

Title (en)
NOZZLELESS DROPLET PROJECTION SYSTEM

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EP 0493052 A3 19930224 (EN)

Application
EP 91311918 A 19911223

Priority
US 63424790 A 19901226

Abstract (en)
[origin: EP0493052A2] A nozzleless droplet projection system is disclosed. A thin film of fluid (26) with a constant thickness travels at a constant velocity across a tubular transducer head (16a, 16b). A smooth perimetrical surface (18) is formed between the input (22) and the output (24) sides of the transducer head (16a, 16b). An array of electro-acoustic transducers (15) submerged beneath the transducer head support surface (17) generate tone bursts (20, Figs 3 and 4) of acoustic energy which are focused by a corresponding array of acoustic lenses (19) inscribed along the length of the transducer head (16a, 16b). The constant thickness and constant velocity fluid film (26) is generated by forcing pre-regulated, pressurized fluid through a narrow slit (30) and across the smooth perimetrical surface (18) of the transducer head (16a, 16b). The fluid film (26) is maintained at the acoustic focus of the lenses (19) in order to control the resultant droplet (12) size. A pattern of droplets (12) is ejected by pulsing the appropriate electro-acoustic transducers (15) as the projection medium (14) is moved across the droplet formation apparatus at a constant velocity. <IMAGE>

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CPC (source: EP)
B41J 2/14008 (2013.01); **B41J 2002/14322** (2013.01)

Citation (search report)
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