

INSTRUCTIONS

How to package samples to be irradiated at the PS-IRRAD facilities

1. Prepare a square paperboard holder having the following dimensions ($49.5 \pm 0.5 \times 49.5 \pm 0.5$) mm² and a thickness of 1 mm (see Fig. 1 A)
2. Cut a square hole into the center of the paperboard having dimensions according to the size of your sample. For samples having a dimension of 10x10 mm, the hole has to be 11x11 mm. (Fig. 1 B)

It is very important to position the active area of your sample (i.e. the area to be irradiated) in the center of this paperboard.

Several paperboards with standard hole are readily available or can easily be produced with a special tool in our laboratory. Standard square holes are: \square 5 mm² until \square 15 mm² in steps of 1 mm.

3. Fig. 1 C shows the further preparation of the paperboard. Use a scotch tape (*CERN SCEM: 04.95.45.A - INDUSTRIAL TAPES, SELF-ADHESIVE CREPE PAPER - LOW ADHERENCE*) with a small self-adhesive label on it to protect the sample. For proton fluences higher than 10^{15} p/cm² a Kapton tape (*CERN SCEM: 04.94.70 - SELF-ADHESIVE TAPES FOR ELECTRONICS - KAPTON*) has to be used.
4. Put one or two samples into the board and close the second side like the first side (Fig 1 E)
5. **Label the cardboard properly!** The following information has to be written in clear writing on the paperboard (see Fig 1 F):

- 1) **USER NAME**
- 2) **SAMPLE IDENTIFICATION:** If more than one sample is in the board, specify which sample is which! We have to unpack samples before shipping and a clear assignment has to be possible in order to avoid confusion.
- 3) **MATERIAL**
- 4) **ACTIVE SIZE** (please specify the thickness if it's > 300um)
- 5) **TYPE of particle (p, n, π)**
- 6) **FLUENCE (p/cm²)** Note: Use the real particle fluence – No 1 MeV-eq normalization please!

Further comments:

(1&2) Do not use more than five characters for both User Name and Sample ID

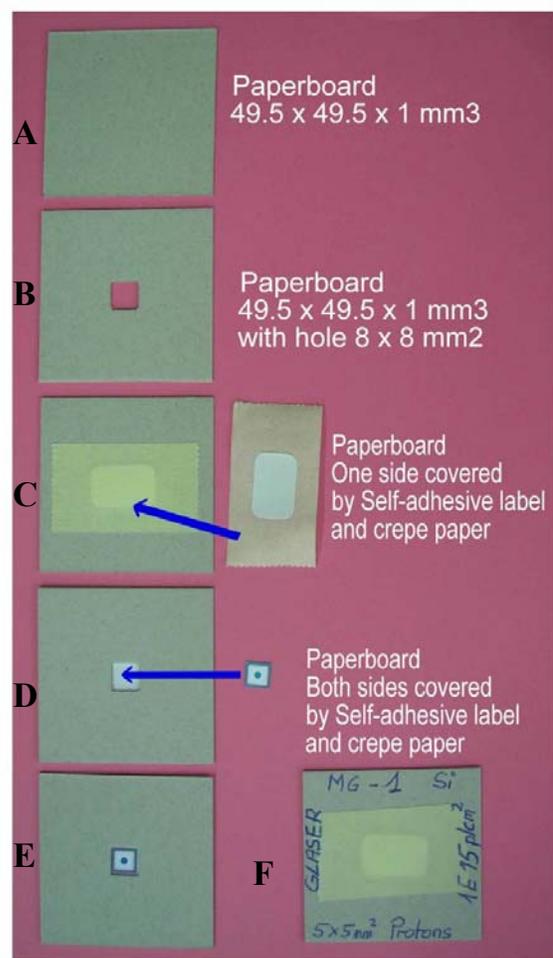


Figure 1.: Packaging of small samples for irradiation.