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Poly(2-oxazoline)s

R. Hoogenboom

1,3-Dipolar Cycloaddition

B. Engels and M. Christl

Stereoselective Aldol Synthesis D. B. Werz and D. C. Koester

C–F Bond Activation

T. G. Driver



Cover Picture

Kohei Fuchibe, Tsukasa Kaneko, Keiji Mori, and Takahiko Akiyama*

N-Fused indoles appear in the structures of various biologically active molecules, but synthesis of the fused-ring substructure has proved difficult. T. Akiyama and coworkers describe in their Communication on page 8070 ff. a new route in which a niobium carbenoid is generated by niobium-catalyzed activation of the normally inactive C–F bonds of a CF_3 group. The carbenoid then undergoes insertion into a neighboring $C(sp^3)$ –H bond adjacent to a nitrogen atom to furnish the N-fused indole skeleton.



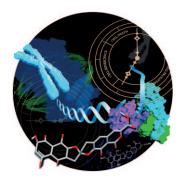


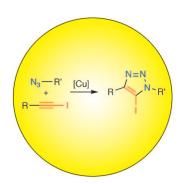
Poly(2-oxazoline)s

In his Review on page 7978 ff. R. Hoogenboom describes the versatility of poly(2-oxazoline)s and highlights their applications, for example, as biomaterials or thermoresponsive polymers as well as their combination with click chemistry.

Natural Product Synthesis

In their Communication on page 7996 ff., M. A. Brimble and co-workers describe how the correct balance of electronic factors facilitates the acid-mediated spiroketalization step to afford the key densely functionalized spiroketal in the formal synthesis of (\pm) - γ -rubromycin.





Click Chemistry

The coupling of organic azides with 1-iodoalkynes is made simple with copper(I) catalysts, as described by J. E. Hein, V. V. Fokin et al. in their Communication on page 8018 ff. They shows that the resulting 5-iodotriazoles can be functionalized to fully substituted 1,2,3-triazoles.