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Referee's comments

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Referee's comments on

PROPOSAL FOR AN EMULSION EXPERIMENT:SEPARATION OF Ξ^- PARTICLES BY MEANS OF A PULSED MAGNETIC FIELD

by

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The following points about this proposal need some clarification:

1. Presumably the reference to 6000 pulses for the life of the two coils (p. 2 and addendum) is the correct figure and not the 300 pulses per coil given on p.1 of the proposal.
2. For K^- mesons of 1.8 GeV/c momentum the Σ^- production cross-sections on hydrogen, and presumably also for complex nuclei, are 5 to 10 times those for Ξ^- and not equal as stated on p.2.
3. The estimated proton background seems too low by a factor of at least 10 and possibly 100.

However, with the exception of the first point which might invalidate the experiment, these points only affect the rate of finding the Ξ^- hyperons. If this rate is not worse than about 1 per 20 scanner days the experiment would seem possible.

Some one uniquely identified example of a double hyperfragment would yield useful information on the Λ^0 - Λ^0 interaction, an experiment that is likely to find such an event is worthy of support. The probability of obtaining such an event is unlikely to be greater than a few per cent of all Ξ^- stops in nuclear emulsion so this experiment may just be feasible.

This referee considers that the proposal should be supported by the committee subject to clarification of the above points.

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