

Short bio

Sandrine Bernardini is an associated professor at Aix-Marseille University (France). She received her engineering degree in materials and microelectronics in 2001 (INSA-Lyon, France) and in 2004 her Ph.D. degree at Provence University, Marseille. From 2005 to 2007, she is engaged as Associate Researcher at the University of Manchester (UK) for high-k dielectric structural and electrical characterizations. In 2008, she joined the MicroSensor Group at the Institute of Materials Microelectronic and Nanosciences of Provence (IM2NP Marseille, France). Her current research interest focuses on the nanomaterials and their sensing properties for environmental flexible sensor applications. She is a member of scientific committees of international conferences.

Abstract

Zinc oxide nanoparticles for gas sensors and air quality monitoring

Since the last decade, ZnO nanostructures are considered as excellent material for fabrication of sensitive gas sensors on rigid or flexible substrate. Due to interesting and multifunctional properties, ZnO nanomaterials are widely used to produce gas sensors for the detection of various dangerous and toxic gases. During this presentation, we will focus on our recent developments of gas sensors based on ZnO nanoparticles and their enhancement by light illumination.