

PHONON DRAG OF DISLOCATIONS
IN KCl CRYSTALS WITH VARIOUS
DISLOCATION STRUCTURE STATES

O.M. Petchenko, G.O. Petchenko

Kharkiv National Academy of Municipal Economy,
Ministry of Education and Science of Ukraine
(12, Revolution Str., Kharkiv 61057, Ukraine;
e-mail: gdaeron@ukr.net)

S u m m a r y

The pulsed technique has been used to study a dislocation resonance under the ultrasound absorption in KCl crystals with the residual strain $\varepsilon = 0.17 \div 1.8\%$, in the frequency range of 7.5 – 232.5 MHz, and at room temperature. The analysis of the data obtained testifies that a variation of the dislocation structure parameters gives rise to a substantial modification of the frequency and amplitude localizations of the dislocation resonance, whereas the damping factor B remains unchanged. The theoretical estimations of the factor B are in good agreement with the obtained experimental results.