

## SUPPLEMENTARY MATERIAL

### ELISA as an effective tool to determine spatial and seasonal occurrence of emerging contaminants in the aquatic environment

Carla Patrícia Silva<sup>a,\*</sup>, Tânia Carvalho<sup>b</sup>, Rudolf J. Schneider<sup>c</sup>, Valdemar I. Esteves<sup>a</sup>,

Diana L.D. Lima<sup>a</sup>

<sup>a</sup>CESAM & Department of Chemistry, University of Aveiro, Campus de Santiago, 3810-193  
Aveiro, Portugal

<sup>b</sup>Department of Chemistry, University of Aveiro, Campus de Santiago, 3810-193 Aveiro,  
Portugal

<sup>c</sup>BAM Federal Institute for Materials Research and Testing, Department of Analytical  
Chemistry, Reference Materials, Richard-Willstaetter-Str. 11, D-12489 Berlin, Germany

\*corresponding author: Carla Patrícia Silva; [patricia.silva@ua.pt](mailto:patricia.silva@ua.pt); CESAM & Department of  
Chemistry, University of Aveiro, Campus de Santiago, 3810-193 Aveiro, Portugal

## Tables

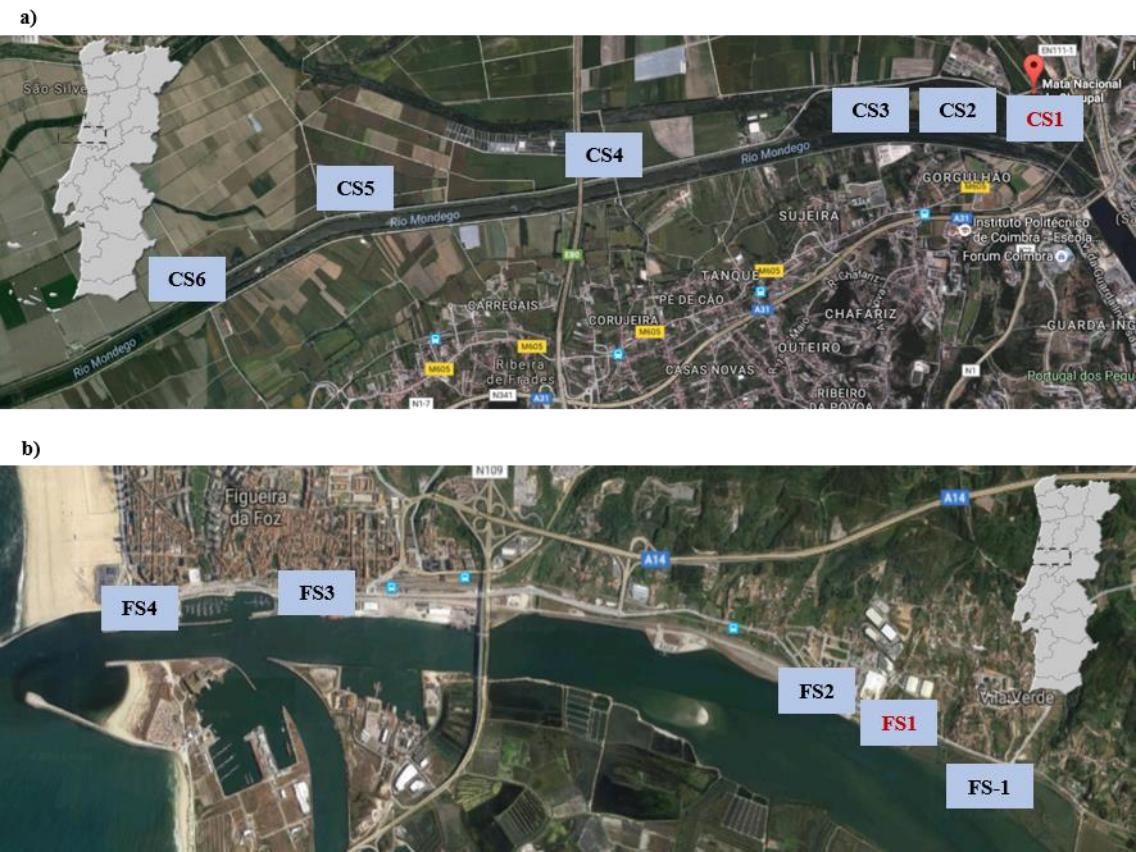
**Table S1:** Limits of detection calculated for each sampling campaign.

| Compound | Limit of Detection (ng L <sup>-1</sup> ) |                 |                 |
|----------|--|-----------------|-----------------|
|          | Fall Sampling                            | Winter Sampling | Spring Sampling |
| E2       | 0.13                                     | 0.29            | 0.30            |
| EE2      | 0.66                                     | 0.58            | 0.95            |
| CBZ      | 0.74                                     | 0.77            | 0.58            |
| CET      | 0.50                                     | 0.63            | 1.46            |
| CAF      | 0.76                                     | 1.4             | 1.7             |

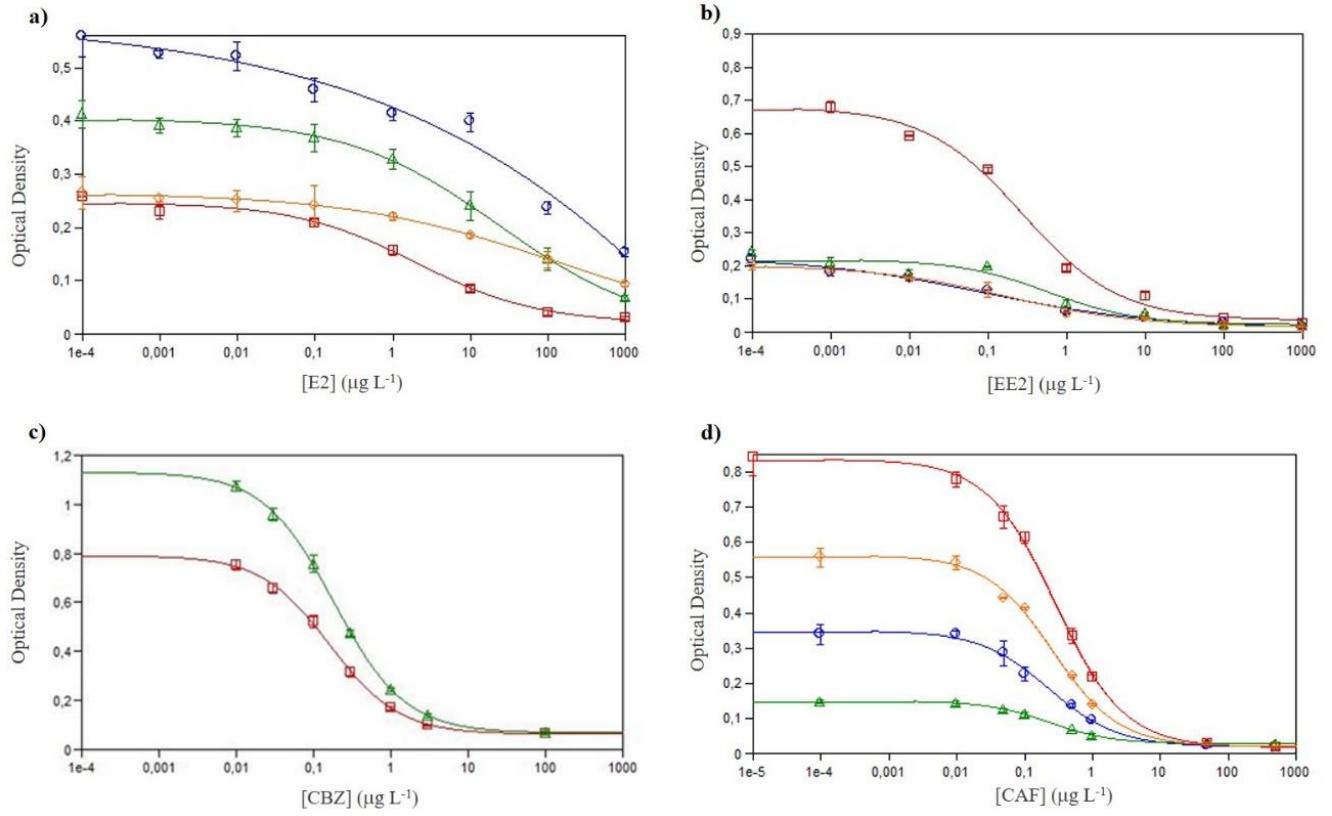
**Table S2:** Total organic carbon (TOC; mg L<sup>-1</sup>), salinity and pH values for the eleven sampling sites and the three sampling campaigns.

| Sampling sites | Fall sampling             |          | Winter sampling |                           | Spring sampling |                           |      |
|----------------|---------------------------|----------|-----------------|---------------------------|-----------------|---------------------------|------|
|                | TOC (mg L <sup>-1</sup> ) | Salinity | pH              | TOC (mg L <sup>-1</sup> ) | pH              | TOC (mg L <sup>-1</sup> ) | pH   |
| <b>CS1</b>     | 22.2 ± 0.2                | 1        | 7.7             | 17.8 ± 0.2                | 7.8             | n.d.                      | n.d. |
| <b>CS2</b>     | 3.94 ± 0.01               | 0        | 7.6             | 4.6 ± 0.1                 | 7.2             | 7.0 ± 0.2                 | 7.4  |
| <b>CS3</b>     | 3.7 ± 0.2                 | 0        | 7.6             | 2.6 ± 0.1                 | 7.7             | 2.0 ± 0.1                 | 7.1  |
| <b>CS4</b>     | 3.2 ± 0.2                 | 0        | 7.4             | 2.4 ± 0.2                 | 7.5             | 1.8 ± 0.4                 | 6.8  |
| <b>CS5</b>     | 4.8 ± 0.1                 | 0        | 7.3             | 2.9 ± 0.1                 | 7.3             | 1.7 ± 0.2                 | 6.8  |
| <b>CS6</b>     | 4.4 ± 0.3                 | 0        | 7.7             | 4.0 ± 0.1                 | 7.3             | 3.7 ± 0.3                 | 6.5  |
| <b>FS-1</b>    | 5.4 ± 0.4                 | 9        | 7.8             | 5.4 ± 0.2                 | 7.8             | 2.6 ± 0.2                 | 7.4  |
| <b>FS1</b>     | 7.0 ± 0.4                 | 0        | 7.9             | 5.7 ± 0.1                 | 7.9             | 6.4 ± 0.1                 | 6.8  |
| <b>FS2</b>     | 4.9 ± 0.2                 | 8        | 7.8             | 3.8 ± 0.2                 | 7.5             | 2.8 ± 0.1                 | 7.3  |
| <b>FS3</b>     | 3.4 ± 0.2                 | 16       | 8.0             | 3.8 ± 0.2                 | 7.6             | 2.3 ± 0.1                 | 7.6  |
| <b>FS4</b>     | 3.7 ± 0.2                 | 19       | 7.9             | 4.4 ± 0.1                 | 7.8             | 2.4 ± 0.3                 | 7.5  |

## Figures



**Fig. S1:** Location of sampling sites (in red the two sewage treatment plants' discharges, constituting the main pollution sources).



**Fig. S2:** Calibration curves for (a) E2: Ab 1:5 000, T 1:50 000 – red; Ab 1:10 000, T 1:5 000 – blue; Ab 1:10 000, T 1:7 500 – green; Ab 1:25 000, T 1:5 000 – orange; (b) EE2: Ab 1:25 000, T 1:100 000 – red; Ab 1:50 000, T 1:100 000 – blue; Ab 1:50 000, T 1:50 000 – green; Ab 1:50 000, T 1:75 000 – orange; (c) CBZ: Ab 0,3: 21 500, T 15:6 000 – red; Ab 0,5:21 500, T 18:6 000 – green; (d) CAF: Ab 1:100 000, T 1:100 000 – red; Ab 1:100 000, T 1:300 000 – blue; Ab 1:100 000, T 1:500 000 – green; Ab 1:75 000, T 1:300 000 – orange.