

## Development of ozone gas sensors based on delafossite thin films

**João Afonso**

Luxembourg Institute of Science and Technology, Luxembourg

Ozone gas sensors development is a growing need in modern days, due to its increase use in several industry areas. A major problem is its production in office environment by lab equipments and laser printers. Ozone exposure can cause several long run cardiopulmonary problems. With this in mind there is the urge to develop efficient, cheap and office compatible sensors. Delafossite is an interesting p-type material that has shown its responsivity to ozone. With this in mind we will deeply explore delafossite properties and its responsivity to ozone as well as its integration

into devices and understand the underlying relation. Our delafossite films are deposited by Metal Organic Chemical Vapor Deposition (MOCVD) and undergo annealing steps in order to control its electrical properties. We have been developing a state of the art etching process for delafossite with interesting results, leading into the patterning and We have been developing a state of the art etching process for delafossite with interesting results, leading into the patterning and the integration of the first devices.

e: joao.afonso@list.lu

 Notes: