BP-01
www.oxfordplasma.de/process/bpsg.htm

OXFORD INSTRUMENTS

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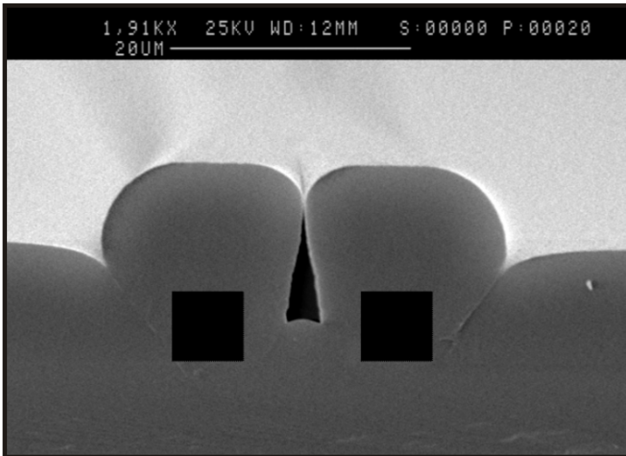
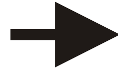
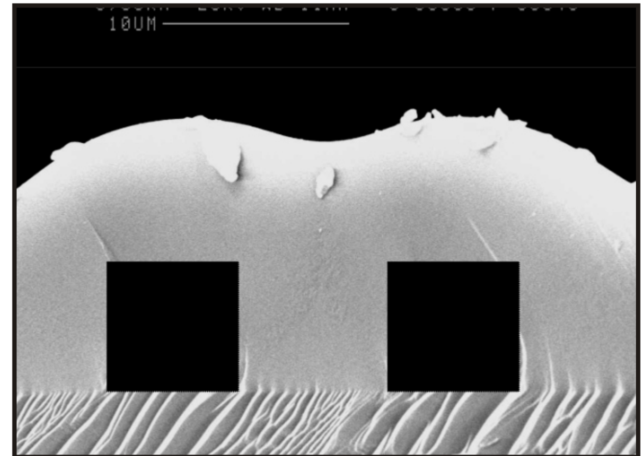
email: plasma@oxford.de

Plasmalab Data

BPSG PECVD for Planarisation







SiO_2 PECVD with B and P doping for "planarisation"
Annealing at 950^{0} C. Approximate position of 6 micron high waveguide cores are indicated by black squares.

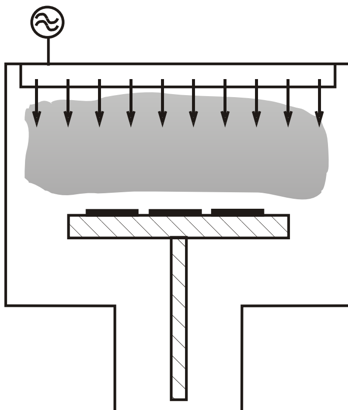
10 micron SiO_2 were deposited in a single step followed by a single anneal step. Further impovements can be achieved by multiple deposition/ anneal steps.

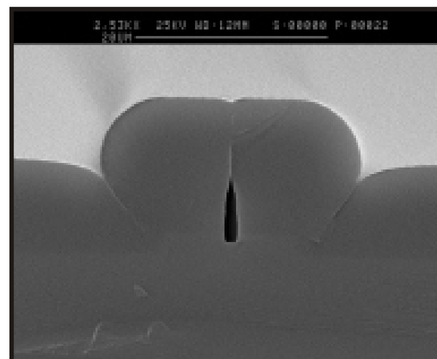
Plasmalab System 100

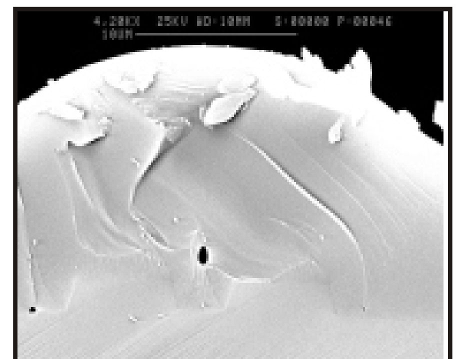
Gap between cores:

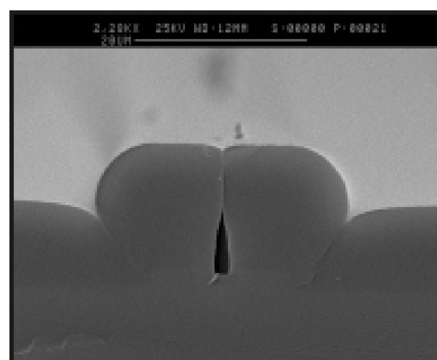
6 micron (top SEMs)
2 micron (center SEMs)
4 micron (lower SEMs)

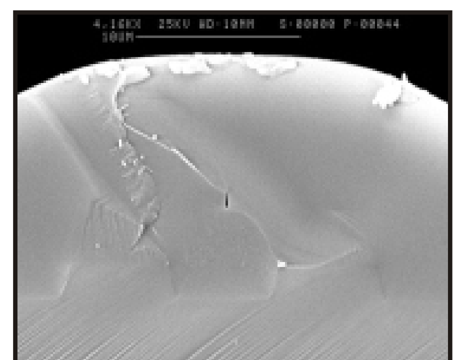
SEMs left hand side: before anneal
SEMs right hand side:
after (single step) anneal











Process Chemistry :
diluted SiH_4, B_2H_6, PH_3
Deposition Rate : 200 nm/min
Uniformity: < +/- 3 %