**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.