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(54) **Title**: SHOWERHEAD DESIGN

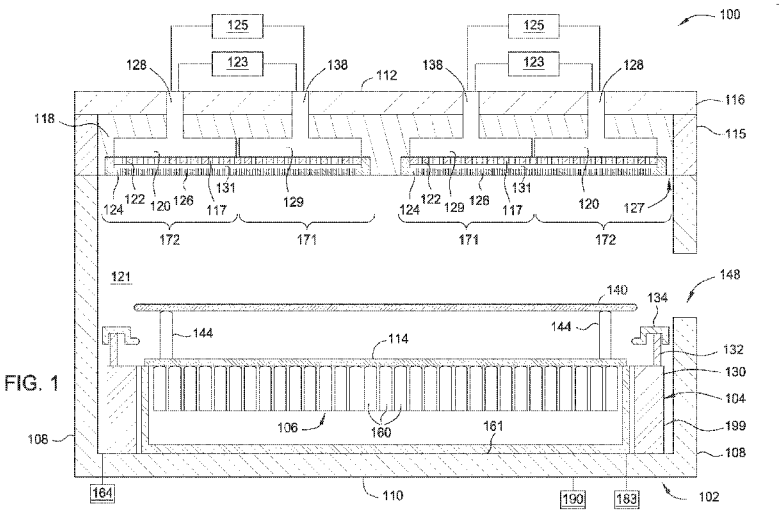

FIG. 1

(57) **Abstract**: Embodiments described herein relate to a showerhead having a reflector plate with a gas injection insert for radially distributing gas. In one embodiment, a showerhead assembly includes a reflector plate and a gas injection insert. The reflector plate includes at least one gas injection port. The gas injection insert is disposed in the reflector plate, and includes a plurality of apertures. The gas injection insert also includes a baffle plate disposed in the gas injection insert, wherein the baffle plate also includes a plurality of apertures. A first plenum is formed between a first portion of the baffle plate and the reflector plate, and a second plenum is formed between a second portion of the baffle plate and the reflector plate. The plurality of apertures of the gas injection insert and the plurality of apertures of the baffle plate are not axially aligned.

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