

Poster programme - EBS online 2021

Poster session 1 (15:10 / March 9, 2021)

Affinity Sensors and Biomimetics



Poster no.	First name	Last name	Poster title
PS1-01	Bhargav D.	Mansuriya	Enzyme-free electrochemical nano-immunosensor for early diagnosis of acute myocardial infarction
PS1-02	Ekin	Sehit	Ultrasensitive nonenzymatic electrochemical glucose sensor based on gold nanoparticles and molecularly imprinted polymers
	Daniel	Buchenau	
PS1-03	Muqsit	Pirzada	Cancer biomarker detection in human serum samples using nanoparticle decorated epitope-mediated hybrid MIP
PS1-04	Tiziano	Di Giulio	MIP based impedimetric sensor for a chronic disease marker
PS1-05	Sabrina	Di Masi	Electrochemical sensor based on electrosynthesised ion imprinted polymeric film for Cd ²⁺ ions determination in water samples
PS1-06	Dounia	Elfadil	Rapid ultrasound-assisted synthesis of MIPs for sulfonamides
PS1-07	Marcus	Menger	Binding affinity analysis and applications of DNA aptamers for therapeutic anthracyclines
PS1-08	Elisabetta	Mazzotta	Electrosynthesis of a molecularly imprinted poly(metalloporphyrin) for the selective detection of carnosine
PS1-09	Patrick Severin	Sfragano	An electrochemical assay based on a bicyclic peptide for urokinase-type plasminogen activator (uPA) determination
PS1-10	Wisnu Arfian Anditya	Sudjarwo	Molecularly imprinted polymer nanoparticles for Human Serum Albumin (HSA) assay using Quartz Crystal Microbalance (QCM)
PS1-11	Cynthia	Forier	Detecting pesticides with aptasensors.
	Jean-Jacques	Toulmé	
PS1-12	Aysu	Yarman	Strep-Tag II-Imprinted Polymer for the Recognition of Recombinant Proteins

Nucleic Acids and Sensing

Poster no.	First name	Last name	Poster title
PS1-13	Lisa-Marie	Broweleit	Specific and fast 16S rRNA-based detection of sepsis pathogens using PCR amplification and microarray hybridization
PS1-14	Julián	Cobos Suárez	Effect of the electrical transport properties of carbon nanomaterials applied to the design of electrochemical DNA biosensors.
PS1-16	Kalogianni	Despina	Gold nanoparticle-based biosensor for rapid liquid biopsy applications
PS1-17	Michaela	Domšicová	DNA-aptamers: a sensitive tool for detection of oncological diseases by quartz crystal microbalance.
PS1-18	Sedigheh	Falahi	A label free electrochemical biosensor for early detection of liver cancer biomarker miRNA-122, based on graphene oxide modified screen printed electrode
PS1-19	Carolin Kornelia	Fenzel	Isothermal multiplex amplification with microarray for the fast detection of multidrug-resistant pathogens in PoC-systems
PS1-20	Dieter	Frense	Improvements of an impedimetric aptamer-based biosensor for diclofenac by modifications of the aptamer used
PS1-21	Vanessa	Jungbluth	Improvement of PNA probe interactions for a sensitive SPR-based detection of gliomas-associated miRNA
PS1-22	Raquel	Sánchez-Salcedo	Non-invasive approach for the early diagnosis of prostate cancer by using an electrochemical platform
PS1-23	Vera	Shavokshina	Poly (3,4- (1-azidomethylethylene) dioxythiophene) as an advanced interface for electrochemical detection of oligonucleotides
PS1-24	Gerhard	Schwaiger	Quantification of Legionella spp. by viability heterogeneous asymmetric recombinase polymerase amplification (v-haRPA) on a flow-based chemiluminescence microarray
PS1-25	Ivana	Tomac	Electrochemical DNA-based biosensor for the evaluation of antioxidant activity of some hydroxycinnamic acids
PS1-26	Quoc Viet	Vu	One-step in-chip hybridization RPA for a fast and easy to use diagnostics platform
PS1-27	Alissa	Wieberneit	Electrospun cationic nanofibers for nucleic acid extraction in paper-based analytical devices

Poster Session 2 (15:00 / March 10, 2021)

Electrochemical Transduction and Electrokinetics

Poster no.	First name	Last name	Poster title
PS2-01	Melinda	David	Detection of levothyroxine using nanostructured materials: an electrochemical assay
PS2-03	Sheida	Esmail Tehrani	Enzymatic Histamine Biosensor Based On Prussian Blue-Modified 3D Pyrolytic Carbon Microelectrodes
PS2-06	Aliyeh	Hasanzadeh	Design and development of electrochemical biosensors for bioprocess monitoring
PS2-07	Yueh-Tien	Hsu	Electrochemical detection and cleaning of the contaminated contact lens by using scanning electrochemical microscopy (SECM)
	Tzu-En	Lin	
PS2-08	Andreas	Hellmann	Platinum black-modified microelectrodes for biomedically relevant hydrogen peroxide detection
PS2-09	Ralph	Hölzel	AC electrokinetics on the nanoscale: immobilisation of nanoparticles and molecules
PS2-10	József	Kozma	Ferrocene-functionalized multi-walled carbon nanotubes based solid contact ion-selective electrodes
PS2-11	Anna	Lielpetere	Improving the stability of redox polymers for bioelectrochemical applications
PS2-12	Ricardo	Leote	Sm ₂ O ₃ -SmO Modified Gold Electrodes: Development, Characterization and (Bio)sensing applications
PS2-13	Tyra	Lewis	Electrochemical Characterization of Conductive Ni(II)-Based Metal Organic Framework Films
PS2-14	Chunling	Li	Investigating the effects of the contact metal to the characteristics of PEDOT:PSS based organic electrochemical transistors
	Xuan Thang	Vu	
PS2-15	Lenka	Lorencova	Advanced 2D nanoscaled "MXene" interfaces as perspective immobilization platforms for design of (bio)sensors
PS2-16	Federica	Mariani	A material-based approach for the development of wearable pH sensors

PS2-17	Gheorghe	Melinte	Gold nanostructured platform for lysozyme specific detection
PS2-18	Elisabetta	Mazzotta	Coating-free platinum nanoparticles for the electrocatalytic detection of hydrogen peroxide
PS2-19	Mareike	Noffke	AC electric field mediated preparation of regular enzyme arrays and their functional characterisation
PS2-20	Filippo	Silveri	Liquid-phase exfoliation of graphene by phytochemicals. A new source of redox-active nanostructured functional materials for (bio)sensing
PS2-21	Giulia	Selvolini	From molecular docking to electrochemical detection of deoxynivalenol
PS2-22	Marcel	Tintelott	Temperature-controlled silicon nanowire biosensor platform

Interfaces, Transducers and Microfluidics

Poster no.	First name	Last name	Poster title
PS2-23	Sara	Gaggiotti	Quartz Crystal Microbalance Sensors Array based on Hairpin-DNA for the Detection of Volatile Organic Compounds.
PS2-24	Gero	Göbel	Paper-based electrodes for bioanalytical applications
PS2-26	Karolina	Kowalewska	Interfacial behaviour of carbosilane dendrimers at the interface between two immiscible electrolyte solutions
PS2-27	Annukka	Kokkonen	Roll-to-roll large-scale manufacturing of integrated microfluidics
PS2-28	Benjamin	Heidt	Novel 3D-Printed Multiplanar Microfluidic Systems for Improved Biosensor Integration.
PS2-29	Markéta	Vrabcová	Tunable design of antifouling polymer brushes: from fouling molecular studies to biosensor applications
PS2-30	Camilla	Marasca	Miniaturised microfluidic-based DBS sampling for therapeutic drug monitoring
PS2-31	Giulia	Moro	Polyfluoroalkyl substances sensing with serum proteins: transposing toxicological studies to biosensing strategies

PS2-33	Klaudia	Rückmann	Real-time measurement of smart hydrogel swelling dynamics based on direct optical detection of cross-sectional area changes
PS2-34	Marek	Tatarko	Application of multiharmonic QCM method to study cytochrome c adsorption on lipid layers

Poster Session 3 (15:10 / March 11, 2021)

Optical Transduction

Poster no.	First name	Last name	Poster title
PS3-01	Ruth Fabiola	Balderas-Valadez	Plasmonic biosensors fabricated by galvanic displacement reactions for monitoring biomolecular interactions in real time
PS3-02	Sabrina	Diehn	Data pre-processing of FTIR spectra from individual grass pollen grains embedded in paraffin
PS3-03	Anders	Henriksson	Design, Simulations and Manufacturing of a Microring Resonator Biosensor Assisted by Dielectrophoresis
PS3-04	Stefan	Leisten	Broad range amino acid identification via salt-concentration dependent gold nanoparticle aggregation
PS3-05	Mariagrazia	Lettieri	A novel Copper Nanoclusters-based platform for label-free detection of human serum albumin
PS3-07	Costanza	Manganelli	Towards CMOS compatible materials for Surface enhanced Raman Spectroscopy (SERS)
PS3-08	Nabarun	Polley	Fabrication and subsequent optimization of a plasmonic fiber optic sensor for biosensing applications
PS3-09	Daniele	Storelli	Realization of a flexible SPR bioassays platform: Study of molecular interaction between HER-2 and novel NanoBodies
PS3-10	Yanwei	Wang	Synthesis of gold nanoparticles in a 3D hydrodynamic focused microreactor and their application for online chemiluminescence
PS3-11	Rene	Welden	Light-addressable electrodes for the manipulation of biological systems in microfluidic channels
PS3-12	Viola	Wurster	Development and Optimization of an Optical Sensor Based on Reflectometric Interference Spectroscopy to Characterize Protein Kinase Inhibition

Immunosensors

Poster no.	First name	Last name	Poster title
PS3-13	Andreas	Auernhammer	Development of a multiplex algae toxin immunoassay for the monitoring of algal blooms in surface water
PS3-14	Saloni	Agarwal	Development of a LAMP-Based Lateral Flow Assay for the Rapid Detection of SARS-CoV-2 infections
PS3-15	Beatriz	Arévalo	Diagnose breast cancer and identify the most aggressive subtype by electrochemical immunosensing of matrix-metalloproteinase-9
PS3-16	Madalina	Barsan	A new amperometric 20S proteasome biosensor for proteasome activity and inhibitor screening
PS3-17	Monika	Conrad	Comparison of Evaluation Methods for Kinetic Analysis of Binding Events
PS3-18	Omnia	Elsayed	Ultra-sensitive immunoassay for Estradiol in saliva and drinking water
PS3-19	Alexander	Ecke	Magnetic Bead-Based Immunoassays for Online Sensing Applications
PS3-20	Maria	Gamella	First electrochemical immunoplatform for the simple, sensitive and rapid detection of mustard in food extracts
PS3-21	Soraya	Höfs	Smartphone-based amperometric detection of 3,3',5,5'-tetramethylbenzidine (TMB) – An immunomagnetic Ochratoxin A assay
PS3-23	Simon	Streif	Developing a liposome-based lateral flow assay for the detection of SARS-CoV-2 neutralizing antibodies
PS3-24	Esther	Sánchez-Tirado	Electrochemical immunosensors for the sensitive determination of rheumatoid arthritis biomarkers
PS3-25	Alejandro	Valverde	Electrochemical bioplatform to unravel neurodegeneration and Alzheimer's disease through the determination of neurofilament light chain protein

Poster Session 4 (15:10 / March 12, 2021)

Virus and Bacteria Detection

Poster no.	First name	Last name	Poster title
PS4-03	Chiara	Giliberti	Smart and portable immunosensors for serological assessment of SARS-CoV-2 infection and rapid evaluation of immunity against SARS-CoV-2
PS4-04	Anna	Gebhard	Development of a High-Throughput Cell-free Neutralization Test for SARS-CoV-2
PS4-05	Melanie	Jablonski	Studying the adsorption of tobacco mosaic virus particles on capacitive field-effect biosensors
PS4-06	Marlen	Kruse	Towards Measuring Multivalent Binding Interactions: Binding of Viruses and Peptides on DNA-nanoconstructs
PS4-07	Julia	Neumair	Flow-based chemiluminescence microfluidic chip for capturing bacteria with affinity ligands
PS4-08	Sandra	Stanke	AC field assisted deposition of influenza viruses on nanoelectrodes
PS4-09	Philipp	Streich	Characterization and validation of screening methods for cultureindependent detection of Legionella in artificial water systems
PS4-10	Rebeca Magnolia	Torrente Rodriguez	A Multiplexed Graphene-Based Telemedicine Platform for Rapid, Remote and Low-Cost COVID-19 Control and Monitoring
PS4-11	Ceren	Yaslanmaz	Development of a fast and reliable quantitative Loop-mediated isothermal amplification (qLAMP) assay for the detection of viral SARS-CoV-2 RNA (Cor(e)-LAMP)
PS4-12	Stefanie	Zwirner	On-chip detection of Salmonella in food, coupling the loop mediated isothermal amplification with microarray technology for increased specificity

Cell- and cell-associated sensing

Poster no.	First name	Last name	Poster title
PS4-13	Eva-Maria	Laux	AC electrokinetic immobilization of K562 exosomes on nanoelectrode arrays

PS4-14	Karl-Heinz	Feller	Whole cell biosensors for cytotoxicity and chemosensitivity assays
PS4-15	Johanna	Hutterer	Characterization of cell adsorption on extracellular matrix proteins and peptides using RfS and SCORE
PS4-16	Honeyeh	Matbaechi Ettehad	Characterization and manipulation of yeast cells using microfluidic-based interdigitated biosensor
PS4-17	Clemens	Spitzenberg	Development of a functional complement assay based on liposomes
PS4-18	Patrycja	Sokołowska	Lab-on-a-chip system for developing and fluorescence imaging a three-dimensional model of pancreatic islets under flow conditions.
PS4-19	Felix	Thier	Platelet Imprinted Polymers for rapid platelet function monitoring

Enzyme Sensing and Pseudoenzymatic Systems

Poster no.	First name	Last name	Poster title
PS4-20	Alexander	Zarochintsev	Prussian Blue based nanozymes: electrocatalytic properties and applications for electrochemical (bio)sensors
PS4-21	Ivan	Piovarci	Protease biosensor based on modification of gold nanoparticles and optical methods
PS4-22	Gero	Göbel	Voltammetric activity determination of the human catechol-Omethyl transferase at fluorine doped tin oxide
PS4-23	Sandro	Spagnolo	Detection of trypsin and plasmin using a QCM sensor based on β -casein immobilized on a hydrophobic surface
PS4-24	Emilia	Renzi	Artificial heme-peroxidases for the construction of functional bionanoconjugates
PS4-25	Vera	Shavokshina	Direct bioelectrocatalysis of glucose dehydrogenase facilitated by carbon black: towards one-step fabrication of biosensors
PS4-26	Xiaomei	Yan	Fructose dehydrogenase on self-assembled monolayers for fructose sensors
PS4-27	Tautgirdas	Ruzgas	Epidermal sensing of H ₂ O ₂ : optical, Prussian blue based, visualisation of penetration pathways in skin

PS4-28	Sascha	Morlock	A photobioelectrochemical biofuel cell: exploiting light and biofuels for energetics
PS4-30	Cristina	Muñoz San Martín	Electrochemical biosensing of specific proteases and hypoxia biomarkers to early identifying cancer aggressiveness