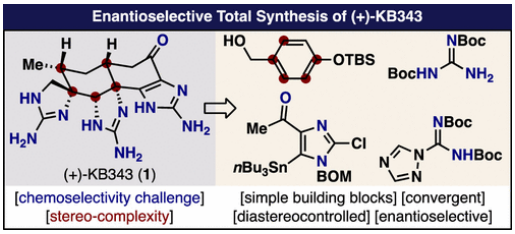

Enantioselective Total Synthesis of (+)-KB343:
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Scheme 1. Racemic Synthetic Route toward KB343 (1)[a] Optimization Tables:step3, step5, step6, step7, step10, step14

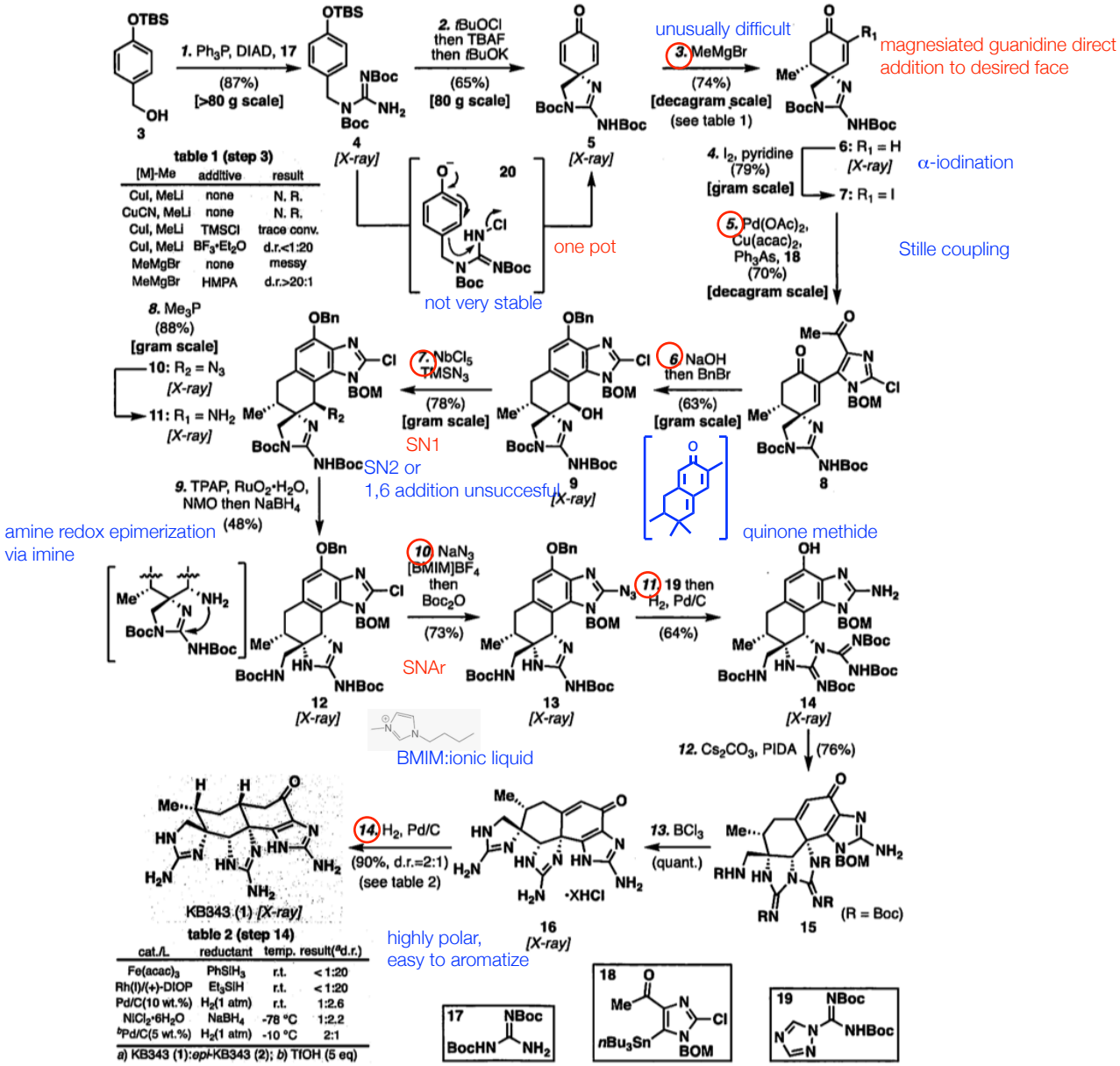
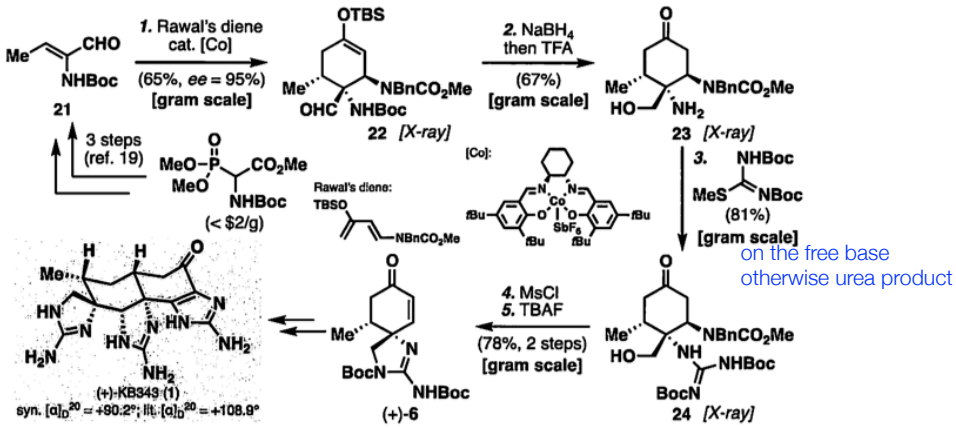


table 1 (step 3)

[M]-Me	additive	result
CuI, MeLi	none	N. R.
CuCN, MeLi	none	N. R.
CuI, MeLi	TMSCl	trace conv.
CuI, MeLi	$BF_3{\cdot}Et_2O$	d.r.<1:20
MeMgBr	none	messy
MeMgBr	HMPA	d.r.>20:1

table 2 (step 14)

cat./L	reductant	temp.	result([a]d.r.)
$Fe(acac)_3$	$PhSiH_3$	r.t.	<1:20
Rh(I)/(+)-DIOP	Et_3SiH	r.t.	<1:20
Pd/C(10 wt.%)	H_2(1 atm)	r.t.	1:2.6
$NiCl_2{\cdot}6H_2O$	$NaBH_4$	-78 °C	1:2.2
[b]Pd/C(5 wt.%)	H_2(1 atm)	-10 °C	2:1

a) KB343 (1):epi-KB343 (2); b) TfOH (5 eq)

Scheme 2. Enantioselective Synthesis of Intermediate (+)-6[a]