



## Surface Water Quality Monitoring at Treatment Plants

### Ceramic Passive Sampler

#### Summary

<b>Media:</b>	Surface water
<b>Study Type:</b>	Example
<b>Technology:</b>	Equilibration
<b>Peer Reviewed:</b>	Yes
<b>Publication Date:</b>	May 2023

#### Study Description

- The study included ceramic passive sampler deployment in river water and in drinking water from a treatment plant that supplies water to Barcelona, Spain.
- Ten ceramic passive samplers (five in drinking water and five in river water) were deployed in July and August 2020 and analyzed for concentrations of 22 pharmaceutical and other substances (including caffeine, acetaminophen, cocaine, metformin, morphine, and tramadol).
- Prior to field deployment, stability analyses and testing of different sorbent materials was completed in the laboratory.

#### Remedial Phase

Investigation

#### Outcome

Authors concluded that ceramic passive samplers provide “a suitable alternative for monitoring contaminants in water samples since [they have] no clogging problems, allow for high analytical sensitivity, and greatly increase the number of pollutants identified.”

#### Case Study Reference

N. Fontanals; M.R. Boleda; F. Borrull; R.M. Marce; and S. Lacorte. 2023. Ceramic passive samplers for determining pharmaceuticals and drugs of abuse in river and drinking water. *Science of the Total Environment* 889: 164267. <https://doi.org/10.1016/j.scitotenv.2023.164267>