

ORGANOMETALLIC CHEMISTRY

Synthesis and Functionalization of Carbo- and Heterocycles

- Trifluoromethylpyridines as High Tech Building Blocks
- Introduction of Functional Groups into Carbo- and Heterocycles

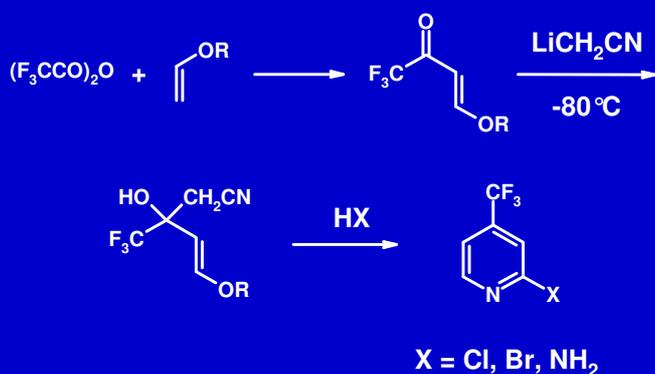
In a further effort to expand the range of high tech building blocks, Euticals has developed a very efficient and easily scalable access to various trifluoromethyl pyridines. Unlike many of their benzene counterparts and despite their enormous value as building blocks, these compounds have previously been very difficult to produce.

Convenient Access via Innovative Technology to 4-Trifluoromethylpyridine Derivatives

Using a new Euticals organometallic technology, this class of compounds is prepared by formation of the pyridine ring rather than introduction of the trifluoromethyl group. This strategy makes it possible to use trifluoroacetic acid derivatives as a trifluoromethyl source providing very economic and easily scalable processes because no hazardous fluorination chemistry is required.

Structural Diversity

This information sheet lists just a few typical examples of trifluoromethyl pyridines accessible via Euticals organometallic technology that has been proven on commercial scale. Please inquire for similar or any tailor-made building blocks.



The resulting intermediates can be further functionalized to access a large number of highly substituted 4-trifluoromethylpyridine derivatives.

2- or 6-Trifluoromethylpyridine derivatives

Via a similar economic technology and again without using hazardous fluorination chemistry, the isomeric 2- and 6-trifluoromethylpyridines are also accessible.

Organometallic Functionalization

The methodology of ortho-directed metallation provides access to a large number of highly functionalized aromatic compounds. At Euticals, these methods have been intensively investigated and taken to manufacturing scale. In a single step, the synthetic approach provides halogenated compounds, caroxylic acids, aldehydes, ketones or boronic acids to name only a few functional groups. Further derivatization of the primary product leads to an even broader scope of products.

Ortho-Directed Metallation

