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Correction: π -Facial selectivity in the Diels–Alder reaction of glucosamine-based chiral furans and maleimides

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CORRECTION

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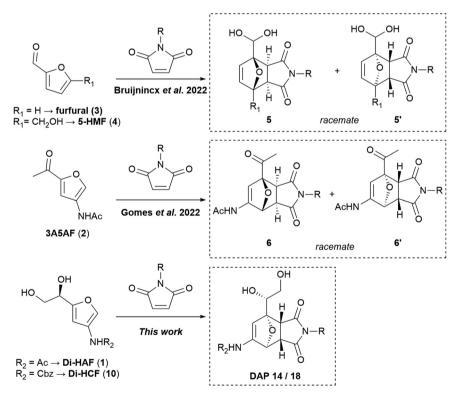
Cornelis H. M. van der Loo,^a Rutger Schim van der Loeff,^a Avelino Martín,^c Pilar Gomez-Sal,^c Mark L. G. Borst,^b Kees Pouwer^b and Adriaan J. Minnaard*^a

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Correction for ' π -Facial selectivity in the Diels-Alder reaction of glucosamine-based chiral furans and maleimides' by Cornelis H. M. van der Loo *et al.*, *Org. Biomol. Chem.*, 2023, **21**, 1888–1894, **https://doi.org/10.1039/D2OB02221D**.

The authors regret that there was an error in the depiction of a specific stereocenter found in the key structures **14–16** and **18** throughout the article (Scheme 1, Scheme 4, Fig. 1, Scheme 7 and Scheme 9). The stereocenter is inverted in each instance. The correct figures and schemes are shown below.

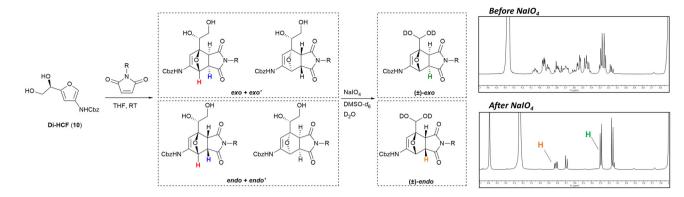


Scheme 1 Recent advances in the application of carbohydrate derived furans in direct Diels-Alder cycloaddition reactions with maleimides.

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Scheme 4 Diels-Alder reactions of Di-HCF (10) with substituted maleimides afford a mixture of four different diastereomers. Periodate oxidation simplifies the structure to facilitate NMR analysis. Top ¹H-NMR spectrum: before periodate treatment; bottom ¹H-NMR spectrum: after periodate treatment.

Fig. 1 The ¹H-NMR signal used to determine the product distribution. The proton of the primary alcohol (highlighted in purple) has a different chemical shift for each of the four diastereomeric products. NMR solvent: DMSO-d₆.

Scheme 7 Synthesis of crystalline derivative 16 to enable X-ray diffraction.

Scheme 9 Diels-Alder cycloaddition of Di-HAF (1) and N-phenylmaleimide in chloroform-DMSO at -10 °C. endo/exo-ratio: 2:8 and exo-facial selectivity: 4:1, isolated yield of major isomer: 59%.

The same error was also found in the electronic supplementary information (ESI) (section S12). The structure was corrected in the updated replacement ESI file on 6th December 2023.

Additionally, in the Experimental section in the ESI two chemical names (in sections S9 and S10) contain the wrong stereoannotation. The corrected chemical names are shown below.

Section S9:

benzyl ((4R,7R)-7-((R)-1,2-dihydroxyethyl)-1,3-dioxo-2-phenyl-2,3,3a,4,7,7a-hexahydro-1H-4,7-epoxyisoindol-5-yl)carbamate (**DAP 14**) should read benzyl ((3aS,4S,7S,7aR)-7-((R)-1,2-dihydroxyethyl)-1,3-dioxo-2-phenyl-2,3,3a,4,7,7a-hexahydro-1H-4,7-epoxyisoindol-5-yl)carbamate (**DAP 14**)

Section S10:

benzyl ((4R,5R,7R)-7-((R)-1,2-dihydroxyethyl)-1,3-dioxo-2-phenyloctahydro-1*H*-4,7-epoxyisoindol-5-yl)carbamate (**DAPRED 15**) should read benzyl ((3aS,4S,5S,7S,7aR)-7-((R)-1,2-dihydroxyethyl)-1,3-dioxo-2-phenyloctahydro-1*H*-4,7-epoxyisoindol-5-yl)carbamate (**DAPRED 15**)

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.