

Materi Hyperon dalam pendekatan medan relativistik rata-rata

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Abstrak

We study the hyperon effect on equation of state (EOS) in highly dense nuclear matter by introduce the isovector scalar -meson [$\sigma(980)$] and the cross interactions where the neutron stars is assumed as a cold star ($T = 0\text{K}$) and the calculation is carried out in the frame of relativistic mean-field theory. The Equation of state and matter compound fraction is calculated based on equilibrium theory by fulfilling the chemical potential equilibrium and the charge neutrality.

Kami mempelajari efek hyperon terhadap persamaan keadaan materi dari materi nuklir berkerapatan tinggi dengan memperkenalkan meson isovektor skalar [$\sigma(980)$] dan interaksi cross di mana bintang neutron diasumsikan dingin ($T = 0\text{K}$) dan penghitungannya dikerjakan dalam kerangka teori medan relativistik rata-rata. Persamaan keadaan dan fraksi komposisi materi nuklir dihitung berdasarkan teori kesetimbangan- dengan memenuhi persamaan kesetimbangan potensial kimia dan kesetimbangan muatan.