N-heterocyclic carbene catalysts have had such a wide-ranging impact that they now hold a central place in every chemist's toolbox, as modifying ligands on metals and as organocatalysts. This Cluster highlights some recent contributions from prominent players in the field.

Tomislav Rovis
Editor of the Carbene Catalysis Cluster
Colorado State University

Cluster

Carbene Catalysis

A. Studer

E. Lacôte

B. W. Gung

D. T. McQuade

K. Grela

R. Dorta
Carbene Catalysis

S.-L. You

J. Sun

O. Navarro

S. J. Connon

M. Shi

Q. Xu

T. Rovis

Y. R. Chi

C. Slugovc

A. D. Smith

(10 mol%) KOAc (10 mol%)

Et₂O, 0 °C

91% yield, 85% ee

(NHC)-Cu catalyzed A³

R¹ = Ph, Bn
R² = Me, i-Pr

Organocatalytic HOMO/LUMO & Usual Ester Activation