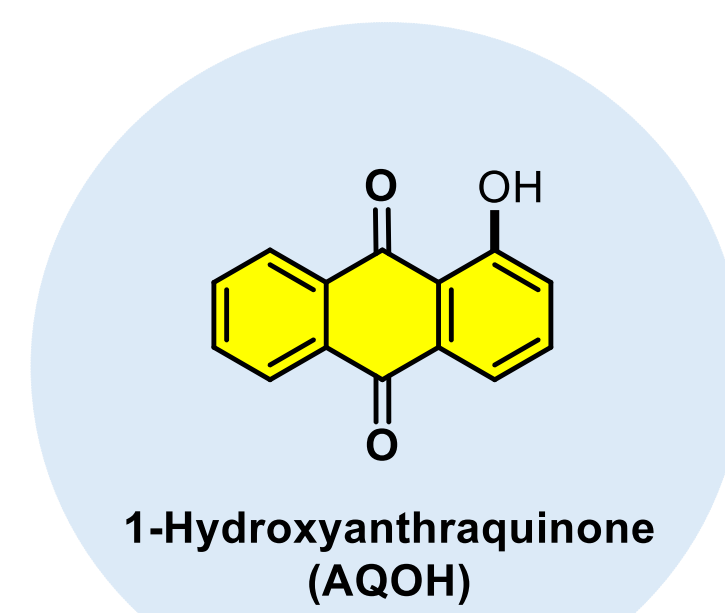
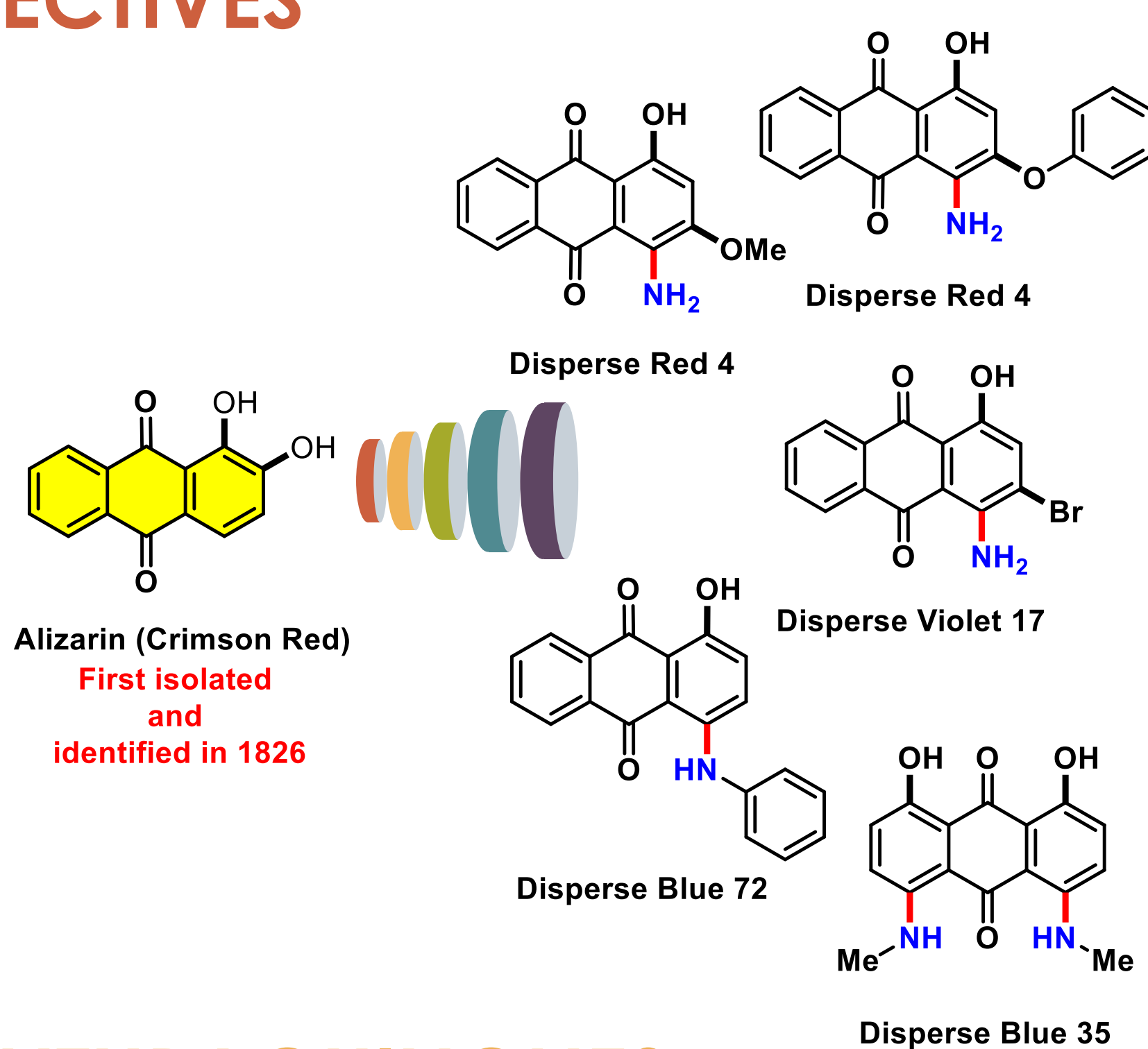


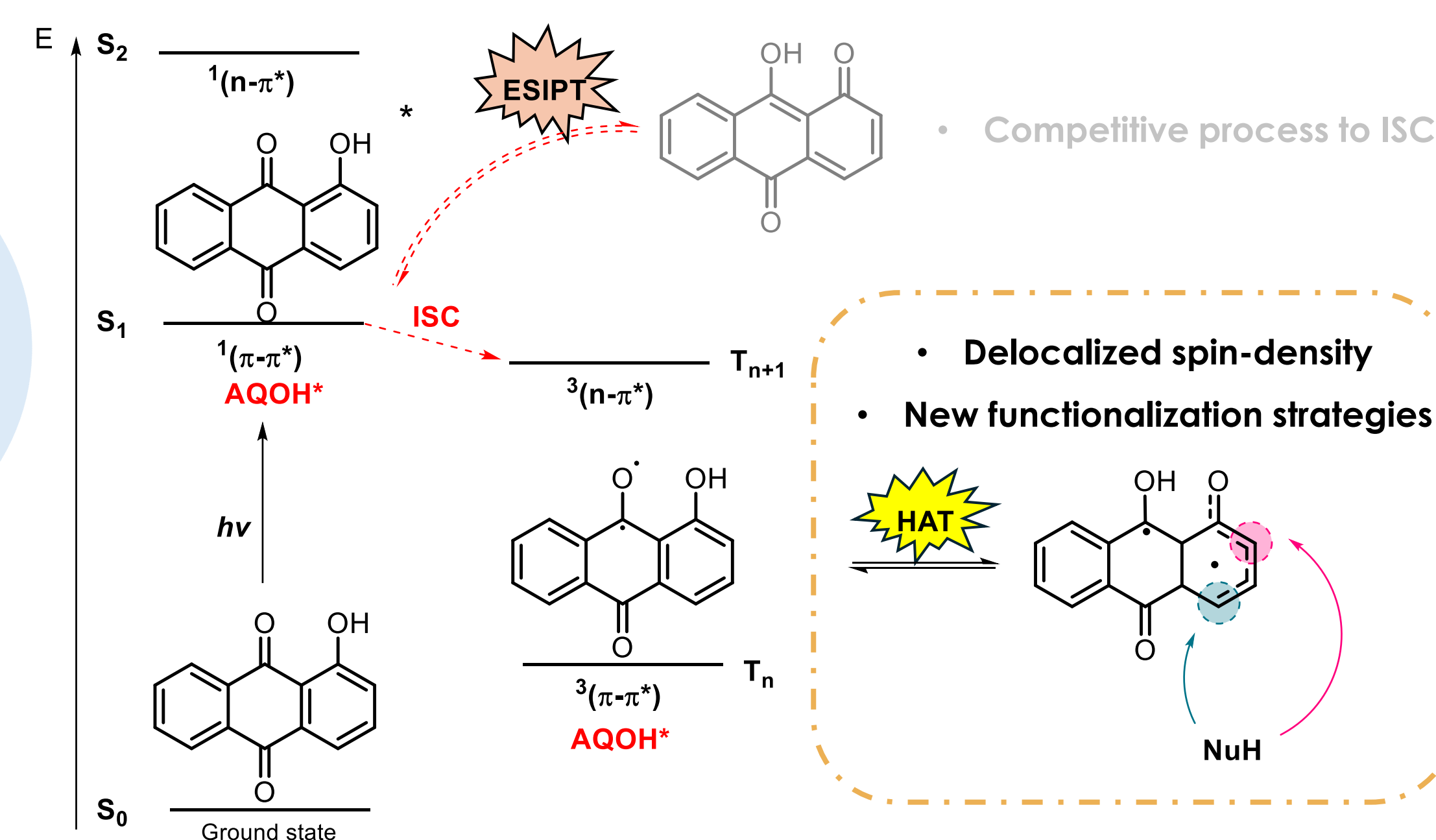
HYDROXYANTHRAQUINONES AS TUNABLE PHOTO-PLATFORMS FOR PHOTOCATALYSIS

BACKGROUND AND OBJECTIVES

Hydroxyanthraquinones (AQOH), historically used as dyes and pigments, are promising sustainable organic photocatalysts with tunable photophysical properties. Here, a selective photoamination strategy (exploiting a **HAT** process) provides a library of derivatives to establish structure–activity relationships and understand the factors governing **SET** versus **EnT** photocatalytic pathways.

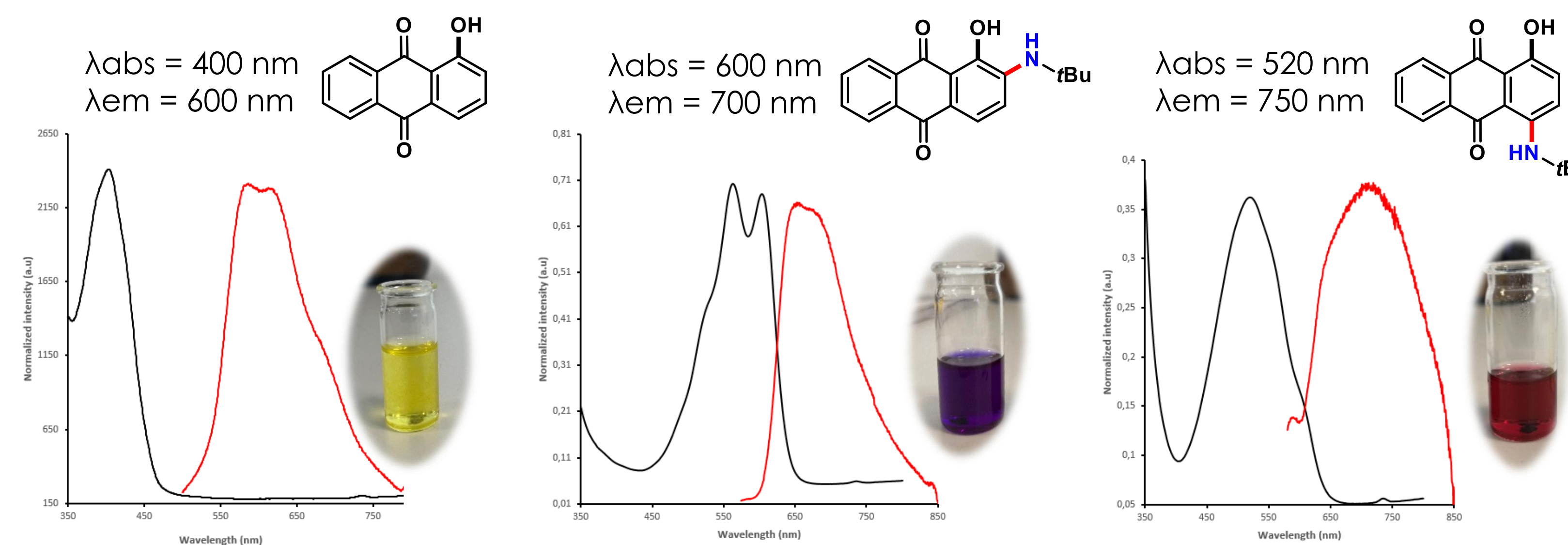
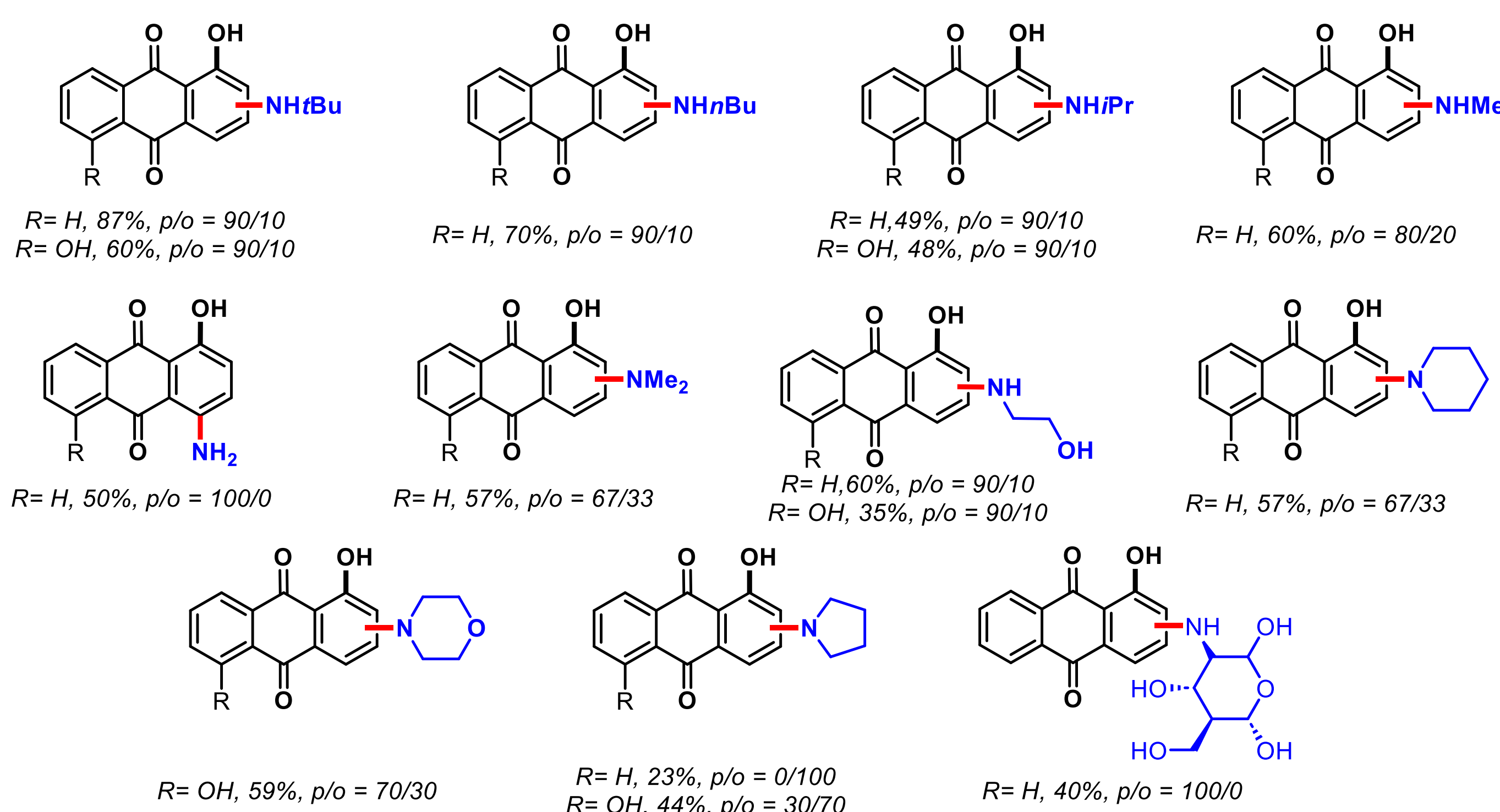
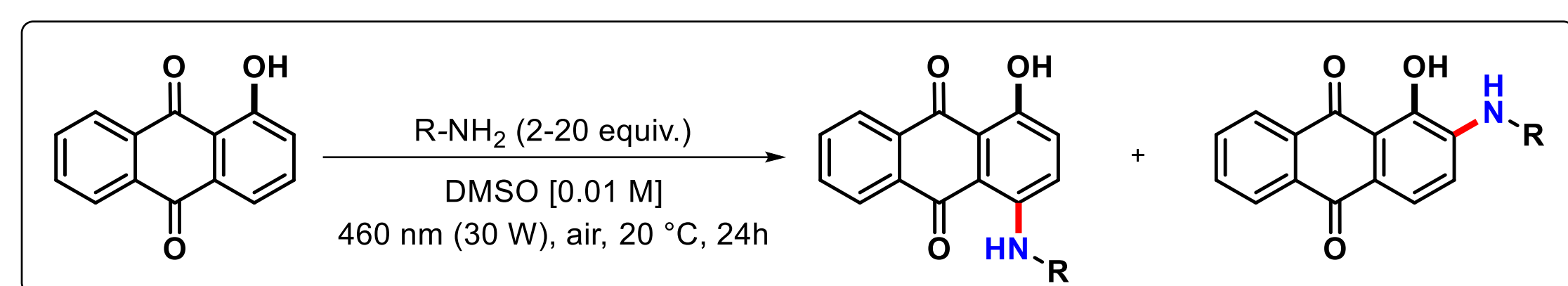


What else ?

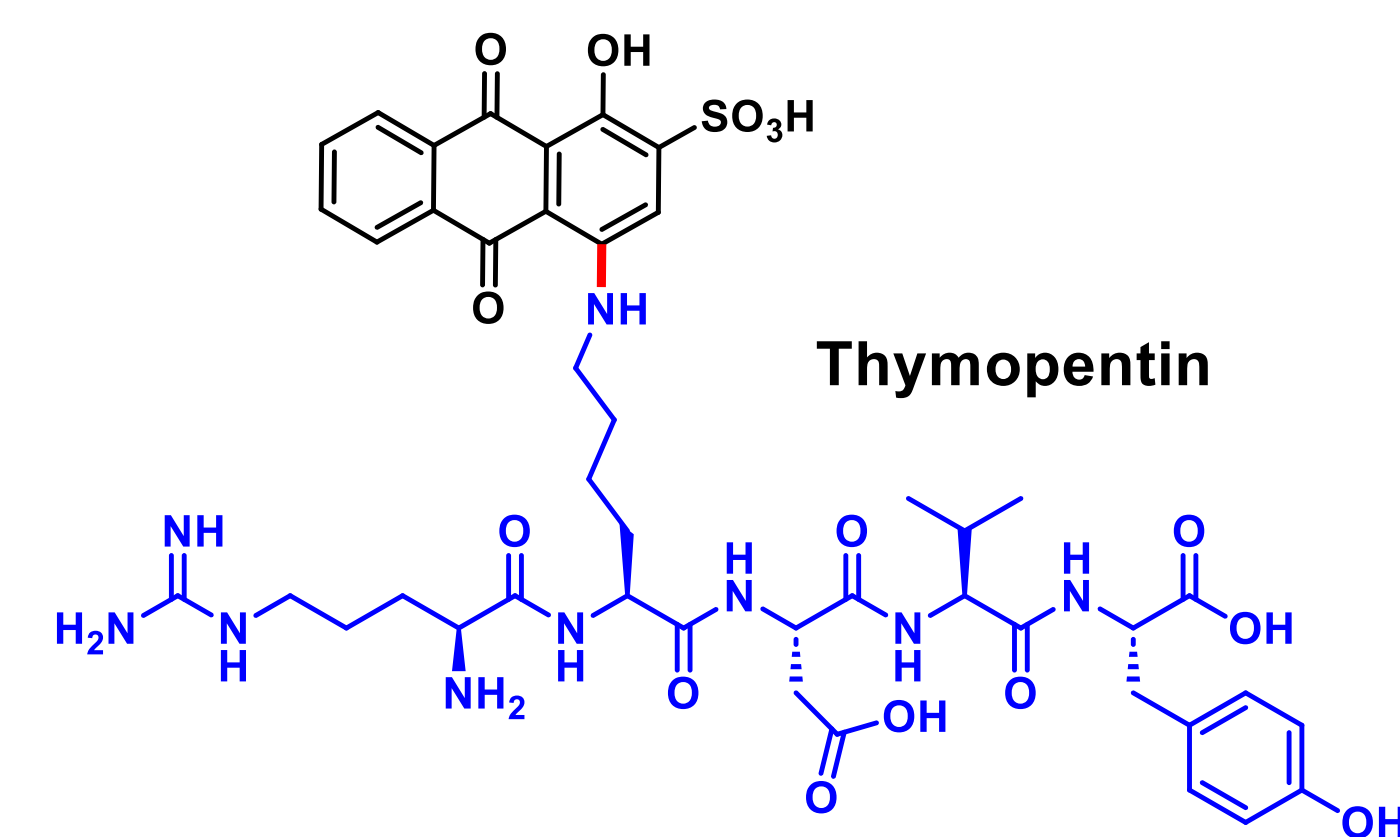
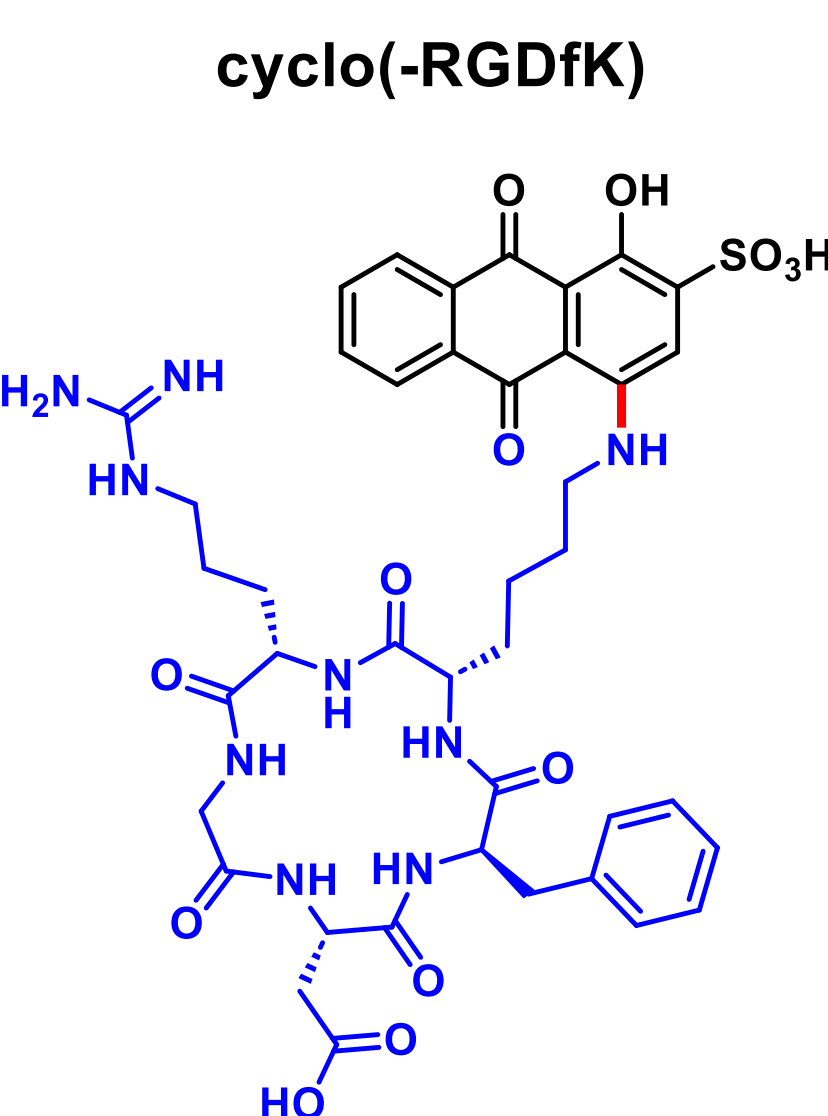
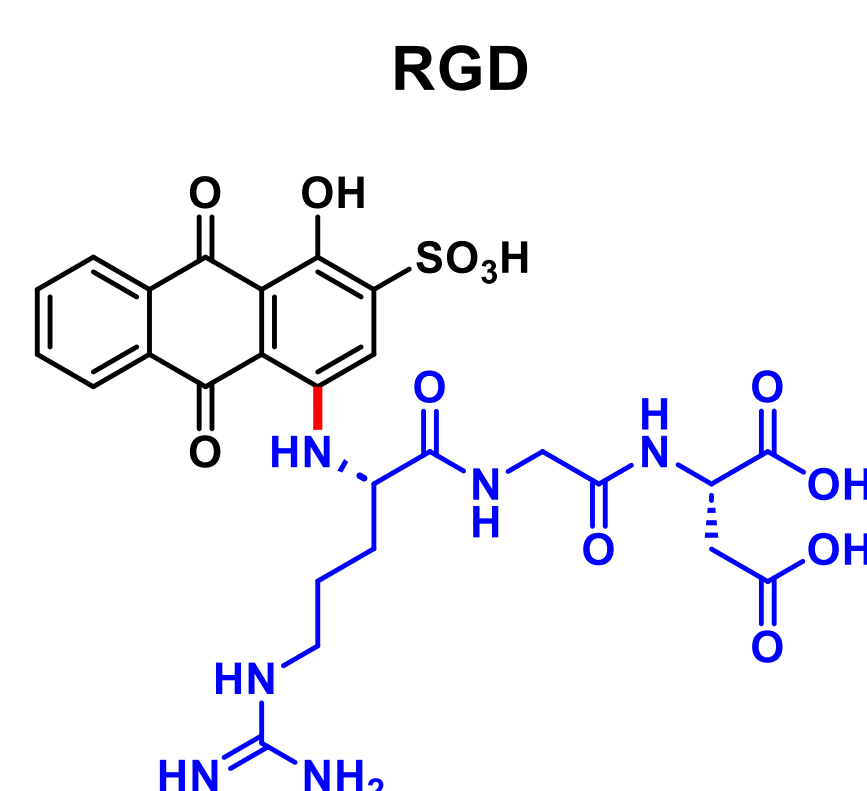
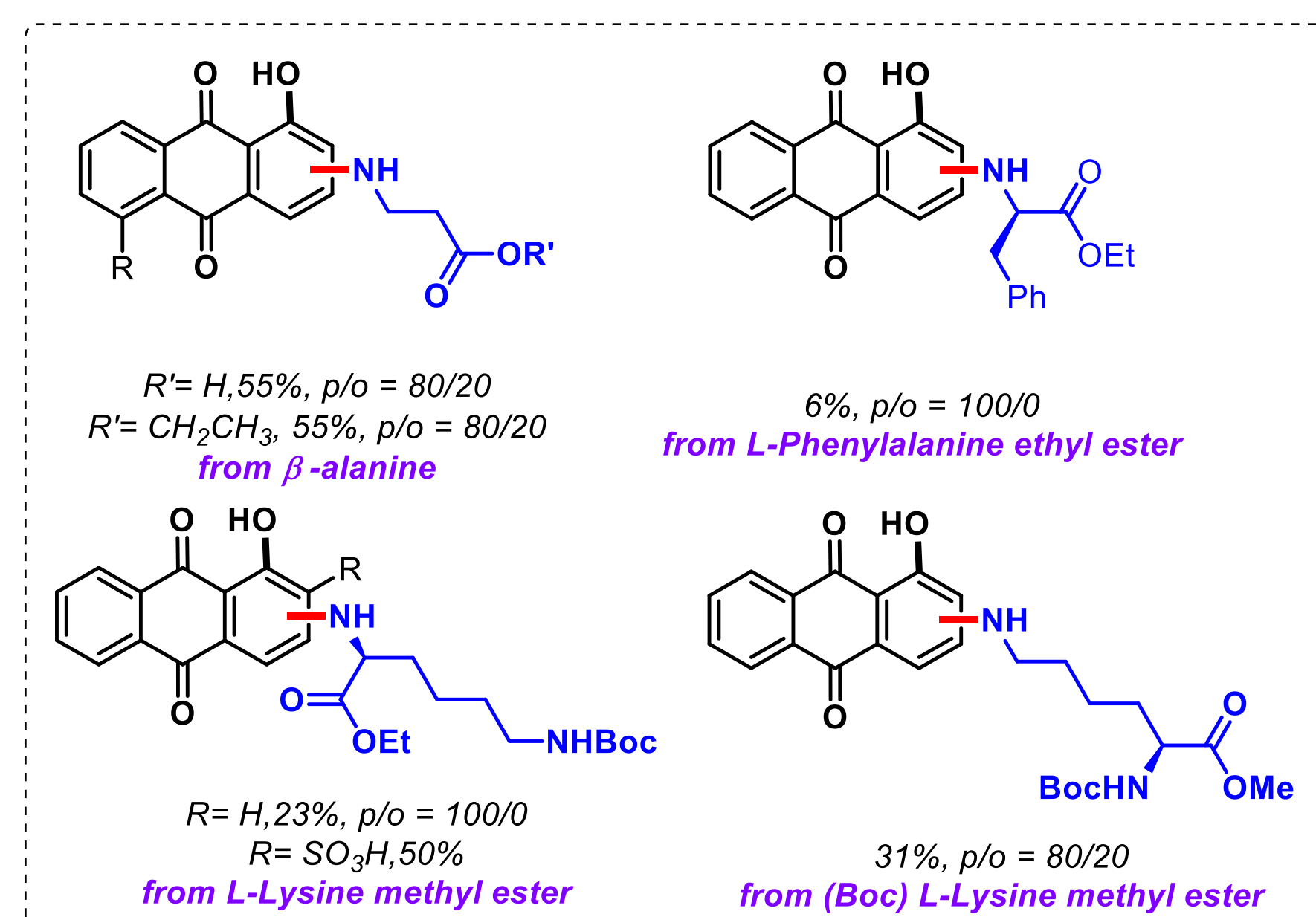
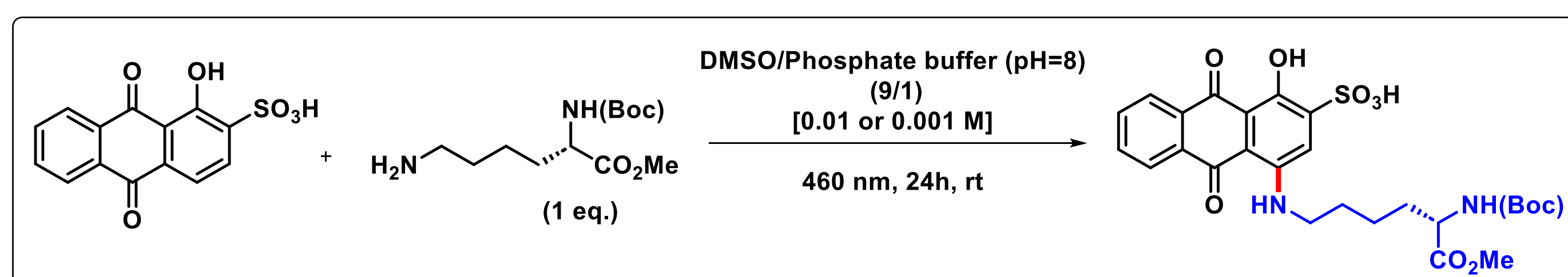


PHOTOAMINATION OF ANTHRAQUINONES

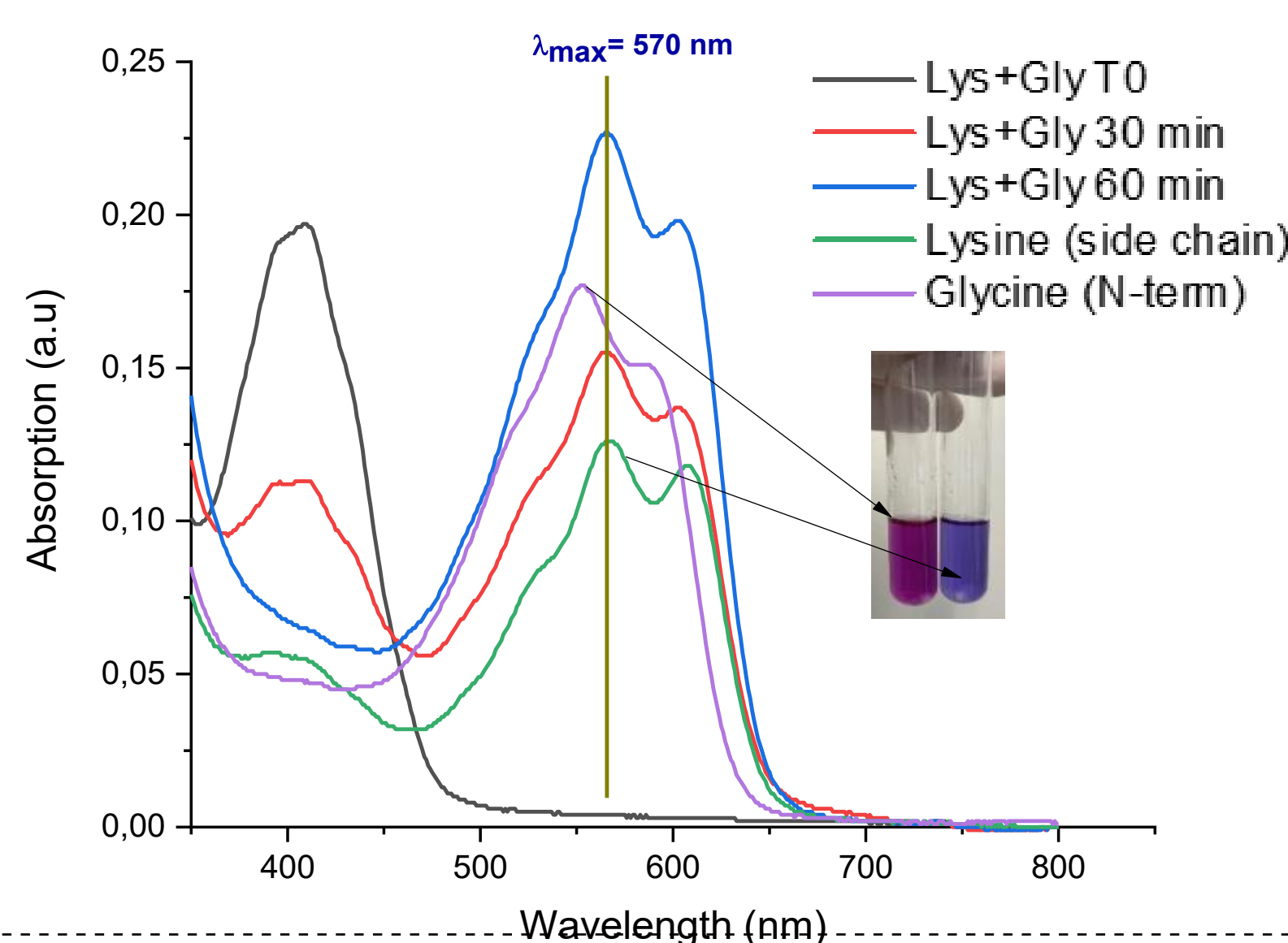
UV-VIS AND FLUORESCENCE CHARACTERIZATION



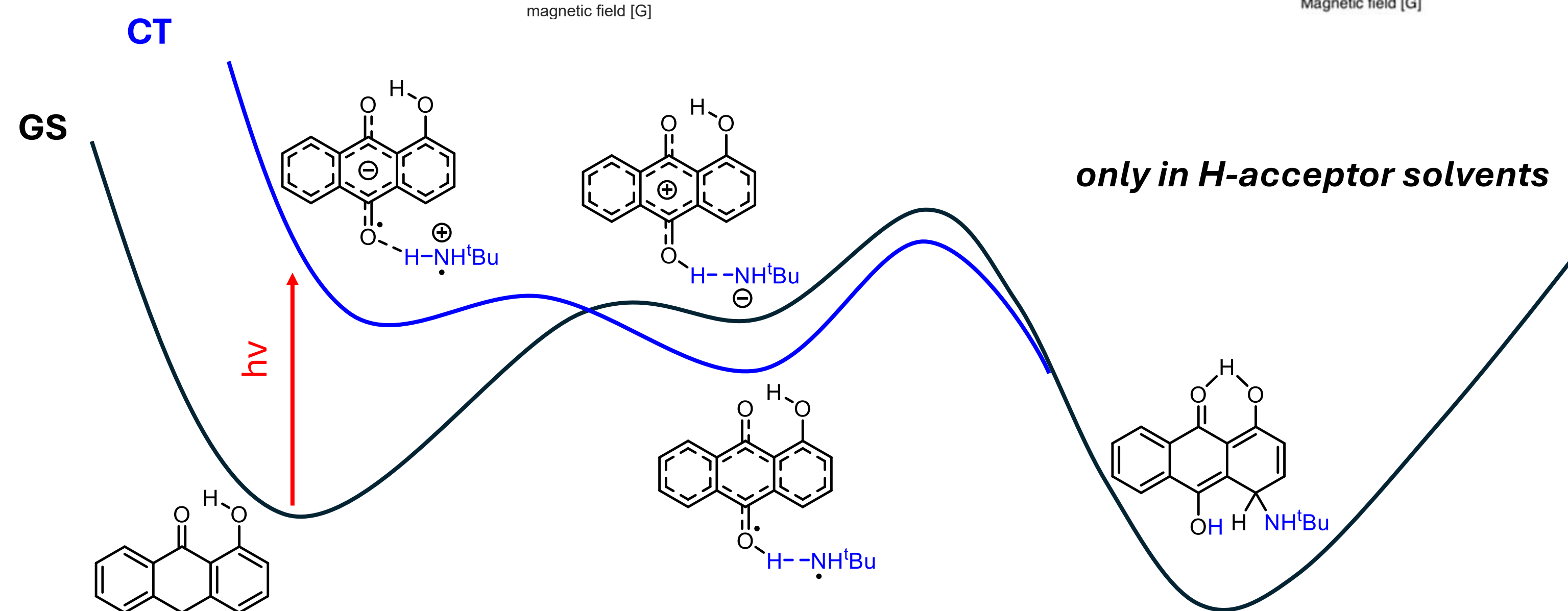
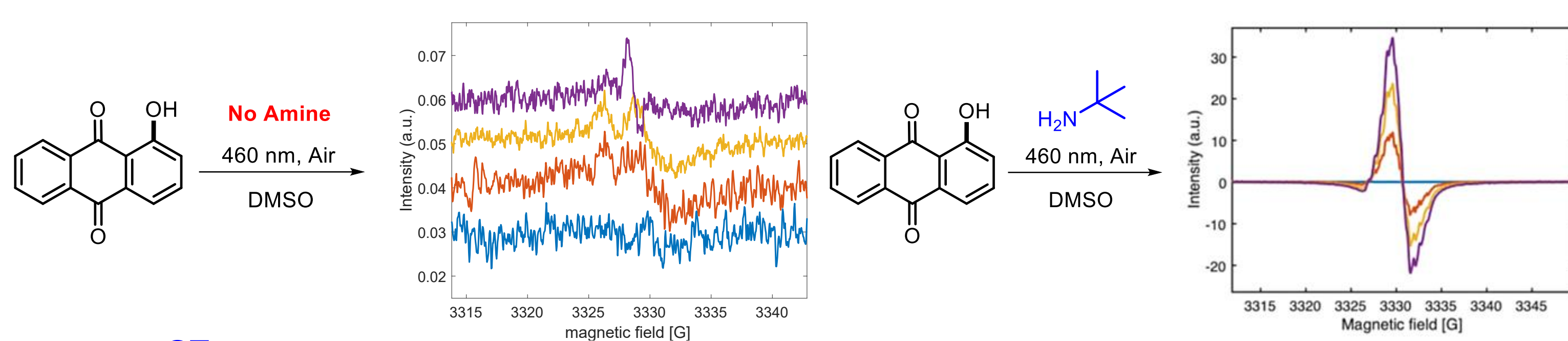
PHOTOINDUCED AMINO ACID AND PEPTIDE LABELING



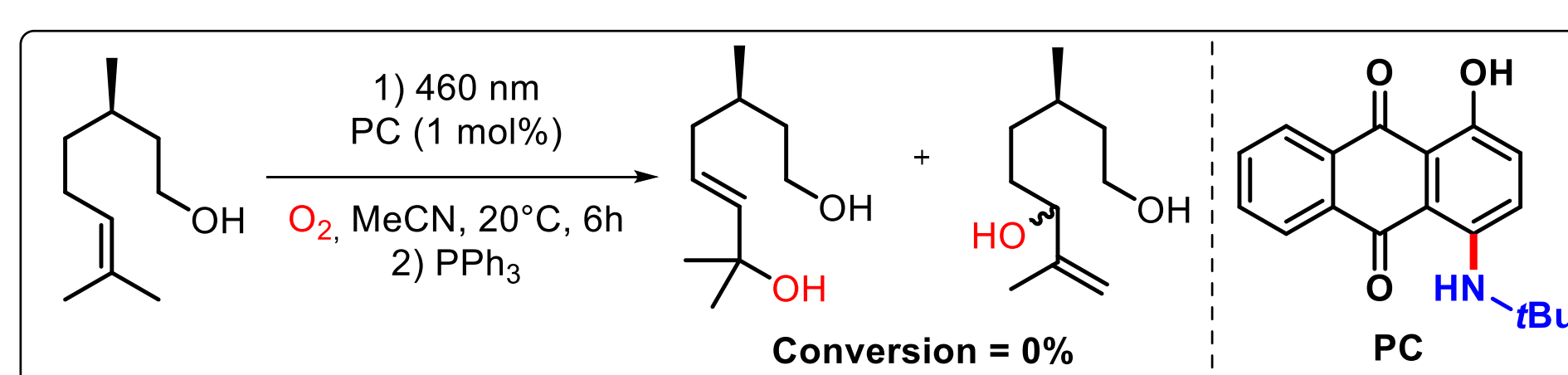
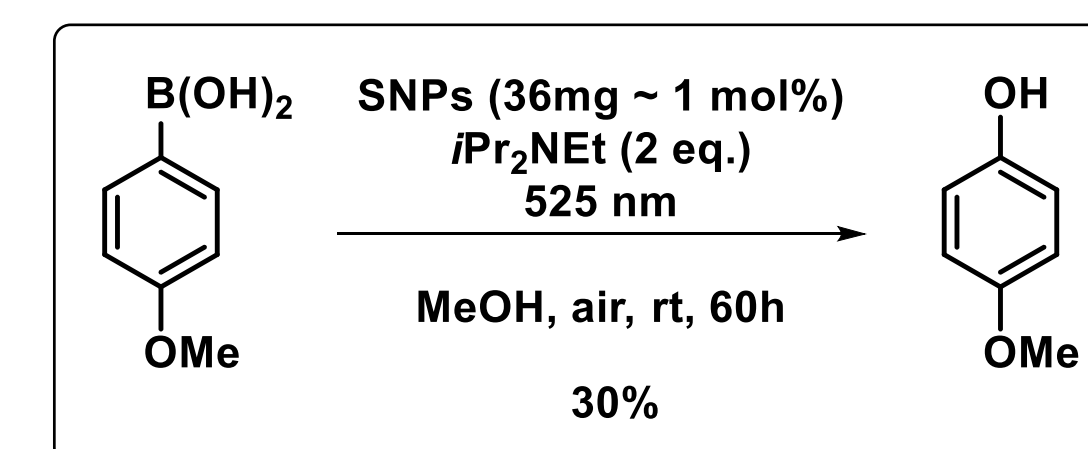
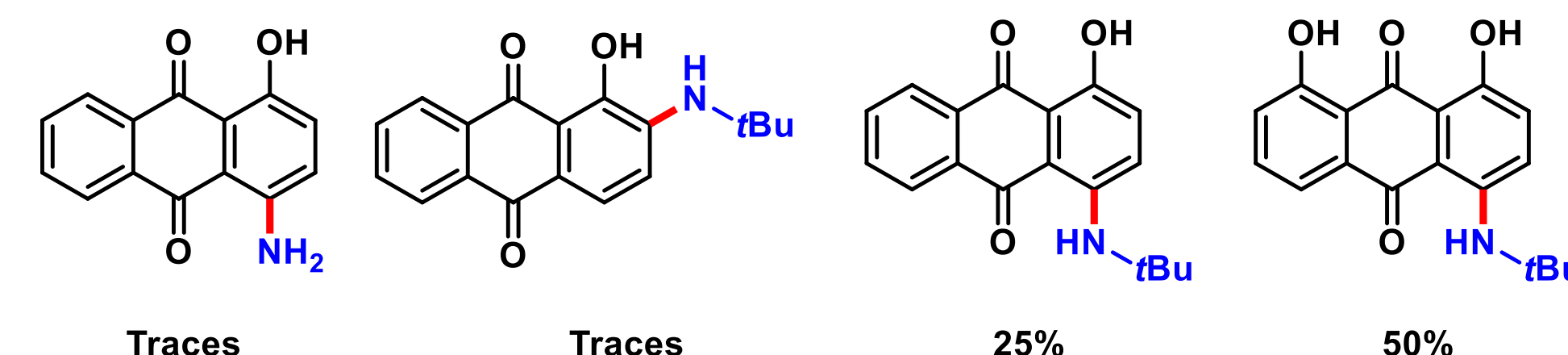
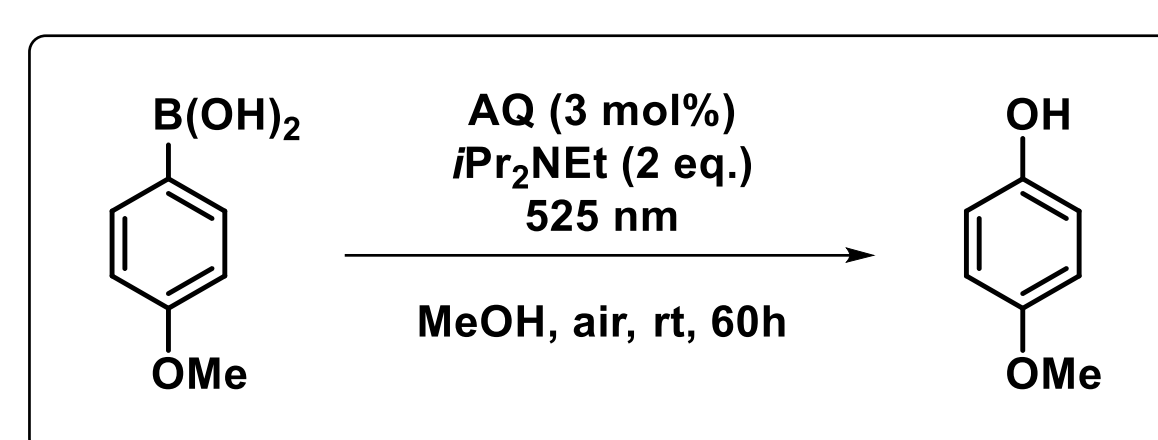
N-term VS N-lat reactivity



EPR STUDIES AND TD-DFT INVESTIGATIONS



APPLICATION IN PHOTOCATALYSIS



- **SET reactivity** (superoxide radical anion generation)
- **Supported photocatalysis**
- **No ¹O₂ generation (no EnT)**

CONCLUSION

- **Direct photoamination of hydroxyanthraquinones**
 - **Mostly para selective, with high yields**
- **Complex amines and peptides are well-tolerated**
- **Confirmed SET process (EPR and TD-DFT studies)**
 - **Plausible absence of EnT reactivity**

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 - ANR PRC ACDC ANR-25-CE07-5744

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 Amara, Z. et al., ACS Org. Inorg. Au **2026**, 6, 8-22. Al Ayi, Y. Amara, Z., Brevet Européen, EP26300057.2 Cnam, **2026**.