



UNIUNEA EUROPEANĂ



GUVERNUL ROMÂNIEI



INSTRUMENTE STRUCTURALE
2007-2013

Programul Operațional Sectorial

"Creșterea Competitivității Economice"

"Investiții pentru viitorul dumneavoastră"

POS CCE: 665/12609/209/20.07.2010

ICP Deep Reactive Ion Etching System

Plasmalab System 100

MICRONANOFAB

GENERAL CHARACTERISTICS:

- ✓ Single 4" wafer processing
- ✓ 5.000 W maximum ICP power
- ✓ 300 W maximum substrate electrode power
- ✓ Temperature control for substrate electrode
- ✓ 2 ultrafast MFC close coupled to the ICP source (for smooth sidewalls)

APPLICATIONS:

- ✓ Etching:
 - Bosch process for silicon
 - Cryogenic process for silicon
 - Bosch Process for SiC
- ✓ Single wafer processing.
- ✓ Can process 4" or smaller wafers, even small pieces.
- ✓ Process gases: SF₆, C₄F₈, O₂, Ar.



PROCESS CHARACTERISTICS ARE:

- ✓ Si etch rate: 7.5 μm/min
- ✓ wafer non-uniformity: less than 3%
- ✓ wafer to wafer non-uniformity: less than 3%
- ✓ etching profile: 90°±1° vertical side-walls
- ✓ selectivity: 50:1 for PR mask or 200:1 for SiO₂ mask
- ✓ aspect ratio: 20:1

ADVANTAGES:

- ✓ High etch rate for etching deep trenches
- ✓ High etching uniformity
- ✓ High selectivity for photoresist and SiO₂ masks
- ✓ Cryogenic process for perfectly smooth sidewalls

www.imt.ro/MICRONANOFAB

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