

Thermostating System Using a Single-Chip Microcomputer and Thermoelectric Modules Based on the Peltier Effect

Teplov V., Anisimov A.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

A flexible temperature-controlling system matched with the liquid thermostating circuit is based on a single-chip microcomputer. Thermoelectric modules based on the Peltier effect are used for sample cooling and heating. The accuracy of the temperature maintenance is better than 0.1°C in a range of -20 to +70°C. The system is designed for NMR relaxometers but can be also used to control the temperatures of any volume-comparable objects (~50 cm³).

<http://dx.doi.org/10.1023/A:1016036126168>
