

APPLICATION OF THE QUASICLASSICAL  
APPROXIMATION FOR THE ANALYSIS  
OF PROPERTIES OF LIGHT ATOMIC  
NUCLEI WITH HIGH EXCESS  
OF NEUTRONS

*V.O. Nesterov*

Institute for Nuclear Research,  
Nat. Acad. Sci. of Ukraine  
(47, Nauky Prosp., Kyiv 03028, Ukraine)

S u m m a r y

The modified Thomas — Fermi method has been used for the computation of integral characteristics of the light nuclei with  $Z = 4 \div 7$  placed near the neutron stability line. The basis of these calculations is that such nuclei are rather loose and nucleons move in smooth fields. For  $N \approx Z$ , the method leads to poor results, but it describes integral characteristics of the nuclei with high excess of neutrons with the same satisfactory precision as those of medium and heavy nuclei.