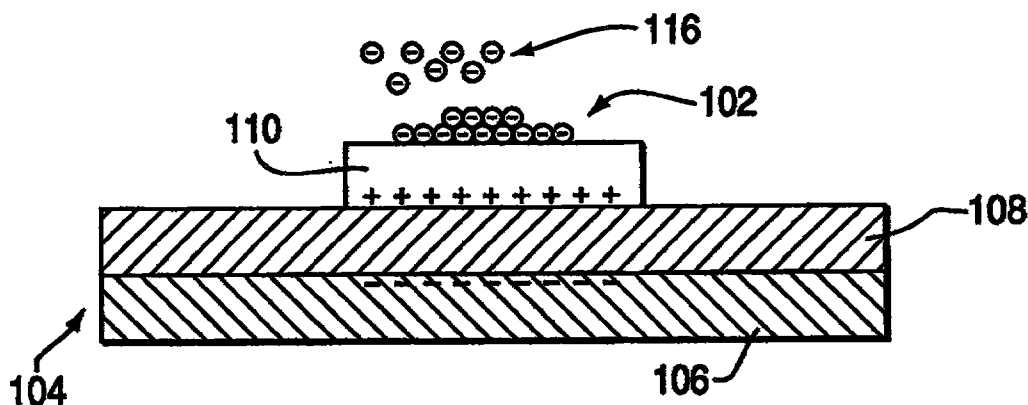


PCTWORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶: B05B 5/025	A1	(11) International Publication Number: WO 96/39256 (43) International Publication Date: 12 December 1996 (12.12.96)
(21) International Application Number: PCT/US96/09439 (22) International Filing Date: 6 June 1996 (06.06.96) (30) Priority Data: 08/467,647 6 June 1995 (06.06.95) US (71) Applicant: DAVID SARNOFF RESEARCH CENTER, INC. [US/US]; CN 5300, 201 Washington Road, Princeton, NJ 08543-5300 (US). (72) Inventor: PLETCHER, Timothy, Allen; 58 Manchester Road, Eastampton, NJ 08060 (US). (74) Agents: BURKE, William, J.; David Sarnoff Research Center, Inc., CN 5300, 201 Washington Road, Princeton, NJ 08543- 5300 (US) et al.		(81) Designated States: AL, AM, AU, BB, BG, BR, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG, KP, KR, LK, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>

(54) Title: APPARATUS FOR ELECTROSTATICALLY DEPOSITING AND RETAINING MATERIALS UPON A SUBSTRATE**(57) Abstract**

A substrate (104) having a planar conductive plating (106) located on a first surface of a dielectric layer (108) and having a conductive collection trace (110) on a second surface of the dielectric layer (108) such that the conductive plating (106) and collection trace (110) have a parallel, spaced apart relation. The collection trace (110) is charged by supplying a voltage to the plating (106) and the trace (110) to establish a voltage differential across the dielectric layer (108). The material to be deposited (116) is charged to a polarity opposite that of the trace (110) so that the deposited material (102) is electrostatically retained.