Plasma Sensor for Next Generation Plasma Processing

Prof. Hideo SUGAI (Chubu University)

1. Why plasma sensor?

However, difficult plasma control, difficult plasma diagnostics

New tool for plasma diagnostics!

for easy control of plasma

2. Principle of plasma sensor

Electron density is measured by Surface Wave Probe

3. Application of plasma sensor to materials processing

SiO₂ Etching by Dual Frequency CCP

Plasma density of inductive RF plasma

How sensitive surface wave probe is!

4. Patent status & Patent owner contact

- Patent license is available.
  Patent owner contact: Masaru OZAKI (JST)
  Tel:+81-3-5214-8486
  e-mail: license@jst.go.jp

With increasing discharge power, plasma density increases so that resonance frequency goes up!