Simultaneous Wick and Fluid Selection for the Design of Minimized-Thermal-Resistance Vapor Chambers Under Different Operating Conditions

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**Objective**
Assess the effects of governing wick properties on vapor chamber design, in terms of fluid and wick selection at various operating conditions.

**Approach**
- Conventional thermal-resistance-based network modeling approach.
- The effect of each parameter on thermal performance of the vapor chamber was evaluated using a sensitivity analysis.

**Impact**
A generalized methodology is demonstrated that equips engineers with an ability to choose the best fluid-wick combination, out of all the possible combinations that arise in practical applications. This decision cannot be made based on intuition or any singular fluid/wick figure of merit.

**Publication**