MORE ABOUT STRUCTURE AND FRAGMENTATION OF ^{6}Li AND ^{7}Li NUCLEI AT 3-4.5 A GeV/c

M. M. Sherif, M. S. El-Ngdy, O. Wahba, B. Abu-Ibrahim and F. A. Abd-Elwahed
Physics Department, Faculty of Science Cairo University, Giza 12613, Egypt
HEPL2CU@FRCU.EUN.EG

The results of investigations of inelastic interactions of ^{6}Li and ^{7}Li nuclei with photo emulsion at 4.5 and 3 A GeV/c respectively are studied. The momenta and yields of hydrogen and helium isotopes and the fragmentation channels of incident projectile nuclei are obtained.

The exotic nuclei ^{6}He produced from pion exchange of ^{6}Li reaction and from fragmentation of ^{7}Li nuclei are estimated. The study showed that ^{6}Li has large fragmentation ratio (75 %) and its structure as weakly bound system consists mainly of ^{4}He, while ^{7}Li nuclei has fragmentation ratio (34%) and it consists mainly of ^{3}He.