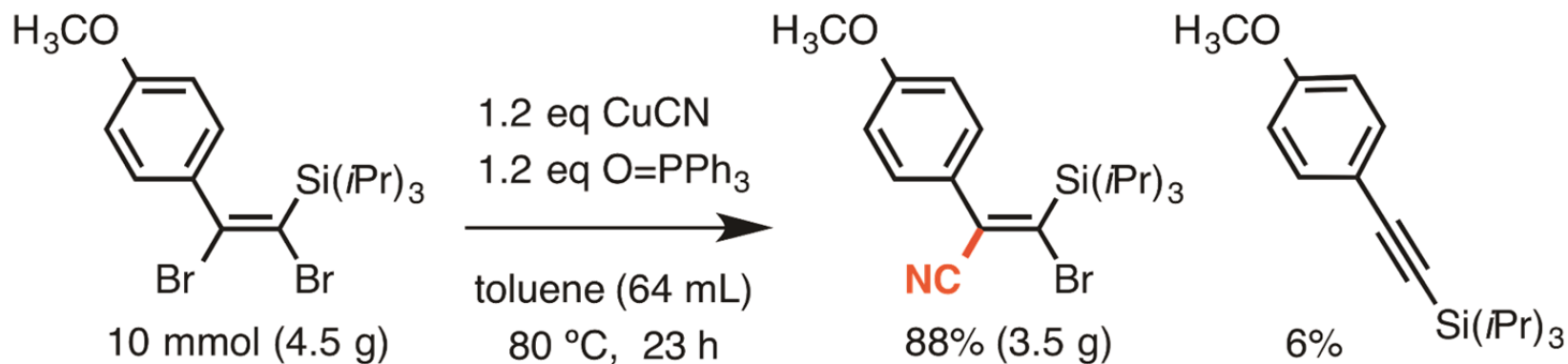


# Regio-selective Cyanation of (Z)-(1,2-Dibromo-2-arylvinyl)triisopropylsilane with Suppression of Halogen Elimination

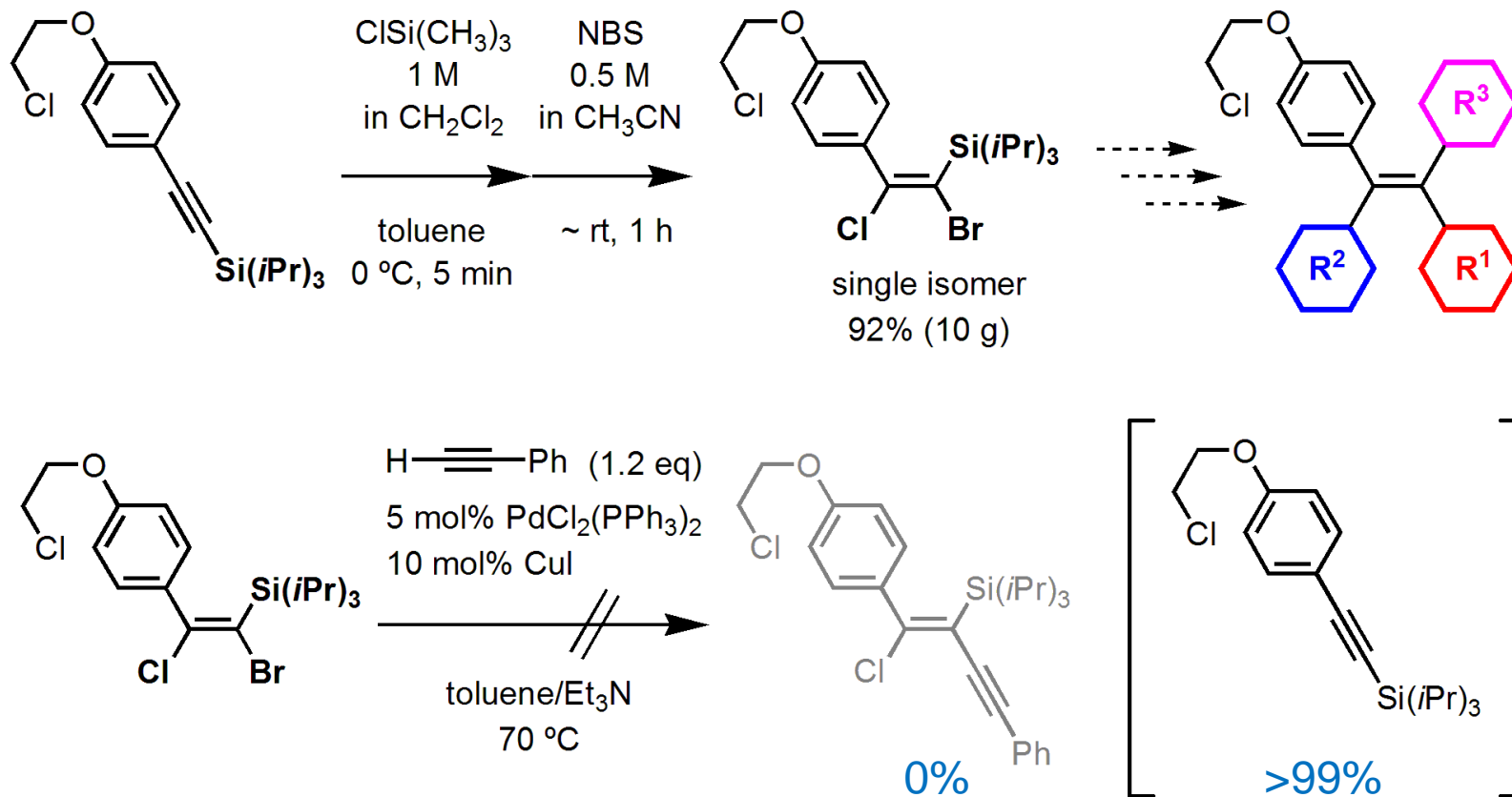


Ryukoku Univ., Naoki Endo and Tetsuo Iwasawa\*



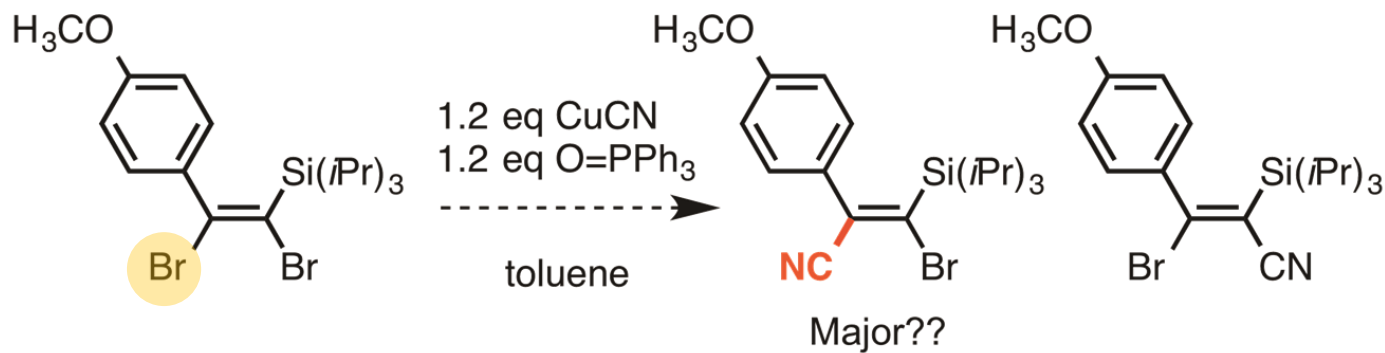
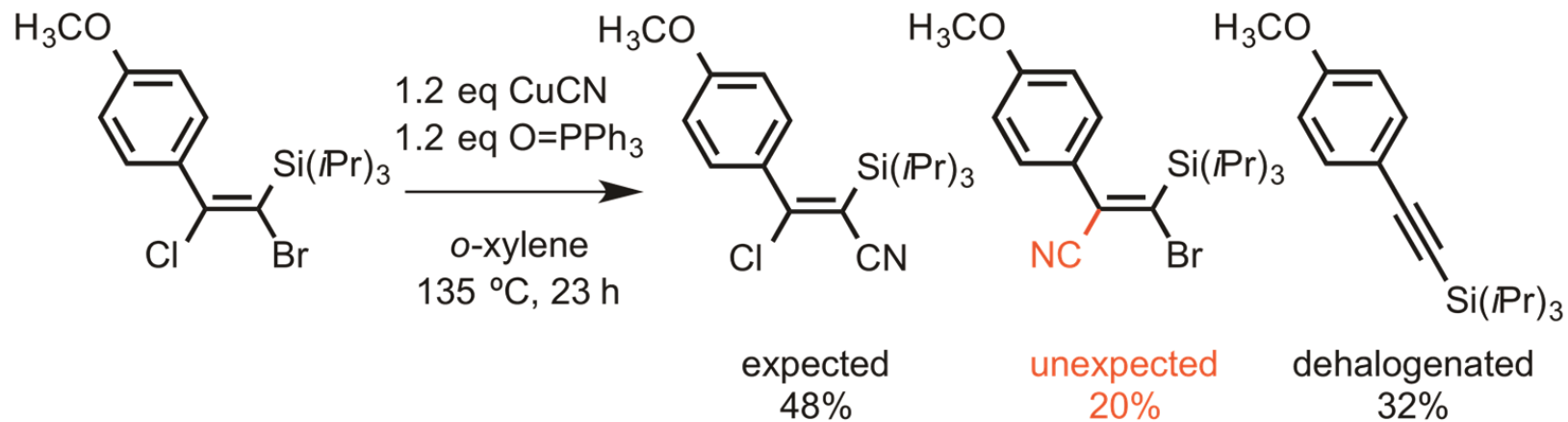
Endo, N.; Kazunari, G.; Murakami, K.; Iwasawa, T. *Tetrahedron Lett.* **2017**, *58*, 1842-1845.

# Background

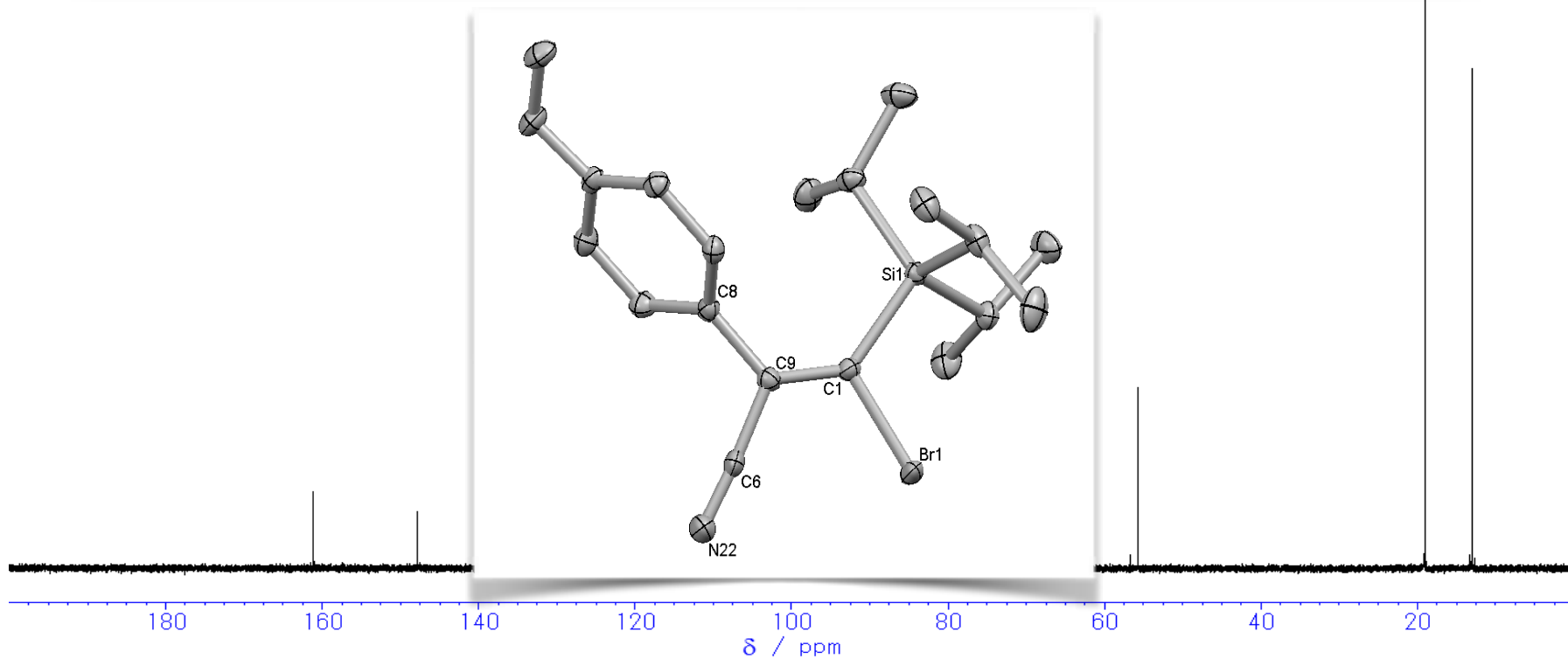
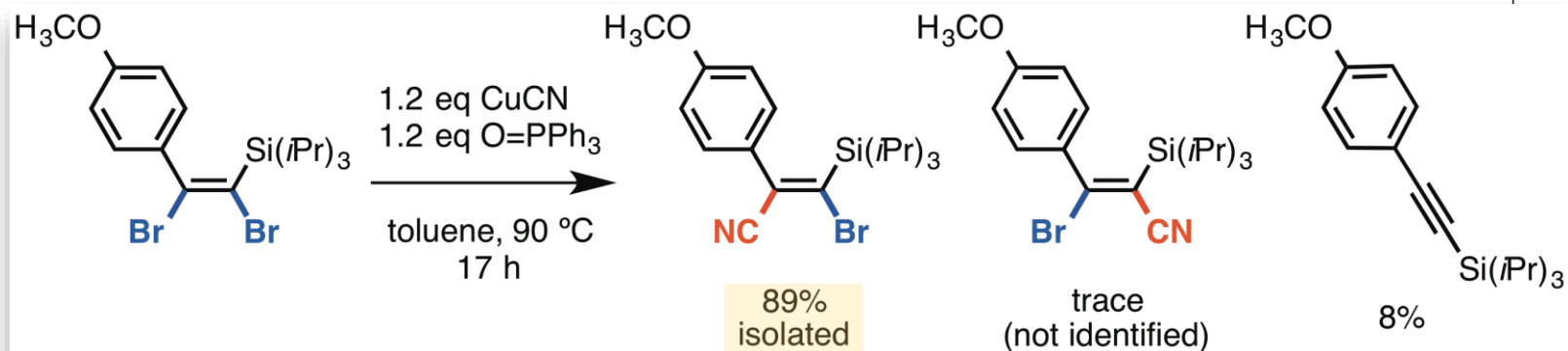


Yauchi, Y.; Ide, M.; Shiogai, R.; Chikugo, T.; Iwasawa, T. *Eur. J. Org. Chem.* **2015**, 938-943.

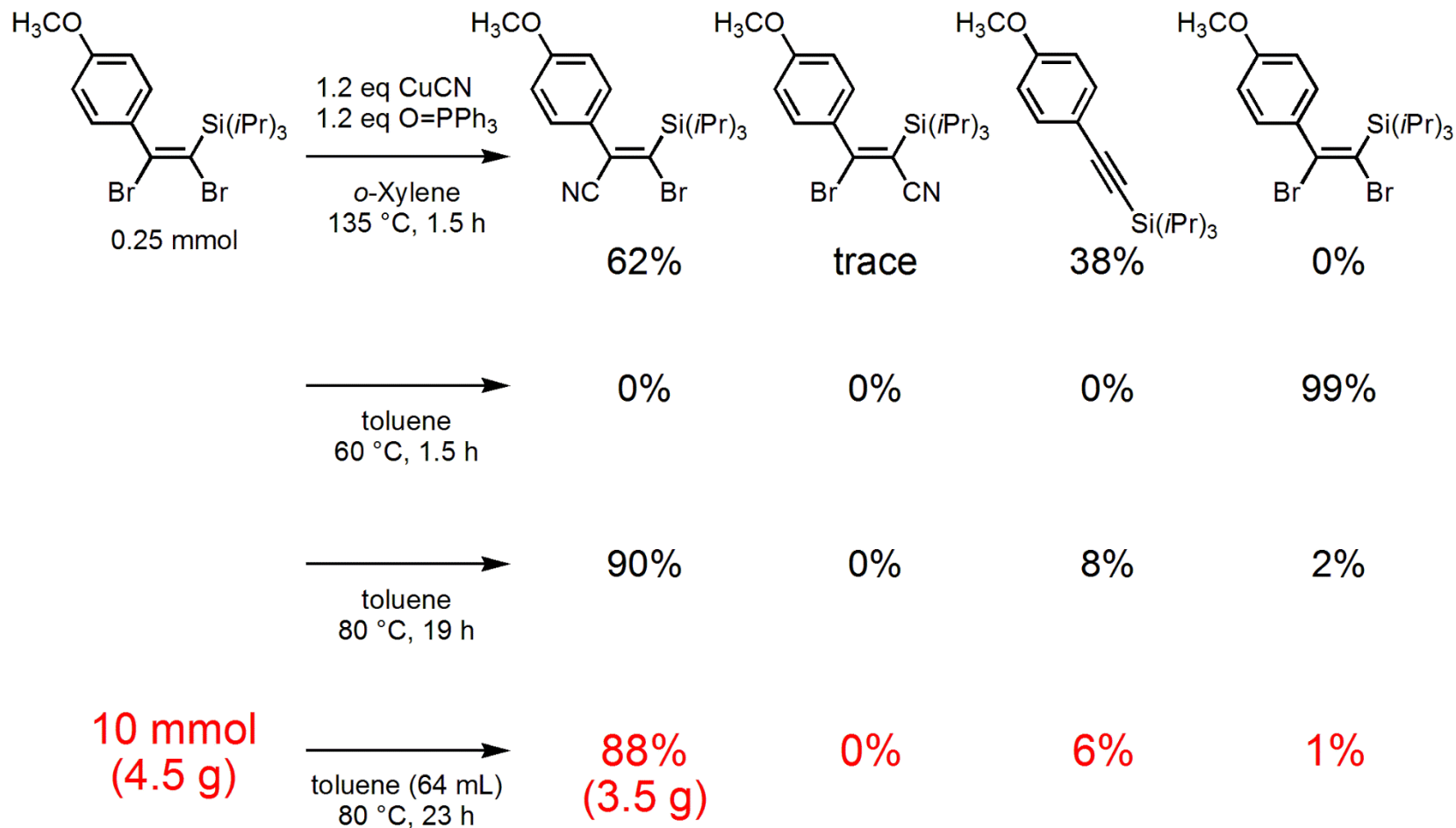
# Approach



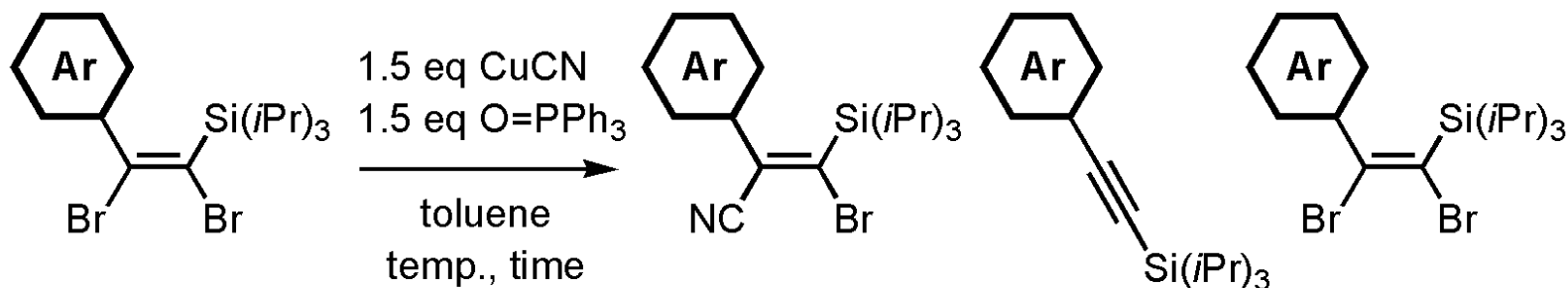
# In real, we made a hit.



# This protocol is amenable to scale-up.

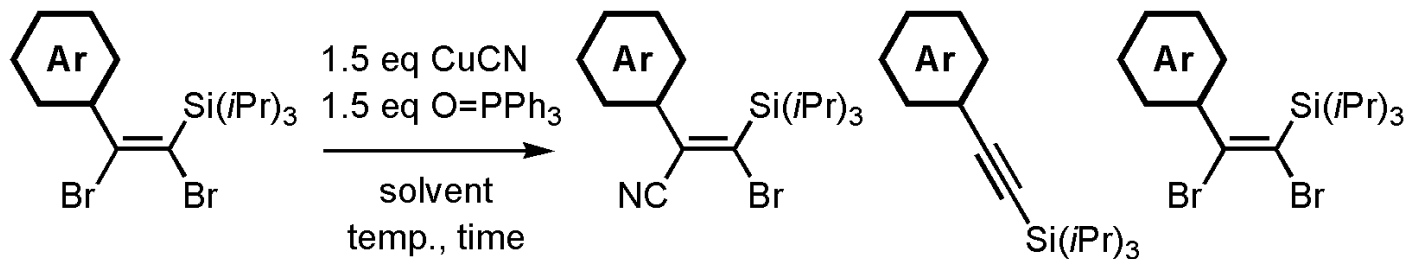


## Good Substrates



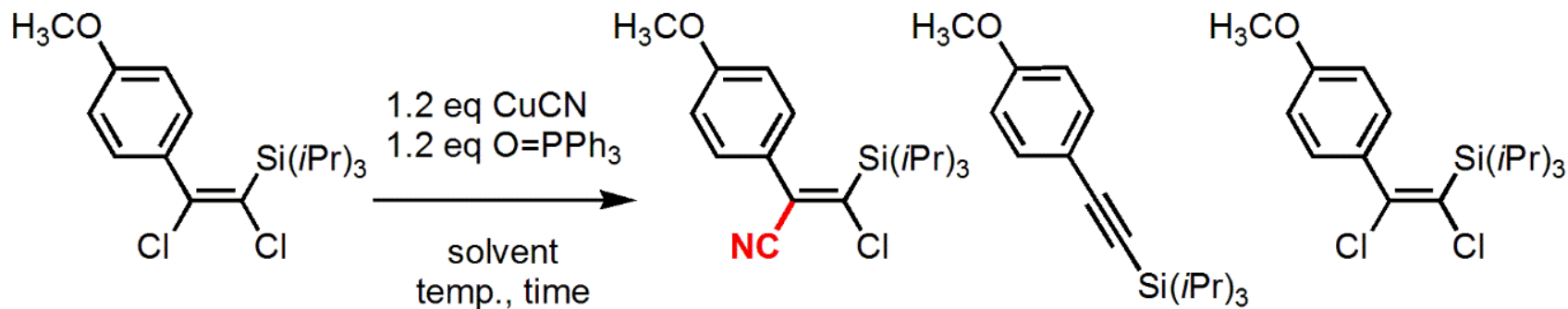
Ar	temp./°C	time/h			
	80	23	67%	0%	24%
	110	9	90%	trace	0%
	80	15	86%	0%	2%
	110	3	91%	trace	0%

## Sensitive to steric...



Ar	solvent	temp./°C	time/h			
	toluene	80	19	21%	1%	68%
	toluene	110	20	69%	21%	0%
	toluene	110	23	54%	15%	22%
	o-xylene	135	10	46%	46%	0%
	toluene	110	19	0%	78%	11%
	o-xylene	144	3	0%	>99%	trace

# (Z)-Dichloroalkene

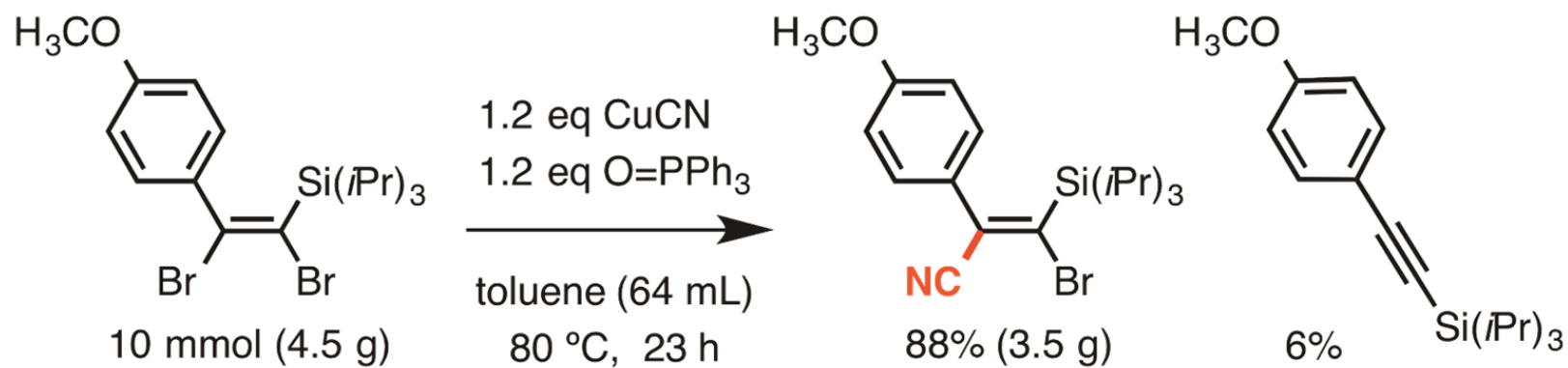


solvent	temp./°C	time/h			
toluene	80	23	0%	0%	~100%
toluene	110	15	65%	0%	22%
o-xylene	135	23	<b>78%</b>	trace	10%
1,3,5-mesitylene	155	23	<82%	trace	7%

(~90% purity)



# Summary



Endo, N.; Kazunari, G.; Murakami, K.; Iwasawa, T. *Tetrahedron Lett.* **2017**, *58*, 1842-1845.