

Fotoproduksi eta prime meson pada nukleon dengan model isobar = Eta prime meson photoproduction off nucleons in the isobar model

Saipudin, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20414078&lokasi=lokal>

Abstrak

[ABSTRAK

Data terkini dengan presisi tinggi untuk reaksi

$p + p \rightarrow p + \eta$ pada energi pusat-massa

dalam rentang mendekati energi ambang hingga 2.84 GeV diperoleh dari kolaborasi

CLAS pada laboratorium Jefferson telah dianalisis dengan menggunakan model

isobar. Fotoproduksi η dapat dijelaskan dengan baik dalam semua rentang data

energi yang tersedia dengan menyelidiki resonan S11 dan P11 untuk spin-1=2, selain

menggunakan kontribusi kanal nukleon s- dan u-, juga arus meson kanal t-. Untuk

resonan yang diselidiki, analisis digunakan nilai massa dan lebar resonan yang didukung

oleh Particle Data Group. Kami menekankan, data penampang lintang sendiri

mampu dihasilkan nilai parameter resonan, konstanta kopling hadronik dan mesonik.

<hr>

ABSTRACT

The recent high-precision data for the reaction

$p + p \rightarrow p + \eta$ at center-of-mass energies

from near threshold to 2.84 GeV obtained by the CLAS collaboration at the Jefferson

Laboratory have been analyzed within an isobar model. The η photoproduction

can be described quite well over the entire energy range of available data by considering

S11 and P11 resonances, in addition to the nucleon s- and u-channel resonance

contributions, also t-channel mesonic currents. For the resonances considered, our

analysis are used mass and width value advocated by the Particle Data Group. We

emphasize, that cross-section data alone are unable can reproduced resonance parameters

value, coupling constant hadronic and mesonic, The recent high-precision data for the reaction

$p + p \rightarrow p + \eta$ at center-of-mass energies

from near threshold to 2.84 GeV obtained by the CLAS collaboration at the Jefferson

Laboratory have been analyzed within an isobar model. The η photoproduction

can be described quite well over the entire energy range of available data by considering

S11 and P11 resonances, in addition to the nucleon s- and u-channel resonance

contributions, also t-channel mesonic currents. For the resonances considered, our

analysis are used mass and width value advocated by the Particle Data Group. We

emphasize, that cross-section data alone are unable can reproduced resonance parameters

value, coupling constant hadronic and mesonic]