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Title

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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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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J. W. Harris, D. L. Hendrie, L. S. Schroeder,
R. N. Treuhaft, and K. Van Bibber

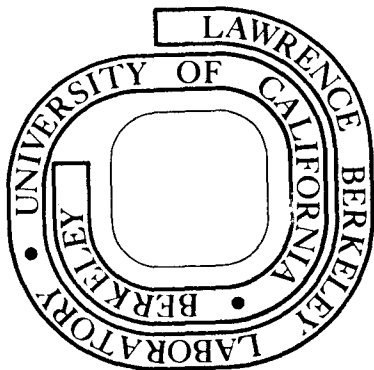
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For Reference

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Submission Date

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Abstract

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Date of Meeting

Physical Review
Analytic Subject Index
Number 25

Bulletin Subject Heading
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Relativistic Heavy Ions

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.TREUHAF, 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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