אוניברסיטת בן-גוריון בנגב
Ben-Gurion University of the Negev

Nano-Fabrication Center

# Plasma-enhanced chemical Vapor deposition (PECVD)


## Description

The PECVD is a process used to deposit thin films from a gas state (vapor) to a solid state on a substrate. Chemical reaction are involved in the process, which occur after creation of a plasma of the reacting gases.
A - Silicon, Silicon Oxide, Nitride and Carbide films deposition.

Manually loaded PECVD with vacuum load-lock. It is equipped with a high temperature (325°C) isothermal reactor placed inside a vacuum vessel. It is controlled by PC with software operating under Linux. It is dedicated to fast deposition of SiO2, SiN and SiC on for 10 X 2" wafers or wafers up 200 mm. Equipped with a CCD camera laser endpoint detector, it offers automatic multistep process capability.

## Specifications / Capabilities

**Process range temperatures:** 250 – 300C
**Samples size:** up to 8” wafer
**Thickness range:** from nanometric scale up to 1um (at once, without clean)
**Recipe structure:** stabilization with gases on, RF on, deposition, purge

## Available Gases

Ar, N2, N2O, SiH4, NH3, SF6, C2H4

## Link

http://www.corial.net/
http://www.corial.net/index.php?option=com_content&view=article&id=105&Itemid=176