六、周环反应
（二）电环化反应

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一、概论

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有机反应的热力学和动力学

构象对反应活性的影响

立体电子效应

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烯烃、羰基化合物和其他化合物的还原

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烯基化反应

六、周环反应

非直观Diels-Alder反应

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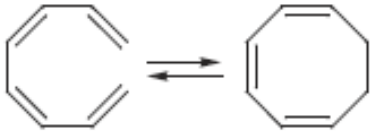
电环化反应

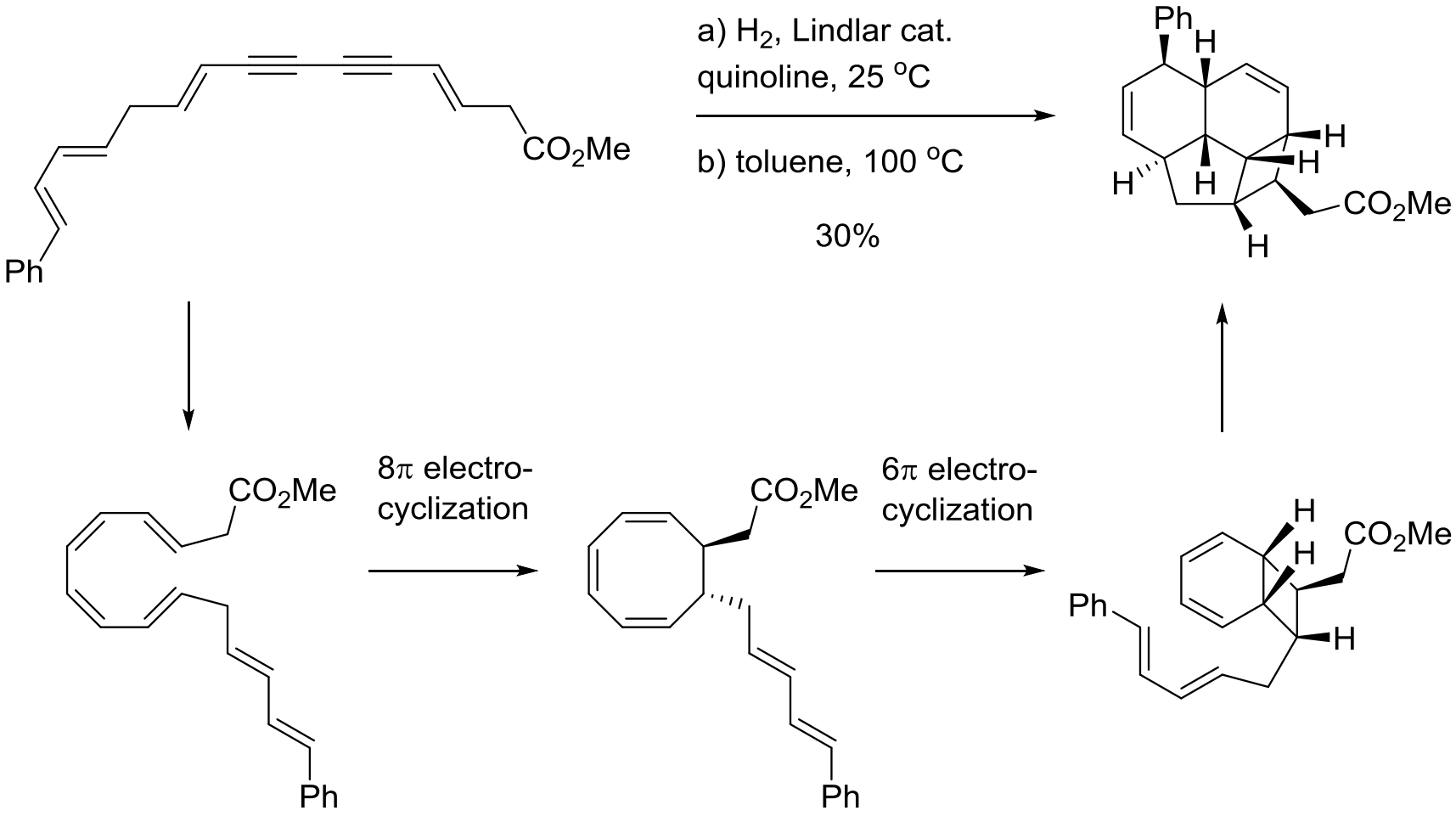
sigmatropic重排

七、阳离子参与的C–C键形成反应

电环化反应

System	π electrons	Thermal Reaction Ground State (HOMO)	hν Reaction Excited State (LUMO)
	4 π e⁻	conrotatory	disrotatory
	6 π e⁻	disrotatory	conrotatory
	8 π e⁻	conrotatory	disrotatory
	2 π e⁻	disrotatory	conrotatory
	4 π e⁻	conrotatory	disrotatory
	4 π e⁻	conrotatory	disrotatory
	6 π e⁻	disrotatory	conrotatory

8π/6π电环化反应



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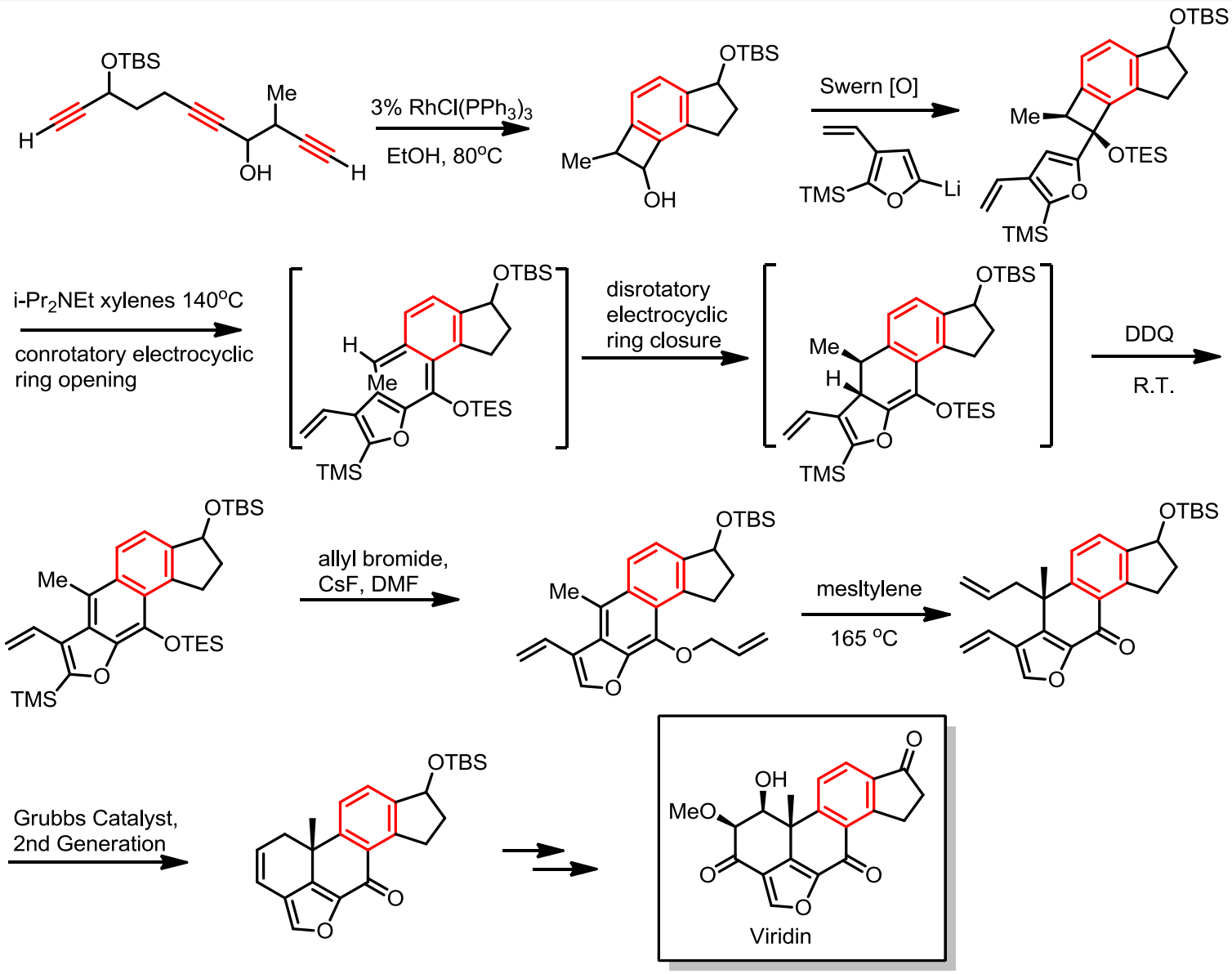
6π电环化/芳构化



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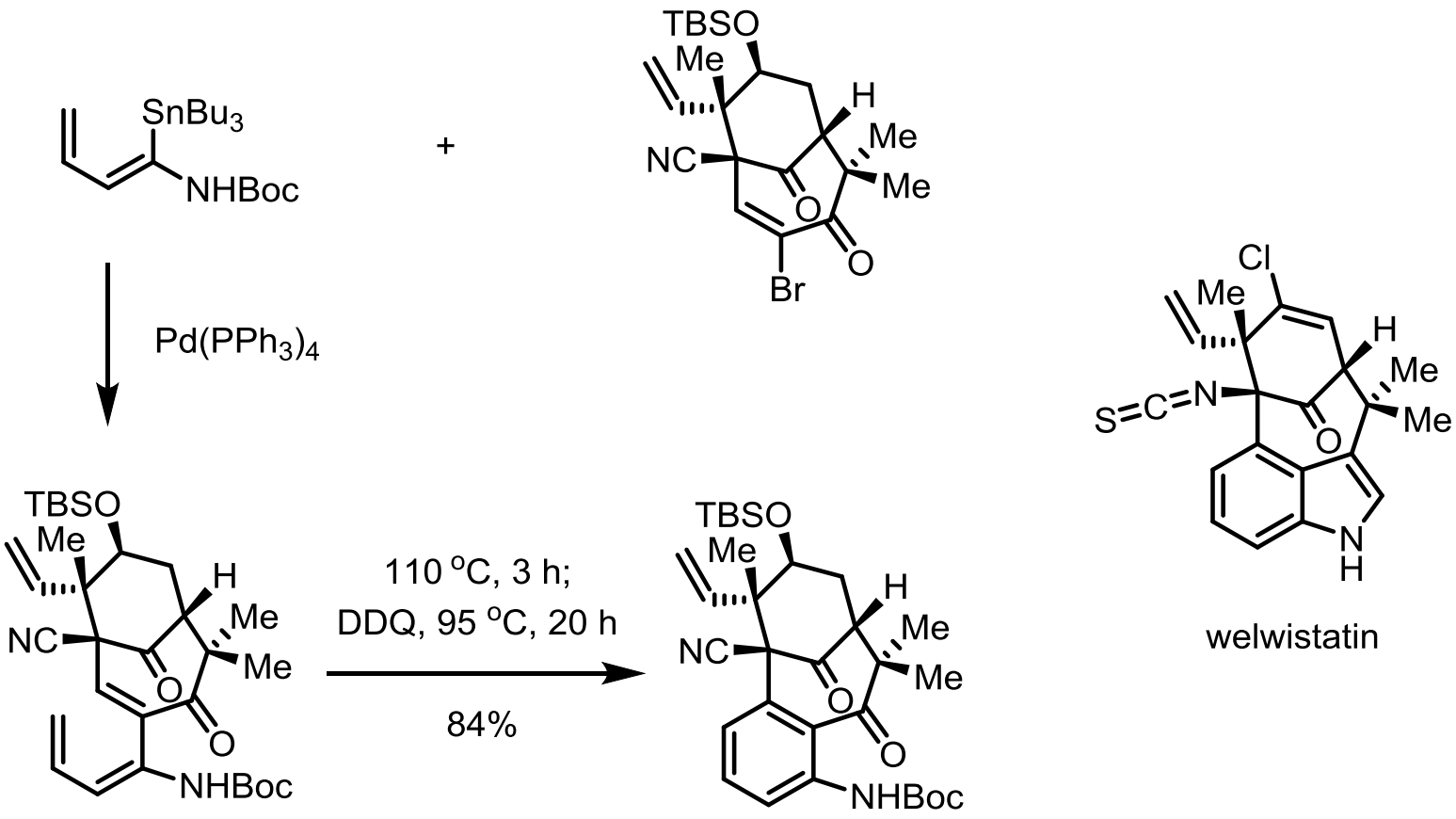
6π电环化/芳构化



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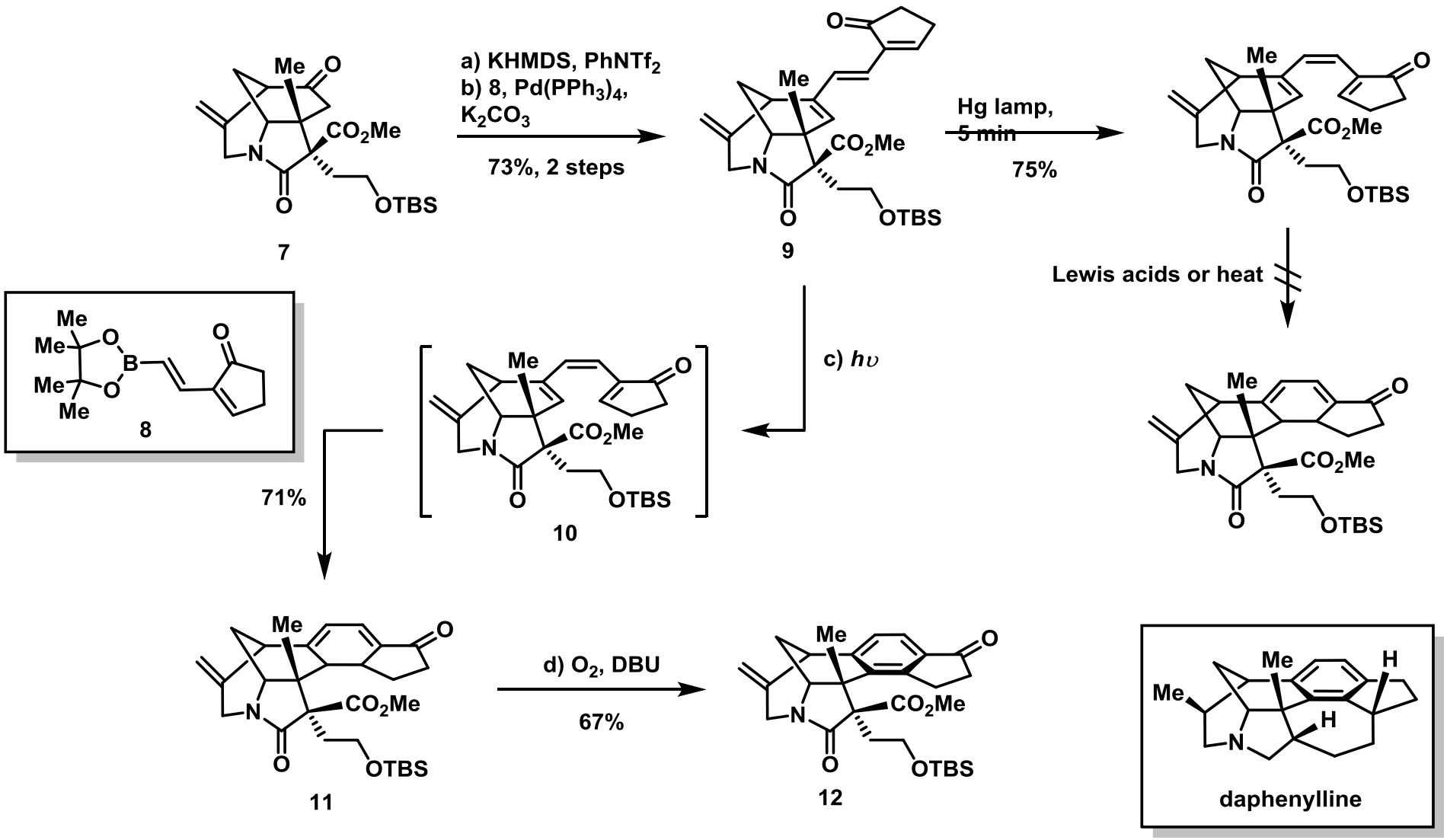
6π电环化/芳构化：虎皮楠生物碱Daphenylline的全合成



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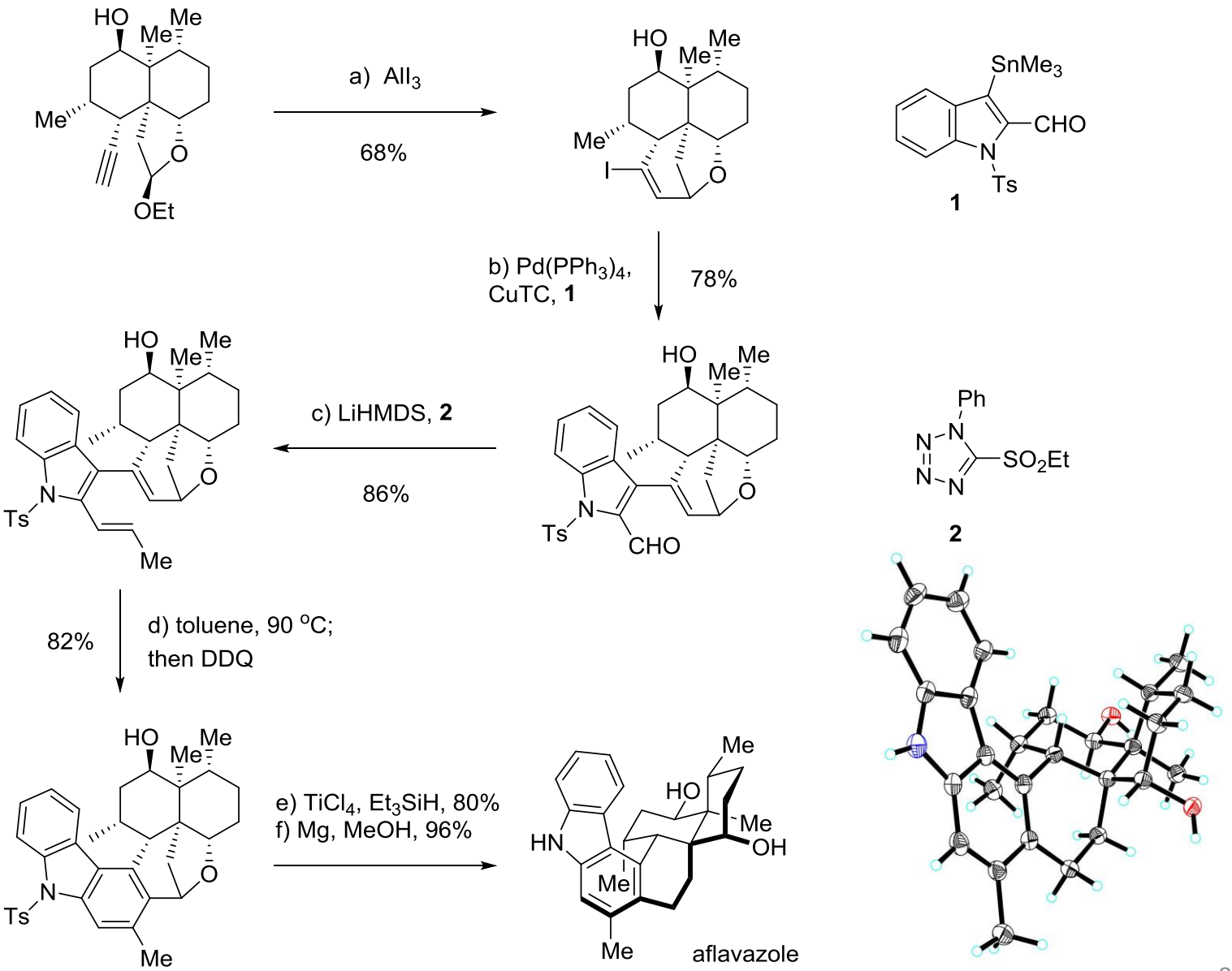
6π电环化/芳构化：吲哚二萜Aflavazole的全合成



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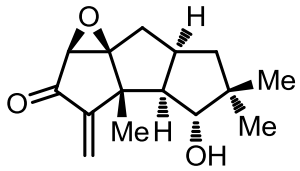
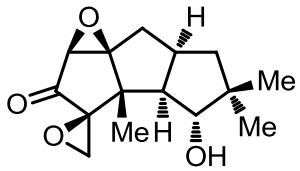
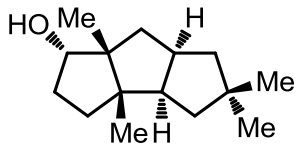
4π电开环



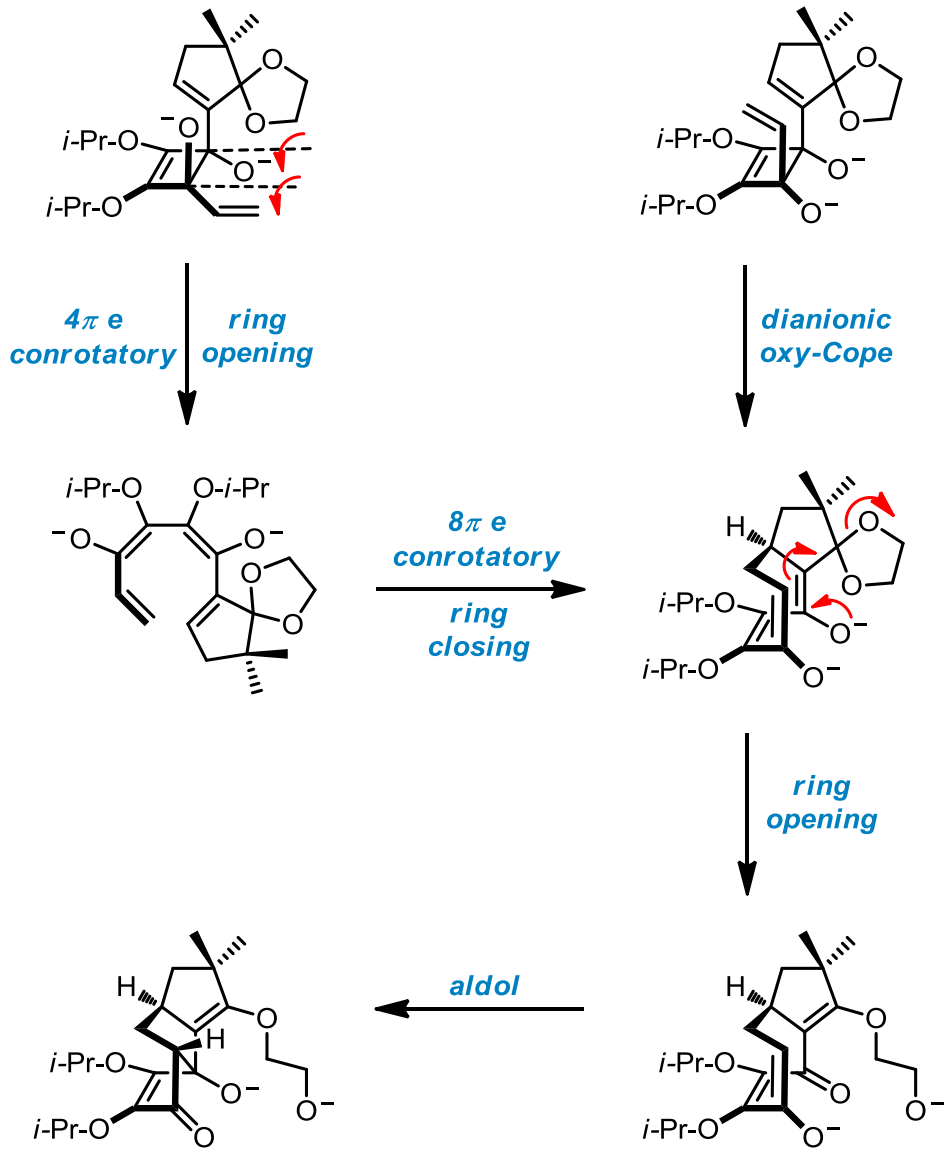
hypnophilin



coriolin



ceratopicanol



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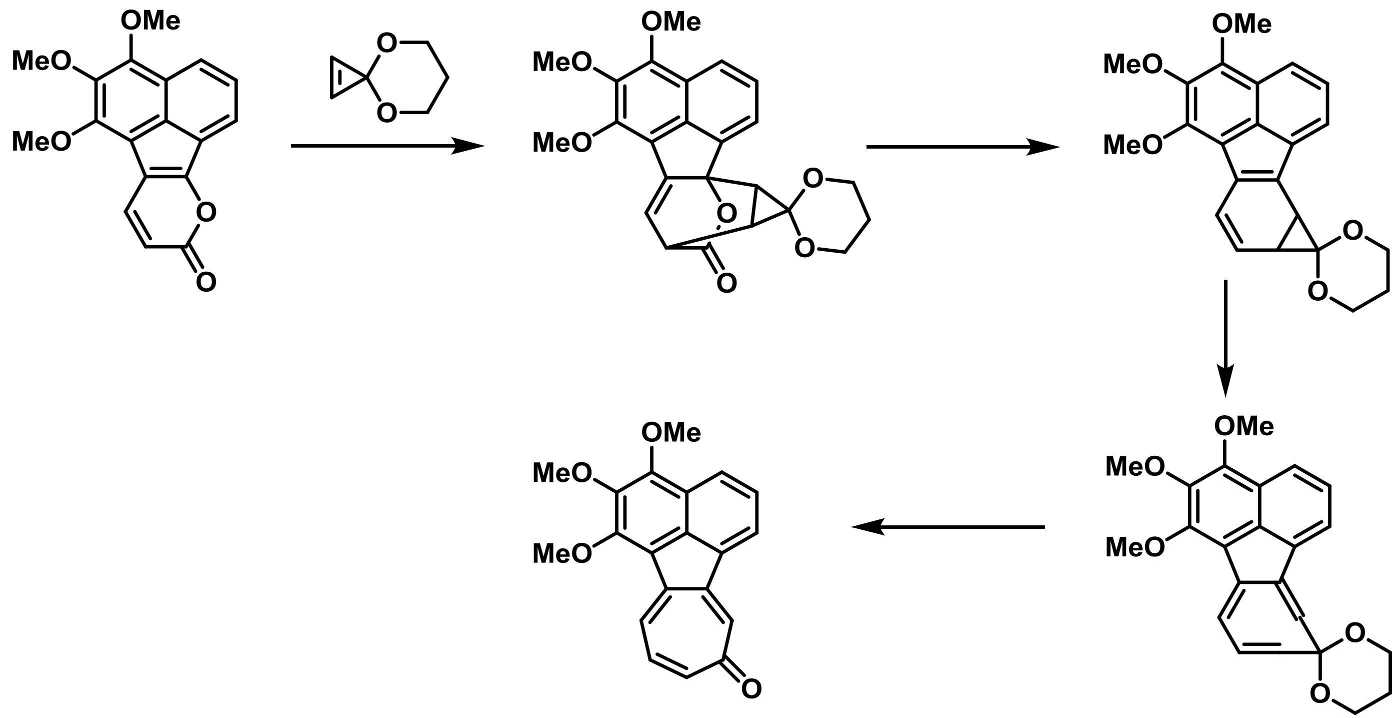
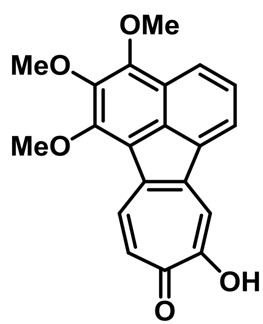
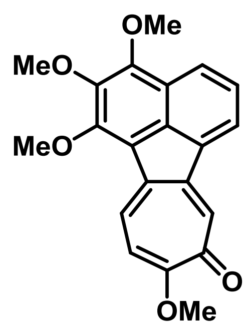
6π电开环

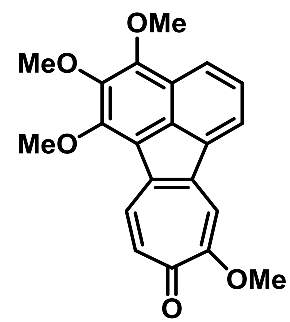




Grandirubrine



Imerubrine



Isoimerubrine

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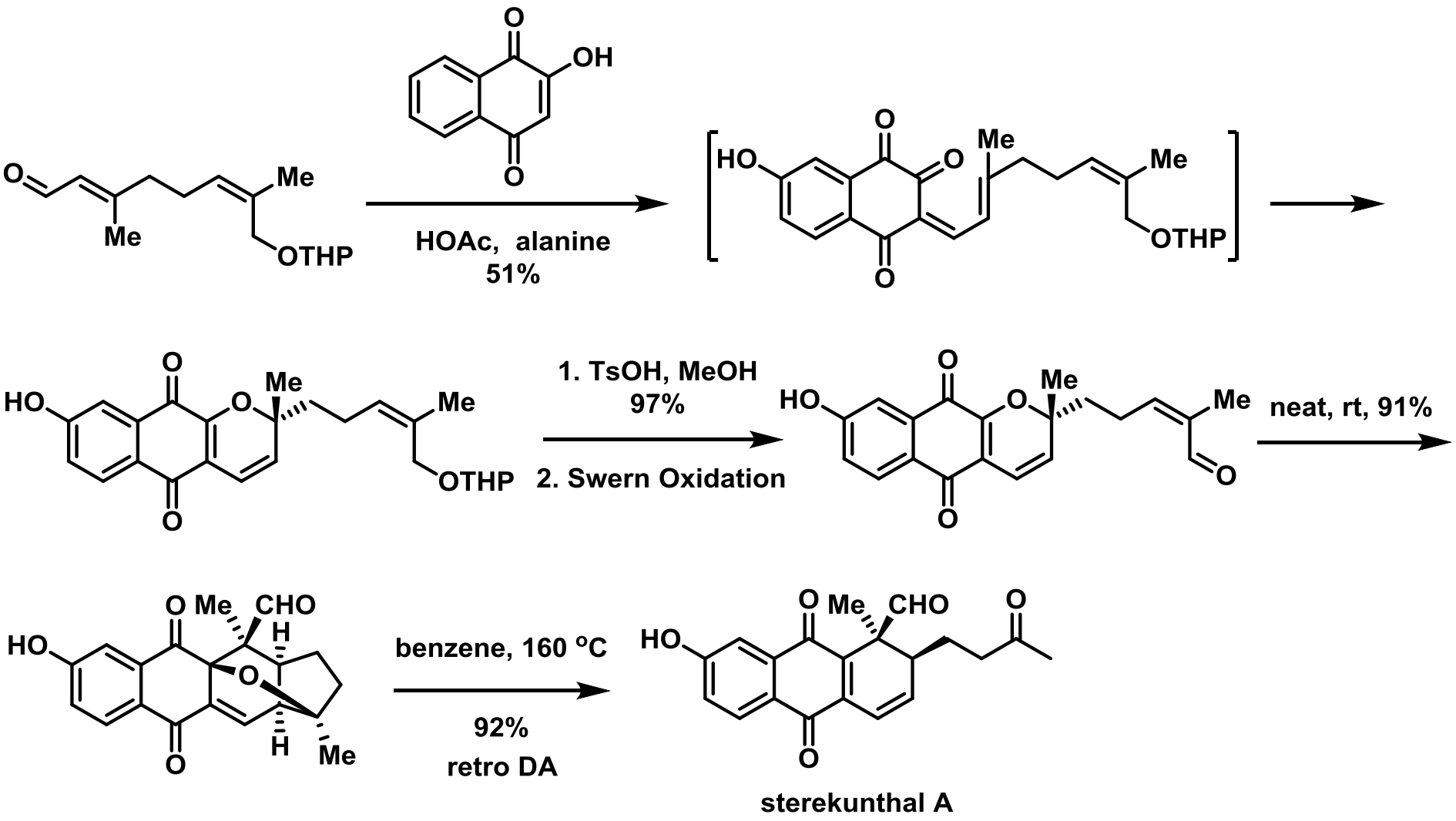
氧杂6π电环化



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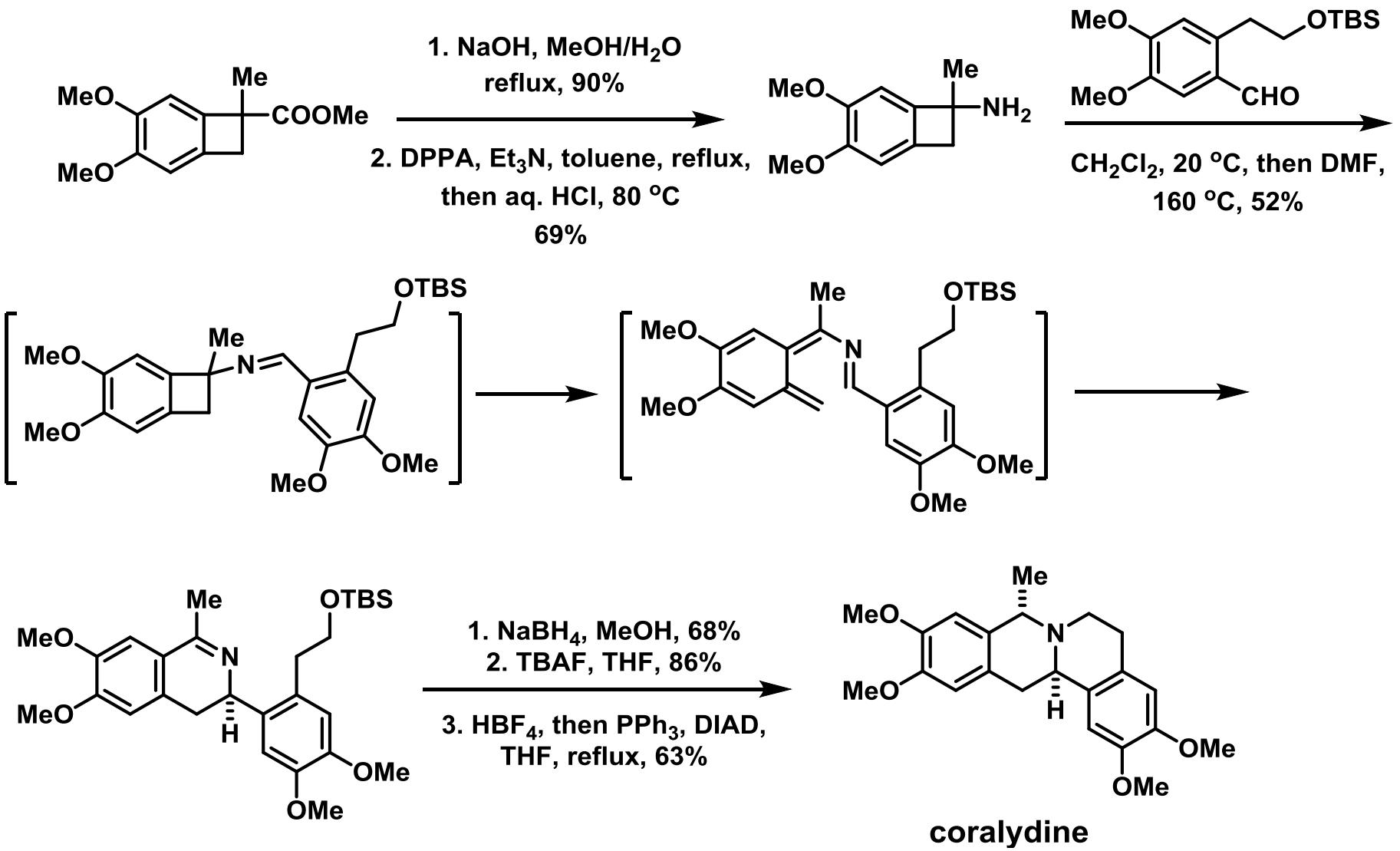
氮杂6π电环化



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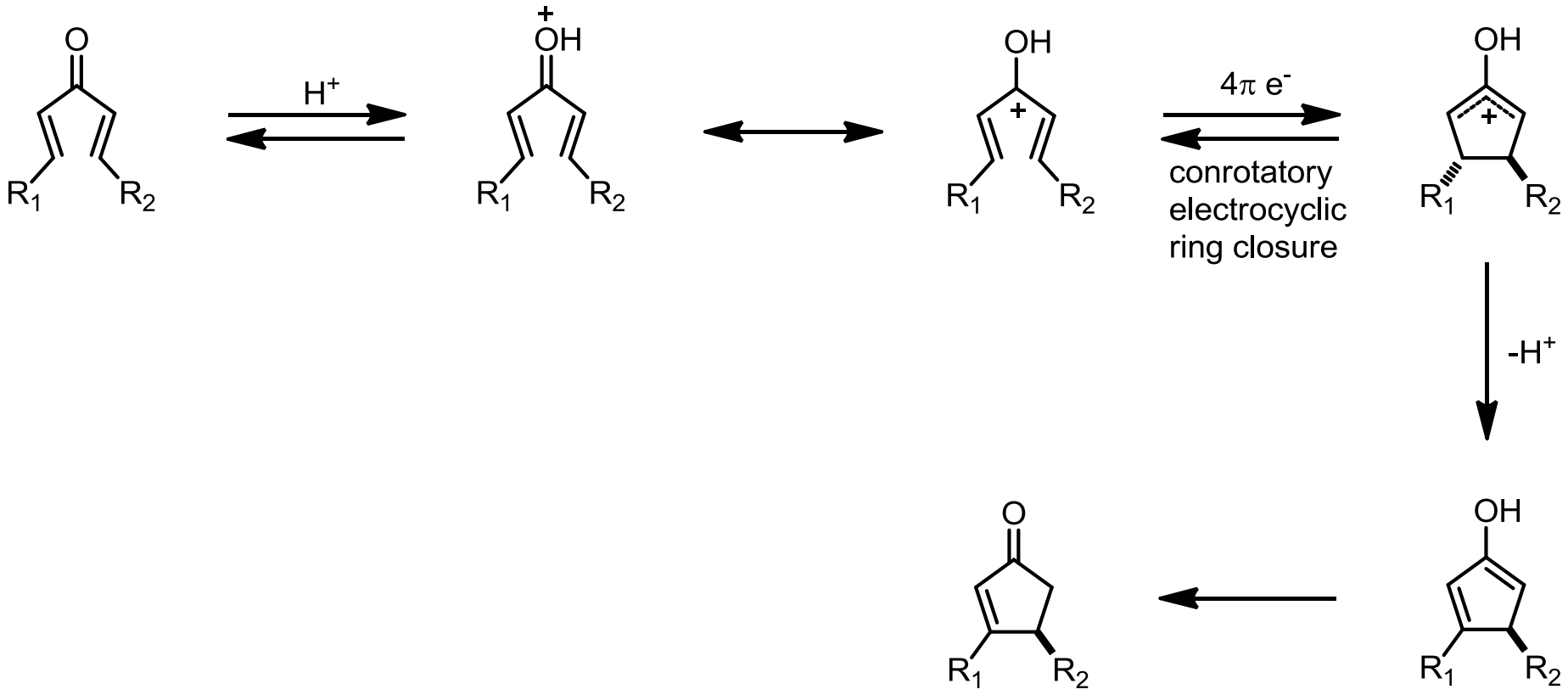
Nazarov Cyclization



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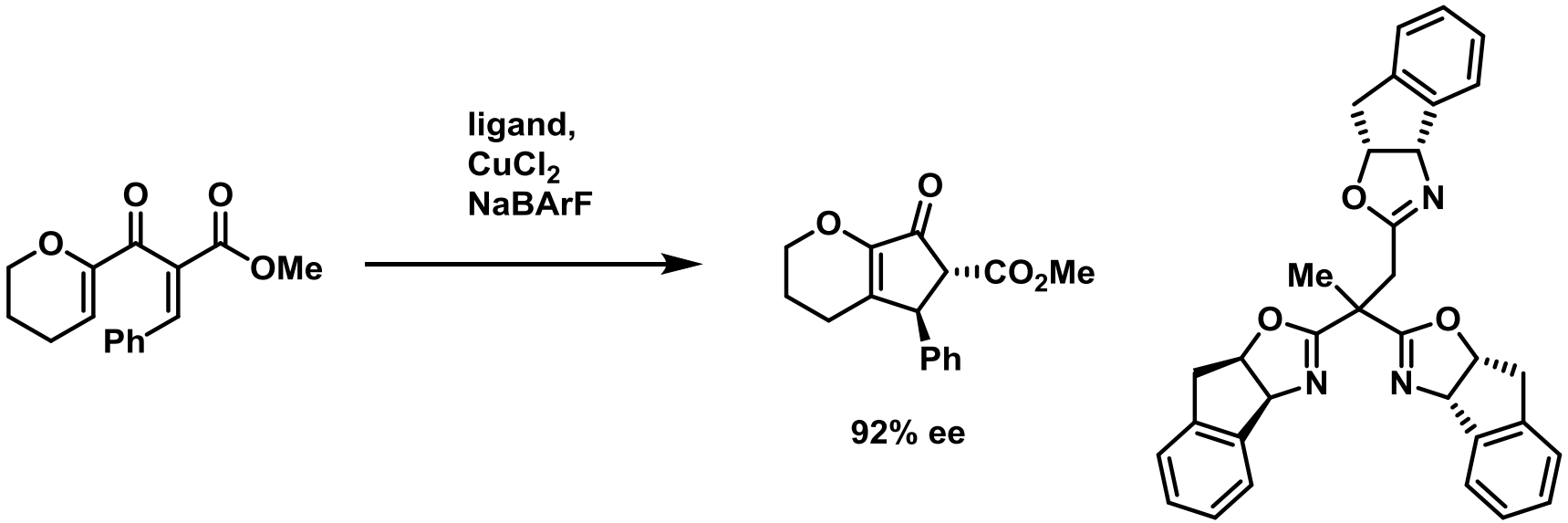
Nazarov Cyclization



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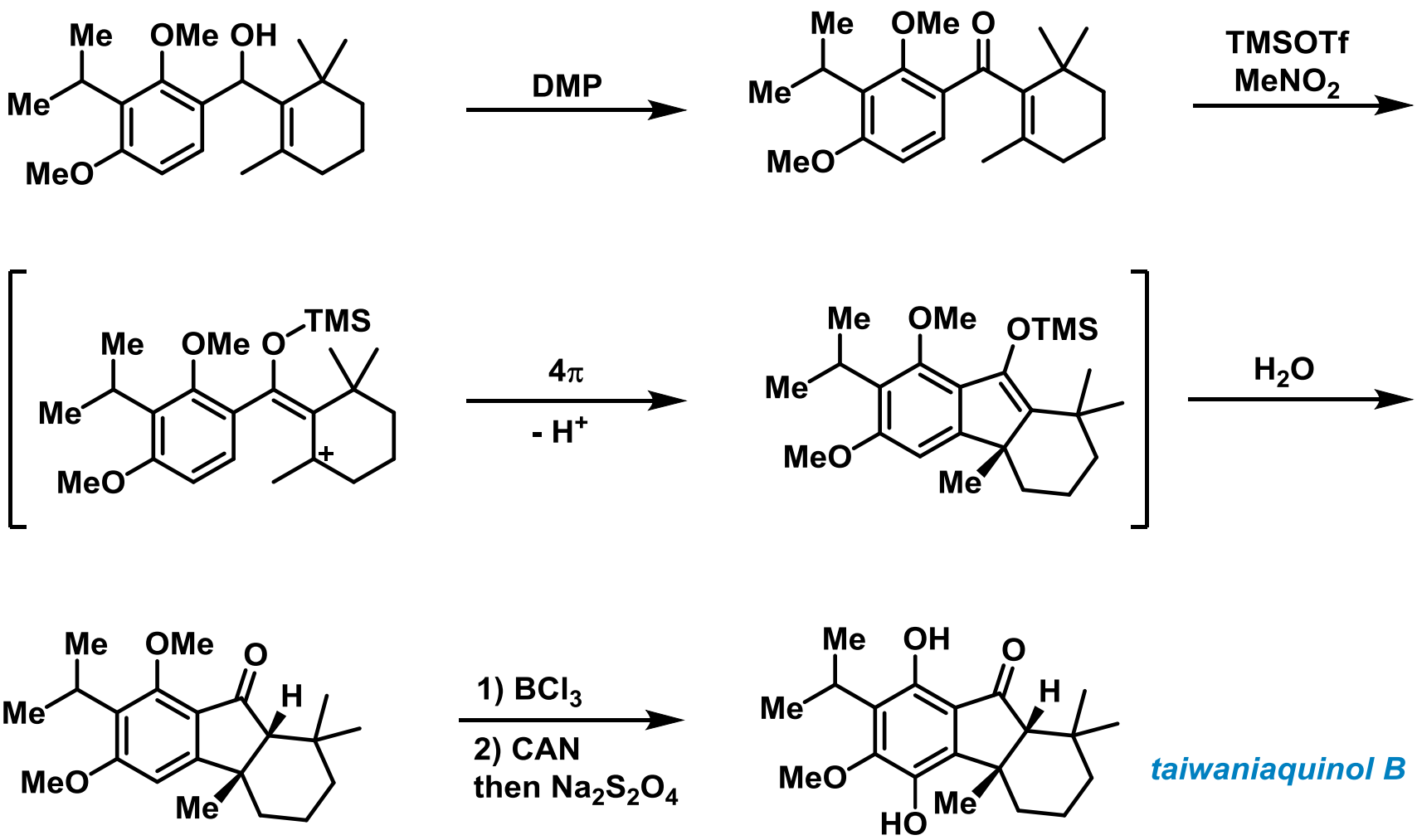
Nazarov Cyclization



taiwaniaquinol B

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