

Research Title **Design and Construction of Seebeck Coefficient and Electrical Conductivity Tester of Thermoelectric Materials**

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Abstract

This research project has been objectives to design, construct and test performance of Seebeck coefficient and electrical conductivity tester of thermoelectric materials. The drawing device model, electronic system, prepared materials, constructed sample hold, heater, and control program measurement. The Seebeck coefficient and electrical conductivity of copper constantan were measured to compare with reference data of ULVAC Company, Japan at temperature of 30, 50, 100, 150 and 200 °C. It was found that, the Seebeck coefficient and electrical conductivity tester can be measure Seebeck coefficient and electrical conductivity of copper constantan corresponded significantly reference value at same temperature.