



IBERSENSOR 2022

POSTER SESSION

Tuesday, September 6th

14:20 -16:00 Atrium of CCCI Auditorium

SENSORES ELECTROQUÍMICOS | SENSORES ELECTROQUÍMICOS | ELECTROCHEMICAL SENSORS

- P1** *Optimization of an electrochemical phagomagnetic assay based on signal amplification of β -GLU-Cu₃(PO₄)₂ hybrid nanoflowers for selective quantification of live *Listeria monocytogenes**
N. F. D. Silva, C. Maciel, P. Teixeira, J. M. C. S. Magalhães
- P2** *Two potentiometric microsensors for Cu²⁺ determination in corrosion processes*
O. V. Karavai, A. C. Bastos, M. L. Zheludkevich, M. G. S. Ferreira
- P3** *Dissolved oxygen biosensing using electrochemical electrodes and solid electrolyte polymer*
D. R. Santos, P. P. Freitas
- P4** *Inkjet-printed electrode modified with magnetite particles and carbon nanotubes for the non-enzymatic amperometric determination of hydrogen peroxide*
M. I. Mass, L. S. Veiga, O. F. Garate, G. O. Ybarra, E. Ramón, G. Gabriel
- P5** *Novel ISE's membranes formulation solvent and polymeric matrix free*
E. Arasa-Puig, J. Alonso-Chamarro

SENSORES ÓTICOS E FOTOACÚSTICOS | SENSORES ÓPTICOS Y FOTOACÚSTICOS | OPTICAL AND PHOTOACOUSTIC SENSORS

- P6** *Proposition of a photoacoustic based sensor for microplastic identification in marine environment*
C. M. Penso, C. R. Ribeiro, L. M. Gonçalves, C. M. Paiva
- P7** *Oxygen sensor for oceanographic applications*
C. F. Carneiro, C. M. Penso, L. M. Gonçalves
- P8** *Towards a NO_x microanalyser: miniaturized nitric oxide (NO) chemiluminescence analyzer prototype, for automotive industry applications*
P. Couceiro, D. Izquierdo, J. Naranjo, I. Garces, M. Puyol, C. Martinez-Cisneros, J. Alonso-Chamarro

BIOSENSORES E APLICAÇÃO À ANÁLISE DE ALIMENTOS | BIODIAGNÓSTICO Y APLICACIONES AL ANÁLISIS DE ALIMENTOS | BIOSENSORS AND APPLICATION TO FOOD ANALYSIS

- P9** *Disposable molecularly imprinted electrochemical sensor containing reduced graphene oxide and nickel nanoparticles for determination of p-coumaric acid in fruit peels*
E. Buffon, N. R. Stradiotto

NOVOS MATERIAIS | NUEVOS MATERIALES | NEW MATERIALS

- P10** *A flow injection setup to determine oxytetracycline with a piezoelectric quartz crystal*
M. I. S. Veríssimo, A. S. Sousa, M. T. S. R. Gomes
- P11** *Simultaneous voltammetric determination of acetaminophen, ascorbic acid and uric acid by use of integrated array of sensors modified with mesoporous carbon and metallic nanoparticles and electronic tongue principles*
E. Rodríguez-Franch, A. Herrera-Chacon, I. Álvarez-Prada, X. Cetó, J. García-Antón, X. Sala, M. del Valle
- P12** *Modification of natural photonic crystals by tailoring of the refractive index contrast*
R. Vilarinho, J. W. Goessling, M. Lopez-Garcia

P13 *Synthesis of microparticles of Cu_2ZnSnS_4 by hydrothermal method and its application as Congo Red photocatalyst*
P. Salazar, R. Henríquez, P. Zerega, F. Figueredo

P14 *Characterization of Al_2O_3 and SiO_2 ultra-thin films deposited by ALF for microfabricated rubidium vapor cells*
F. M. Cunha, M. F. Silva, J. H. Correia

P15 *Structural and optical properties of sprayed undoped ZnO thin films suitable for resistive gas sensors*
J. A. Rodríguez.

P16 *SRO/nitride-based electrophotonics for sensing applications*
A. A. González-Fernández, J. Hernández-Betanzos, M. Aceves-Mijares, O. Pérez, F. Orozco, C. Domínguez-Horna

DESENHO E TECNOLOGIA DE SENSORES E MEMS / DISEÑO Y TECNOLOGÍA DE SENSORES Y MEMS / DESIGN AND TECHNOLOGY OF SENSORS AND MEMS

P17 *Sistema electrónico para medición de calidad de sustancias: diseño e implementación*
D. Palacio Abril, S. Sierra Alarcón, J. J. García, F. Segura-Quijano

P18 *Projeto de encapsulamento de sensores inerciais usando tecnologia LTCC*
A. H. Rodriguez, A. C. Seabra

P19 *MEMS-based fabrication of an atomic vapor cell for brain magnetic field measurement*
H. M. Pereira, J. N. Vieira, E. M. F. Vieira, J. A. Rodrigues, M. J. Maciel, J. H. Correia

P20 *MEMS rubidium vapor cell for optically pumped magnetometers*
J. N. Vieira, H. M. Pereira, E. M. F. Vieira, J. A. Rodrigues, M. J. Maciel, J. H. Correia

P21 *MEMS-based waveguide SiO_2 fabricated by RIE process for optical sensing*
V. H. Rodrigues, J. R. Freitas, M. F. Silva, J. H. Correia

P22 *Rubidium vapor cells fabricated by additive manufacturing*
J. M. Borlido, J. A. Rodrigues, H. M. Pereira, B. Esteves, M. J. Maciel, E. M. F. Vieira, J. H. Correia

CONDICIONAMIENTO DE SINAL E INSTRUMENTAÇÃO / ACONDICIONAMIENTO DE SEÑAL Y INSTRUMENTACIÓN / SIGNAL CONDITIONING AND INSTRUMENTATION

P23 *Feature extraction acceleration by the prediction of the steady state response for solid state gas sensors*
S. Muñoz-Aguirre, D. Silva-Apango, G. Beltrán-Pérez, J. Castillo-Mixcóatl

P24 *Integración de redes neuronales con sistemas analíticos integrados para la cuantificación de metales pesados en solución acuosa*
V. E. Manqueros A., H. Coto F., F. Valdés P., K. V. Guevara A., J. Alonso-Chamarro, P. Couceiro

P25 *Multi-photon microscopy setup for integration in colonoscopes: an overview*
R. B. Freitas, M. J. Maciel, S. Pimenta, M. S. Belsley, J. H. Correia

P26 *Simulación de la instrumentación electrónica asociada al ISFET mediante el circuito integrado CD-4007*
H. Rodríguez, A. Castellanos, E. Valdés, C. Domínguez-Horna

MICROSSISTEMAS ANALÍTICOS INTEGRADOS E LAB-ON-A-CHIP / MICROSISTEMAS ANALÍTICOS INTEGRADOS Y LAB-ON-A-CHIP / ANALYTICAL INTEGRATED MICROSYSTEMS AND LAB-ON-A-CHIP

P27 *Microanalizadores automáticos modulares para la monitorización de metales pesados en procesos hidrometalúrgicos*
P. Couceiro, K. V. Guevara A., H. Coto F., V. E. Manqueros A., F. Valdés P., J. Alonso-Chamarro

P28 *Optimización del sistema analítico integrado para el monitoreo de ión cobre en efluentes de una mina*
K. V. Guevara A., F. Valdés P., H. Coto F., J. Alonso-Chamarro, P. Couceiro

P29 *Development of a microswitch made in LTCC-PDMS technology applicable to micro total analysis systems*

T. S. Rosa, A. C. Seabra

P30 *Integração e automatização do funcionamento e do processo de aquisição de dados leitura de um sistema de sensores numa bancada de calibração de medidores de vazão de líquidos*

I. Deme, M. H. Farias, A. V. Alvarenga

SENSORES INTELIGENTES E REDES SEM FIOS / **SENSORES INTELIGENTES Y REDES INALÁMBRICAS** / **SMART SENSORS AND WIRELESS NETWORKS** /

P31 *Wireless sensor network system for landslide monitoring*

A. F. B. Wioppiold, A. C. Seabra

SENSORES DE ONDAS ACÚSTICAS / **SENSORES DE ONDAS ACÚSTICAS** / **ACOUSTIC WAVE SENSORS**

P32 *Automation of the drop-casting deposition method for polymeric sensing films over a quartz crystal microbalance*

A. I. Bravo-Sánchez, G. Beltrán-Pérez, J. Castillo-Mixcóatl, V. M. Altuzar-Aguilar, S. Muñoz-Aguirre

P33 *Development of a relative humidity pid control for the characterization of gas sensors based on quartz resonators*

O. Sosa-Ramos, G. Beltrán-Pérez, J. Castillo-Mixcóatl, V. M. Altuzar-Aguilar, S. Muñoz-Aguirre

P34 *Response measurement acceleration of QCM-based gas sensors using the transient response*

M. A. Moreno-Acosta, G. Beltrán-Pérez, J. Castillo-Mixcóatl, S. Muñoz-Aguirre

APLICAÇÕES AO MEIO AMBIENTE E AGRICULTURA. POUPANÇA DE ENERGIA / **APLICACIONES AL MEDIO AMBIENTE Y A LA AGRICULTURA. AHORRO DE ENERGÍA** / **APPLICATIONS TO THE ENVIRONMENT AND AGRICULTURE. ENERGY SAVING**

P35 *Evaluation of in-soil nutrient probes in different types of soils*

E. Arasa-Puig, J. Cuerva Salas, R. Álvarez Garrido, J. Alonso-Chamarro

P36 *Inductive salinity sensor*

M. Barroso, J. L. Rocha, C. L. Faria, P. A. Gomes, L. M. Gonçalves

APLICAÇÕES À BIOMEDICINA E À SAÚDE / **APLICACIONES A LA BIOMEDICINA Y A LA SALUD** / **APPLICATIONS TO BIOMEDICINE AND HEALTH**

P37 *Detection of defects on displays based on microscopic and optical coherence tomography examination*

H. M. Pereira, R. B. Freitas, B. Esteves, C. P. Santos, P. Carvalho, P. Compadrinho, C. Rodrigues, M. J. Maciel, E. J. Nunes-Pereira, C. A. Silva, J. H. Correia

P38 *Cu₂O/CuO composite synthesis by thermal treatment of Cu₂O thin films and its application as a non-enzymatic glucose sensor*

F. Figueredo, P. Grez, R. Schrebler, P. Salazar, C. Heyser

P39 *Gallium nanoparticles interaction with IAPP: can GaNPs inhibits oligomerization?*

N. V. Falcón-Cruz, A. S. Delgado, K. M. Torres, A. Meléndez, I. Ramos, D. Du, R. Oyola

SPONSORS



AVEIRO | PORTUGAL

2022