

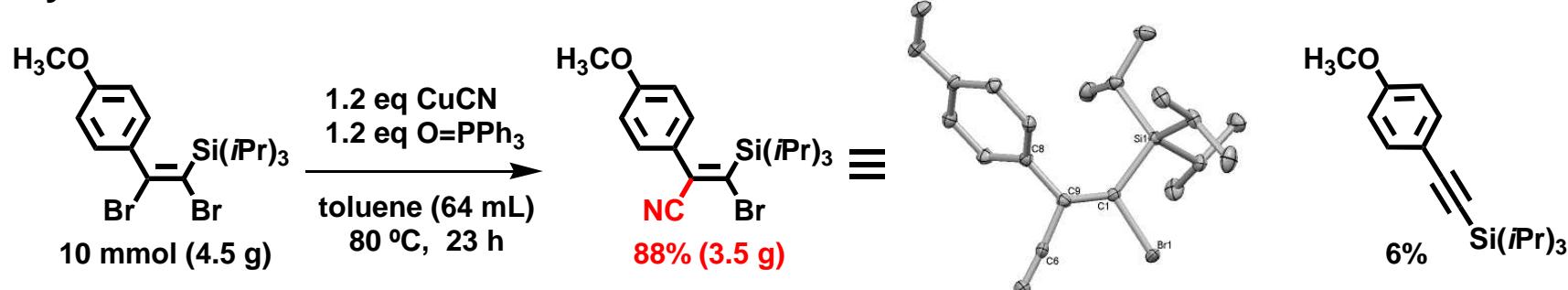
Regio-selective Cyanation of (*Z*)-(1,2-dibromo-2-arylvinyl)triisopropylsilane with Suppression of Halogen Elimination



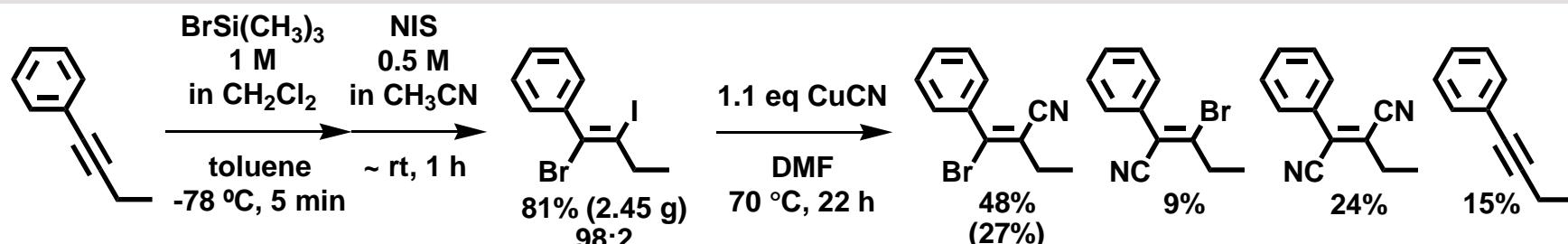
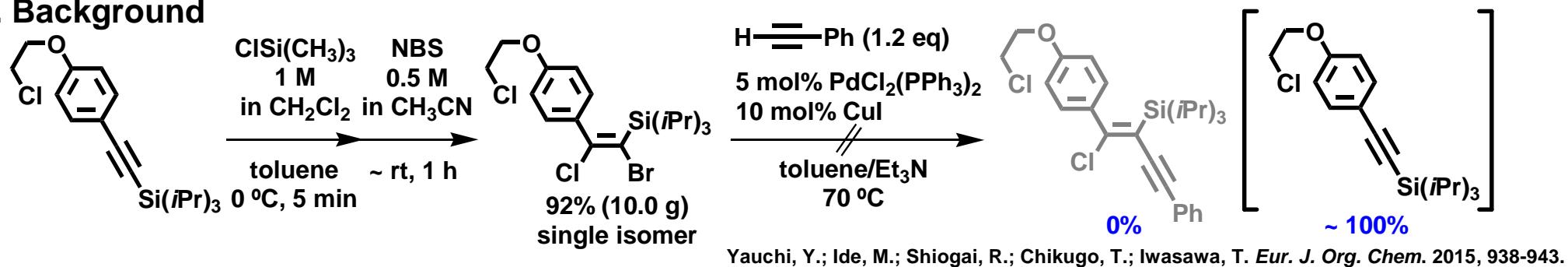
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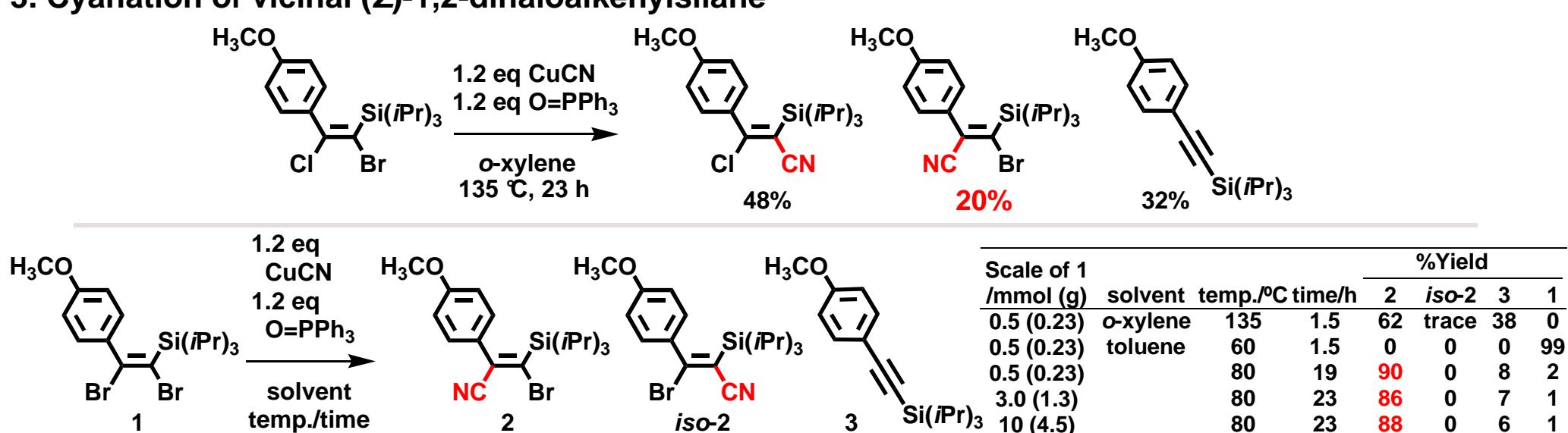
1. Summary Endo, N.; Iwasawa, T. *Tetrahedron Lett.* 2017, 58, 1842-1845.



2. Background



3. Cyanation of vicinal (*Z*)-1,2-dihaloalkenylsilane



4. Evaluation of this cyanation protocol

Ar	solvent	temp./°C	time/h	TM			Alkyne %Yield	Dibromo %Yield
				Alkyne	Dibromo	%Yield		
	toluene	80 110	23 9	67 90	0 trace	24 0		
	toluene	80 110	15 3	86 91	0 trace	2 0		
	toluene	80 110	8 23	0 54	0 46	~100 22		
	o-xylene	135	10	46	46	0		
	toluene	80 110	19 20	21 69	1 21	68 0		
	toluene	110	19 3	0	78 >99	11 trace		

5. (*Z*)-1,2-dichloroalkenylsilane

solvent	temp./°C	time/h	%Yield		
			5	3	4
toluene	80	23	0	0	~100
toluene	110	15	65	0	22
o-xylene	135	23	78	trace	10
1,3,5-mesitylene	155	<23	[b]	trace	7

[a] Isolated yields.

[b] ~ 90% purity. Unknown pesky impurities were observed.