

METHOD AND APPARATUS FOR PURGING BARREL REACTORSAbstract of the Disclosure

A reactor for depositing a material on a semiconductor wafer by a chemical vapor deposition process using a reactant gas. The reactor includes a shell defining a reaction chamber sized to receive at least one semiconductor wafer. The shell has a jet port cavity opening into the reaction chamber and extending away from the reaction chamber. The reactor also includes a reactant gas delivery system for delivering the reactant gas to the reaction chamber. The reactant gas delivery system includes a nozzle positioned within the jet port cavity for directing the reactant gas into the reaction chamber, a reactant gas source, and a reactant gas line extending between the reactant gas source and the nozzle. The reactor also includes a purge gas delivery system for delivering a purge gas to the reaction chamber. The purge gas delivery system includes a purge gas port opening into the jet port cavity for directing the purge gas into the jet port cavity, a purge gas source, and means for delivering the purge gas from the purge gas source to the purge gas port.

This Sheet Has Been Replaced

