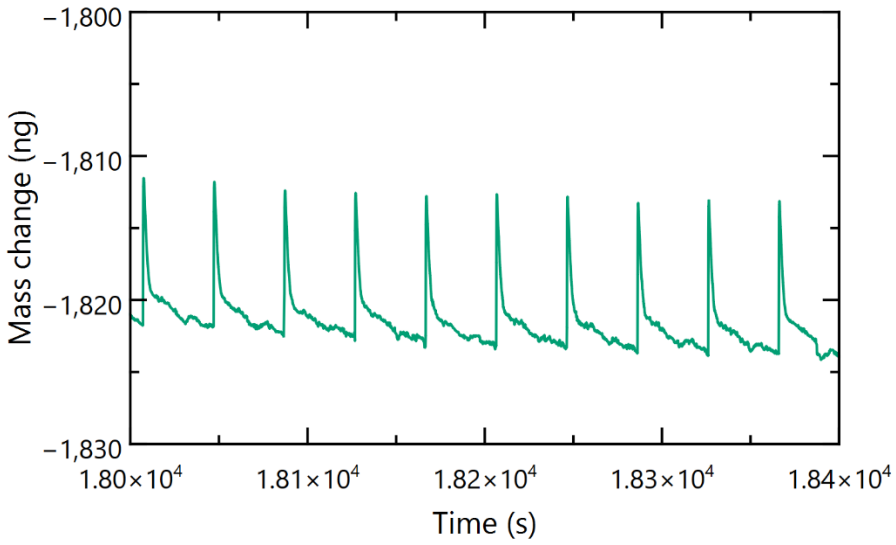

Figure 1: In situ quartz crystal microbalance results displaying the mass change as a function of time during the process where $tBuNH_2$, D_4^{Vinyl}, and an Ar/H_2 plasma are pulsed. No mass change is observed, which indicates that there is no growth using a primary amine instead of a primary phosphine.

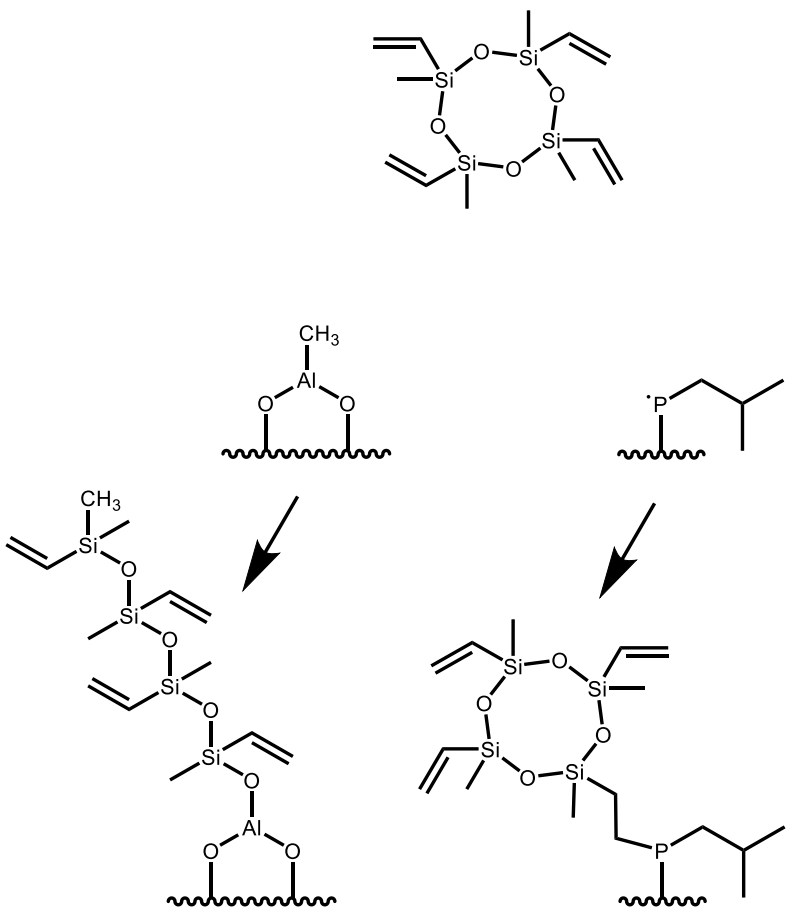

Figure 2: Proposed reaction mechanisms of the cyclic siloxane precursor D_4^{Vinyl} with a trimethylaluminum covered surface or with a radicalized $iBuPH_2$ covered surface. The surface chemistry is determinative whether the ring opens or not.