

Response to reviewers

Reviewer 1:

The authors have provided a revised version that finds my appreciation in all but one aspect. The reviewer's own previous work, arguably constituting the state of the art for several aspects of the current work, has not been referred to: Saalwächter and Fischbach, J. Magn. Reson. 157 (2002) 17. Its results should be discussed in the appropriate places. Our work was the first to provide numerical simulation results of the effect of the motional regime transition from slow to fast for the results of MAS recoupling experiments, using a simulation strategy that resembles the authors' code in many regards (we also ignored off-diagonal terms in the Liouvillian, and further reduced storage space and calculation time by using a separate linear transformation for the exchange dynamics). The experiment of interest was REDOR (same as in the manuscript), but applied to CSA-recoupling (along the lines of the CODEX experiment). We did explore the measurement of the important T₂ effect upon recoupling, and our results for the apparent fitted interaction strength closely match those of the authors (compare our Fig.6 with Fig.3 of the manuscript). The main difference is that we did not explore the effect of variable MAS frequency – on the other hand, we confirmed our results also by experiments.

Response:

We apologize for the oversight of this paper which got lost in the considerable rewriting of the intermediate exchange regime. We have added a reference to this paper which indeed implements very similar numerical simulations. We added a sentence to the introduction where we mention the previous implementation. We also added a sentence to the methods section where we again say that similar but simplified methods were implemented before. We hope that these changes make the paper now acceptable for publication.