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(54) Title: SYSTEMS, METHODS, AND DEVICES FOR PRODUCING A MATERIAL WITH DESIRED CHARACTERISTICS
USING MICROWAVE PLASMA

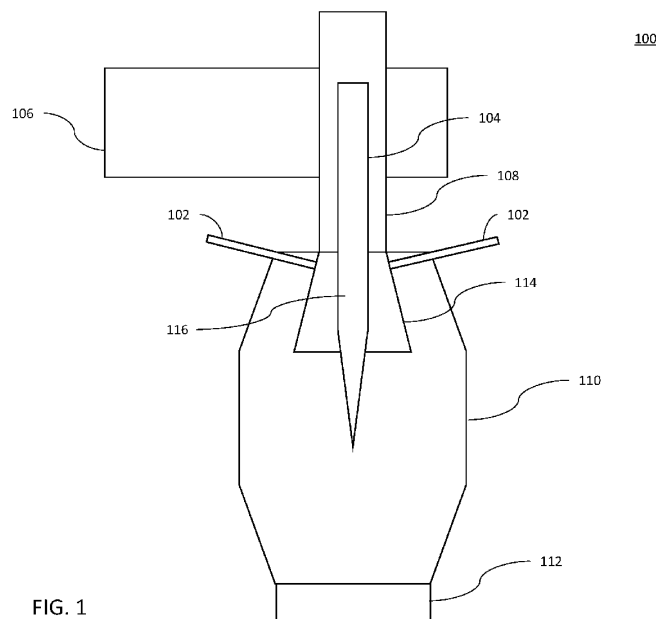


FIG. 1

(57) Abstract: The embodiments disclosed herein are directed to systems, methods, and devices for producing materials having desired characteristics using microwave plasma. In some embodiments, performing an iterative process may be used to produce a material having desired characteristics, the process comprising forming a microwave plasma within the reaction chamber, analyzing the plasma to determine if properties of the plasma are within a range expected to produce the desired characteristics of the material; and adjusting, based on the analysis of the plasma, one or more parameters. In some embodiments, an extension tube is provided within a microwave plasma apparatus to extend the length of a microwave plasma.

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