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Supporting information for article:

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Revisiting the hydrogenation behavior of NdGa and its hydride phases

Vitalii Shtender,[1,*] Johan Cedervall,[1] Gustav Ek,[1] Claudia Zlotea,[2] Mikael S. Andersson,[1] Pascal Manuel,[3] Martin Sahlberg,[1] Ulrich Häussermann[4]

[1]Department of Chemistry – Ångström Laboratory, Uppsala University, Box 538, Uppsala 751 21, Sweden

[2]Univ Paris Est Creteil, CNRS, ICMPE, UMR 7182, 2 rue Henri Dunant, 94320 Thiais, France

[3]ISIS Neutron and Muon Facility, Science and Technology Facilities Council, Rutherford Appleton Laboratory, Oxford OX11 0QX, UK

[4]Department of Materials and Environmental Chemistry, Stockholm University, 106 91 Stockholm, Sweden

*Corresponding author: vitalii.shtender@angstrom.uu.se

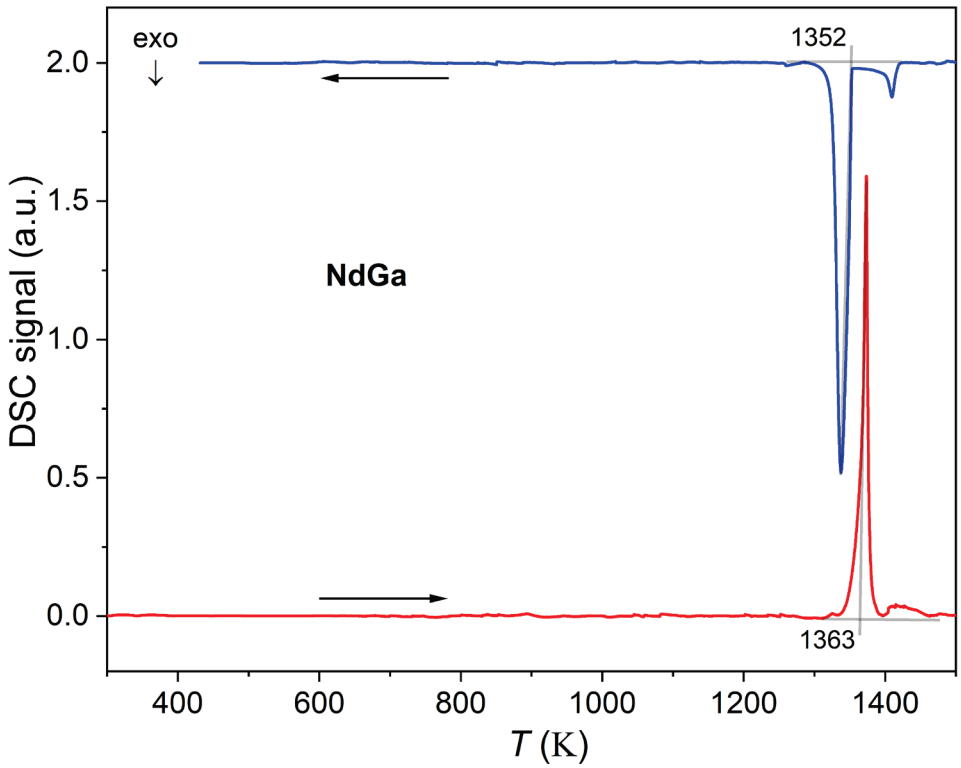
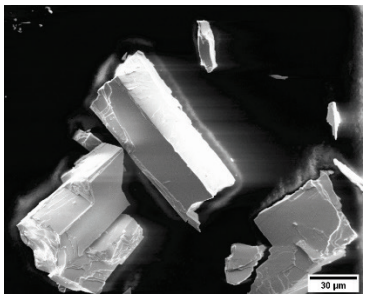
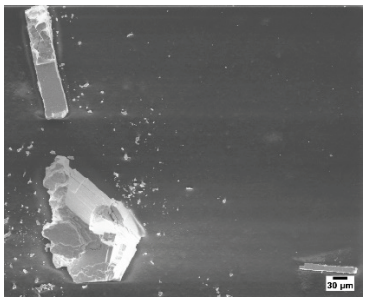


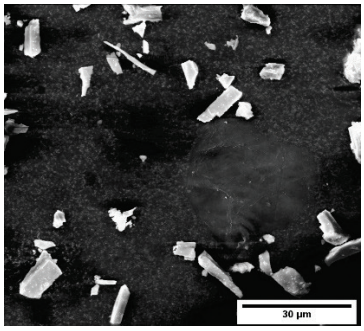
Figure S1. DSC spectrums for NdGa compounds with outlined onset temperatures.



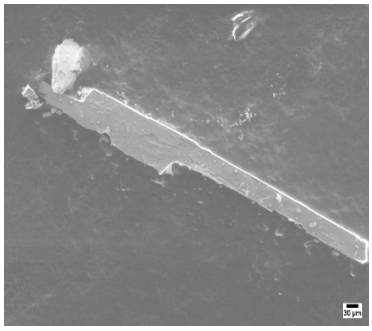
NdGa



$NdGaH_{0.9}$



$NdGaH_{1.2}$



$NdGaH_{1.6}$

Figure S2. SEM images for $NdGaH_x$ (x = 0, 0.9, 1.2 and 1.6).

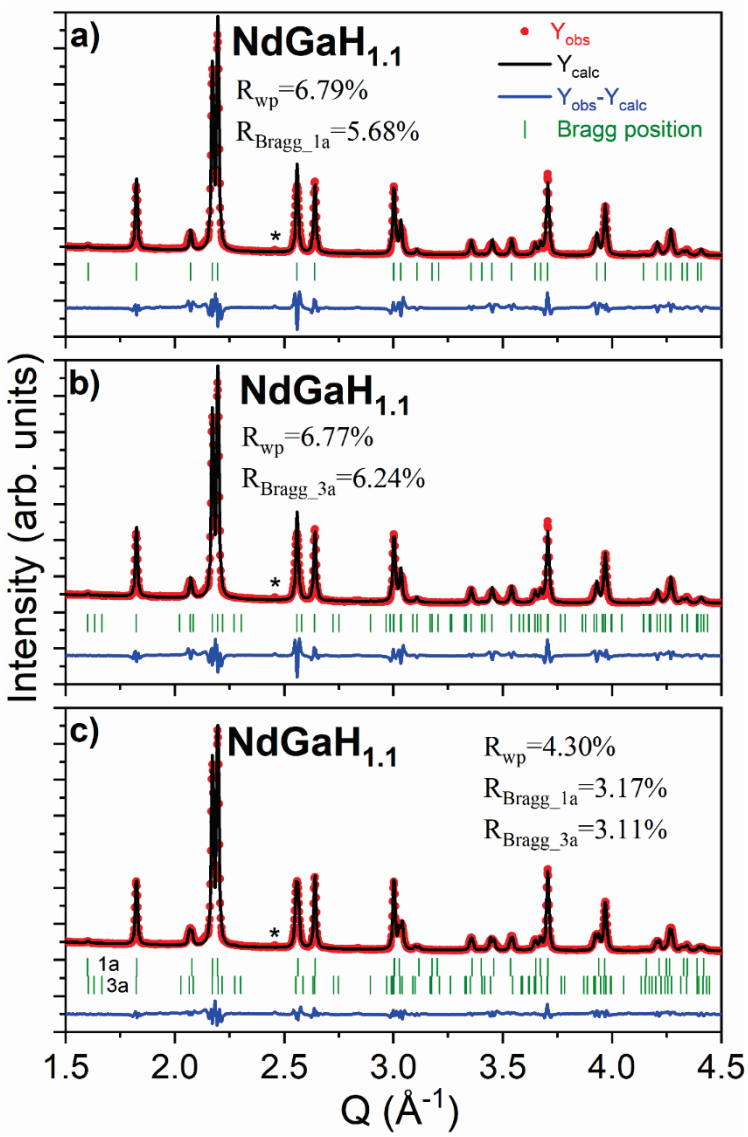


Figure S3. Rietveld refinement of $NdGaH_{1.1}$ sample. a) fitting the 1*a* CrB type structure b) fitting 3*a*-superstructure, c) fitting as two-phase mixture. * indicates the impurity of $TaGaO_4$.

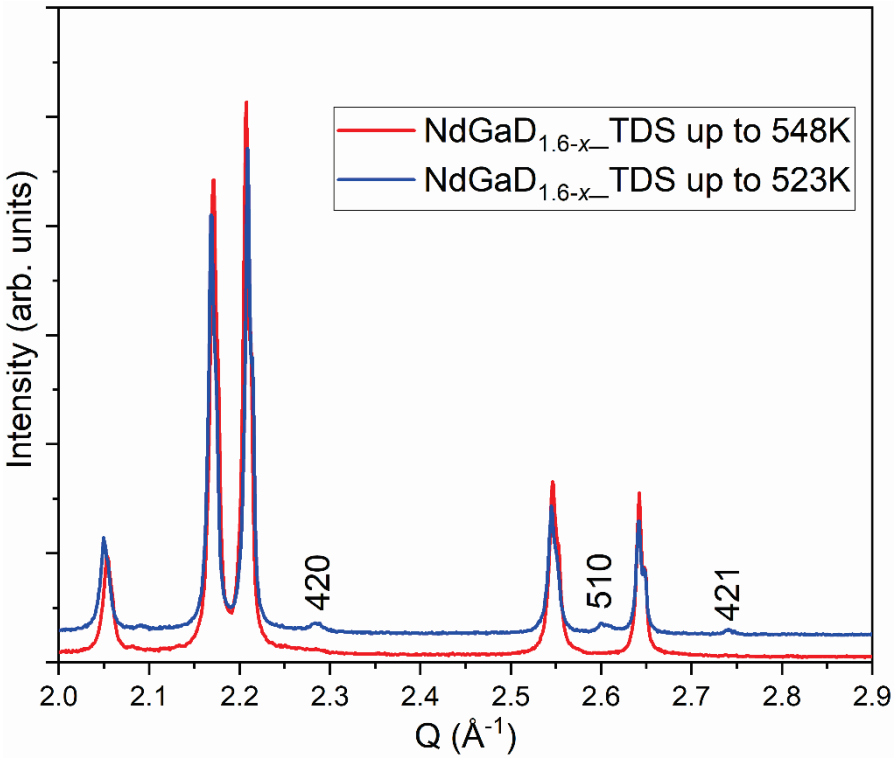


Figure S4. Comparison of two PXRD patterns of deuterides heated to 523 and 548 K. hkl's of supperlattice peaks are presented.

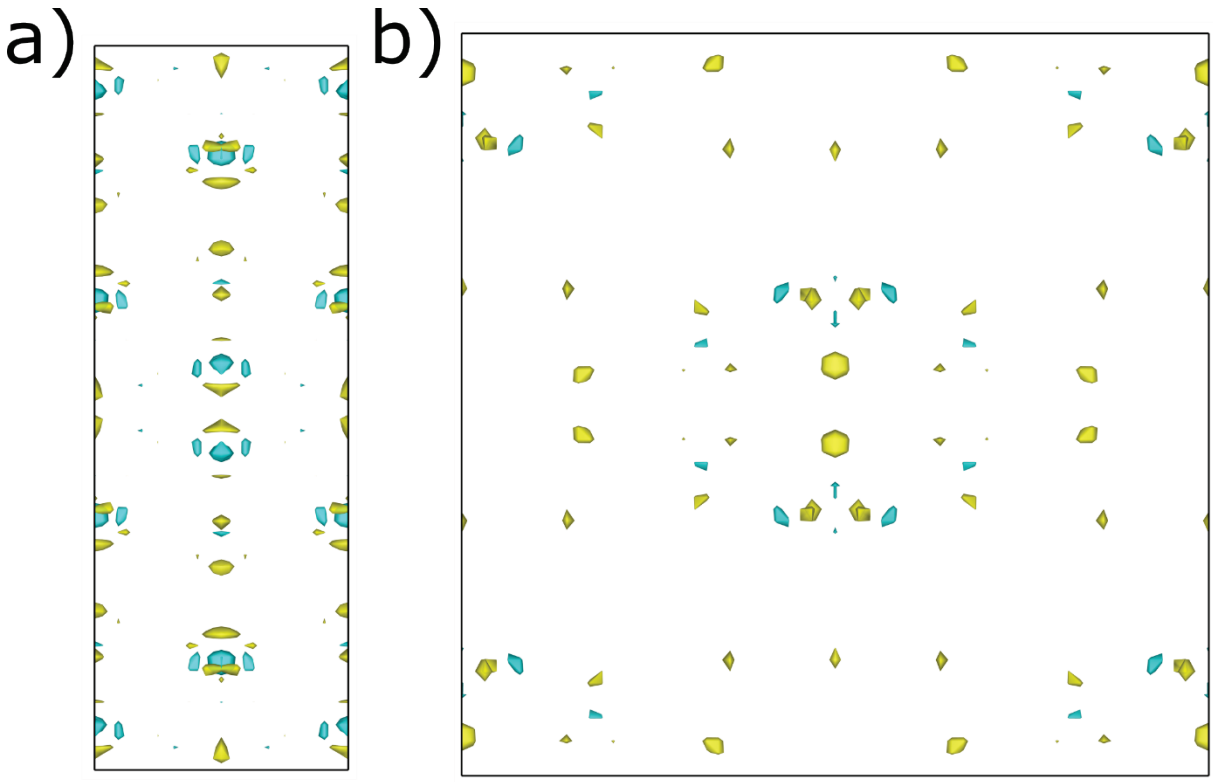


Figure S5. Fourier difference maps for a) $NdGaD_{0.9}$ and b) $NdGaD_{1.6}$. Isosurface levels are set to 0.1 fm/Å^3.