

Title: **Electrochemical determination of UV filters**

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The so-called ultraviolet (UV) filters are a family of compounds that are considered emerging pollutants. Some of the most widely used products in these filters, such as octocrylene (OC) and oxybenzone (benzophenone 3, BP3), are gaining more and more attention in recent times. The development of methods for its determination has become of great interest in Analytical Chemistry. For this reason, a series of studies have been collected which, using voltammetric techniques, analyse the concentration of these two UV filters in sunscreens and/or seawater. It has been verified that in sun creams the quantification is generally good, offering linear ranges and limits of detection and quantification acceptable, taking into account that the maximum amount of filters that these products can contain is regulated. On the other, there are few studies that deal with seawater samples since normally these analytes are at trace level, and this technique has given detection limits very close to or even higher than the concentration value. As for the results, many studies made a comparison between those obtained by electroanalytical ways and those made by chromatography, using the latter as a reference. The contrast between these two evidences a loss of precision when voltammetric techniques are used, but without losing the agreement between both results. In short, the two techniques can be used in a complementary way, being voltammetric a fast, easy to use and low-cost method; and chromatography a technique that provides more reliable results and about which there is a lot of information, necessary when more accurate results are needed.

Keywords: UV filters, octocrylene (OC), benzophenone 3 (BP3), electroanalysis, voltammetry, chromatography.