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# A NEW ROUTE TO THE SYNTHESIS OF A TRIPLET SILYLENE

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Silylenes, the silicon analog of carbenes, are neutral divalent molecules with an  $sp^2$  hybridization. Silylenes can exist in a spin paired, singlet, or spin unpaired, triplet, ground state. While many singlet silylenes have been synthesized and studied, no reactive triplet silylenes have been studied. Previous work on synthesis of triplet silylenes has yielded molecules too sterically hindered to undergo the reactions required to perform mechanistic studies. This project attempts to synthesize a non-sterically hindered disilene stabilized silylene utilizing previous syntheses of stable singlet silylenes. The synthesis of the target molecule was designed using computational calculations performed by previous Gaspar group members. While the synthesis is not complete several steps have been successfully completed with  $^1H$ NMR and GC-MS data corresponding with published literature values.