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PEROV project: perovskite devices for visible light and potential for X-ray detection

Thursday, 22 June 2023 12:50 (20 minutes)

Since several years, the organometal halide perovskites (OMHP) semiconductors have been proved to be promising material for fast, sensitive large-area photodetectors, and, more recently, also for ionization radiation, beside the well known success as photovoltaic devices.

In particular, OHMPs show large potential for X rays detection due to their high stopping power.

In this talk I will show the results from the PEROV INFN project where several OHMP based devices have been developed and tested with visible light. I will focus on a novel technique wich enables the deposition of OHMP micro-wires directly on patterned conductive substrate with precise positions and dimensions. This novel techniques is attractive for X-ray pixelated detectors and further opens the possibility to integrate OHMPs with CMOS technology.

Summary

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