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(57) Abstract :

A modular thermoelectric generator kit comprises a base platform (101), thermoelectric module (102), hot plate (103), cold plate (104), digital sensors (105), display unit (106), and microcontroller interface (107). The kit demonstrates Seebeck and Peltier effects through reconfigurable thermal inputs and real-time voltage and temperature outputs. Integrated with safety features and interchangeable modules, the invention enables hands-on educational experiments across multiple configurations, making it ideal for physics and engineering instruction in academic laboratories.

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