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(57) Abstract :
A temperature-stabilized device (100) for quantum computing experiments comprises a heat conducting platform (103), thermal chamber (104), embedded heat pipes (106), TEC modules (108), and real-time sensors (110). Controlled by a PID unit (116), the system ensures ±5 mK temperature stability. The invention includes vibration isolation (112), vacuum housing (118), and remote-access interface (120), enabling enhanced coherence for quantum devices through superior thermal management.

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