

UV-Mediated Anomeric Activation

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By serendipity, we discovered that UV light activates the anomeric carbon in glycosyl trichloroacetimidates (TCAs) towards reaction with a chlorine atom or the solvent, yielding glycosyl chlorides, glycosides, or glycosyl pyridinium chloride salts depending on the choice of solvent. The method represents a versatile, easy new tool for conversion of glycosyl TCAs to various glycosyl compounds without the need for photocatalysts or other additives.

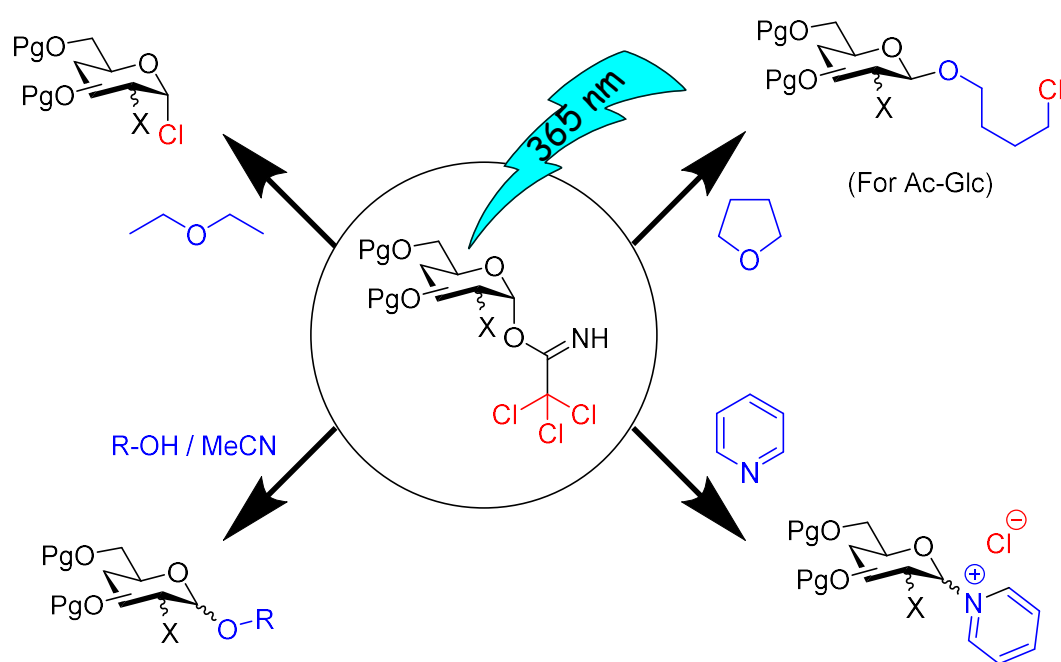


Figure 1. Anomeric activation with 365 nm UV light in various solvents and the versatile solvent-dependent outcomes.