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(12) **United States Patent**
Smith

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

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(73) Assignee: **Energetiq Technology, Inc.**, Woburn, MA (US)

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(22) Filed: **Apr. 2, 2007**

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Related U.S. Application Data

(63) Continuation-in-part of application No. 11/395,523, filed on Mar. 31, 2006, now Pat. No. 7,435,982.

(51) **Int. Cl.**

H05B 31/26	(2006.01)
G01J 3/10	(2006.01)
G21G 4/00	(2006.01)
H01J 61/28	(2006.01)

(52) **U.S. Cl.** ..... **250/493.1**; 250/504 R; 315/111.21; 315/111.71; 315/111.91; 313/231.31; 313/231.41; 313/231.71

(58) **Field of Classification Search** ..... 250/423 R, 250/423 P, 424, 426, 494.1, 493.1, 504 R, 250/504 H; 315/111.21, 111.71, 111.91; 313/231.31, 231.41, 231.61, 231.71, 631, 313/632, 633

See application file for complete search history.

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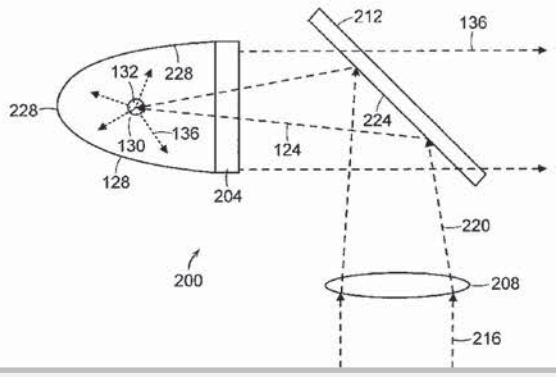
(57) **ABSTRACT**

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.

43 Claims, 8 Drawing Sheets



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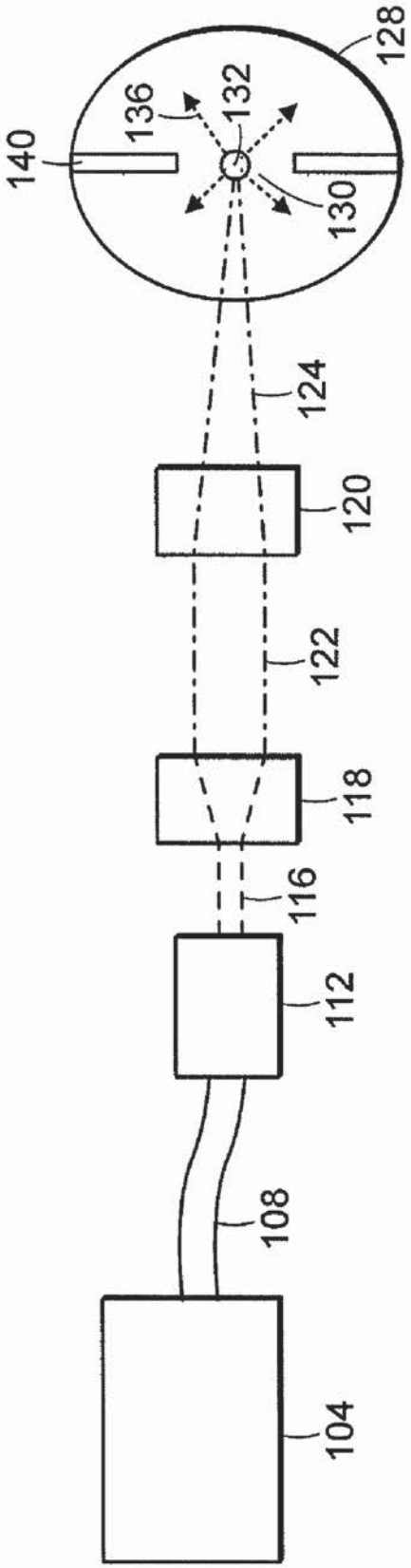

FIG. 1

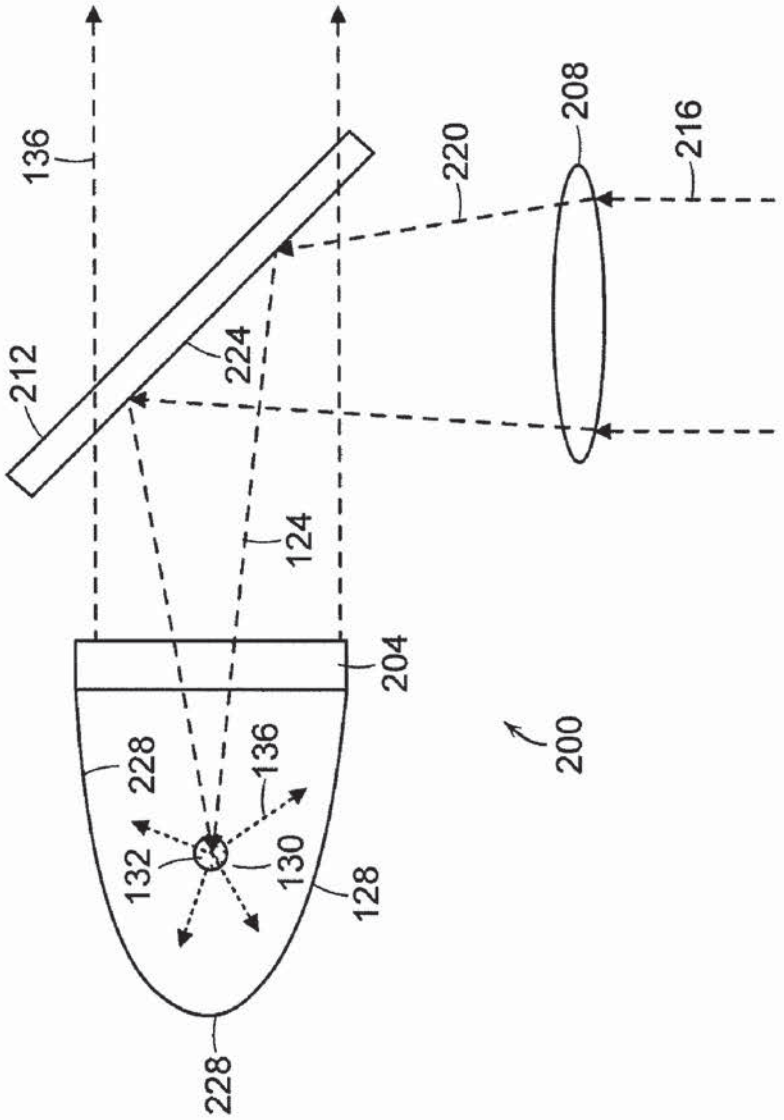

FIG. 2

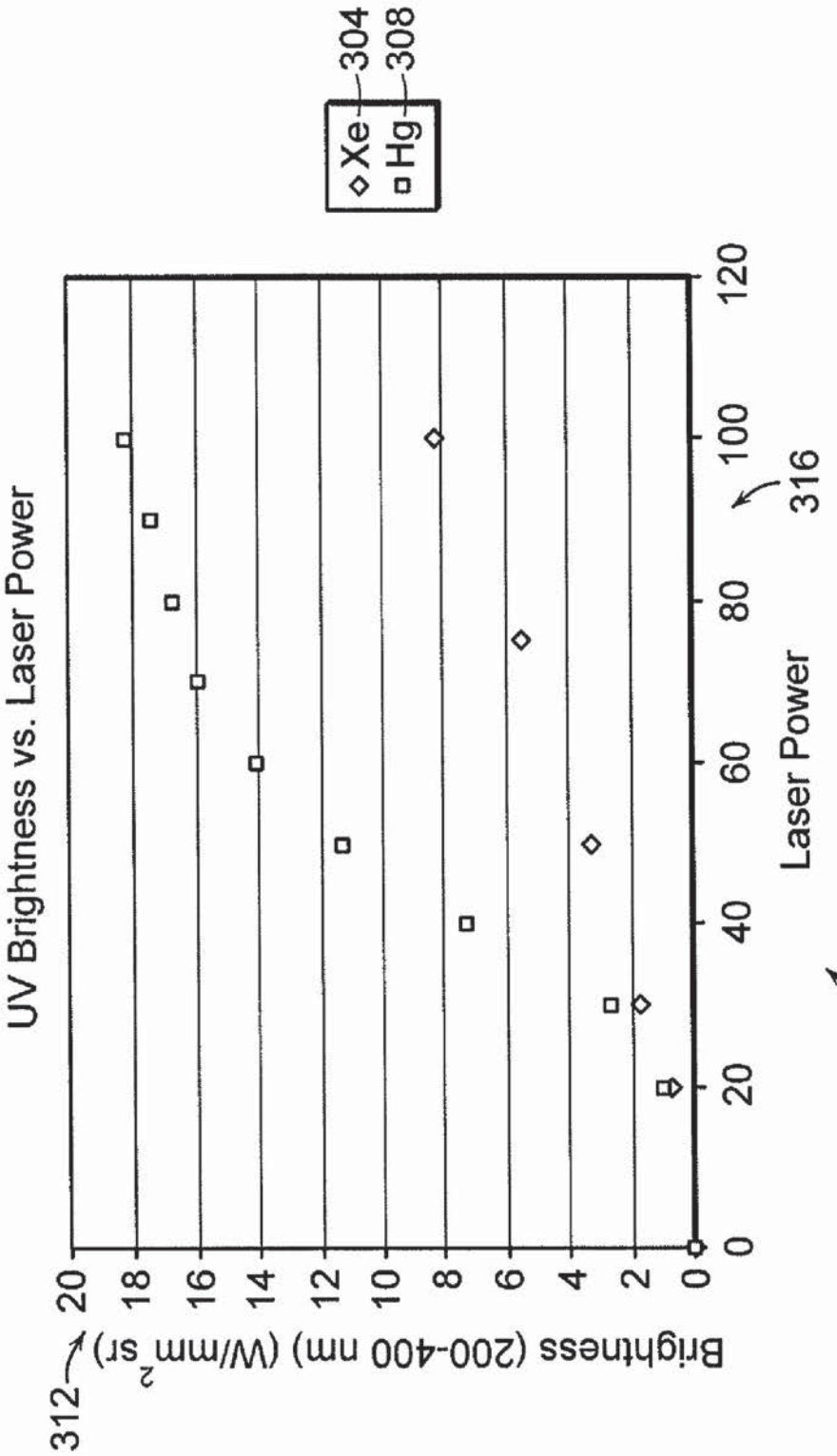

FIG. 3

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