of delayed PL can be used to detect transfer of triplet excitons into another semiconductor.
- 2. The wrong assumption about the noise distribution can systematically change your fitting results.
- 3. Singlet fission can improve the silicon solar cell with many different transfer mechanisms.
- 4. FRET can be efficient even into an indirect bandgap semiconductor like silicon, if the donor-acceptor distance is small.
- 5. Transfer of triplet excitons from an organic semiconductor into silicon can be enabled by controlling the polymorphism of tetracene.
- 6. Doing the right thing is becoming harder, the longer you wait, but you have to wait long enough to know what is right.
- 7. Once you think your problem has a trivial solution you have found a good solution.
- 8. Science would work better with an alphabetical author list.
- 9. The simplest way of explaining a graph or concept is the most understandable and will have the largest impact.
- 10. What the reviewers accept as sufficient is arbitrary in first approximation.