

Supplementary Information

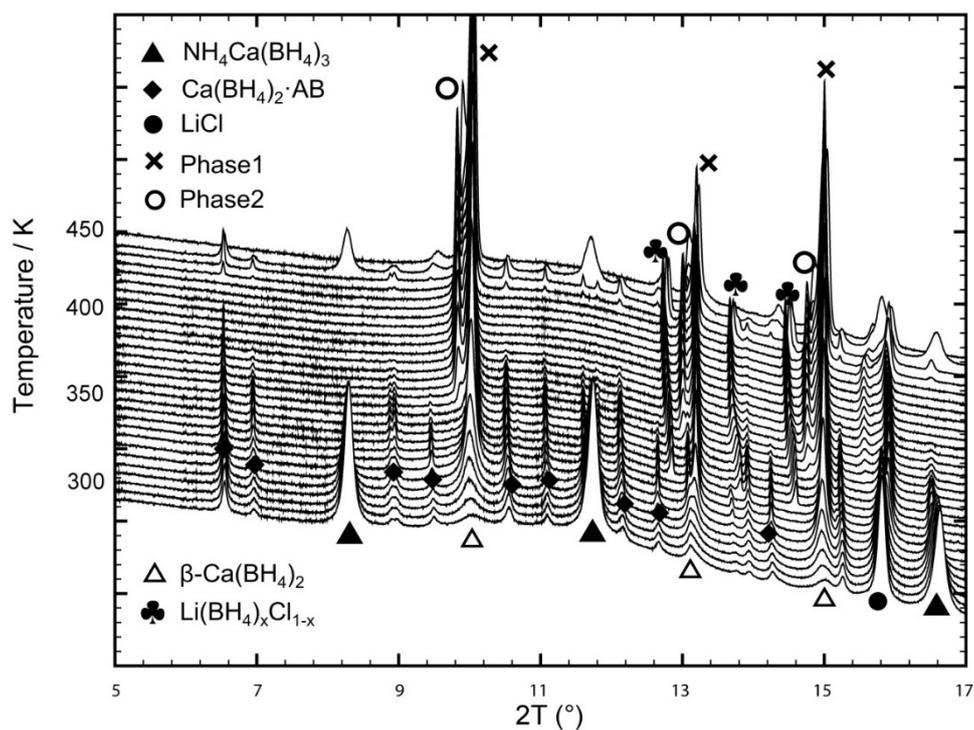


Figure S1. *In-situ* synchrotron X-ray powder diffraction data as function of temperature for the chloride based sample 1:1:1.

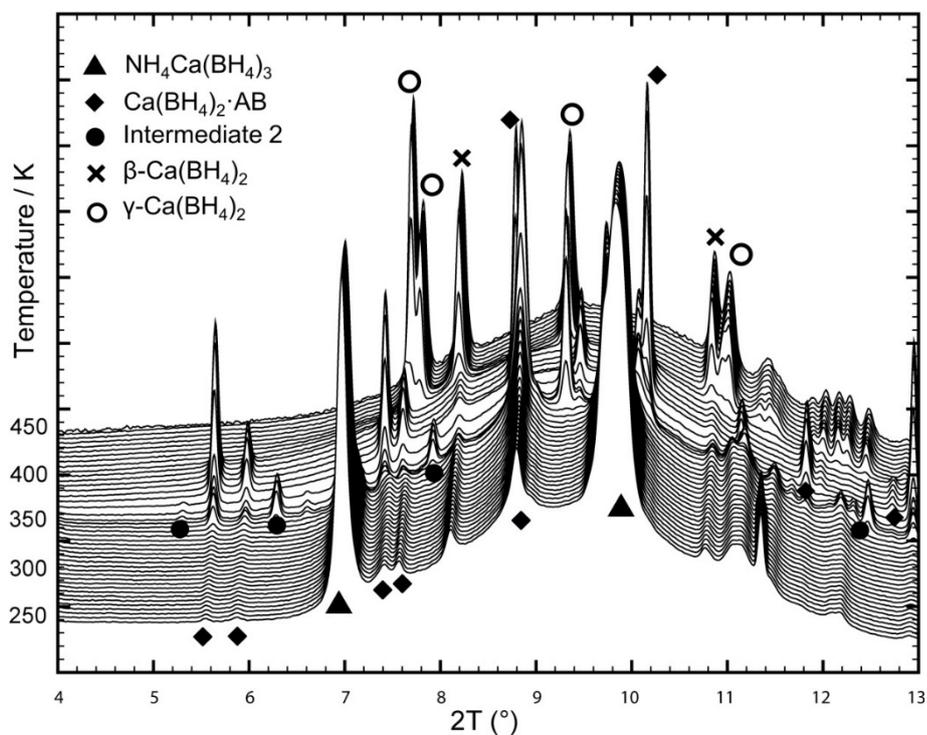


Figure S2. *In-situ* synchrotron X-ray powder diffraction data as function of temperature for the ether-milled sample.

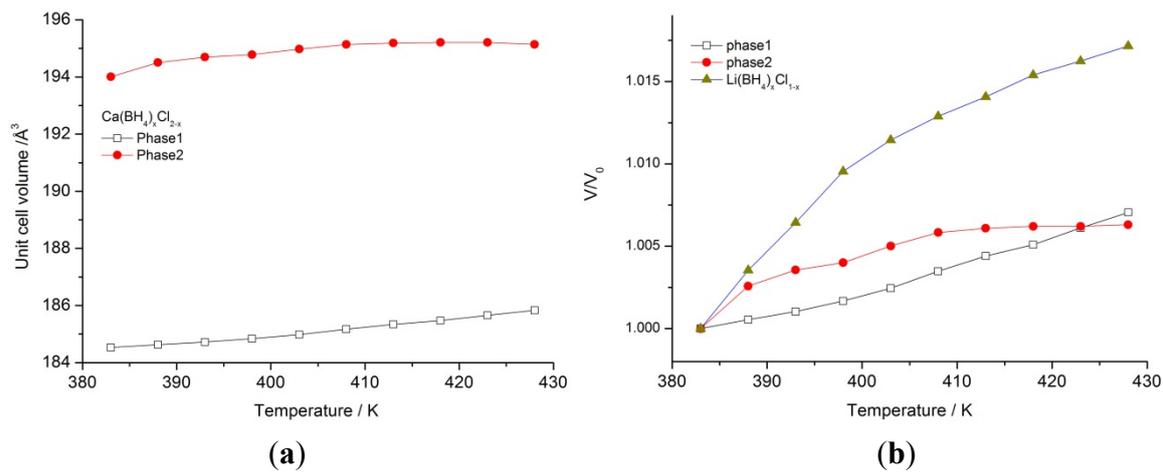


Figure S3. (a) Temperature dependency of lattice parameters of phase 1 and 2; (b) Normalized unit cell volumes.