

# 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:

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|-------|---------------|--|
| 14:30 | R. Fornari    | The project USE GAO: targets and tasks   |
| 15:00 | M. Bosi       | MOVPE growth of different Ga <sub>2</sub> O <sub>3</sub> 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 Ga<sub>2</sub>O<sub>3</sub>-based solar-blind UVC photodetectors carried out in Parma.

**Interested colleagues and students are welcome!**

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