



US009510624B2

(12) **United States Patent**
Li et al.

(10) **Patent No.:** **US 9,510,624 B2**
(45) **Date of Patent:** **Dec. 6, 2016**

(54) **DISPOSABLE ELECTRONIC CIGARETTE**

(75) Inventors: **Yonghai Li**, Shenzhen (CN); **Zhongli Xu**, Shenzhen (CN)

(73) Assignee: **SHENZHEN FIRST UNION TECHNOLOGY CO., LTD.**, Shenzhen, Guangdong Province (CN)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 330 days.

(21) Appl. No.: **14/343,044**

(22) PCT Filed: **Aug. 7, 2012**

(86) PCT No.: **PCT/CN2012/079776**

§ 371 (c)(1),
(2), (4) Date: **Mar. 5, 2014**

(87) PCT Pub. No.: **WO2013/034039**

PCT Pub. Date: **Mar. 14, 2013**

(65) **Prior Publication Data**

US 2014/0196718 A1 Jul. 17, 2014

(30) **Foreign Application Priority Data**

Sep. 5, 2011 (CN) 2011 2 0329988 U

(51) **Int. Cl.**

A24F 47/00 (2006.01)

A61M 11/00 (2006.01)

(Continued)

(52) **U.S. Cl.**

CPC **A24F 47/008** (2013.01); **A61M 11/041** (2013.01); **A61M 11/042** (2014.02);

(Continued)

(58) **Field of Classification Search**

CPC .. A61M 11/041; A61M 11/042; A61M 15/06;
A61M 2205/3653; A61M 2205/583;

A61M 2205/8206; A24F 47/008

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2012/0145169 A1* 6/2012 Wu A24F 47/008
131/273

FOREIGN PATENT DOCUMENTS

CN 201238610 Y 5/2009

CN 201491720 U 6/2010

(Continued)

Primary Examiner — Bradley Philips

(74) *Attorney, Agent, or Firm* — Cheng-Ju Chiang

(57) **ABSTRACT**

The present disclosure relates to a disposable electronic cigarette. The disposable electronic cigarette includes a housing, a battery assembly and an atomization device. The housing is hollow, and defines openings at two opposite ends. The battery assembly and the atomization device are connected, and disposed inside the housing. The atomization device includes a liquid absorption member, a glass fiber tube, an electrical heating component and a liquid stopper. The electrical heating component further includes a heating wire and a liquid-conducting core. The battery assembly includes a cell core, a controller and an LED lamp. A lampshade is provided on a first end of the housing, and a mouthpiece cover is arranged at a second end of the housing. The beneficial effects are that the battery assembly and atomization device are provided inside the housing to form one piece, avoiding assembling before smoking.

15 Claims, 19 Drawing Sheets

