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(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).

