

LIST OF TABLES

	Page
<b>CHAPTER III:</b>	
3.1. Mean transverse momentum of different particles observed in present experiment .....	66
3.2. Characteristics of the 24 GeV/c proton interactions with emulsion nuclei .....	77
<b>CHAPTER IV:</b>	
4.1. Calculated values of $\bar{D}$ for tritons, $\text{He}^3$ and $\text{He}^4$ tracks .....	85
4.2. Mean $\bar{D}$ -values obtained using $0.5\mu\text{m}$ proton scheme and using various combinations of second and third differences .....	87
4.3. Characteristics of He-nuclei observed in stars with $N_h \geq 7$ .....	91
4.4a. The intensity of protons, $\nu_0/\lambda$ and the yield of $\text{He}^4$ in $\text{P-He}^4$ elastic scattering .....	106
4.4b. The intensity of $\pi^-$ -meson, $\nu_0/\lambda$ and the frequency of $\text{He}^4$ in $\pi^--\text{He}^4$ elastic scattering .....	107
4.5. The ratio of triton to deuteron, and deuteron to proton at the given momentum per nucleon .....	110
4.6. The values of the pion wave number and the absorption cross-section at different pion kinetic energies .....	126
4.7. The production cross-section of $\text{He}^3$ -nuclei in $\pi^-$ , $\pi^+$ and $\pi^0$ -meson interactions with $\text{He}^4$ -nucleus .....	127
4.8. The values of the mean free path, the number of interactions producing $\text{He}^3$ and the intensity of $\pi^-$ -meson at different kinetic energies .....	129

	Page
4.9. The values of the mean free path, the number of interactions producing $\text{He}^3$ and intensity of $\pi^+$ -meson at different kinetic energies .....	130
4.10. The values of the mean free path, the number of interactions producing $\text{He}^3$ and the intensity of $\pi^0$ -mesons at different energies .....	131
4.11. Characteristics of tritons observed in stars with $N_h \geq 7$ .....	133