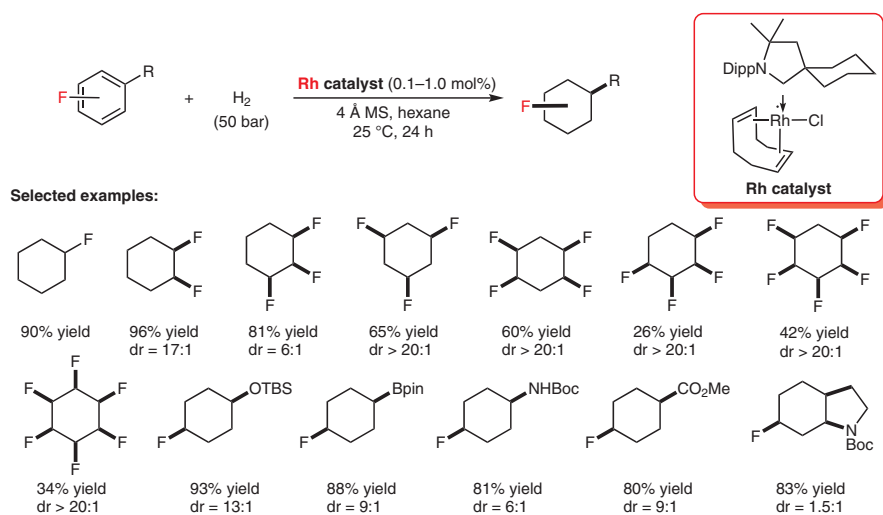
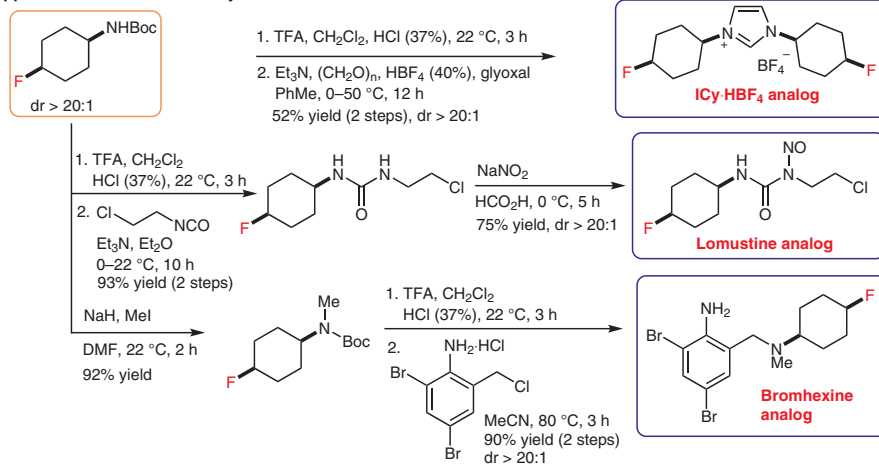


Rhodium-Catalyzed *cis*-Selective Hydrogenation of Fluoroarenes



Application of the fluorinated cycloalkane:



Significance: All-*cis*-polyfluorinated cycloalkanes exhibit attractive electronic properties due to their high dipole moments. However, multistep syntheses from diastereoselectively fluorinated precursors are generally required. The authors report a rhodium/cyclic (alkyl)(amino)(carbene) complex catalyzed *cis*-selective hydrogenation of fluorinated arenes to provide a variety of highly diastereoselectively fluorinated cycloalkanes.

Comment: To suppress the formation of hydrode-fluorinated byproducts, the choice of a less-polar solvent such as hexane is important.

SYNFACTS Contributors: Hisashi Yamamoto, Takahiro Sawano
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