2001 Vol. 35 No. 2 pp. 191-194 DOI:

Finite Volume Effect of Baryons in Strange Hadronic Matter SUN Bao-Xi, ¹ LI Lei, ² NING Ping-Zhi^{1,2} and ZHAO En-Guang^{1,3}

- ¹ Institute of Theoretical Physics, The Chinese Academy of Sciences, Beijing 100080, China
- ² Department of Physics, Nankai University, Tianjin 300071, China
- ³ Center of Theoretical Nuclear Physics, National Laboratory of Heavy Ion Accelerator, Lanzhou 730000, China

(Received: 2000-8-4; Revised:)

Abstract: The finite volume effect of baryons in strange hadronic matter (SHM) is studied within the framework of relativistic mean-field theory. As this effect is concerned, the saturation density of SHM turns lower, and the binding energy per baryon decreases. Its influence to the compression modulus of SHM is also discussed.

PACS: 21.65.+f, 26.60.+c, 13.75.Ev

Key words: strange hadronic matter, relativistic mean-field theory, finite volume effect, strangeness abundance

[Full text: PDF]

Close