Synthesis of Baconipyrrone C

Significance: A new chiral Ru-based N-heterocyclic carbene complex **F** was deployed in the first asymmetric Ru-catalyzed asymmetric olefin metathesis reaction (**E** to **G**). New Ag- and Cu-based N-heterocyclic carbene complexes were used in catalytic asymmetric allylic alkylation reactions (e.g. **A** to **C**).

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Comment: The high er obtained in the conversion of **A** to **C** demonstrates that allylic alkylation is under catalyst control whereas in the conversion of **J** to **K**, substrate control governs the diastereoselectivity.

Category

Synthesis of Natural Products and Potential Drugs

Key words

allylic alkylation

asymmetric ring-closing metathesis

copper

ruthenium

N-heterocyclic carbenes

desymmetrization

SYNFACT
of the month