

EXHIBIT A



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(12) **United States Patent**
Liu

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(54) **ELECTRONIC SMOKE APPARATUS**

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Related U.S. Application Data

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(57) **ABSTRACT**

An electronic smoke comprises a puff detection sub-assembly module. The puff detection sub-assembly comprises a first conductive surface, a second conductive surface and an insulated ring spacer separating the first and the second conductive surfaces at an effective separation distance. The first conductive surface, the second conductive surface and the insulated ring spacer are housed inside a metallic can. The first conductive surface is electrically connected to the metal can by a first conductive ring which is disposed between the first conductive surface and a ceiling portion of the metal can. The second conductive surface is electrically connected to an output terminal through a second conductive ring, the second conductive ring elevating the puff detection sub-assembly above a floor portion of the metal can and urging the first conductive ring against a ceiling portion of the metal can.

(30) **Foreign Application Priority Data**

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25 Claims, 15 Drawing Sheets

(51) **Int. Cl.**

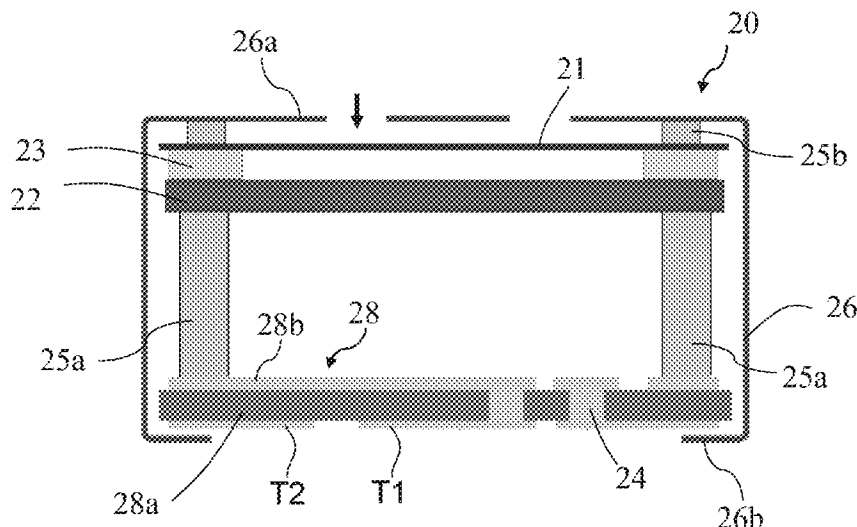
A24F 47/00 (2006.01)

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

CPC *A24F 47/008* (2013.01)

(58) **Field of Classification Search**

CPC A24F 47/008; A24F 47/002; G01L 9/0072
See application file for complete search history.



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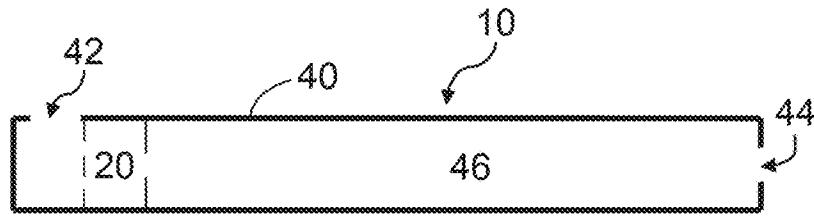


Figure 1

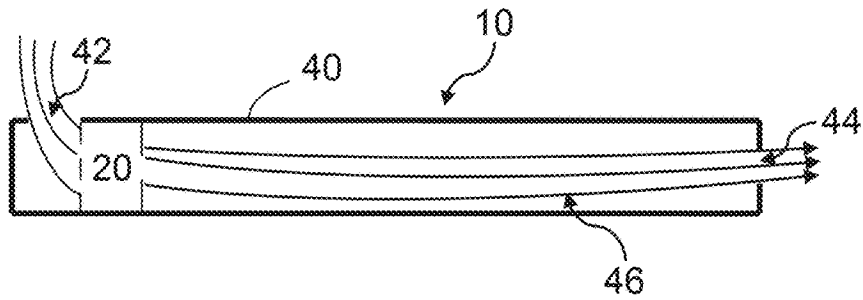


Figure 1A

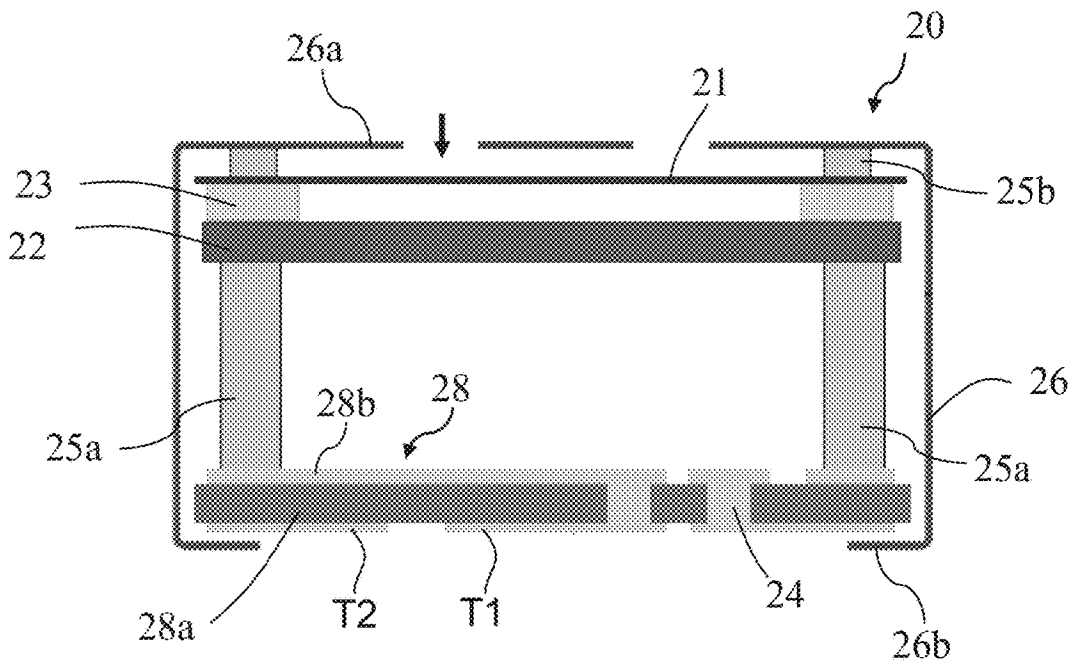


Figure 2

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