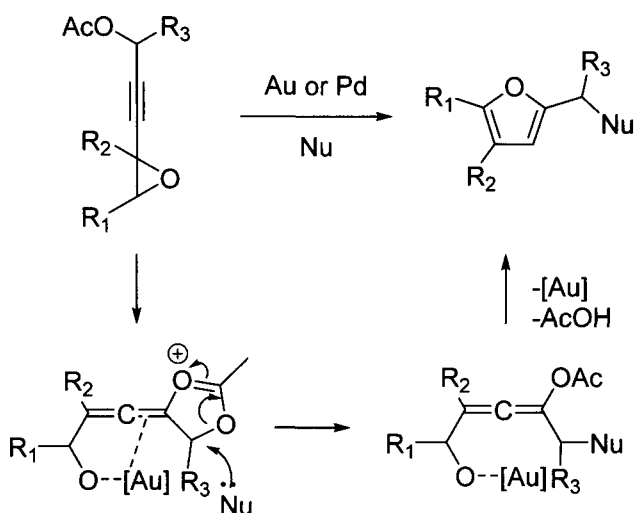
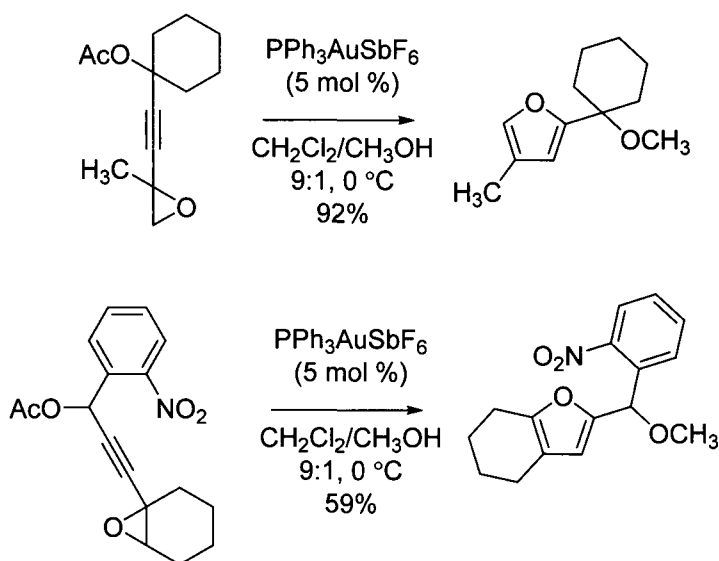


either gold(III) or palladium, proceed through an allene intermediate, and involve the addition of a nucleophile as illustrated below.



A recent example by Pale and co-workers used the cationic gold complex PPh_3AuSbF_6 as a catalyst and methanol as a nucleophile to generate the desired 2,3-substituted furan in 92% yield.⁵¹ 2,3,5-Trisubstituted furans, such as 2-(methoxy(2-nitrophenyl)methyl)-4,5,6,7-tetrahydrobenzofuran (shown below) were also prepared in modest yields using this methodology.



Aurrecoechea and co-workers used a palladium(II) catalyst to perform a palladium-catalyzed cyclization-coupling reaction to prepare