

Magn. Reson. Discuss., referee comment RC1  
<https://doi.org/10.5194/mr-2021-38-RC1>, 2021  
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## Comment on mr-2021-38

Anonymous Referee #1

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Referee comment on "A novel multinuclear solid-state NMR approach for the characterization of kidney stones" by César Leroy et al., Magn. Reson. Discuss., <https://doi.org/10.5194/mr-2021-38-RC1>, 2021

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- Page 7, line 168. I do not understand the sentence 'from one synthetic sample ..... (Shepelenko 2019)'. Does this mean that the COM synthesis is not perfectly reproducible?
- 5b should be represented in a SQ-SQ way to be more easily compared to Fig.5a.
- 6. Give the experimental details: such as the number of scan and recycling delays.

Why not an indirect detection through  $^1\text{H}$ ? In Figs.16b, the correlation of KS1 and KS2 resonances with the COM and COD decompositions is only a hypothesis.

- 9-caption. The first sentence is not clear. Is the CPMAS spectrum also recorded under high-power  $^1\text{H}$  decoupling?
- Part N° 7: sometimes  $t_{90^\circ}(^1\text{H})$ , sometimes  $t_{90^\circ}(^1\text{H})$ .
- Sx or Fig.Ax?
- Globally, most figures lack of experimental parameters.