

# NUCLEAR SYMMETRY ENERGY AND ISOVECTOR DIPOLE-RESONANCE STRUCTURE WITHIN THE EFFECTIVE SURFACE APPROXIMATION

J.P. Blocki,<sup>1</sup> A.G. Magner\*,<sup>2</sup> and P. Ring<sup>3</sup>

<sup>1</sup>*National Centre for Nuclear Research, Otwock 05-400, Poland*

<sup>2</sup>*Institute for Nuclear Research, Kyiv 03680, Ukraine*

<sup>3</sup>*Technical Munich University, D-85747 Garching, Germany*

The surface tension coefficients as functions of the Skyrme force parameters of the average binding symmetry energy in the approximation of a sharp edged proton-neutron asymmetric nucleus are used for calculations of the isovector giant dipole resonances within the Fermi-liquid droplet model. Energies, sum rules and transition densities of these resonances obtained by using the analytical expression for the surface symmetry energy constants in terms of the Skyrme force parameters are in fairly good agreement with the experimental data for the main and satellite (pygmy) peaks of the strength function for several Skyrme forces. The characteristics of the pygmy-like resonance structure near the main peak are found to be sensitive to the values of the isovector surface tension coefficients depending much on the choice of the Skyrme forces. The comparison of these characteristics with experimental data might be critical to evaluate values of the surface symmetry energy constant.

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\* magner@kinr.kiev.ua