Triazabutadienes for the Immobilization of Electrodes with Biomolecules

Alison Parkin[1,†] Alice Hewson[1], Lucy Hudson[1], Lucy Gregg[1], Nicholas D. J . Yates[1],

[1]Department of Chemistry, University of York, YO10 5DD, UK
† corresponding author's email: alison.parkin@york.ac.uk

We have been developing triazabutadiene molecules as a tool to enable light-activated covalent grafting of biomolecules onto electrode surfaces (Figure 1).[1] This talk will describe the synthetic development of our toolkit of molecules and their application in new biosensors.[2], [3], [4] We are able to graft to wide range of surfaces, including off the shelf silicon wafers. The stability of the immobilization is particularly useful is enabling us to apply Fourier transform voltammetry to interrogate our modified electrode surfaces.[5]

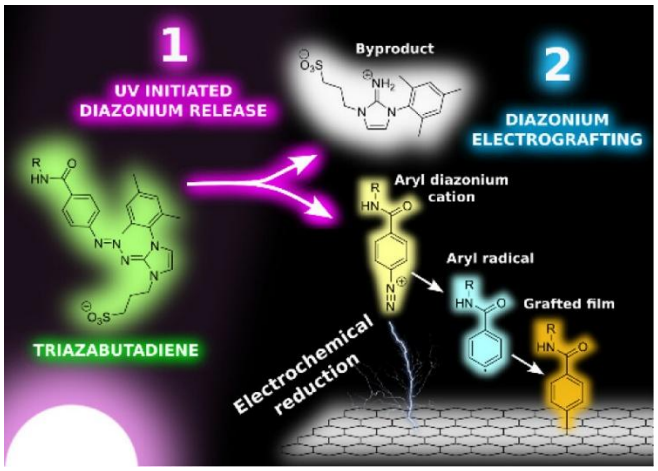

Figure 1: Light-driven electrografting of a triazabutadiene.

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References

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