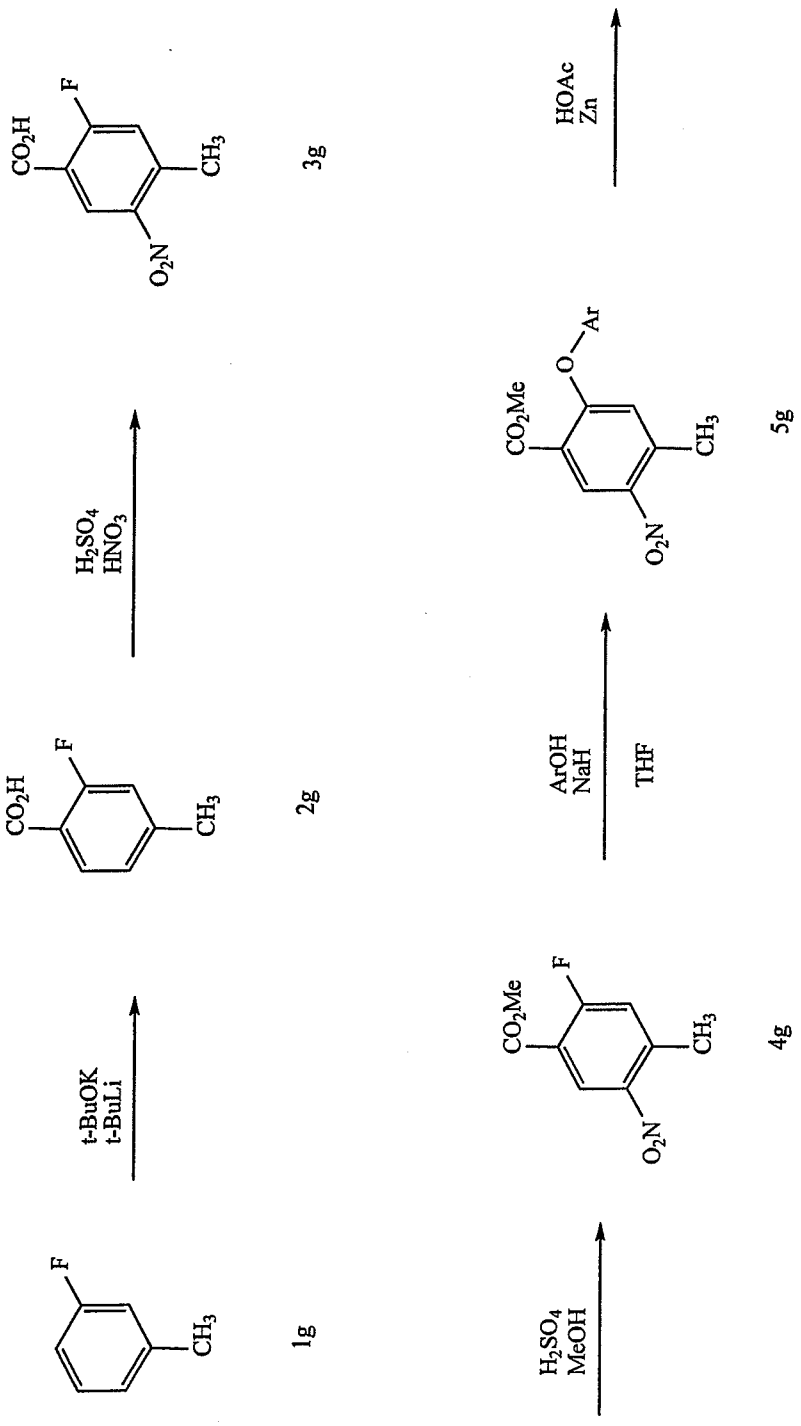

t-BuOK
t-BuLi
1g
2g
H2SO4
HNO3
3g
HOAc
Zn
5g
ArOH
NaH
THF
4g
H2SO4
MeOH

FIG. 1A

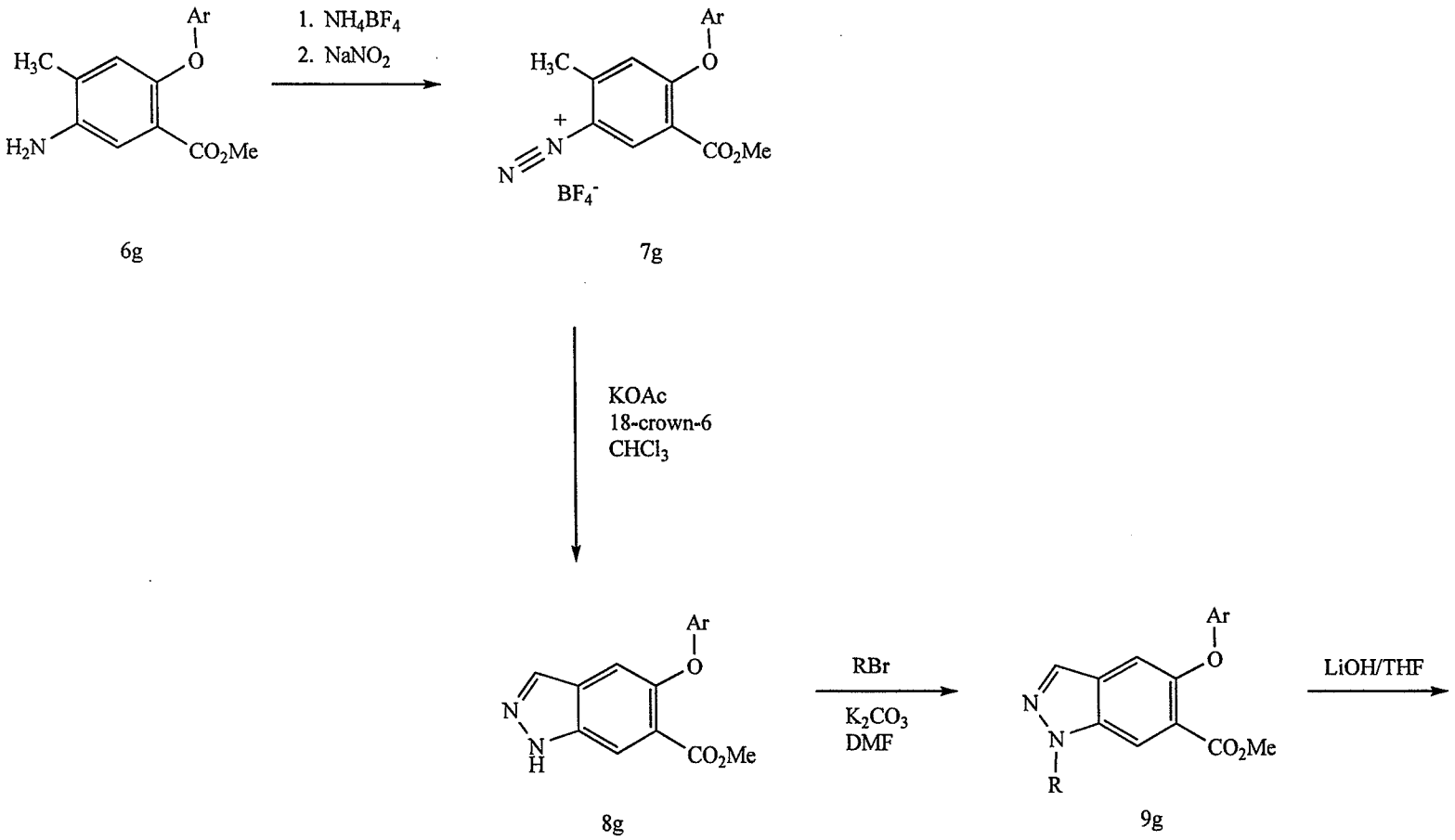
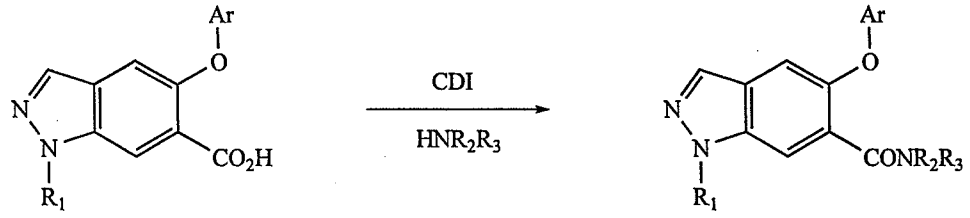

1. NH_4BF_4
2. $NaNO_2$
KOAc
18-crown-6
$CHCl_3$
RBr
K_2CO_3
DMF
LiOH/THF
6g
7g
8g
9g
9g-1: $R_1 = CH_2CH(CH_3)_2$
9g-2: $R_2 = CH_2CF_3$
9g-3: $R_1 = CH_3$

FIG. 1B



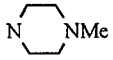
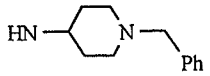
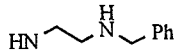
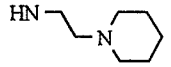
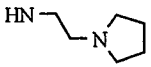
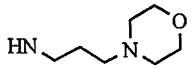
10g 11g

10g-1: $R_1 = CH_2CH(CH_3)_2$

10g-2: $R_1 = CH_2CF_3$

10g-3: $R_1 = CH_3$

10g-4: $R_1 = H$

	R_1	NR_2R_3
11g-1:	$CH_2CH(CH_3)_2$	NH_2
11g-2:	$CH_2CH(CH_3)_2$	
11g-3:	$CH_2CH(CH_3)_2$	
11g-4:	$CH_2CH(CH_3)_2$	
11g-5:	$CH_2CH(CH_3)_2$	
11g-6:	$CH_2CH(CH_3)_2$	
11g-7:	$CH_2CH(CH_3)_2$	
11g-8:	$CH_2CH(CH_3)_2$	

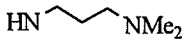
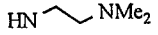
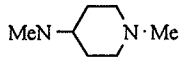
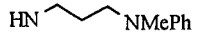
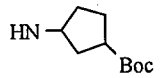
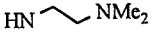
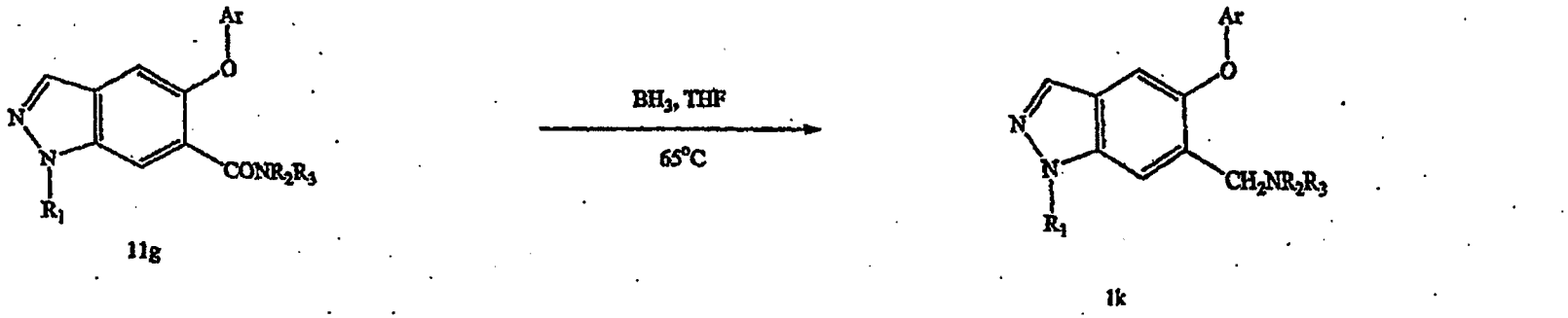
	R_1	NR_2R_3
11g-9:	$CH_2CH(CH_3)_2$	
11g-10:	$CH_2CH(CH_3)_2$	
11g-11:	$CH_2CH(CH_3)_2$	
11g-12:	$CH_2CH(CH_3)_2$	
11g-13:	$CH_2CH(CH_3)_2$	
11g-14:	CH_2CF_3	
11g-15:	CH_3	
11g-16:	H	

FIG. 1C



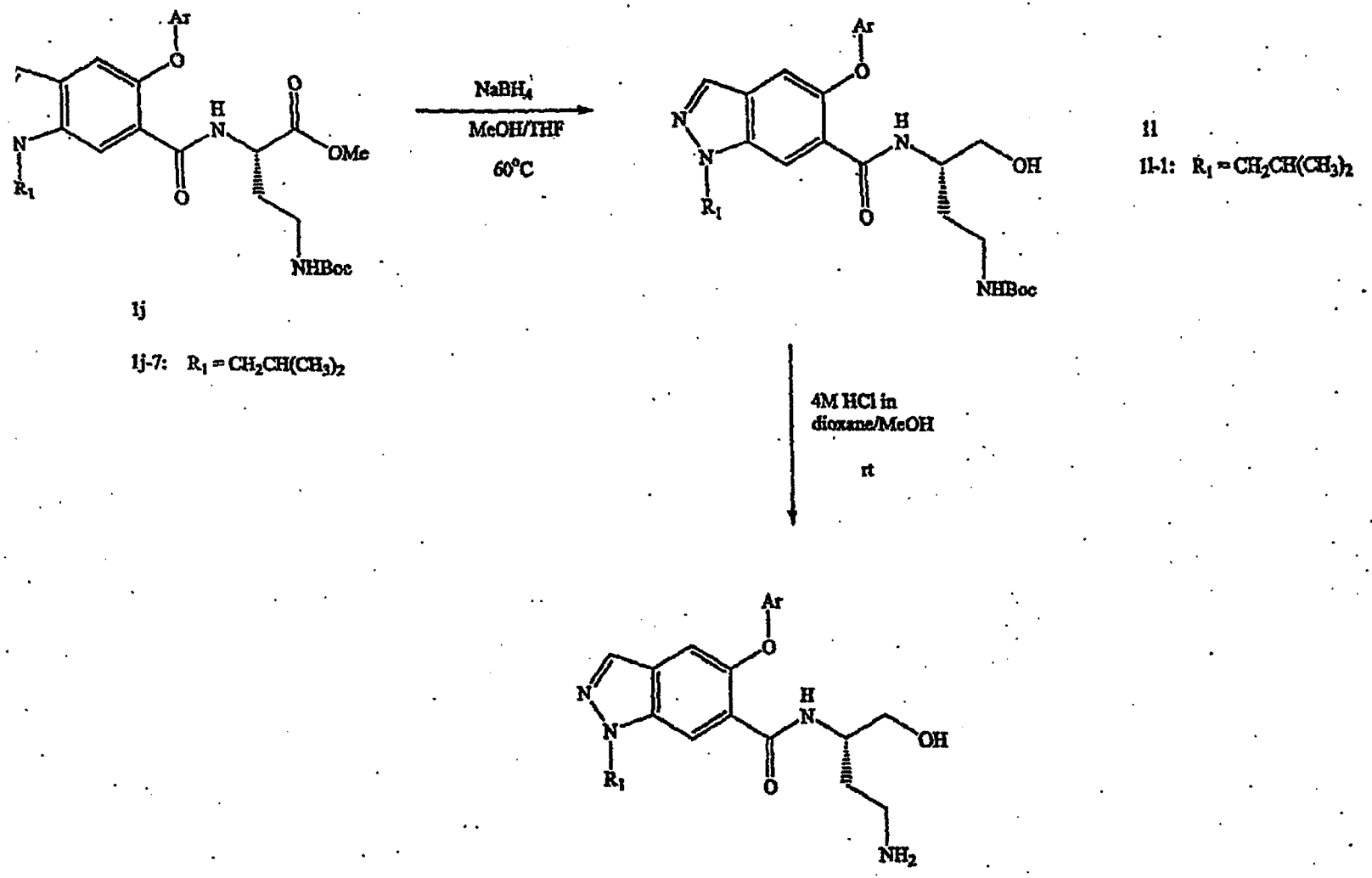
11g

1k

	R_1	R_2	R_3
11g-10:	$CH_2CH(CH_3)_2$	H	

	R_1	R_2	R_3
1k-1:	$CH_2CH(CH_3)_2$	H	
1k-2:	$CH_2CH(CH_3)_2$	SO_2CH_3	
1k-3:	$CH_2CH(CH_3)_2$	$(C=O)CH_3$	

FIG. 2



1j

1j-7: $R_1 = CH_2CH(CH_3)_2$

1l

1l-1: $R_1 = CH_2CH(CH_3)_2$

1m

1m-1: $R_1 = CH_2CH(CH_3)_2$

FIG. 3

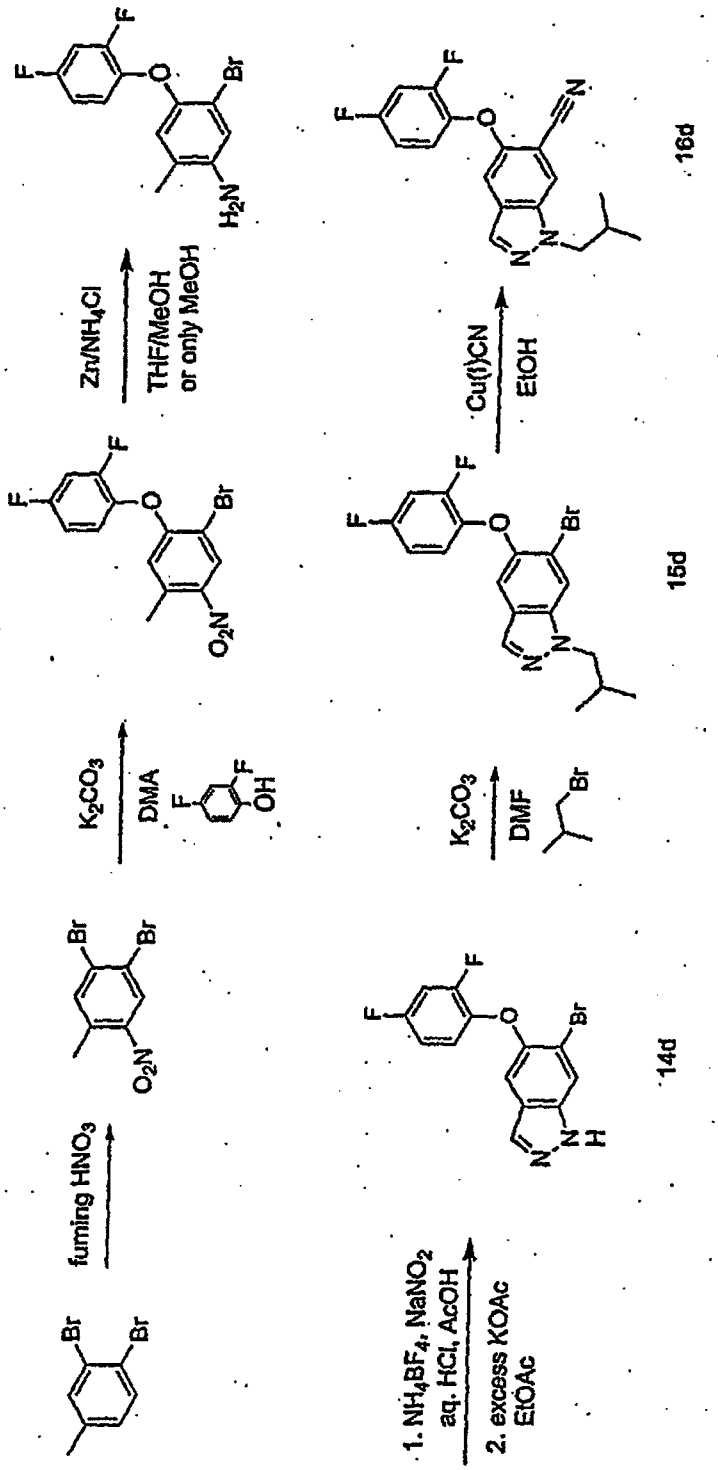

fuming HNO3
K2CO3
DMA
Zn/NH4Cl
THF/MeOH
or only MeOH
1. NH4BF4, NaNO2
aq. HCl, AcOH
2. excess KOAc
EtOAc
K2CO3
DMF
Cu(I)CN
EtOH
KOH
EtOH
14d
15d
16d
17d

FIG. 4

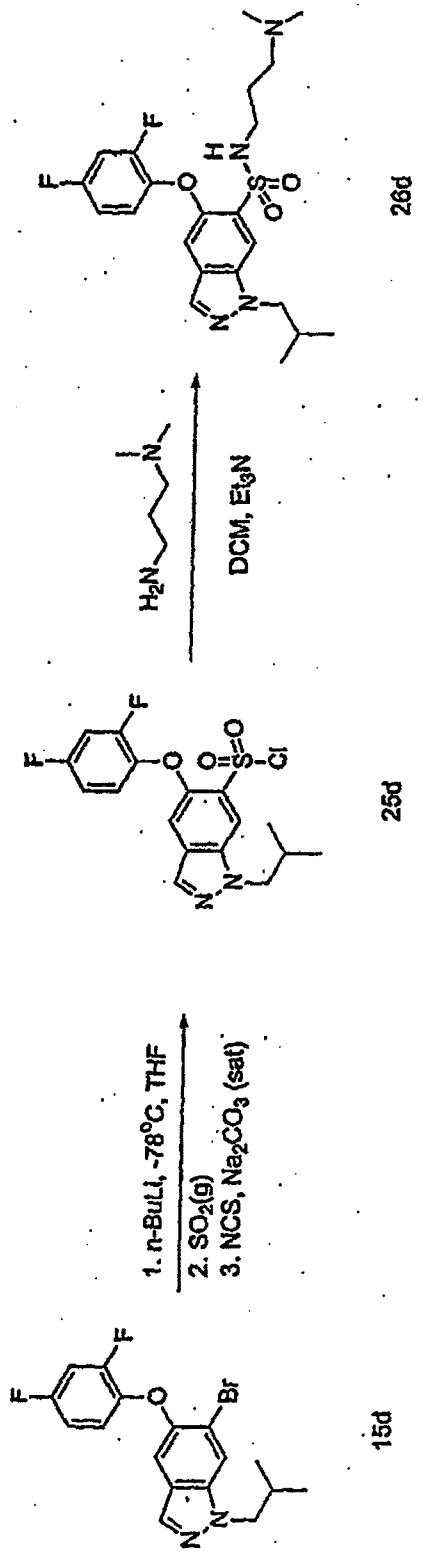


FIG. 5.