

# Model potensial pertukaran satu hadron untuk K+ p = A model of K+p one hadron exchange potensial

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## Abstrak

Sebuah model potensial K p diturunkan berdasarkan interaksi KN . Pada penelitian ini, kami menggunakan model potensial pertukaran satu hadron. Hadron yang dipertukarkan meliputi  $\rho$ ,  $\sigma$ ,  $\omega$ ,  $\delta$ ,  $\lambda$ , and  $\sigma$ . Parameter model potensial diturunkan berdasarkan fitting terhadap data differential cross section dari energy 21 MeV – 669 MeV. Parameter yang akan di fit adalah cut-off dari faktor bentuk, massa sigma, massa delta, dan konstanta kopling. Hamburan K p dihitung berdasarkan teknik 3D untuk hamburan KN.

.....A model of K p potential is derived based on K N interactions. The model is constructed as a one hadron exchange potential for simplicity. The hadrons being exchanged are  $\rho$ ,  $\sigma$ ,  $\omega$ ,  $\delta$ ,  $\lambda$ , and  $\sigma$ . The potential 39 s parameters are determined by means of fitting processes to K p scattering data, which are the spin averaged differential cross sections, for energies of about 21 MeV to 669 MeV. These parameters are the cutoff parameters for the form factors, sigma mass, delta mass, and the coupling constants. Theoretical data are produced without partial wave expansion by employing a three dimensional technique for KN scattering.