2. EFFECT OF FINITE SIZE FERMI SYSTEM ON THE ENERGY WEIGHTED SUMS

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Energy weighted sums (EWS) m_k have been evaluated within the framework of the kinetic theory. We have investigated the dependence of the EWS on the boundary conditions and the structure of the nuclear forces. The dependence of the enhancement factor $1+\kappa_I$ of the model-independent sum m_1 on the nuclear mass number has been established. The Landau's isovector amplitude $F_1' \approx 1,2$ and the isovector symmetry surface energy $\sigma_{sym} \approx 30$ MeV have been evaluated from the fit of the enhancement factor $1+\kappa_I$ to the experimental data.