3B(OH) ₃	<=====>
$B(OH)_2 + 4HF$	<=====>
$H_3BO_3 + C_5H_5OH$	>
$H_3BO_3 + Na_2CO_3$	
$BF_3 + NH_3$	>
2BF ₃ + 6NaH	>
$BF_3 + H_2O$	
$BF_3 + LiAlH_4$	ether >
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 + 2 H ₃ PO ₄	
$Mg_3B_2 + H_3PO_4$	——> Mixture of Boranes — [△] —>
$B_2H_6 + O_2$	>
$B_2H_6 + H_2O$	
$B_2H_6 + ROH$	>
$\mathrm{B_2H_6}$	Red hot >
$B_2H_6 + HCl$	>
$B_2H_6 + 6Cl_2$	>
$B_2H_6 + 4MeCl$	
B_2H_6	
$B_2H_6 + 6Cl_2$ (excess)	
$B_2H_6 + 2NH_3$	>
$2N(CH_3)_3 + B_2H_6$	
$2PMe_3 + B_2H_6$	>

$2SEt_2 + B_2H_6$	_		 >	
$2CO + B_2H_6$	_	_470atm 20bar_	>	
THF / Me_2O / $Et_2O + B_2O$	-		- >	
$B_2H_6 + 2NH_3$ (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	 >	
$B_2H_6 + NH_3^{\text{(excess)}}$	_	High temp	<u></u> >	
BF_3	_	CH3 Mg I	 >	
BCl ₃ + NH ₄ Cl	_	140°C	_>	
				< <u>Me Mg Br</u> >
$B_3N_3H_6 + 9H_2O$	_		- >	
Al ₂ O ₃ (impure)	leaching	>		>
Al + air		> +		<u>H2O</u> >
$Al + H_2SO_4$	_		 >	
$Al + Mn_2O_3$	_		<u></u> >	
$Al + MnO_2$	_	Δ	 >	
$Al + Cr_2O_3$	-		 >	
Al + HCl			 >	
Al + HNO ₃ (conc.)			 >	
Al + NaOH			 >	
$Al_2(SO_4)_3$	-	Δ	 >	
2Al(OH) ₃	-	Δ	 >	
$(NH_4)_2SO_4\cdot Al_2(SO_4)_3\cdot 24H$	₂ O -	Δ	>	
$Al_2O_3 + HCl$	-		 >	
$Al_2O_3 + NaOH$			>	
LiH + AlCl ₃	<u>LiCl</u>	 >		LiH(excess)
$LiAlH_4 + H_2SO_4$			 >	
$AlH_3 + H_2O$			 >	
B + NaOH			 >	
$Al_2O_3 + 3C + 3Cl_2$		Δ	 >	
$Al_2O_3 + HCl$			 >	
$8Al_2O_3$		1000 C	 >	
Al(OH) ₃ + HCl			 >	
AlCl₃·6H₂O		<u>Hydrolysis</u>	>	

AlCl₃·H₂O	>
$[Al(H_2O)_6]^{3+}$	
$AlCl_3 + 6NH_3$	>
AlCl ₃ + NaOH ———>	<u>NaOH(excess)</u> >
AlCl ₃ + NH ₄ OH ——>	NH4OH(excess)>
$Zn^{2+} + NH_4OH$ >	<u>NH4OH(excess)</u> >
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.)	
$B_2O_3 + 3H_2 + 2Al$	
$B_2O_3 + HF + H_2SO_4$	>
$B_2O_3 + HF$	
BI_3	Red hot tungsten tantalum>
B_2H_6	>
$KBF_4 + K$	
$2E + 3/2 O_2$	>
$2Al + 3/2 O_2$	>
$E + N_2$	
$E + X_2$	
$B + H_2SO_4$	
$B + HNO_3$	>
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	
$NaBO_2$	>
$NaOH + H_3BO_3$	<======>
Glassy Bead	>
I	<u>CaO</u>
$[B(OH)_4]^- + H_3O^+$	>
$B(OH)_3 + H_2O$	>
$Na[B(OH)_4] + H_3O^+$	<======>
Borax + HCl	>
$Ca_2B_6O_6 + 2Na_2CO_3$	>
$Na_2B_4O_7$ \longrightarrow	>
$Na_2B_4O_7 + NaBO_2$	HCl>
$Na_2B_4O_7 + H_2SO_4$	>
$Na_2B_4O_7 \cdot 10H_2O$	<u>Δ Swells</u> >
$Na_2B_4O_7$	
$Na_2B_4O_7$	
HBO_2	>
$BX_3 + 3H_2O$	>
$BH_3 + 3H_2O$	>
$\mathbf{M}^{\mathbf{n}^+} + \mathbf{6NH}_3$	
$CaF_2 + H_2SO_4(conc.)$	>
H_3BO_3 + MeOH(or)EtOH	
M —NaOH>	$M(OH)_2$ $\xrightarrow{NaOH(excess)}$ $>$