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PROSKAUER ROSE LLP ONE INTERNATIONAL PLACE BOSTON, MA 02110			MCCORMACK, JASON L	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

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Art Unit: 2881

1. The present application is being examined under the pre-AIA first to invent provisions.

## DETAILED ACTION

### *Specification*

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Light Source for Generating Light from a Laser-Sustained Plasma in an Above-Atmospheric Pressure Chamber.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 15 is rejected under pre-AIA 35 U.S.C. 102(b) as being anticipated by Cross et al. U.S. Patent No. 4,780,608.

Regarding claim 15, Cross discloses a light source comprising a pressurized chamber in which a laser sustained plasma emits plasma-generated light produced by the laser sustained plasma by providing at least substantially continuous laser energy to an ionized medium within the chamber and maintaining the chamber at a pressure that is greater than atmospheric pressure “free-standing continuous discharges have been produced by focusing the output of a sufficiently powerful cw-CO<sub>2</sub> laser into inert gases,

Art Unit: 2881

molecular gases and mixtures thereof at atmospheric pressures or above... Although cw-laser radiation can maintain the continuous optical discharge, the output power of such light sources is generally insufficient to initiate the discharge. Consequently, such plasmas can be initiated using conventional electrode sparks or by the spark produced by a focused laser pulse superimposed on the focal volume of the cw-laser beam used to maintain the plasma" [col. 1; lines 30-52].

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 3, 4, 7, 8, 9, 10, 13, and 14 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Kane et al. U.S. Patent No. 6,541,924 in view of Cross et al. U.S. Patent No. 4,780,608.

Regarding claim 1, Kane discloses a light source "The embodiments of the invention provide methods of and systems for generating light usually ultraviolet light or vacuum ultraviolet light" [col. 6; lines 14-16] comprising: a pressurized chamber "The lamp comprises a discharge chamber" [Abstract] having a gas at a pressure greater than atmospheric pressure "Typically the gas pressure in the discharge chamber is in

Art Unit: 2881

the range of from about 1.001 atmospheres-3 atmospheres” [col. 7; lines 13-15]; an ignition source for ionizing a gas “a discharge gas in said chamber” [col. 1; line 41] within the chamber “two electrodes disposed with respect to the chamber for discharging electrical energy therebetween” [Abstract]. Kane discloses the claimed invention except that while Kane discloses that it is known to use a laser for providing energy to an ionized gas to sustain a plasma “More commonly, laser-based sources of high-peak power UV radiation are used for such applications” [col. 8; lines 6-8], there is no explicit disclosure of at least one laser for providing energy to the ionized gas to sustain a plasma within the chamber to produce a plasma-generated light.

Cross discloses that “free-standing continuous discharges have been produced by focusing the output of a sufficiently powerful cw-CO<sub>2</sub> laser into inert gases, molecular gases and mixtures thereof at atmospheric pressures or above... Although cw-laser radiation can maintain the continuous optical discharge, the output power of such light sources is generally insufficient to initiate the discharge. Consequently, such plasmas can be initiated using conventional electrode sparks or by the spark produced by a focused laser pulse superimposed on the focal volume of the cw-laser beam used to maintain the plasma” [col. 1; lines 30-52].

It would have been obvious to one possessing ordinary skill in the art at the time of the invention to have combined Kane and Cross in order to maintain the light emitted from a plasma for a desired amount of time after the plasma is initially produced by an electrode discharge.

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