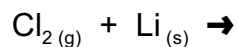
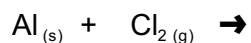


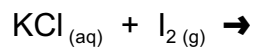
1. How many moles of chlorine are needed to react with 0.25 g of lithium to produce lithium chloride? (*0.018 mol*)



2. Calculate the number of moles of aluminum chloride that can be produced from the reaction of 7.00 g of chlorine with aluminum. ( *$6.58 \times 10^{-2} \text{ mol}$* )



3. Potassium chloride and iodine are produced from a reaction between aqueous potassium iodide and chlorine gas. Determine the number of moles of  $\text{I}_{2(g)}$  produced when 74.5 g of KCl results. (*0.500 mol*)



4. How many moles of oxygen will be formed when 102 g of aluminum oxide decompose to form aluminum and oxygen? (*1.50 mol*)

5. How many moles of potassium are needed to react with water to form potassium hydroxide and 6.0 g of hydrogen? (*5.9 mol*)

6. If 0.50 g of sodium reacts with oxygen, how many moles of sodium oxide will be formed? (1.1 x 10<sup>-2</sup> mol)
7. How many moles of magnesium are needed to react with 27 g of iodine to form magnesium iodide? (0.11 mol)
8. Determine the number of moles of sodium chloride produced from the reaction of hydrochloric acid with solution containing 25.0 g sodium hydroxide. (0.625 mol)