

SUPPORTING INFORMATION

Atomic Motion in the Complex Hydride $\text{Li}_3(\text{NH}_2)_2\text{I}$: ^7Li and ^1H Nuclear Magnetic Resonance Studies

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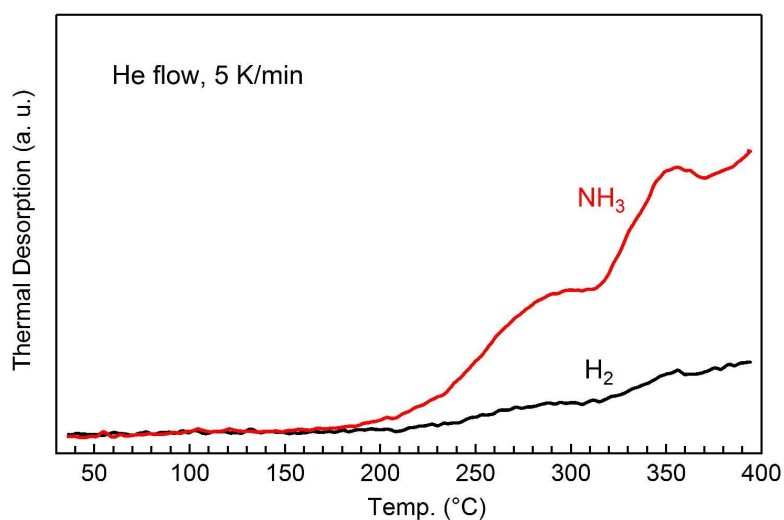


Figure S1. Thermal desorption profile of $\text{Li}_3(\text{NH}_2)_2\text{I}$ measured by mass spectroscopy using Anelva M-QA200TS under helium flow of 150 ml/min at the heating rate of 5 K/min.

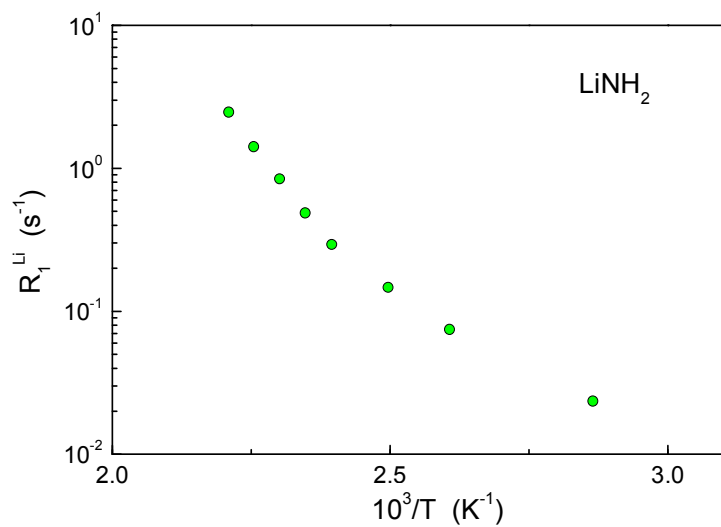


Figure S2. ^7Li spin-lattice relaxation rate measured at 28 MHz for LiNH_2 as a function of the inverse temperature.

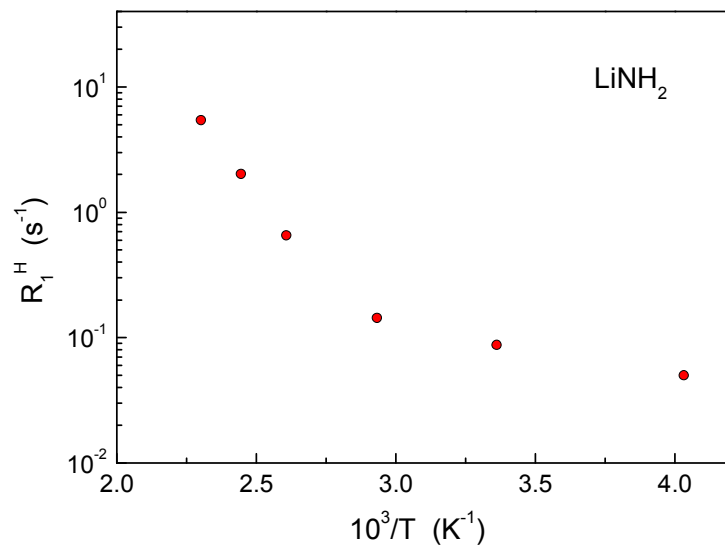


Figure S3. Proton spin-lattice relaxation rate measured at 28 MHz for LiNH_2 as a function of the inverse temperature.

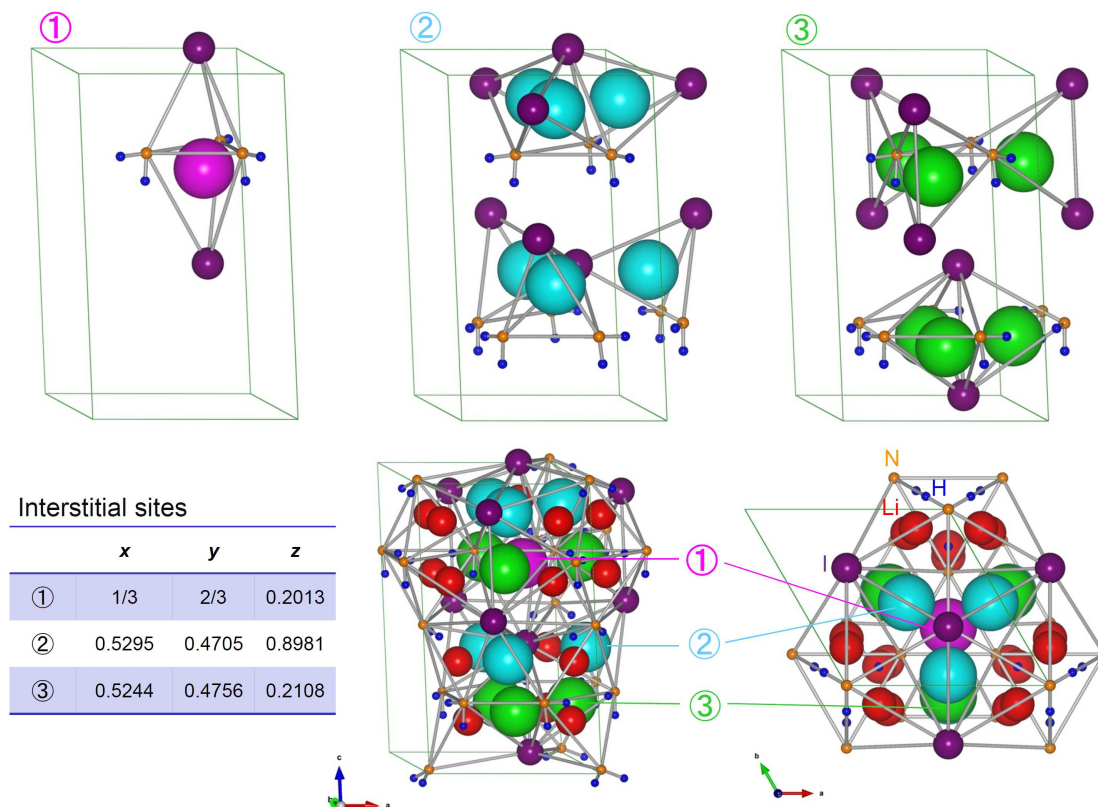


Figure S4. Top: local environment of three types (1, 2, and 3) of the largest interstitial sites in $\text{Li}_3(\text{NH}_2)_2$. Bottom: two projections of the structure with the interstitial sites included. The table shows the coordinates of these interstitial sites. The location of the interstitial sites was obtained using the program MedeA (Materials Design, Inc., version 2.4.7, <http://www.materialsdesign.com/medea>).