Supplementary Information

Non-Synergistic UV-A Photocatalytic Degradation of Estrogens by Nano-TiO_2 Supported on Activated Carbon

Suzamar M. C. Rosa, Arlene B. S. Nossol, Edson Nossol, Aldo J. G. Zarbin and Patricio G. Peralta- Zamora*

Departamento de Química, Universidade Federal do Paraná, CP 19032, 81531-980 Curitiba-PR, Brazil

Table S1. Factorial design (2^2) to study the effects of pH and catalyst concentration (TiO_2-P25) on the degradation of estrogens. Estrogens: 1 mg L^{-1}, 200 mL; irradiation: UV-A; reaction time: 2 minutes

Run	pH	[TiO_2-P25] / (mg L^{-1})	pH × [TiO_2-P25]	Degradation of E2 / %	Degradation of EE2 / %
1	4 (–)	125 (–)	+	95.1	76.4
2	8 (+)	125 (–)	–	97.9	93.1
3	4 (–)	375 (+)	–	97.6	87.9
4	8 (+)	375 (+)	+	96.0	92.7
5	6 (0)	250 (0)	0	97.6	96.3
6	6 (0)	250 (0)	0	96.1	98.0
7	6 (0)	250 (0)	0	97.0	95.6
				E2	EE2
s				0.7	1.2
$t_{(95\%)}$				4.3	4.3
s × t				3.3	5.2
Main effects				E2	EE2
pH				0.6	10.8
[TiO_2-P25] / (mg L^{-1})				0.3	5.6
Second order effects				E2	EE2
pH × [TiO_2-P25] / (mg L^{-1})				–2.2	6.0

s: estimate of standard deviation (central point in triplicate); $t_{(95\%)}$: Student coefficient.

*e-mail: zamora@ufpr.br

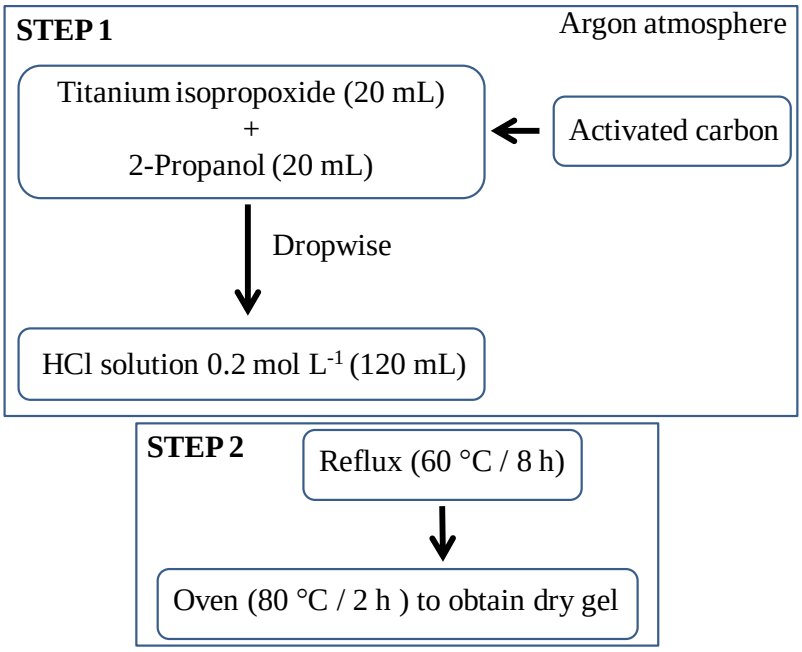

Figure S1. Scheme of the preparation of nano-TiO_2 and AC-TiO_2.

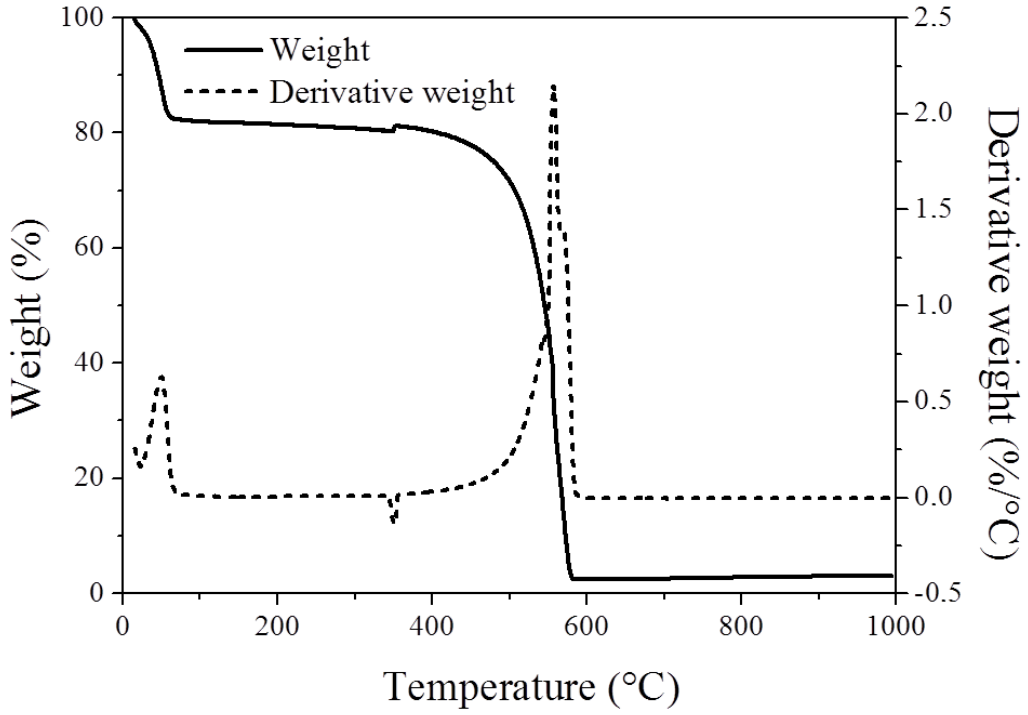

Figure S2. TGA and DTG of the raw AC.

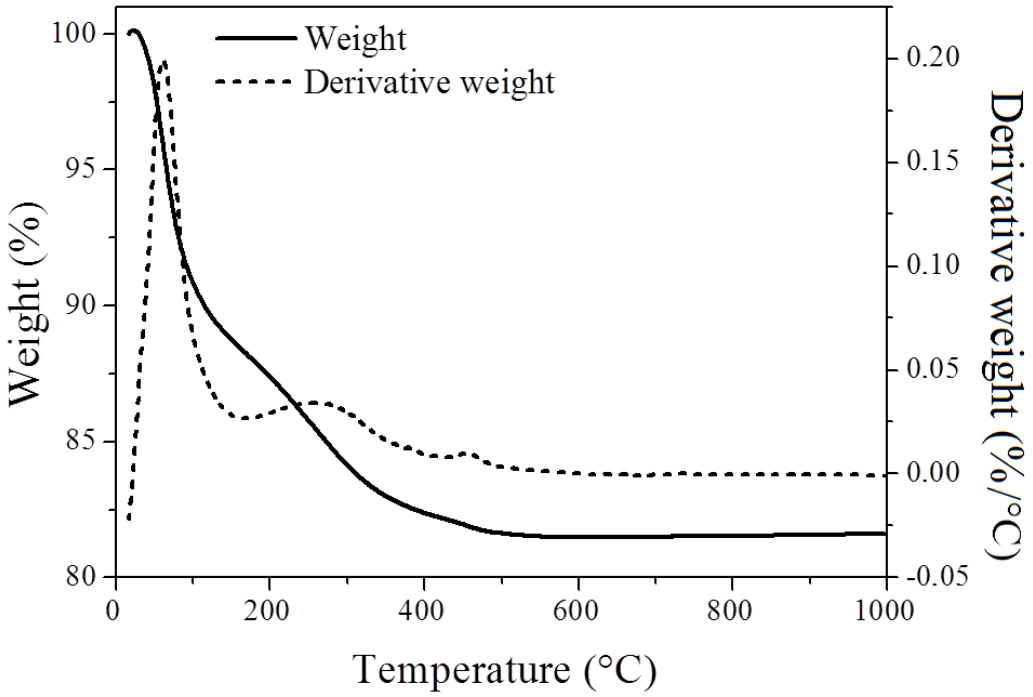

Figure S3. TGA and DTG of the TiO_2 nanoparticles.