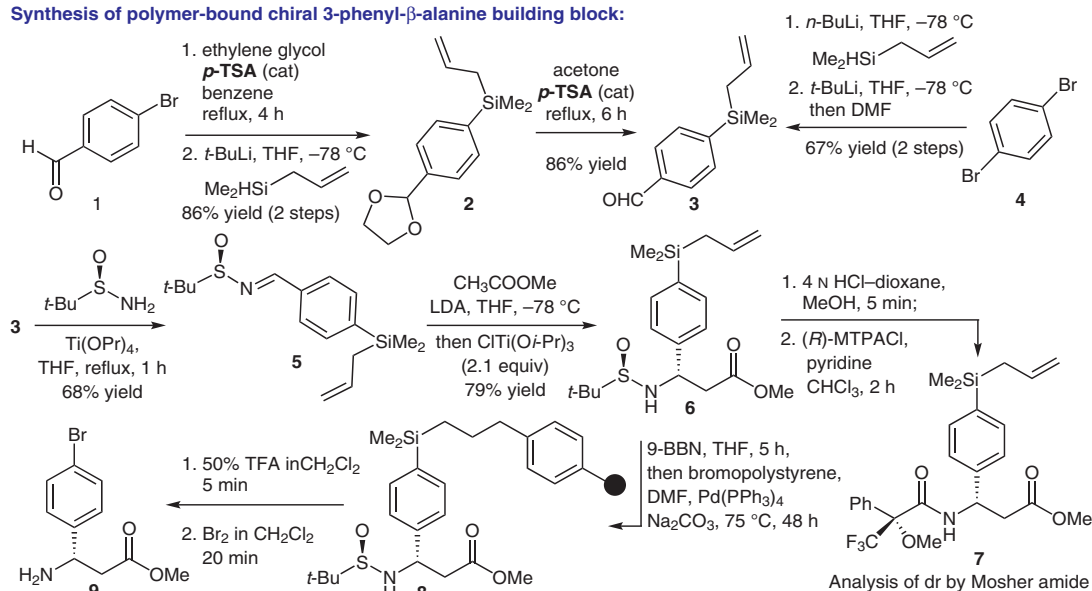
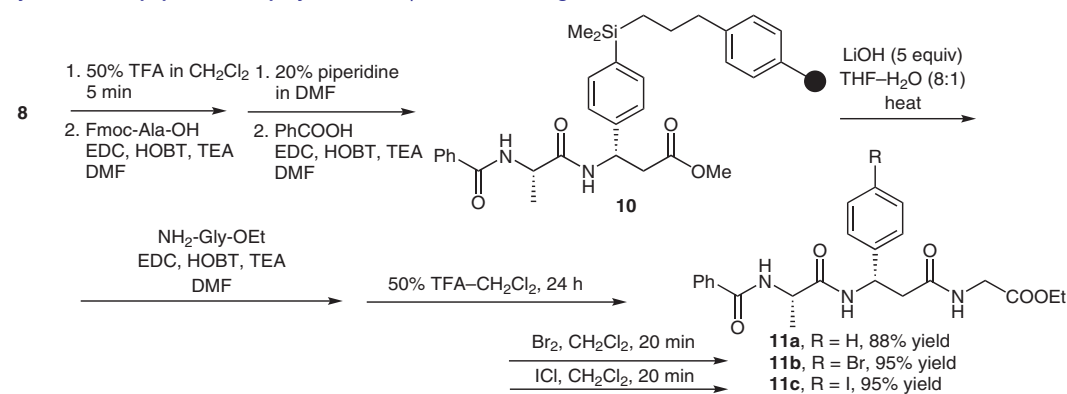


# Synthesis of a Side-Chain-Tethered Solid Support for Peptide Synthesis

## Synthesis of polymer-bound chiral 3-phenyl- $\beta$ -alanine building block:



## Synthesis of tripeptides from polymer-bound $\beta$ -alanine building block:



**Significance:** Silicon-linked solid supports play a major role in peptide syntheses because of the ease with which silicon-based linkers can be attached and detached. In 2000, Lee and Silverman developed silicon-linked side-chain-tethered  $\beta$ -amino acid building blocks for peptide synthesis.

**Comment:** The silicon-linked side-chain-tethered  $\beta$ -amino acid building blocks were synthesized in good yields. The synthesized support permits the elongation of a peptide chain at both its C-terminal and N-terminal directions. Furthermore, it can be used for the synthesis of 3-aryl- $\beta$ -alanine-containing tripeptides in good yields.