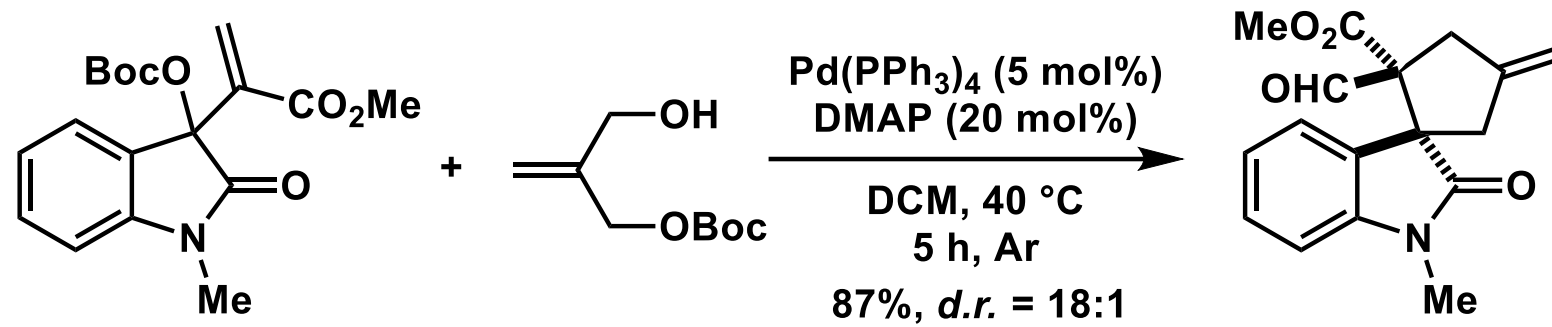


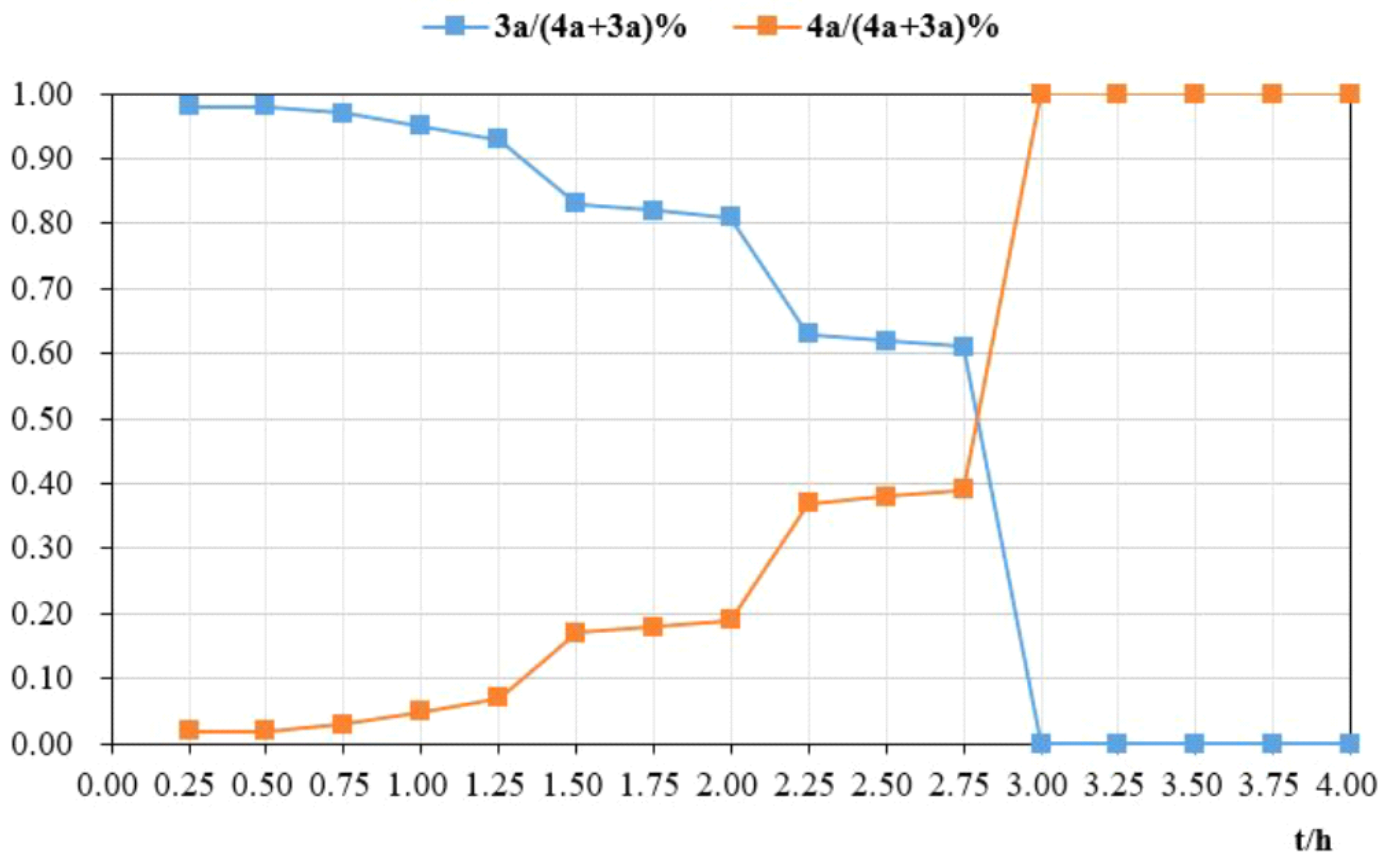
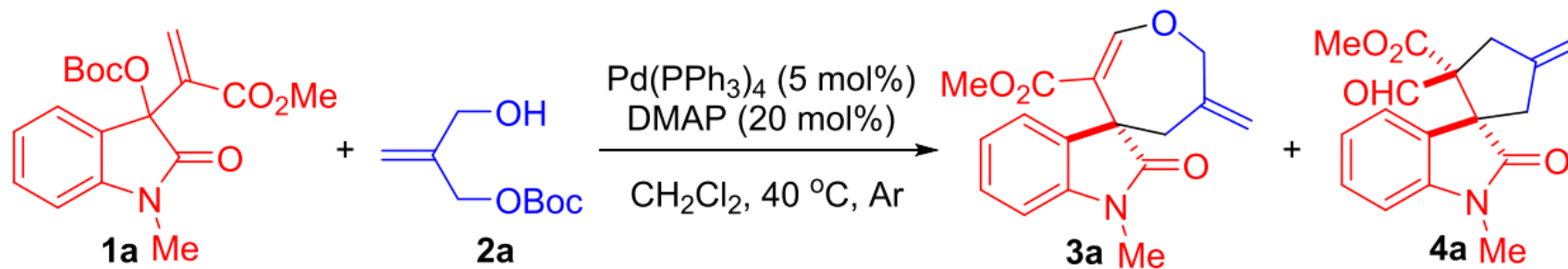
1.



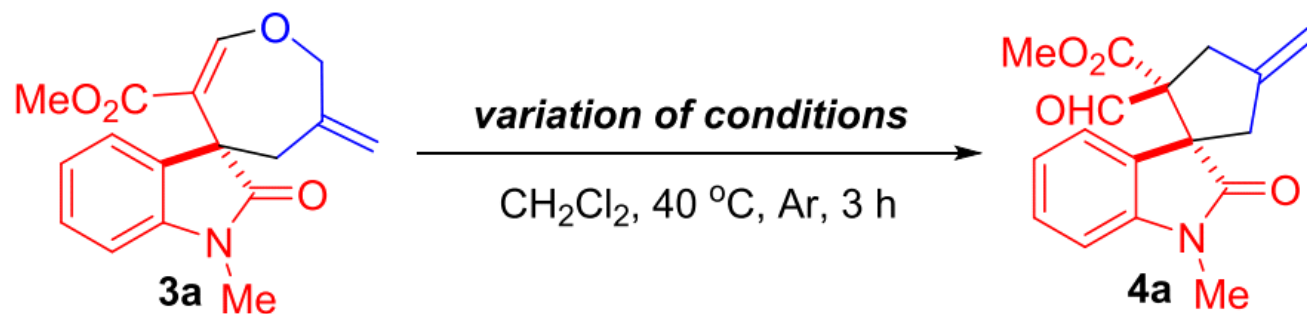
*J. Org. Chem.*, 2023, 88, 371.

# Control Experiments

(a) Time curve of proportion of **3a** and **4a** in the reaction progress

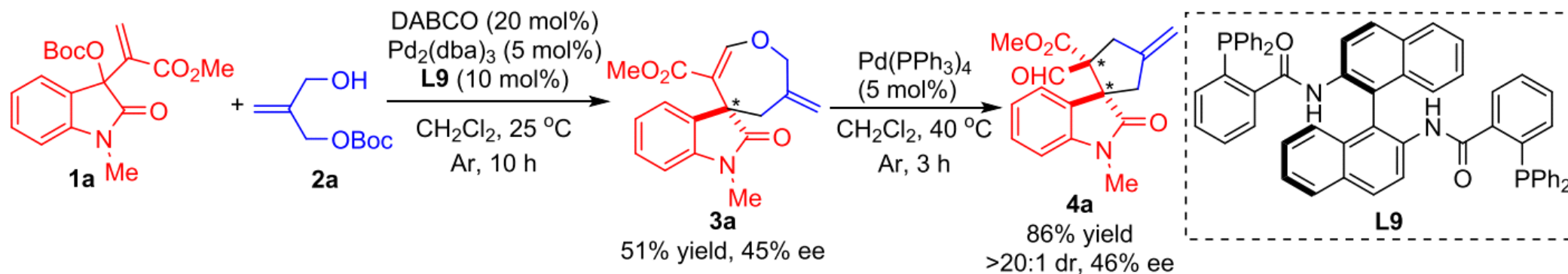


(b)

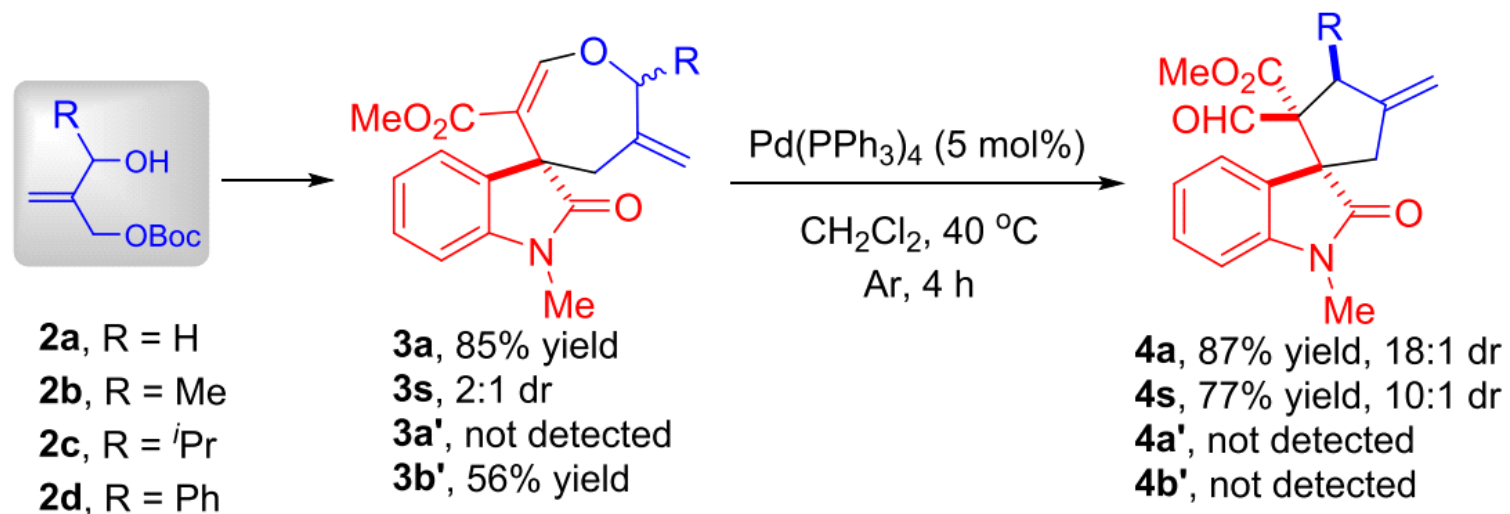


entry	1	2	3
conditions	Pd(PPh <sub>3</sub> ) <sub>4</sub> (5 mol%)	Pd(PPh <sub>3</sub> ) <sub>4</sub> (5 mol%)	----
	DMAP (20 mol%)	----	DMAP (20 mol%)
results of <b>3a</b>	88% yield, >20:1 dr	79% yield, >20:1 dr	not detected

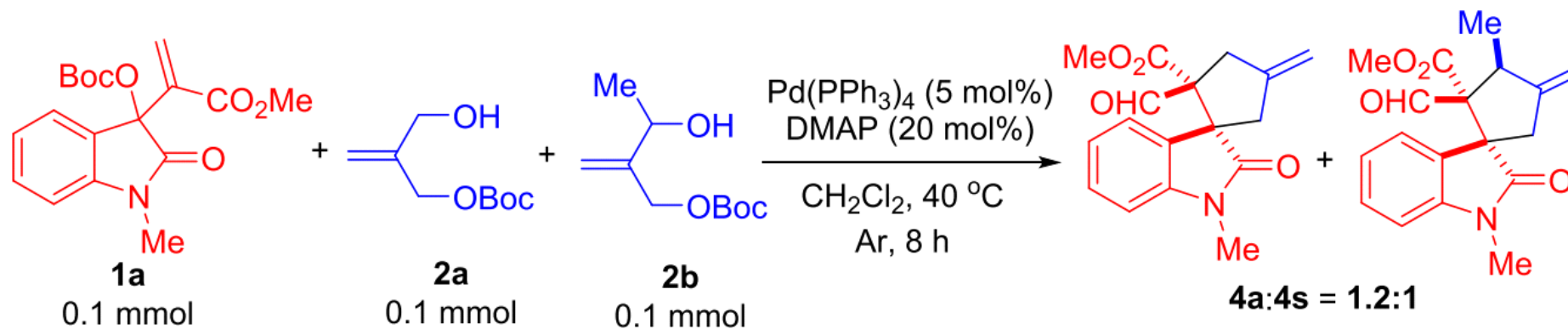
(c)



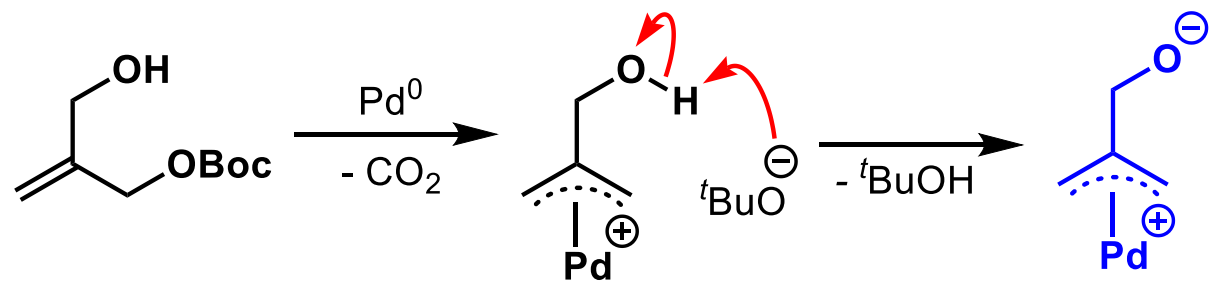
(d) Effect of the substituent of carbonate **2**



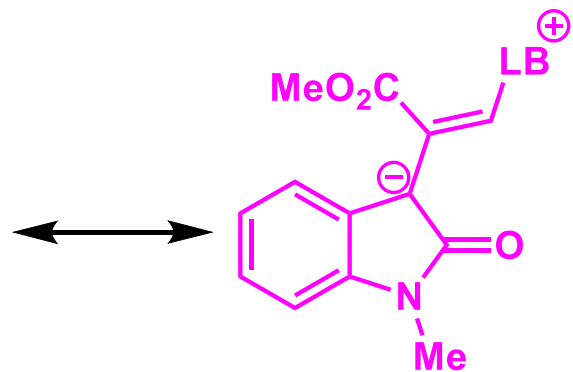
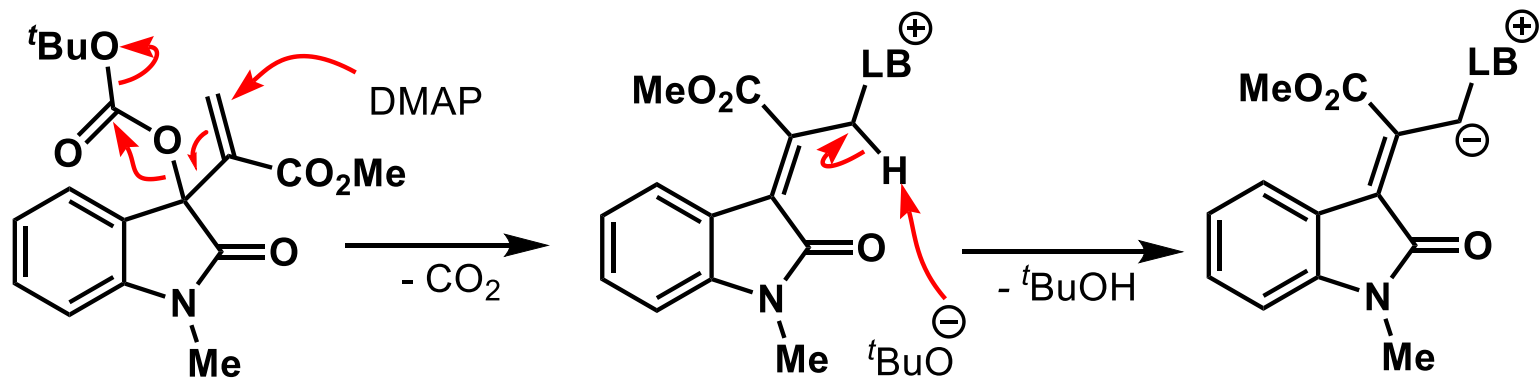
(e) Competitive reaction of **2a** and **2b**



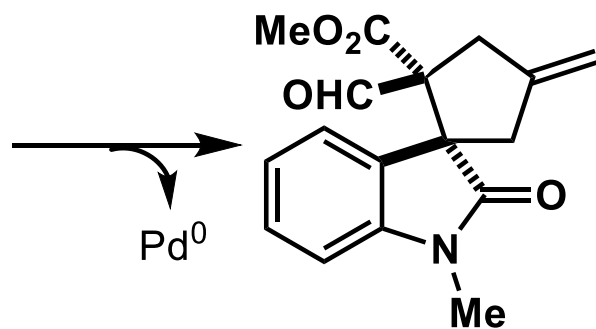
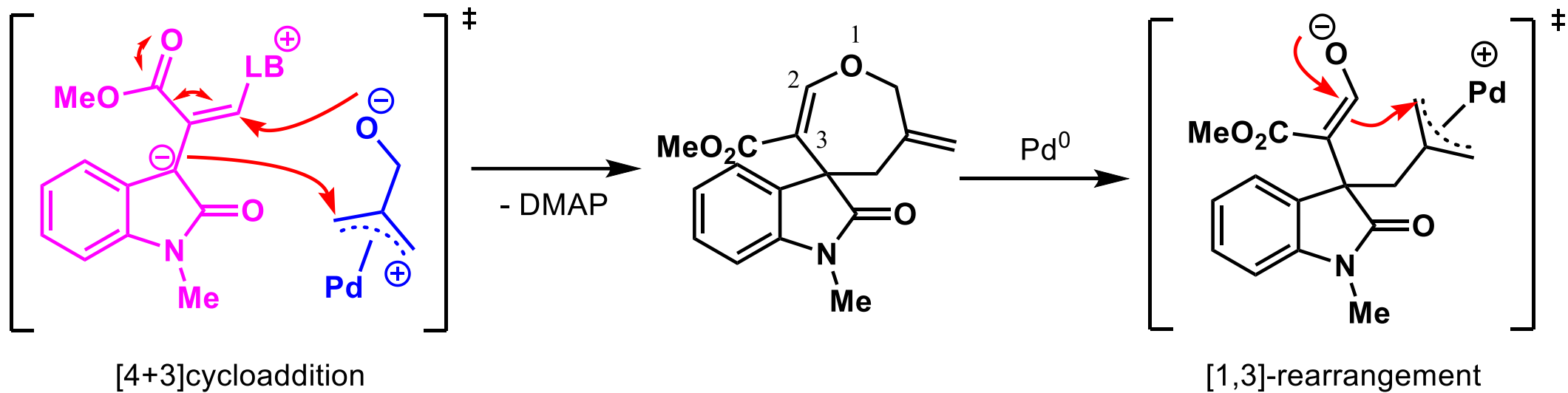
1st step



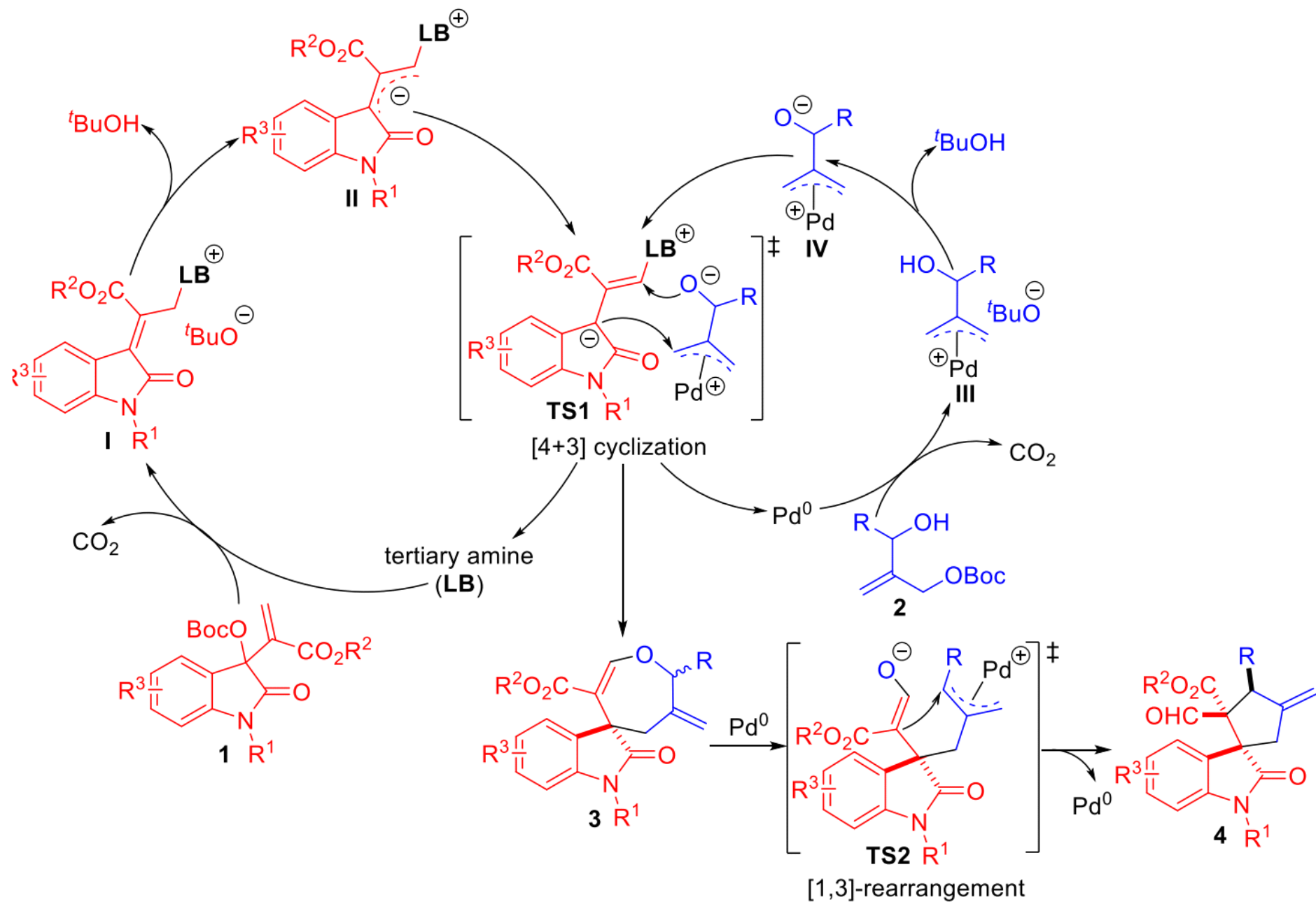
DMAP = LB



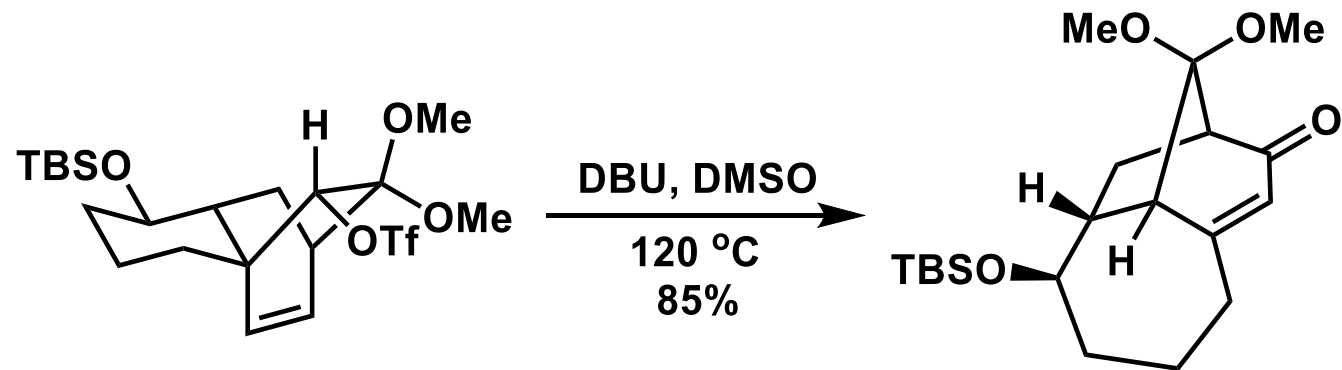
2nd step



# Proposed Reaction Pathway

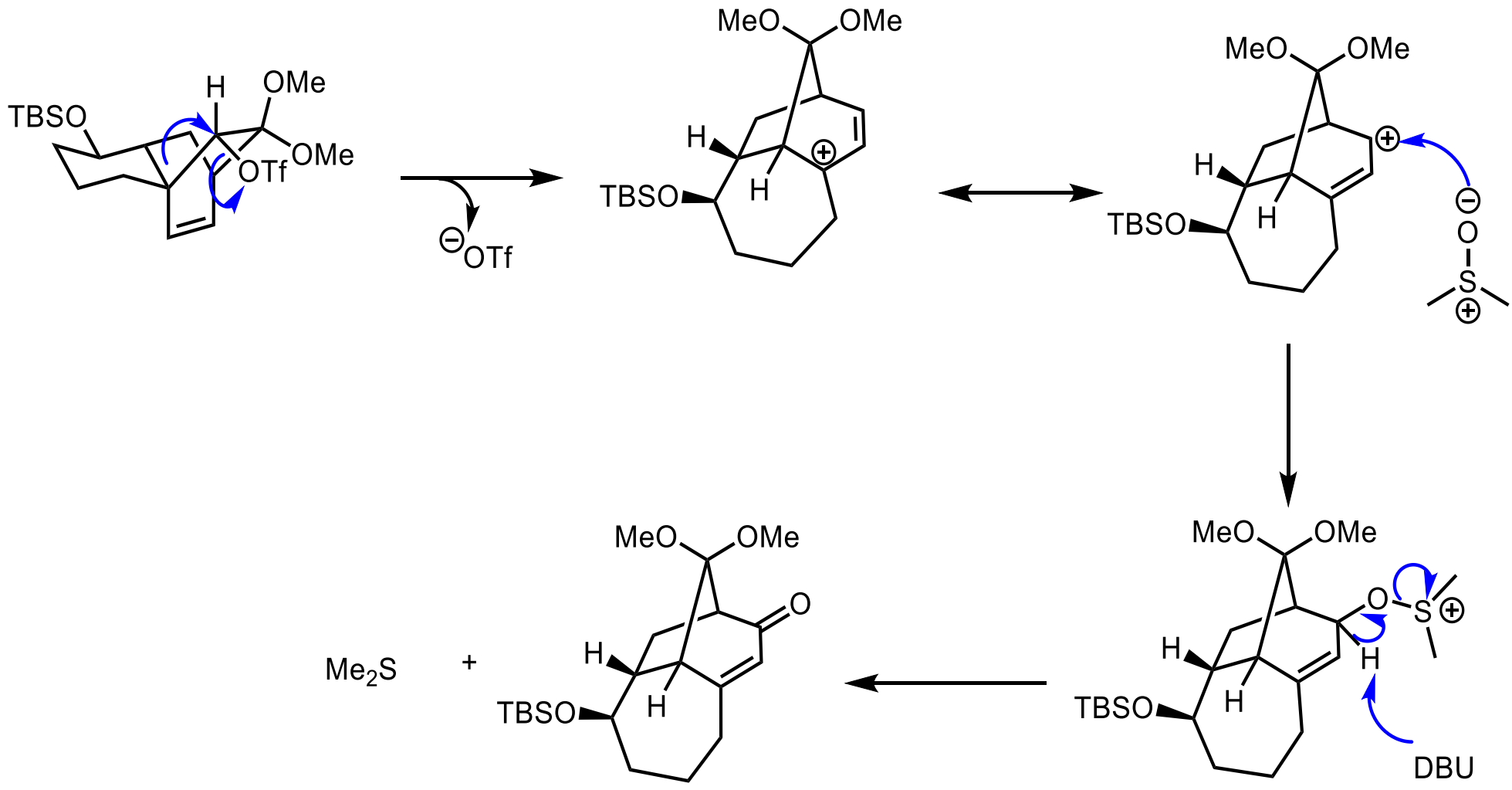


2.

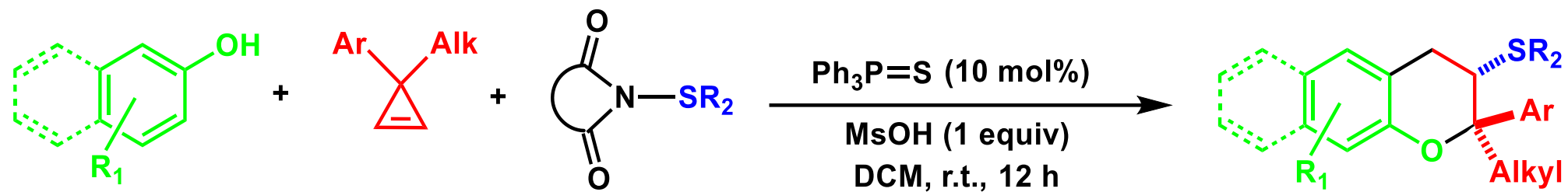


*Tetrahedron*, **2012**, 68, 1171.





3.



*Org. Lett.*, 2022, 24, 5693.

