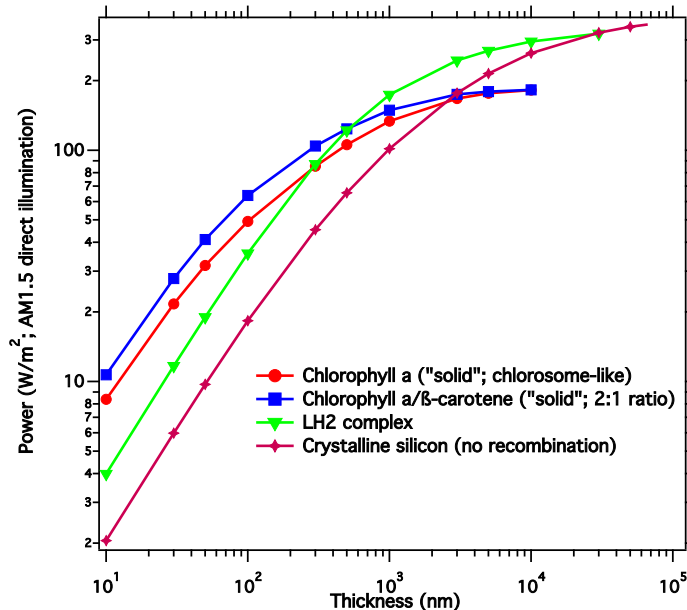
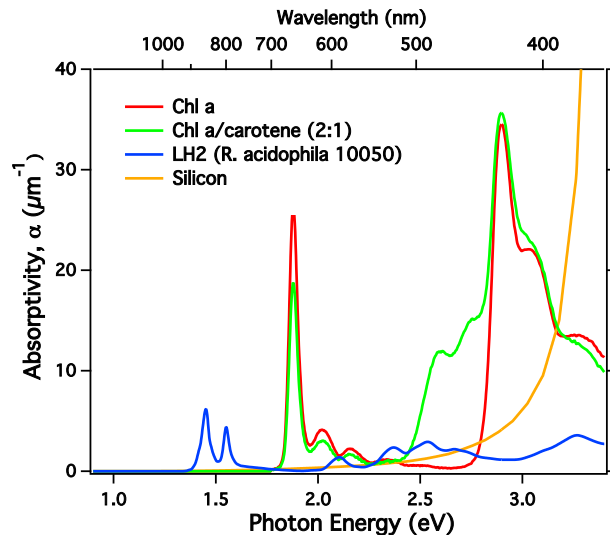




# Comparison of Light-Harvesting Performance Across Different Classes of Materials

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A.P. Shreve, Work in progress.

- Methodology for direct comparison of light-harvesting performance of natural photosynthetic systems, molecular systems and semiconductor systems
- **Significance:** Provides a framework for providing quantitative answers to questions such as:
  - How do semiconductors compare to protein light-harvesting complexes or molecular assemblies?
  - How much material is needed to achieve a desired light-harvesting performance for a given type of material?
  - How much performance is gained by increasing spectral coverage or by increasing absorption strength, all other factors being equal?
- These calculations will be useful for guiding the development of synthetic assemblies based on natural photosynthetic light-harvesting principles

