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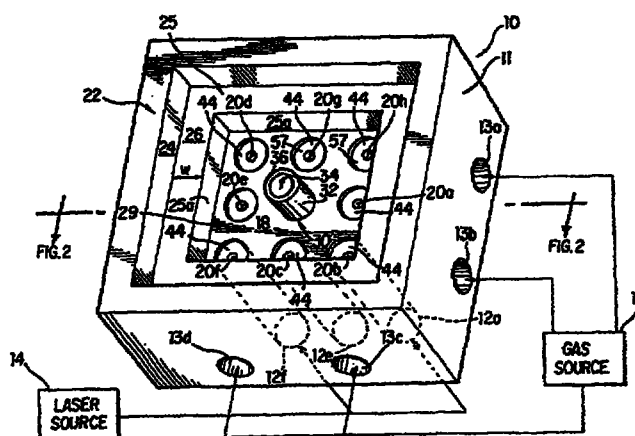
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(54) Title: **DIRECT IMPINGEMENT TEMPERATURE CONTROL STRUCTURE**



(57) Abstract: A structure and system for controlling the temperature of a device is described. The structure includes a body having a heating/cooling region to which the device is exposed, a heating channel provided in the body with one end exposed to the heating/cooling region and a cooling channel provided in the body with one end exposed to the heating/cooling region. The heating and cooling channels are provided in the body such that the energy propagating in the heating channel is intermingled with gas propagating in the cooling channel and the heating and cooling sources directly impinge upon the device in the heating region. Since the heating and cooling sources impinge directly on the device, the temperature control structure can be provided having a relatively low thermal mass and the temperature of the device can be rapidly changed between a relatively hot temperature and a relatively cold temperature. Furthermore, since the heating and cooling sources directly impinge upon the device, the structure provides fast thermal response, but good thermal. Moreover the temperature control structure includes a vacuum system which holds the device to the temperature control structure while allowing good electrical contact to be made to the device for testing purposes.

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