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Halide-Rebound Polymerization of Twisted Amides *J. Am. Chem. Soc.* **2019**, *141*, 2906–2910.

Harp on HaRP

$$\begin{array}{c} PBu_{3} \\ CH_{2}Cl_{2} \\ \hline \\ PhCO_{2}H \\ \hline \\ K_{2}CO_{3}, DMF \\ \hline \\ N = 10 \\ M_{n} = 2.1 \text{ kDa} \\ D = 1.21 \\ \hline \\ NaN_{3} \\ DMF \\ \end{array}$$

Significance: The development of new methods for chain-growth polymerization enables the investigation of novel monomer and polymer architectures with precise control over molecular weight. In this study, Gutekunst et al. develop the Halide-Rebound Polymerization (HaRP), which takes advantage of the increased nucleophilicity of twisted amide 1.

Comment: By using an alkyl iodide as an initiator, the resulting chain end is neither air- and moisture-sensitive. This enables the facile synthesis of block co-polymers, as well as quantitative end-group functionalization. Polymer structure was confirmed by both model studies and MALDI-ToF analysis.

Key words

Category

twisted amides

chain-growth polymerization

living polymerization

