Chemistry Reactions

Date:19/12/2022

$B(OH)_2 + 4HF$	<======>
$H_3BO_3 + C_5H_5OH$	 >
$H_3BO_3 + Na_2CO_3$	 >
$BF_3 + NH_3$	>
$2BF_3 + 6NaH$	
$BF_3 + H_2O$	
$BF_3 + LiAlH_4$	
BF_3	
$BF_3 + NHMe_2$	>
$4BF_3 + 3H_3O$	>
$8BF_3 + 6LiH$	>
2BCl ₃ + 2Hg	electric discharge
$2BCl_3 + 6H_2$	electric discharge>
$BCl_3 + H_2O$	>
GaCl ₃ + Ga	>
In + 2HCl(g)	>
$2GaCl_2$	
2InCl ₂	
$2NaBH_4 + I_2$	
$2NaBH_4 + H_2SO_4$	>
$NaBH_4 + 4[Et_2OBF_3]$	>
$6NaBH_4 + 2H_3PO_4$	>
$Mg_3B_2 + H_3PO_4$	\longrightarrow Mixture of Boranes \longrightarrow
$B_2H_6 + O_2$	>
$B_2H_6 + H_2O$	>
$B_2H_6 + ROH$	>
B_2H_6	Red hot
$B_2H_6 + HCl$	>
$B_2H_6 + 6Cl_2$	>
$B_2H_6 + 4MeCl$	>
B_2H_6	
$B_2H_6 + 6Cl_2$ (excess)	>
$B_2H_6 + 2NH_3$	>
$2N(CH_3)_3 + B_2H_6$	>
(- 5/5 — 20	

$2PMe_3 + B_2H_6$		->
$2SEt_2 + B_2H_6$		->
$2CO + B_2H_6$	470atm 20bar_	>
THF / Me_2O / $Et_2O + B_2O_3$		->
$B_2H_6 + 2NH_3$ (excess)	Low temp	->
$B_2H_6 + 2NH_3$ (excess)	High temp	- >
$B_2H_6 + 2NH_3$ -	NH3: B2H6:: 2:1 High temp	>
$B + N_2$	Δ	- >
B + NH ₃	Δ	- >
$B_2H_6 + NH_3$ (excess)	High temp	>
BF ₃ -	CH3 Mg I	>
BCl ₃ + NH ₄ Cl	140°C_	->
		<_Me Mg Br NaBH4>
$B_3N_3H_6 + 9H_2O$		->
Al ₂ O ₃ (impure) leaching		>
Al + air	 > + ·	<u>H2O</u> >
$Al + H_2SO_4$		- >
$Al + Mn_2O_3$		- >
$Al + MnO_2$	Δ	>
$Al + Cr_2O_3$		- >
Al + HCl		>
Al + HNO ₃ (conc.)		_ >
Al + NaOH		_ >
$Al_2(SO_4)_3$	Δ	_ >
2Al(OH) ₃	Δ	_ >
$(NH_4)_2SO_4\cdot Al_2(SO_4)_3\cdot 24H_2O$	Δ	>
Al_2O_3 + HCl		- >
Al_2O_3 + NaOH		>
LiH + AlCl ₃	>	<u>LiH(excess)</u>
$LiAlH_4 + H_2SO_4$	-	>
$AlH_3 + H_2O$		>
B + NaOH		>
Al2O3 + 3C + 3Cl2	Δ	>
$Al_2O_3 + HCl$		>
$8Al_2O_3$	<u>1000 C</u>	>
Al(OH) ₃ + HCl		>

AlCl₃·6H₂O	<u> Hydrolysis</u>	>
AlCl ₃ ·H ₂ O	>	•
$[Al(H_2O)_6]^{3+}$	>	
AlCl3 + 6NH3	>	
AlCl ₃ + NaOH ——>		NaOH(excess)>
AlCl ₃ + NH ₄ OH>		NH4OH(excess)>
$Zn^{2+} + NH_4OH$ \longrightarrow		NH4OH(excess)
LiH + AlCl ₃		>
$Al + B_2O_3$;	>
$Mg + B_2O_3$		>
$Na_2B_4O_7 + HCl / Na_2SO_4$;	>
$Na_2B_4O_7 + H_2O$		>
$H_2B_4O_7 + 5H_2O$;	>
$H_2B_4O_7 + H_2O$		>
H_3BO_3		>
$B_2O_3 + Na / K / Mg / Al$;	>
$B_2O_3 + H_2O$	 >	>
$B_2O_3 + Na_2O$		>
$B_2O_3 + P_2O_5$;	>
$B_2O_3 + As_2O_5$;	>
$B_2O_3 + Cr_2(SO_4)_3$		>
$B_2O_3 + Cu(NO_3)_2$;	>
$B_2O_3 + CaF_2 + H_2SO_4$ (conc.)		>
$B_2O_3 + 3H_2 + 2Al$	<u>750atm 150° C</u>	>
$B_2O_3 + HF + H_2SO_4$;	>
$B_2O_3 + HF$		>
BI_3	Red hot tungsten tantalum	
B_2H_6	Δ	->
KBF ₄ + K	 ;	>
$2E + 3/2 O_2$	>	>
$2Al + 3/2 O_2$;	>
$E + N_2$;	>
$E + X_2$;	>
$B + H_2SO_4$;	>
$B + HNO_3$		>
Mg + B		>

Ca + B	 >
$B + SiO_2$	 >
$B + CO_2$	 >
$Ca_2B_6O_{11}\cdot 5H_2O + 2Na_2CO_3$	
Filter the above product	
Crytaliasation of Na ₂ B ₄ O ₇ + NaBO ₂	
Filter the above product	
NaBO ₂	<u>CO2</u> >
$NaOH + H_3BO_3$	<=====>
Glassy Bead	<u>CuO</u> >
I	>
$[B(OH)_4]^- + H_3O^+$	
$B(OH)_3 + H_2O$	>
$Na[B(OH)_4] + H_3O^+$	<=====>
Borax + HCl	
$Ca_2B_6O_6 + 2Na_2CO_3$	>
$Na_2B_4O_7$ —— Δ —— $>$	>
$Na_2B_4O_7 + NaBO_2$	>
$Na_2B_4O_7 + H_2SO_4$	
$Na_2B_4O_7 \cdot 10H_2O$	> <u>Δ Swells</u> >
$Na_2B_4O_7$	>
$Na_2B_4O_7$	
HBO_2	>
$BX_3 + 3H_2O$	
$BH_3 + 3H_2O$	
$\mathbf{M}^{\mathrm{n}^{+}} + 6\mathbf{N}\mathbf{H}_{3}$	
$CaF_2 + H_2SO_4(conc.)$	
H ₃ BO ₃ + MeOH(or)EtOH	
$M \longrightarrow NaOH \longrightarrow S$	$M(OH)_2$ $\xrightarrow{NaOH(excess)}$ $>$