

## THE EQUATION OF STATE OF POLYMER CRYSTALS

*L. A. Bulavin, E. Yu. Aktan, Yu. F. Zabashta*

Taras Shevchenko Kyiv National University,  
Faculty of Physics  
(6, Academician Glushkov Prosp., Kyiv 03127, Ukraine)

### S u m m a r y

The influence of thermal vibrations on thermodynamic properties of polymer crystals is studied. A model of polymer crystal is proposed, in which bend vibrations of chains are taken into account. By passing to the methods of statistical mechanics, the equation of state for this model is obtained. The same equation is deduced for a polymer with disoriented crystallites.