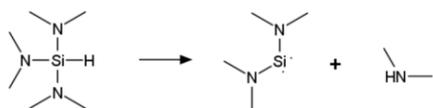


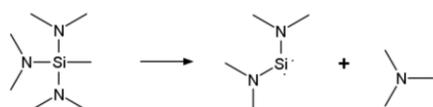
Supplemental Material

3DMAS:



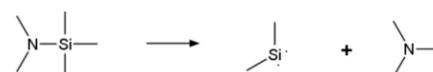
$\Delta E = 42.0$ kcal/mol
Max. ALD temp = 550°C

3DMAMS:



$\Delta E = 53.6$ kcal/mol
Max. ALD temp = 600°C

DMATMS:



$\Delta E = 74.9$ kcal/mol
Max. ALD temp = 650 °C

- Silylene formation is a hypothesized decomposition pathway
- Higher reaction energy for silylene formation reflects higher stability
- Thermodynamics of silylene formation energies reflect basic CVD temperature trends
- Note: other factors at play (e.g. silylene insertion energetics) also affect stability

*Increasing
stability*