Kick-off meeting of PRIN Project “UV-C Sensors based on Gallium Oxide (USE GAO)”

University of Parma, Physics Building, Room Newton

Thursday 9 November 2023 - 14:30-18:00

Programme:

14:30    R. Fornari             The project USE GAO: targets and tasks
15:00    M. Bosi               MOVPE growth of different Ga₂O₃ polymorphs
15:30    M. Pavesi             State-of-the-art of solar-blind photoresistors for UVC radiation
16:00    G. Verzellesi         The contribution of modelling and simulation to development of UVC photodetectors
16:30    F. Mattei             Fabrication and characteristics of inorganic-organic hybrid self-powered photodetectors for UVC radiation
17:00    A. Moumen             Deposition and properties of NiO: preliminary activity for fabrication of inorganic hetero-structures for self-powered solar-blind UVC detectors
17:30    General discussion and conclusions

To reach the goal set forth in the Project USE GAO, the long-standing collaboration between the research groups “Semiconductors” at Dept. SMFI and “Epitaxial growth” at IMEM-CNR will be expanded to include a team from the University of Modena and Reggio Emilia specialized on device design and simulation, as well as additional colleagues at IMEM dealing with photolithography and device processing. This core research nucleus will also be supported by traditional partners for electron microscopy, x-ray diffraction, photo- and cathodo-luminescence, SIMS. Although not formally included in the PRIN project, these collaborations are essential for the study of physical properties of materials and consequent device development.

In the Workshop we shall present the targets and tasks of the PRIN project USE GAO, but also make a survey of the past and present activities on Ga₂O₃-based solar-blind UVC photodetectors carried out in Parma.

Interested colleagues and students are welcome!