

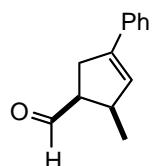
Rhee, J. U.; Krishe, M. J. *Org. Lett.* **2005**, 7, 2493

TS

7. 2



- 1) $[\text{Pd}(\text{PPh}_3)_2\text{Cl}_2]$ (1mol%)
 Cul (1.5mol%)
 $\text{CH}_2=\text{CH}-\text{OH}$ NEt_3 97%
- 2) Red-Al THF
 then I_2 97%
- 3) $\text{Me}-\text{CH}_2-\text{ZnBr}$ (3 eq.)
 $[\text{PdCl}_2(\text{MeCN})_2]$ (5mol%)
 THF/ DMF 81%
- 4) Et_2Zn , CH_2I_2 99%
 DME / CH_2Cl_2
- 5) DMP $\text{CH}_2\text{Cl}_2, 40^\circ\text{C}$, 3hr 79%
- 6) EtAlCl_2 , 0.001Msol.
 $23^\circ\text{C}, 5\text{min}$ 89% (9:1) (cis / trans)



C.G.Nasveschuk and T. Rovis
Angew. Chem. Int. Ed. **2005**, 44, 3264.