Trans-Selective Silylzincation of Terminal Ynamides

**Significance:** The authors report a regio- and stereoselective silylzincation reaction of terminal ynamides using (Me$_3$Si)$_3$SiH and diethyl zinc. The resulting vinylzinc intermediates are trapped by a copper(I)-mediated substitution reaction to obtain Z-$\beta$-silylenamides in high yields.

**Comment:** The radical-chain process involves an addition of the (Me$_3$Si)$_3$Si radical to the ynamide to provide a Z-configured $\alpha$-amino vinylic radical which reacts with the dialkylzinc reagent to afford a $\alpha$-zincated $\beta$-silylenamide.

**Proposed mechanism:**

\[ \text{Et}_2\text{Zn} \rightarrow \text{EtH} \rightarrow \text{Et-Zn} \rightarrow \text{Zn} \]

**Selected examples:**

- 50% yield (X = Br)
- 87% yield (X = Br)
- 54% yield (X = I)
- 68% yield (X = Cl)
- 85% yield (X = Br)
- 45% yield (X = Br)