

Supplementary Information for

“A new complex alkali metal aluminum amide borohydride,  $\text{Li}_2\text{Al}(\text{ND}_2)_4\text{BH}_4$  : synthesis, thermal analysis and crystal structure”

Satoshi Hino<sup>a</sup>, Takayuki Ichikawa<sup>b</sup>, Yoshitsugu Kojima<sup>c</sup>, Magnus H. Sørby<sup>a,\*</sup>, Bjørn C. Hauback<sup>a</sup>

<sup>a</sup> Physics Department, Institute for Energy Technology, P.O. Box 40, NO-2027 Kjeller, Norway

<sup>b</sup> Graduate School of Integrated Arts and Sciences, Hiroshima University, 1-3-1 Kagamiyama, Higashi-Hiroshima, 739-8530, Japan.

<sup>c</sup> Institute for Advanced Materials Research, Hiroshima University, 1-3-1 Kagamiyama, Higashi-Hiroshima, 739-8530, Japan.

\* Corresponding author. Tel.: +47 6380 6000; fax: +47 6381 0920. E-mail address: [magnuss@ife.no](mailto:magnuss@ife.no) (M. H. Sørby).

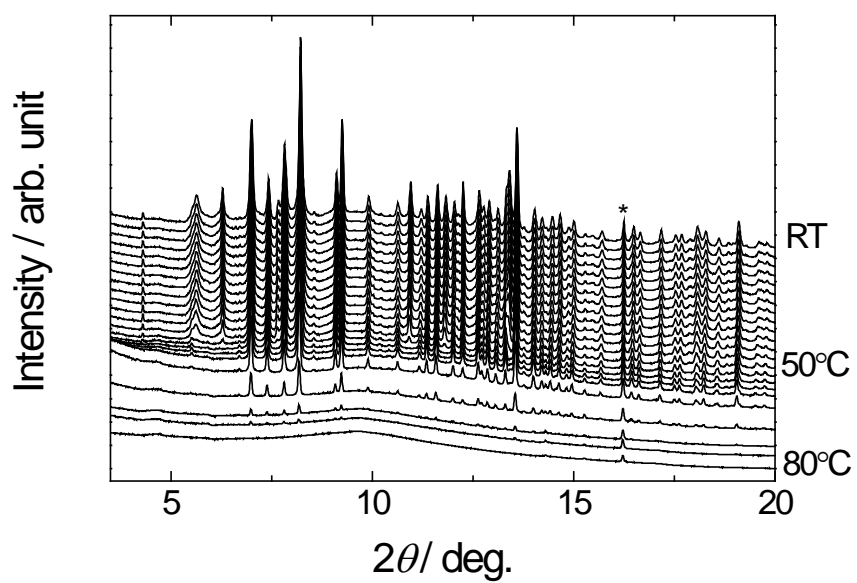


Figure S1. *In-situ* SR-PXD data for  $\text{LiAl(ND}_2)_4 + 2\text{LiBH}_4$  (S1) with  $\lambda = 0.694118 \text{ \AA}$ . The heating rate was  $5^\circ\text{C/min}$ . A diffraction profile was collected every 40 s. “\*” denotes diffraction peak from Li.

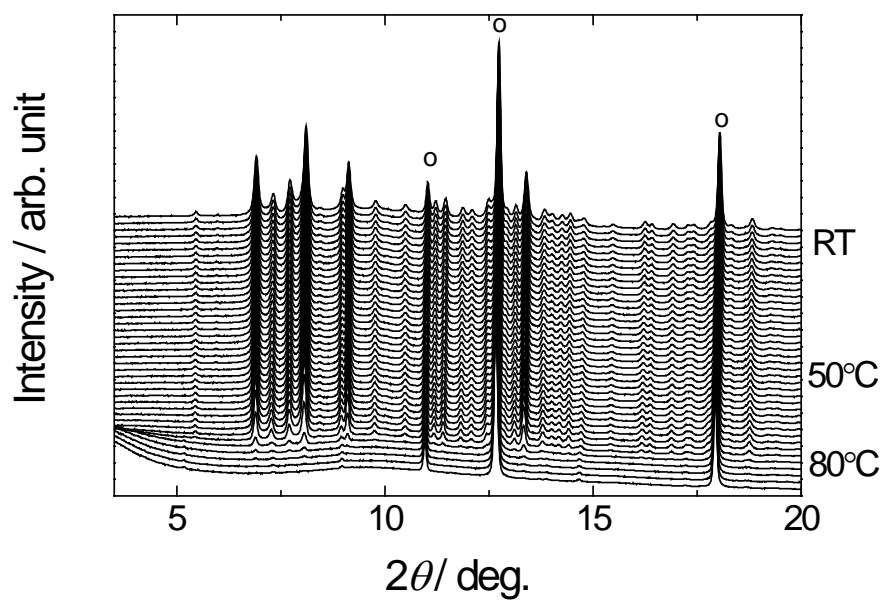


Figure S2. *In-situ* SR-PXD data for NaAl(ND<sub>2</sub>)<sub>4</sub>+2LiBH<sub>4</sub> (S2) with  $\lambda = 0.68291 \text{ \AA}$ . The heating rate was 5 °C/min. A diffraction profile was collected every 25 s. “o” denotes diffraction peaks from NaBH<sub>4</sub>.