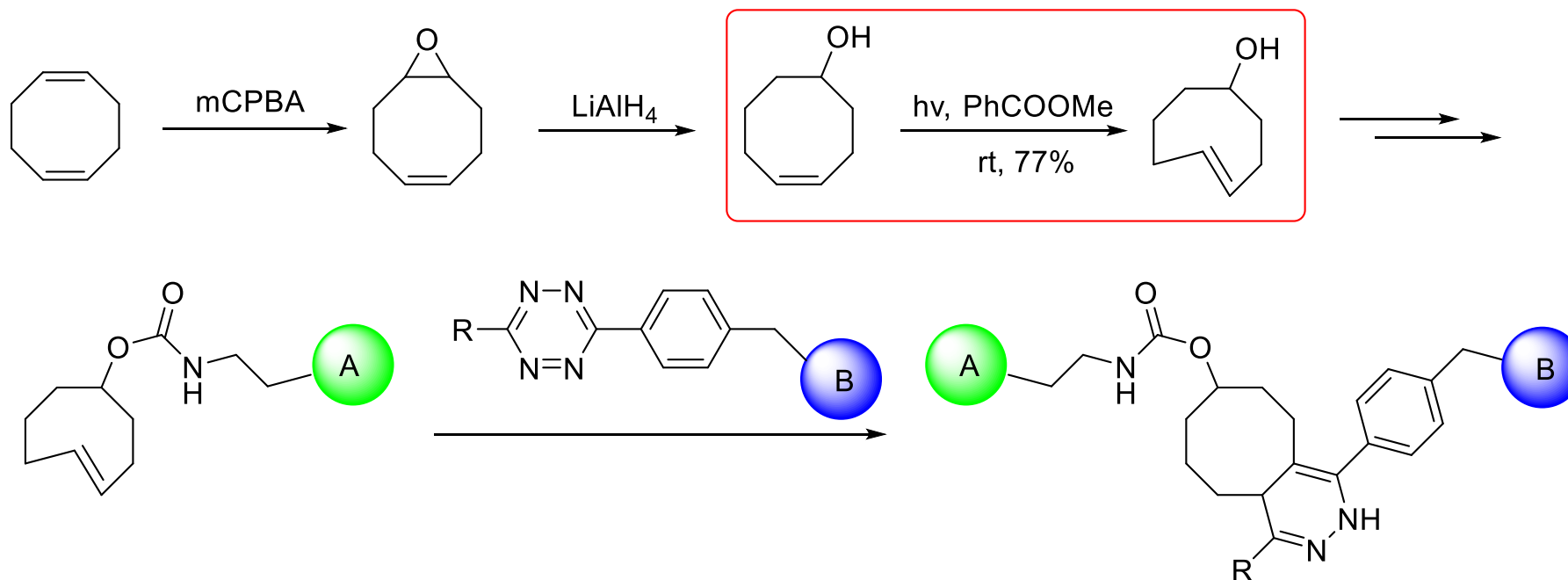
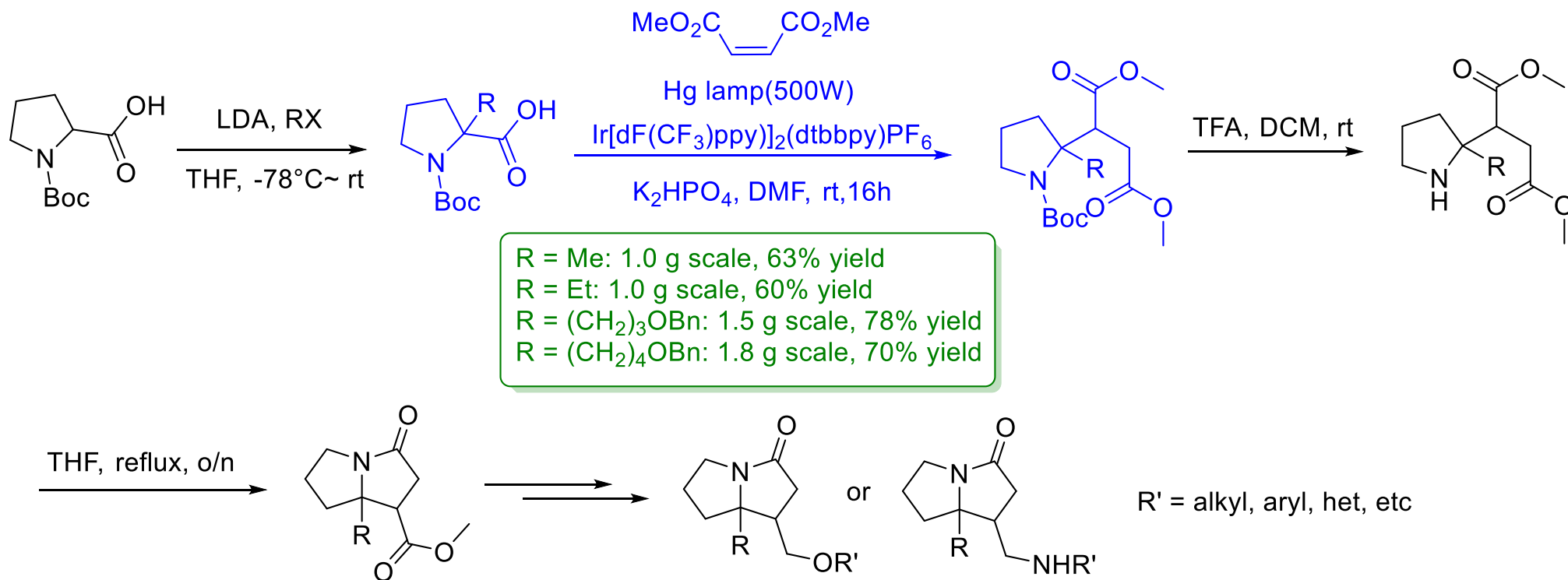


Photo-synthesis of trans-cyclooctene derivatives via photoisomerization of double bond and their use in tetrazine-trans-cyclooctene ligation (TTCO)



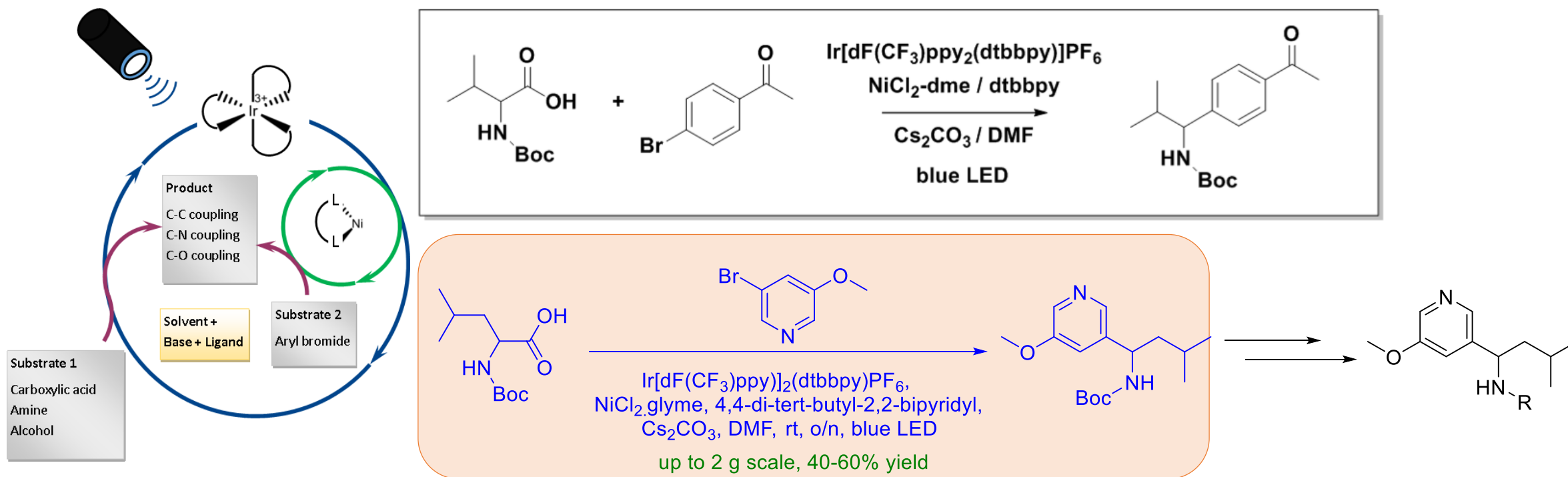
Case Study – Synthesis of special N – bridged bicyclic compounds:

Key step: decarboxylative Michael addition via light-mediated photoredox catalysis



- 500W Hg lamp or 26W CFL
- Gram scale, various substrates, 60-80% yield

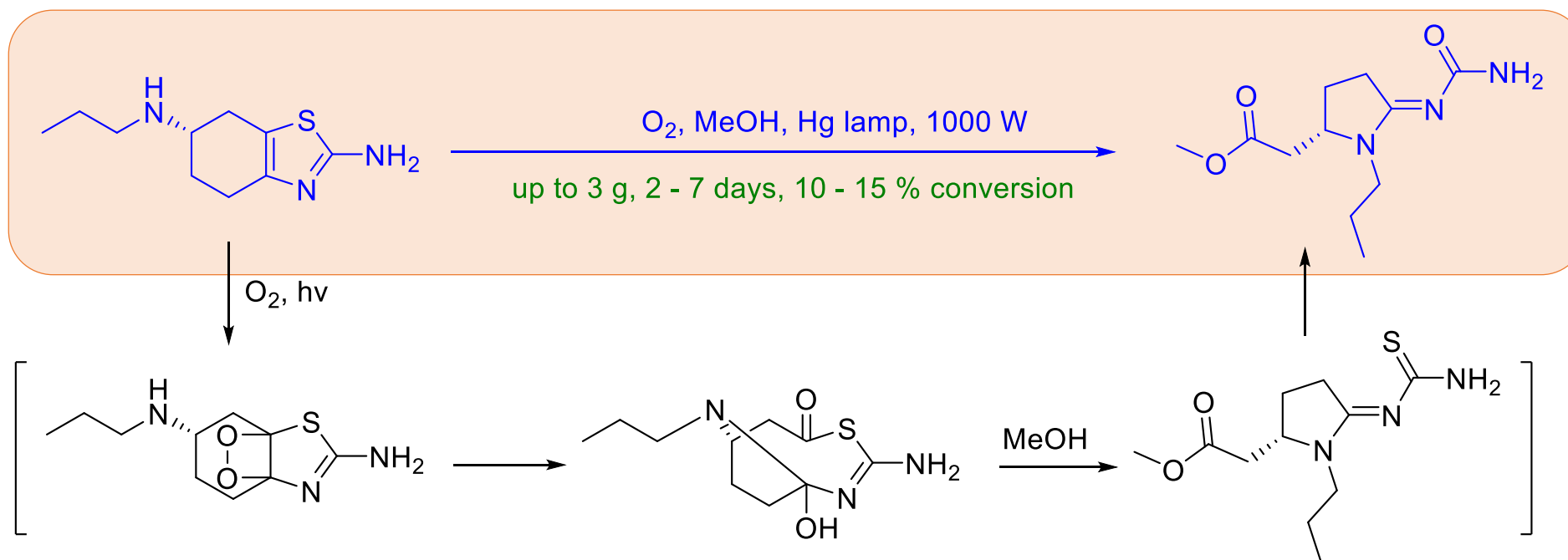
Key step: decarboxylative cross-coupling via photoredox and Ni-catalysis



- Blue LED light source
- Broad scope of amino acids and aryl halides as substrates

Case Study – Photo-degradation of pramipexole:

Key step: decarboxylative cross-coupling via photoredox and Ni-catalysis



- 1000 W Hg lamp, light-induced oxidation and rearrangement
- Otherwise hard to be made