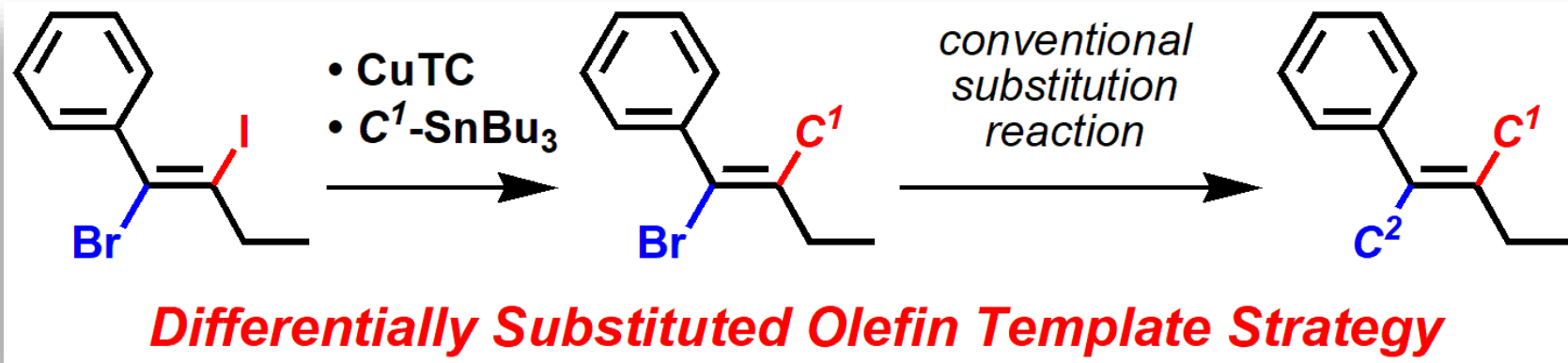


Stereo-defined Synthesis of Tetrasubstituted Olefins via Vicinal Dihalogenalkenyl Scaffolds

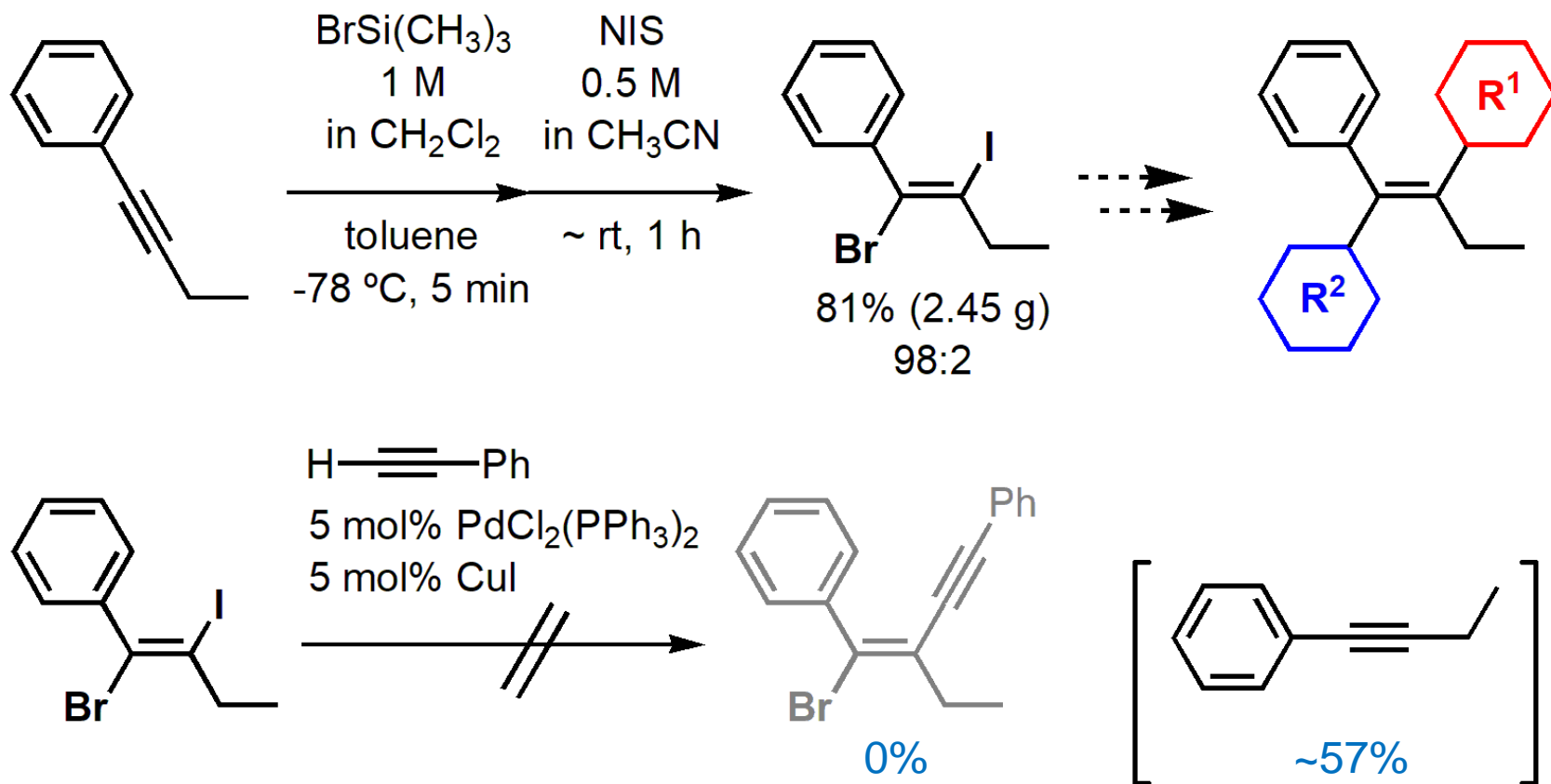


Ryukoku Univ., Naoki Endo and Tetsuo Iwasawa*



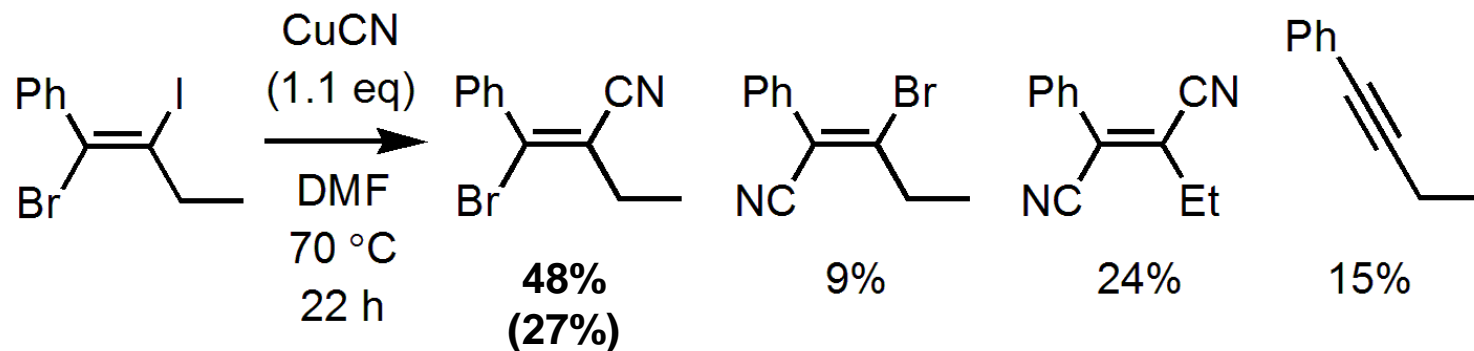
Endo, N.; Iwasawa, T. *Tetrahedron* **2017**, 73, 5833-5840.

Background

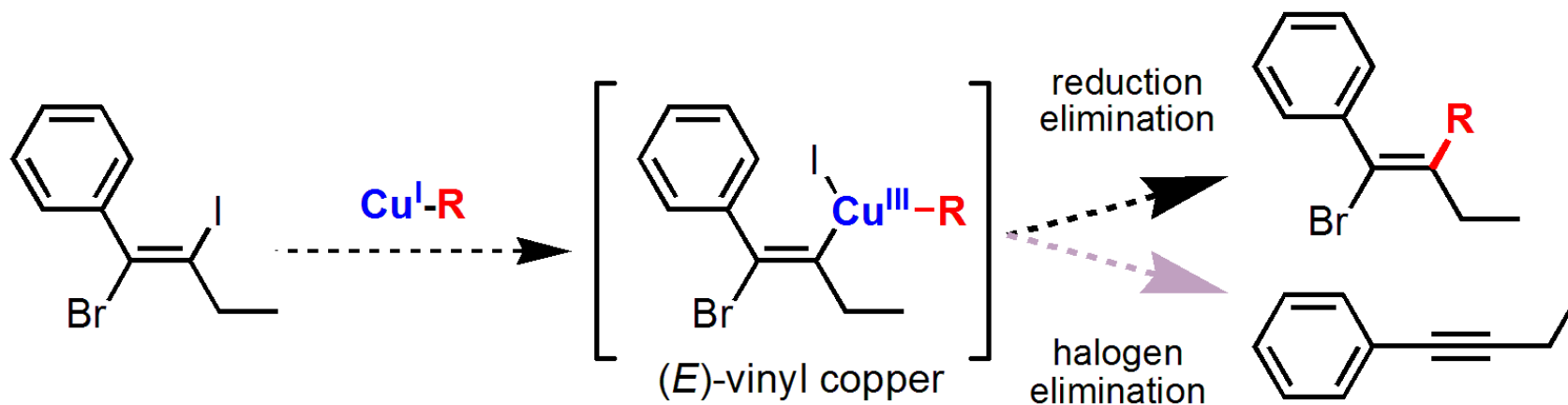


Ide, M.; Yauchi, Y.; Shiogai, R.; Iwasawa, T. *Tetrahedron* **2014**, *70*, 8532-8538.

Approach

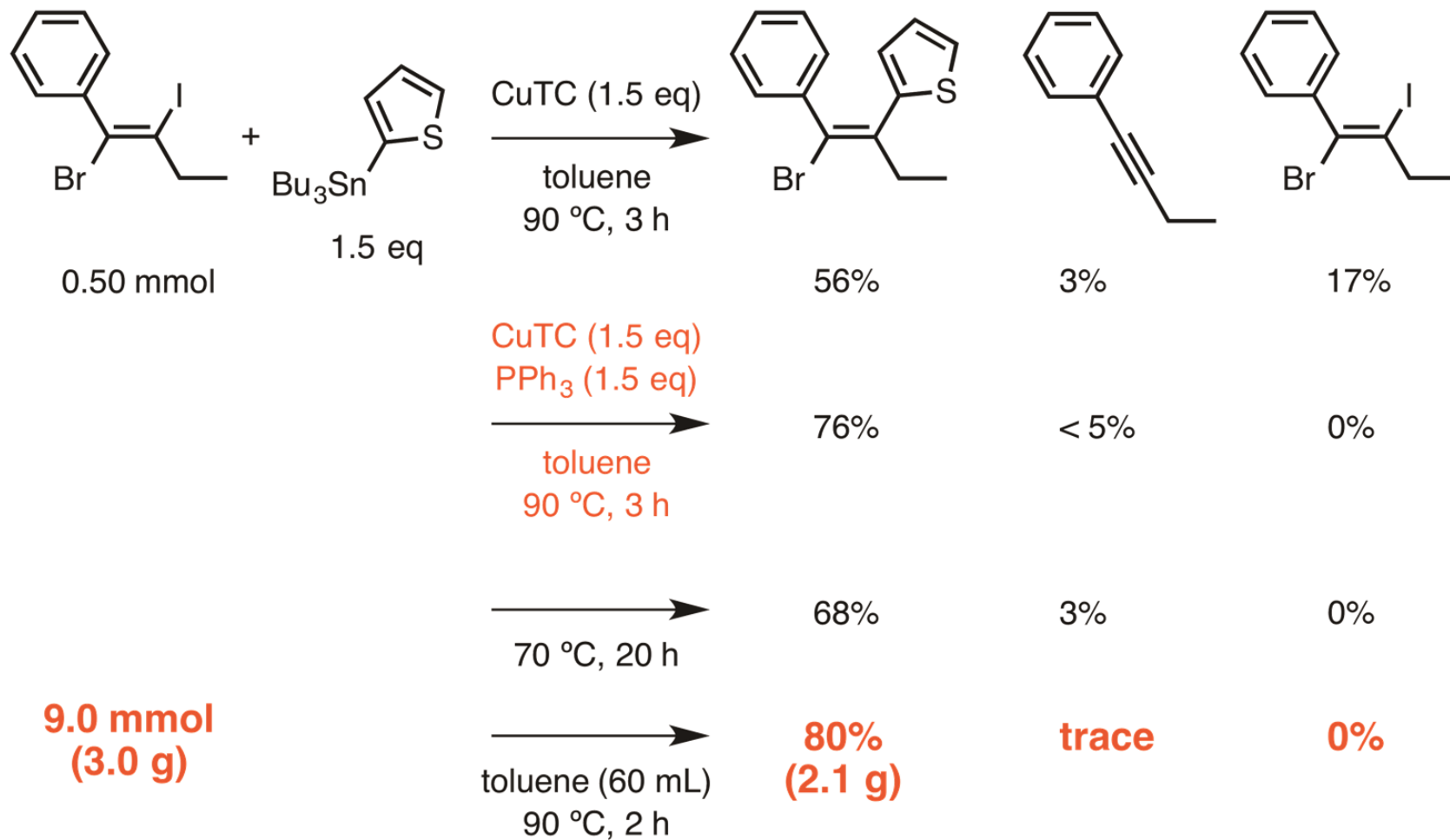


Endo, N.; Kanaura, M.; Iwasawa, T. *Tetrahedron Lett.* **2016**, 57, 483-486.

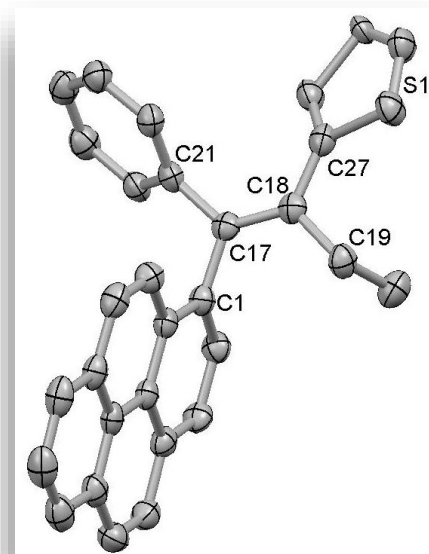
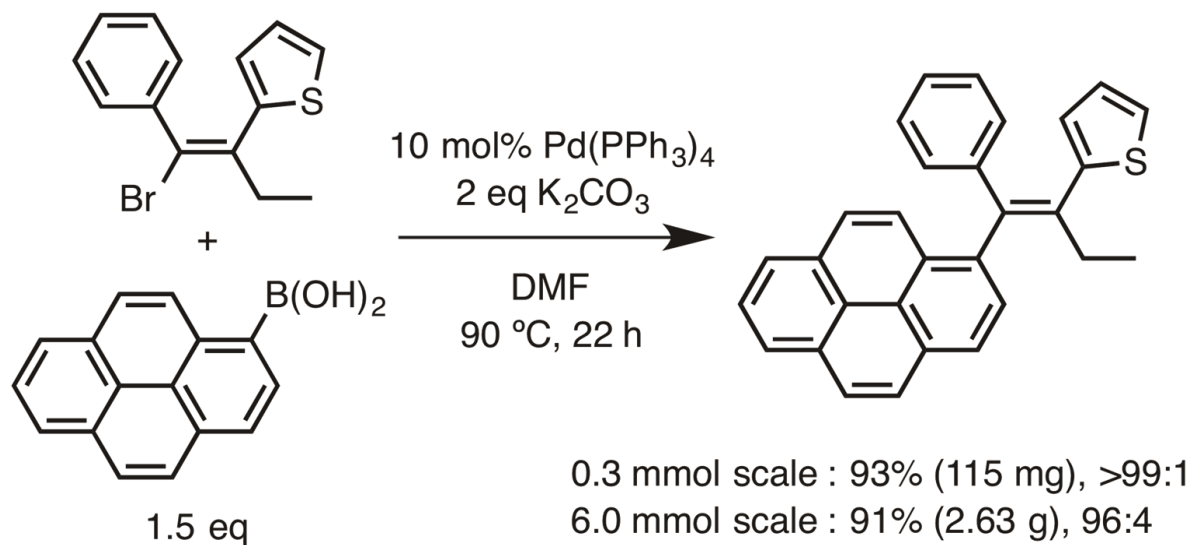


G. D. Allred, L. S. Liebeskind, *J. Am. Chem. Soc.* **1996**, 118, 2748-2749.

In real

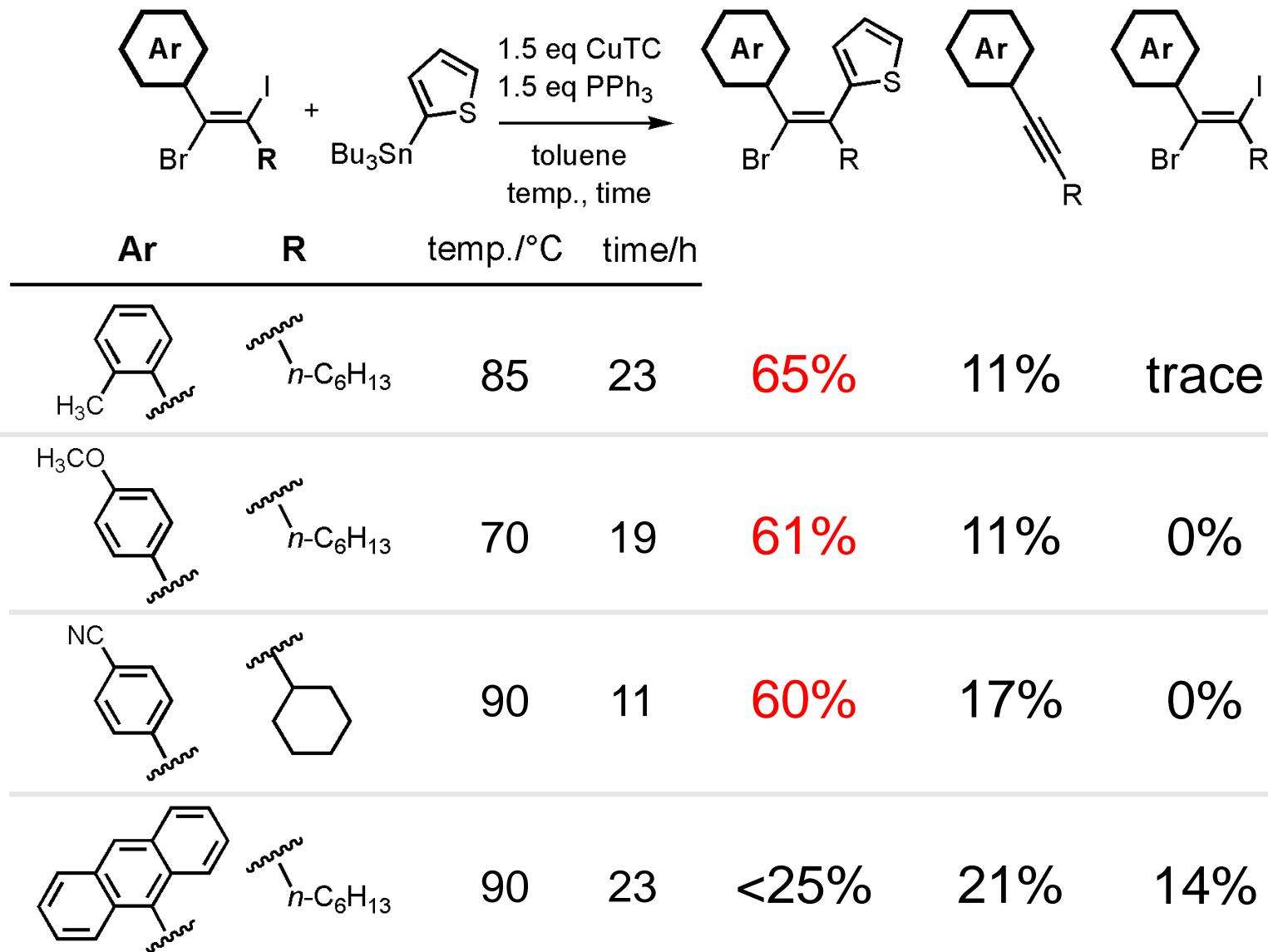


Single formation of the olefin was demonstrated with nearly full retention of stereochemistry.

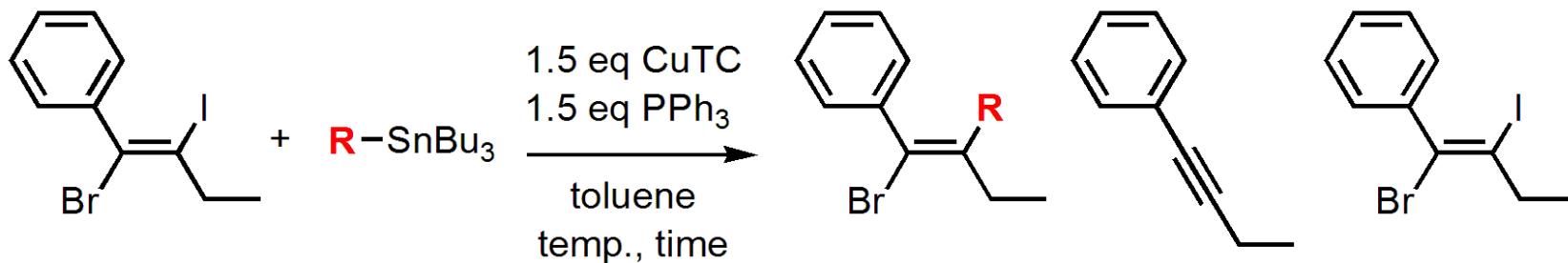


CCDC-1546653 contains the supplementary crystallographic data for this paper. These data can be obtained free of charge from The Cambridge Crystallographic Data Centre via www.ccdc.cam.ac.uk/data_request/cif. Monoclinic, space group *P* 21/*n*, colorless, $a = 14.3026(7)$ Å, $b = 11.8400(5)$ Å, $c = 25.2918(12)$ Å, $\alpha = 90^\circ$, $\beta = 96.499(7)^\circ$, $\gamma = 90^\circ$, $V = 4255.5(3)$ Å³, $Z = 8$, $T = 123$ K, $d_{\text{calcd.}} = 1.294$ g cm⁻³, $\mu(\text{Mo-K}\alpha) = 0.167$ mm⁻¹, $R_1 = 0.0746$, $wR_2 = 0.1770$, GOF = 1.027.

Substrate Scope

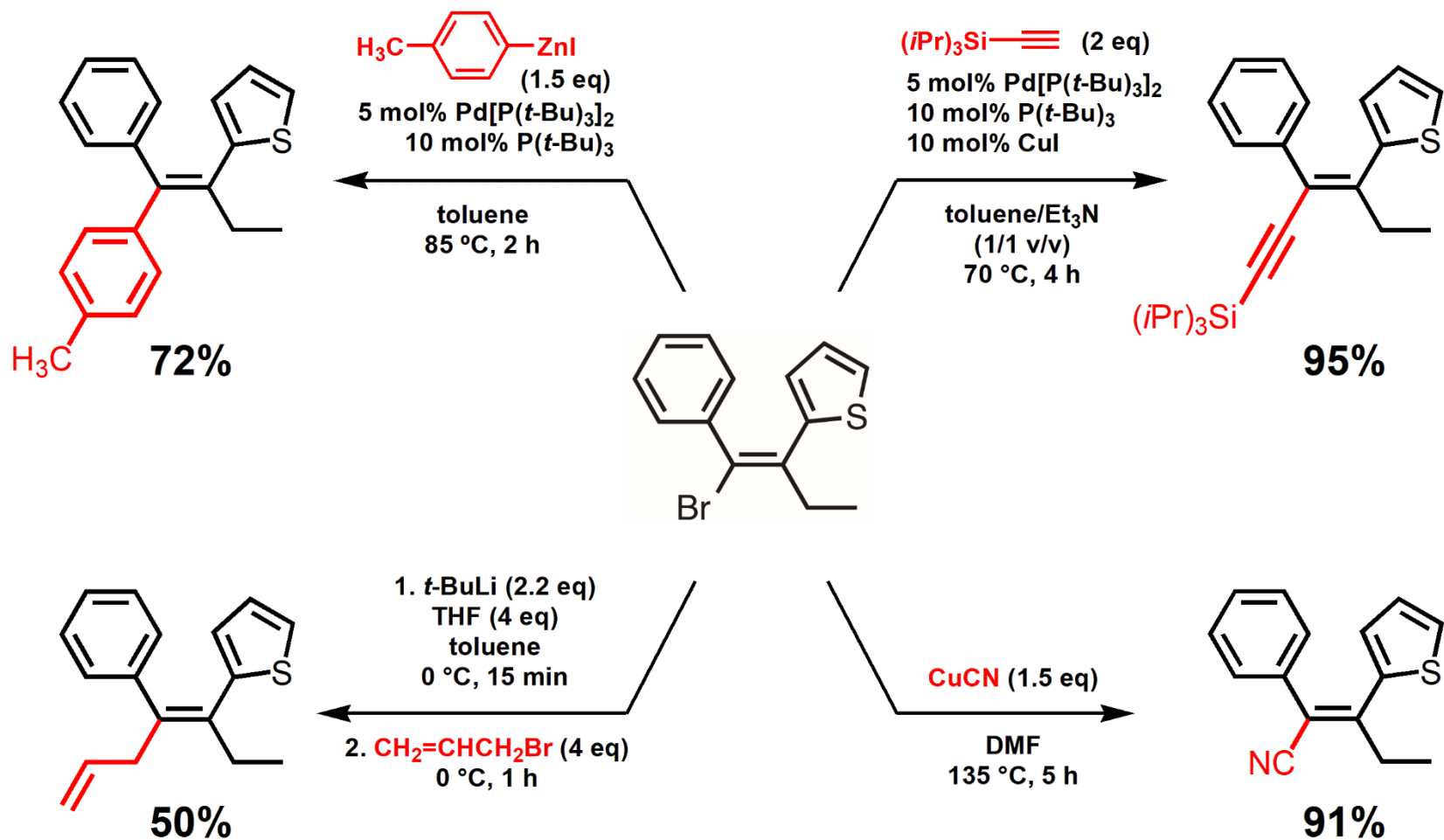


Substrate Scope

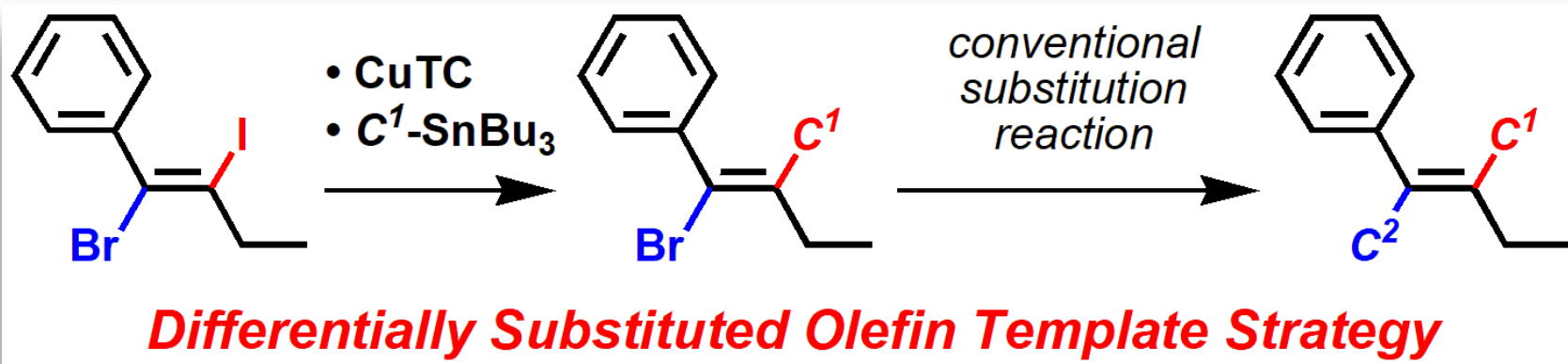


R	temp./°C	time/h			
	110	20	51%	10%	4%
	90	2	75%	3%	6%
	90	11	<10%	-	-
	110	17	0%	-	-

Synthesis of the differentially all-carbon tetrasubstituted olefins



Summary



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