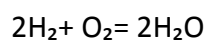


If 2.00 moles of H₂ and 1.50 moles of O₂ react how many moles of H₂O can be produced?

Solution.



If $n(\text{H}_2) = 2.00$ moles, so $n(\text{O}_2) = n(\text{H}_2) \cdot \frac{1}{2} = 2 \cdot \frac{1}{2} = 1.00$ moles.

If $n(\text{O}_2) = 1.50$ moles, so $n(\text{H}_2) = n(\text{O}_2) \cdot \frac{2}{1} = 1.50 \cdot \frac{2}{1} = 3.00$ moles.

Limiting reagent is H₂. So $n(\text{H}_2\text{O}) = n(\text{H}_2) \cdot \frac{2}{2} = 2.00 \cdot \frac{2}{2} = 2.00$ moles

Answer: $n(\text{H}_2\text{O}) = 2.00$ moles

Answer provided by AssignmentExpert.com