Bioinspired Light-Escalated Chemistry (BioLEC)

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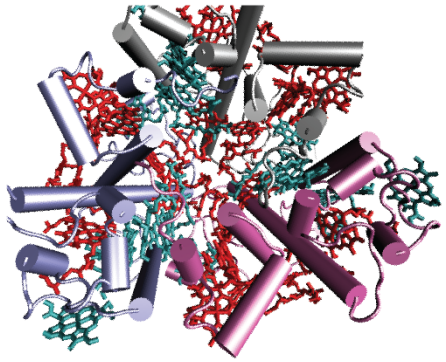
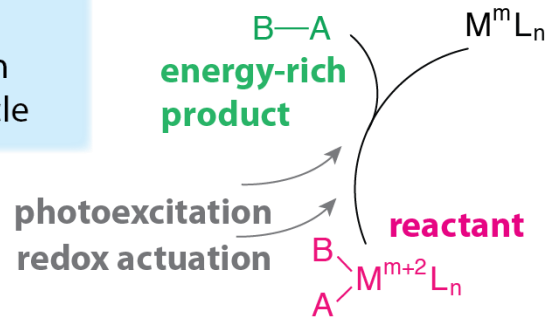
MISSION: To employ light harvesting and advances in solar photochemistry to enable unprecedented photoinduced cross-coupling reactions that valorize abundant molecules.

Bioinspired multiphoton light capture & conversion empowers the catalytic cycle





Master actuation of redox states of organometallic photocatalysts by leveraging multiple photons

http://chemlabs.princeton.edu/biolec/

RESEARCH PLAN

The fundamental advance of the BioLEC EFRC will be to establish a platform for directing difficult chemical transformations that are enabled by combining the energies of multiple photons. The resulting breakthroughs will yield energy-relevant chemicals, fuels, and materials.

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