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(71) Applicant: **CORNING INCORPORATED** [US/US]; 1 Riverfront Plaza, Corning, New York 14831 (US).

(72) Inventors: **GU, Yunfeng**; 17 Chatfield Place East, Painted Post, New York 14870 (US). **LEBLOND, Nicolas**; 3626 Summit Ct., Painted Post, New York 14870 (US). **LI, Ming-Jun**; 10 Ambrose Drive, Horseheads, New York 14845 (US). **STONE, Jeffery Scott**; 48 Maple Street, Addison, New York 14801 (US). **ZHANG, Haitao**; 101 Uptown Road, Apt. 29, Ithaca, New York 14850 (US).

(74) Agent: **PATHAK, Shantanu C.**; Corning Incorporated, Intellectual Property Department, SP-TI-03-1, Corning, New York 14831 (US).

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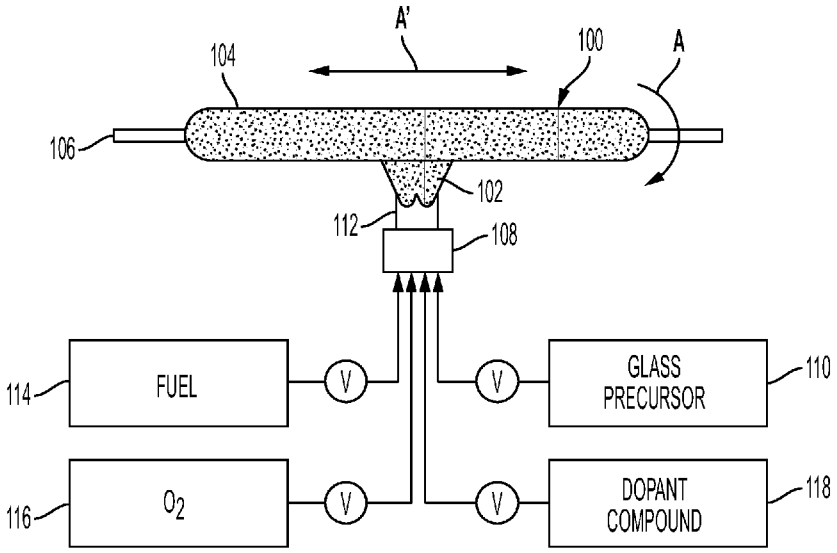


FIG. 1

(57) Abstract: A silica-based substrate includes a glass phase and a dispersed phase having carbon, such that the silica-based substrate has a thickness of at least 10 μm. Also disclosed is a method of forming a silica-based substrate, the method including contacting a porous silica soot preform with an organic solution having at least one hydrocarbon precursor to form a doped silica soot preform and heating the doped silica soot preform in an inert atmosphere to form the silica-based substrate.

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