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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)
- (\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 820 days.
- (21) Appl. No.: **11/695,348**
- (22) Filed: **Apr. 2, 2007**

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(65) **Prior Publication Data**  
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**Related U.S. Application Data**

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- (51) **Int. Cl.**  
**H05B 31/26** (2006.01)  
**G01J 3/10** (2006.01)  
**G21G 4/00** (2006.01)  
**H01J 61/28** (2006.01)

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(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

(Continued)

(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

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See application file for complete search history.

(57) **ABSTRACT**

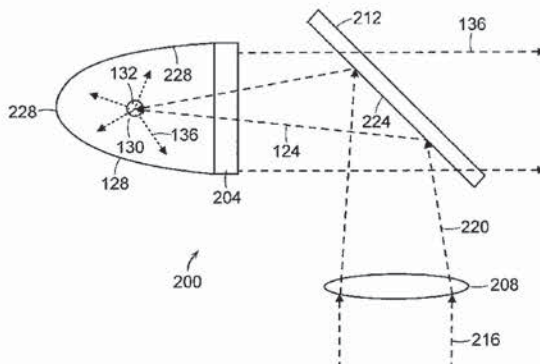
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An apparatus for producing light includes a chamber and an ignition source that ionizes a gas within the chamber. The apparatus also includes at least one laser that provides energy to the ionized gas within the chamber to produce a high brightness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

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**43 Claims, 8 Drawing Sheets**



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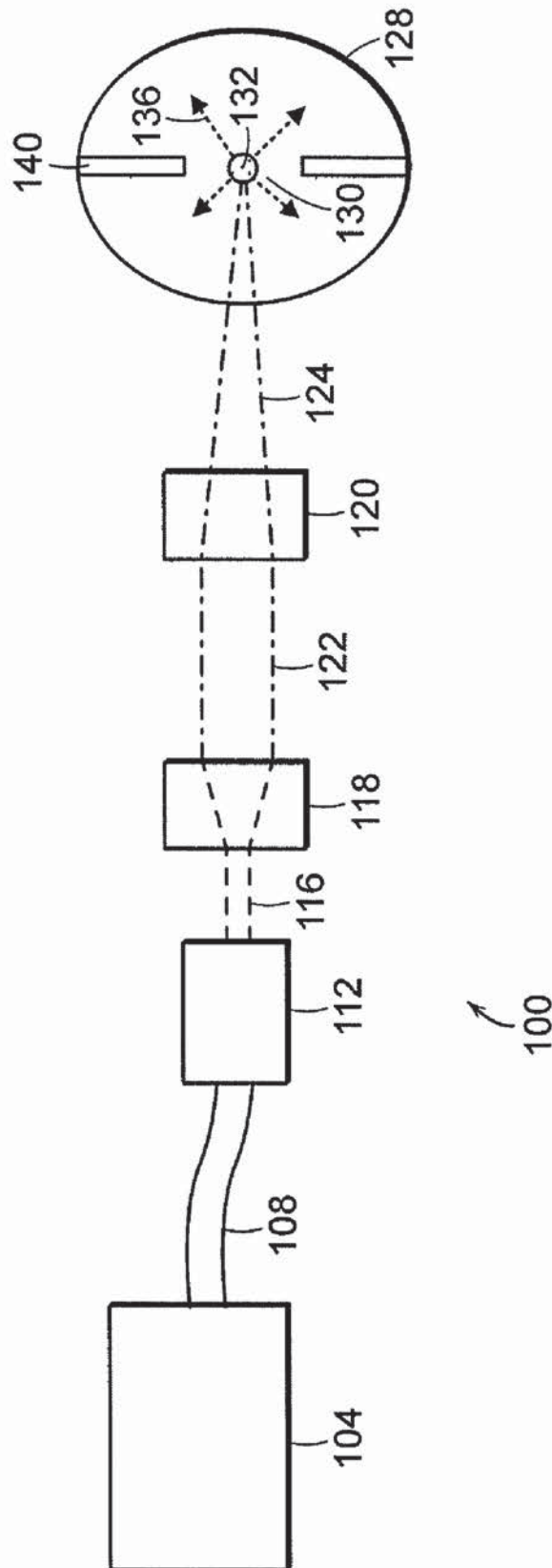


FIG. 1

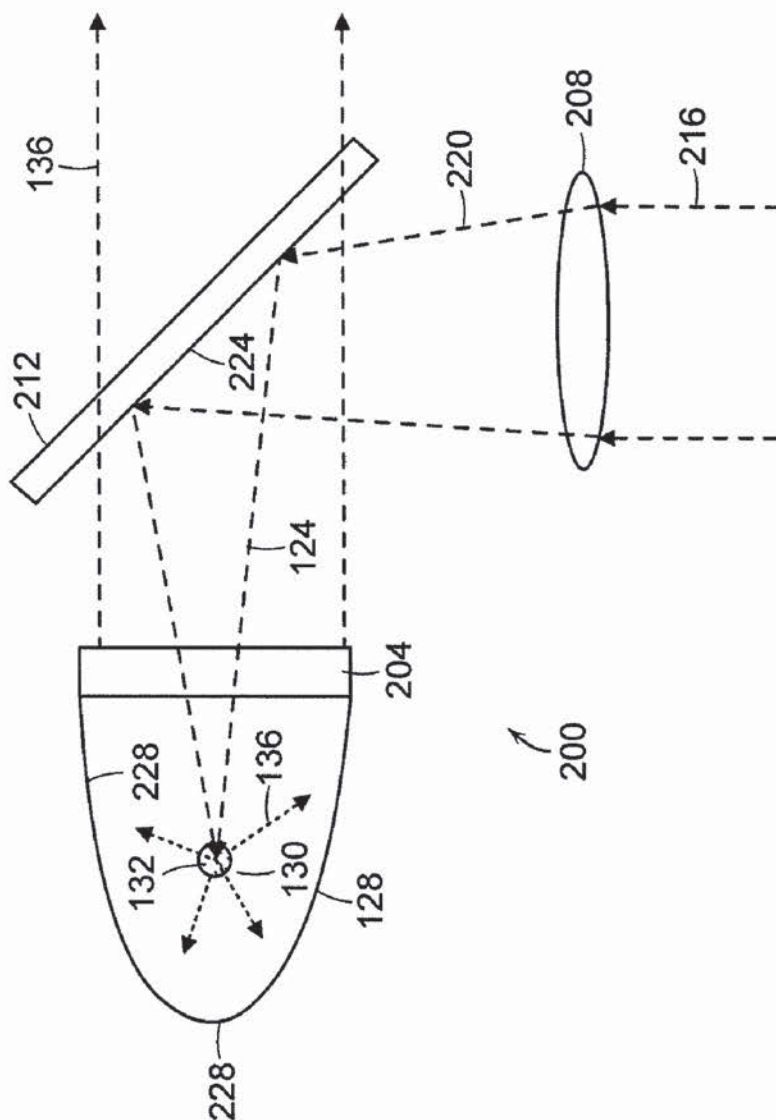


FIG. 2

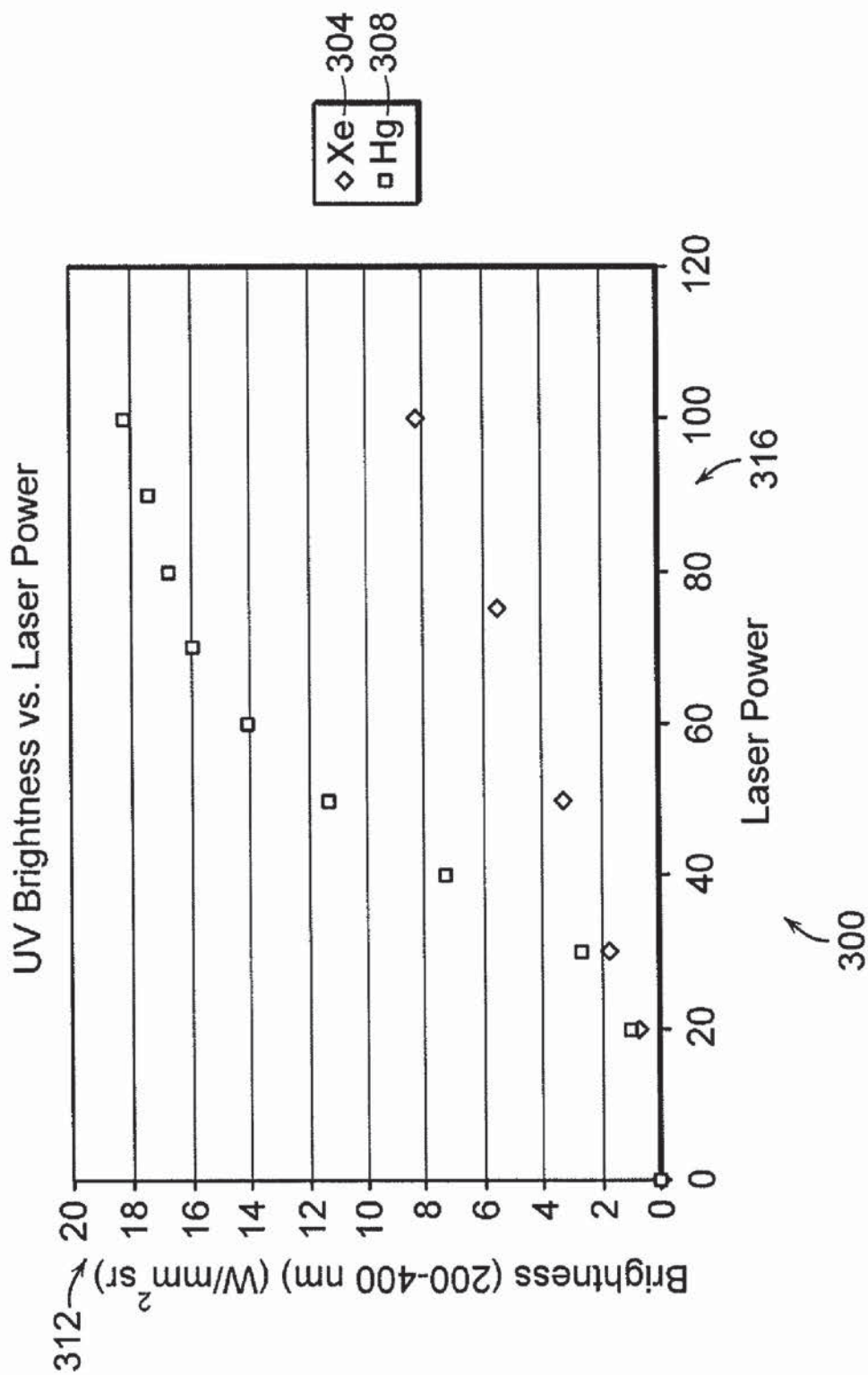


FIG. 3

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