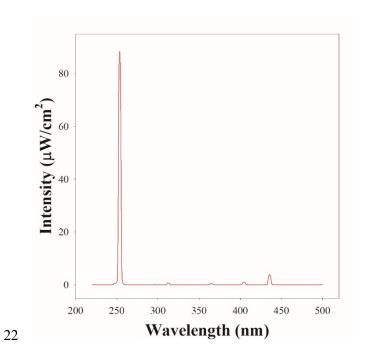
## 1 **Supplemental Information** Title: Photocatalysis for MBR Effluent Post-Treatment: Assessing the Effects of Effluent 3 **Organic Matter Characteristics** 4 Authors: Mostafa Maghsoodi<sup>1T</sup>, Céline Jacquin<sup>2T</sup>, Benoit Teychené<sup>3</sup>, Marc Heran<sup>2</sup>, Volodymyr V. Tarabara<sup>4</sup>, 5 6 Geoffroy Lesage\*2, Samuel D. Snow\*1 <sup>1</sup>Department of Civil and Environmental Engineering, Louisiana State University, 3255 Patrick Taylor 7 8 Hall, Baton Rouge, Louisiana 70803, United States. 9 <sup>2</sup>IEM (Institut Européen des Membranes), UMR 5635 (CNRS-ENSCM-UM), 10 Université de Montpellier, Place E. Bataillon, F- 34095, Montpellier, France. 11 <sup>3</sup>Institut de Chimie des Milieux et Matériaux de Poitiers (IC2MP – UMR CNRS 7285), Université de Poitiers, Ecole Nationale Supérieure d'Ingénieurs de Poitiers, 7 rue Marcel Doré, Bâtiment 16, TSA 12 13 41105, 86073 Poitiers Cedex 9, France. 14 <sup>4</sup>Department of Civil and Environmental Engineering, Michigan State University, 428 S. Shaw Lane, 15 East Lansing, Michigan 48824, United States. <sup>T</sup>These authors contributed equally. 16 \*Corresponding authors: SSnow@lsu.edu; Geoffroy.Lesage@umontpellier.fr; 17 18

19 Table S1. Total organic carbon (TOC) concentrations, measured by a TOC analyzer. Specific UV

20 a	absorabance at $\lambda = 254$	nm (SUVA <sub>254</sub> ) values were	e calculated based on TOC.
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	TOC	
Sample	(mgC/L)	SUVA <sub>254</sub>
Pf-MBR1	19.27	0.050
Pw-MBR1	12.13	0.038
P-MBR2	6.91	0.065



23 Figure S1: Light emission spectrum for the low-pressure Hg lamp.

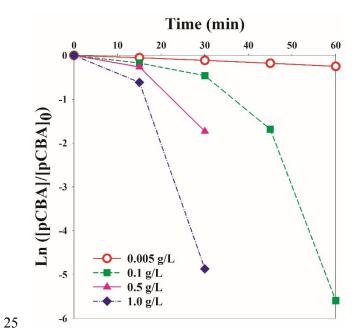


Figure S2: pCBA degradation rate in presence of 10 mg/L humic acid and 0.005, 0.1, 0.5, or 1 g/L TiO<sub>2</sub>. The ambient temperature was measured to be 24  $^{\circ}$ C.

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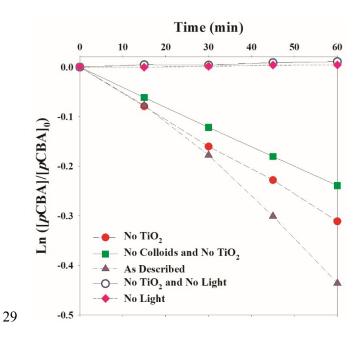


Figure S3: Degradation of 10  $\mu$ M pCBA with 5 mg/L TiO<sub>2</sub> and UVC in presence of 10 mg/L Colloids.

31 Control experiments made selective exceptions from these conditions, which are noted in the legend.

32 The ambient temperature was measured to be 24 °C.



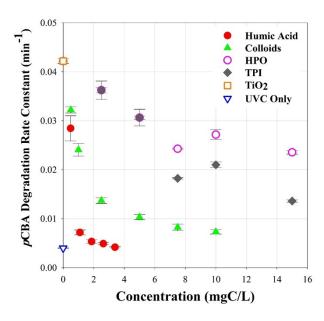
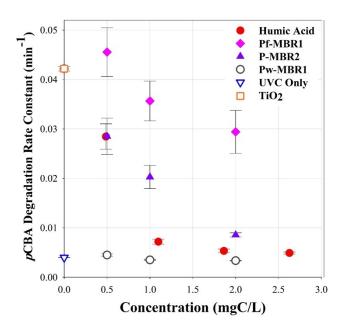


Figure S4: *p*CBA degradation rates in the presence of 5 mg/L TiO<sub>2</sub> and various concentrations of colloids, TPI, HPO, and HA. Ambient temperature was measured at 24 °C.

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40 Figure S5: pCBA degradation rates in the presence of various concentrations of effluent from Pf-

41 MBR1, Pw-MBR1 and P-MBR2 with 5 mg/L TiO<sub>2</sub>.

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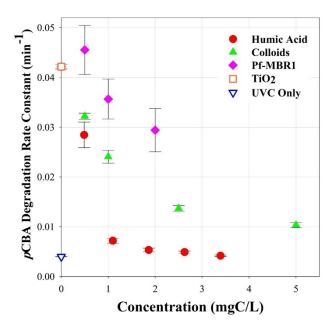


Figure S6:  $k_{\text{obs},p\text{CBA}}$  inhibition profiles of HA, Pf-MBR1, and the colloidal fraction. Data from Figures

45 S3 and S4 are used here.

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