
Investigation of the energy characteristics of special purpose batteries

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Using LabVIEW software package we designed an installation for automated investigation of the energy and electrical parameters of different types of batteries. The purpose of this research is to predict changes in their capacity when operating at various load currents with different cycle parameters. We developed the algorithm for research, testing and further analysis of the information received. The objects of the study were three types of batteries: Ni–Cd, Ni–MH, Li–Ion. These types of batteries are the most common and allow us to show the differences of the objects under study on a number of parameters. We obtained the results, showing different characteristics and parameters of the objects, allowing to organize and simplify the selection of the type of battery according to the original data and operating conditions, depending on the needs of the consumer. The algorithm of this study is applicable for a wide variety of batteries with a large range of capacitances.

Keywords: batteries, efficiency, automation, charge, discharge, electricity power.

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