

Magn. Reson. Discuss., referee comment RC1 https://doi.org/10.5194/mr-2021-50-RC1, 2021 © Author(s) 2021. This work is distributed under the Creative Commons Attribution 4.0 License.

Comment on mr-2021-50

Anonymous Referee #1

Referee comment on "The Lindbladian form and the reincarnation of Felix Bloch's generalized theory of relaxation" by Thomas M. Barbara, Magn. Reson. Discuss., https://doi.org/10.5194/mr-2021-50-RC1, 2021

I find the text by Barbara interesting, but quite difficult to follow. This is particularly true for section 2 of the paper, I found the Bengs-Levitt paper easier to read. Nevertheless, pointing out the importance of the old Bloch and Hubbard works and their equivalence to the Lindbladian formulation is undoubtedly worth publication. I have also two minor critical remarks:

Eq. (29) is referred to (below Eq. (31)) as a double sum. It does not look so to me.

The reference (Bloch 1957) is inconsistent. Bloch's paper "Generalized theory of relaxation" was published in Phys Rev 105, 1206-1222 (1957).

Thus, I recommend the publication after optional revision to make the text more readable and some minor corrections.