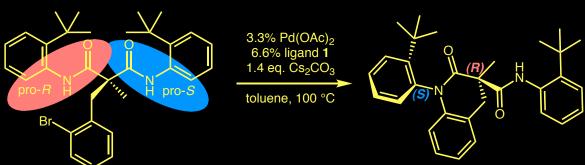
## Development of Enantioselective Nitrogen Arylation Reactions

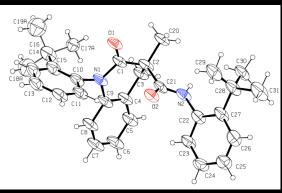
## Russell D. Viirre

Dept. of Chemistry and Biology, Ryerson University, Toronto, Ontario, Canada



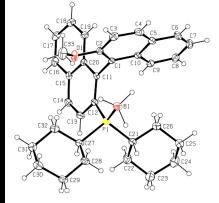
achiral, with two enantiotopic amide groups

chiral center and chiral axis isolated as single diastereomer in 99% yield and 88% enantiomeric excess



X-Ray crystal structure of cyclized product, confirming configuration of chiral center and axis





X-Ray crystal structure of borane adduct of ligand 1. This adduct is stable to air, moisture and even column chromatography

