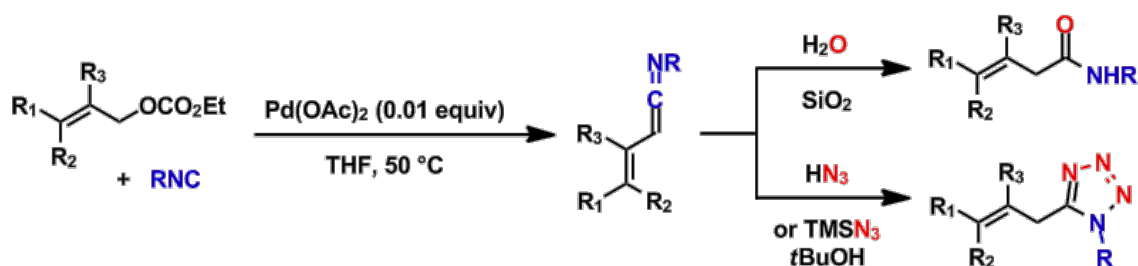


## Ketenimines from Isocyanides and Allyl Carbonates: Palladium-Catalyzed Synthesis of $\beta,\gamma$ -Unsaturated Amides and Tetrazoles

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The reaction of allyl ethyl carbonates with isocyanides in the presence of a catalytic amount of Pd(OAc)<sub>2</sub> provided ketenimines through  $\beta$ -hydride elimination of the allyl imidoypalladium intermediates. The insertion of the isocyanide into the  $\pi$ -allyl Pd complex proceeded via an unusual  $\eta^1$ -allyl Pd species. The resulting ketenimines were hydrolyzed to  $\beta,\gamma$ -unsaturated carboxamides during purification by flash column chromatography on silica gel or converted in situ into 1,5-disubstituted tetrazoles by [3+2] cycloaddition with hydrazoic acid or trimethylsilyl azide.



[1] Dr. Guanyinsheng Qiu<sup>†</sup>, Mathias Mamboury<sup>†</sup>, Dr. Qian Wang and Prof. Dr. Jieping Zhu, *Angew. Chem. Int. Ed.* **2016**, *55*, 15377–15381

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