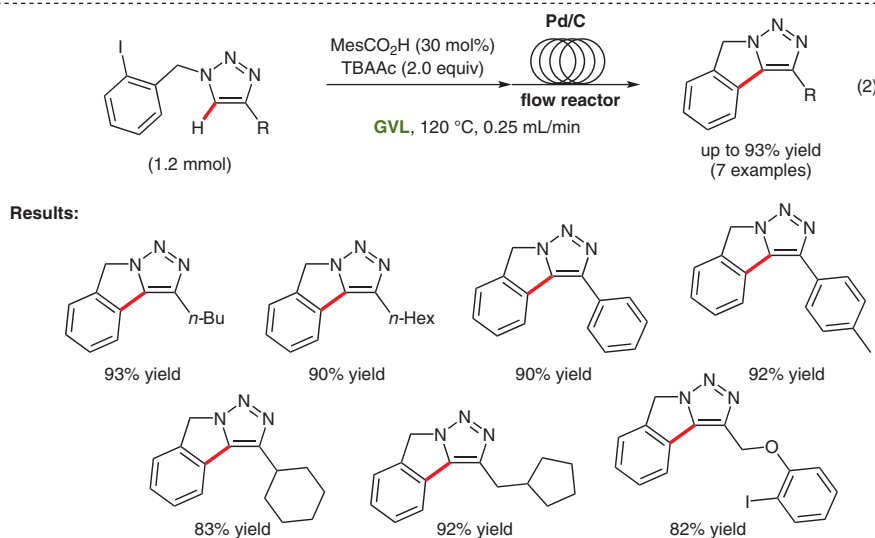
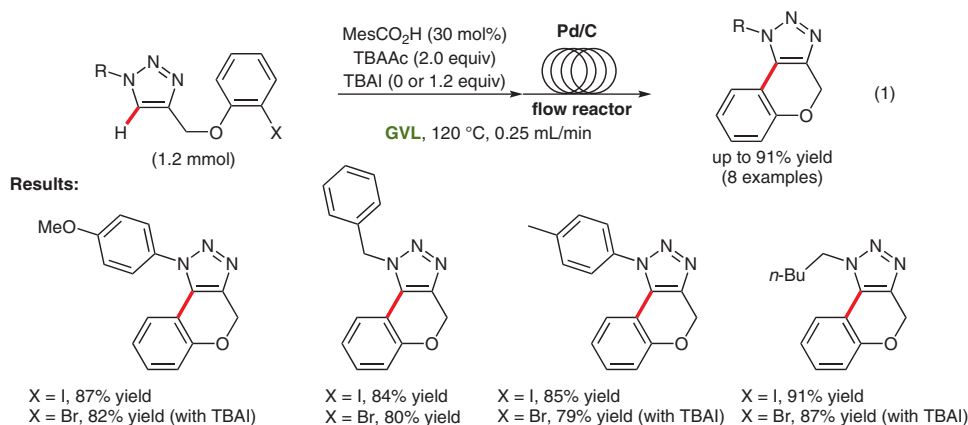


F. FERLIN, L. LUCIANI, S. SANTORO, A. MARROCCHI, D. LANARI, A. BECHTOLDT, L. ACKERMANN, L. VACCARO* (UNIVERSITÀ DI PERUGIA, ITALY AND GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN, GERMANY)

A Continuous Flow Approach for the C–H Functionalization of 1,2,3-Triazoles in γ -Valerolactone as a Biomass-Derived Medium

Green Chem. **2018**, *20*, 2888–2893.

Palladium/Carbon-Catalyzed Flow C–H Functionalization of 1,2,3-Triazoles



Significance: A continuous-flow C–H functionalization and cyclization of 1,2,3-triazoles bearing haloaryl groups was carried out by using a coil reactor containing palladium on carbon catalyst (Pd/C) in γ -valerolactone (GVL), as a biomass-derived reaction medium, to give the corresponding cyclic compounds (eq. 1: $\leq 91\%$ yield; eq. 2: $\leq 93\%$ yield).

Comment: A long-term reaction of 4-[(2-iodophenoxy)methyl]-1-(4-methoxyphenyl)-1H-1,2,3-triazole in a coil reactor containing Pd/C for eight hours gave 24 g of the cyclized product (87% yield). MP-AES analysis of the reaction mixture showed that 0.0015% of the palladium species leached out during this long-term reaction.

SYNFACTS Contributors: Yasuhiro Uozumi, Kazuki Tani
Synfacts 2018, 14(09), 0987 Published online: 20.08.2018
DOI: 10.1055/s-0037-1610614; Reg-No.: Y09918SF

2018 © THIEME STUTTGART • NEW YORK

Category

Polymer-Supported Synthesis

Key words

palladium catalysis

C–H functionalization

cyclization

triazoles

valerolactone

continuous-flow reaction

Synfact
of the month

This document was downloaded for personal use only. Unauthorized distribution is strictly prohibited.