10.02.2020

Dear Sami Jannin,

During proof-reading, we noticed two minor issues and we would like to address them with this letter. Please notice, they don't alter the message of the overall manuscript. In the following, we want to introduce these changes.

1. Caption of Figure 1

Original text: "The angular distribution of the two lowest rotational states (Y_{00} corresponds to $J = 0$, and $Y_{1+1} \pm Y_{1-1}$ and Y_{10} corresponds to $J = 1$) and spin states of ortho and parahydrogen are indicated."

New text: "The angular distribution of the two lowest rotational states (Y_{00} corresponds to $J = 0$, and Y_{1+1}, Y_{1-1} and Y_{10} corresponds to $J = 1$) and spin states of ortho and parahydrogen are indicated."

Comment: We replaced $Y_{1+1} \pm Y_{1-1}$ by Y_{1+1}, Y_{1-1} so it is consistent now with the figure.

2. Page 2 line 50 (Ratio of ortho- and parahydrogen)

Original text: "At room temperatures ($T \cong 298\ \text{K}$) $n_{pH_2} : n_{oH_2}$ is close to $3:1$, at 77 K – the normal boiling point of nitrogen – the ratio is close to $1:1$, and at 25 K $f_{pH_2} \cong 98\%$ (Fig. 2)."

New text: "At room temperatures ($T \cong 298\ \text{K}$) $n_{pH_2} : n_{oH_2}$ is close to $1:3$, at 77 K – the normal boiling point of nitrogen – the ratio is close to $1:1$, and at 25 K $f_{pH_2} \cong 98\%$ (Fig. 2)."

Comment: We corrected the ratio $n_{pH_2} : n_{oH_2}$ from 3:1 to 1:3 as you see it was a mistype. At room temperature, hydrogen consists of 75% orthohydrogen and 25% parahydrogen.

We are convinced that these corrections don't alter the message of the paper and we would kindly ask you, to introduce these changes.

Sincerely,
Frowin Ellermann and Jan-Bernd Hövener