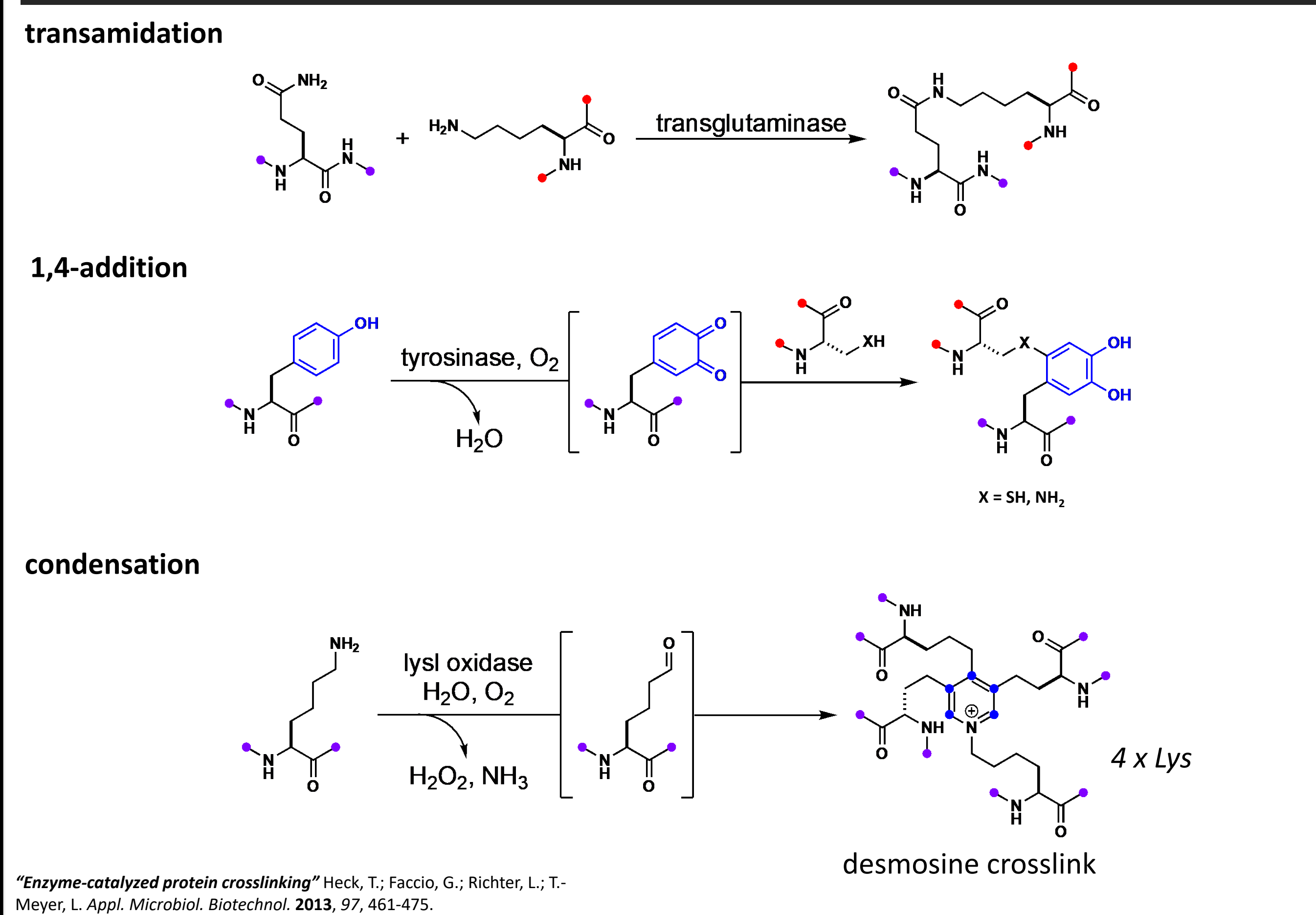
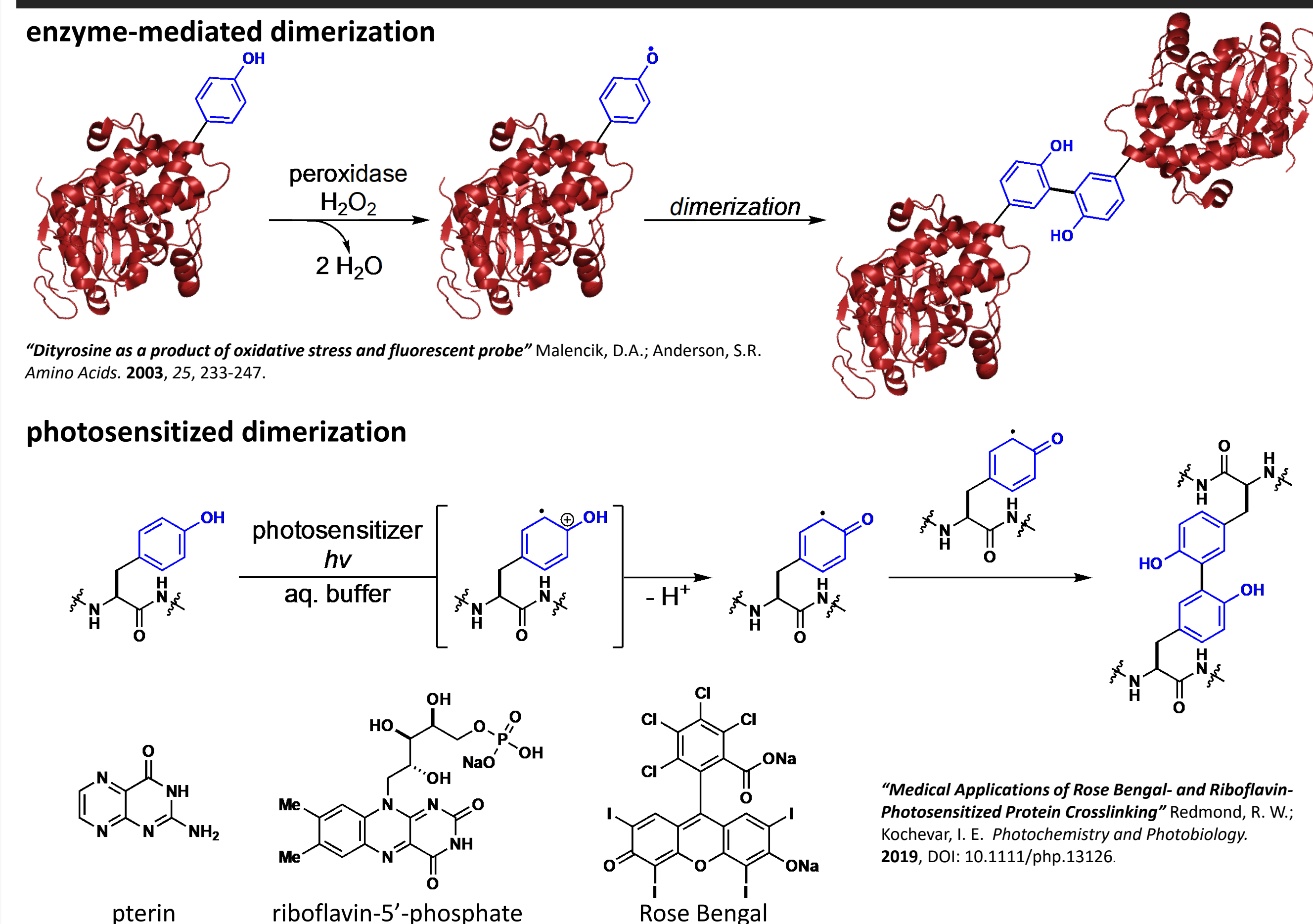


E. Dalles Keyes,¹ Katalin Kauser,² Kevin S. Warner,² and Andrew G. Roberts¹
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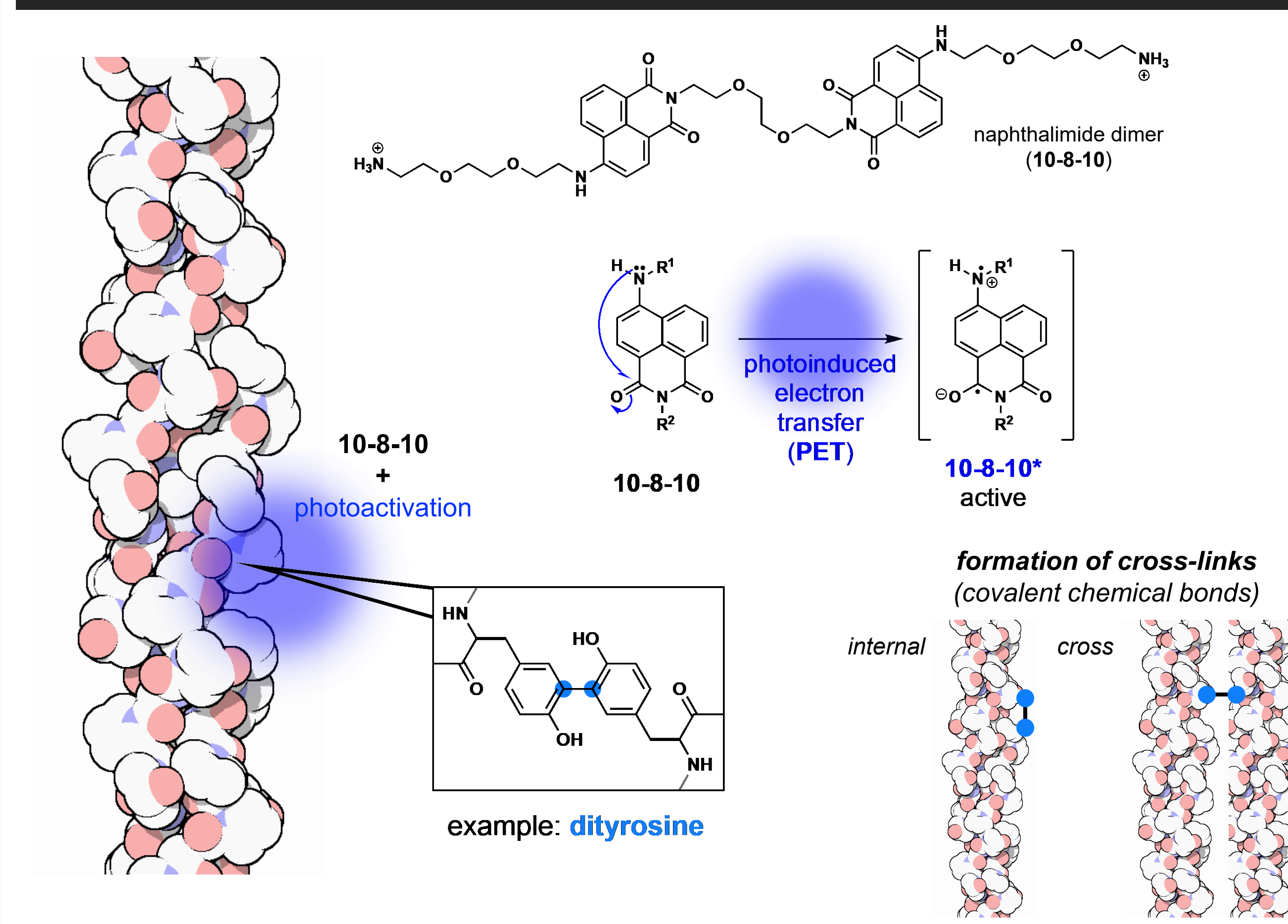
Crosslinking of proteins in Nature



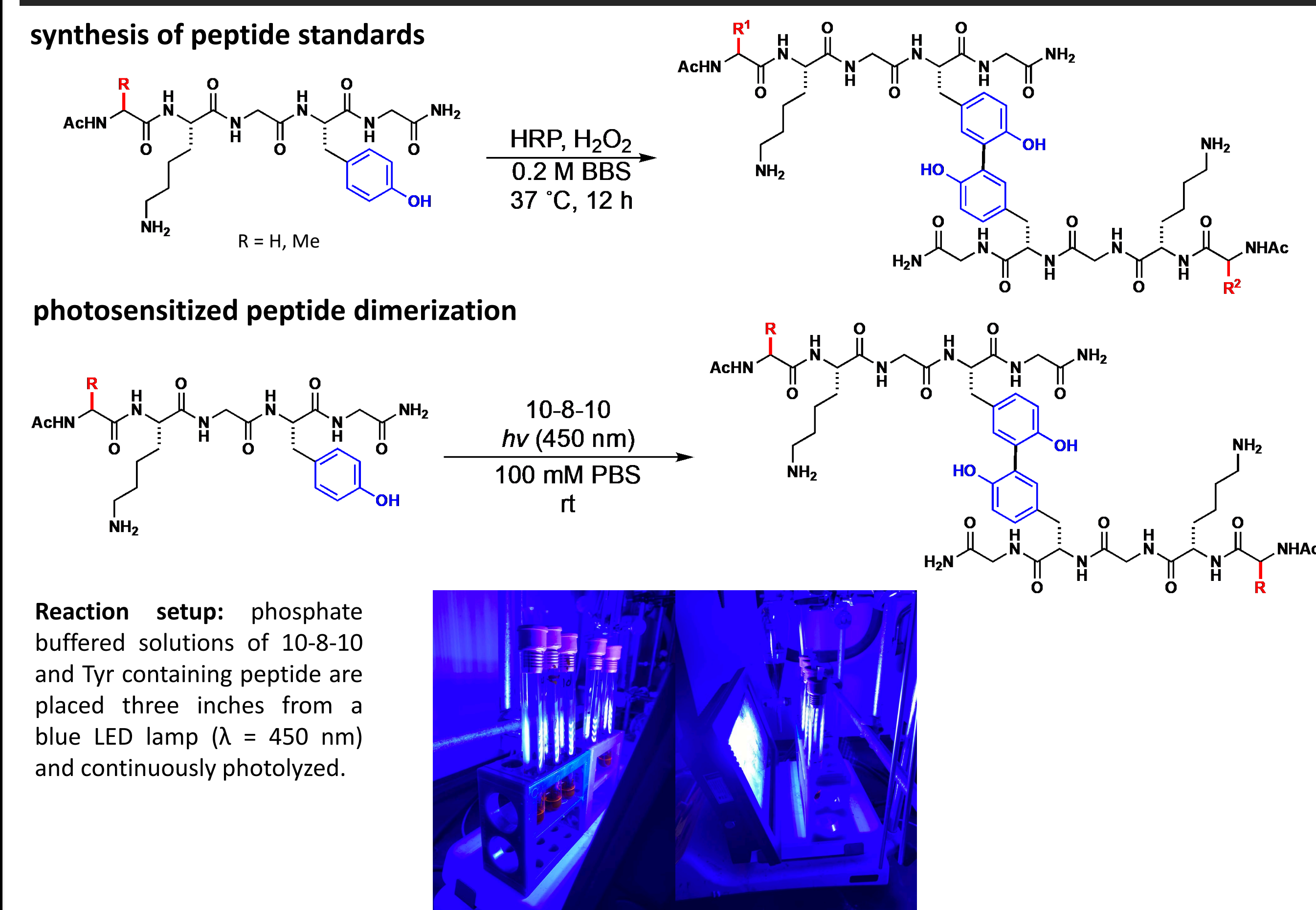
Dityrosine (Tyr-Tyr) crosslinks



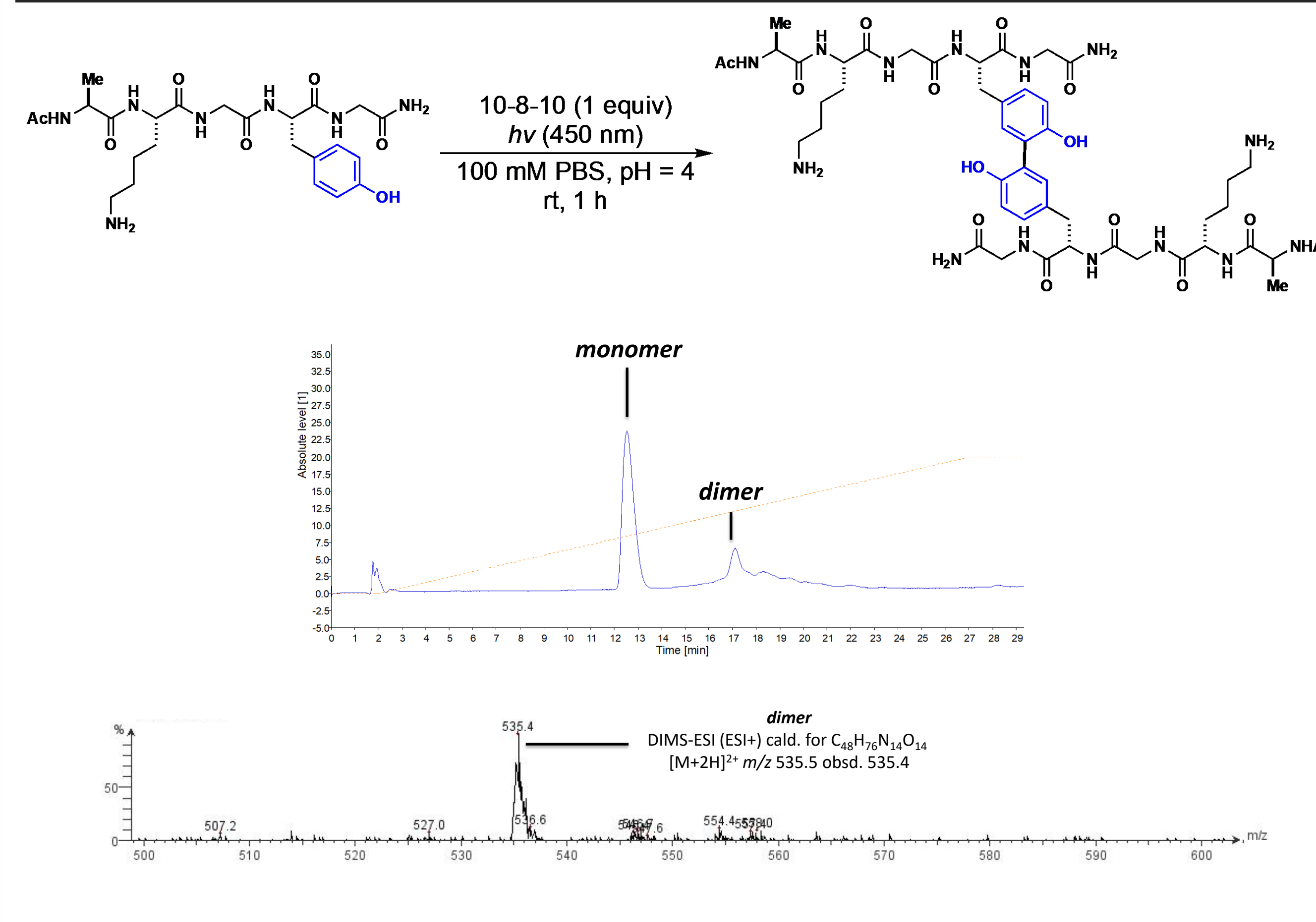
Photoactivated protein modification



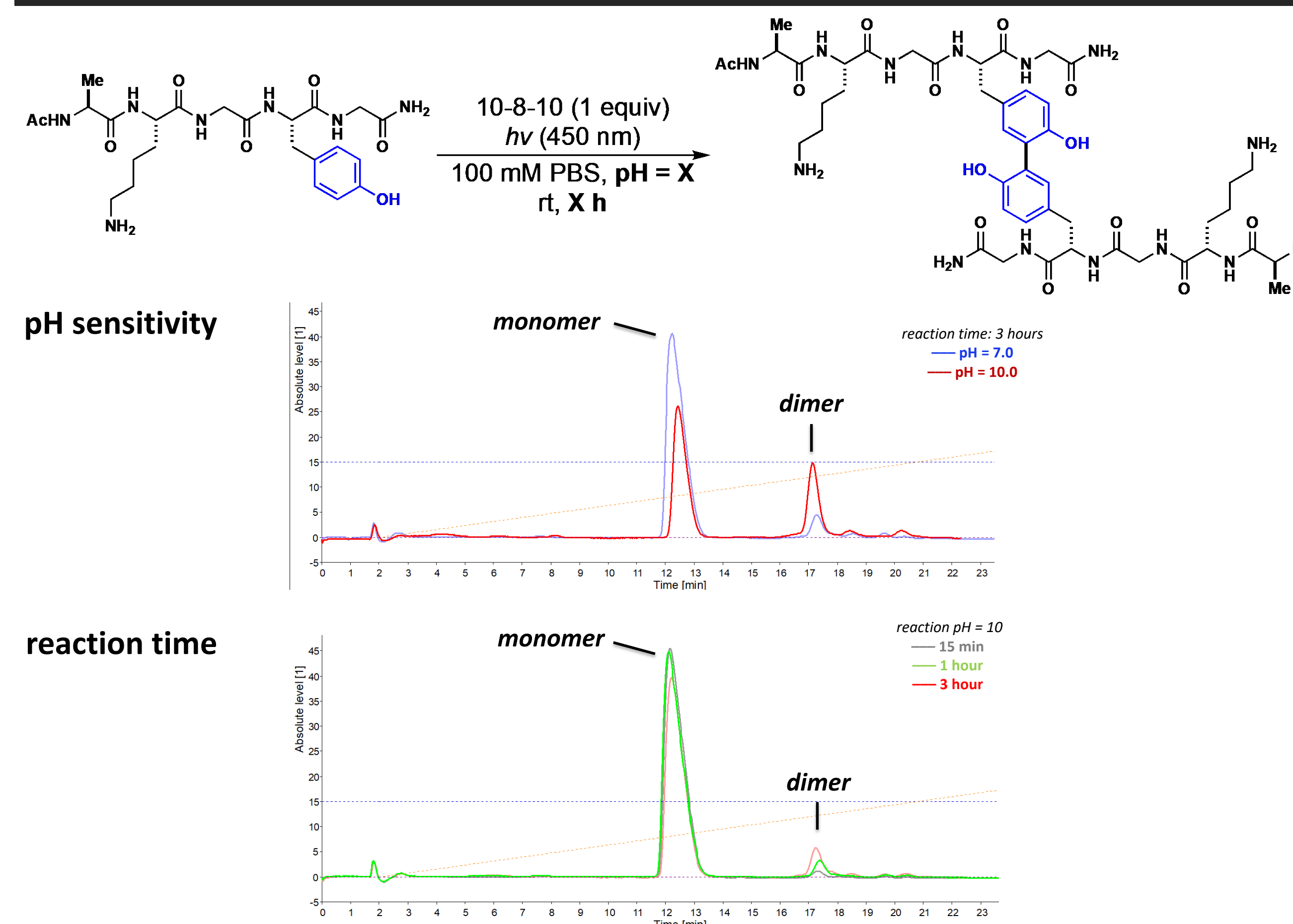
Experimental design and reaction setup



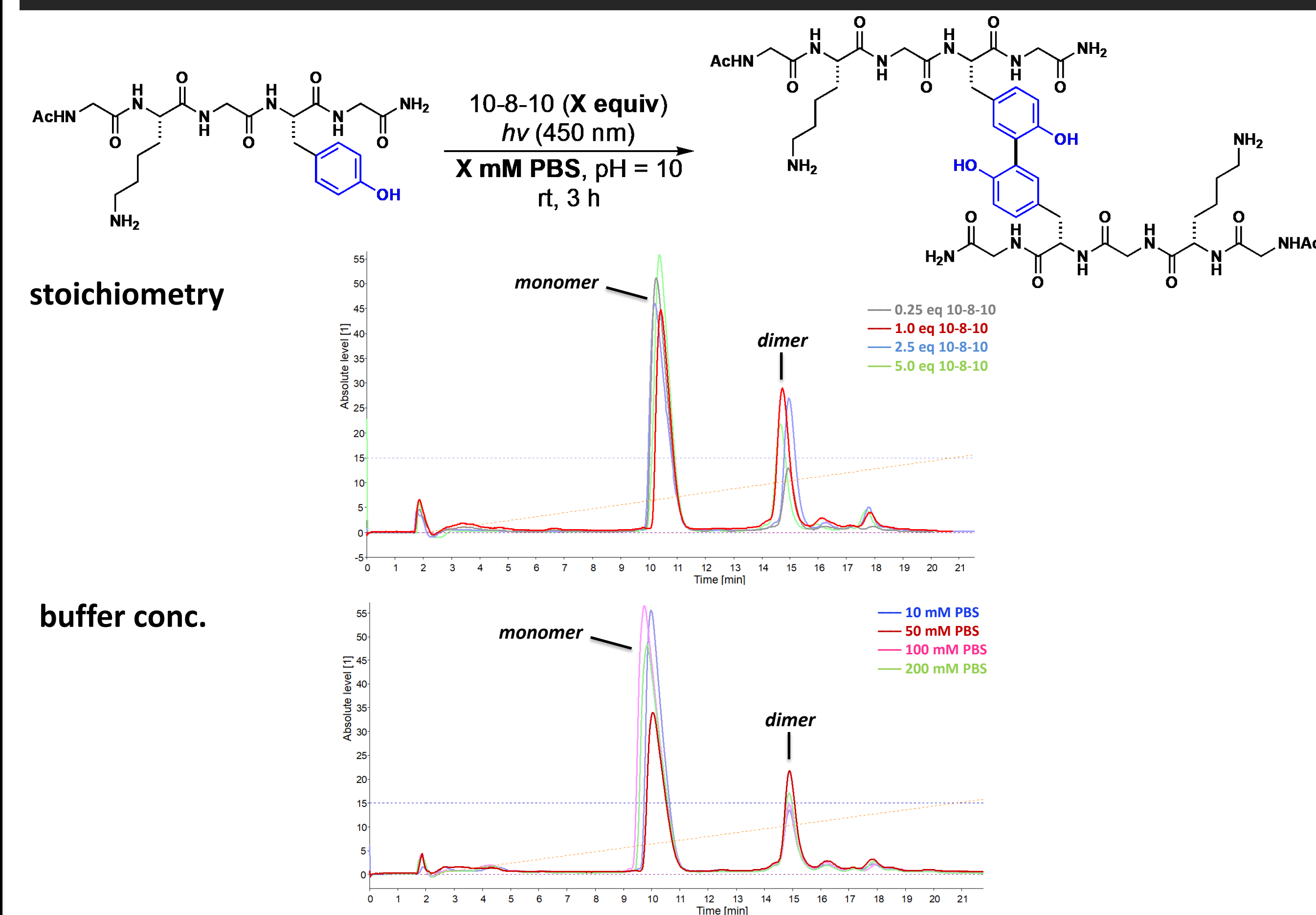
Tyr dimerization photosensitized by 10-8-10



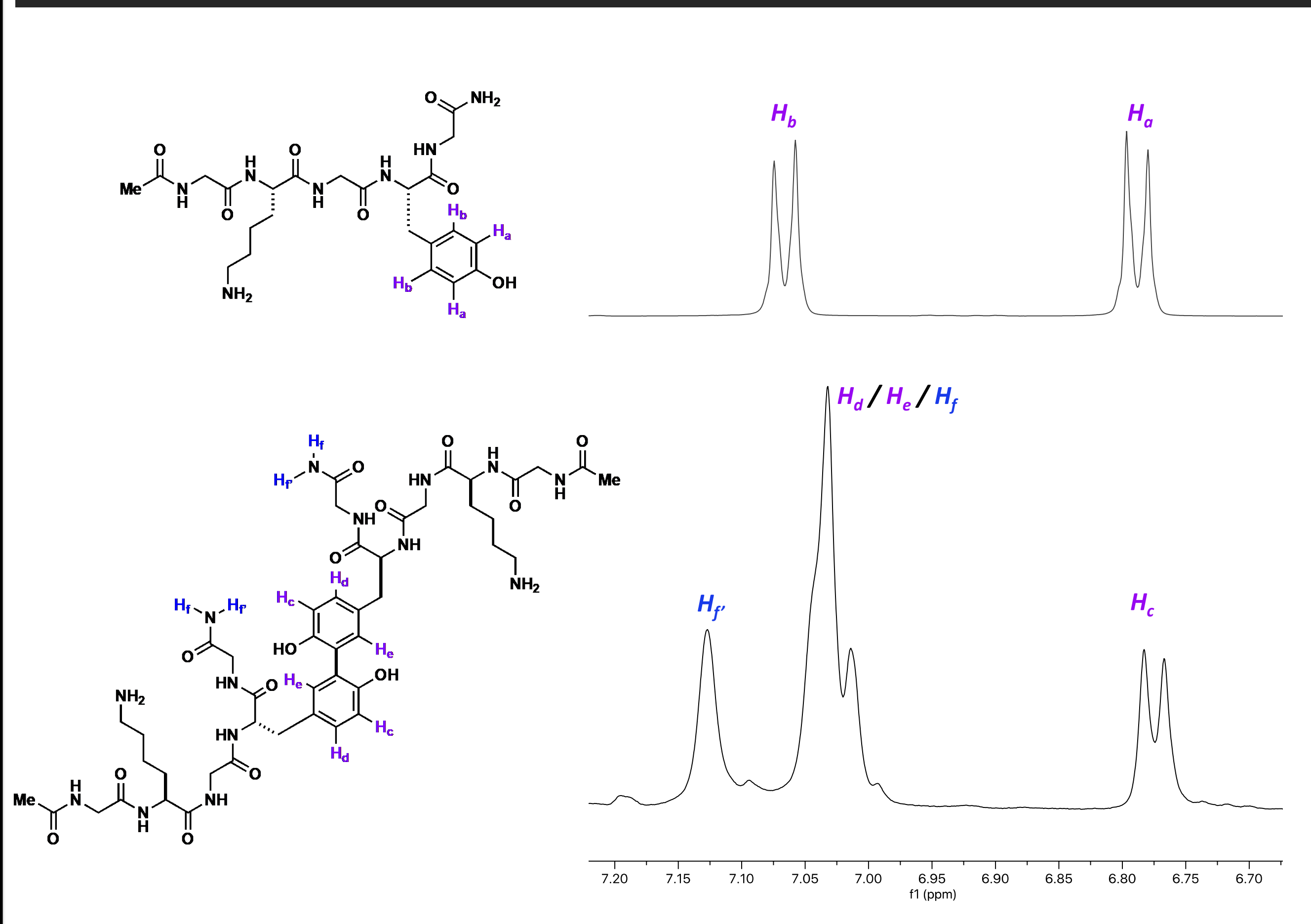
Reaction optimization



Reaction optimization



Diagnostic ¹H NMR signals



Future work and acknowledgements

Protein modification and assay readout... Tyr dimers?

collagen

bis(dabsyl)dityrosine

10-8-10, PBS, hv (450 nm);
then, 6 M HCl, H₂O, Δ;
then, DABS-Cl, NaHCO₃, Δ

"Dityrosine as a product of oxidative stress and fluorescent probe" Malencik, D.A.; Anderson, S.R. *Amino Acids*. **2003**, *25*, 233-247.

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