Supplementary material

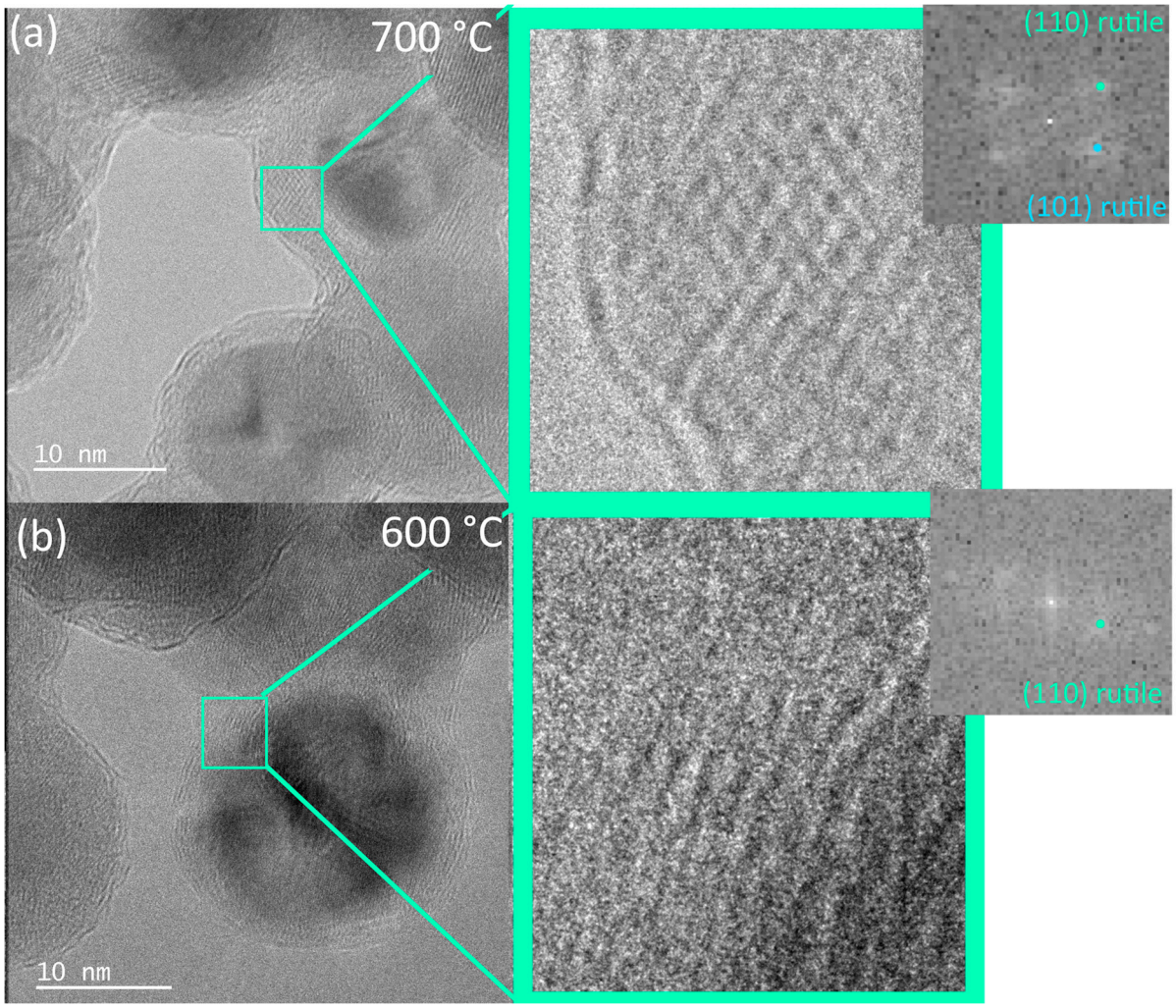


Figure S1: HRTEM images of Ni@TiO_2 nanoparticle shells at elevated temperatures prior to crack formation: (a) 700 °C and (b) 600 °C. The TiO_2 shell is crystalline, with the rutile phase confirmed by FFT analysis.

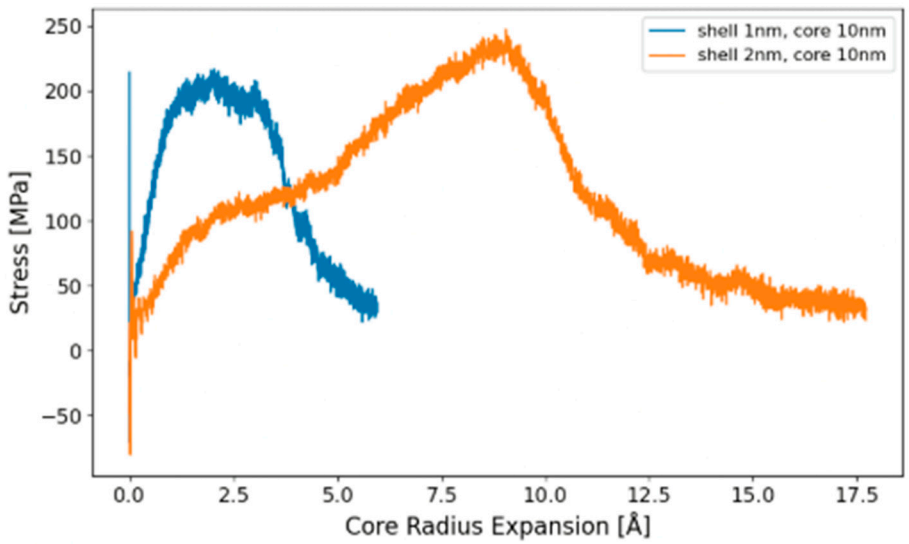


Figure S2: Average shell stress as a function of core radius expansion for a 10 nm Ni core with TiO_2 shell thicknesses of 1 nm and 2 nm.