Title (en)

METHOD AND APPARATUS FOR PRODUCING LIQUID DROPS ON DEMAND

Publication

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Application

EP 82103883 A 19820505

Priority

US 27498981 A 19810618

Abstract (en)

[origin: EP0067948A1] A drop-on-demand ink jet printing apparatus comprises a print head 10 having an ink cavity 22 which is filled with ink and which communicates with a nozzle designed so that ink does not flow out under static conditions. An electromechanical transducer 36 is selectively energised in response to print data signals so that, when appropriately energised, the transducer produces a pressure wave in the ink cavity 22 sufficient to eject one ink drop from the nozzle 26 for each signal above a threshold value. The nozzle 26 is strongly convergent and the ink has a viscosity up to 100 centipois, preferably between 15 and 100 centipois. In the preferred embodiment, the nozzle is formed by an anisotropic etching in a silicon substrate, which provides a nozzle passage in which the sides converge towards each other to include an angle of about 70 degrees therebetween.

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