**Significance:** Wang and co-workers describe a kilogram-scale asymmetric synthesis of intermediate \( \text{H} \) en route to omarigliptin, a DPP-4 inhibitor that is of interest for the treatment of diabetes. The key steps in the synthesis depicted are (1) the diasteroselective substrate-controlled Meerwein–Ponndorf–Verley reduction of \( \alpha \)-amino-ketone \( \text{C} \) and (2) the stereoselective intramolecular 5-exo-dig iodoetherification of alkynol \( \text{E} \).

**Comment:** Synthesis of \( \text{A} \) began with the asymmetric \( \alpha \)-alkylation of nickel(II) complex \( \text{I} \) with 3-chloro-1-propyne. The choice of solvent and temperature was critical to achieve a reproducible conversion and high stereoselectivity for this alkylation. Best results were obtained using sodium hydroxide in DMF at \(-10^\circ\text{C}\). At the end of the reaction, water was added to the reaction mixture, and product \( \text{J} \) crystallized out from the aqueous media.