

EXPERIMENTAL STUDY OF THE FRAGMENTATION OF RELATIVISTIC NUCLEI

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The results of the study of fragmentation of relativistic nuclei ${}^6\text{Li}$ [1], S [2], Pb [3], ${}^{10}\text{B}$ [4], ${}^{11}\text{B}$ [5], ${}^{14}\text{N}$ [6], ${}^{22}\text{Ne}$ [7], ${}^{16}\text{O}$ [8], with impulses from 2 up to 200 GeV/c per nucleon from nuclei in an emulsion. Experimental material consists in the measurement of angles in the plane of the emulsion. This angle is uniquely associated with the transverse momentum of fragments. The work shows that the process of fragmentation of the relativistic nuclei occurs rapidly, and the nucleus is still cool [9, 10]. The distribution of transverse momenta fragments is consistent, almost in all cases with the predictions of the model [11]. When fragmentation ${}^{16}\text{O} \rightarrow 4\alpha$ discovered that the proportion of events equal $5.4 \cdot 10^{-3}$ of all observable events, goes through the channel ${}^{16}\text{O} \rightarrow 2 {}^8\text{Be} \rightarrow 4\alpha$. This was the first time us channel. These can be events of coherent electromagnetic interaction of nuclei ${}^{16}\text{O}$ with the photo emulsion [12].

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