

HASPIDE



HASPIDE and non-clinical non-photons beams

L. Servoli



Tests done on proton beam.



- 1) *HASPIDE goal is to characterize detectors on different types of radiation beams. (WP4)*
- 2) *Right now we have concentrated on photons, X-ray, Synchrotron radiation, clinical accelerators.*
- 3) *we have done some tests on proton beams in the past two Years, but not optimized for HASPIDE devices-on-kapton*
- 4) *we have to start a more systematic effort on other types of radiation.*

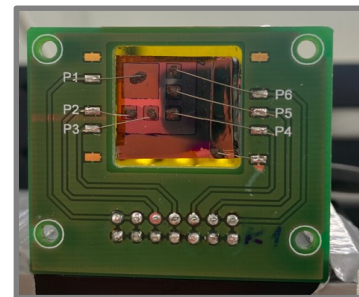


Proton beam tests

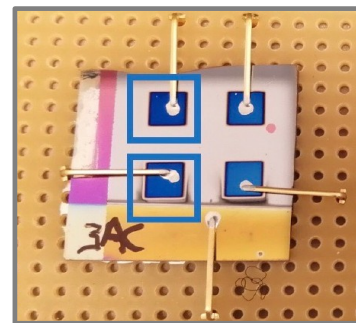


1) Test in Bern Cyclotron 16.8 MeV for radioisotopes production

- Diode detector on kapton substrate
- Intrinsic layer of a-Si:H of **2.5 μm**
- P-doped Si layer & n doped Si layer
- 2 mm x 2 mm area



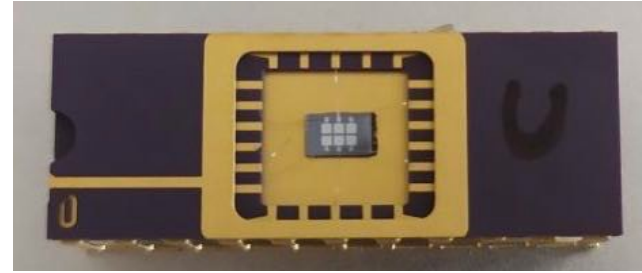
Charge selective contact detector on glass substrate
Intrinsic layer of a-Si:H of **8.2 μm**
Molybdenum oxide layer & Aluminium-doped zinc oxide layer
4 mm x 4 mm area



Proton beam tests

2) *Test in Lecce Proton Accelerator 3 MeV*

- **Devices from 3D-Siam production**



3) *Test in Lecce Proton Accelerator 3 MeV*

- **Devices from HASPIDE with kapton substrate**

Proton beam tests

4) *Test in Trento Clinical Adrotherapy beam*

Devices from HASPIDE with kapton substrate

Analysis not yet completed especially at low fluxes

Results not yet conclusive





Future beam tests (1)



- 1) *Test period assigned the first half of may in Trento*
- 2) *Request pending for CNAO ion and proton beams*
- 3) *Next month a test with and intense 90Sr source (10 mCi)
At INFN Firenze*
- 4) *Possible a test with an intense 137Cs photon source at
Foligno Hospital*
- 5) *Test with a IORT (electron) accelerator in autumn.*



Future beam tests (2)



6) *Beam test at ELI laser accelerated proton beams
(autumn)*

7) *Possible new test in Berne*

8) *possible test at LNL beams*

9) *.....*