



CM-P00073566

Report on the proposed experiment by

P. Cüer, H. Braun, and G. Baumann

"Proposition pour une exposition au faisceau  $O_2$  de mesons  $K^-$  de 12 GeV/c en vue de l'étude de la production et des propriétés des fragments nucléaires et des hyperfragments". (EmC 63/7)

This proposal is very similar to one made on behalf of the Warsaw, Brussels, CERN and University College London groups for an exposure to  $K^-$  mesons in the  $O_2$  beam. From the point of view of physics it is a sensible and obvious development of previous work.

The formulation of the proposal leaves much to be desired. It is vague and gives no indication of the practicability of many of the suggestions made. For example it refers vaguely to the determination of the spins of heavy hyperfragments but fails to give an indication of the method proposed. It states without explanation that it should be possible to identify with greater certainty the heavy hyperfragments produced by high energy  $K^-$  mesons. It refers to the possibility of complete identification of the primary stars, but this must be exceedingly difficult in the case of energetic  $K^-$  mesons - far more so than is the case for slow  $K^-$  mesons. No estimate is made of the actual number of primary stars one may expect to identify.

Similarly it proposes to study the nuclear interactions of particles of strangeness 2 but makes no attempt to estimate how many such particles are likely to be identified and the size of the scanning effort involved.

Briefly then it appears to the referee that there is no doubt that the experiment is worth doing but that the group proposing the experiment should be asked to present a more detailed and less vague proposal.