Supplemental material:

"Long-range Li⁺ dynamics in the lithium argyrodite Li₇PSe₆ as probed by rotating-frame spin-lattice relaxation NMR"

Note: title rendered as "Long-range Li$^+$ dynamics in the lithium argyrodite Li$_7$PSe$_6$ as probed by rotating-frame spin-lattice relaxation NMR"

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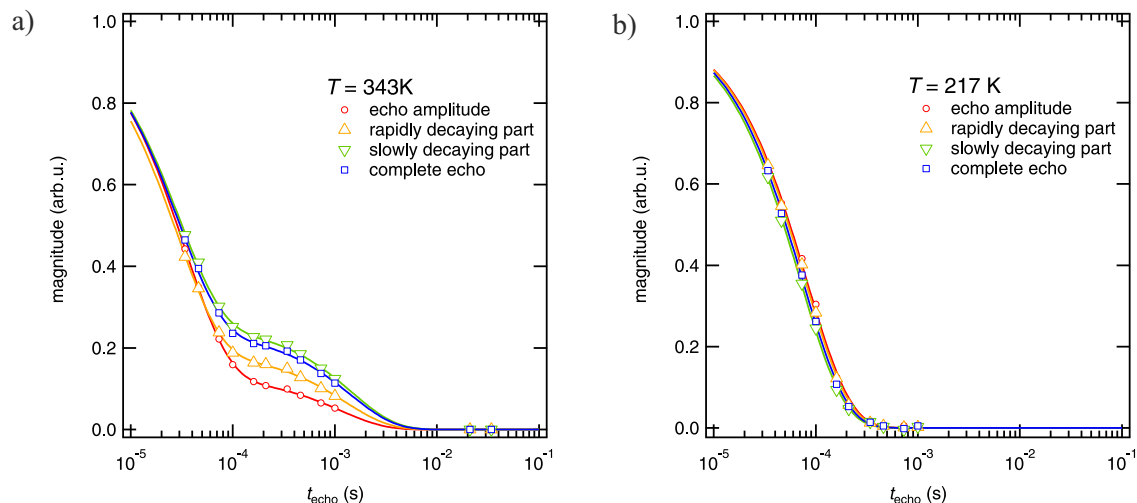
S1

FIG. S1: ^{7}Li NMR echo decay transients recorded at 116 MHz and at the temperatures indicated . (a) and (b): The decay curves were obtained by evaluating (i) the echo amplitude, (ii) the area under the rapidly decaying part of the echo, (iii) the slowly decaying part, and (iv) the complete echo, respectively. At $T \geq 295$ K a two-step decay is observed. The first decay step is characterized by a time constant $T_2'' \approx 3 \times 10^{-5}$ s and is no longer detectable at lower T (b).
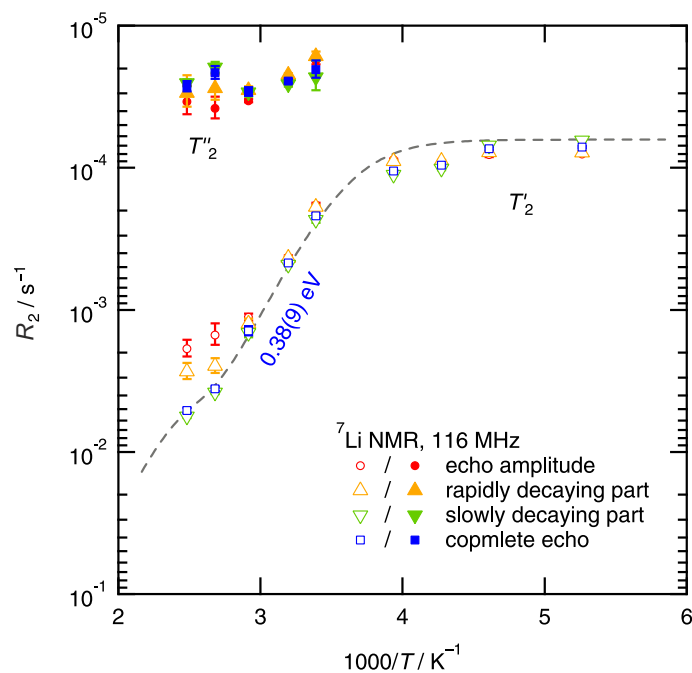
S2

FIG. S2: ^{7}Li NMR spin-spin relaxation (SSR) rates $R_2' = 1/T_2'$ and $R_2'' = 1/T_2''$ as a function of inverse temperature. Both time constants were obtained from double-exponentials $E(t) = A + B_1 \exp(-t/T_2') + B_2 \exp(-t/T_2'')$ fitted to the corresponding echo decay curves shown in Fig. S1. Applying the BPP model an activation energy of about 0.4 eV is derived from T_2' data.