

IAEAC's Nanobiosensors for Food Safety

Organized in conjunction with the International Association of Environmental Analytical Chemistry

Chairs: Sam R. Nugen and Antje J. Baeumner

Keeping our food supply safe requires monitoring throughout the entire food chain (farm-to-fork). The miniaturization of analytical technologies, new nanomaterials, and the integration of sample preparation address the major challenges caused by the complexity of food products paired with trace levels of contaminants, the demanding requirements of ultra-low cost and rapid sampling-to-result responses.

Timothy Swager, MIT,

Single-Walled Carbon Nanotube/Metalloporphyrin Composites for the Chemiresistive Detection of Amines and Meat Spoilage

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M.-Pilar Marco, Spanish Council for Scientific Research (CSIC), Institute of Advanced Chemistry of Catalonia, Barcelona, Spain

Challenging the threats of multiplexation through nanobiotechnological approaches

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Antje J. Baeumner, University of Regensburg, Germany

"Nanofiber-enabled miniaturized biosensors for electrochemical and optical detection strategies"

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Sam R. Nugen, Dept. of Food Science, Cornell University, Ithaca, NY

"Bacteriophage-based nanobiosensors for food safety"

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Arun Ganesan, Ancera, Branford, CT

Microbial Risk Assessment and Monitoring through miniaturized ferrofluidic cell-sorting technology

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