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(54) **SYSTEMS AND METHODS FOR
NONEQUILIBRIUM PLASMAS**

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ABSTRACT

Described herein are systems and methods for nonequilibrium plasmas. In particular, described herein are methods to achieve sustained operation of plasma reactors contained in electrically insulating tubes, high power radiofrequency plasma devices using capacitively coupled electrodes, and methods to produce a carbonaceous compound and hydrogen using a nonequilibrium plasma device.

Carbon removed by H₂ plasma

