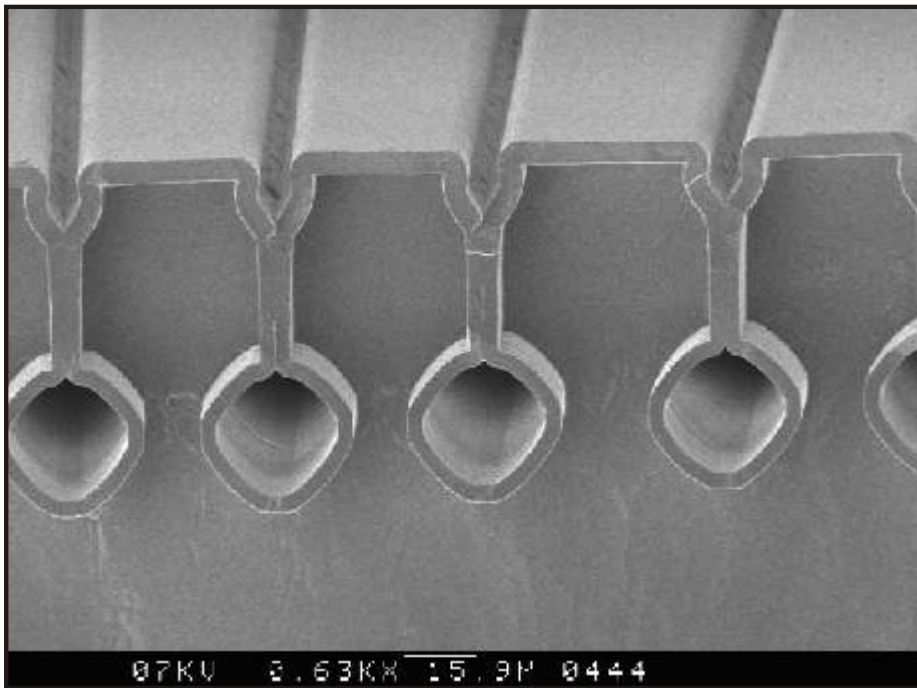


Plasmalab Data

Buried Micro Channels in Si



with kind permission of:
TU Twente
Meint de Boer



"Lab-on-a-chip":
Silicon nitride channels buried in a silicon wafer.
The process involves cryogenic silicon etching,
followed by an isotropic silicon etch (which does
not attack the sidewalls as they are still passivated).
Finally, a silicon nitride film is deposited by LPCVD
to close up the hole.

Plasmalab System 100
Plasmalab System 133

Technology:

- Reactive Ion Etching
- Inductive Coupled Plasma Source
- cryogenic SF₆/ O₂ process
- He backside cooling

