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Supplementary Materials

Photocatalytic Study of Cyanide Oxidation Using Titanium Dioxide (TiO_2)-Activated Carbon Composites in a Continuous Flow Photo-Reactor

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Physical and chemical characterization of GCR-20 activated carbon and TiO_2-AC composite

SEM micrographs are presented in Figure S1. A porous network was observed in the AC (Figure S1 (a)) and the TiO_2-AC composite (Figure S1 (b)). Some white zones were observed in the micrograph of TiO_2-AC composite, indicating the impregnation of TiO_2 on the largest pores of the AC surface. This was confirmed by the EDX mapping (Figure S1 (c)).

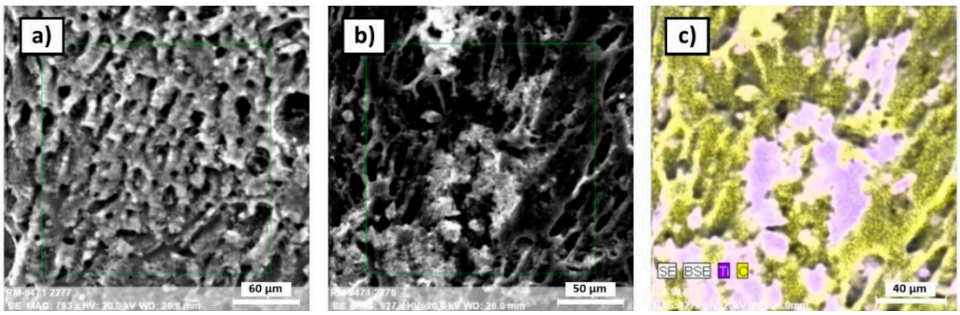

Figure S1. (**a**) SEM micrograph of AC, 783x; (**b**) SEM micrograph of TiO_2-AC composite, 927x; (**c**) EDX mapping performed on the micrograph of the TiO_2-AC composite, 927x. Titanium is shown in violet and carbon in yellow.

A SEM micrograph was performed on a different section of the TiO_2-AC composite. As shown in Figure S2, a different degree of titanium impregnation was observed, compared to Figure S1(c). Therefore, TiO_2 was impregnated heterogeneously on the carbon surface.

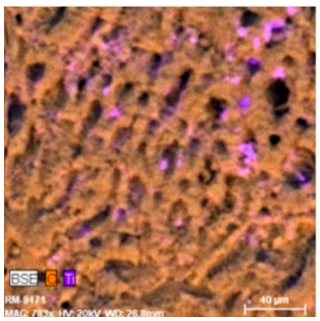

Figure S2. EDX mapping performed on a micrograph of the TiO_2-AC composite, 783x. Titanium is shown in violet and carbon in orange.