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(21) International Application Number: PCT/US97/03393 (22) International Filing Date: 4 March 1997 (04.03.97) (30) Priority Data: 08/610,330 4 March 1996 (04.03.96) US (71) Applicants: SYMETRIX CORPORATION [US/US]; 5055 Mark Dabbling Boulevard, Colorado Springs, CO 80918 (US). MATSUSHITA ELECTRONICS CORPORATION [JP/JP]; 1-1, Saiwaicho, Takatsuki City, Osaka Prefecture 569 (JP). (72) Inventors: HAYASHI, Shinichiro; 2685 E. Paragon Drive, Colorado Springs, CO 80918 (US). MCMILLAN, Larry, D.; 4255 Loch Lomand Lane, Colorado Springs, CO 80909 (US). AZUMA, Masamichi; 4-20-411, Akibadai, Otu-shi, Siga 520 (JP). PAZ DE ARAUJO, Carlos, A.; 317 W. Sunbird Cliffs Lane, Colorado Springs, CO 80919 (US). (74) Agents: FOREST, Carl, A. et al.; Duft, Graziano & Forest, P.C., Suite 140, 1790-30th Street, Boulder, CO 80301-1018 (US).	(81) Designated States: CN, JP, KR, SG, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.	

(54) Title: MISTED PRECURSOR DEPOSITION APPARATUS AND METHOD WITH IMPROVED MIST AND MIST FLOW

(57) Abstract

A substrate (5) is located within a deposition chamber (2), the substrate defining a substrate plane. A barrier plate (6) is disposed in spaced relation above the substrate and substantially parallel thereto, the area of said barrier plate in a plane parallel to said substrate being substantially equal to said area of said substrate in said substrate plane, i.e. within 10 % of said substrate area. The barrier plate has a smoothness tolerance of 5 % of the average distance between said barrier plate and said substrate. A mist (66) is generated, allowed to settle in a buffer chamber (42), filtered through a 1 micron filter (33), and flowed into the deposition chamber between the substrate and barrier plate to deposit a liquid layer on the substrate. The liquid is dried to form a thin film (1130) of solid material on the substrate, which is then incorporated into an electrical component (1112) of an integrated circuit (1110).

