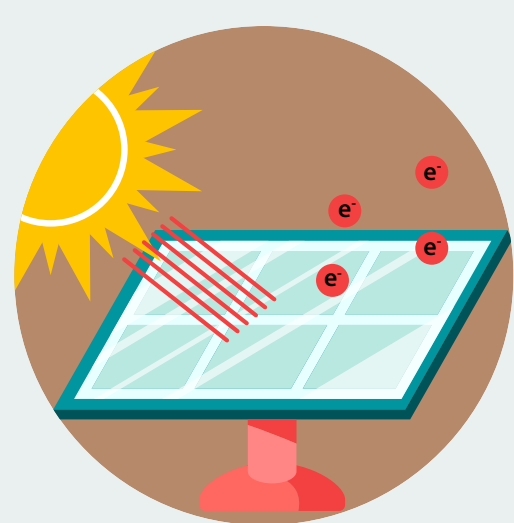


Tuning Photocatalytic Properties with Light Intensity

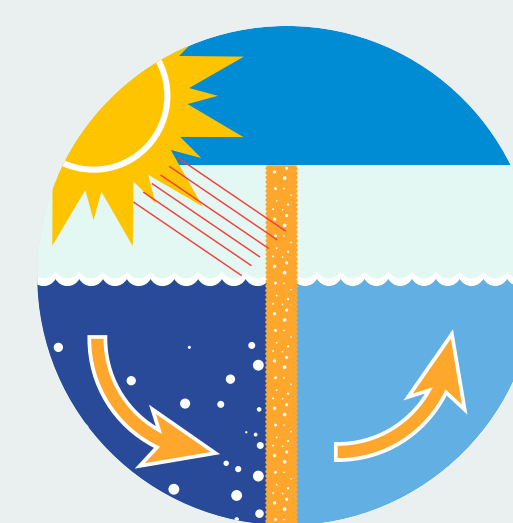
Photoactive molecules sensitive to light are used as catalysts for:



Artificial photosynthesis



Energy storage solutions



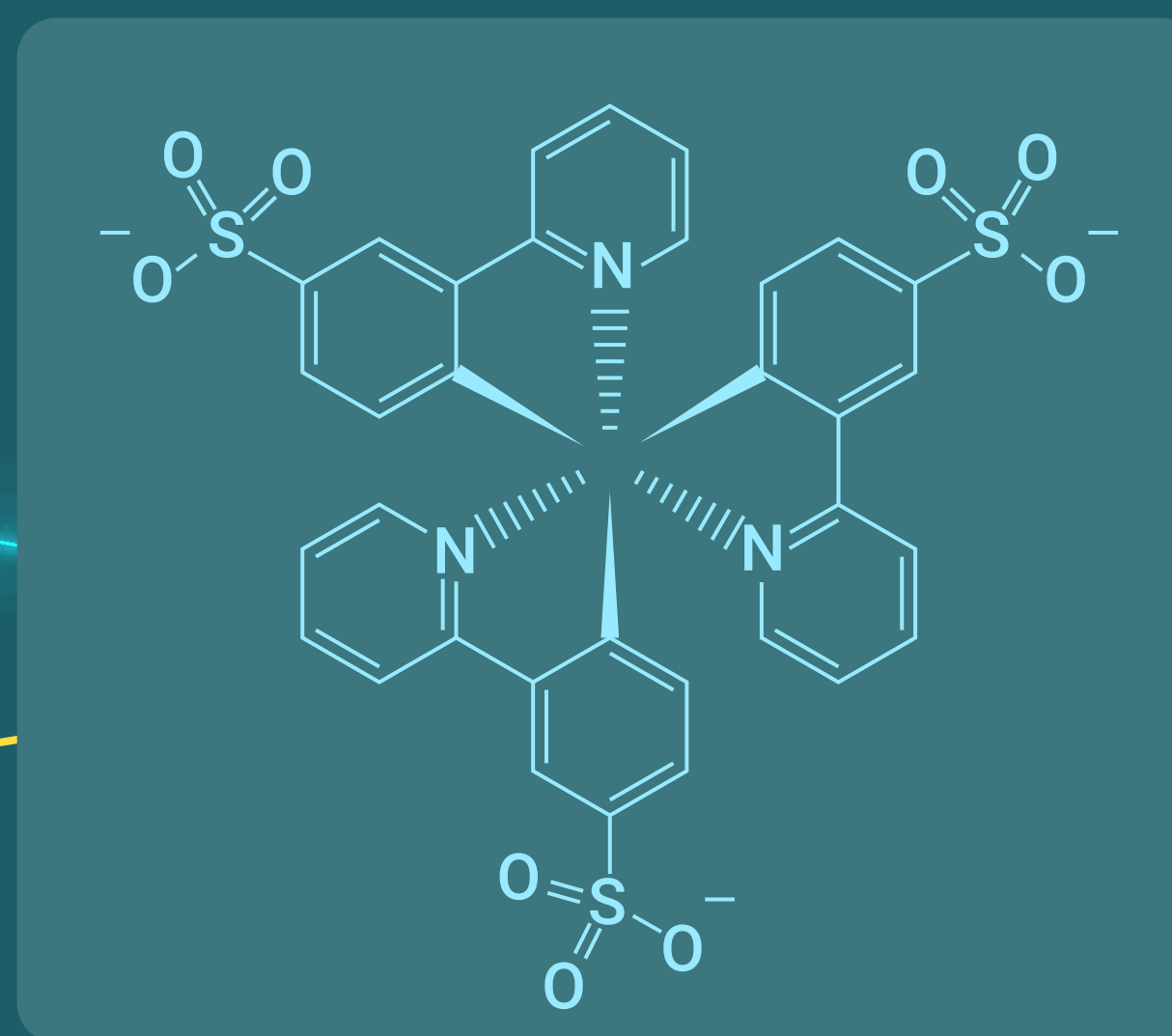
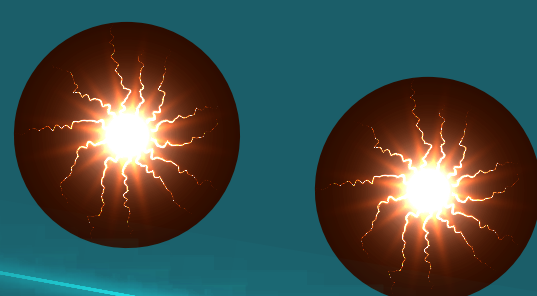
Pollutant degradation

But photocatalysts are expensive and need optimization for different reactions

A continuous wave blue diode (447 nm) and an inexpensive lens was used to control reaction pathway

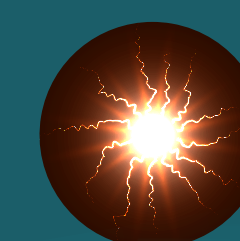
Selective conversion of the same substrate into different products under very similar conditions

Two photons



Irspypy photocatalyst

One photon



Combining a photocatalytic system with a variable intensity light source can help carry out a wide range of chemical reactions