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# Low-cost voltammetric detection systems on screen-printed electrodes for air pollution monitoring

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## Abstract

This communication is focused on the potential of low-cost miniaturized sensors based on voltammetric measurements on screen-printed electrodes, connected to portable potentiostats and sampling -sample pre-treatment devices, for air pollution monitoring and assessment. We will present the basic characteristics of voltammetry on screen-printed electrodes and some results generated by the research group "Chemical Analysis of the Environment" of the University of Extremadura (Spain), specifically for the measurement of ozone in ambient air, measurement of heavy metals cadmium and lead in PM10, and measurement of the oxidizing potential of PM.

**Keywords:** Voltammetric sensors, screen, printed electrodes, air pollutants, ozone, PM, heavy metals

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