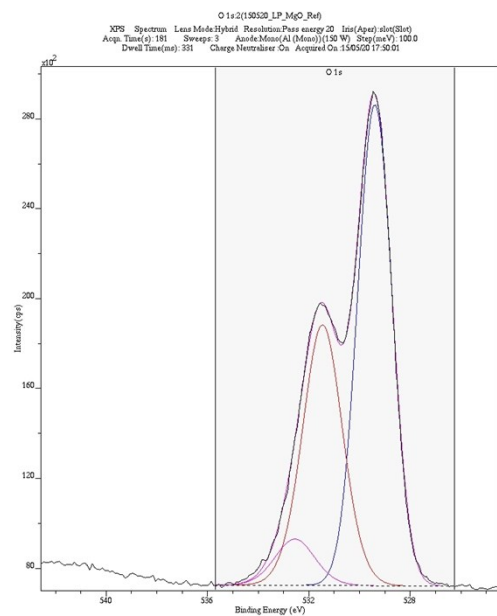


Supplementary Information

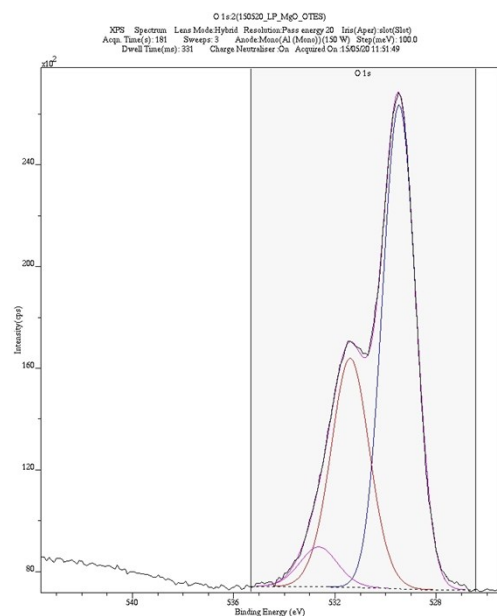
S1 - X-ray photospectroscopy (XPS)

O 1s -peak

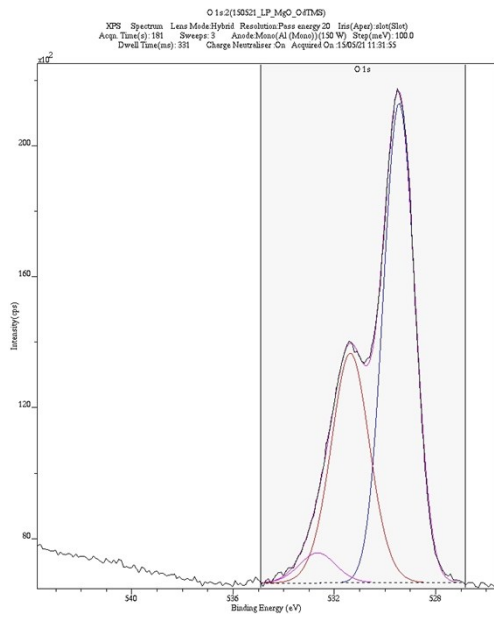
UN-MgO



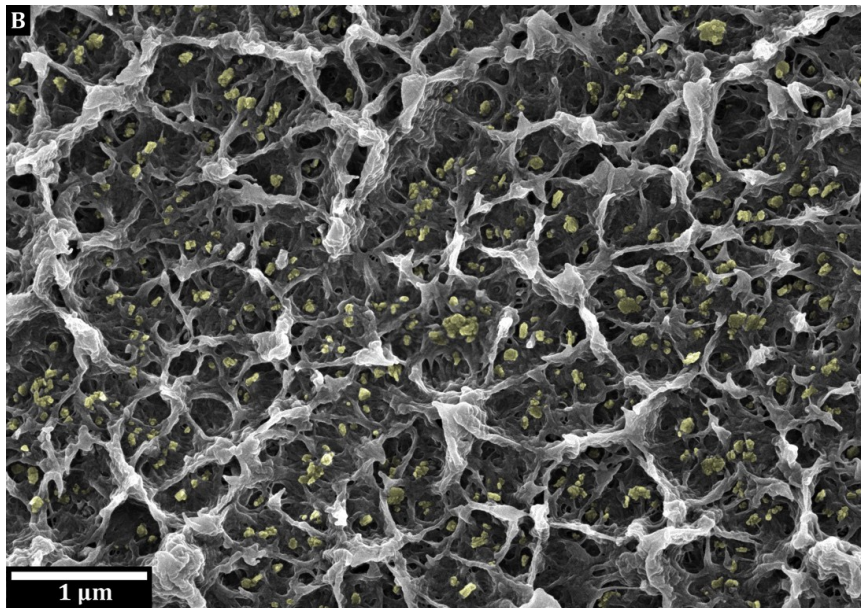
C8-MgO

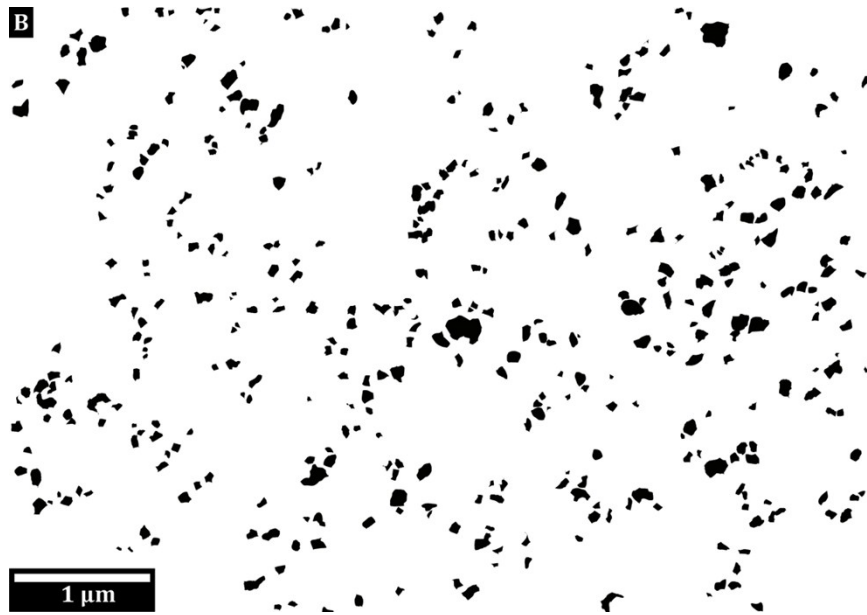


C18-MgO



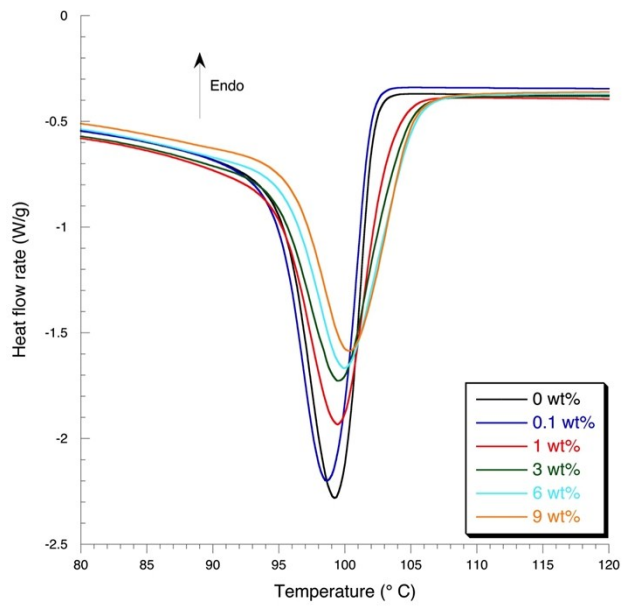
S2 – Analyzed SEM-image changed to bitmap for Bootstrap statistics



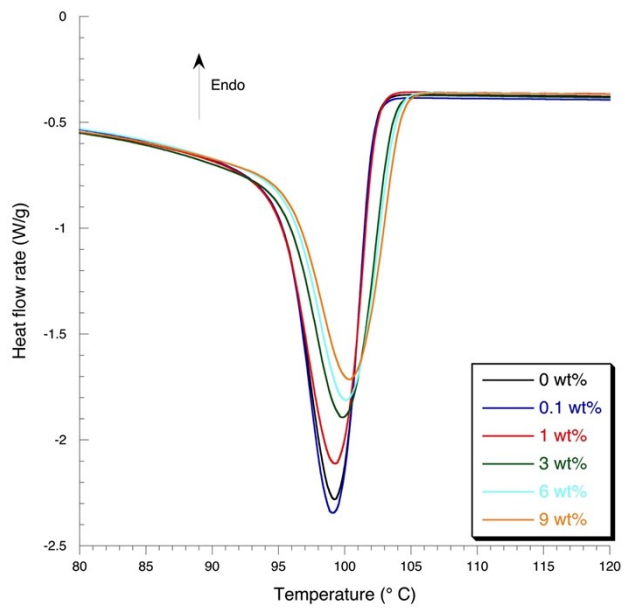


S3 – Heat flow rate for the crystallization as acquired at a cooling of 10 °C/min in differential scanning calimetry.

UN-MgO



C8-MgO



C18-MgO

