## **Supporting Information**

## Carbon mediated photoinduced reactions as a key factor in the photocatalytic performance of $C/TiO_2$

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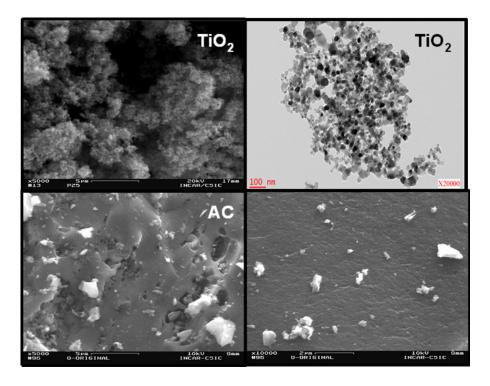
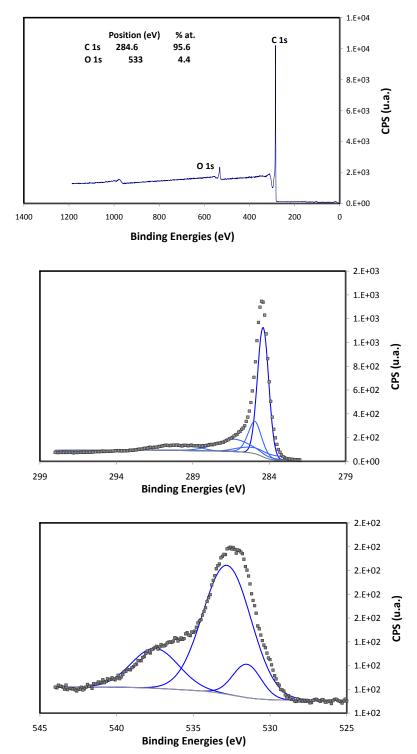


Figure S1. TEM (top right) and SEM images of the materials (activated carbon and TiO<sub>2</sub>) used for the preparation of the composites.



**Figure S2**. XPS data of the activated carbon used as support. A) widescan; B) C1s and C) O1s signals, showing deconvolution of main components.

**Figure S3**. Images obtained at the confocal optical microscope of the film electrodes. Dark areas indicate the presence of thicker regions (islands) upon incorporation of the carbon additive.

