

## Guest Professor in our Department – Topic Hydrogen Sensors for Future Energy

### Welcome Prof. Mahnaz Shafiei

Prof. Mahnaz Shafiei is an associate professor at Swinburne University of Technology in Melbourne, Australia. She is a renowned researcher in the field of gas sensors and will spend a one-month lasting research stay in our lab.

She will work on a new class of H<sub>2</sub> sensors, in which the unique properties found in nanomaterials such as high surface area to volume ratio, number of active sites and reactivity can be harnessed. This may help to develop sensors with improved performance via lower working temperature (i.e., lower power consumption), higher sensitivity, lower limit of detection, and improved selectivity, to name a few properties. Sensors capable of working at lower temperatures are becoming more desirable as reduced power consumption is important for mobility and flexibility. Recent advances are now beginning to yield such sensors, with many capable of detecting H<sub>2</sub> gas at room temperature.

At our lab, she will use our transducer technology and measuring capabilities. In addition, she will attend the SMSI sensor conference in Nuremberg.



Gunter Hagen, Daniela Schönauer-Kamin, Mahnaz Shafiei, Martin Hämmerle, and Jaroslaw Kita welcome her on May 2<sup>nd</sup>.

[www.funktionsmaterialien.de](http://www.funktionsmaterialien.de)