I would like to also consider the following points:
Q: ∗ in the experimental data on phospho-serine, you show a MAS dependency of line widths and positions. Peak positions
are, in general, temperature dependent. As a change of the MAS frequency generally leads to a change of the effective
temperature, the question is whether temperature effects contribute to the observed shifts. Please specify how the
temperature was regulated, and comment on the possibility of temperature effects.

A: The selected lines in phospho serine (CH2 and Halpha) do not show a measurable temperature dependence which is the erason why we used them to check this effect. We have added a sentence to the manuscript reading: "The resonances of ortho-phospho-L-serine reported in the experimental section (the methylene CH2 and the CαH protons) do not show a measurable temperature dependence of the chemcial-shift values as described recently (Malär et al., 2021)." The reference has the temperature-dependence data.

Q: ∗ in Figure 4, I would find it useful to add additional ticks (maybe above the graph) that show the MAS frequency,
rather than its inverse; e.g. label 50 kHz at the 0.02 tick etc. This is arguably a cosmetic operation of little
importance, but most people think in nu_r rather than in tau_r.

A: We have modified Figure 4 as requested with a \nu_r axis on the top.