Answer on Question #52595 - Chemistry – Inorganic Chemistry

Question

$2KClO_3 \rightarrow 2KCl + 3O_2$

How many moles of O_2 can be produced by letting 6.0 moles of $KClO_3$ react based on the above equation?

Answer:

According to the reaction equation:

2 mol of $KClO_3$ produce 3 mol of O_2

6.0 mol of $KClO_3$ – x mol of O_2

$$x = \frac{6.0 \cdot 3}{2} = 9.0\ mol$$

Answer: 9.0 mol of O_2 can be produced