

Title (en)

A process for producing successive droplets of ink of different sizes.

Title (de)

Verfahren zum Produzieren sukzessiver Tintentröpfchen verschiedener Größen.

Title (fr)

Méthode pour produire des gouttelettes d'encre successives de tailles différentes.

Publication

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Application

EP 89107684 A 19890427

Priority

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Abstract (en)

The volume of a droplet (44) ejected from a thermal ink jet printer is controlled by the application of a low level of energy to an ink volume in an ink container (24) prior to application of a high energy pulse which vaporizes an ink bubble to eject ink from an orifice (26) of the print head. The energy is preferably applied to the ink by passing current through a resistor (30) in the wall of the ink container (24) in close proximity to the orifice (26). The initial low energy level or precursor signal warms, but does not vaporize, the ink adjacent the resistor (30) so that a larger volume of ink may be vaporized by the high energy pulse, increasing the ejected droplet size. Increasing the energy in the low energy heating increases the ejected droplet size. The low energy heating may be applied in various manners, such as a single long duration pulse, multiple short duration pulses, or the like. Variations in the energy of the precursor pulse for succeeding droplets cause corresponding variations in the sizes of the ejected droplets.

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Citation (search report)

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