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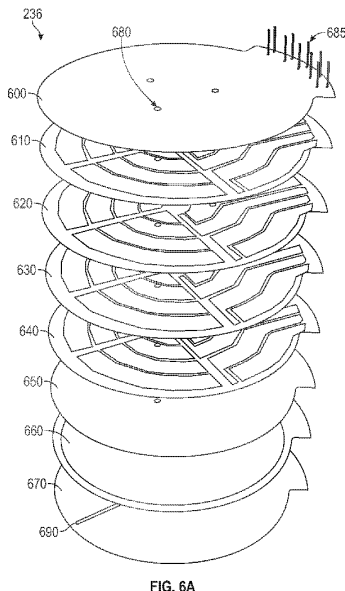
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(54) **Title:** MULTIPLEXED THERMAL CONTROL WAFER AND COLDPLATE



(57) **Abstract:** Disclosed herein are systems and methods for controlling temperature(s) using a thermal control assembly (TCA) and a coldplate. The TCA comprises independently controllable thermal zones for controlling its top surface temperature. The thermal zones may be heater zones, cooling zones, or both. Energy input to the TCA may be selectively applied by, e.g., a thermal controller, such that different sets of thermal zones receive the energy at different times. In some embodiments, the energy input to the TCA may be selectively applied to two more independently controllable heater zones at the same time, the energy input to the TCA may be selectively applied to two or more independently controllable cooling zones at the same time, or both. In some aspects, less than all thermal zones may be activated at the same time, providing a higher power density for the thermal zones for a given energy input to the TCA.

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