UNIVERSITÄT BAYREUTH

OPTEXC

invited speaker series

Radical organic light emitting diodes*

Common organic light emitting diodes (OLEDs) are made using fluorescent or phosphorescent chromophores, ie. chromophores with a closed electron shell in a spin singlet or triplet configuration that limits their maximum theoretical efficiency. Tim Hele and coworkers recently showed that using radicals, i.e. chromophores with an open shell and concomitantly a spin doublet configuration, allows for OLEDs with a theoretical efficency of 100%, as spin-statistics does not limit their performance.[Nature 563 (2018), 536]

Dr Hele is a Research Fellow in Computational Chemistry at the Dept of Chemistry, Faculty of Maths & Physical Sciences, UCL, London.

Date: Wednesday, 3rd July 2024 | time: 9.00 am | Room: S35, NW1

Timothy J. H. Hele

University College London

UK