

## Answer on the question #55397 - Chemistry - General chemistry

### Question:

How many atoms of hydrogen are in 0.59 mol of  $(\text{NH}_4)_2\text{SO}_4$ ?

### Solution:

One mole of  $(\text{NH}_4)_2\text{SO}_4$  contains 8 moles of hydrogen atoms:

$$n(\text{H}) = 8 \times n((\text{NH}_4)_2\text{SO}_4) = 8 \times 0.59 = 4.72 \text{ mol}$$

The number of the atoms comprised in 4.72 mol of the substance is:

$$N = n \times N_A = 4.72 \times 6.022 \times 10^{23} = 2.84 \times 10^{24}$$

**Answer:**  $2.84 \times 10^{24}$  atoms