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Memo CP-E/030

Date: December 10, 2003
To: Distribution
From: OTSUKA Naohiko and KATŌ Kiyoshi
Subject: Longitudinal vector analyzing power

We are compiling measurements of longitudinal vector analyzing power in $p+^{90}\text{Zr}$ elastic scattering (K. Kimura *et al.*, Phys. Lett. **B336**(1994)303 and S. Kouda *et al.*, Nucl. Instr. Meth. **A420**(1999)380). Longitudinal vector analyzing power is defined as

$$A_z = (1/p_z)(N_+ - N_-)/(N_+ + N_-),$$

where p_z is beam polarization along to beam axis, and N_+ and N_- denote the numbers of scattered particles when beam polarization states are parallel and anti-parallel to beam momentum, respectively (i.e. positive and negative helicity). Namely this quantity is measured by using two polarization states for incident beam. If beam polarization values are different for the two states, the average beam polarization for two states is used as p_z .

Dictionary 36 (Quantities)

LON, POL/DA, , ANA Longitudinal vector analyzing power $A(z)$

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