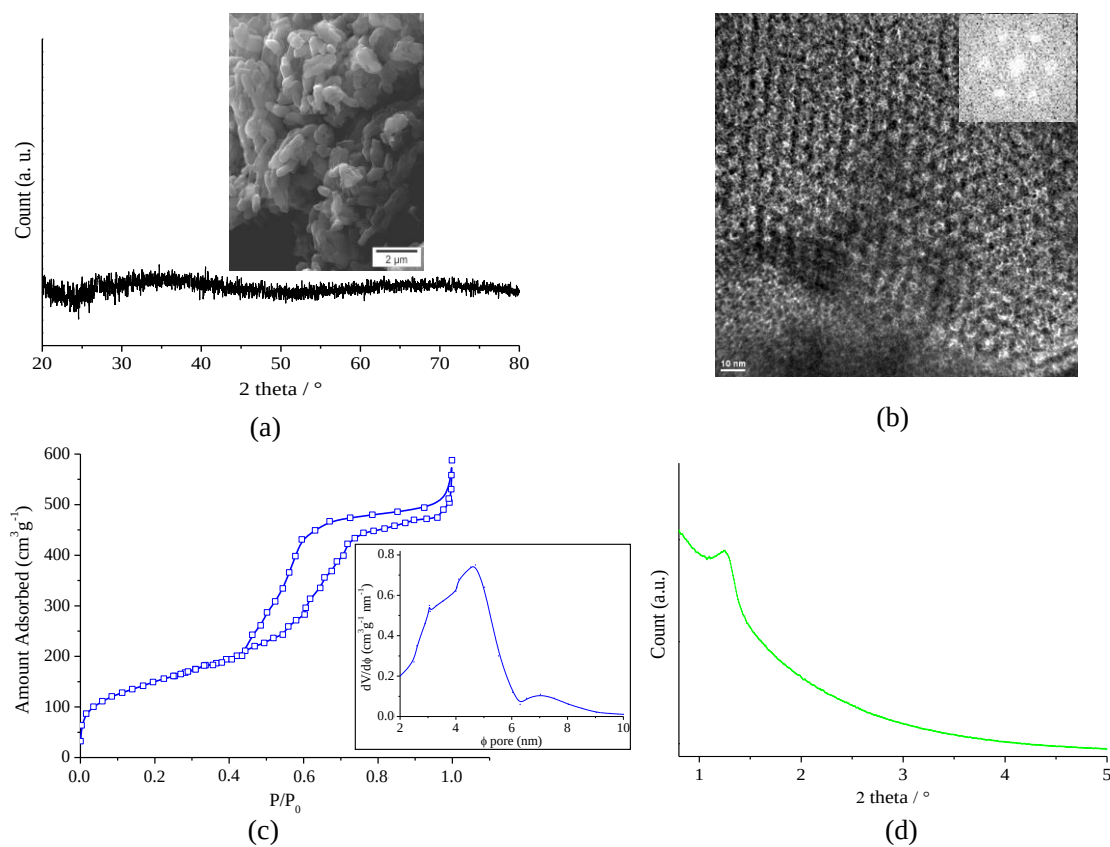
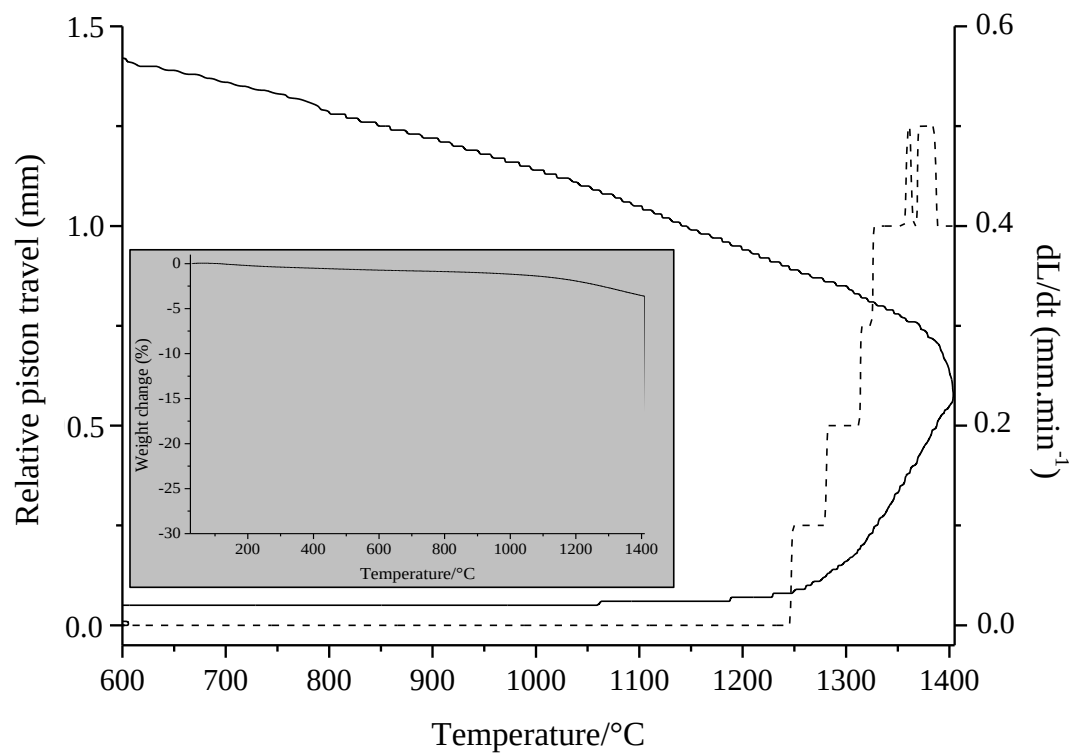
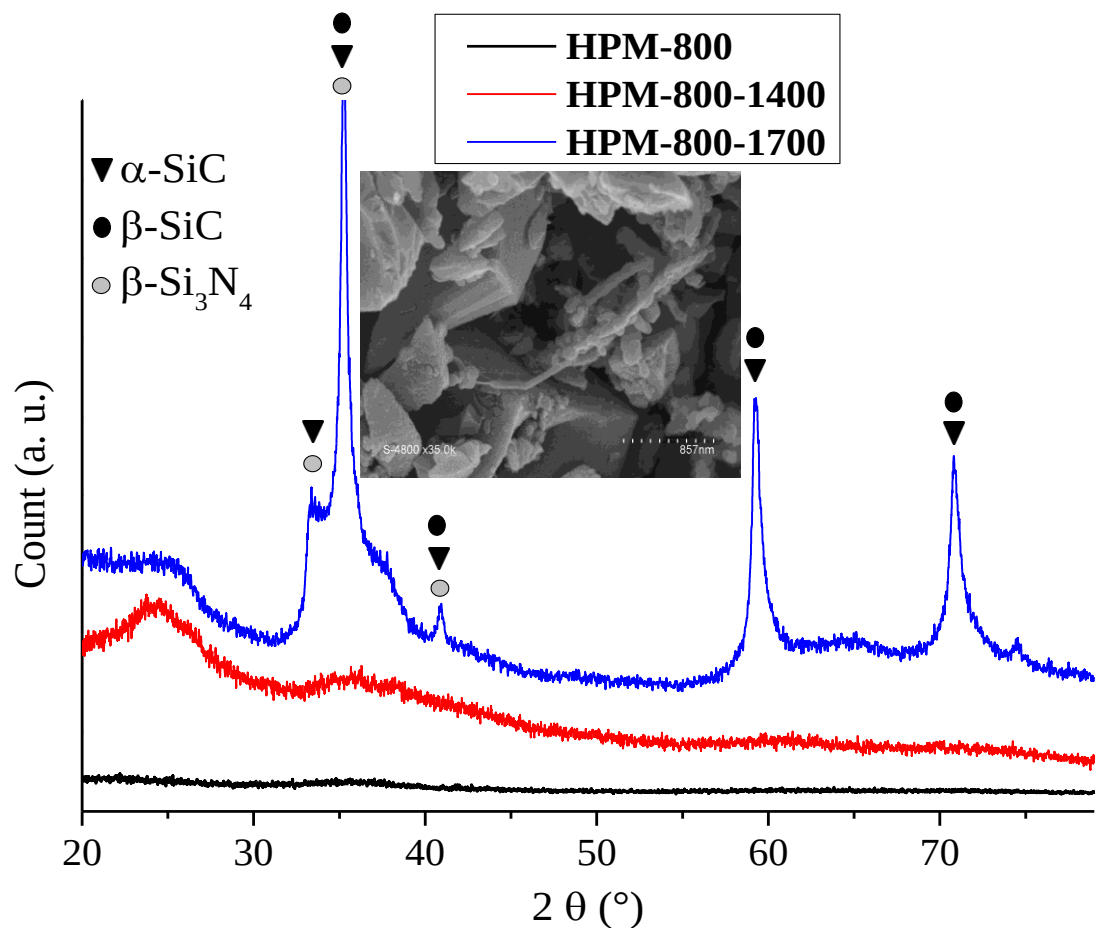




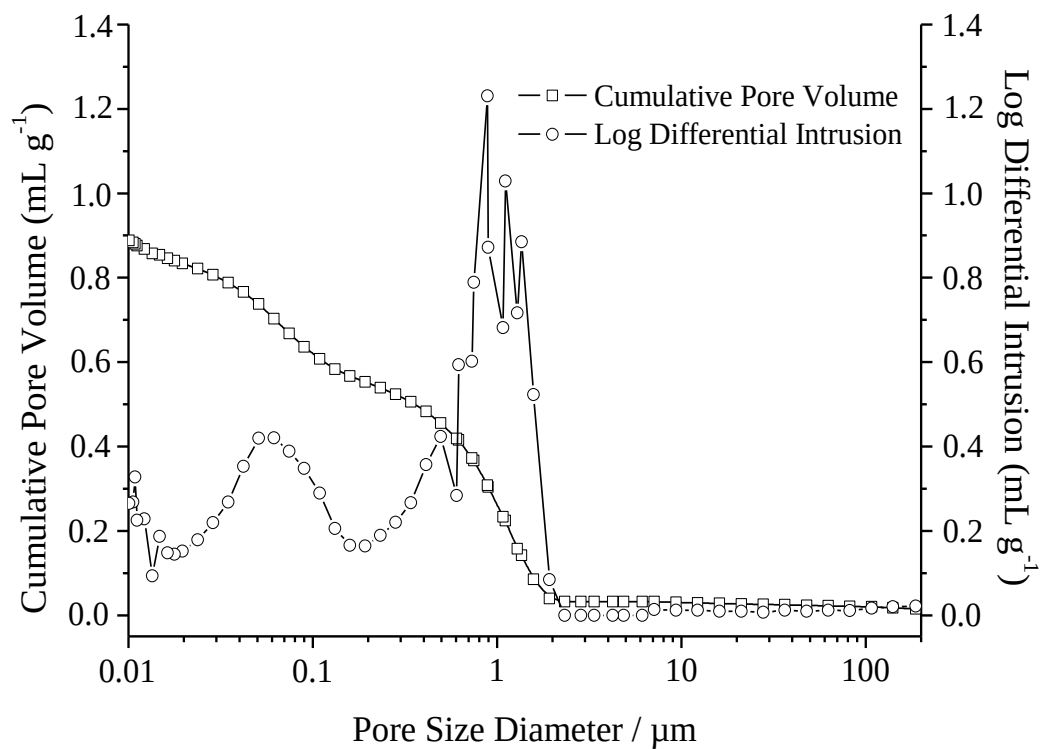
**Figure S11.** XRD pattern and SEM image (a), HRTEM image (b), BET isotherm (c) and LA-XRD pattern (d) of the samples **OMP**.



**Figure S12.** Dilatometric curve recorded during SPS (16 MPa/ $\text{N}_2$ /1400  $^\circ\text{C}$ ) for samples **OMP** and HT-TGA curve of samples **OMP** as inset.



**Figure S13.** XRD pattern and SEM image (inset) of samples **HPM-800** and **HPM-800** heat-treated at 1400 and 1700 °C in flowing nitrogen.



**Figure S14.** Macroscopic pore-size distribution obtained by mercury-intrusion porosimetry of **HPM-800**.