



Referee's comments on

ABSORPTION OF FAST π^+ MESONS IN NUCLEAR EMULSION

by

Ishfaq Ahmad,

University of Ottawa, Canada.

A systematic study of the absorption of pions by a complex nucleus over a range of energy would be of interest, particularly for the investigation of the absorption mechanism in a heavy nucleus. The data on the total absorption cross section itself is inadequate and it would be worth while to obtain more data. The interest in such measurements stems from nuclear physics rather than elementary particle studies.

The proposed work, however, will suffer from the disadvantage of an inhomogeneous target material. No mention is made of whether an attempt will be made at least to separate interactions in light and heavy nuclei, but this is very necessary if a meaningful attempt is to be made to interpret the results obtained.

The analysis would be tedious and it seems to me that measurements of this type are best carried out using electronic techniques and a homogeneous target, unless the main purpose is to study fragmentation, in which case the physical interest is rather small.

It is certainly optimistic to imagine studies of this kind will throw any appreciable light on the collision processes between N^* and N , in view of the complexity of the phenomena involved.

The strongest point that can be said in favour of the

experiment as proposed is perhaps that the required exposure time is very small. I would rate the experiment β - on the basis of physics interest, the experimental technique employed and the uncertainty in interpretation of experimental results that may be obtained.

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