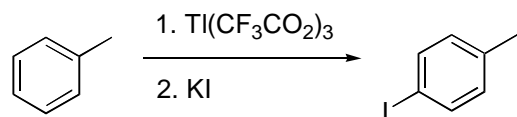


1. The sequence shown below is an example of an efficient synthesis of iodoarenes that makes use of thallium(III) chemistry. Provide a reasonable mechanism for each step of the process, and a reasonable rationale as to why only one isomer of the aryl iodide is obtained.



2. Illustrated below is one example of a recently-reported rhodium-mediated sequence for the preparation of anti-Markovnikov alcohols from mono(perfluoroalkyl) alkenes. Provide a reasonable mechanism for each step of the procedure.

