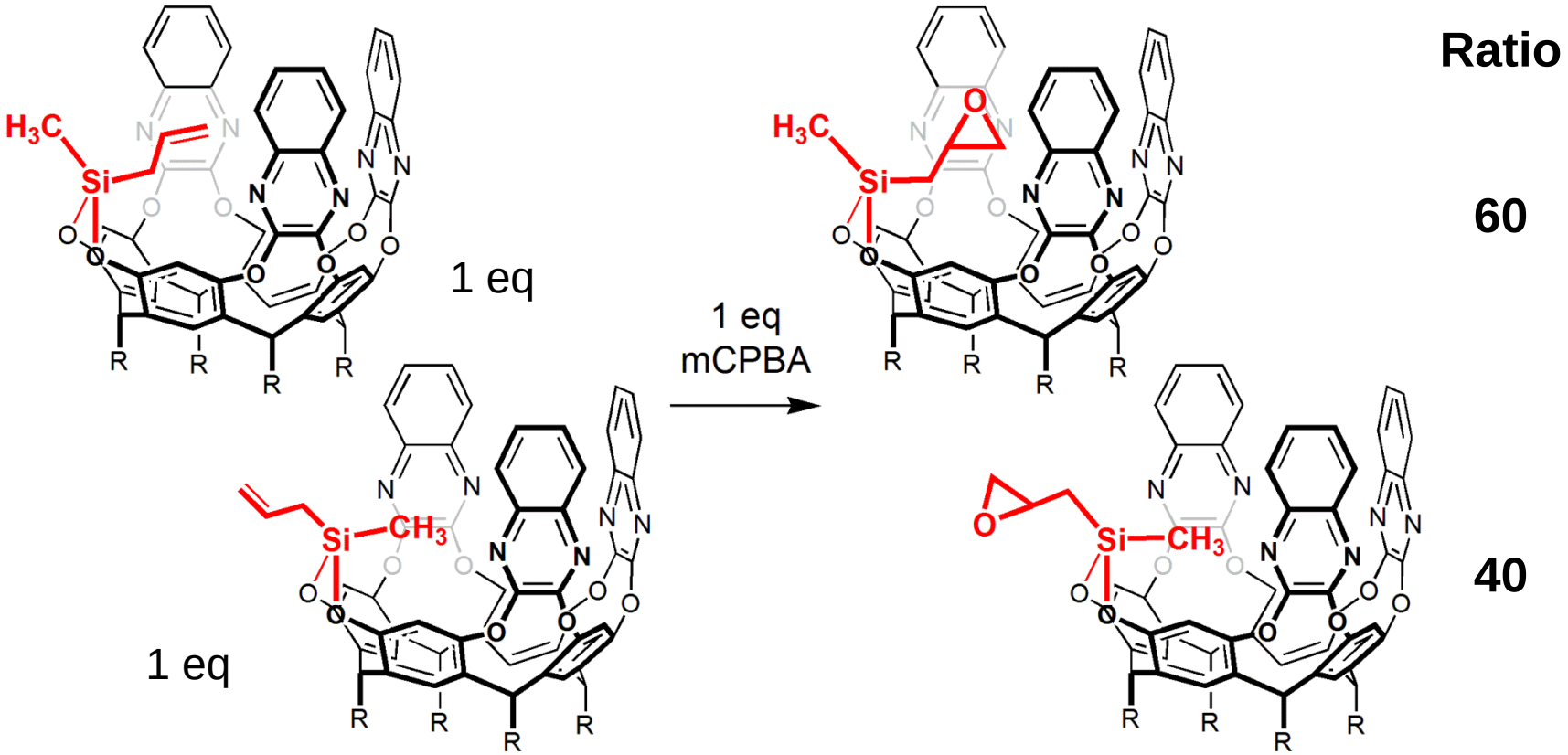
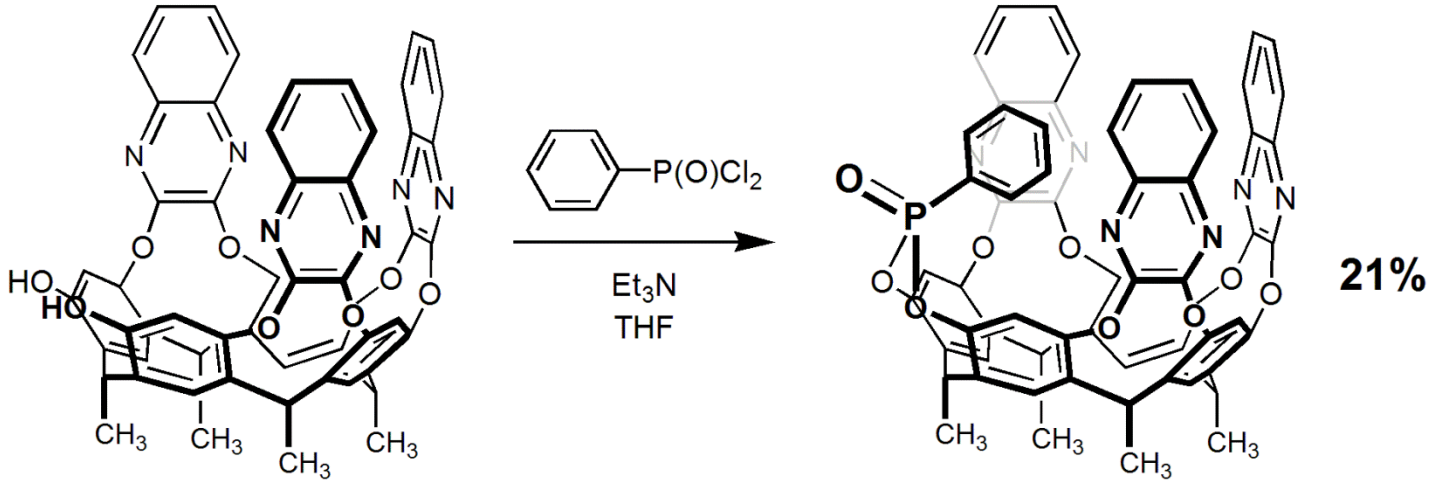
Reaction of Introverted and Extroverted Allyl Silanes with mCPBA

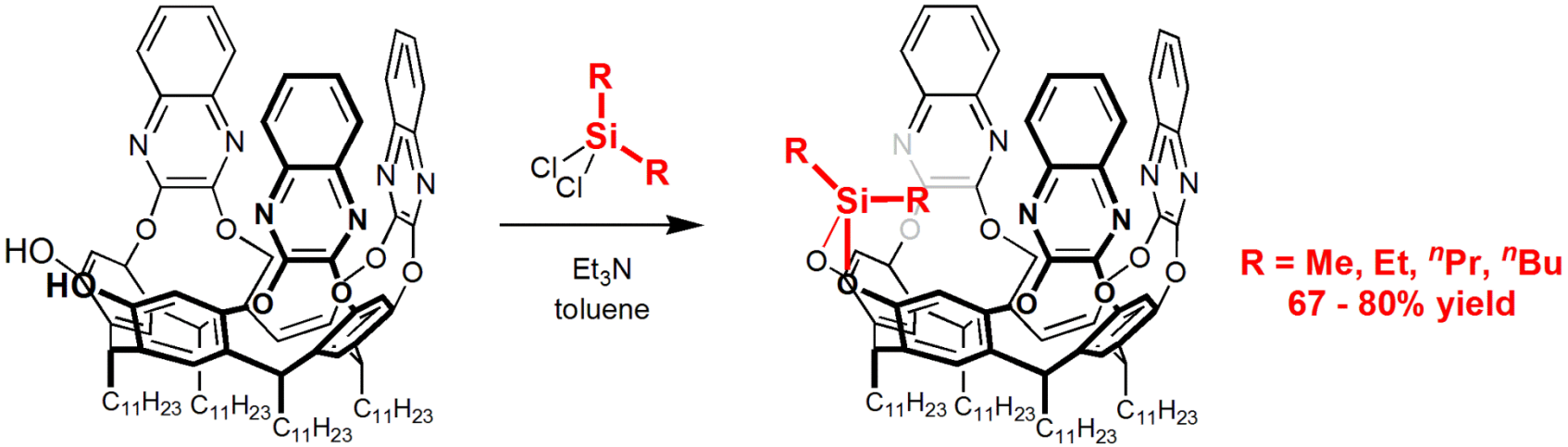


Ohashi, K.; Ito, K.; Iwasawa, T. *Eur. J. Org. Chem*. **2014**, 1597-1601.

Background

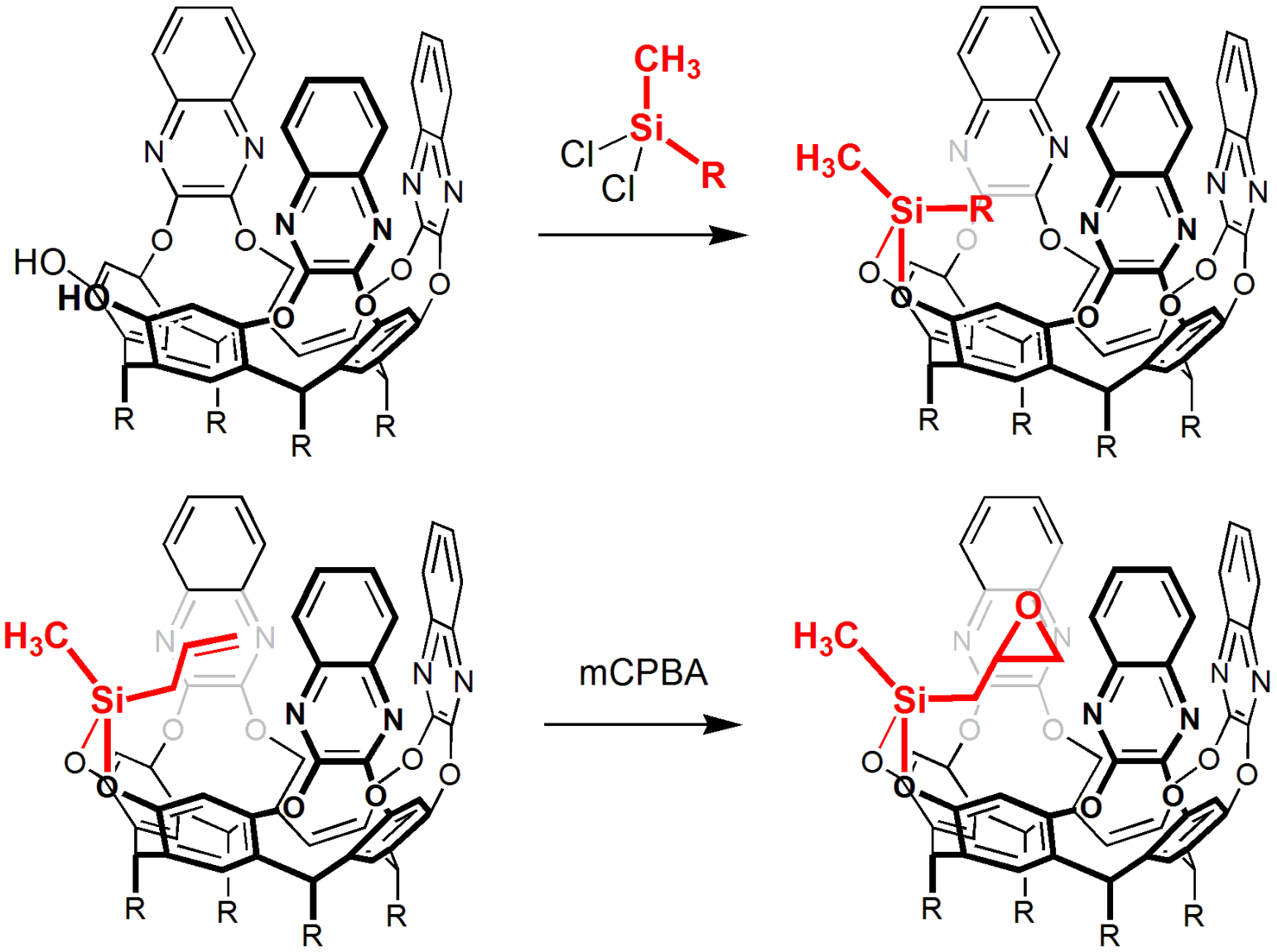


Roncucci, P.; Pirondini, L.; Paderni, G.; Massera, C.; Dalcanale, E.; Azov, V. A.; Diederich, F. *Chem. Eur. J.* **2006**, *12,* 4775-4784.

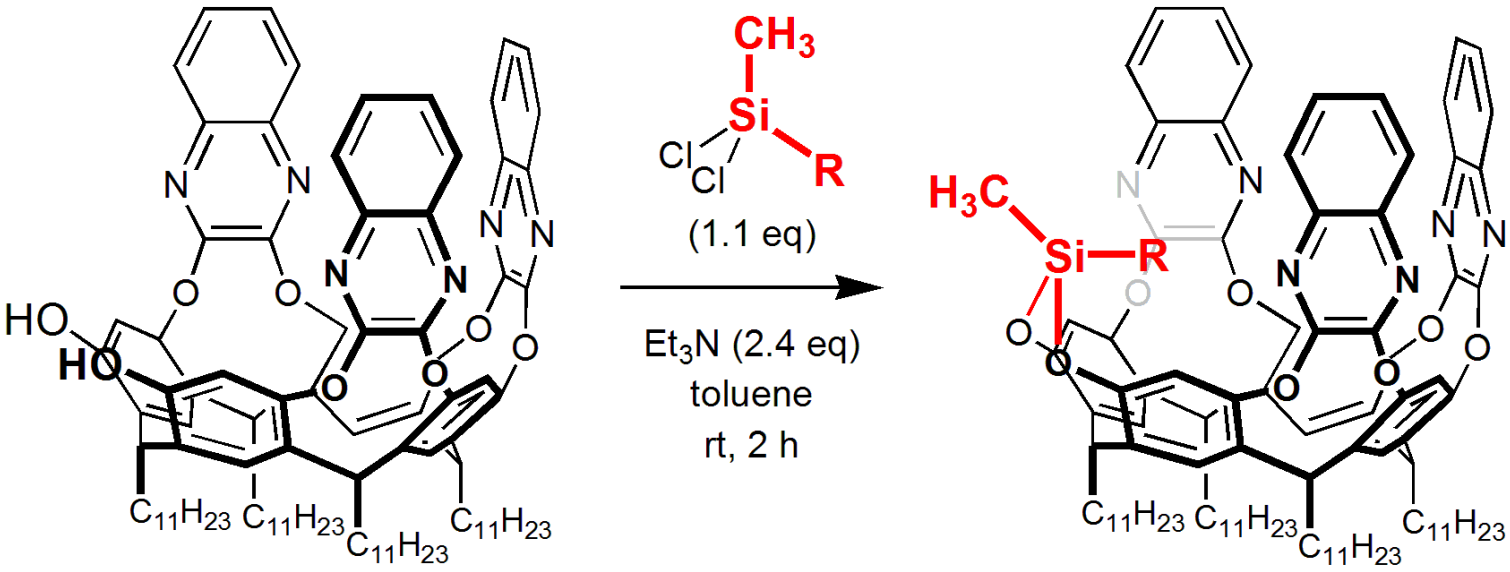


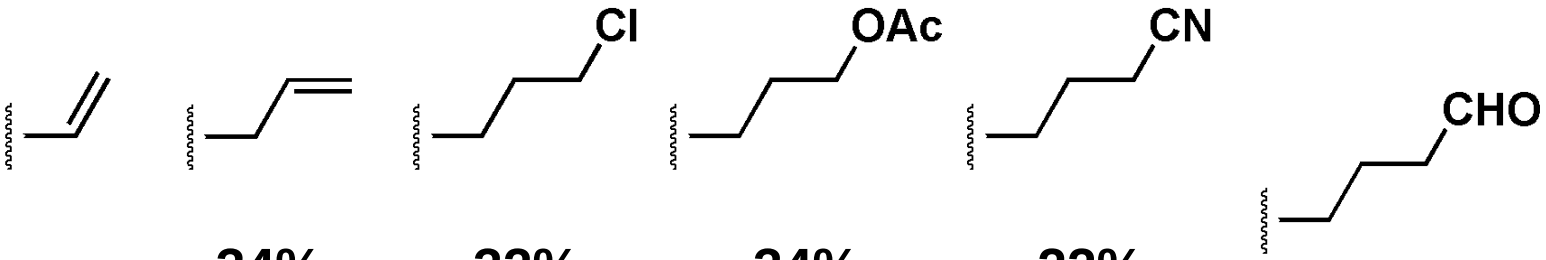
Iwasawa, T.; Nishimoto, Y.; Hama, K.; Kamei, T.; Nishiuchi, M.; Kawamura, Y. *Tetrahedron Lett.* **2008**, *49*, 4758-4762.

Approach



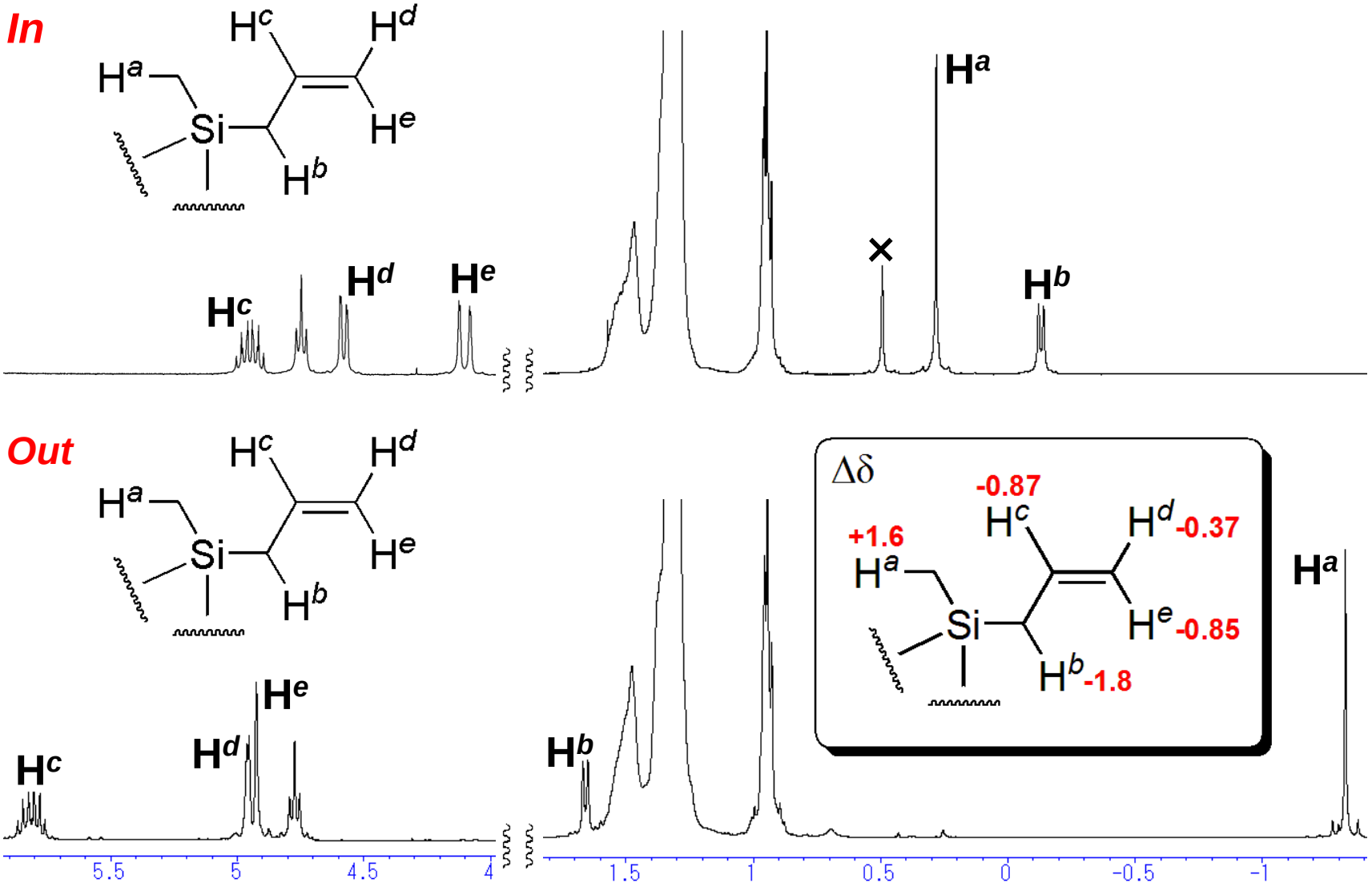
Installation of silyl functionality



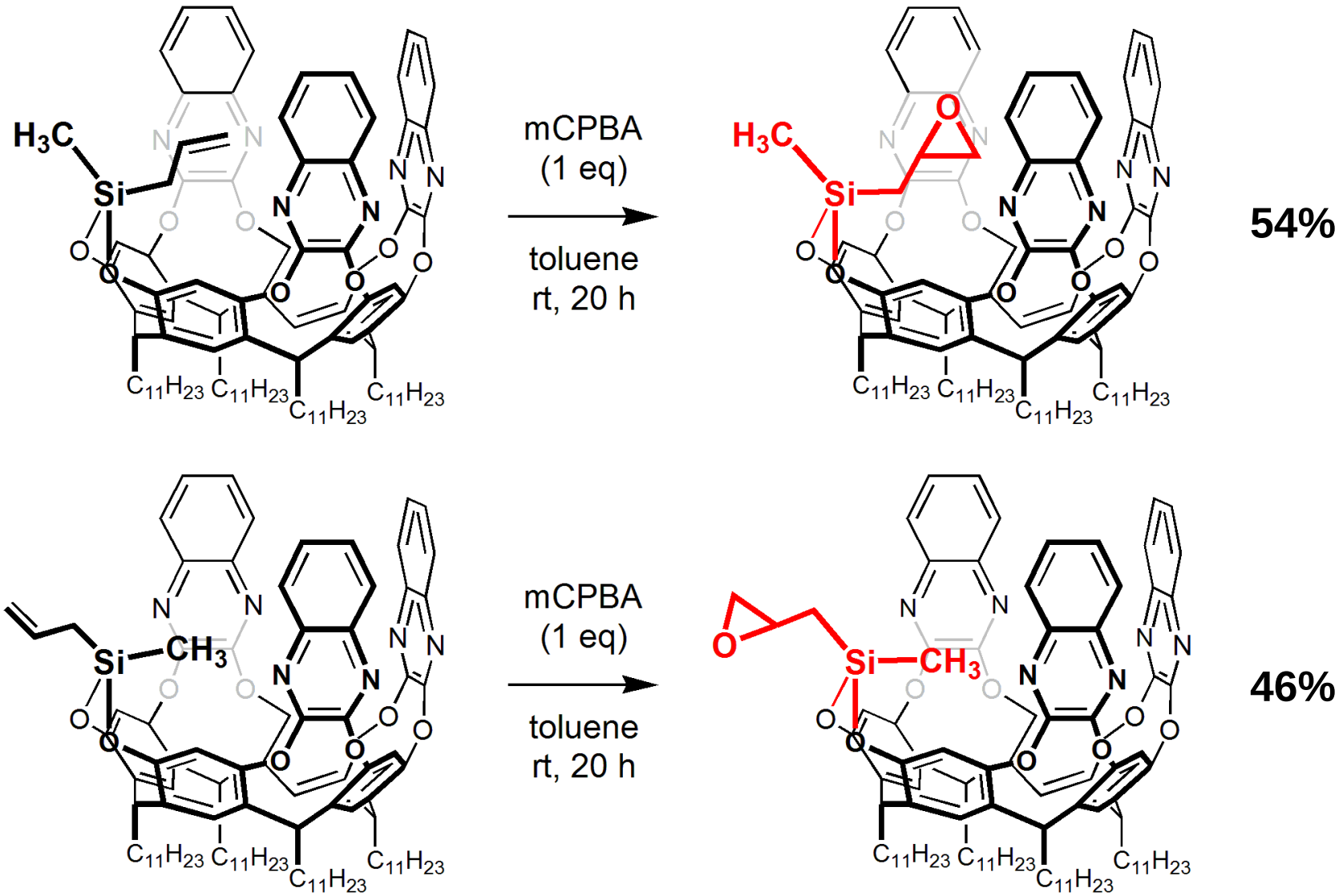


R =						
In	-	34%	32%	34%	22%	*In* 71%
Out	-	27%	34%	33%	20%	

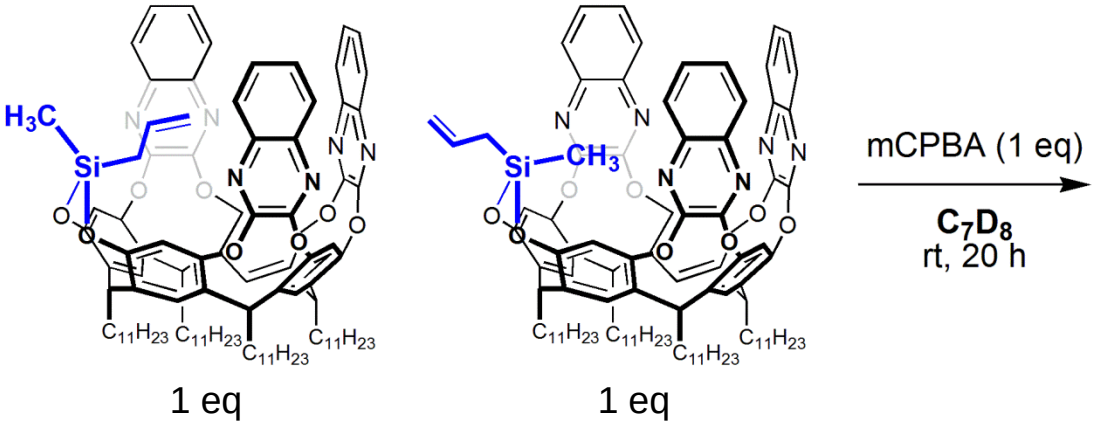
Mid- and upfield portions in C_7D_8



Epoxidation



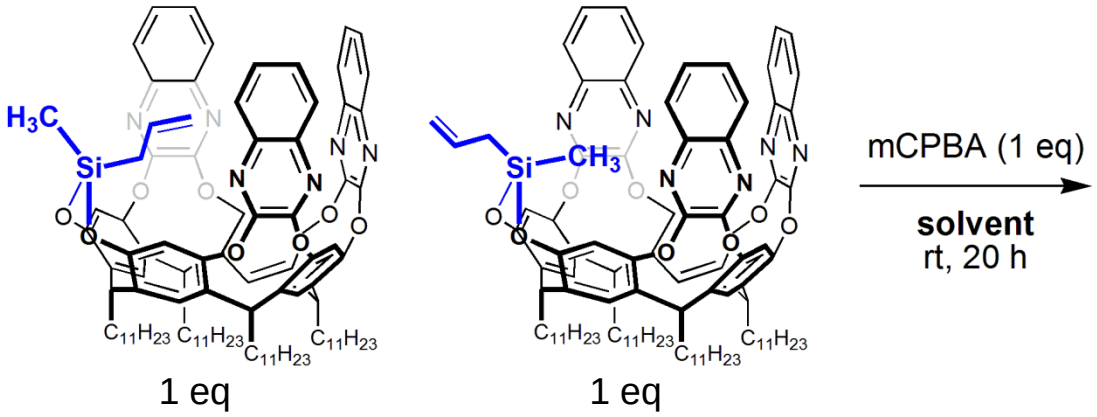
Inside-allyl *versus* outside-allyl



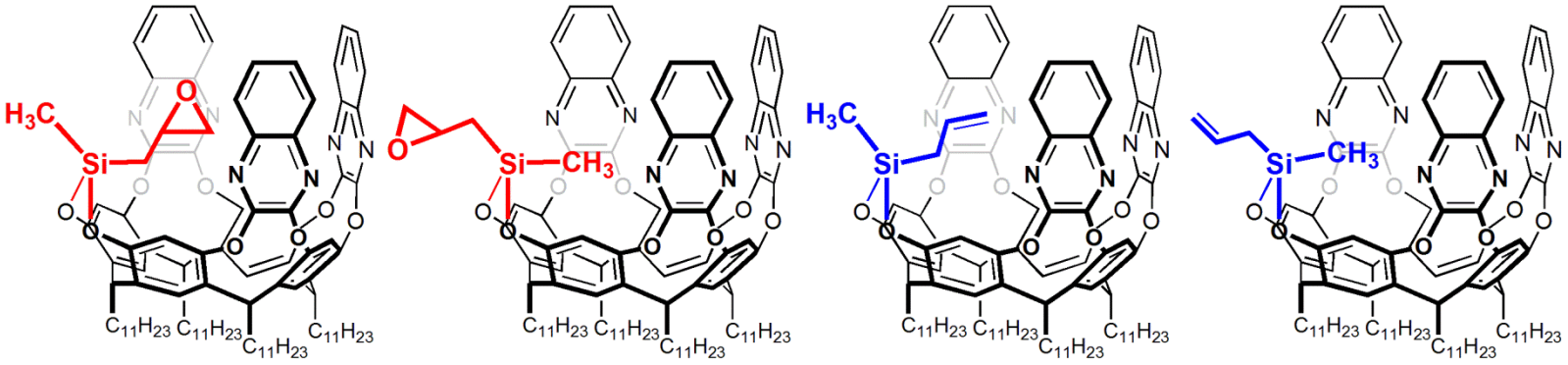
1 eq 1 eq

Ratio 32 : 23 : 19 : 26

Other solvents

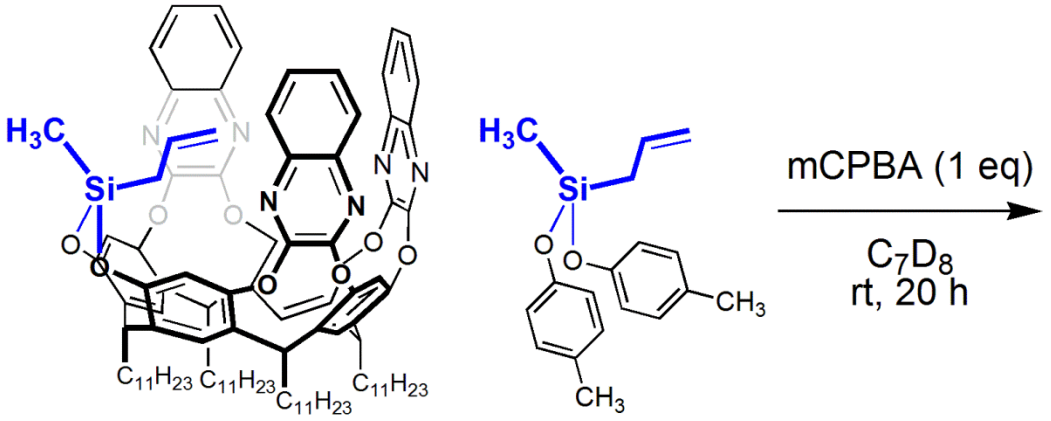


1 eq 1 eq

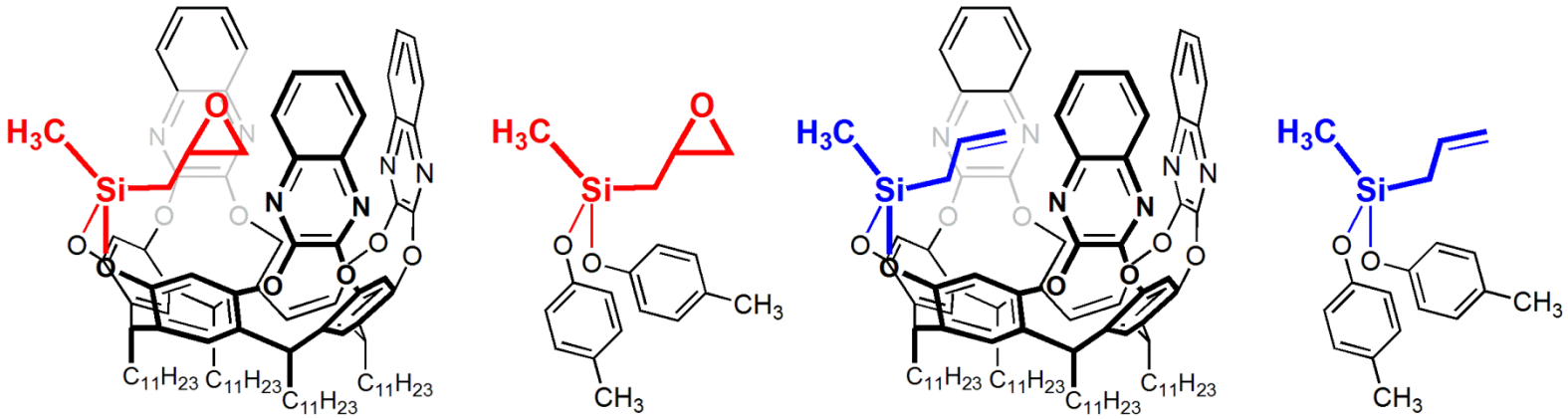


C_6D_6	27	:	17	:	24	:	32
C_8D_{10}	31	:	18	:	19	:	32
C_9D_{12}	~ 0	:	~ 0	:	~ 50	:	~ 50

Inside-allyl *versus* small-allyl

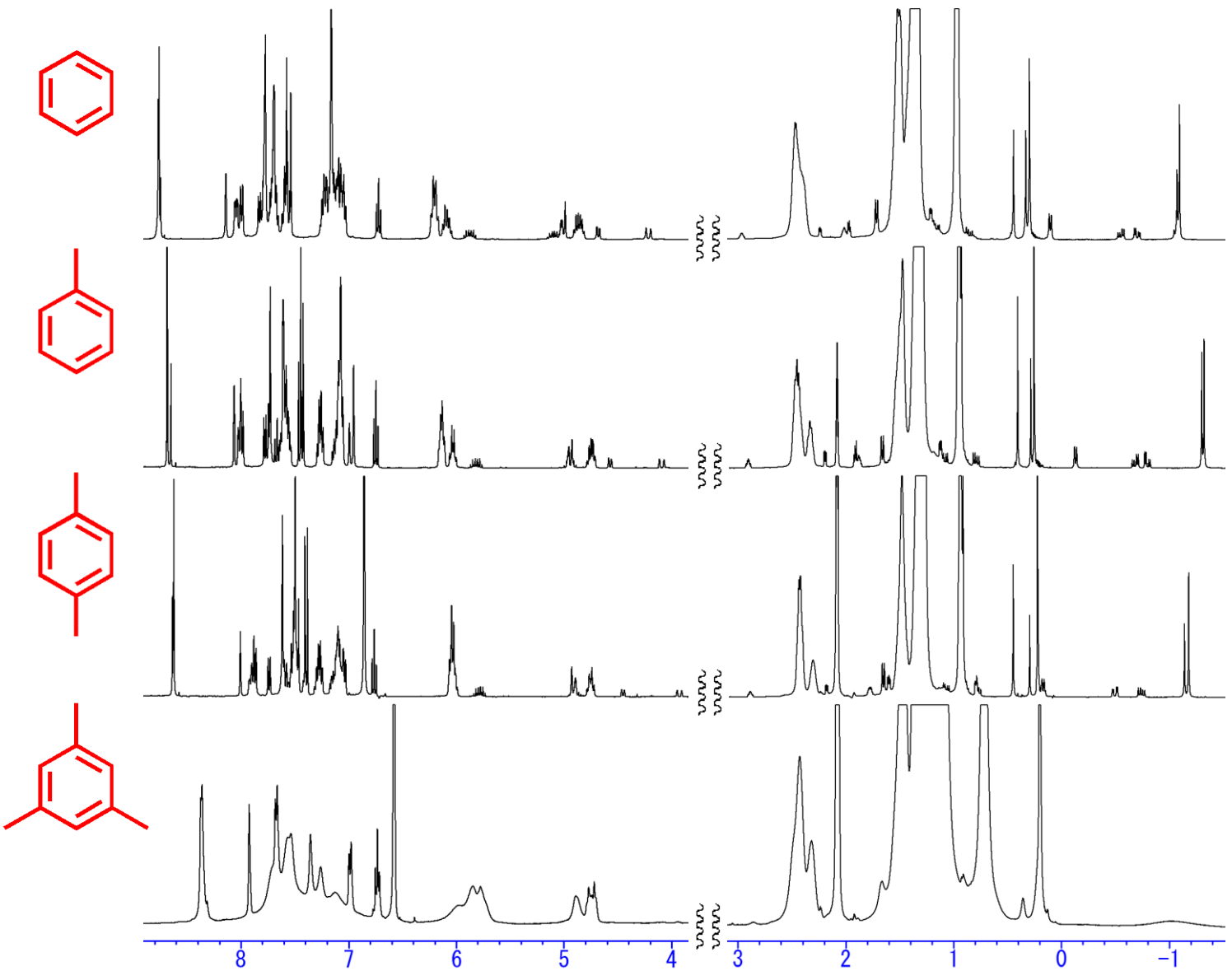


1 eq 1 eq



Ratio 26 : 24 : 25 : 25

Mesitylene is not fit for the cavity.



TM
in / out

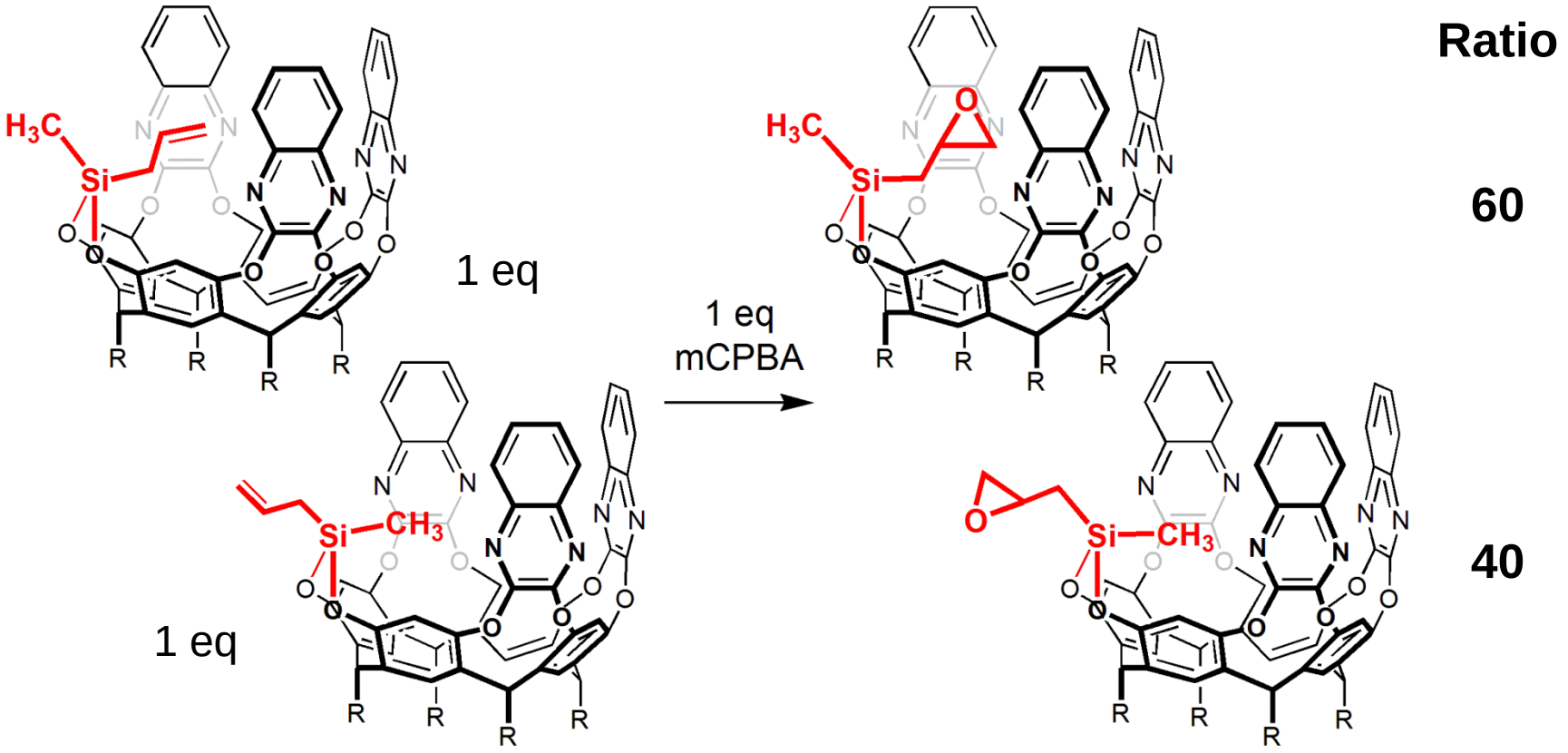
27 / 17

32 / 23

31 / 18

~ 0 / ~ 0

Summary



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