Abstract

The master's dissertation consists of an introduction, 3 chapters, conclusions, a list of literature and appendixes. The thesis contains 84 pages of 19 tables, 53 drawings, sources used and applications.

The purpose of the work is to design and investigate two coordinate vibroplates for verification and calibration of seismometers.

The object of research is a vibro-platform with a control system of nanoparticles.

The urgency of this work is that at present in Ukraine there are no certified vibration plates for verification of seismometers, which will be able to check such characteristics of devices as sensitivity, linearity, frequency characteristics, zeros and poles of transfer functions.

The two-coordinate geophysical vibroplate form with a measuring system based on laser interferometry, which is driven by piezoactuators, is developed and investigated. Based on the developed platform, you can build dozens of devices and systems that will help people and companies perform their work.