

# Supplementary

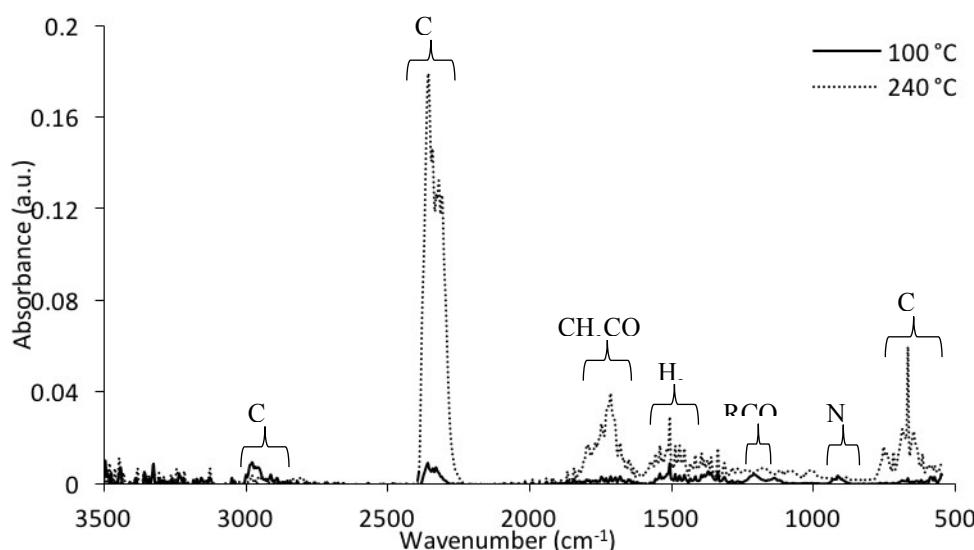


Figure S1: FTIR spectra of gases evolved from *N*-Starbon at 100 °C and 240 °C.

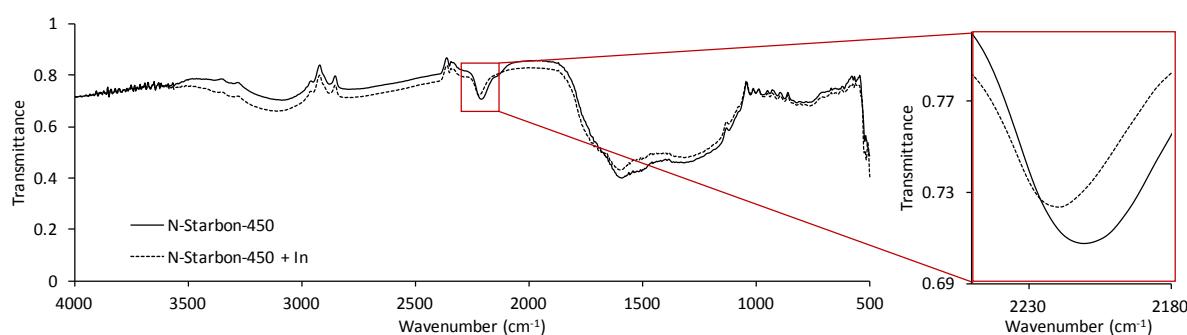


Figure S2: The FTIR spectra of *N*-Starbon carbonised to 450 °C, before and after  $\text{In}^{3+}$  adsorption.

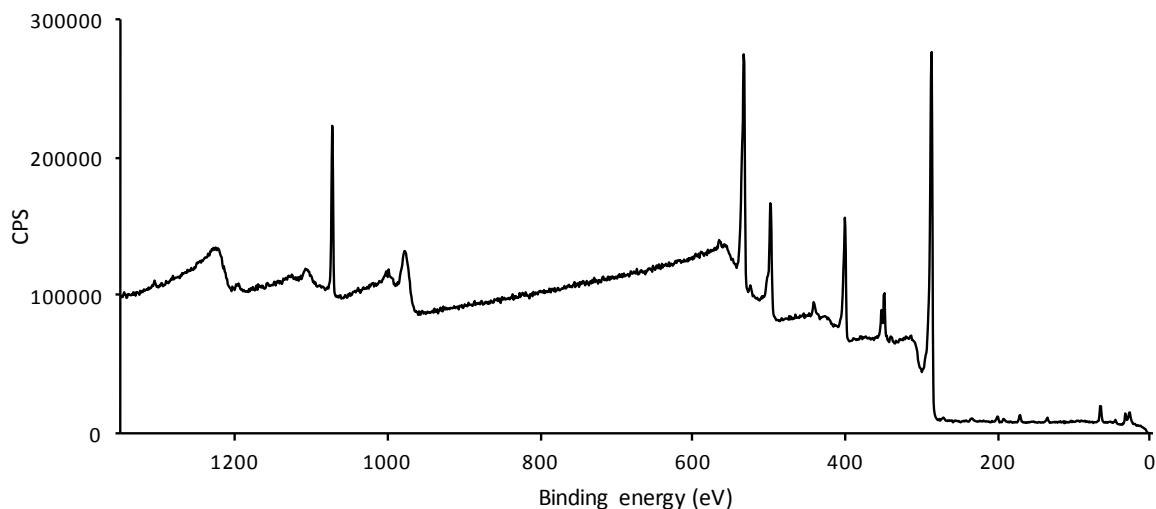


Figure S3: The full survey XPS spectrum of *N*-Starbon-450.

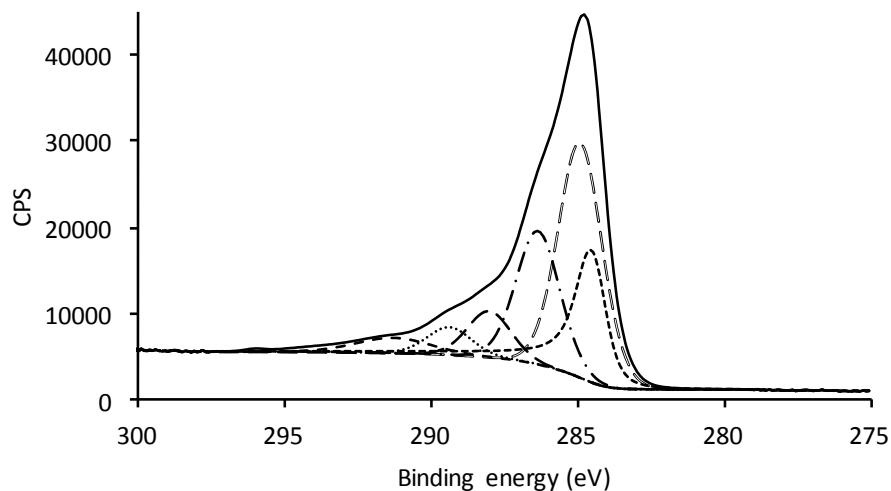


Figure S4: High resolution XPS spectrum in the C1s region of *N*-Starbon-450.

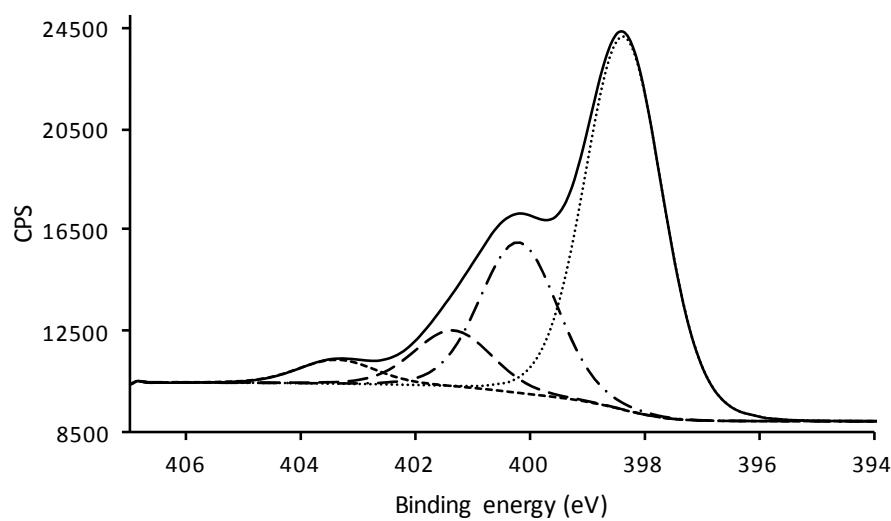


Figure S5: High resolution XPS spectrum in the N1s region of *N*-Starbon-450.

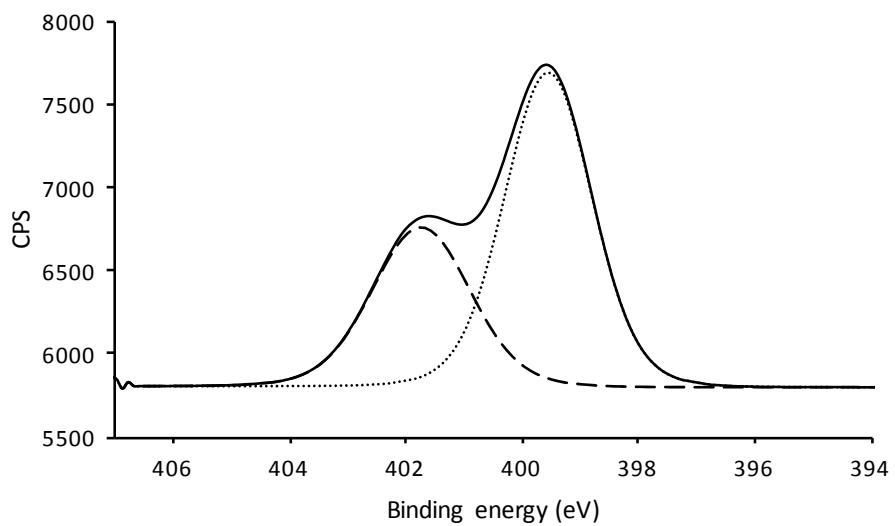


Figure S6: High resolution XPS spectrum in the N1s region of *N*-Starbon-0.

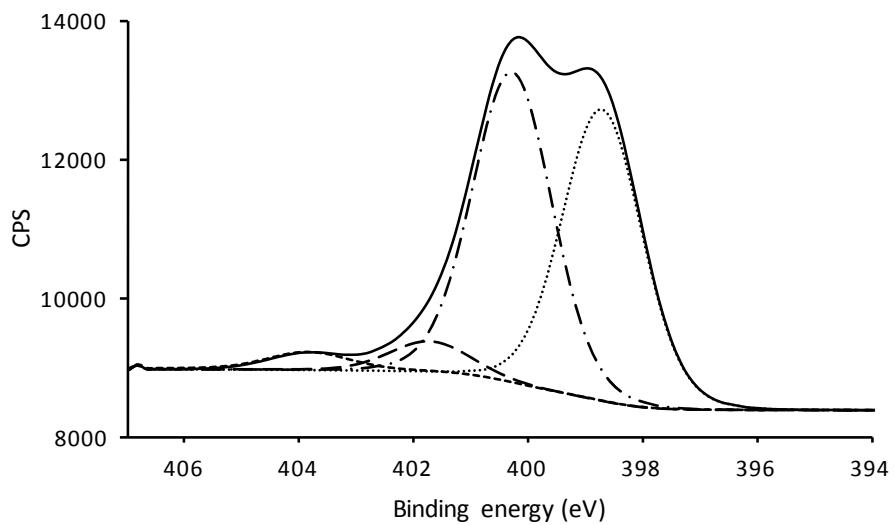


Figure S7: High resolution XPS spectrum in the N1s region of *N*-Starbon-300.

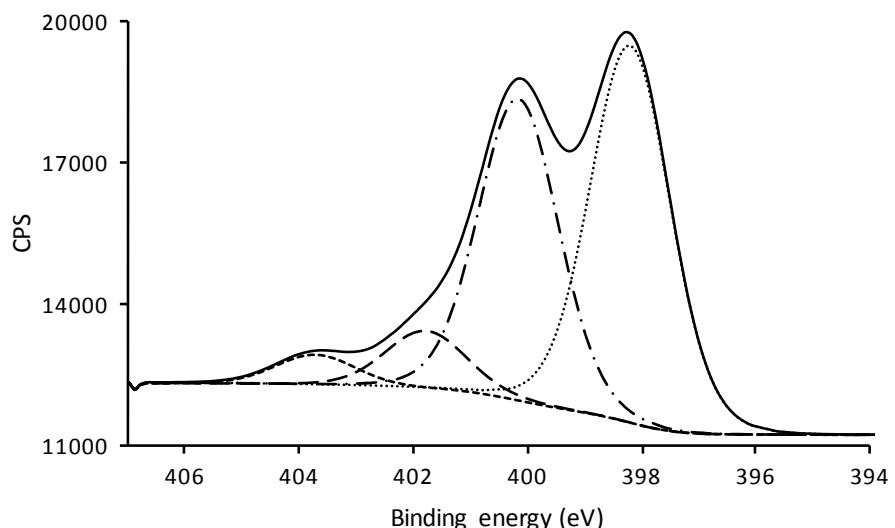


Figure S8: High resolution XPS spectrum in the N1s region of *N*-Starbon-600.

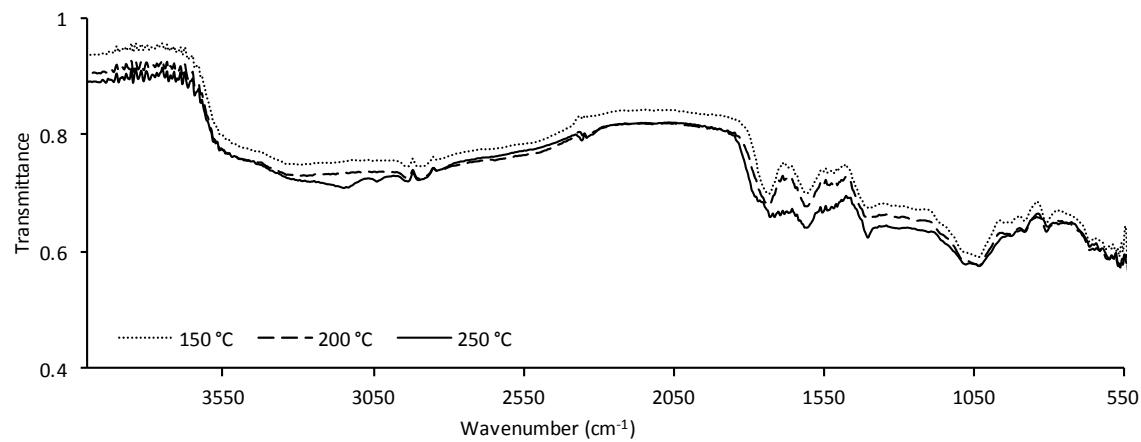


Figure S9: The DRIFT spectra of N-Starbon carbonised to low temperatures.

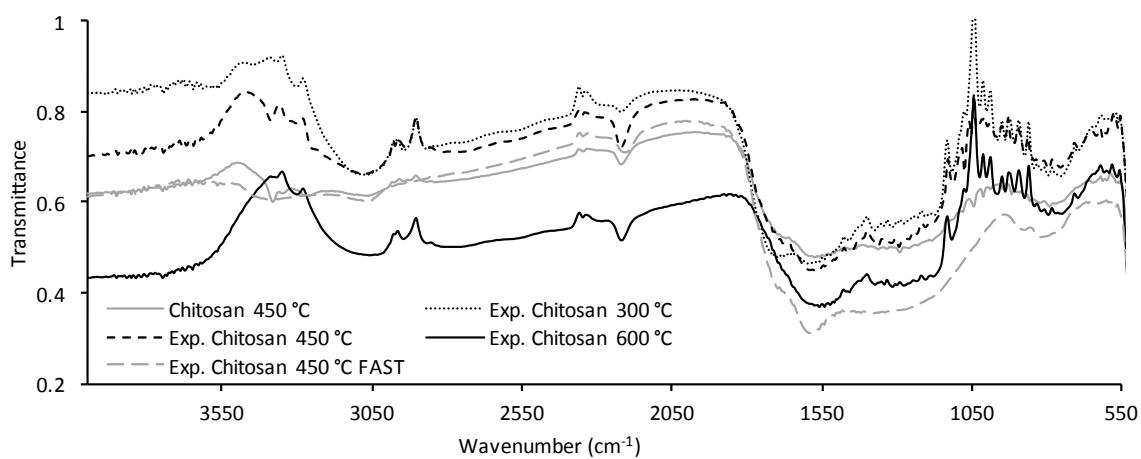


Figure S10: The DRIFT spectra of normal and expanded chitosan carbonised to various temperatures at regular Starbon® heating rates and fast heating rates (10 °C min<sup>-1</sup>).