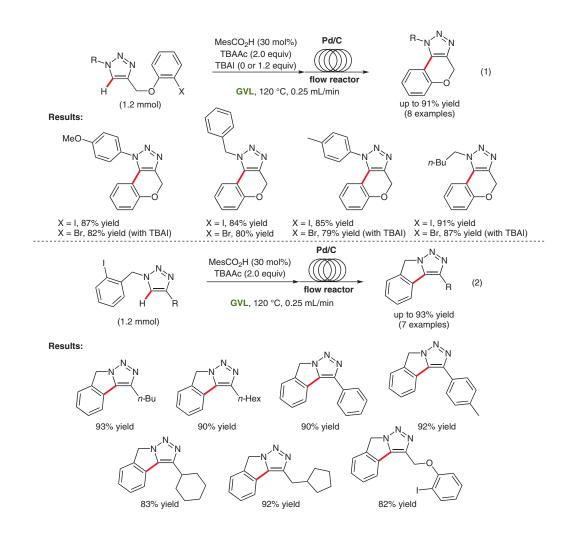
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A Continuous Flow Approach for the C–H Functionalization of 1,2,3-Triazoles in  $\gamma$ -Valerolactone as a Biomass-Derived Medium

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## 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  $\gamma$ -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)-1*H*-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.

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Category

Polymer-Supported Synthesis

## Key words

palladium catalysis
C-H
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valerolactone

continuous-flow reaction

