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### A LARGE FOIL TARGET

On the suggestion of J.A. Geibel there was a new kind of target developed which was tried in the PS-machine on 6th February, 1961.

#### Brief description (See Fig.)

The target head is a thin foil, which covers the larger part of the cross section of the vacuum chamber within a few milliseconds. A sliding frame (total weight less than 1 g) supports a foil of 8 cm width and 6,5 cm height. For the first trial in the machine a foil of 5,4  $\mu$  aluminium was used. The target speed rises to 5 mm/msec corresponding to a time for covering the whole beam within less than 2 msec. The driving mechanism is a fast target with minor modifications.

#### Target burst.

The counter signal of the target burst has shown a roughly exponential decay with a length of 200 msec (length of chosen flat top). There is no magnet ripple in the counter signal.

#### Purpose of target.

This target was made to determine the total cross section for the reaction  $AL^{22} (p, 3 pn) Na^{24}$ . Further on it will be used for measurements of target efficiency and for improving the knowledge about scattering in the primary beam. Preliminary results from the first run may be seen with J.A. Geibel. Further measurements will be made in the future.

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Acknowledgement.

We would like to mention K. Kull in the PS-Workshop, who has manufactured the extremely light target frame using a 50  $\mu$  Beryllium Copper foil.

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Distribution : (open)

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