Abstracts

Technology for the Microwave Solid State Devices of the 80's: Molecules, Electrons and Ions

B. Berson. "Technology for the Microwave Solid State Devices of the 80's: Molecules, Electrons and Ions." 1979 MTT-S International Microwave Symposium Digest 79.1 (1979 [MWSYM]): 3-3.

Circuit, system and device designers, encouraged by the success of the past ten years, are conspiring to accelerate the pace of device development. What they want is improved performance, higher levels of integration, more uniformity, better reliability, and lower cost. Getting there will require a new generation of semiconductor technologies. Traditional methods of materials growth may need to be replaced by the tailoring of materials on a molecule by molecule basis; device structures may be fabricated using ion implantation and laser annealing, eliminating furnace operations; wet etching of devices may be replaced by dry plasma and ion etching; optical exposure of photo-resists may be replaced by exposure to electrons or x-rays; and masks may be eliminated by direct exposure of wafers.

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