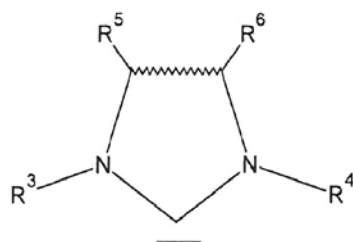


RC HydroCat

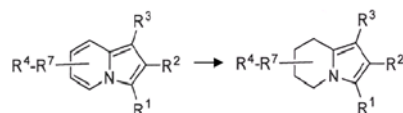
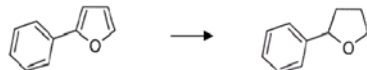
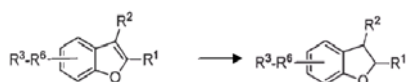
Hydrogenation catalyst for selective asymmetric reaction of heteroaromatics

Invention

Scientists at the Westfälische Wilhelms-Universität Münster developed a catalyst system for selective and stereospecific hydrogenation of heteroaromatic compounds. The catalyst comprises a ruthenium complex and chiral N-heterocyclic carbene ligands. The RC Hydrocat is suitable for asymmetric hydrogenation of the heterocyclic ring, whereby a plurality of substances are efficiently, selectively and directly accessible.



NHC Katalysatorligand



Beispielreaktionen unter H₂ und Ru

Commercial application

Saturated and partially saturated heterocycles represent an important structural element in many biologically active compounds. RC Hydrocat now provides a hydrogenation tool for laboratory and pilot plant, especially for tetrabenzannelated substances to transfer to other heteroaromatic valuable substances. Despite the mild reaction conditions RC Hydrocat results in high yields with good selectivity.

The hydrogenation has been shown using the example in O-, S- and NR- heterocycles, such as benzofurans, benzothiophene, Phenylfuranes Indolizine and with a number of derivatives thereof.

Status Quo

A patent application has been filed at the German Patent and Trademark Office. International applications are possible.

The invention provided its feasibility in numerous experiments. PROvendis offers licenses to interested companies in the invention on behalf of the University of Münster.

An invention of Westfälische Wilhelms-Universität Münster (UnilMünster).

Benefits

- Efficient and selective Hydrogenation
- Less than 5 mol% catalyst
- Mild reaction conditions between 25 ° C and 60 ° C.
- High yields up to 99% and 98% ee
- Scientifically studied reaction

Contact:
Ref. No.: 3138
Dr. Thorsten Schaefer

PROvendis GmbH
Schlossstrasse 11-15
D-45468 Muelheim an der Ruhr,
Germany
Phone: +49 (0)208 94 105 27
Fax: +49 (0)208 94 105 50
Email: ts@provendis.info
Web: www.provendis.info