Stereoselective Synthesis of α-Aryl Amino Acids

**Significance:** Quaternary amino acids play an important role as modifiers of peptide conformation and bioactivity. The authors describe an α-arylation of enantiopure amino acid precursors to form quaternary centers.

**Comment:** This KHMDS-mediated α-arylation of enantiopure amino acid precursors proceeds smoothly to provide quaternary amino acids in high yields and without significant loss of stereochemical integrity.

---

**Selected examples:**

### R-Selective route:

- **95% yield, er > 99:1**
- **98% yield, er > 99:1**
- **98% yield, dr = 91:9**
- **83% yield, er > 99:1**
- **73% yield, er > 99:1**

### S-Selective route:

- **80% yield, er > 99:1**
- **80% yield, er > 99:1**
- **95% yield, er > 99:1**
- **76% yield, er > 99:1**
- **56% yield, er = 95:5**

---

*a* LiNEt₃ used instead of KHMDS.

*b* D-phenylglycine was used as starting material.