Enantioselective Synthesis of \( \beta \)-Hydroxy Sulfones via Transfer Hydrogenation

**Significance:** Chiral \( \beta \)-hydroxy sulfones are useful building blocks in organic synthesis, as the \( \alpha \)-position can easily be functionalized and the sulfonyl group easily be removed or transformed. In the present report, the authors describe a one-pot approach to chiral \( \beta \)-hydroxy sulfones, starting from \( \alpha \)-bromo ketones and involving transfer hydrogenation.

**Comment:** A variety of products could be formed in high yield and high to excellent enantioselectivity. Interestingly, both alkyl and aryl substituents can be tolerated at the \( R_1 \) and \( R_2 \) positions, with aryl groups giving superior results. Through kinetic studies, the authors demonstrate that nucleophilic substitution followed by transfer hydrogenation is the dominant sequence.