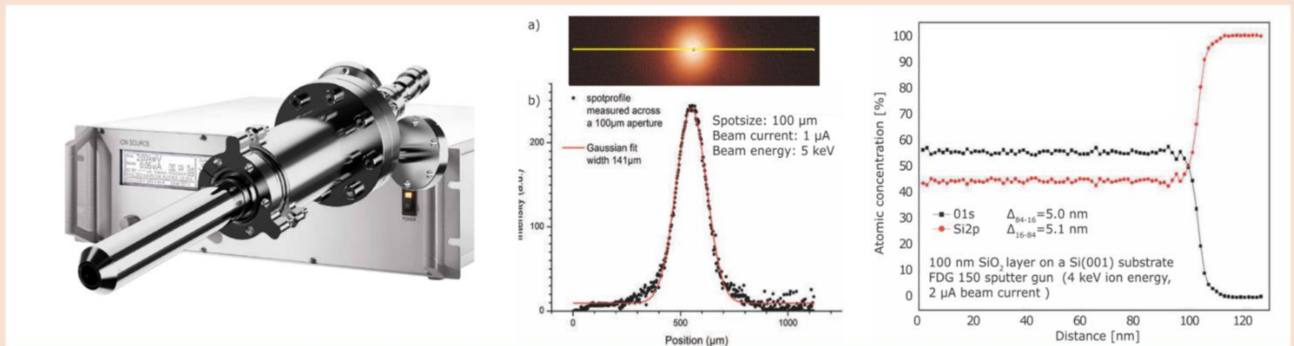
scientaomicron

Scanning high performance fine focus ion source

Features:

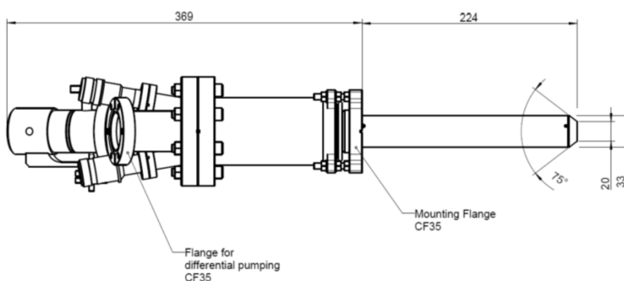
This high performance scanning fine focus ion source features with an excellent small spot size of < 150 µm and can be used for sputter etching, sensor cleaning, charge neutralization and advanced depth profiling.

To achieve a well-defined rectangular sputter crater the ion beam is scanned over the sample surface. The raster field correction ensures that every point of the sputtered area is equally served by the ion beam even if the incidence of the ion beam is tilted. A beam current regulation correction and a regulated leak valve ensure stable physical conditions for high quality depth profiles.



Technical data:

- High current densities > 2 mA / cm² at 5 kV beam voltage
- Spot size < 150 µm
- max. raster size 10 x 10 mm at 50 mm working distance
- Energy range 10 eV – 5 kV
- high current > 100 nA for charge neutralization at 10 eV
- Working pressure 5·10-7 - 5·10-8 mbar
- Mounting flange DN40 CF, working distance 30 – 50 mm with an insertion depth of 224 mm
- Port for differential pumping
- Bakeable up to 180 °C
- Integrated port aligner, allows for ± 3° adjustment range
- Standalone operation or software controlled



Summary

Part Number: PNxxxxx-S

Parts included:

- FDG 150 sputter source
- Control panel FDG CU (can work standalone or software controlled)
- Gas inlet system with fully bakeable regulated leak valve
- Software for remote operation

Prerequisites:

- UHV system with base vacuum < $5 \cdot 10^{-9}$ mbar
- Free port DN40CF for sputter source

Options (on request):

- Differential pumping with System integration
- Automatic depth profiling

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