

Title (en)
Image forming apparatus

Title (de)
Bilderzeugungsgerät

Title (fr)
Appareil de formation d'images

Publication
EP 0703080 A2 19960327 (EN)

Application
EP 95114586 A 19950915

Priority
JP 22761594 A 19940922

Abstract (en)
An image forming apparatus uses as an image-forming agent an ink containing toner having charged particles. The recording head (1) of the image forming apparatus has an insulating substrate (4) formed with discharge electrodes (2), and an insulating upper plate (13) formed with a common electrode (14). The discharge electrodes (2) and the common electrode (14) oppose each other, and a gap serving as an ink supply passage (20) is formed between them. The supply passage (20) is connected to an ink supply/recovery mechanism (100), and the ink (6) is supplied from this mechanism to the supply passage (20). A platen roller (114) serving as a counter electrode set at the ground potential is provided ahead of the distal end of the supply passage (20). A recording medium (108) is placed on the surface of the platen roller (114) so as to face the recording head (1). A voltage is applied between the discharge electrodes (2) and the common electrode (14) to form an electric field in the supply passage (20). Thus, a toner concentration difference is formed in the ink (6) as a toner preliminary gathering process. The toner preliminary gathering process increases the toner agglomerating efficiency at discharge points (DP). <IMAGE>

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Cited by
US6059399A; US5992756A; EP0813966A3; US6172697B1; US6443560B1; US6247797B1; US6123415A; US6648434B2; US6224193B1; US6113219A; EP0827832A3; EP0813964A3; CN105291585A; EP0771654A1; US5975684A; US6172693B1; EP0997282A3; US6409313B1; US5988795A; AU722573B2; US6135588A; US6070967A; US6095638A; EP0844087A3; US6126274A; US6164760A; US6102522A; EP0827831A3; US6361148B1; US6213591B1; US6328426B1; US6394583B1; WO9832609A1; WO9727056A1

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