



(12) **United States Patent
Smith**

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(54) **HIGH BRIGHTNESS LASER-DRIVEN LIGHT SOURCE**

(71) Applicant: **Energetiq Technology, Inc.**, Woburn, MA (US)
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This patent is subject to a terminal disclaimer.

(58) **Field of Classification Search**
USPC 250/504 R
See application file for complete search history.

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(57) **ABSTRACT**

An apparatus for producing light includes a chamber and an ignition source that ionizes a gas within the chamber. The apparatus also includes at least one laser that provides energy to the ionized gas within the chamber to produce a high brightness light. The laser can provide a substantially continuous amount of energy to the ionized gas to generate a substantially continuous high brightness light.

26 Claims, 39 Drawing Sheets

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Related U.S. Application Data

(63) Continuation of application No. 13/024,027, filed on Feb. 9, 2011, now Pat. No. 8,525,138, which is a continuation-in-part of application No. 12/166,918, filed on Jul. 2, 2008, now Pat. No. 7,989,786, which is a continuation-in-part of application No. 11/695,348, filed on Apr. 2, 2007, now Pat. No. 7,786,455, which is a continuation-in-part of application No. 11/395,523, filed on Mar. 31, 2006, now Pat. No. 7,435,982.

(60) Provisional application No. 61/302,797, filed on Feb. 9, 2010.

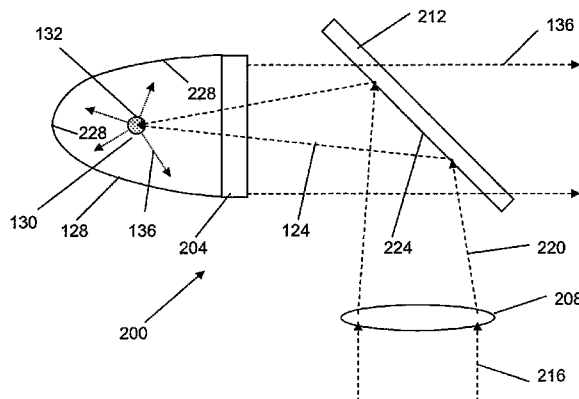
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CPC G21K 5/04 (2013.01); Y10T 29/49002 (2015.01); B82Y 10/00 (2013.01); G03F



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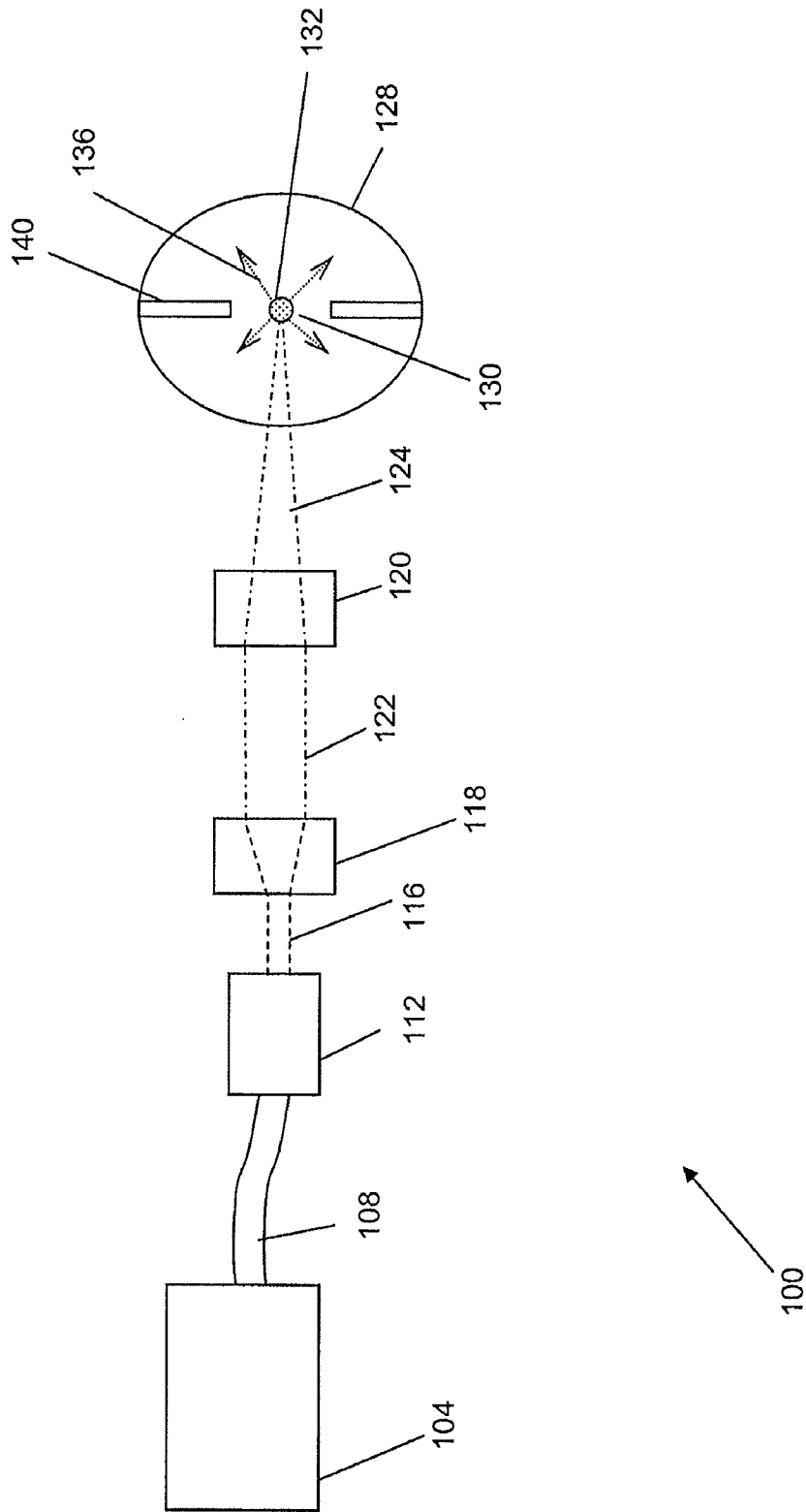


FIG. 1

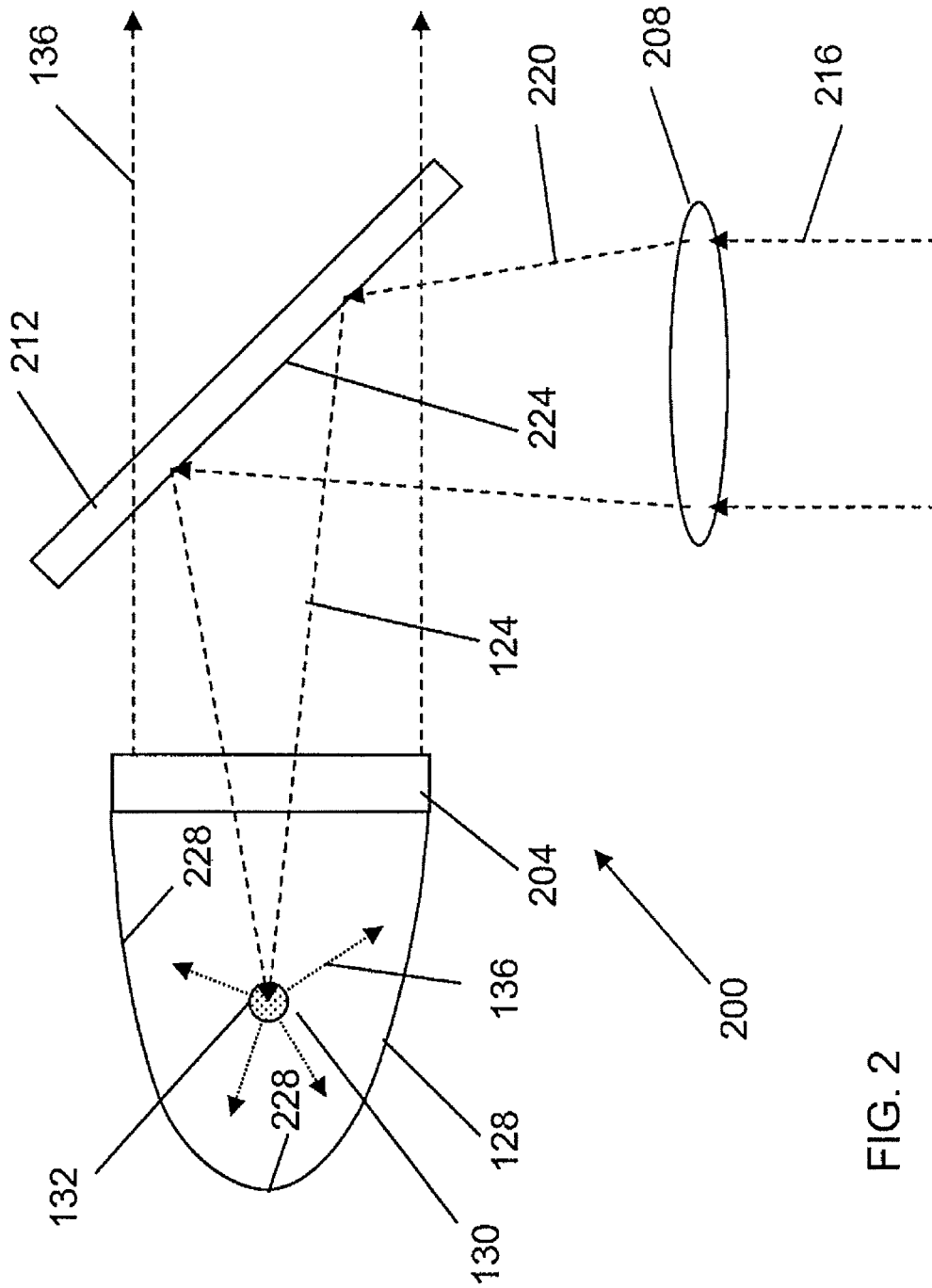


FIG. 2

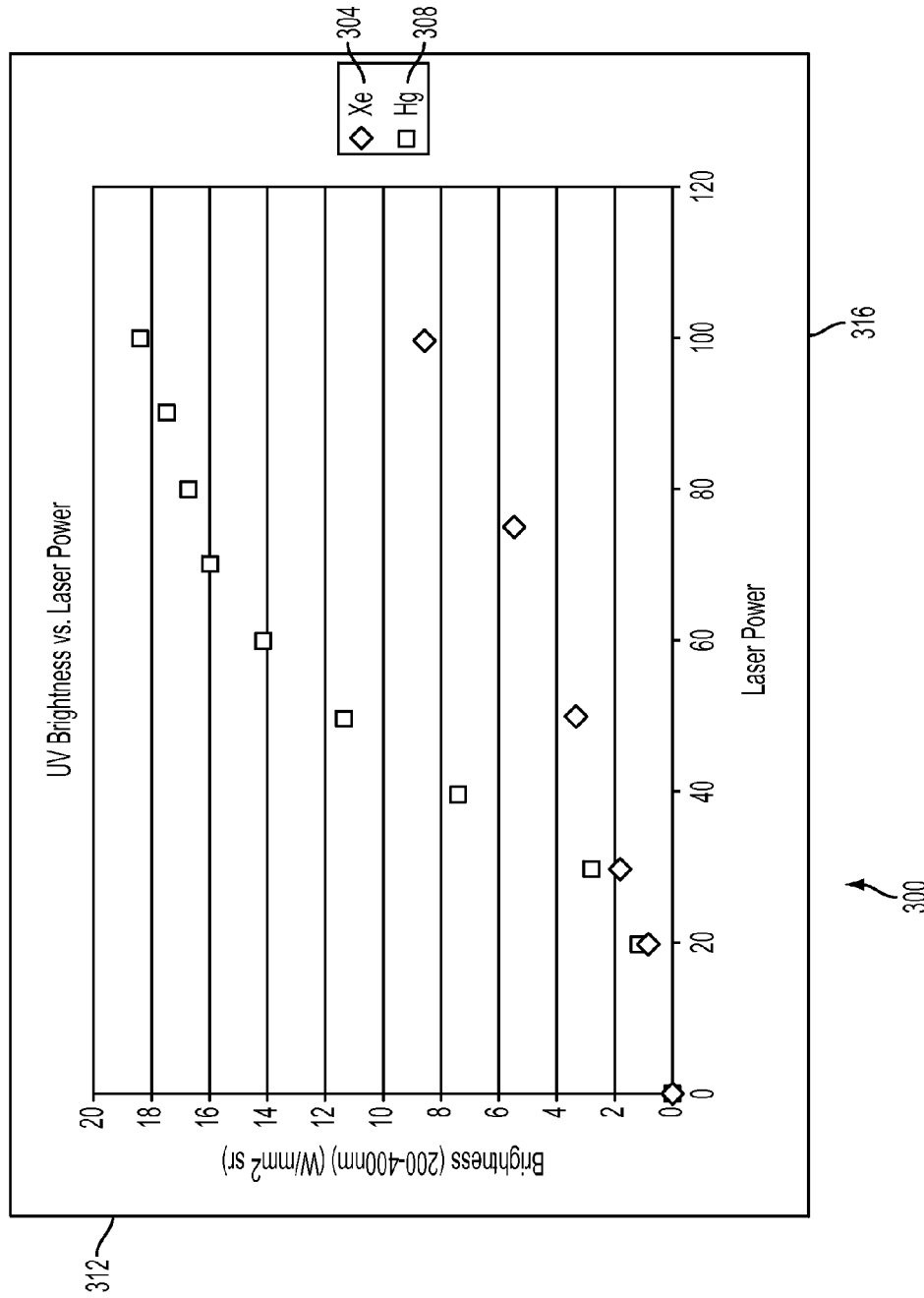


FIG. 3

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