

Fig. S1: (a) X-Ray diffractogram of undoped samples retrieved after ageing at 60°C at different pH. (b) corresponding crystallite size measured using Scherrer equation.

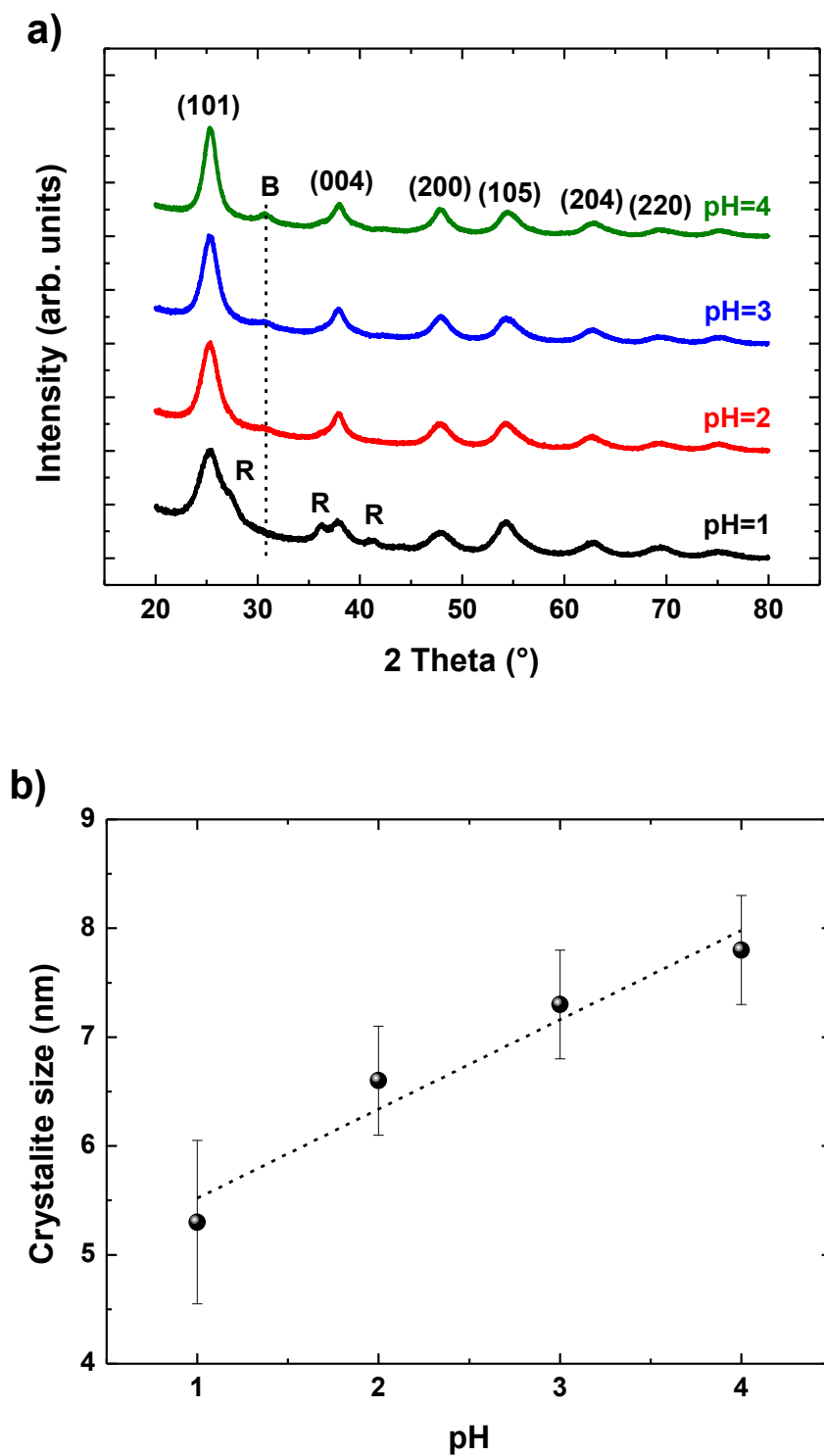


Fig. S2: Evolution of (a) the XRD pattern and (b) the crystallite size of undoped TiO₂ synthesized at room-temperature during ageing.

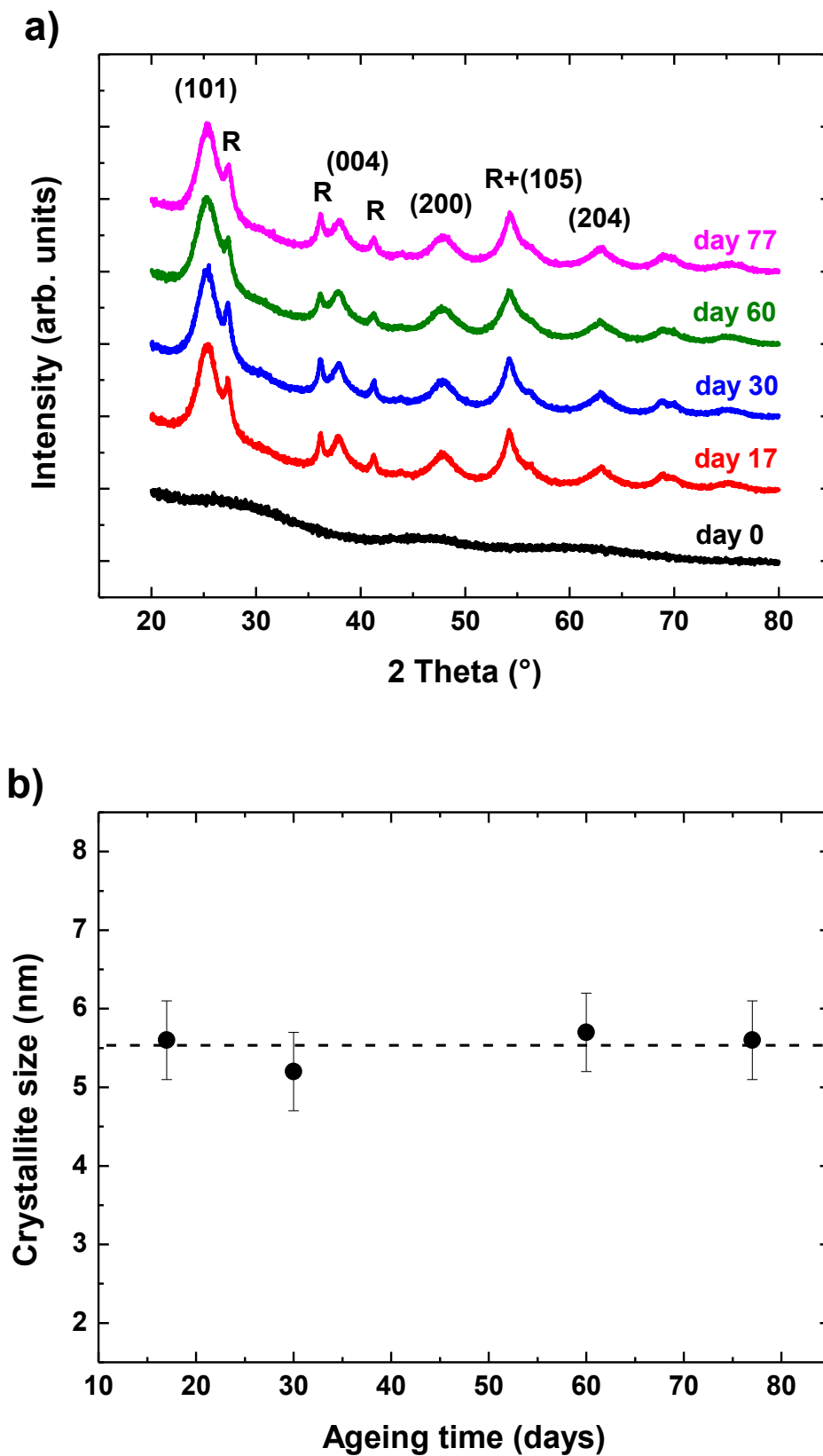
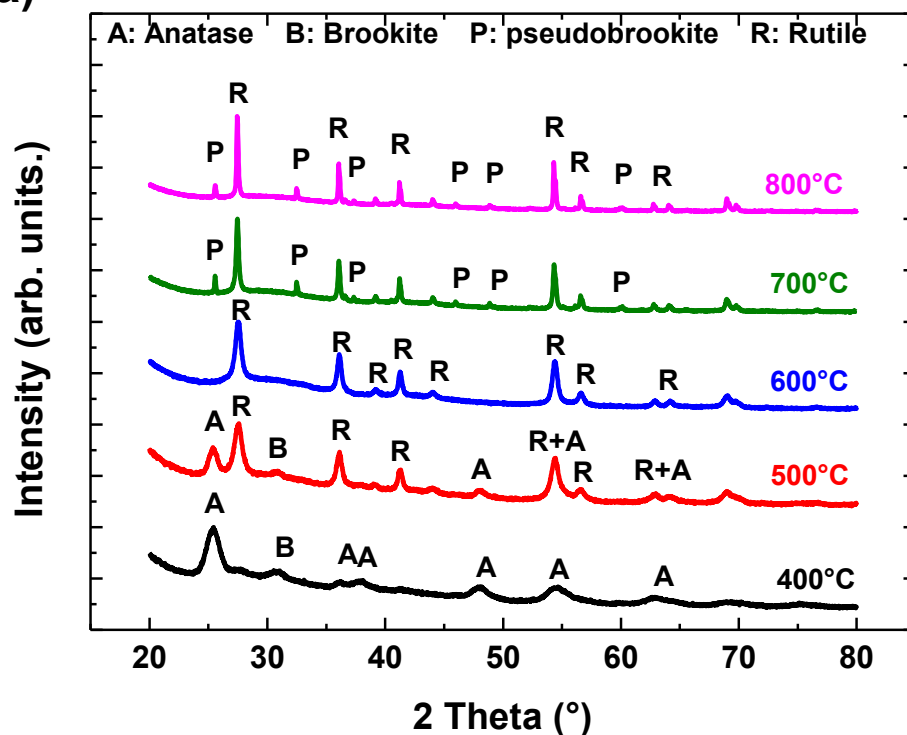


Fig. S3: (a) Evolution of the XRD pattern of the 5%-doped sample after annealing in air at different temperatures. (b) Evolution of the XRD pattern of a reference sample composed by 95 % of $\text{Ti}(\text{OH})_4$ and 5 % of $\text{Fe}(\text{OH})_3$.

a)



b)

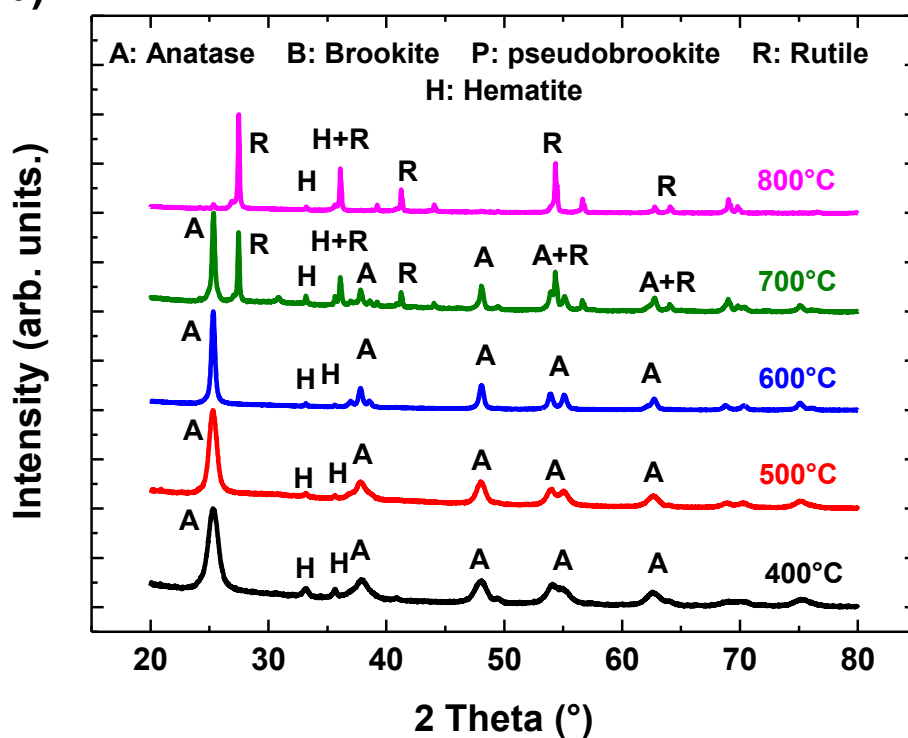


Fig. S4: EELS spectrum corresponding to the 5%-doped TiO₂ sample electrochemically discharge to 1 V (vs. Li⁺/Li) at C/50 rate

