

PICO

SPTS Rapier DRIE system

Responsible

Konstantins Jefimovs

System Description

A dedicated etcher for Silicon deep reactive ion etching using Bosch or non-switch processes and for SiO_2 etching.

The mask materials are currently limited to photoresists and SiO₂. Al₂O₃ masks are under investigation.

Metals (neither as etching masks not as etching materials) are generally not allowed. Some exceptions can be made (for example, in case of small area samples on support wafers or as an etch stop) after detailed discussion with system responsible.

Sample size:

Electrostatic clamps (ESC) and wafer edge protective (WEP) rings of three sizes are available: 100 mm, 150 mm and 200 mm and can be installed on demand.

Gases available:

SF₆, C₄F₈, O₂, N₂, Ar

The system is partially funded by SNF R'Equip grant Nr. 206021_189662 "Advanced Si DRIE tool for highly uniform ultra-deep structuring (SiDRY)". Please, refer to it in acknowledgement in the published papers.