

ULTRASOUND STUDY OF MECHANICAL
PROPERTIES OF A STRUCTURAL
Al-BASED ALLOY OF THE SAV-1 TYPE

I.Kh. Abdukadyrova

Institute of Nuclear Physics,
Uzbekistan Academy of Sciences
(*Tashkent 702132, Uzbekistan; e-mail: izida@inp.uz*)

S u m m a r y

Mechanical properties of some constructional materials are studied with the use of acoustic methods. The data on a number of elastic properties, dispersion relations for basic moduli of Al-based alloys of the SAV-1 type before and after the action of ionizing radiation are obtained on the basis of the registered spectra of bending vibrations. A considerable stability of the elasticity moduli of alloys under ordinary conditions of storage is established, and a nonlinear dependence of elastic parameters of specimens on the dose is traced in a wide range of absorbed doses. The possible reasons for discovered effects related to a modification of mechanical properties of irradiated alloys SAV-1 are analyzed.