

Showcasing research from Professor Saito's laboratory, Division of Applied Chemistry, Institute of Engineering, Tokyo University of Agriculture and Technology, Tokyo, Japan.

Cycloisomerization of 7-en-2-yn-1-ones to bicyclo[3.1.0] hexanes using electrophilic fluorination or chlorination agents

The acid generated when N-fluoro-2,6-dichloropyridinium tetrafluoroborate is hydrolysed by a trace amount of water in the reaction system promotes the cycloisomerization of 7-en-2-yn-1-ones to gem-difluorinated bicyclo[3.1.0]hexanes. Moreover, the proposed mechanism leads to an extension to the synthesis of gem-chlorofluorinated products.

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