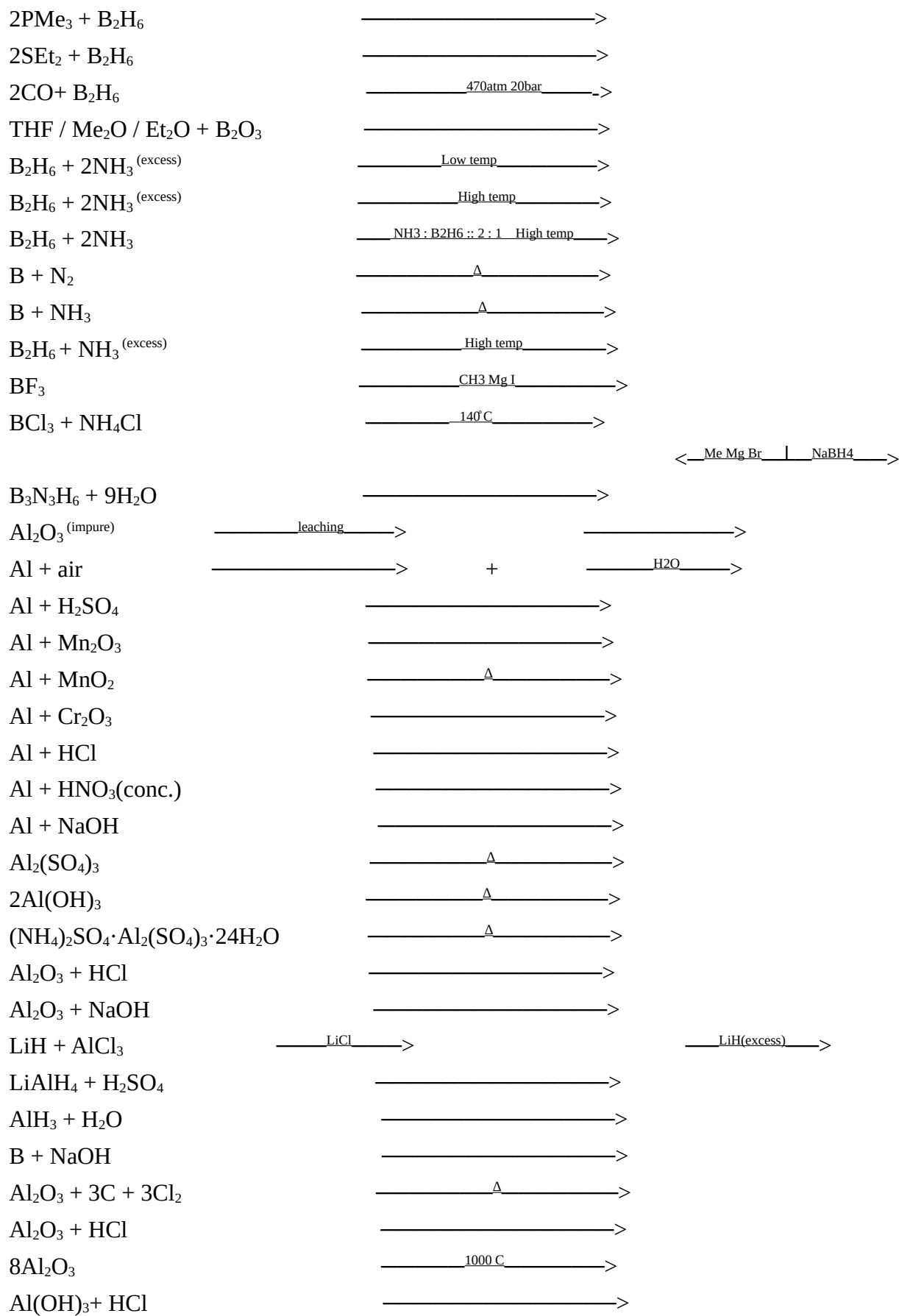


# Chemistry Reactions

Date:19/12/2022

$B(OH)_2 + 4HF$	<=====>
$H_3BO_3 + C_5H_5OH$	_____>
$H_3BO_3 + Na_2CO_3$	_____>
$BF_3 + NH_3$	_____>
$2BF_3 + 6NaH$	_____180°C_____>
$BF_3 + H_2O$	_____>
$BF_3 + LiAlH_4$	_____ether_____>
$BF_3$	_____CH <sub>3</sub> MgI_____>
$BF_3 + NHMe_2$	_____>
$4BF_3 + 3H_3O$	_____>
$8BF_3 + 6LiH$	_____>
$2BCl_3 + 2Hg$	_____electric discharge_____>
$2BCl_3 + 6H_2$	_____electric discharge_____>
$BCl_3 + H_2O$	_____>
$GaCl_3 + Ga$	_____>
$In + 2HCl(g)$	_____>
$2GaCl_2$	_____>
$2InCl_2$	_____>
$2NaBH_4 + I_2$	_____diglyme_____>
$2NaBH_4 + H_2SO_4$	_____>
$NaBH_4 + 4[Et_2OBF_3]$	_____>
$6NaBH_4 + 2H_3PO_4$	_____>
$Mg_3B_2 + H_3PO_4$	_____> Mixture of Boranes $\xrightarrow{\Delta}$ _____>
$B_2H_6 + O_2$	_____>
$B_2H_6 + H_2O$	_____>
$B_2H_6 + ROH$	_____>
$B_2H_6$	_____Red hot_____>
$B_2H_6 + HCl$	_____>
$B_2H_6 + 6Cl_2$	_____>
$B_2H_6 + 4MeCl$	_____>
$B_2H_6$	_____Na / Hg_____>
$B_2H_6 + 6Cl_2^{(excess)}$	_____>
$B_2H_6 + 2NH_3$	_____>
$2N(CH_3)_3 + B_2H_6$	_____>



$\text{AlCl}_3 \cdot 6\text{H}_2\text{O}$	<u>Hydrolysis</u>	>
$\text{AlCl}_3 \cdot \text{H}_2\text{O}$		>
$[\text{Al}(\text{H}_2\text{O})_6]^{3+}$		>
$\text{AlCl}_3 + 6\text{NH}_3$		>
$\text{AlCl}_3 + \text{NaOH}$	<u>                    </u>	<u>NaOH(excess)</u> >
$\text{AlCl}_3 + \text{NH}_4\text{OH}$	<u>                    </u>	<u>NH4OH(excess)</u> >
$\text{Zn}^{2+} + \text{NH}_4\text{OH}$	<u>                    </u>	<u>NH4OH(excess)</u> >
$\text{LiH} + \text{AlCl}_3$		>
$\text{Al} + \text{B}_2\text{O}_3$		>
$\text{Mg} + \text{B}_2\text{O}_3$		>
$\text{Na}_2\text{B}_4\text{O}_7 + \text{HCl} / \text{Na}_2\text{SO}_4$		>
$\text{Na}_2\text{B}_4\text{O}_7 + \text{H}_2\text{O}$		>
$\text{H}_2\text{B}_4\text{O}_7 + 5\text{H}_2\text{O}$		>
$\text{H}_2\text{B}_4\text{O}_7 + \text{H}_2\text{O}$		>
$\text{H}_3\text{BO}_3$		>
$\text{B}_2\text{O}_3 + \text{Na} / \text{K} / \text{Mg} / \text{Al}$		>
$\text{B}_2\text{O}_3 + \text{H}_2\text{O}$		>
$\text{B}_2\text{O}_3 + \text{Na}_2\text{O}$		>
$\text{B}_2\text{O}_3 + \text{P}_2\text{O}_5$		>
$\text{B}_2\text{O}_3 + \text{As}_2\text{O}_5$		>
$\text{B}_2\text{O}_3 + \text{Cr}_2(\text{SO}_4)_3$		>
$\text{B}_2\text{O}_3 + \text{Cu}(\text{NO}_3)_2$		>
$\text{B}_2\text{O}_3 + \text{CaF}_2 + \text{H}_2\text{SO}_4(\text{conc.})$		>
$\text{B}_2\text{O}_3 + 3\text{H}_2 + 2\text{Al}$	<u>750atm 150° C</u>	>
$\text{B}_2\text{O}_3 + \text{HF} + \text{H}_2\text{SO}_4$		>
$\text{B}_2\text{O}_3 + \text{HF}$		>
$\text{BI}_3$	<u>Red hot tungsten tantalum</u>	>
$\text{B}_2\text{H}_6$	<u>Δ</u>	>
$\text{KBF}_4 + \text{K}$		>
$2\text{E} + 3/2 \text{O}_2$		>
$2\text{Al} + 3/2 \text{O}_2$		>
$\text{E} + \text{N}_2$		>
$\text{E} + \text{X}_2$		>
$\text{B} + \text{H}_2\text{SO}_4$		>
$\text{B} + \text{HNO}_3$		>
$\text{Mg} + \text{B}$		>

Ca + B	_____>	
B + SiO <sub>2</sub>	_____>	
B + CO <sub>2</sub>	_____>	
Ca <sub>2</sub> B <sub>6</sub> O <sub>11</sub> ·5H <sub>2</sub> O + 2Na <sub>2</sub> CO <sub>3</sub>	_____>	
Filter the above product	_____>	
Crytaliasation of Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> + NaBO <sub>2</sub>	_____>	
Filter the above product	_____>	
NaBO <sub>2</sub>	_____CO <sub>2</sub> >	
NaOH + H <sub>3</sub> BO <sub>3</sub>	<=====>	
Glassy Bead	_____CuO>	
	L_____CaO>	
[B(OH) <sub>4</sub> ] <sup>-</sup> + H <sub>3</sub> O <sup>+</sup>	_____>	
B(OH) <sub>3</sub> + H <sub>2</sub> O	_____>	
Na[B(OH) <sub>4</sub> ] + H <sub>3</sub> O <sup>+</sup>	<=====>	
Borax + HCl	_____>	
Ca <sub>2</sub> B <sub>6</sub> O <sub>6</sub> + 2Na <sub>2</sub> CO <sub>3</sub>	_____>	_____>
Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	_____Δ>	_____>
Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> + NaBO <sub>2</sub>	_____HCl>	
Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> + H <sub>2</sub> SO <sub>4</sub>	_____>	
Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> ·10H <sub>2</sub> O	_____Δ Swells>	
Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	_____740°C>	
Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	_____Crystalize>	
HBO <sub>2</sub>	_____>	
BX <sub>3</sub> + 3H <sub>2</sub> O	_____>	
BH <sub>3</sub> + 3H <sub>2</sub> O	_____>	
M <sup>n+</sup> + 6NH <sub>3</sub>	_____>	
CaF <sub>2</sub> + H <sub>2</sub> SO <sub>4</sub> (conc.)	_____>	
H <sub>3</sub> BO <sub>3</sub> + MeOH(or)EtOH	_____>	
M	_____NaOH>	M(OH) <sub>2</sub> _____NaOH(excess)>