

Supporting information

A facile route toward the increase of oxygen content in nanosized zeolite by insertion of cerium and fluorinated compounds

Sarah Komaty,^a Clément Anfray,^{b,§} Moussa Zaarour,^{a,§} Hussein Awala,^a Valerie Ruaux,^a

Samuel Valable,^b and Svetlana Mintova^{a,*}

^a Laboratoire Catalyse et Spectrochimie, Normandie University, ENSICAEN, UNICAEN, CNRS, 14050 Caen, France.

^b ISTCT/CERVOxy group, Normandie University, UNICAEN, CEA, CNRS, 14050 Caen, France.

§: Both authors contributed equally to this work.

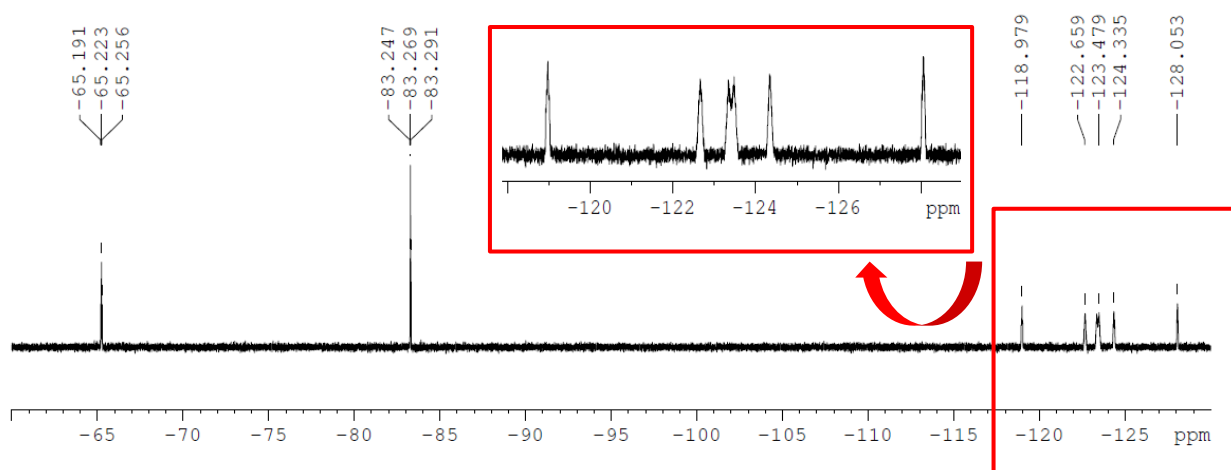


Figure S1. ^{19}F NMR spectrum of fluorinated zeolite suspension (F-X in D_2O).

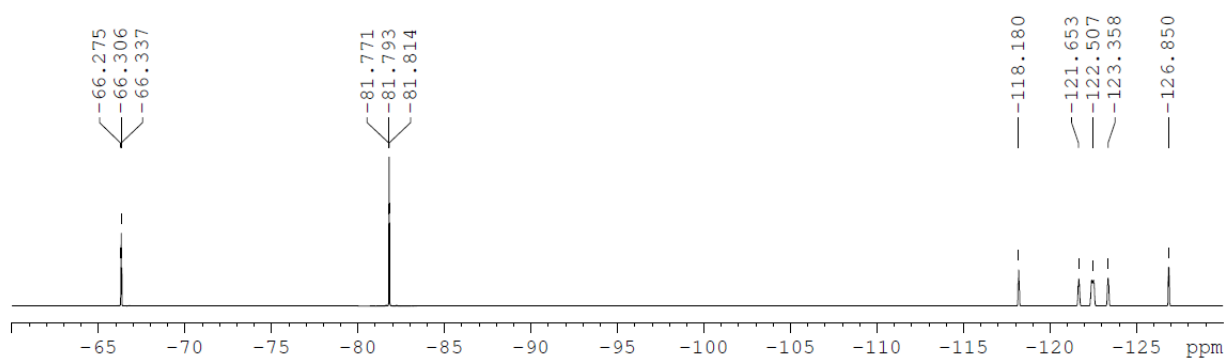


Figure S2. ^{19}F NMR spectrum of pure bromoperfluoro-n-octane in $(\text{CD}_3)_2\text{CO}$.

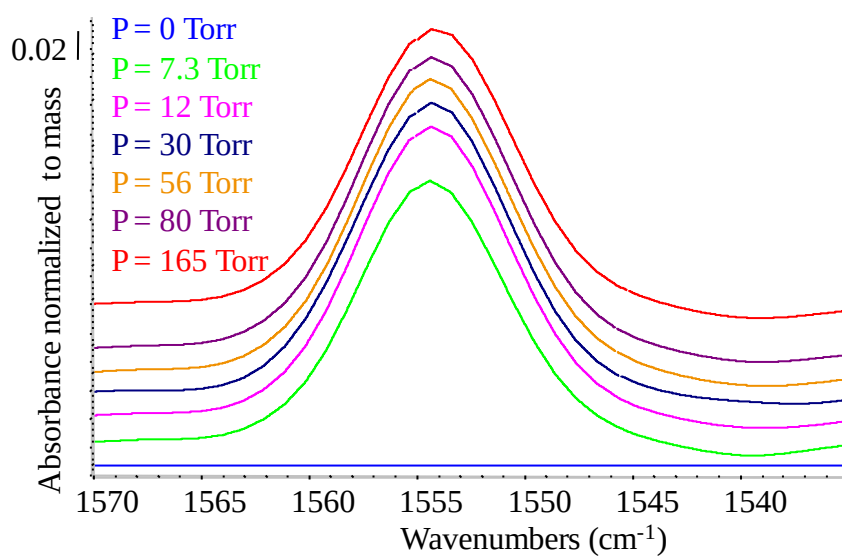


Figure S3. Evolution of IR band at 1553 cm^{-1} corresponding to O_2 adsorbed on Ce-X at different pressures ($T = -196\text{ }^\circ\text{C}$).

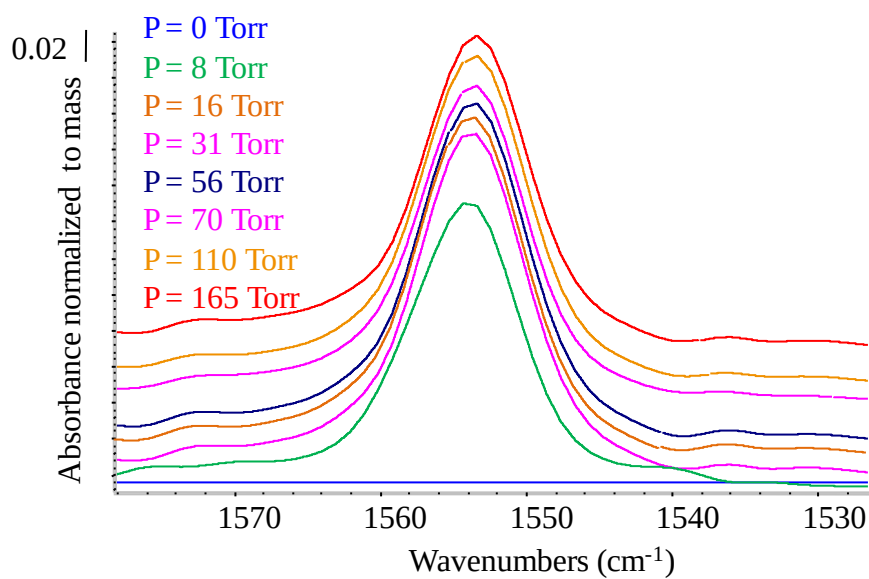


Figure S4. Evolution of IR band at 1553 cm⁻¹ corresponding to O₂ adsorbed on F-X at different pressures (T = -196 °C).

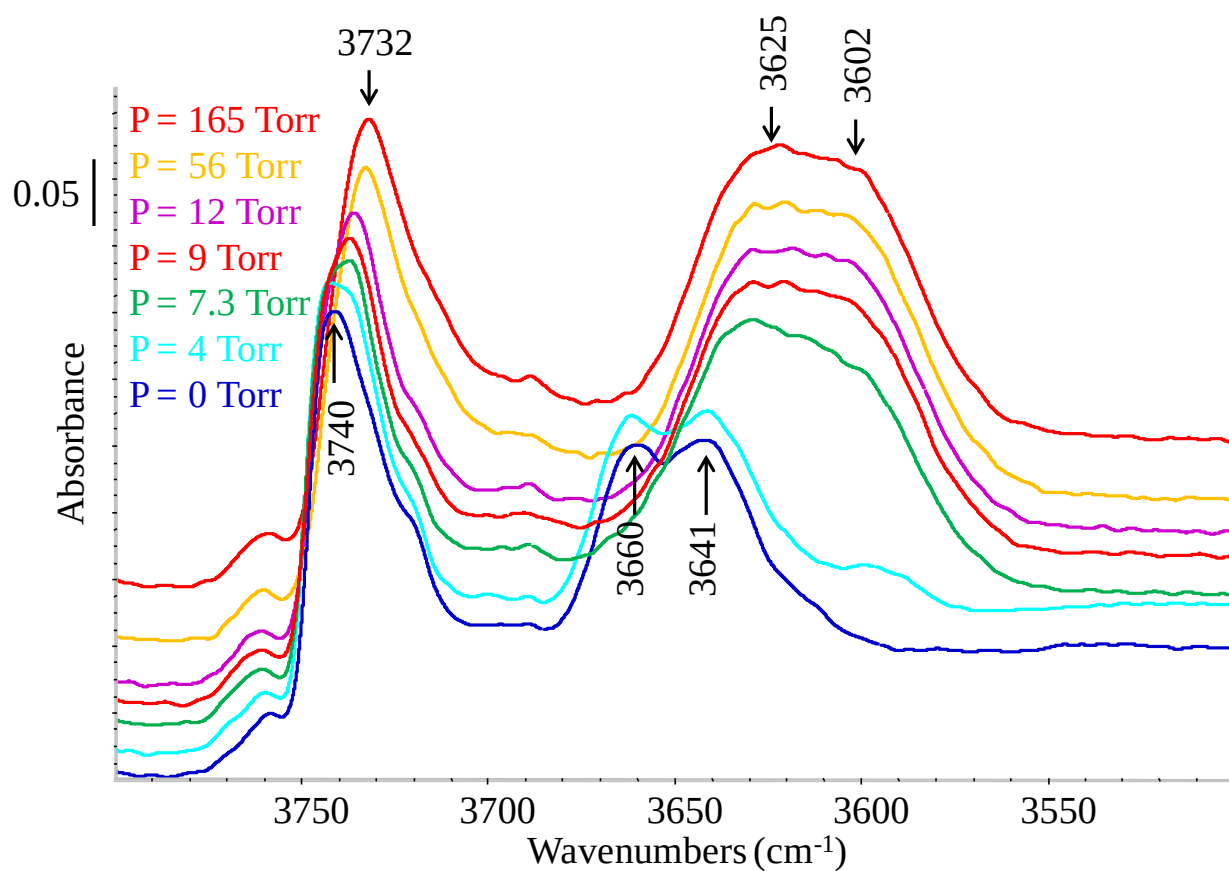


Figure S5. IR spectra of Ce-X upon oxygen adsorption at different pressures (T = -196 °C).