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1988
Tungsten CVD System

~ Discrete Semiconductor/Others ~

Aluminum wiring contact resistance on LSIs became a problem as miniaturization progressed into the submission region and the source/drain of the MOS FET became shallow. Therefore, the technology to install a high melting point metal in the connection between Si and Al wiring was required. Genus announced a W-CVD system that selectively deposited W into contact holes (Genus-8720) in 1988 [1]. W was deposited by means of reduction of WF6 gas with hydrogen. The system adopted a cold wall chamber to prevent deposition of metal W to the wall. Furthermore, the system equipped a plasma cleaning mechanism for cleaning the inside of the chamber. W plug became the standard process technology of wiring on VLSIs.

References:

【1】The Chip History Center, Time Line, “Genus-8720 Tungsten CVD System”
https://www.chiphistory.org/182-genus-8720-tungsten-cvd-system

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