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(71) Applicant: **RECARBON, INC.** [US/US]; 3979 Freedom
Cir Ste 230, Santa Clara, California 95054 (US).

(72) Inventors: **LEONARD III, George Stephen**; 3979 Free-
dom Cir Ste 230, Santa Clara, California 95054 (US). **MC-**
CLELLAND, Stefan Andrew; 3979 Freedom Cir Ste 230,
Santa Clara, California 95054 (US). **REHAGEN, John**
Joseph; 3979 Freedom Cir Ste 230, Santa Clara, California
95054 (US). **KOO, Jae Mo**; 3979 Freedom Cir Ste 230,
Santa Clara, California 95054 (US).

(74) Agent: **CROFT, Jason W.**; Buchalter, 18400 Von Karman
Avenue, Suite 800, Irvine, California 92612-0514 (US).

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(54) Title: PLASMA CHAMBER WITH ANCILLARY REACTION CHAMBER

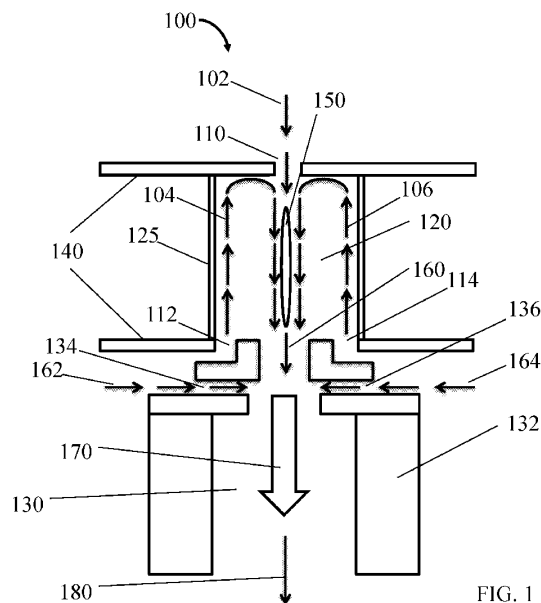


FIG. 1

(57) Abstract: A plasma reaction system may include a plasma chamber and an ancillary reaction chamber. The plasma chamber may include a plasma chamber inlet for introducing reactant gases into the plasma chamber, plasma chamber walls that form an interior space in which chemical reactions between the reactant gases may occur, a plasma generated within the plasma chamber, a waveguide for directing energy towards the plasma generated within the plasma chamber, and a plasma chamber outlet for carrying first outlet gases from the plasma chamber. The ancillary reaction chamber may include an ancillary reaction chamber inlet configured to obtain the first outlet gases from the plasma chamber, ancillary reaction chamber walls that form an interior space of the ancillary reaction chamber in which second chemical reactions between the outlet gases may occur, and an ancillary reaction chamber outlet for carrying second outlet gases from the ancillary reaction chamber.

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