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Contribution ID: 3181 Type: **Poster not-in-competition (Graduate Student) / Affiche non-compétitive (Étudiant(e) du 2e ou 3e cycle)**

(POS-15) ^{19}F NMR investigation of barlowite kagome lattice Heisenberg antiferromagnet $\text{Zn}_{1-x}\text{Cu}_{3+x}(\text{OD})_6\text{FBr}$ ($x \sim 0.05, 0.5, \text{ and } 1$)

Tuesday 7 June 2022 17:40 (2 minutes)

The Quantum Spin Liquid is a novel magnetic ground state, characterized by quantum entanglement without long range magnetic order. Kagome lattice Heisenberg antiferromagnet is a prime candidate of quantum spin liquid owing to highly frustrated spin $\frac{1}{2}$'s arranged on a corner sharing triangle geometry. We report ^{19}F NMR investigation of a series of "barlowite" kagome material $\text{Zn}_{1-x}\text{Cu}_{3+x}(\text{OD})_6\text{FBr}$ with $x \sim 0.05, 0.5, \text{ and } 1$ based on the inverse Laplace transform analysis on the spin-lattice relaxation rate $1/T_1$.

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Track Classification: Technical Sessions / Sessions techniques: Condensed Matter and Materials Physics / Physique de la matière condensée et matériaux (DCMMP-DPMCM)