

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 ρ , σ , ω , δ , λ , and Σ . Parameter model potensial diturunkan berdasarkan fitting terhadap data differential cross section dari energy 21 MeV ndash; 669 MeV. Parameter yang akan di fit adalah cut-off dari faktor bentuk, massa σ , massa δ , 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 ρ , σ , ω , δ , λ , and Σ . 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, σ mass, δ mass, and the coupling constants. Theoretical data are produced without partial wave expansion by employing a three dimensional technique for KN scattering.