

Research group on Environmental Chemical Analysis

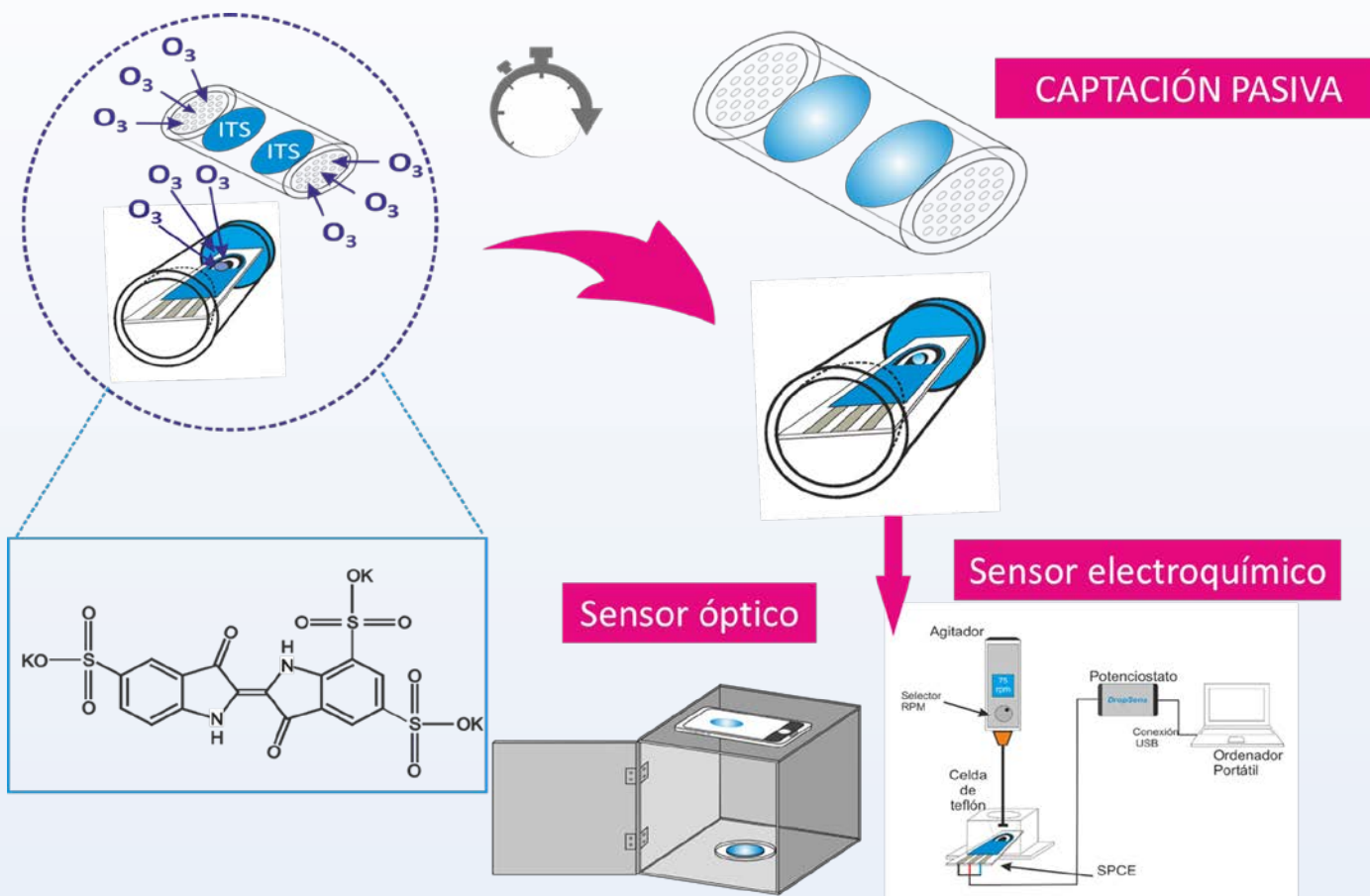
University of Extremadura. Extremadura, Spain

Eduardo Pinilla Gil, group coordinator

Research lines

- Environmental sampling techniques
- Sample pretreatment by ultrasonic energy
- Electrochemical and optical detection of chemical pollutants
- Chemometrics for environmental data interpretation

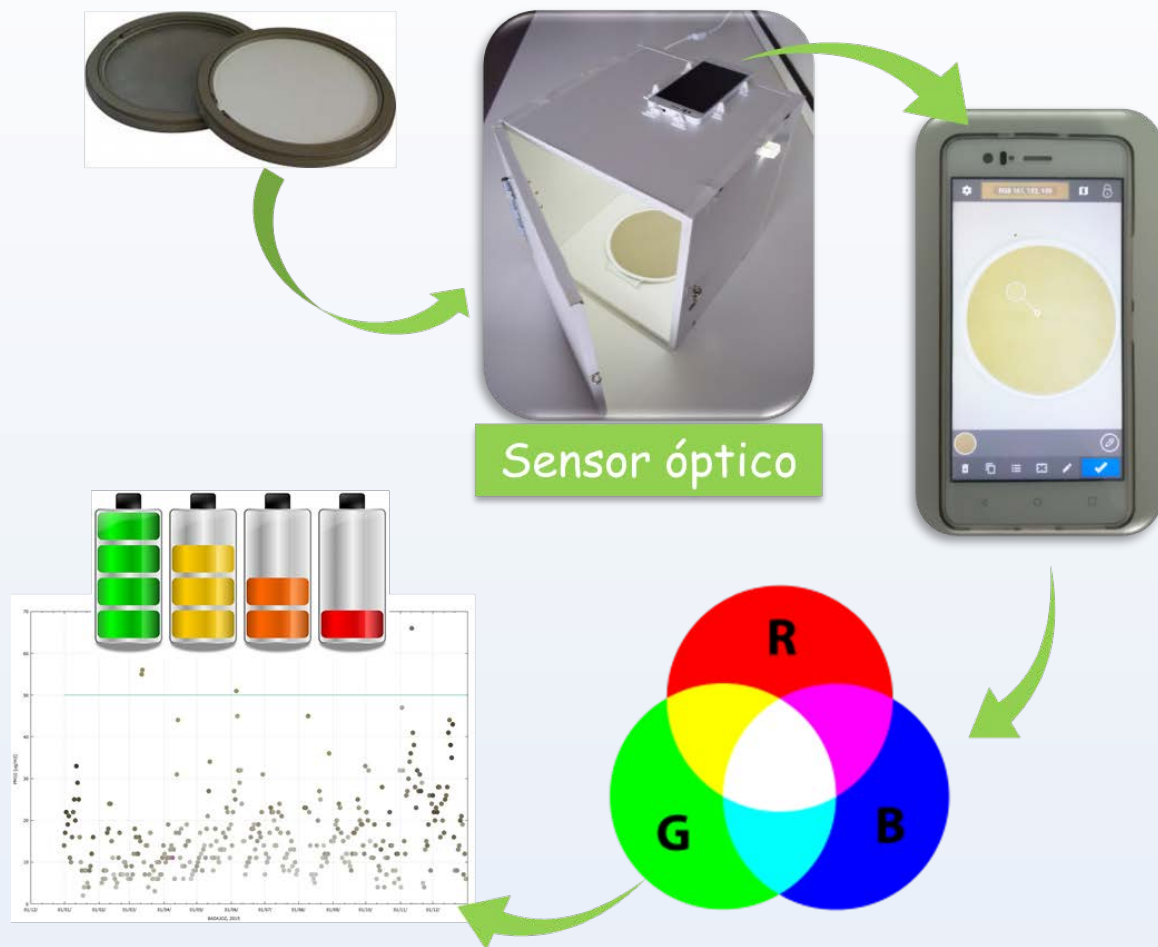




Cerrato-Alvarez et al.
A passive sampling – voltammetric detection approach based on screen-printed electrodes modified with indigo trisulfonate for the determination of ozone in ambient air.
Sensors and Actuators B - Chemical (2018)

Cerrato-Alvarez et al.
Measurement of tropospheric ozone by digital image analysis of indigo trisulfonate-impregnated passive sampling pads using a smartphone camera
Microchemical Journal (2020)

Tropospheric ozone by electrochemical and optical sensing



Carretero-Peña et al
Estimation of PM₁₀ Levels and Sources in Air Quality Networks by Digital Analysis of Smartphone Camera Images Taken from Samples Deposited on Filters
Sensors (2019)



Palomo-Marín et al.
Disposable sputtered-bismuth screen-printed sensors for voltammetric monitoring of cadmium and lead in atmospheric particulate matter samples.

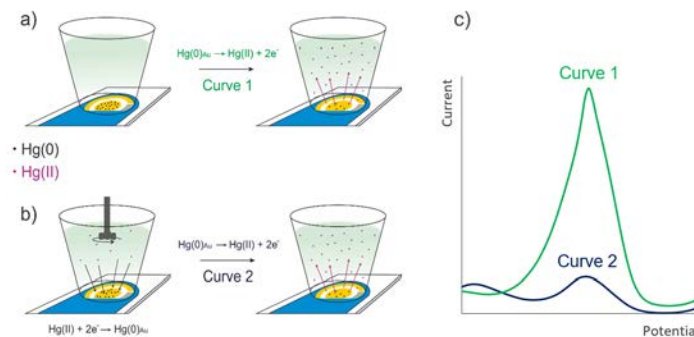
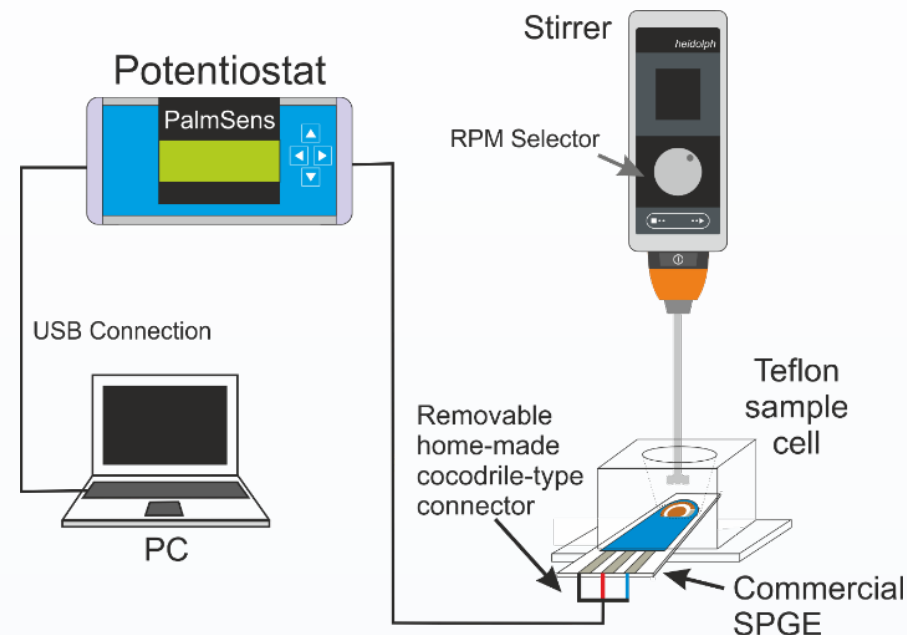
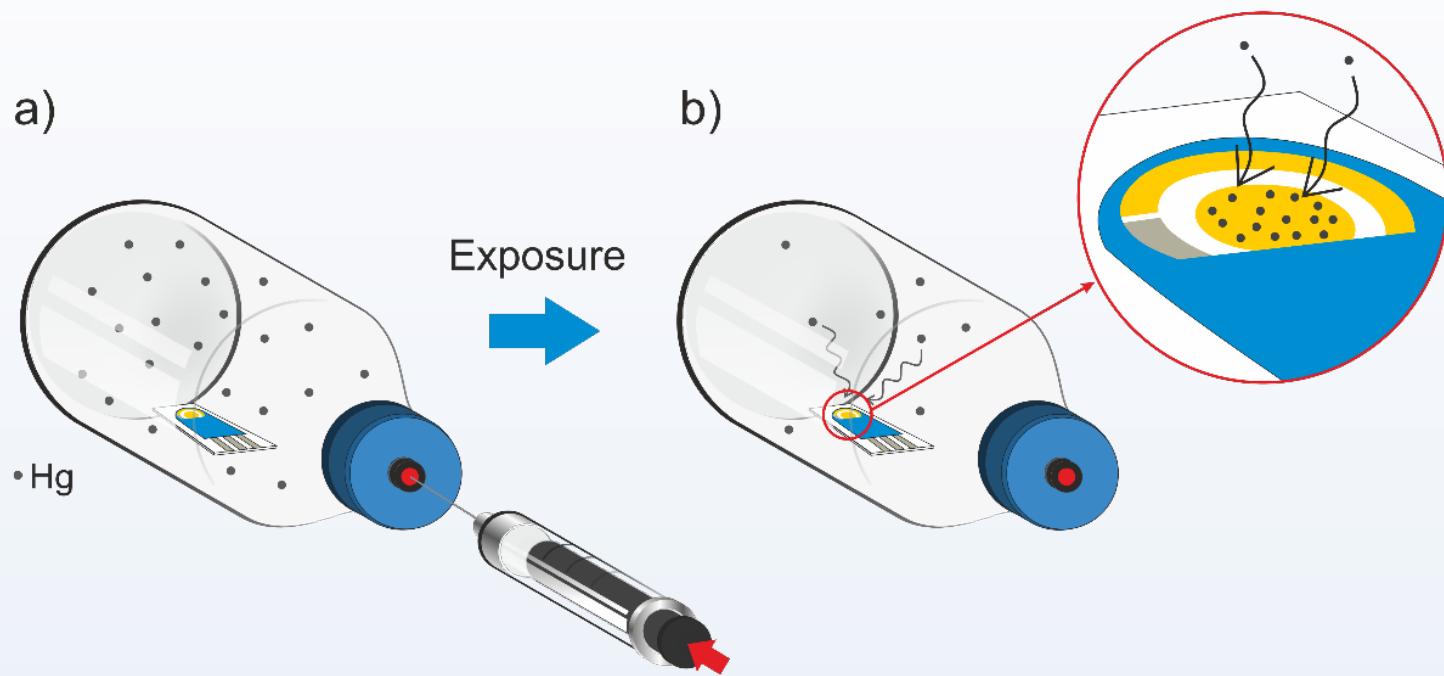
Talanta (2017)

Frutos-Puerto et al.
Nafion-Protected Sputtered-Bismuth Screen-Printed Electrode for On-site Voltammetric Measurements of Cd(II) and Pb(II) in Natural Water Samples.

Sensors (2019)

Heavy metals in PM by Anodic Stripping Voltammetry

Thermo-regulated cabinet (20.0 °C)



Frutos-Puerto et al.

Screen-printed gold electrodes as passive samplers and voltammetric platforms for the determination of gaseous elemental mercury, Analytical Chemistry (2021)

Gaseous elemental mercury by anodic stripping voltammetry

Thank you



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