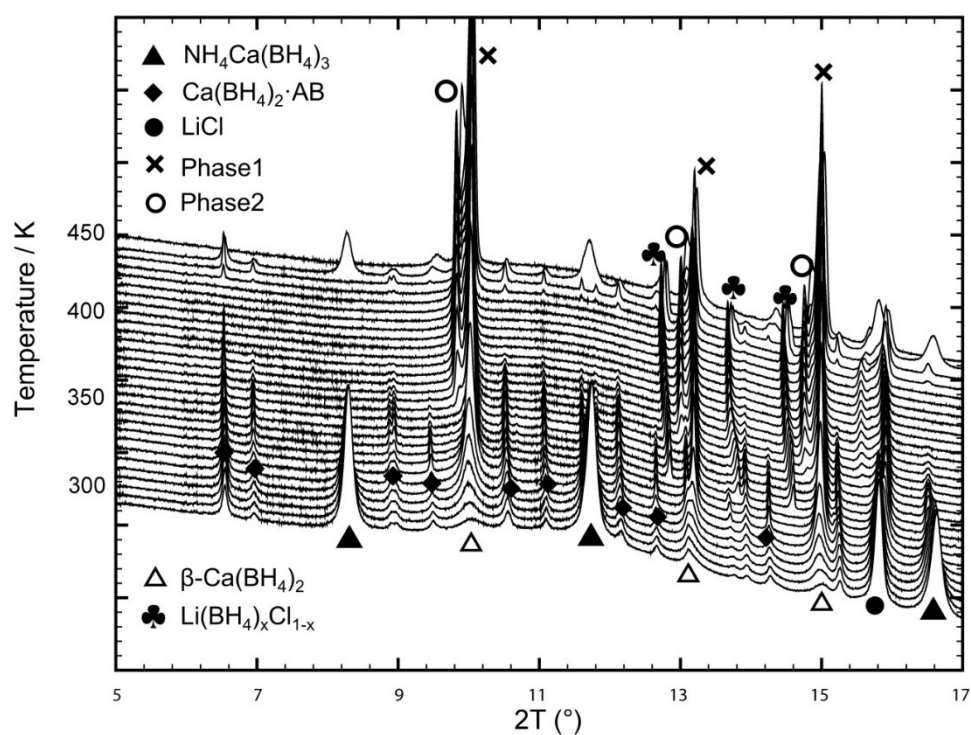
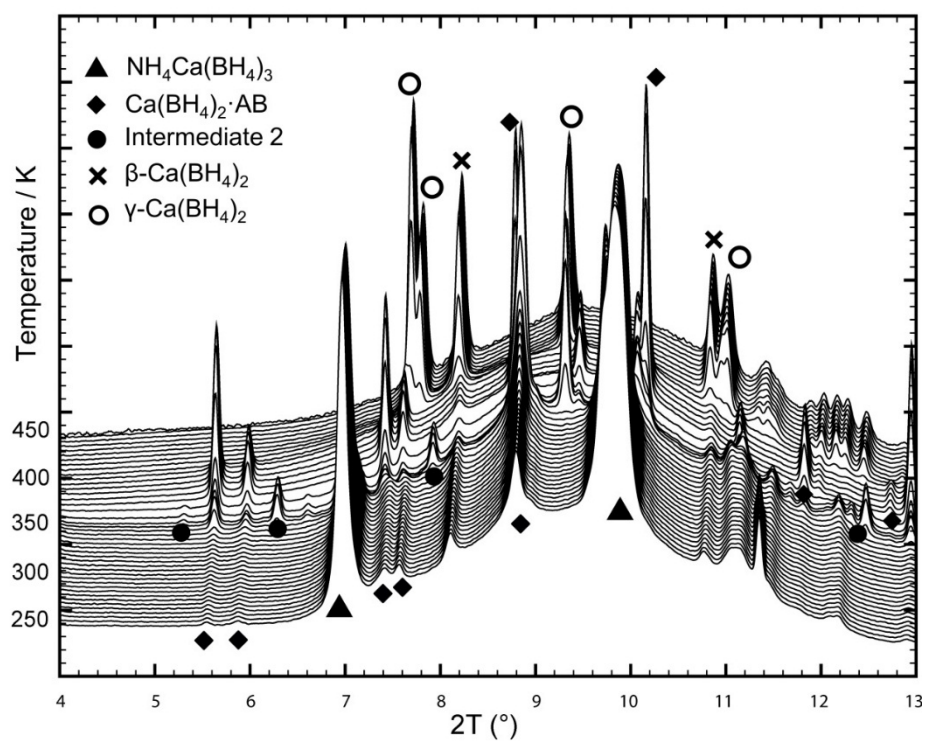


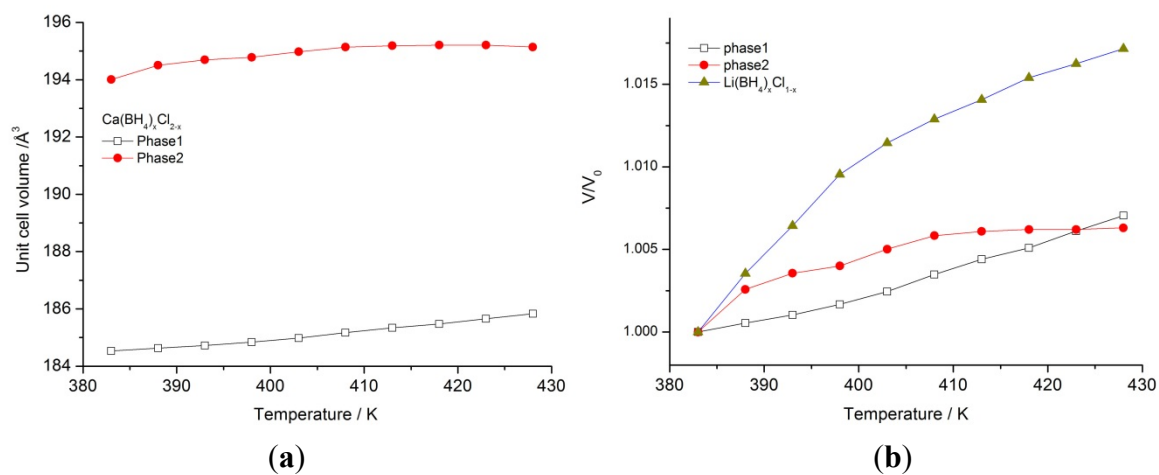
## Supplementary Information



**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.