Roles of the Resonances on the Kaonproduction in an Isobaric Model

Myung Ki Cheoun[1) *], K. S. Kim[2)], B. G. Yu [3)], and T. K. Choi[4)]
1)*IUCNSF, Building 139-1, Seoul National University, Seoul, 151-742, Korea*
2)*BK21 Physics Research Division and Institute of Basic Science, Sung Kyun Kwan University, Suwon, 440-746, Korea*
3)*Hangkong University, Koyang, Korea*
4)*Department of Physics, Yonsei University, Wonju, Korea*

29 April, 2002

We investigated the roles of the nucleon, hyperon and meson resonances, which participate on the kaonproduction, with emphasis on the resonances reported recently [1,2] to be important in the analysis of the kaonproduction. The model [3] used here is an isobaric model, on which the relevant coupling constants regarding the related resonances are determined effectively by fitting to the experimental data with the constraint from the physics available until now, such as quark models and SU(3) symmetry. Each contribution of the resonances is described in each physical observable within the coupling constants permitted in the physical regions.

Reference

1. T. Mart and C. Bennhold, Phys. Rev. **C 61**, 012201, (2000)
2. B. Saghai and Z. Li, nucl-th/0104804 (2001)
3. B. S. Han, Myung Ki Cheoun, K. S. Kim, Il-Tong Cheon, Nucl. Phys. **A 691**, 713, (2001)

*cheoun@phya.snu.ac.kr