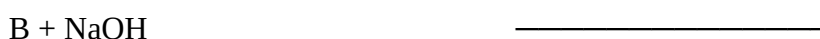
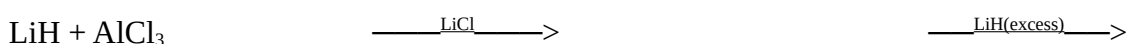
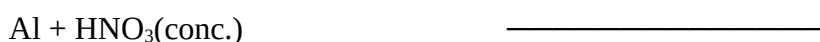
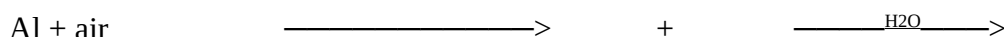
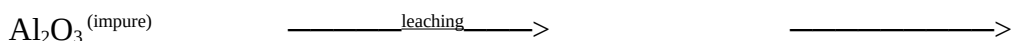
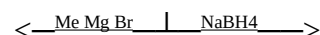


# Chemical Reactions(Grp.13)

Date:21/12/2022

$\text{B(OH)}_2 + 4\text{HF}$	$\text{<=====>}$
$\text{H}_3\text{BO}_3 + \text{C}_5\text{H}_5\text{OH}$	$\text{—————>}$
$\text{H}_3\text{BO}_3 + \text{Na}_2\text{CO}_3$	$\text{—————>}$
$\text{BF}_3 + \text{NH}_3$	$\text{—————>}$
$2\text{BF}_3 + 6\text{NaH}$	$\text{—————}_{180^\circ\text{C}}\text{>}$
$\text{BF}_3 + \text{H}_2\text{O}$	$\text{—————>}$
$\text{BF}_3 + \text{LiAlH}_4$	$\text{—————}_{\text{ether}}\text{>}$
$\text{BF}_3$	$\text{—————}_{\text{CH}_3\text{MgI}}\text{>}$
$\text{BF}_3 + \text{NHMe}_2$	$\text{—————>}$
$4\text{BF}_3 + 3\text{H}_3\text{O}$	$\text{—————>}$
$8\text{BF}_3 + 6\text{LiH}$	$\text{—————>}$
$2\text{BCl}_3 + 2\text{Hg}$	$\text{—————}_{\text{electric discharge}}\text{>}$
$2\text{BCl}_3 + 6\text{H}_2$	$\text{—————}_{\text{electric discharge}}\text{>}$
$\text{BCl}_3 + \text{H}_2\text{O}$	$\text{—————>}$
$\text{GaCl}_3 + \text{Ga}$	$\text{—————>}$
$\text{In} + 2\text{HCl(g)}$	$\text{—————>}$
$2\text{GaCl}_2$	$\text{—————>}$
$2\text{InCl}_2$	$\text{—————>}$
$2\text{NaBH}_4 + \text{I}_2$	$\text{—————}_{\text{diglyme}}\text{>}$
$2\text{NaBH}_4 + \text{H}_2\text{SO}_4$	$\text{—————>}$
$\text{NaBH}_4 + 4[\text{Et}_2\text{OBF}_3]$	$\text{—————>}$
$6\text{NaBH}_4 + 2\text{H}_3\text{PO}_4$	$\text{—————>}$
$\text{Mg}_3\text{B}_2 + \text{H}_3\text{PO}_4$	$\text{—————> Mixture of Boranes} \xrightarrow{\Delta} \text{>}$
$\text{B}_2\text{H}_6 + \text{O}_2$	$\text{—————>}$
$\text{B}_2\text{H}_6 + \text{H}_2\text{O}$	$\text{—————>}$
$\text{B}_2\text{H}_6 + \text{ROH}$	$\text{—————>}$
$\text{B}_2\text{H}_6$	$\text{—————}_{\text{Red hot}}\text{>}$
$\text{B}_2\text{H}_6 + \text{HCl}$	$\text{—————>}$
$\text{B}_2\text{H}_6 + 6\text{Cl}_2$	$\text{—————>}$
$\text{B}_2\text{H}_6 + 4\text{MeCl}$	$\text{—————>}$
$\text{B}_2\text{H}_6$	$\text{—————}_{\text{Na / Hg}}\text{>}$
$\text{B}_2\text{H}_6 + 6\text{Cl}_2^{(\text{excess})}$	$\text{—————>}$
$\text{B}_2\text{H}_6 + 2\text{NH}_3$	$\text{—————>}$



$\text{Al}_2\text{O}_3 + \text{HCl}$	_____>	
$8\text{Al}_2\text{O}_3$	_____1000 C_____>	
$\text{Al}(\text{OH})_3 + \text{HCl}$	_____>	
$\text{AlCl}_3 \cdot 6\text{H}_2\text{O}$	_____Hydrolysis_____>	
$\text{AlCl}_3 \cdot \text{H}_2\text{O}$	_____>	
$[\text{Al}(\text{H}_2\text{O})_6]^{3+}$	_____>	
$\text{AlCl}_3 + 6\text{NH}_3$	_____>	
$\text{AlCl}_3 + \text{NaOH}$	_____>	_____NaOH(excess)_____>
$\text{AlCl}_3 + \text{NH}_4\text{OH}$	_____>	_____NH4OH(excess)_____>
$\text{Zn}^{2+} + \text{NH}_4\text{OH}$	_____>	_____NH4OH(excess)_____>
$\text{LiH} + \text{AlCl}_3$	_____>	
$\text{Al} + \text{B}_2\text{O}_3$	_____>	
$\text{Mg} + \text{B}_2\text{O}_3$	_____>	
$\text{Na}_2\text{B}_4\text{O}_7 + \text{HCl} / \text{Na}_2\text{SO}_4$	_____>	
$\text{Na}_2\text{B}_4\text{O}_7 + \text{H}_2\text{O}$	_____>	
$\text{H}_2\text{B}_4\text{O}_7 + 5\text{H}_2\text{O}$	_____>	
$\text{H}_2\text{B}_4\text{O}_7 + \text{H}_2\text{O}$	_____>	
$\text{H}_3\text{BO}_3$	_____>	
$\text{B}_2\text{O}_3 + \text{Na} / \text{K} / \text{Mg} / \text{Al}$	_____>	
$\text{B}_2\text{O}_3 + \text{H}_2\text{O}$	_____>	
$\text{B}_2\text{O}_3 + \text{Na}_2\text{O}$	_____>	
$\text{B}_2\text{O}_3 + \text{P}_2\text{O}_5$	_____>	
$\text{B}_2\text{O}_3 + \text{As}_2\text{O}_5$	_____>	
$\text{B}_2\text{O}_3 + \text{Cr}_2(\text{SO}_4)_3$	_____>	
$\text{B}_2\text{O}_3 + \text{Cu}(\text{NO}_3)_2$	_____>	
$\text{B}_2\text{O}_3 + \text{CaF}_2 + \text{H}_2\text{SO}_4(\text{conc.})$	_____>	
$\text{B}_2\text{O}_3 + 3\text{H}_2 + 2\text{Al}$	_____750atm 150° C_____>	
$\text{B}_2\text{O}_3 + \text{HF} + \text{H}_2\text{SO}_4$	_____>	
$\text{B}_2\text{O}_3 + \text{HF}$	_____>	
$\text{BI}_3$	_____Red hot tungsten tantalum_____>	
$\text{B}_2\text{H}_6$	_____Δ_____>	
$\text{KBF}_4 + \text{K}$	_____>	
$2\text{E} + 3/2 \text{O}_2$	_____>	
$2\text{Al} + 3/2 \text{O}_2$	_____>	

E + N<sub>2</sub> \_\_\_\_\_>

E + X<sub>2</sub> \_\_\_\_\_>

B + H<sub>2</sub>SO<sub>4</sub> \_\_\_\_\_>

B + HNO<sub>3</sub> \_\_\_\_\_>

Mg + 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>]<sup>+</sup> + 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)\_\_\_\_\_>