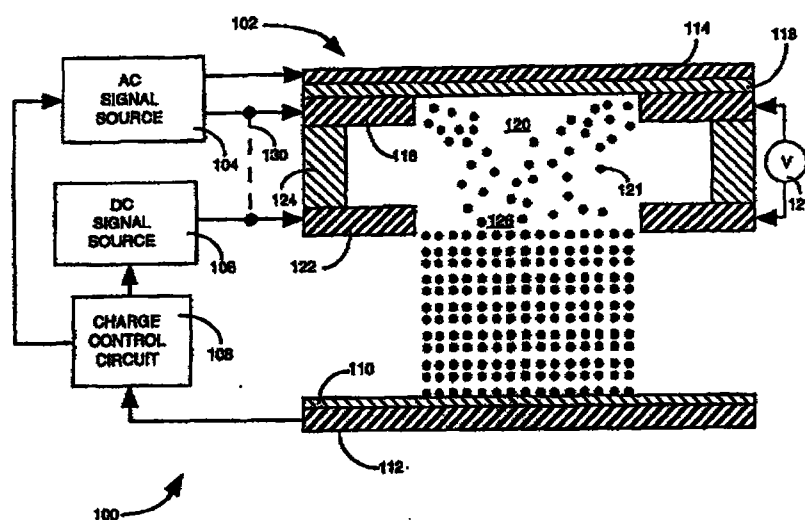


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(54) Title: **ELECTROSTATICALLY DEPOSITING A MEDICAMENT POWDER**

(57) Abstract

Apparatus and a method for electrostatically depositing doses of medicament powder (304) at selected locations on a substrate (110), such as those that are used to fabricate suppositories, inhalants (704), tablets, and capsules. The apparatus contains a charged particle emitter (102) for generating charged particles that charge a predefined region of a substrate (500) and a charge accumulation control circuit (108) for computing the amount of charge accumulated upon the substrate (500) and deactivating the emitter (102) when a selected quantity of charge has accumulated. A triboelectric charging apparatus (302) charges the medicament powder (304) and forms a charged medicament cloud (412) proximate the charged region of the substrate (500). The medicament particles within the medicament cloud (412) electrostatically adhere to the charged region. The quantity of charge accumulated on the substrate (500) at the predefined region and the charge-to-mass ratio of the medicament powder (304) in the cloud (412) control the dose of medicament deposited and retained by the substrate (500).