

TO BE OR NOT TO BE GREEN WITH BIOCATALYSIS IN NEOTERIC SOLVENTS

Frank Hollmann^{1*}

¹ *Department of Biotechnology, Delft University of Technology, Delft, The Netherlands*
f.hollmann@tudelft.nl

We all view our work within the context of a more sustainable future and aim to contribute to this with our research. However, sometimes our enthusiasm leads us to overestimate the impact of our work, especially when it comes to sustainability. Biocatalysis, for example, is reputed to be particularly sustainable due to its operation in water and under mild reaction conditions. But is this sufficient to label biocatalysis as 'green'?

The biocatalysis community is also notably enthusiastic about considering novel solvents as sustainable. However, similarly, are very high boiling points and (apparent) non-toxicity and (apparent) renewable origin sufficient?



Figure 1: Whether biocatalysis or novel solvents shine, whether greener they are, remains undecided, fine.

In this contribution, I intend to provoke. I will present theses that challenge our common perceptions and discuss them. This piece is expressly designed to serve as a stumbling block to initiate interesting debates during the conference.