

Supplementary information: Exploiting Direct Current Plasma Electrolytic Oxidation to Boost Photoelectrocatalysis

Silvia Franz, Hamed Arab, Andrea Lucotti, Chiara Castiglioni, Antonello Vicenzo, Federico Morini and Massimiliano Bestetti

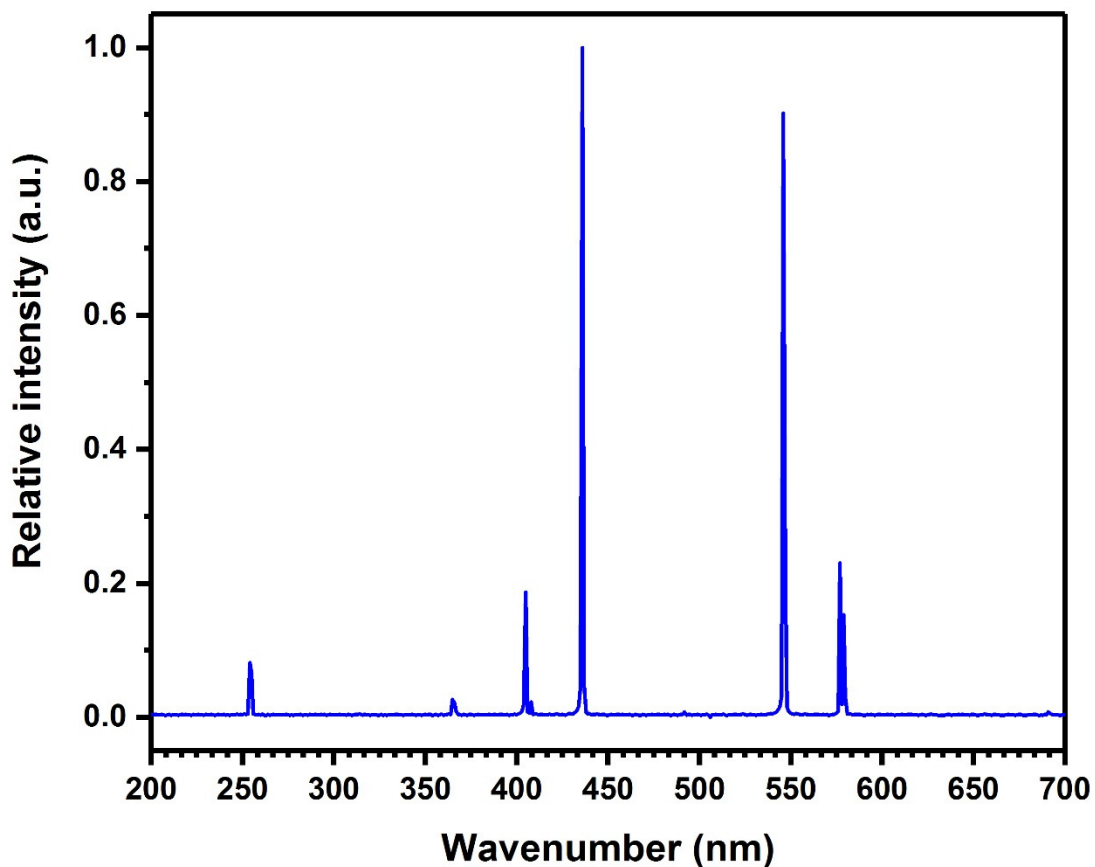


Figure S1. Emission spectrum of the light source employed during photoelectrochemical characterization

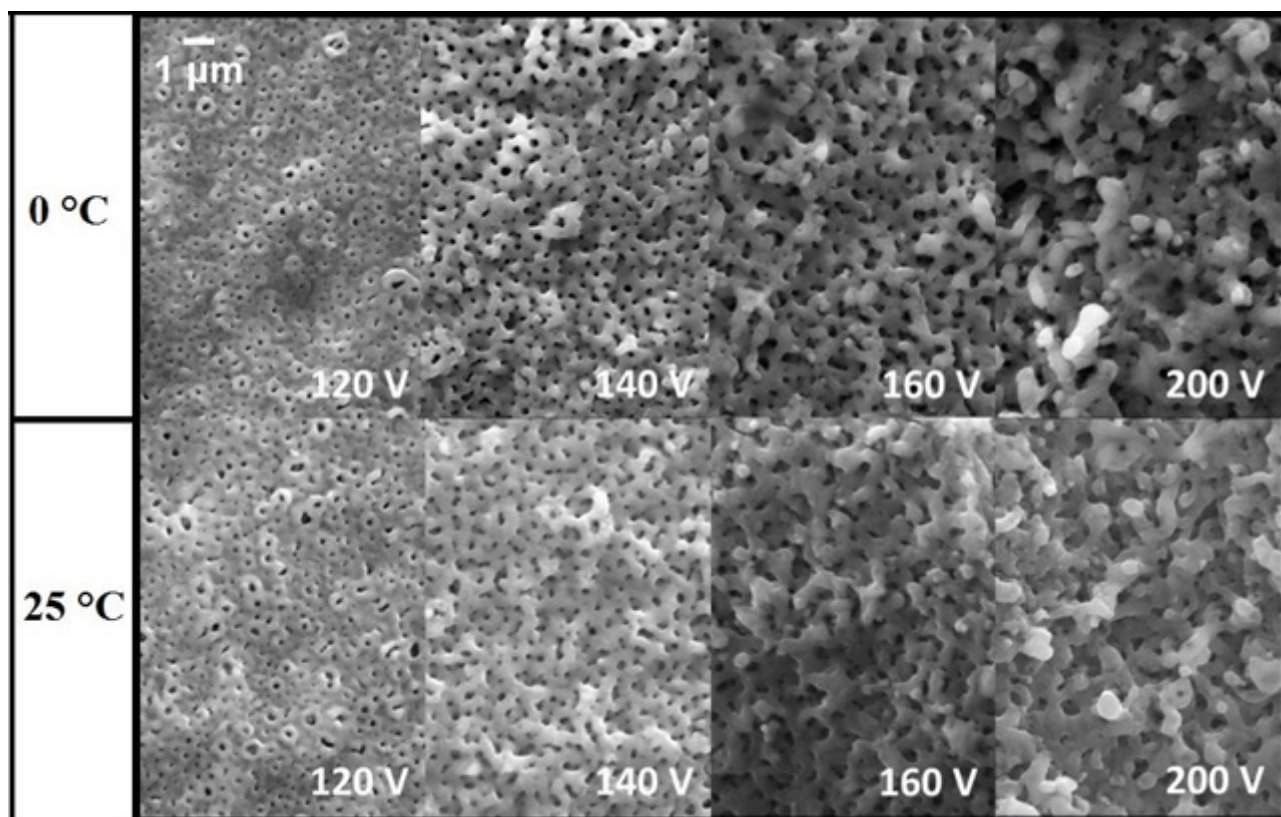


Figure S2. SEM micrographs of PEO-TiO₂ coatings grown at varying potential, as indicated, during 5 minutes anodizing time, at 0 and 25 °C.

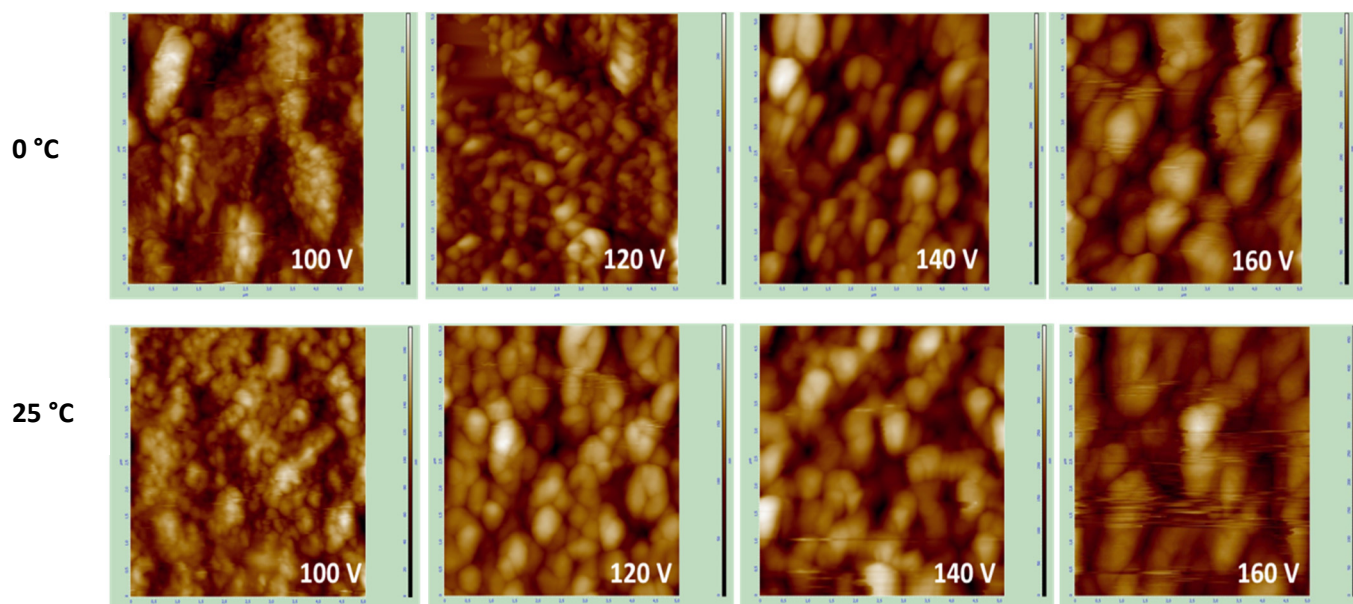


Figure S3. AFM images of TiO₂ films obtained by PEO in potential range of 100–160 V at 0 °C and 25 °C

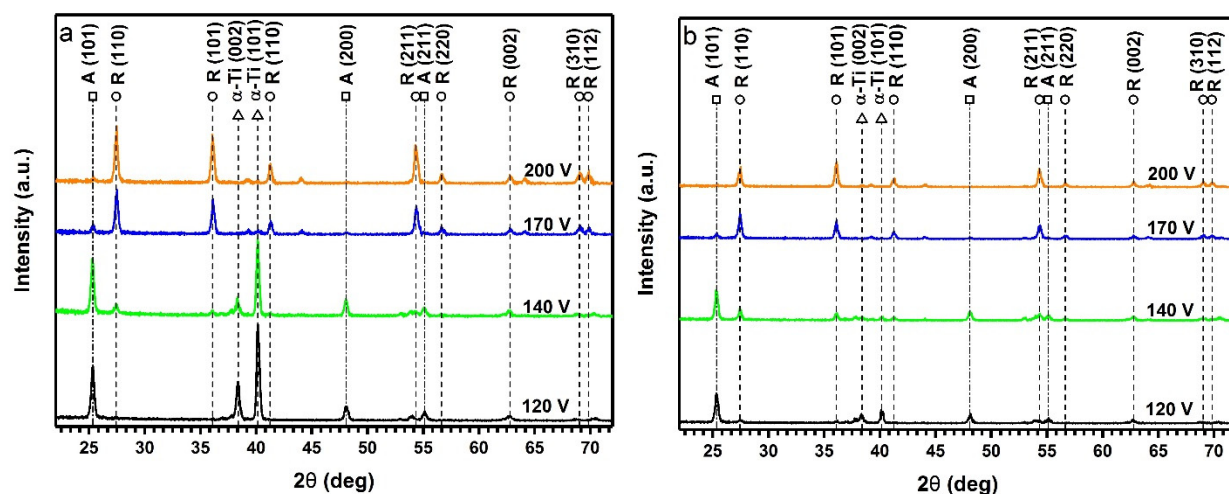


Figure S4. XRD patterns of TiO₂ films obtained at 0 °C (a) and 25 °C (b).

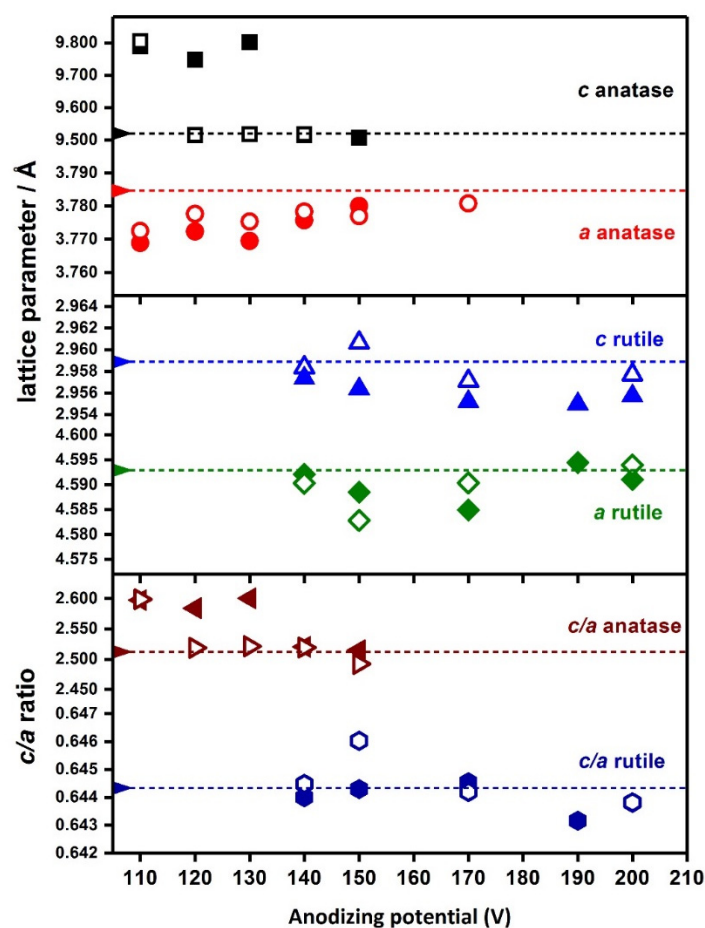


Figure S5. Lattice parameters *a*, *c* and *c/a* ratio for anatase and rutile as a function of potential. Filled and empty symbols refer to 0 °C and 25 °C, respectively. Arrows indicate the reference values of lattice parameters *a* and *c* and *c/a* ratio for anatase and rutile phases.

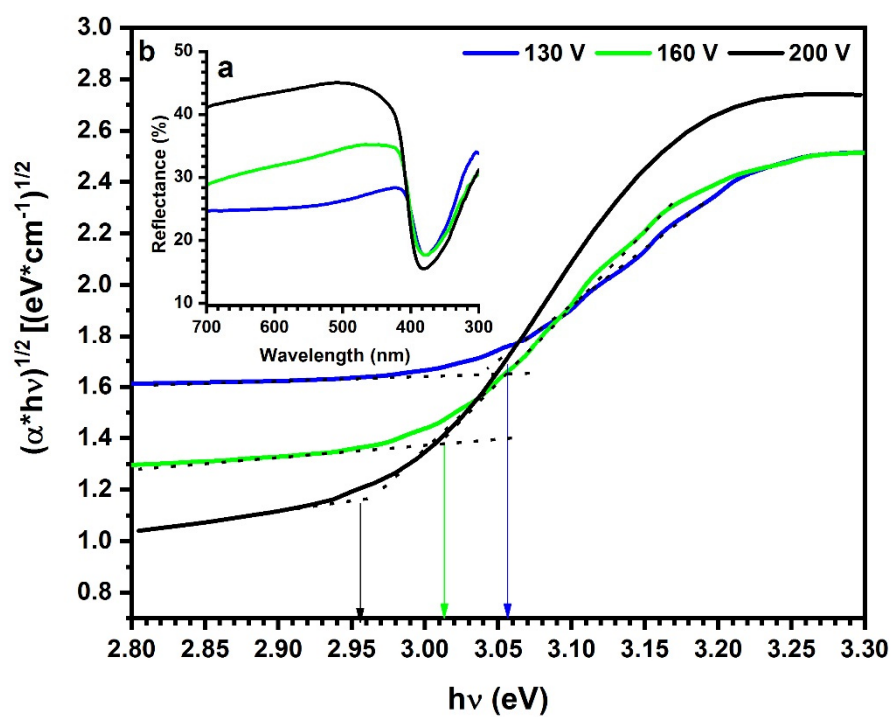


Figure S6. UV-Vis Diffuse Reflectance plot of selected TiO₂ synthesized at 25 °C (a as inset), and corresponding Tauc plot after Kubelka-munk conversion (b).