

The proposed method for determining relaxation of stresses in material samples can be employed for determining mechanical characteristics of constructional materials such as reinforcing materials. The method consists in exposing the material sample to tension forces and measuring initial and residual stresses in the sample. The stress relaxation is determined from the difference of the said stresses. At first, the natural resonance frequency of each sample is determined, at least two samples with different resonance frequencies are selected, the initial and residual stresses and the relative differences of the said stresses are measured in each selected sample, the characteristic of dependence of resonance frequencies on the stress differences is defined for each sample, and the stress relaxation is determined for any sample by using the characteristics so obtained.