

## Answer on Question#64994 – Chemistry – General chemistry

### Question:

This is a lab question. The reaction that occurred is  $\text{Ca} + 2\text{H}^+ \rightarrow \text{Ca}^{2+} + \text{H}_2$ .

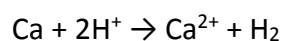
The weight of the Ca is 0.483g.

There was 0.0121 mol of Ca.

We added 50.0 mL of 1.0 M HCl to the Calcium.

How many moles of  $\text{H}^+$  are there?

### Solution:



$$n_0(\text{H}^+) = n(\text{HCl}) = \frac{50.0\text{ml} \cdot 1.0\text{mol}}{1000\text{ml}} = 0.05\text{ mol} - \text{was added to the calcium}$$

$$n(\text{H}^+) = n_0(\text{H}^+) - 2n(\text{Ca}) = 0.05\text{ mol} - 2 \cdot 0.0121\text{ mol} = 0.0258\text{ mol} - \text{after reaction}$$

**Answer:** 0.0258 mol of  $\text{H}^+$ .

Answer provided by <https://www.AssignmentExpert.com>