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PROPOSAL TO CONTINUE THE STUDY OF DI-MUON PRODUCTION BY  
 $\pi^\pm$ ,  $K^\pm$ , p and  $\bar{p}$  at 40 GeV/c

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SUMMARY

We propose to repeat the beam dump experiment in Omega (WA 12) using 40 GeV/c  $\pi^\pm$ ,  $K^\pm$ , p and  $\bar{p}$  with an order of magnitude more events and the aim of

- a) obtaining 100 - 200  $J/\psi$  events from  $\bar{p}$  and  $K^\pm$  and determining cross section ratios and x-distributions;
- b) studying the Drell-Yan continuum for  $\pi^\pm$  events, in addition to  $J/\psi$ ;
- c) studying  $P_t$  distributions as a function of x and  $m_{\mu\mu}$  for  $\pi^\pm$  events.

Modifications to the beam and trigger counters are proposed to allow a factor 3 higher flux, which can be handled with the optical chamber system. The remaining factor will be obtained from improved SPS performance and longer running time. In all 7 x 5 days are requested in the S1 beam.

Spokesman: J.D. Dowell

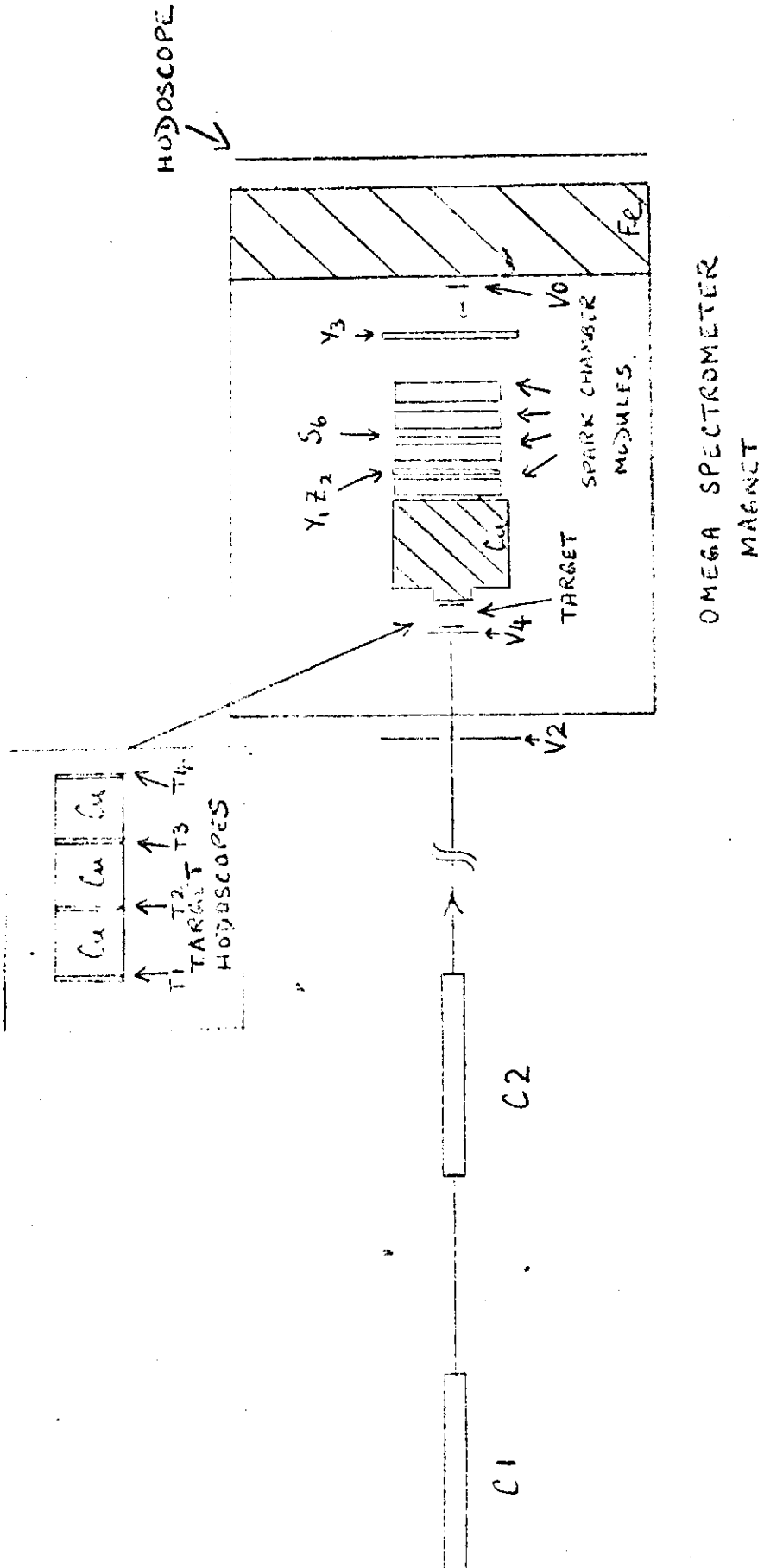


FIGURE 1 SCHEMATIC LAYOUT OF APPARATUS