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HYBRID HEAT MATERIAL (HIM) TEST REPORT

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7. EVALUATION AND CONCLUSIONS

As a results of the tests, 0.58 units of internal energy was produced (Qlat) by HIM related with the application of 1 unit electrical energy. As a result, 1.58 units of total energy was obtained from HIM by applying 1 unit of electrical energy (COP value). Considering the efficiency of the resistive material (ηres.=0.70), 2.25 times more heat output was obtained from HIM. Because of energy generated inside HIM (Q_{lat}), the energy extracted from HIM seems more than energy input to the system, so this mechanism is explained as COP (Coefficient of Performance) instead of "Efficiency" concept in thermodynamic science. This conclusion based on the heat balances should be further researched for setting up the relations between the material and the lattice natural resonance. The obtained results are evaluated to have potential to create important changes in heat industry.

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