

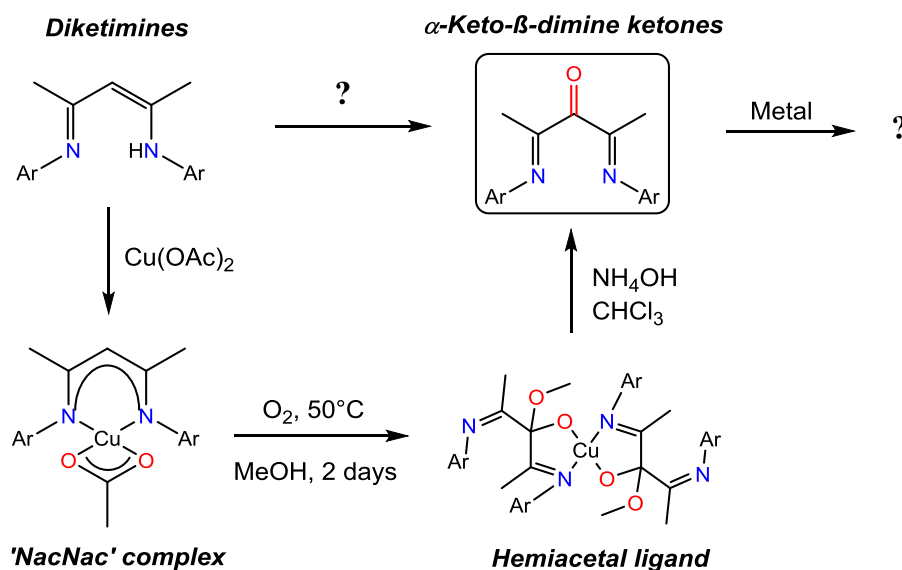
α -Keto- β -diimines: straightforward synthesis and applications

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β -Diketiminates, the so called 'NacNac' have been a focus in coordination chemistry for decades¹. They are very versatile ligands and can offer high steric protection around the metal centre by the introduction of bulky groups (e.g. aryl groups) on the nitrogen atoms. The **α -keto- β -diimines** are among the rare NacNac derivatives with a significant modification at the central carbon. These electron-deficient ligands have found applications in the synthesis of high molecular weight polyethylenes and poly- α -olefins. However, their low availability has clearly hampered further developments. Their synthesis typically involves oxidation of a NacNac-copper complex by continuous bubbling of pure dioxygen for 48 hours. It is inconvenient and limited to very few substituents. Herein, we will present a direct, simple and straightforward synthesis of α -keto- β -diimine ligands from the corresponding diketimines², as well as further reactivity and coordination studies of this little-known synthons.



References

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