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(54) Title: METHOD AND APPARATUS TO ENHANCE SHEATH FORMATION, EVOLUTION AND PULSE TO PULSE
STABILITY IN RF POWERED PLASMA APPLICATIONS

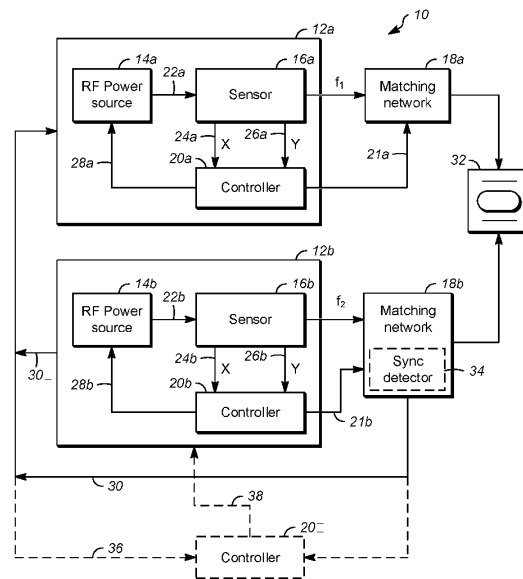


FIG. 1

(57) Abstract: A radio frequency (RF) generator is configured to generate a RF signal. The RF signal can be modulated by a pulse having one or multiple states. During an initial state at pulse initiation, the RF generator adjusts the impedance match by selecting the frequency of the RF signal. During a second state of the pulse, the RF generator adjusts the impedance match using a matching network. The first state includes controlling the RF generator to output a power burst, and the second state includes controlling the generator to output an operating power.

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