Total Synthesis of Hypersampsone M

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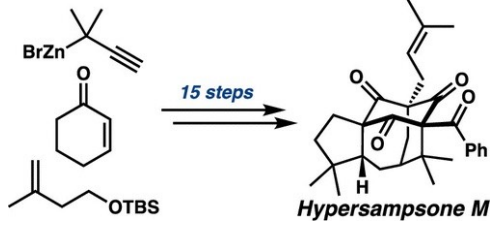
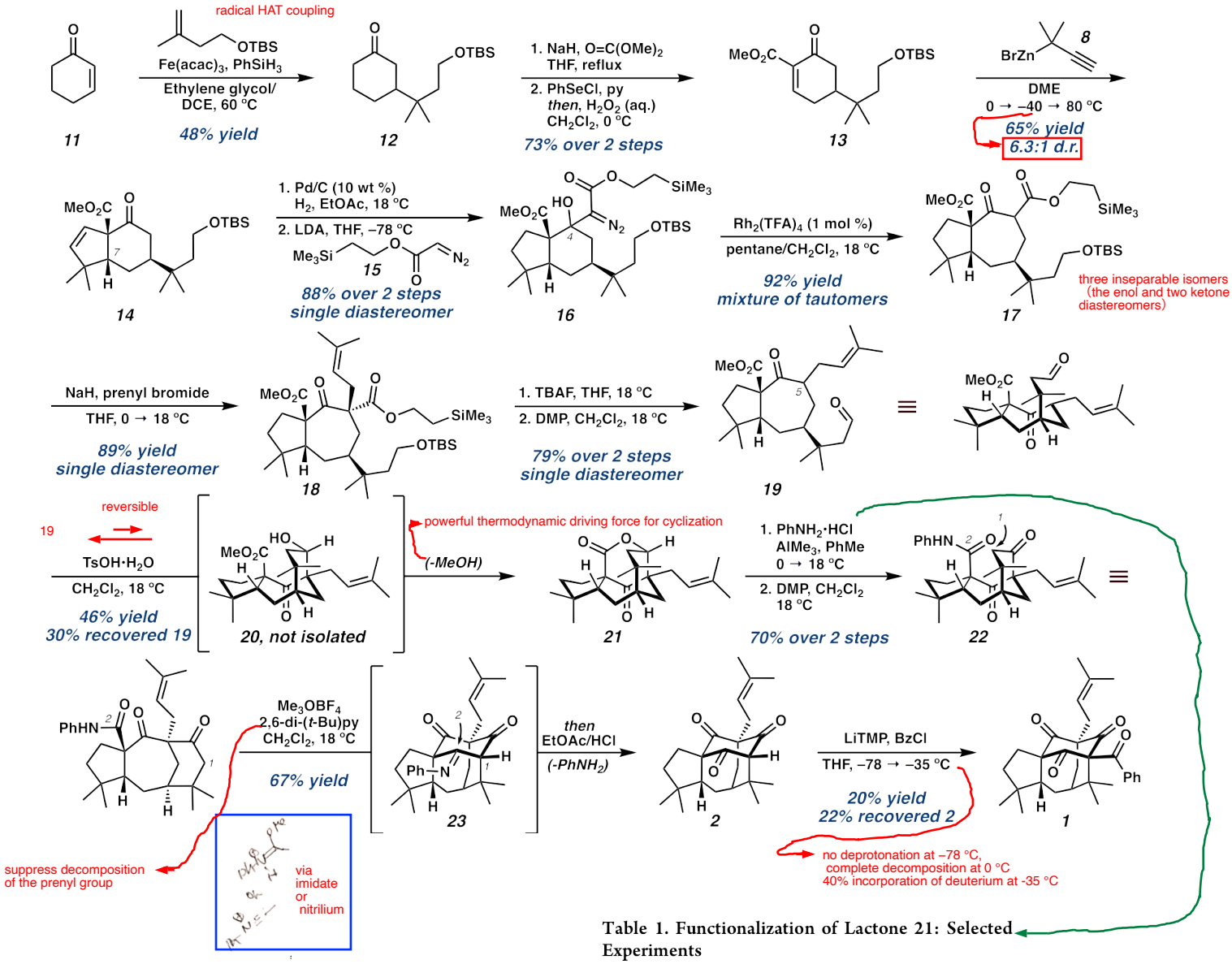
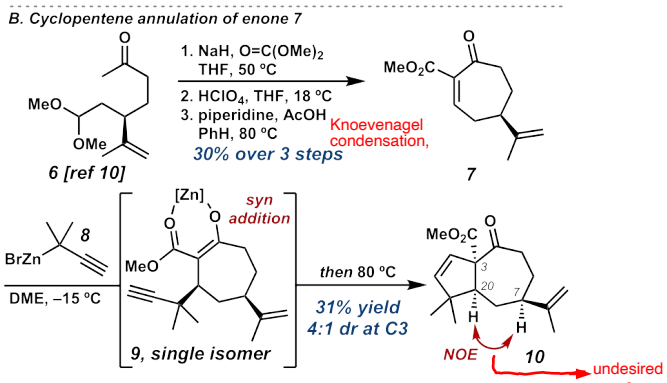
polycyclic polyprenylated acylphloroglucinols acylphloroglucinols (PPAPs)



Scheme 2. Total Synthesis of Hypersampsone M



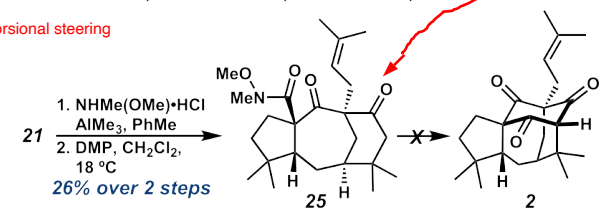


The Danheiser annulation, trimethylenemethane cycloaddition, and additions of 2-(bromoisopropyl)acrylates were unsuccessful on these systems.

perhaps through torsional steering effects.

Table 1. Functionalization of Lactone 21: Selected Experiments

entry	conditions	R	results[a]
1	NaOMe/MeOH	–OMe	decomp
2	Bu_3SnOMe	–OMe	0%
3	$Al(Oi\text{-}Pr)_3$/MeOH	–OMe	0%
4	KOH/H_2O	–OH	decomp
5	NHMe(OMe)·HCl/$AlMe_3$	–NMe(OMe)	85%
6	NH_4Cl/$AlMe_3$	–NH_2	73%
7	$NHMe_2$·HCl/$AlMe_3$	–NMe_2	0%
8	$PhNH_2$·HCl/$AlMe_3$	–NHPh	84%[b]

[a]Determined by ^{1}H NMR analysis. [b]Isolated yield.

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