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1: $PdCl_3 + 3K_2O \rightarrow Pd_2O_3 + 6KCl$

Convert 243.3g $PdCl_3$ to mol KCl

① mass $PdCl_3$ → mol $PdCl_3$

$MM_{PdCl_3} = 212.77\ g/mol$

$$243.3\ g\ PdCl_3 \left| \frac{1\ mol\ PdCl_3}{212.77\ g\ PdCl_3} \right. = 1.14\ mol\ PdCl_3$$

② mol $PdCl_3$ → mol KCl

$$1.14\ mol\ PdCl_3 \left| \frac{6\ mol\ KCl}{1\ mol\ PdCl_3} \right. = 6.84\ mol\ KCl$$

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4: $Pb(SO_4)_2 + 4\ ZrBrO_3 \rightarrow Pd(BrO_3)_4 + 2\ Zn_2SO_4$

Convert 2.30 mol $ZrBrO_3$ to mass $Zn_2SO_4$

② mol $ZrBrO_3$ → mol $Zr_2SO_4$

$$2.30\ mol\ ZrBrO_3 \left| \frac{2\ mol\ Zn_2SO_4}{4\ mol\ ZrBrO_3} \right. = 1.15\ mol\ Zn_2SO_4$$

③ mol $Zr_2SO_4$ → mass $Zr_2SO_4$

$MM_{Zr_2SO_4} = 226.85\ g/mol$

$$1.15\ mol\ Zn_2SO_4 \left| \frac{226.85\ g\ Zn_2SO_4}{1\ mol\ Zn_2SO_4} \right. = 260.88\ g\ Zn_2SO_4$$