

Molecular Nitrogen in N-doped TiO₂

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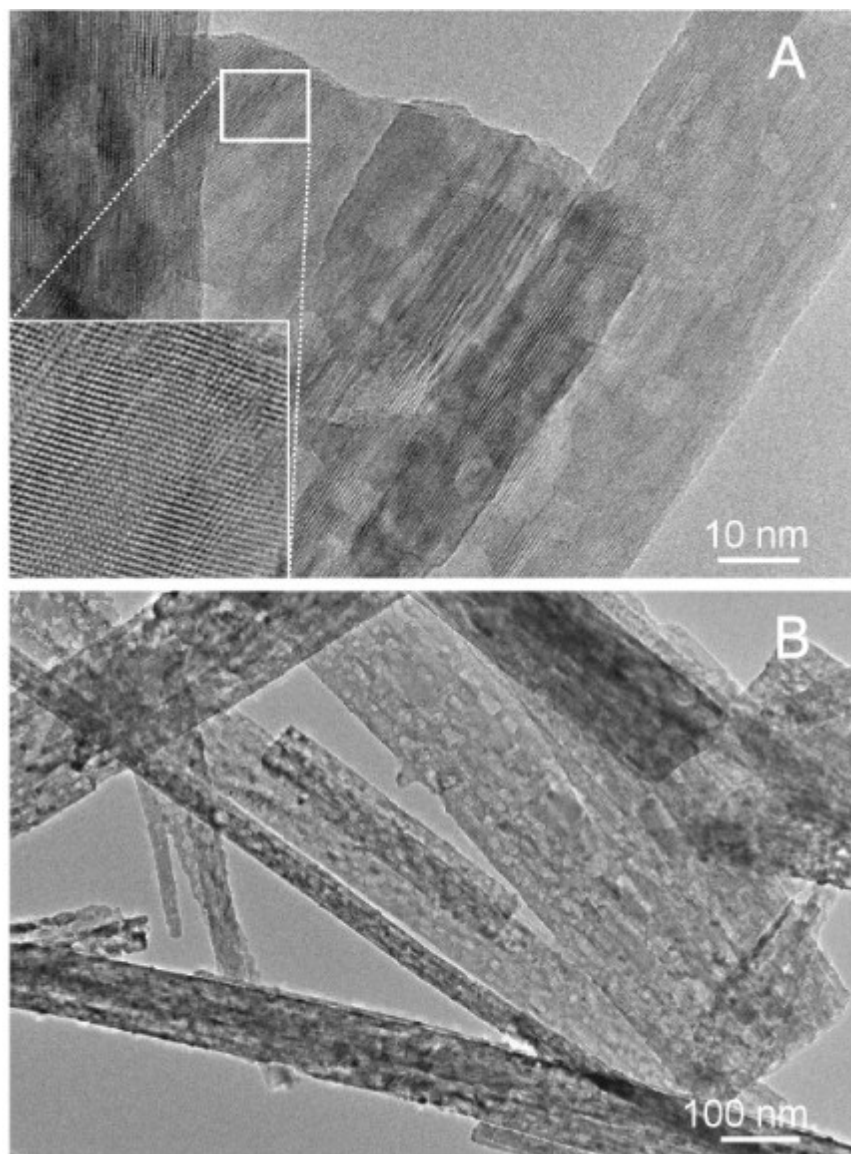


Figure S1: TEM images of N-doped TiO₂ nanoribbons synthesized from hydrogen titanate nanoribbons by calcination in an NH₃(g)/Ar(g) flow at A) 580 °C B) and 650 °C. A HRTEM insert in image (A) reveals crystalline nature of the N-doped TiO₂ nanoribbons.

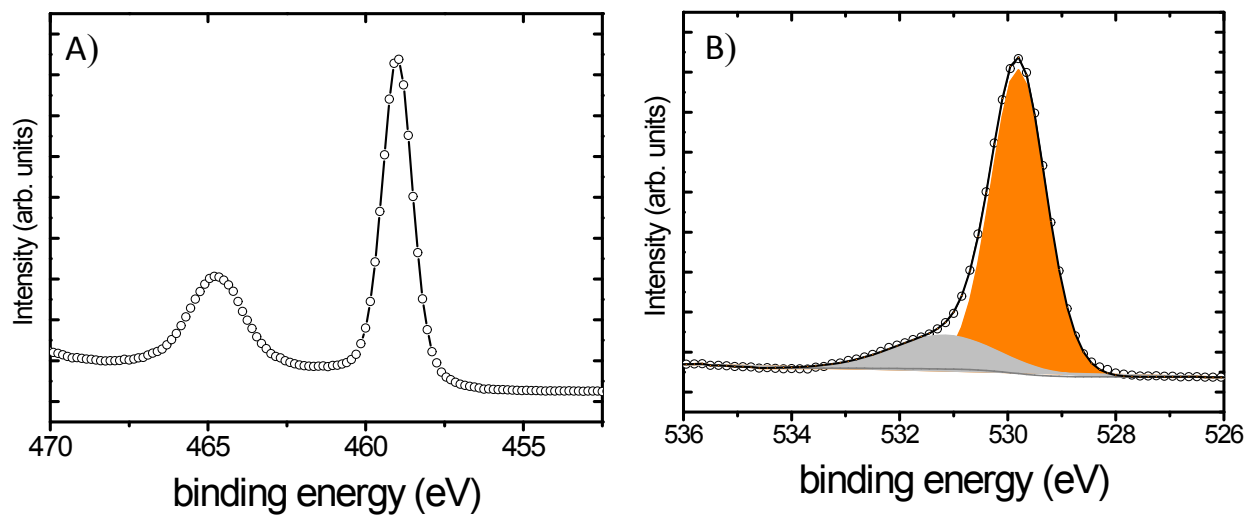


Figure S2: XPS spectra recorded on N400-6h; A) Ti 2p and B) O 1s.

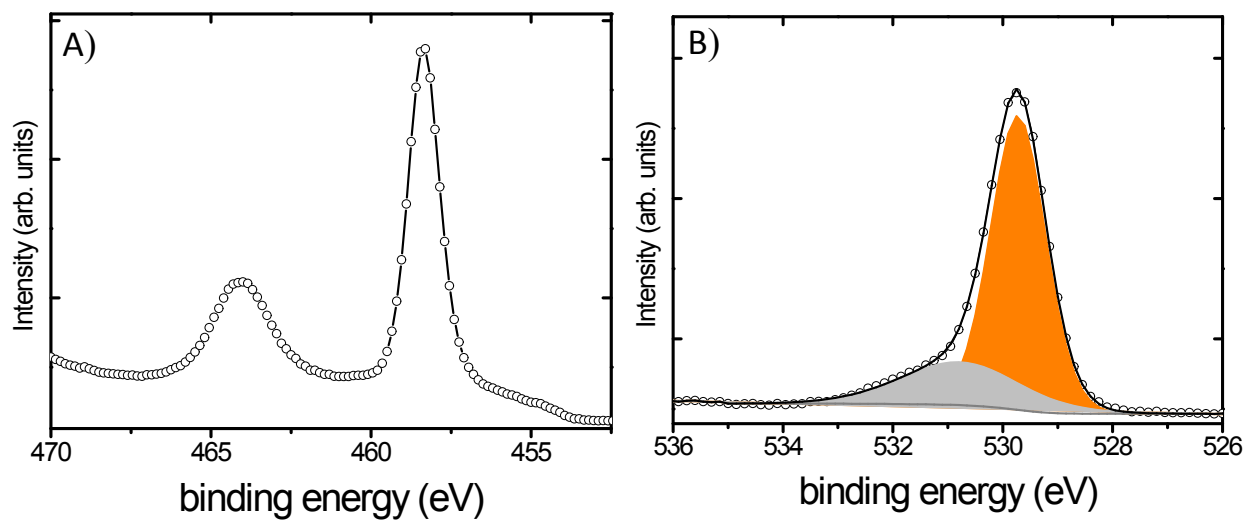


Figure S3: XPS spectra recorded on N650-4h; A) Ti 2p and B) O 1s.

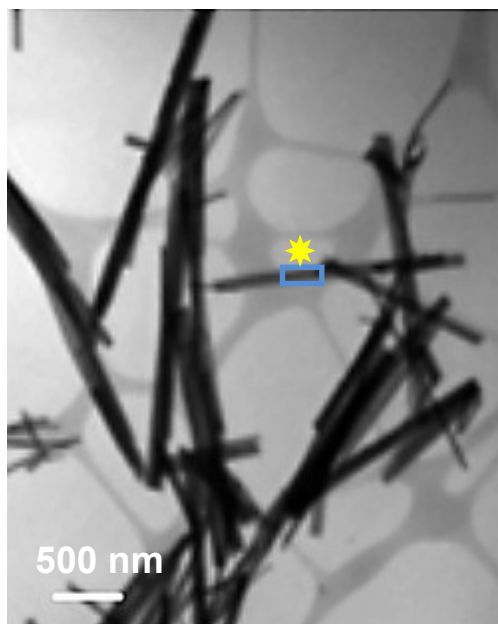


Figure S4: X-ray image at 465.4 eV from an image stack recorded on **N580-6h** at the U41 beamline by using the TXM. The NEXAFS–TXM (Ti L-edge (see **Figure S5**) and N K-edge (see **Figure 5**)) spectra were recorded in the area delimited by the rectangle. The yellow spot indicates the point at which the I_0 was recorded.

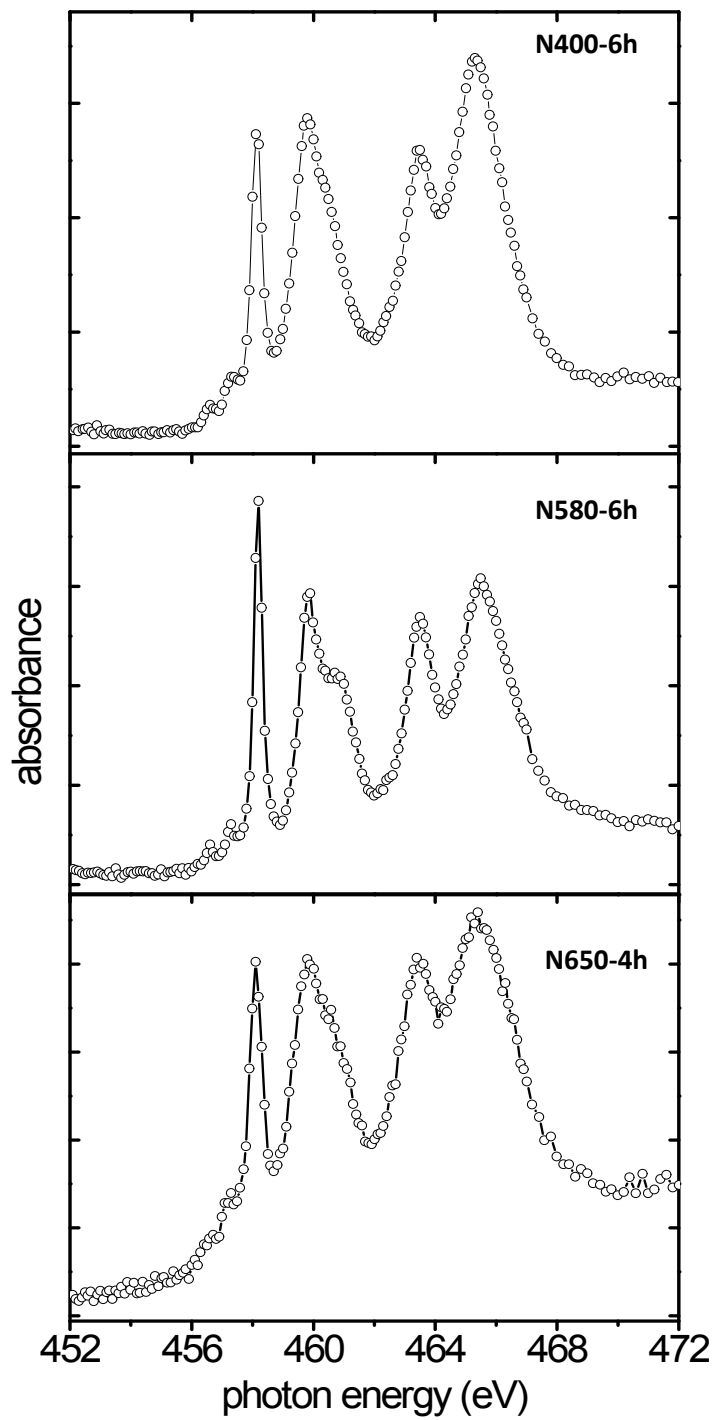


Figure S5: Ti L-edge NEXAFS-TXM spectra recorded on N400-6h, N580-6h and N650-4h.