

Abstract

The diploma project consists of 58 pages, 29 illustrations, 41 formulas, 34 literary sources.

Key words: electrostatics, electrostatic field, electrostatic field measurements, fluxometer, rotary method, dynamic method, electric field, static method.

During the diploma project, existing methods and instruments for measuring the electrostatic field were analyzed. It was calculated time for which different methods measure the electrostatic field, and highlighted the difference between those methods. A device was also designed on the basis of dynamic (rotational) method with improvements in its parameters, namely size, battery work, and the addition of an element for digital data transfer to remote PCs for further processing. A chip was also created and the items for it were selected. Conclusions regarding the expediency of measuring the electrostatic field in different fields are made.

Purpose: the analysis of existing methods and means of measuring the electrostatic field and the creation of an instrument for its measurement.

The object of research: the process of measuring the electrostatic field.

Subject of research: methods of measuring the electrostatic field.

Scientific novelty: a small-sized device for measuring electrostatic field and the possibility of digital data transmission to remote PCs.