

High tech building blocks

Trifluoromethyl pyridines as high tech building blocks for pharmaceutical applications

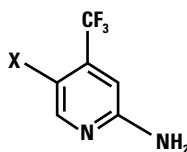
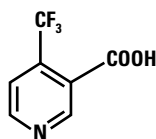
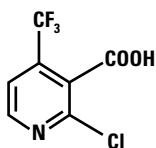
In a further effort to expand the range of high tech building blocks, Archimica has developed a very efficient and easily scalable access to various trifluoromethyl pyridines. Those compounds were – unlike many of their benzene counterparts and despite their enormous value as building blocks – very difficult to produce in the past.

Convenient access via innovative technology

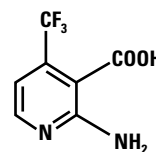
4-Trifluoromethylpyridine derivatives

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

The resulting intermediates can be further functionalized, to make a large number of highly substituted 4-trifluoromethylpyridine derivatives accessible, e. g.

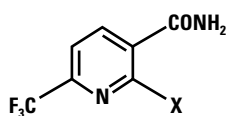


X = Cl, Br, I

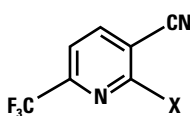
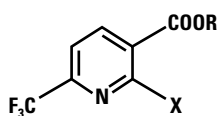


2- or 6-Trifluoromethylpyridine derivatives

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



X = OH, Cl, H, R = Me, Et



Structural diversity

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

Examples: 4-Trifluoromethylpyridines prepared by Archimica at a 100 kg+ scale regularly

Compound	CAS No	Specifications
2-Amino-4-(trifluoromethyl) pyridine	106447-97-6	Purity: > 98 % (HPLC, a/a) Aspect: white to off-white solid
2-Chloro-4-(trifluoromethyl) pyridine	81565-18-6	Purity: > 98 % (GC, a/a) Aspect: colourless to yellowish liquid

For additional information and/or samples, please contact our regional sales office.

Regional contacts are given at www.archimica.com