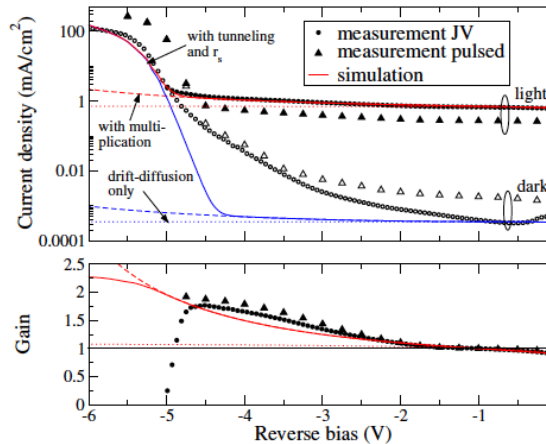


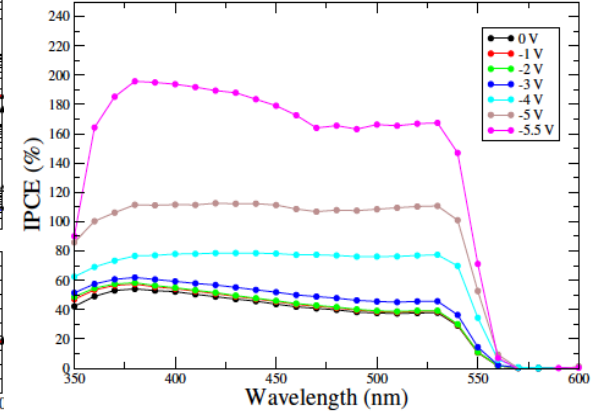
R&D on organometal halide perovskites for photodetectors

Marianna Testa, for the PEROV Collaboration

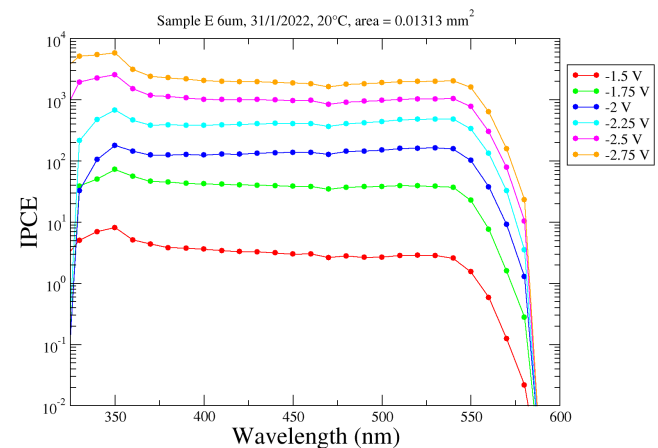
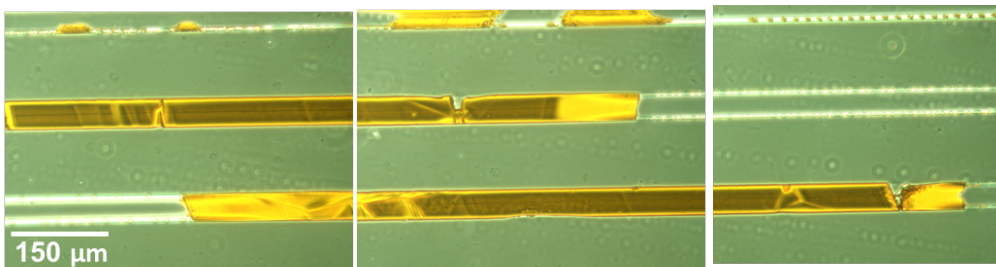
- Several devices with $\text{CH}_3\text{NH}_3\text{PbBr}_3$ perovskite of various thickness
- Polycrystalline film 300 nm thick
Developed model of the observed IV curve and gain
 - *tunneling-assisted electron extraction at the interface*
 - *carrier multiplication*
 - Both mediated by the electric field due to *mobile ions Br-*



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- Micro-wires $W \times L \times H = 150 \mu\text{m} \times 500 \mu\text{m} \times 6(2) \mu\text{m}$
 - Direct deposition of single crystals on patterned Indium Tin Oxide



Deposited patent: 102022000010469