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(54) Title: CERAMIC ADDITIVE MANUFACTURING TECHNIQUES FOR GAS INJECTORS

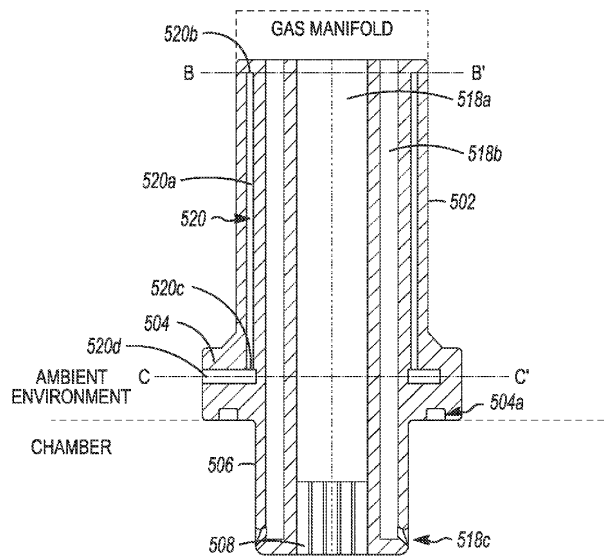


FIG. 5C

(57) Abstract: A ceramic gas injector and method of fabrication are described. The gas injector has an inlet portion to which a gas is introduced via an inlet hole and contains a conformal channel between the inlet hole and a sidewall, an outlet portion from which the gas is provided from the gas injector and a collar disposed between the inlet and outlet portions. The channel extends into the collar. The channel has channel sections each of which extends through the inlet portion and terminates at both inlet ends before reaching the inlet face and collar ends before reaching the outlet portion. Alternating adjacent pairs of channel sections are connected via the inlet ends with adjacent pairs that are not connected via the inlet ends connected via the collar ends. Ports in a sidewall of the collar are connected with an adjacent pairs of sections not connected via the inlet ends.

[Continued on next page]

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