(Λ, p) SPECTRUM ANALYSIS IN p+C INTERACTIONS AT 10 GeV/c

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On the theoretical side, many calculations of the (Λ, p) correlations have been performed using bag models[1], a phenomenological "Kaonic Nuclear Cluster models" [2] and et. al. New particles or states of matter containing 1,2-or more strange quarks have inspired a lot of experiments at BNL(AGS), CERN, FNAL, GSI, SEBAF, KEK, JINR and et al..

The effective mass spectra of strange multiquark metastable states with Λ hyperon systems from proton exposure in $pC\rightarrow \Lambda X$ reaction at 10 GeV/c in 700000 stereo photographs (or neutron exposure at 7 GeV/c) on LHE JINR PBC were observed significant enhancement in invariant mass spectra [3-5]:(Λp), (Λpπ), (ΛΛ),(Λpp) and (Λππ). There were succeeded in finding narrow resonance-like peaks by using different of the analysis for (Λp) spectra in ranges of : 2100, 2175,2225, 2285, 2353 and 2650 MeV/c^2. A few events, detected on the photographs of the propane bubble chamber exposed to a 10 GeV/c proton beam, were interpreted as weak decays of H dibaryons [6-8].

There are two groups of events interpreted as S=-2 stable dibaryons: 1) the first group is formed of the neutral, S=-2 stable dibaryons, the masses of which are below (Λ,Λ) threshold; 2) the second group is formed of neutral and positively charged S=-2 heavy stable dibaryons. The weak decay mode of dibaryon hypothesis were observed by decay channels of Σ^-p,$\Lambda\pi^0p$, $\Lambda\pi^-p$, $\Sigma^+p\pi^-$ and K^-pp.

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