2001 Vol. 35 No. 1 pp. 36-39 DOI:

Associated J/ ψ + γ Production Through Color-Octet Mechanism in P+Fe Collision DUAN Chun-Gui, 1,2 YAN Zhan-Yuan^{2,3} and HE Zhen-Min^{1,2}

¹ CCAST (World Laboratory), P.O. Box 8730, Beijing 100080, China

Abstract: The contribution of color-octet heavy quarkonium production mechanism in P+Fe \to J/ ψ + γ + χ process is calculated and discussed. The results show that color-octet contributions are rather large and sometimes can exceed the color-singlet contributions. Using the structure function of Fe given by double Q²-rescaling model, the influence of nuclear effect on this process is also studied.

PACS: 12.40. Na, 13.85.tq, 13.60.H, 21.60, 25.40

Key words: double Q^2 -rescaling model, nuclear effect, color-octet, NRQCD

[Full text: PDF]

Close

² Physics Department, Hebei Teachers' University, Shijiazhuang 050016, China

³ Basic Science Department, Huabei Electric Power University, Baoding 071003, China (Received: 1999-12-23; Revised:)