

EFFECTIVE INELASTICITY COEFFICIENT FOR PRODUCTION OF ELECTROMAGNETIC COMPONENT BY HADRON IN CARBON EMULSION CHAMBER

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Hadrons in the atmosphere at mountain altitude, e.g. 600 g/cm² are registered with emulsion chambers, in the Pamir experiment among others with carbon chambers. High energy hadron (of tens or hundreds TeV) penetrating a chamber initiate nuclear electromagnetic cascade (NEC). Registration of hadron is made indirectly by registration of electromagnetic component of NEC.

Simulation of NEC development in C-chamber have been made using standard superposition model for h-A interactions and F00 model for h-Nucleon interactions.

In the calculations effective inelasticity coefficient $K_{chamber}^{eff}$ (sum of E_γ produce in chamber / E_h above chamber) has been estimated using various inelasticity coefficient distributions of mentioned models for h-N and h-A interactions.

For extreme assumptions for inelasticity coefficient in each h-A interaction close $K_{chamber}^{eff}$ values have been received. It can be concluded that carbon emulsion chamber behaves like pseudocalorimeter.