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Abstract

STUDY OF THE ENERGY, THE PROJECTILE AND TARGET A-DEPENDENCE OF INCLUSIVE PROTON PRODUCTION AT 180° USING HIGH ENERGY BEAMS RANGING FROM PROTONS TO ARGON NUCLEI

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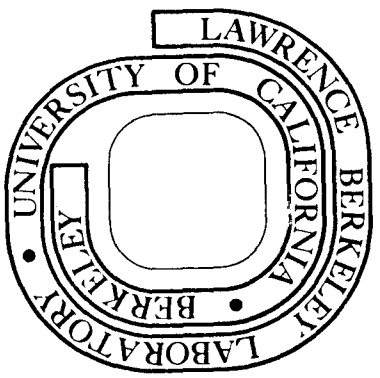

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Study of the Energy, The Projectile and Target A-Dependence of Inclusive Proton Production at 180° Using High Energy Beams Ranging from Protons to Argon Nuclei.* J.V.GEAGA, S.A.CHESSIN, J.Y.GROSSIORD,† J.W. HARRIS, D.L.HENDRIE,‡ L.S.SCHROEDER, R.N.TREUHAFT, and K. VAN BIBBER. Lawrence Berkeley Laboratory.-- We have measured inclusive cross sections of protons at 180° by high energy beams (p,α,C,Ar) incident on various nuclei (C, Al, Cu, Sn, Pb) at energies ranging from 0.8 to 4.89 GeV for protons and from 0.4 to 2.1 GeV/n for the heavier ions. The projectile and target A-dependence and the energy dependence of the cross sections will be discussed. Our results will be compared with those of Frankel et al [1], Bayukov et al [2], and Baldin et al [3]. Comparisons will also be made with firestreak model [4] predictions.

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[1] S.Frankel et al., Phys. Rev. Lett. 36, p.642.
[2] Y.Bayukov et al., Sov. Jour. of Nucl. Phys. 18, 639; UPR-0058-E (November 1978).
[3] A.Baldin et al., JINR P1-11302 (1978), in Russian.
[4] J.Gosset et al., Phys. Rev. C18, 844.

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