



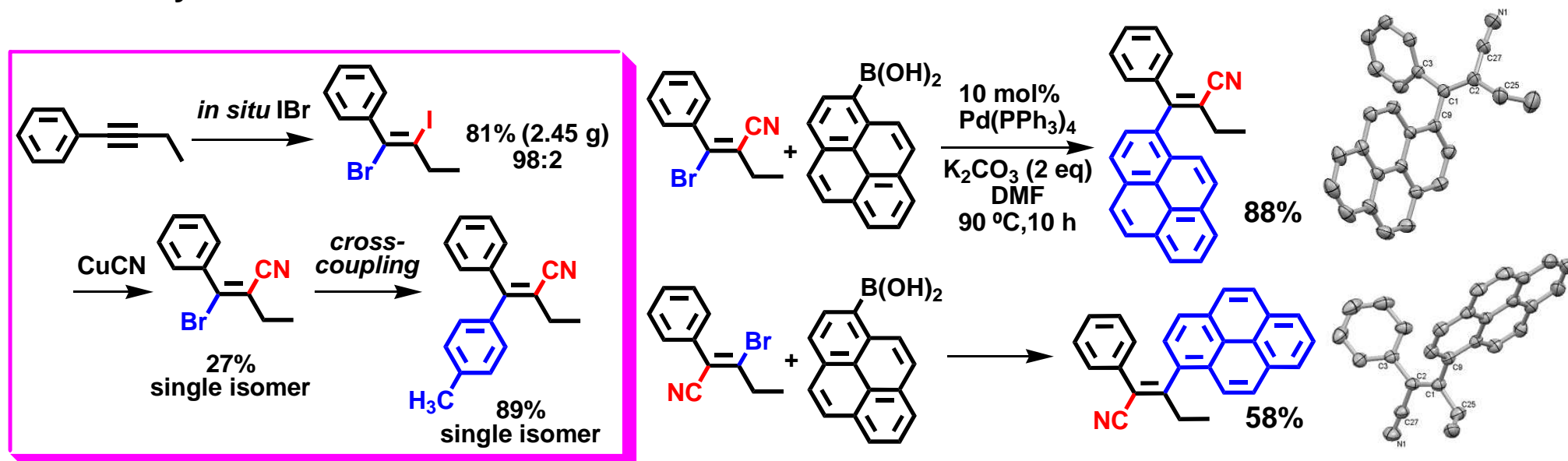
Elucidation of Reaction Process through beta-halogen Elimination in CuCN-mediated Cyanation of (*E*)-1-bromo-2-iodoalkene

Naoki Endo, Tetsuo Iwasawa*

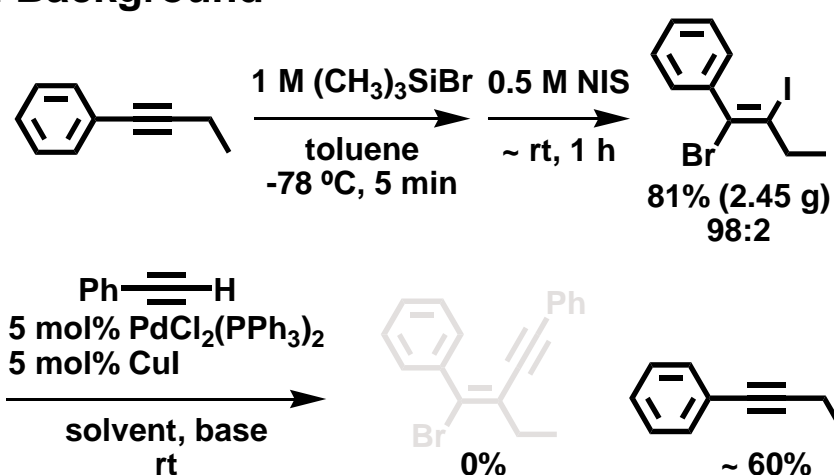
Department of Materials Chemistry, Ryukoku University, Seta, Otsu, Shiga 520-2194, Japan



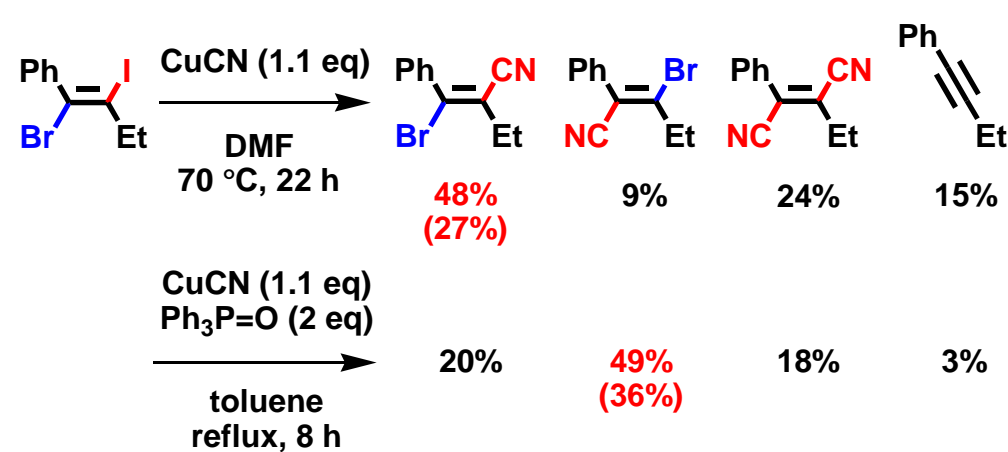
1. Summary Endo, N.; Kanaura, M.; Iwasawa, T. *Tetrahedron Lett.* 2016, 57, 483-486.



2. Background



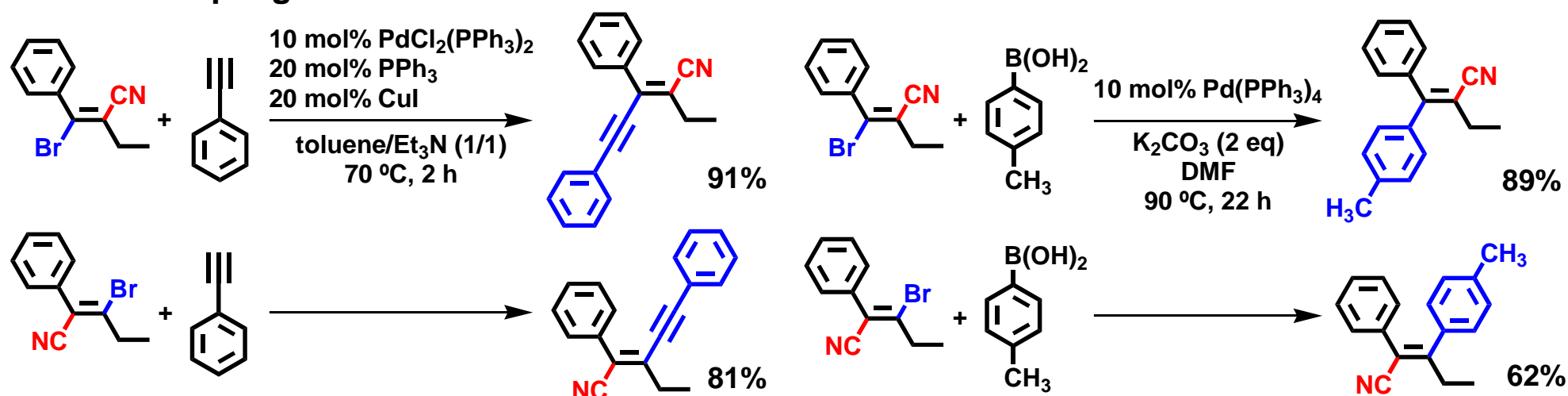
3. In real



1. Ide, M.; Yauchi, Y.; Iwasawa, T. *Eur. J. Org. Chem.* 2014, 3262.

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

4. Cross-coupling



5. Temperature

Reaction scheme showing the cyanation of a bromo-iodoalkene with CuCN (1.1 eq) in DMF at different temperatures and times, yielding products 1, 2, 3, 4, and 5.

Temp. ($^\circ\text{C}$)	Time (h)	NMR Yield (%)				
		1	2	3	4	5
rt	74	82	2	0	0	2
50	22	74	9	0	0	7
70	22	0	48	9	24	15
90	5	0	40	18	26	16
130	1	0	32	26	24	5

6. Plausible reaction paths

