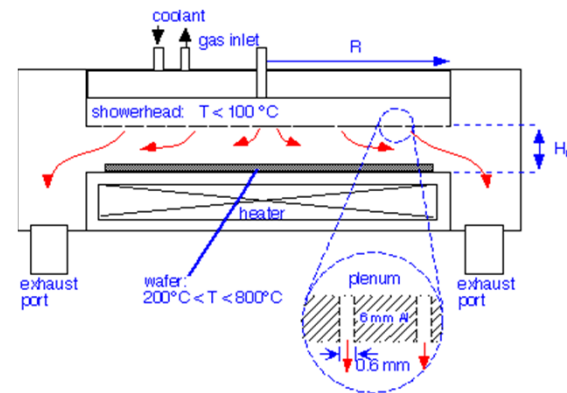


Yifu Chen, Andy Giang, Raul Gonzalez

- Industrial applications require high deposition layer uniformity.
- One of the factors that affect layer thickness uniformity is the gas injection design system.
- One common design is the showerhead reactor.



- Capacitor model. Showerhead gets RF. Wafer is grounded.
- Plasma sheath reacts with substrate surface creating a deposition layer
- Some unwanted deposition of walls instead of substrate.
- By products are purged

- Replaceable perforated faceplates allow for easy hole configuration adjustment.
- Adjustable base height.
- Controlled showerhead and wall temperature to prevent unwanted reactions or condensation.