METHOD AND SYSTEM FOR MONOCRYSTALLINE EPITAXIAL DEPOSITION

Abstract of the Disclosure

A method for monocrystalline epitaxial deposition which reduces the occurrence of large area defects for chemical vapor depositions carried out at near atmospheric pressure. Reactant gas is passed over a semiconductor wafer (W) in a reaction chamber (14) to an exhaust (22) in a conventional manner. A venturi tube (46) in fluid communication with the reaction chamber is adjusted to draw a vacuum pressure in the reaction chamber. The relatively small vacuum pressure produces a more laminar flow of reactant gas leaving the reaction chamber. Reduction in turbulence and eddy currents reduces the possibility that particles from matter deposited near the exhaust of the reaction chamber can be transported upstream in the gas flow onto the wafer, causing large area defects. A system (10) for carrying out the method is also disclosed.

Fig.1