



CYCLE DE CONFÉRENCES DE CHIMIE

*Avec le concours de : Manufacture Française des Pneumatiques MICHELIN
Ecole Nationale Supérieure de Chimie de Clermont-Ferrand
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U.F.R.S.T. Département de Chimie*

Lundi 11 Mars 2013 à 11 h

Amphi de Chimie Paul REMI - (Site des Cézeaux)

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ORIGINAL ACCESS TO HETEROCYCLES: METAL-CATALYZED OR AMINOBENZANNULATION REACTIONS

Our research group deals with the development of original methodologies for the access to various heterocycles of biological interest such as quinolines, acridines, dibenzofurans and carbazoles using metal-free or silver-catalyzed methods.

Interestingly, using a cycloisomerization reaction - called aminobenzannulation - we can access heterocycles meta-substituted by an amino group and an alkyl/aryl group. Using the same starting materials we were able to build the quinoline or acridine scaffolds with an original meta-substitution pattern, by an organometallic catalyzed cycloisomerization reaction - named benzannulation - with silver or gold salts ([AgI], [AuI]).

Also, furoquinoline and pyranoquinoline cores, structurally related to known alkaloids, were easily accessed via a tandem acetalization/cycloisomerization reaction using gold salts or various silver salts. Depending on the nature of the silver salt used a selective 5-exo or 6-endo cyclization mode could be observed. Based on these furoquinolines, spirocyclic structures can also be obtained. Recent unpublished work will also be presented.