Title (en)

Bubblejet image reproducing apparatus

Title (de)

Strahldrucker mit Bläschen für Bildaufzeichnungsvorrichtung

Title (fr)

Dispositif pour la reproduction d'images à jet d'encre par bulles

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Application

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- AU PK473891 A 19910222
- AU PK473991 A 19910222
- AU PK474091 A 19910222
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- AU PK474691 A 19910222

Abstract (en)

[origin: EP0498293A2] A bubblejet print device (100) is disclosed which is integrally formed having arrays (102,103,104,105) of nozzles (110) which form part of a passageway communicating between opposite surfaces of a semiconductor substrate (130). Each nozzle (110) has an integrally formed heater (120) which permits heating of ink (106) within the respective nozzle (110) for the ejection of an ink drop (108) therefrom. The heater (120) can provide a fault tolerant structure through the provision of a main heater (121,441) and a redundant heater (122,443) each of which can be separately energised from a corresponding electronic drive circuit (160,165). Several methods of manufacturing the device (100) using semiconductor fabrication techniques are also disclosed. A bubblejet print head (200) incorporating the device (100) can form part of an image reproducing apparatus (531,533,535,537) and is capable of printing full colour images at 400 dpi and monochrome images up to 1600 dpi. An ink drop size of about 3 picolitres is used for these image intensities. A thermal shunt (140) or diffuser (491) are used to transport heat away from the heater (120) to prevent formation of hot spots thereabout after the ejection of an ink drop (103). Electronic circuitry (310,302-305) is disclosed which is used to couple data to the device (100) to provide full width page printing using a stationary head (200) and a moving paper medium (220). <IMAGE>

IPC 1-7

B41J 2/155; B41J 2/175; B41J 2/05; B41J 2/21

IPC 8 full level

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Citation (examination)

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