Cyclopropanation of Alkenes via a Siloxycarbene–Palladium Complex

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Comment: Both electron-neutral and electron-rich alkenes were compatible substrates in the cyclopropanation; however, electron-rich alkenes were more reactive, suggesting an electrophilic metal carbene species is involved in the catalytic pathway. DFT studies indicate that the mechanism of the cyclopropanation proceeds through a [2+2] cycloaddition to form a palladocyclobutane intermediate.