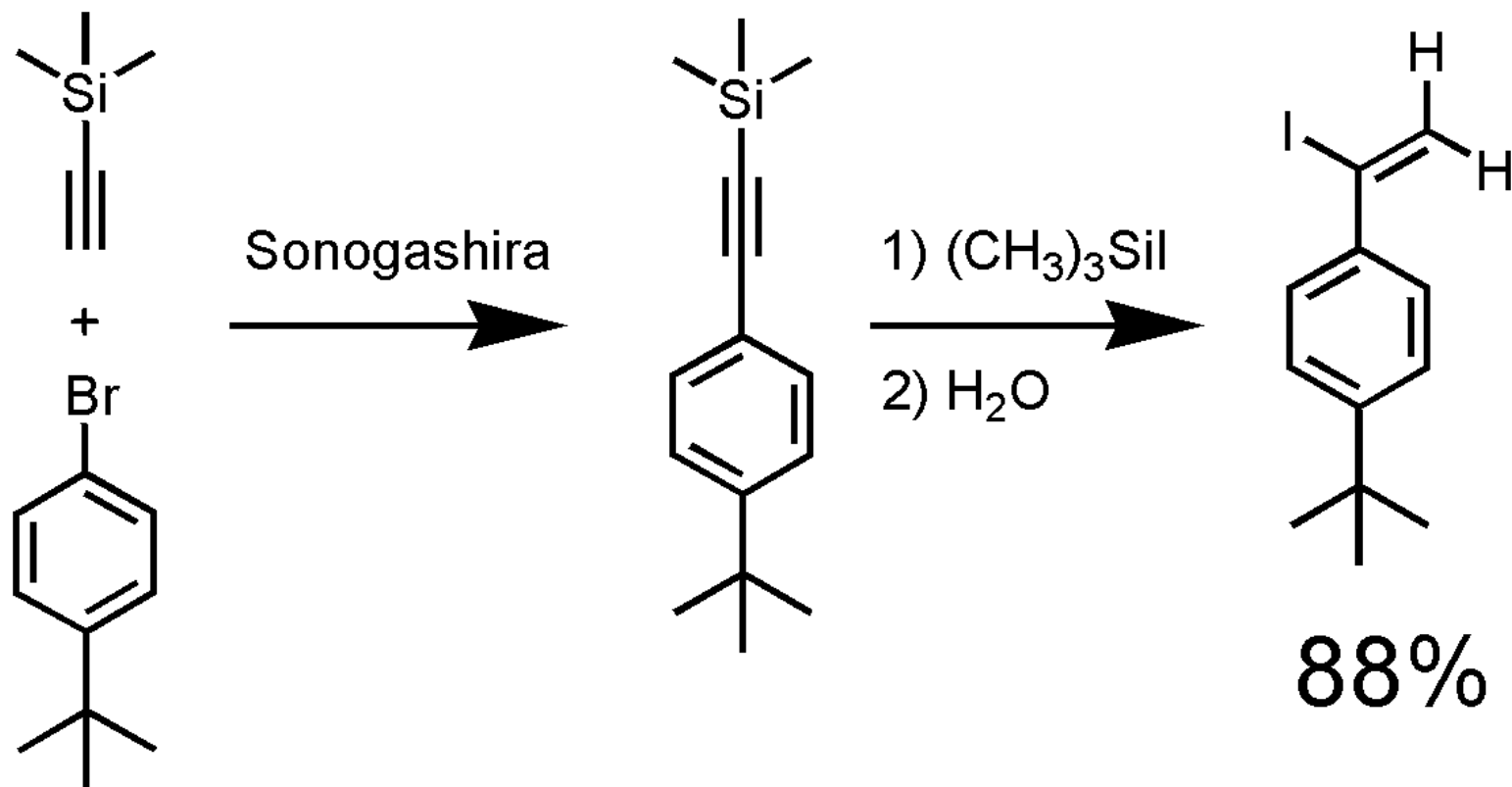
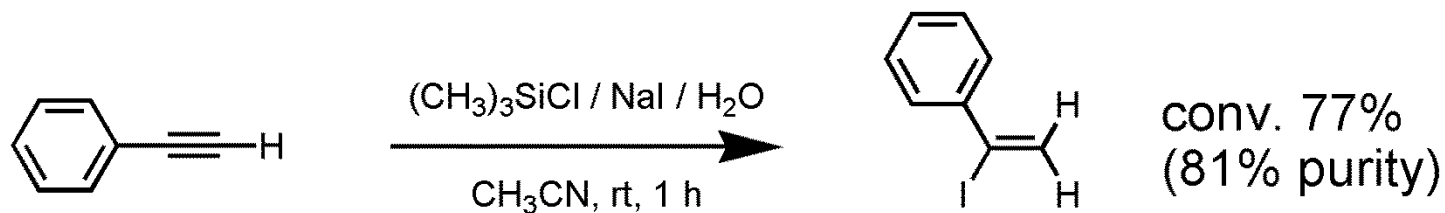


シリルエチニルアレンとヨードトリメチルシランを用いた α -ヨードビニル化反応の開発

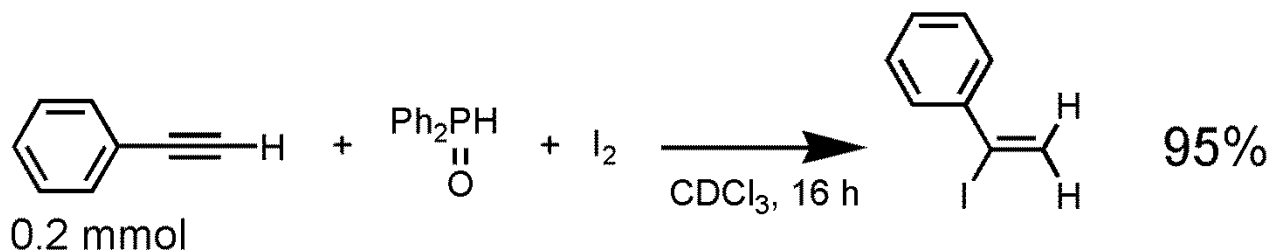


- 1) Sato, A. H.; Mihara, S.; Iwasawa, T. *Tetrahedron Lett.* **2012**, 53, 3585-3589.
- 2) 特願 2012-170680

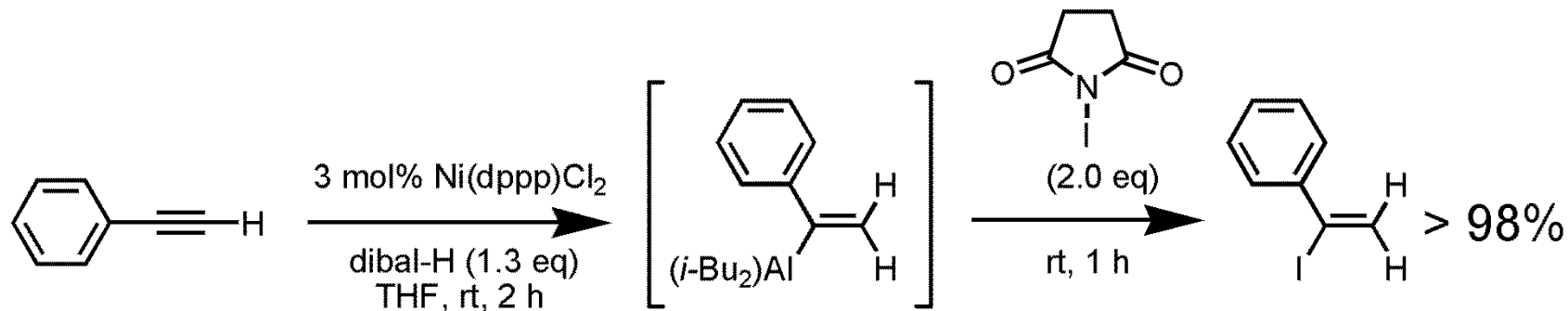
Background



Kamiya, N.; Chikami, Y.; Ishii, Y. *Synlett* **1990**, 675-676.

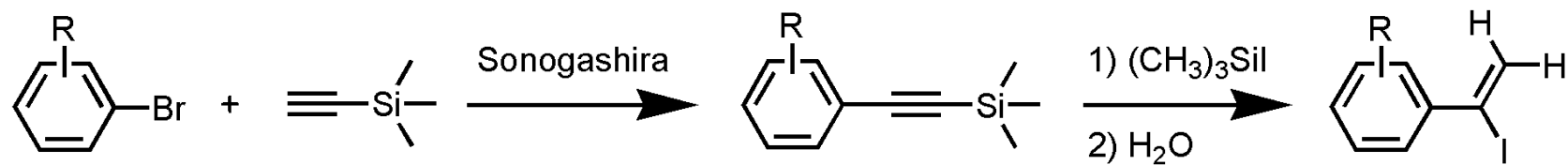
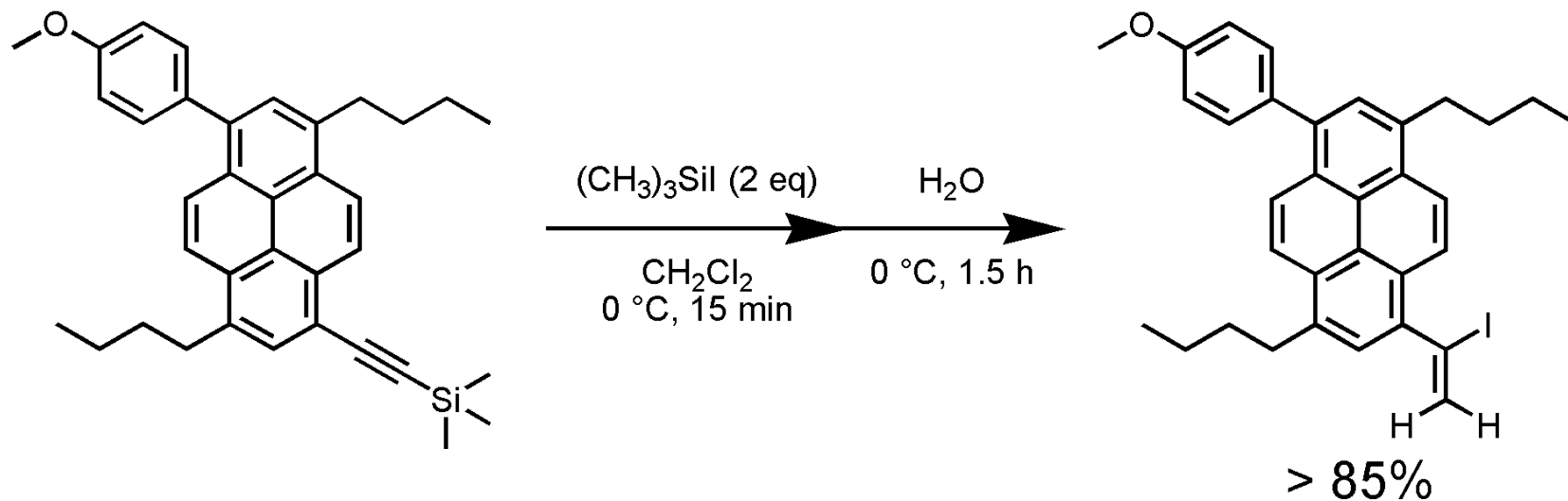


Kawaguchi, S.; Ogawa, A. *Org. Lett.* **2010**, 12, 1893-1895.

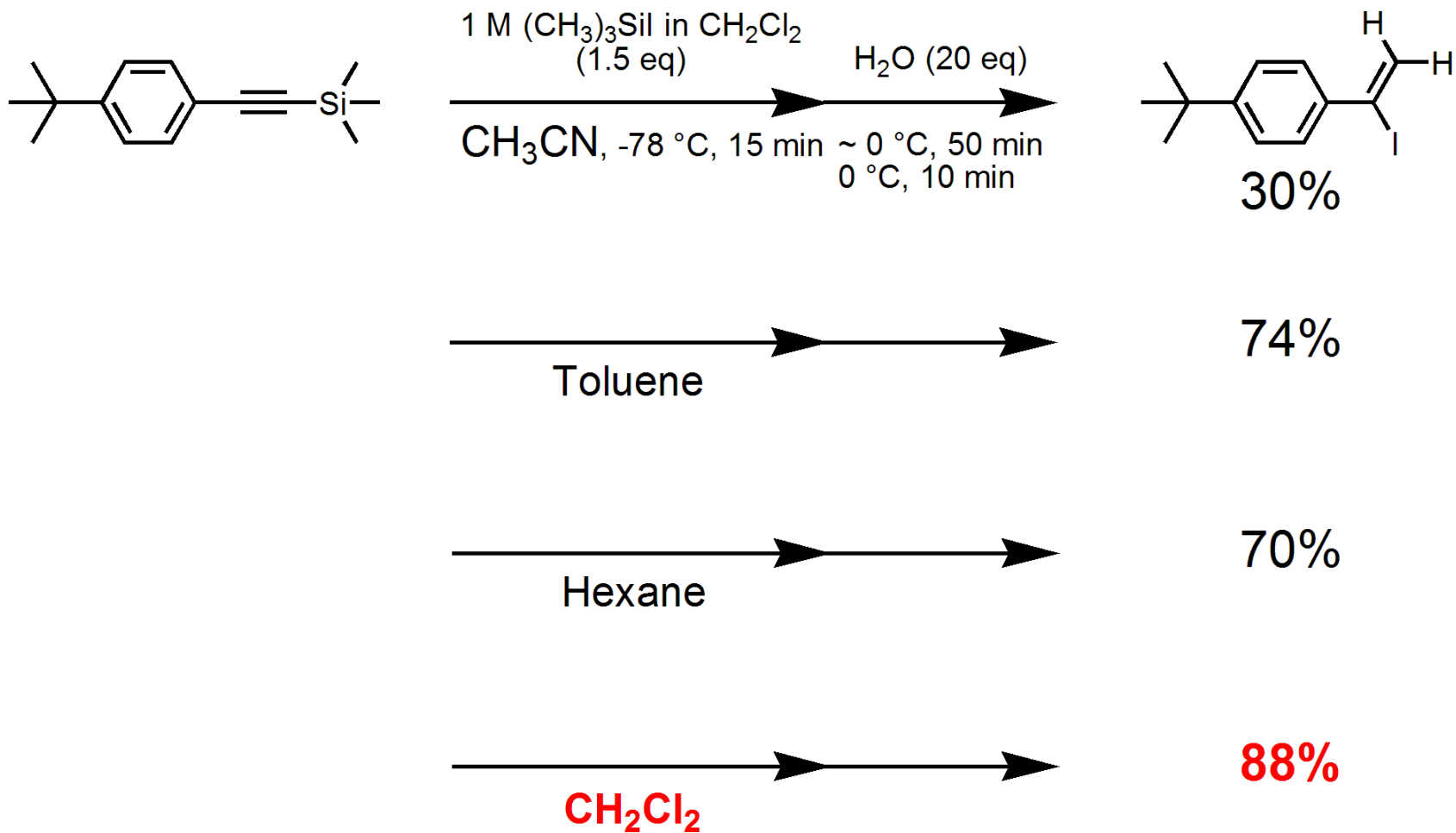


Gao, F.; Hoveyda, A. H. *J. Am. Chem. Soc.* **2010**, 132, 10961-10963.

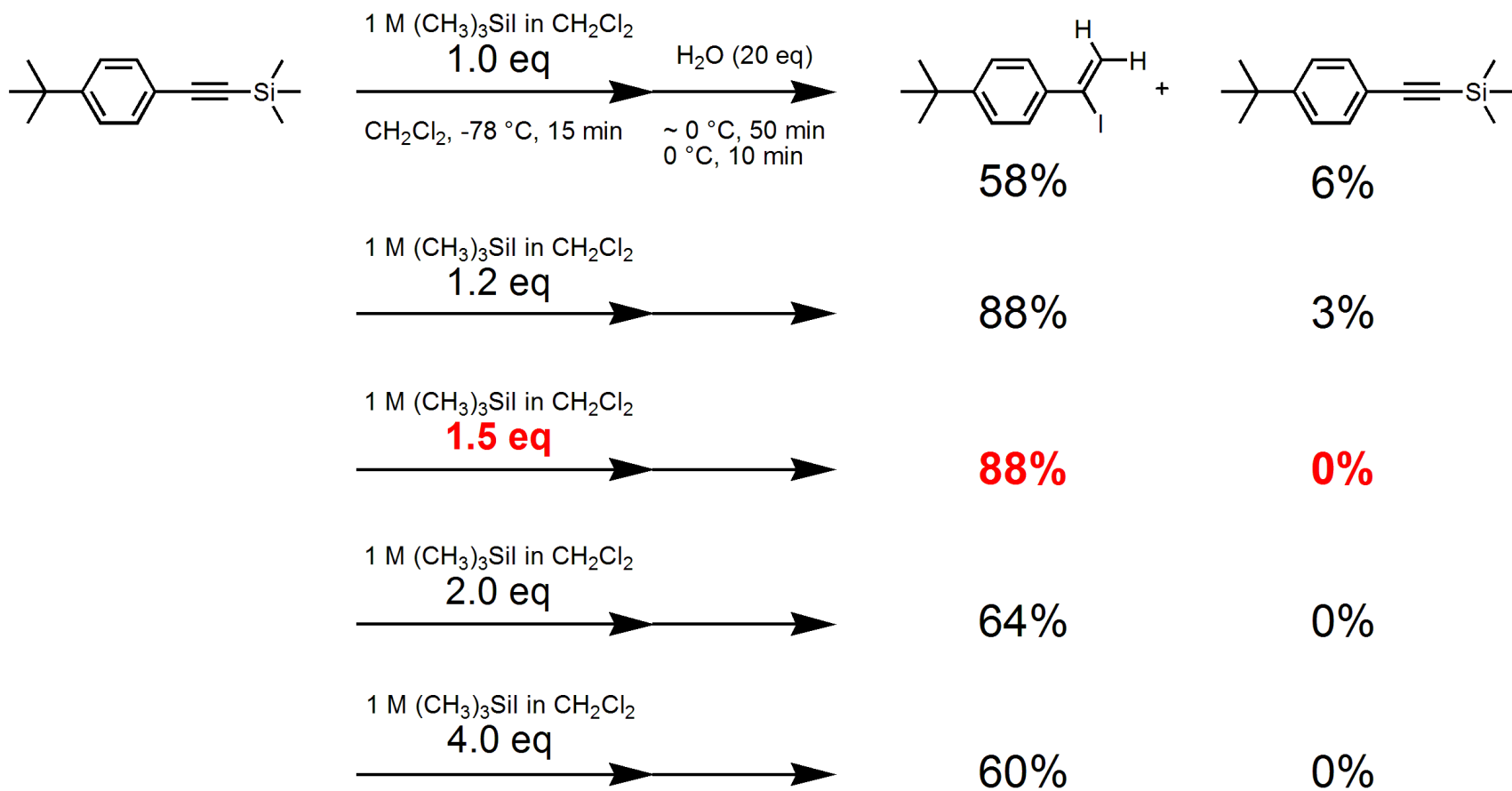
Approach



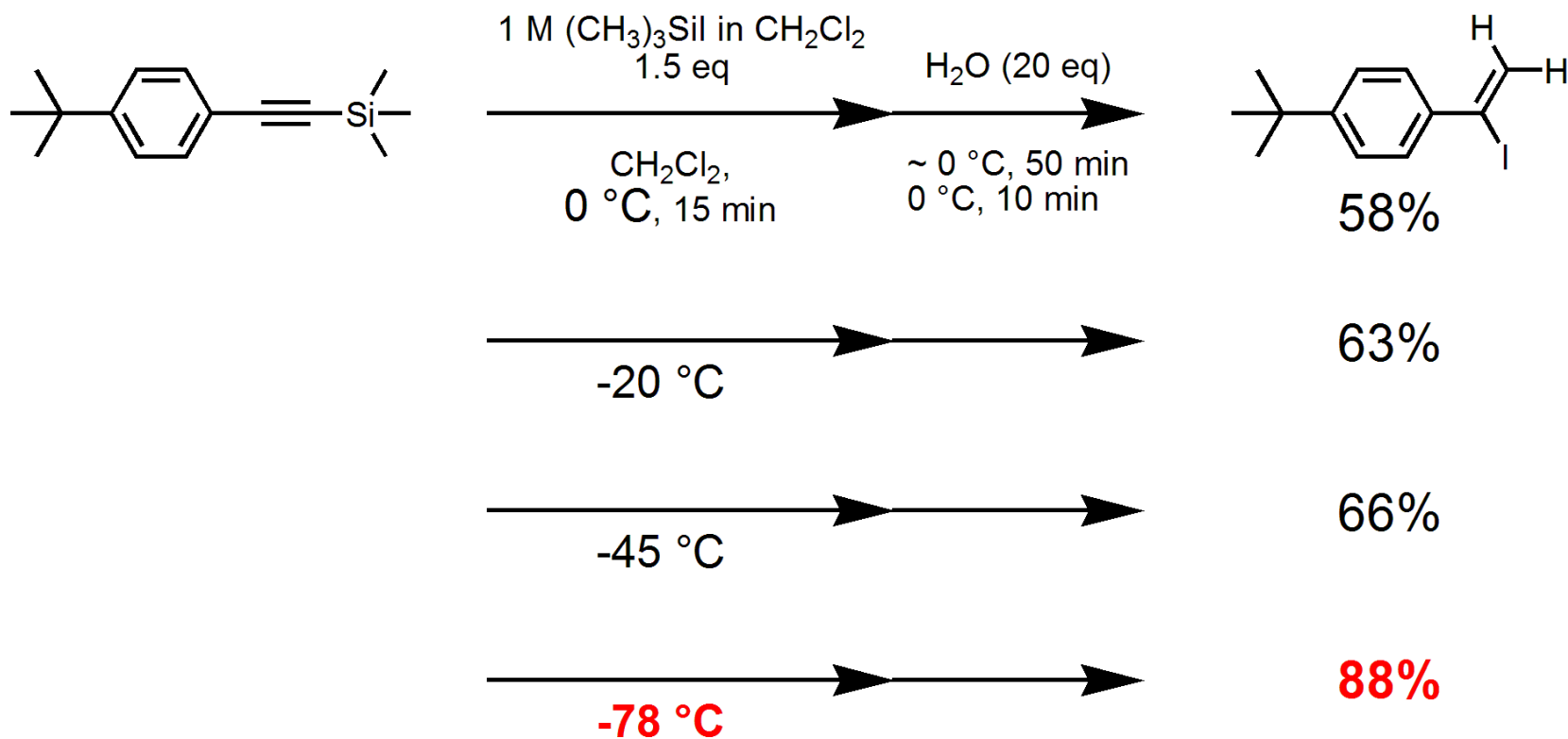
Solvent



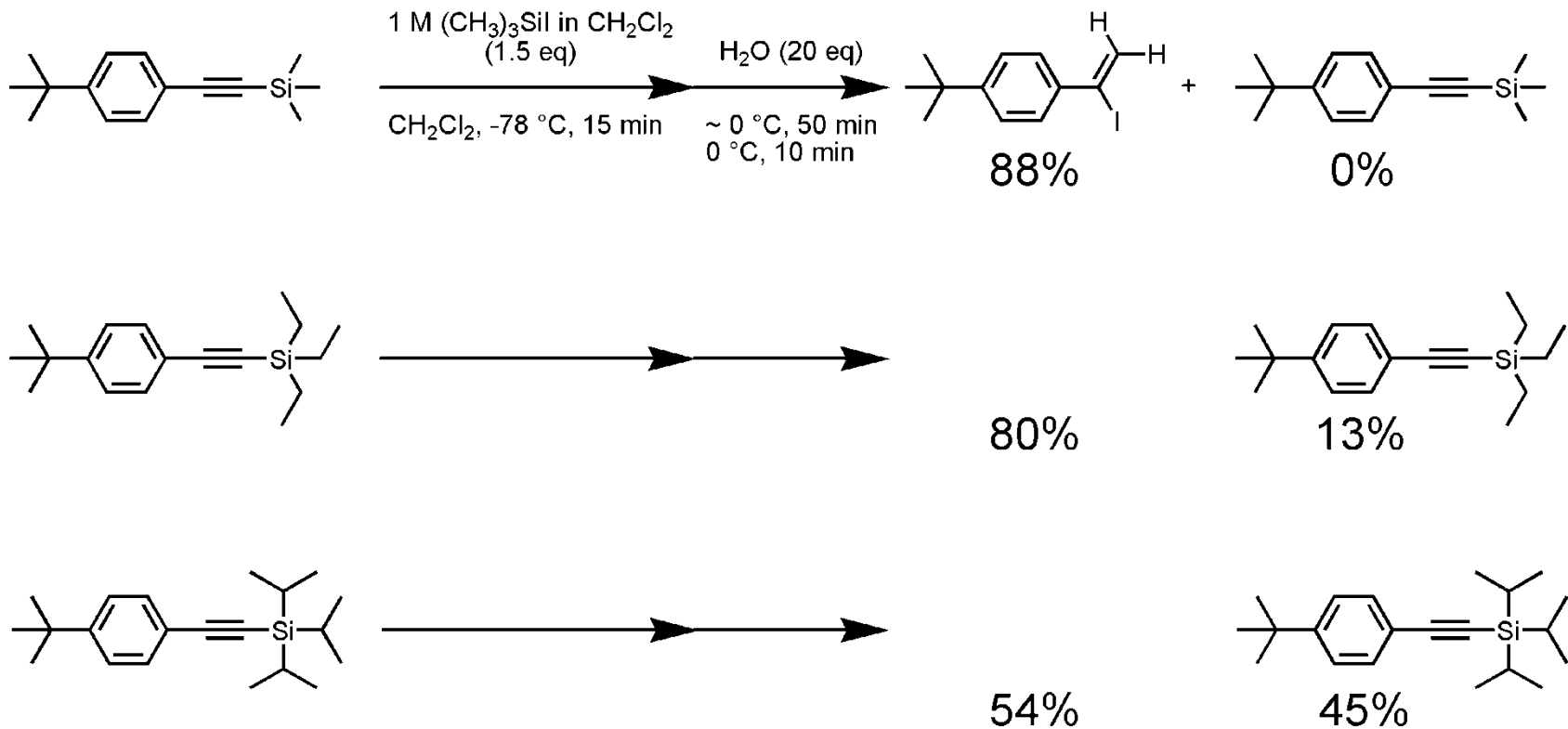
Amount of $(\text{CH}_3)_3\text{SiI}$



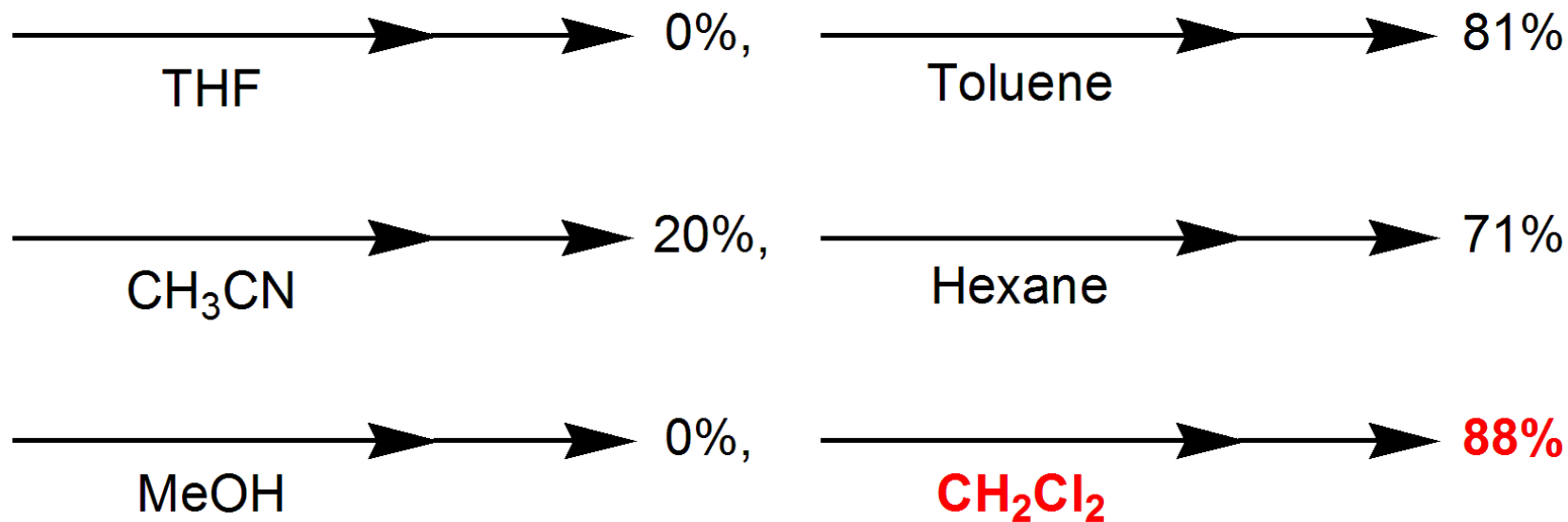
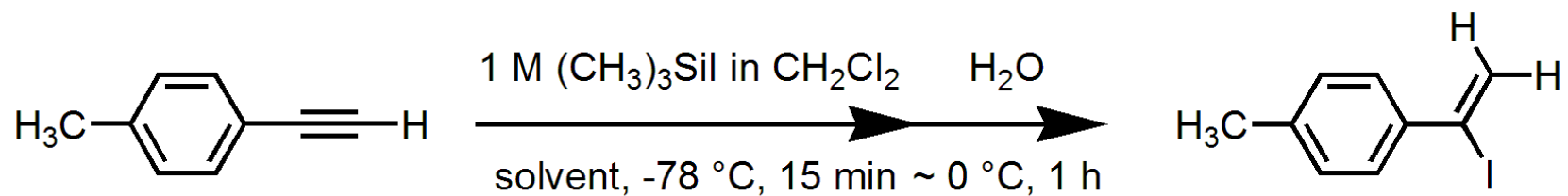
Temperature



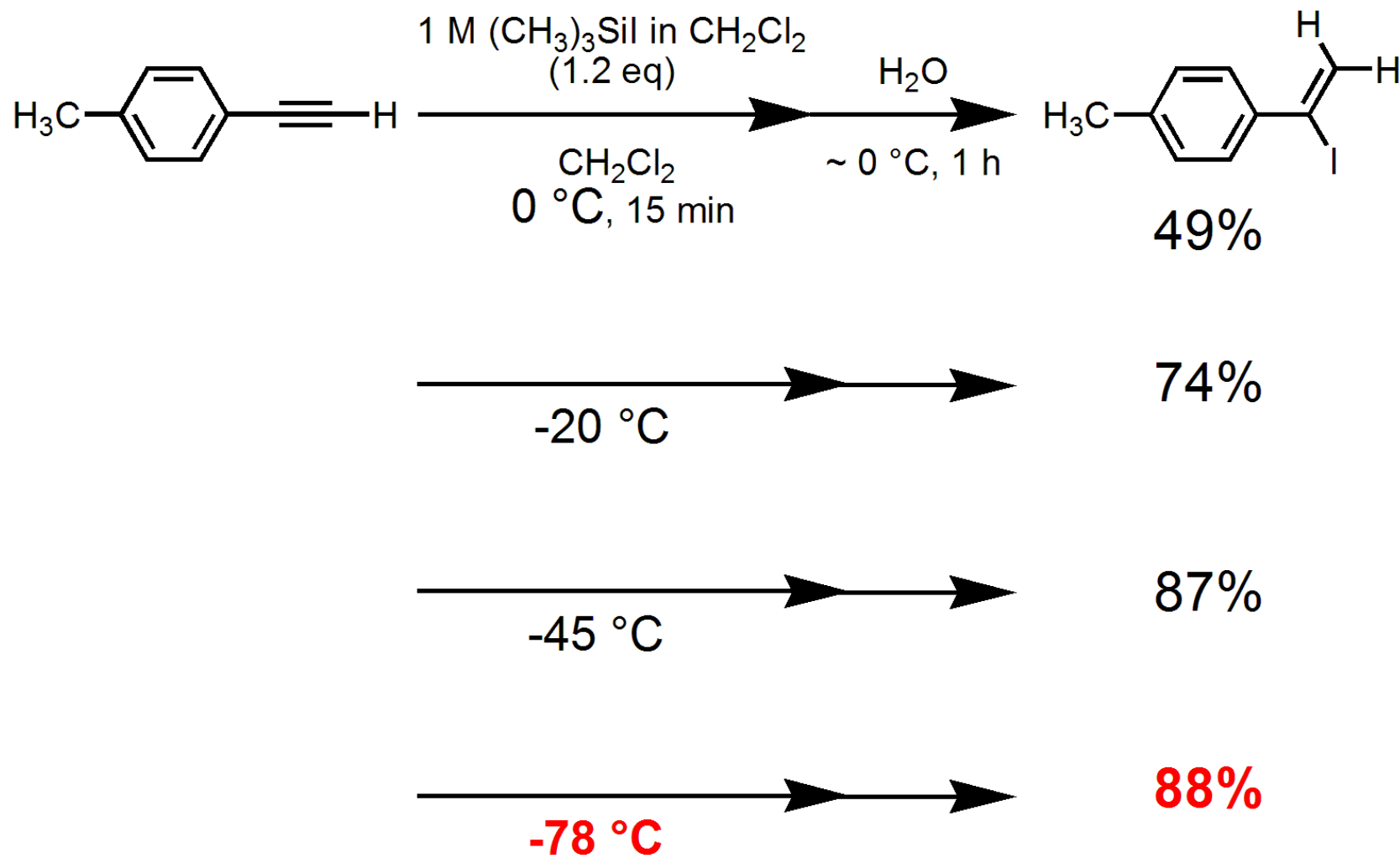
Alkyl substituents on silicon



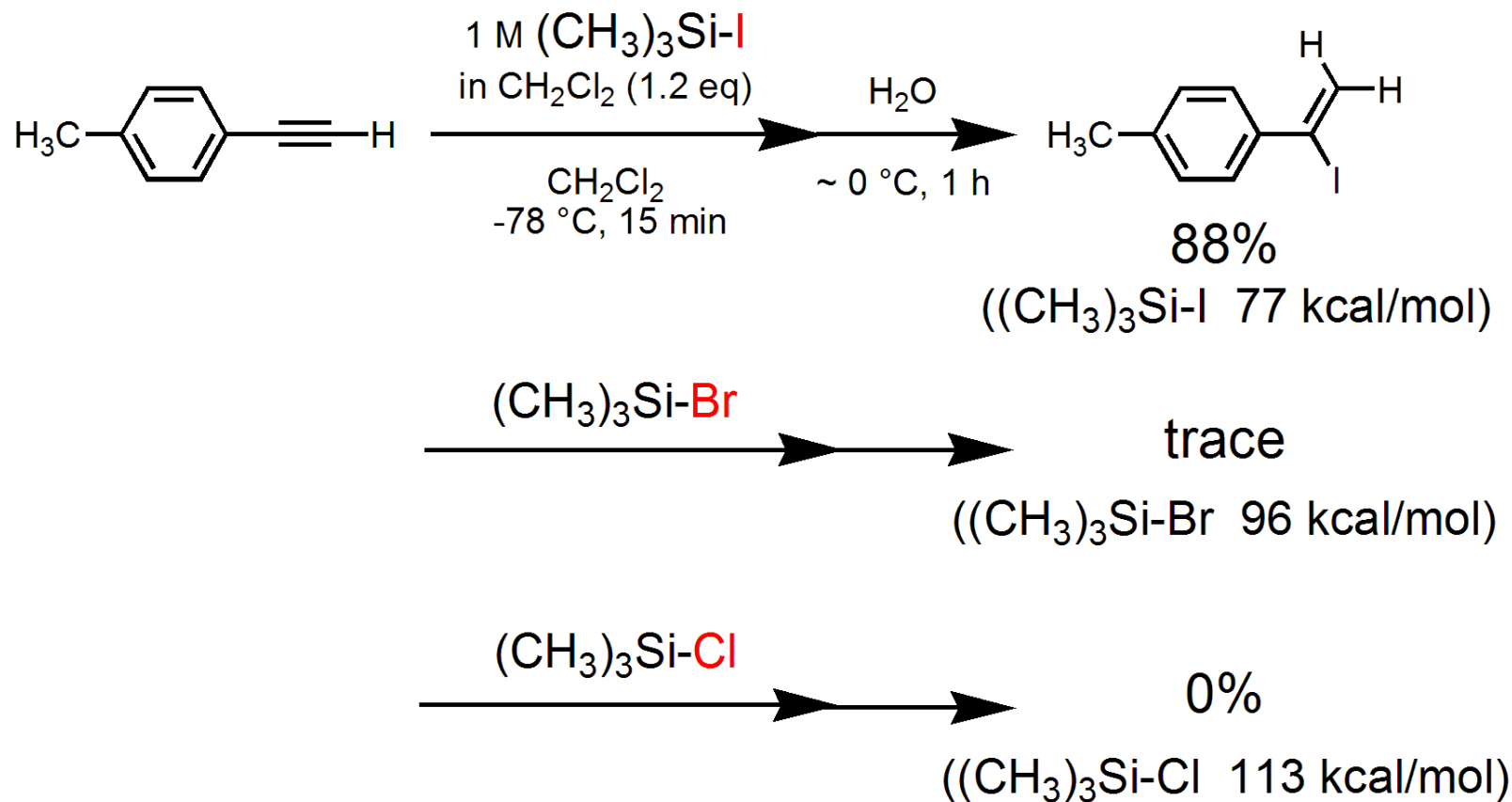
1-ethynyl-4-methylbenzene



Temperature

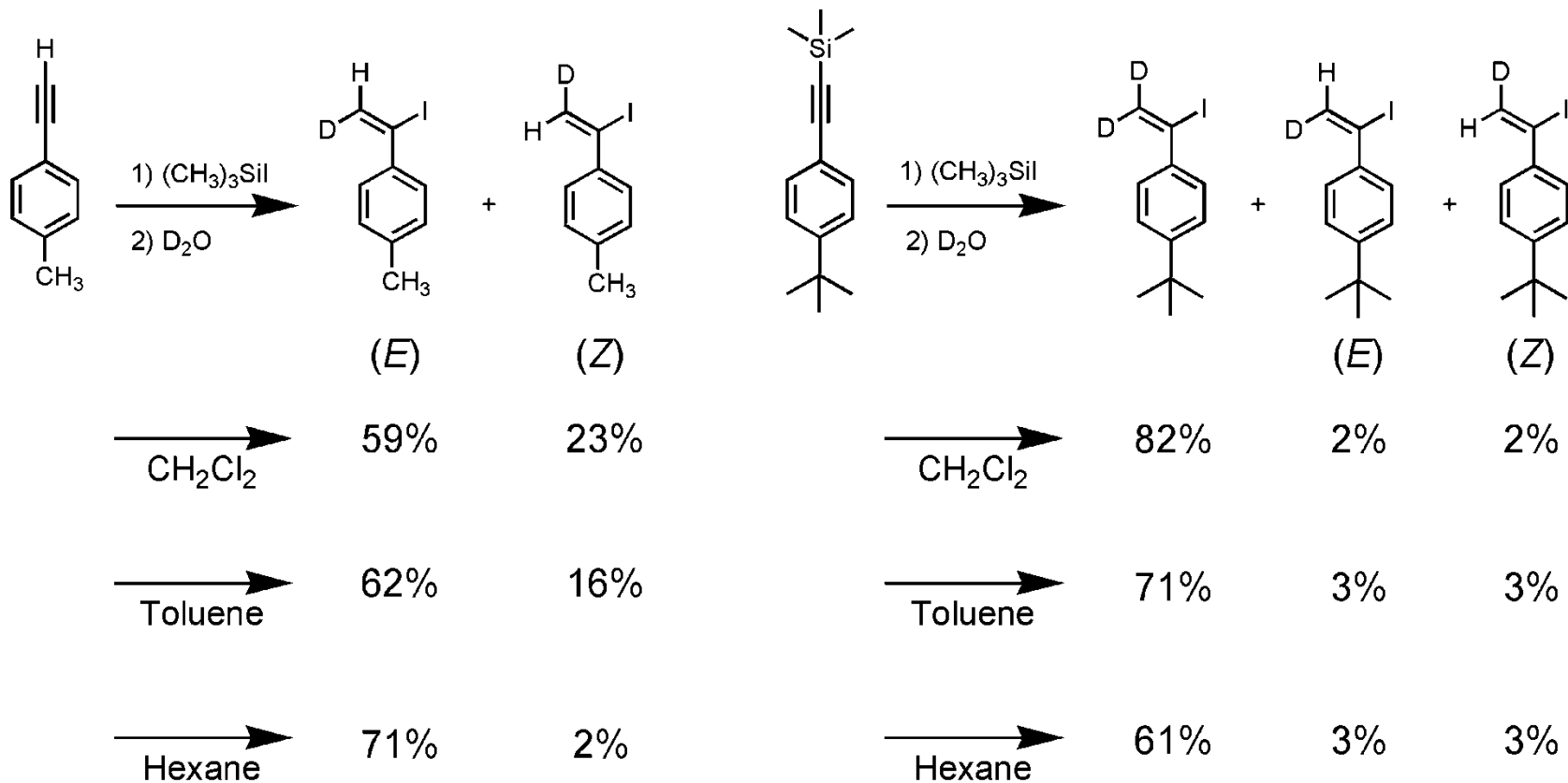


Halogenated trimethylsilane

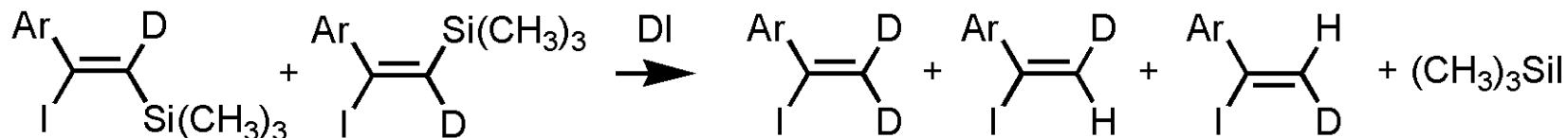
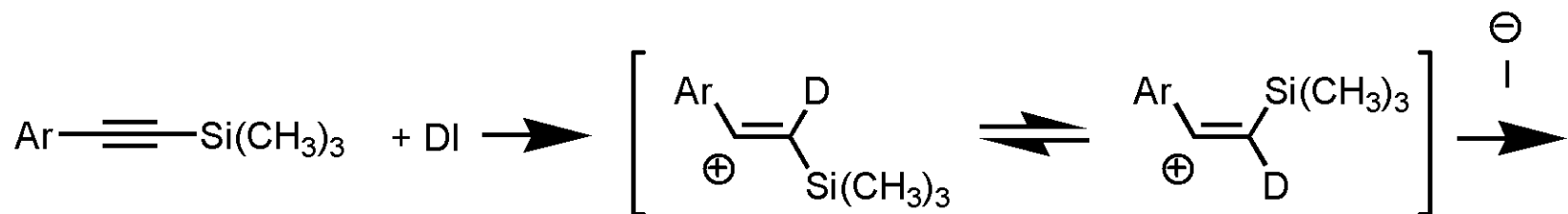
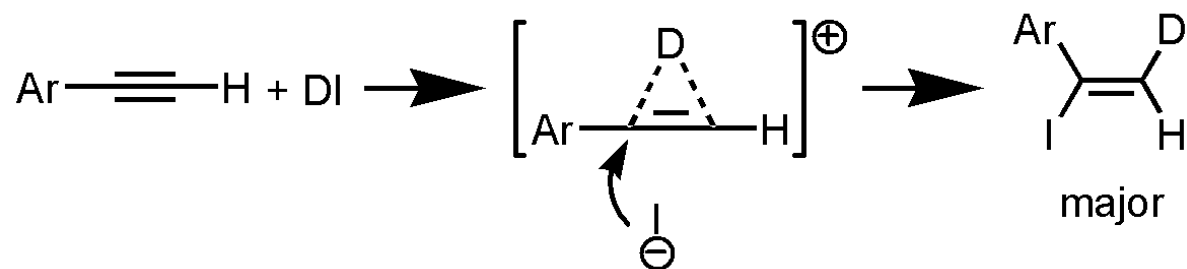


Ref.) Walsh, R. *Acc. Chem. Res*, **1981**, *14*, 246-252.

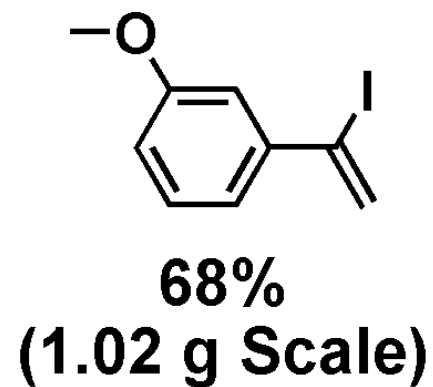
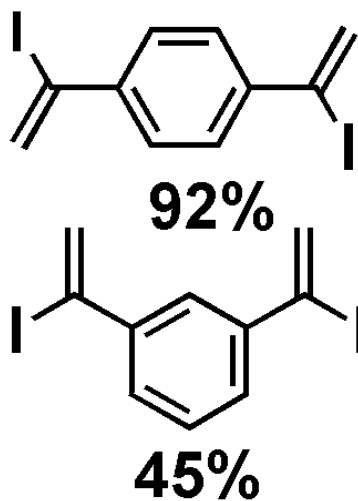
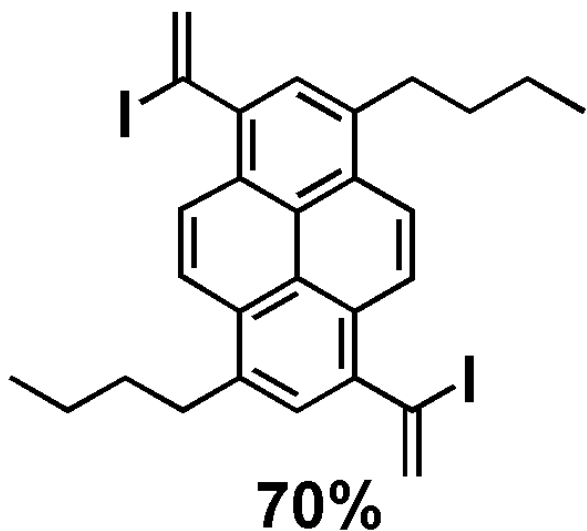
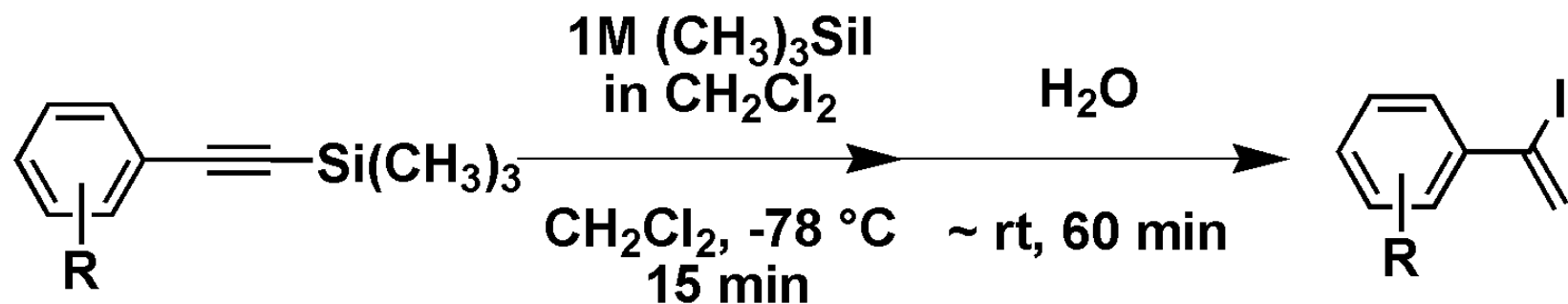
Deuterioiodination



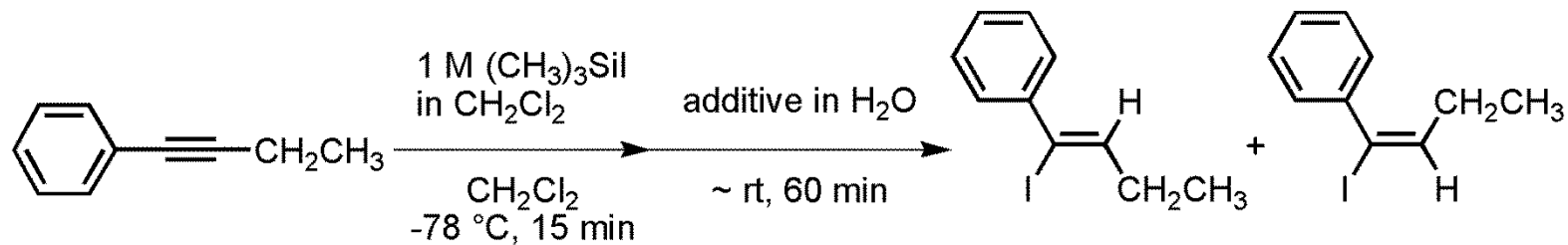
Reaction path



α -vinyl iodation

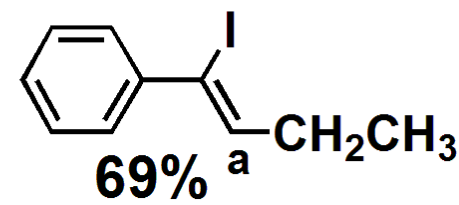
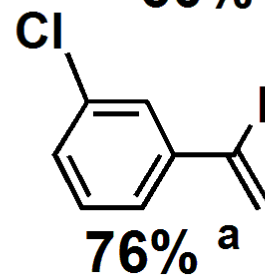
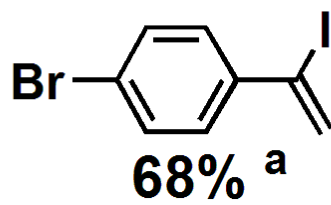
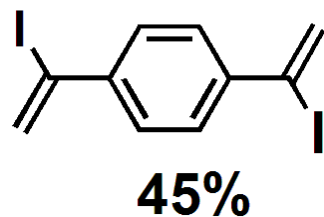
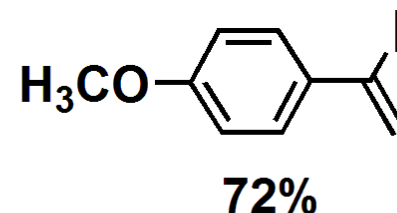
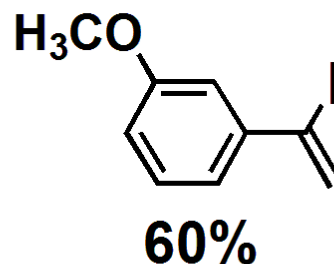
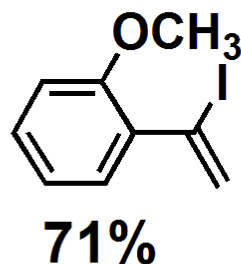
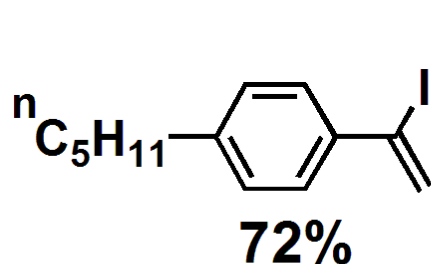
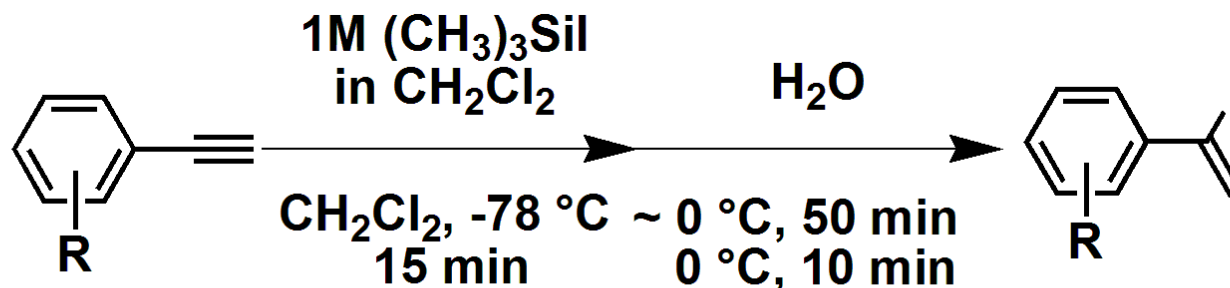


Additives (unpublished data)



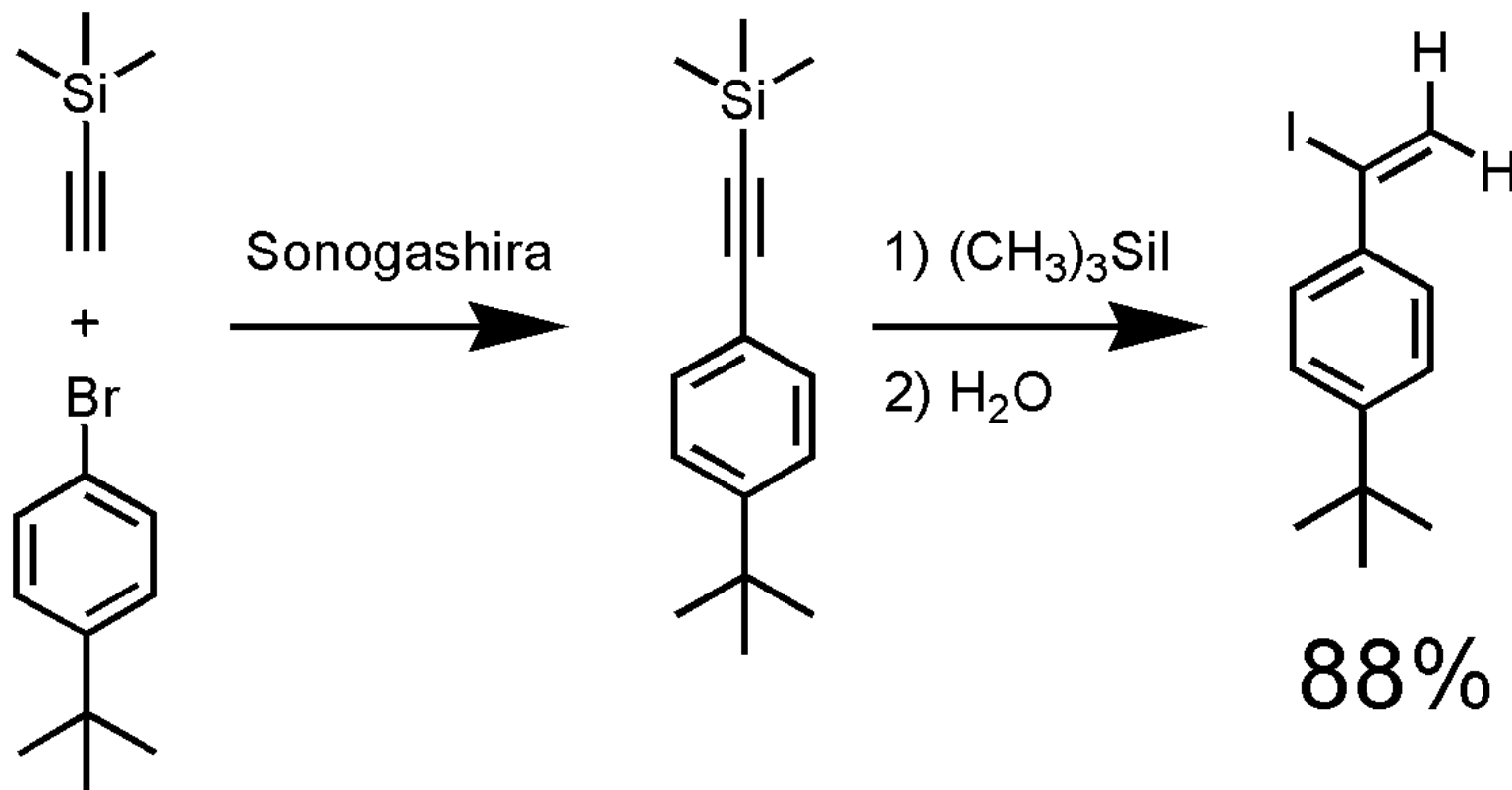
entry	additive	eq.	Z体 (%)	E体 (%)	total (%)	SM (%)
1	-	-	3	0	3	97
2	LiI	1	8	0	8	92
3	NaI	1	5	0	5	95
4	KI	1	14	0	14	83
:	:	:	:	:	:	:
:	:	:	:	:	:	:
:	:	:	:	:	:	:
48	AcONa	1	29	trace	29	62
49	HCl	10	8	0	8	35
50	NH₄Cl	20	88	4	92	8

Evaluation of the reactivity



^a Satd. aq. NH_4Cl was added instead of H_2O .

Summary



1) Sato, A. H.; Mihara, S.; Iwasawa, T. *Tetrahedron Lett.* **2012**, *53*, 3585-3589.

2) 特願 2012-170680