Electron-beam positive tone resist

gL2000

Ver.7 2015.02.19

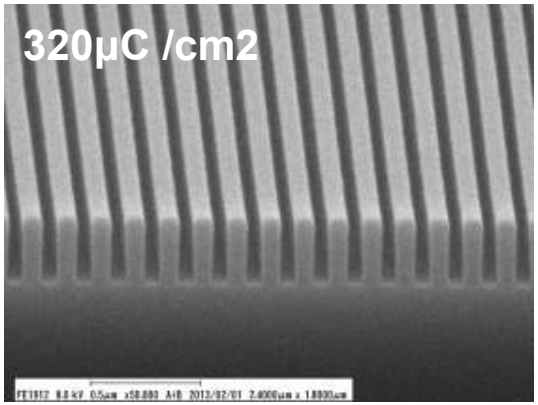
GluonLab.

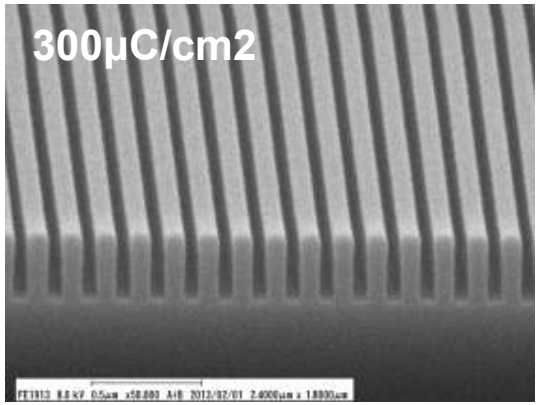
gL2000 now distributed by MICRO CHEM

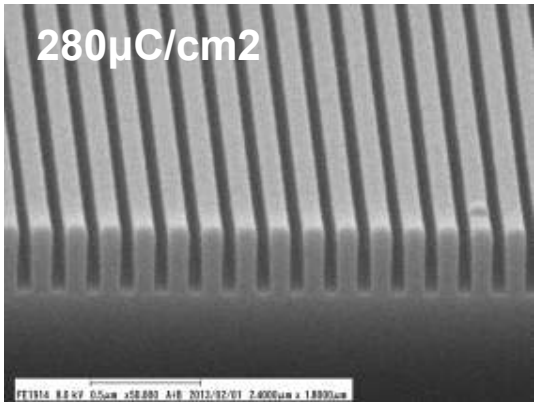
gL2000 Performance

- High speed, high resolution resist
- Tunable develop process
- High resolution developer available
- High dry etch resistance (Superior to PMMA)

Dose margin　Developer: gL Developer

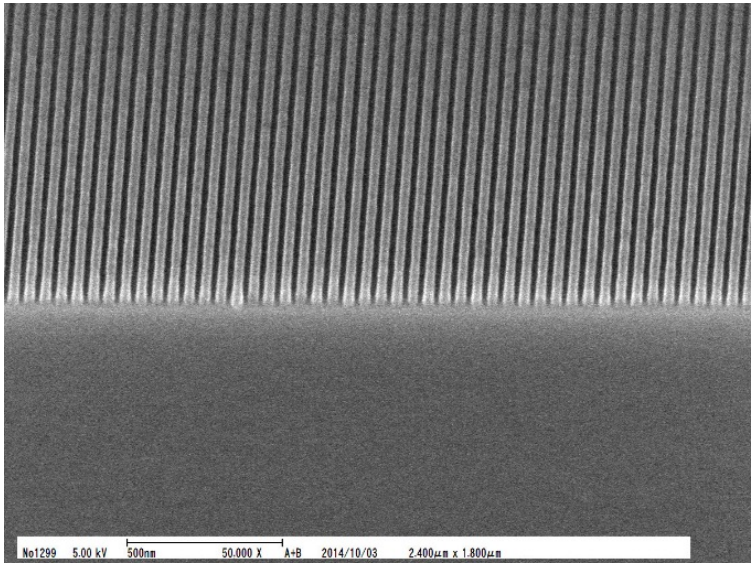




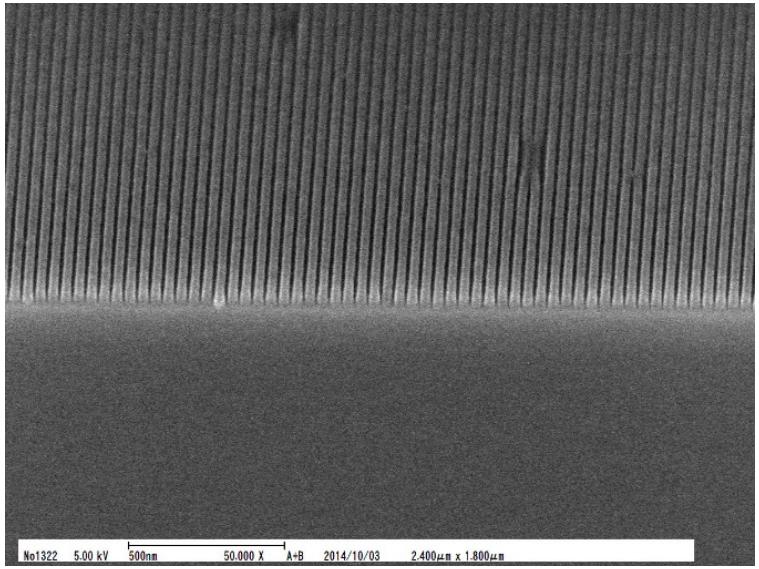


100kV 50pA
Pitch150nm/space50nm

gL2000 resolution



Pitch50nm/space16.25nm



Pitch40nm/space12.5nm

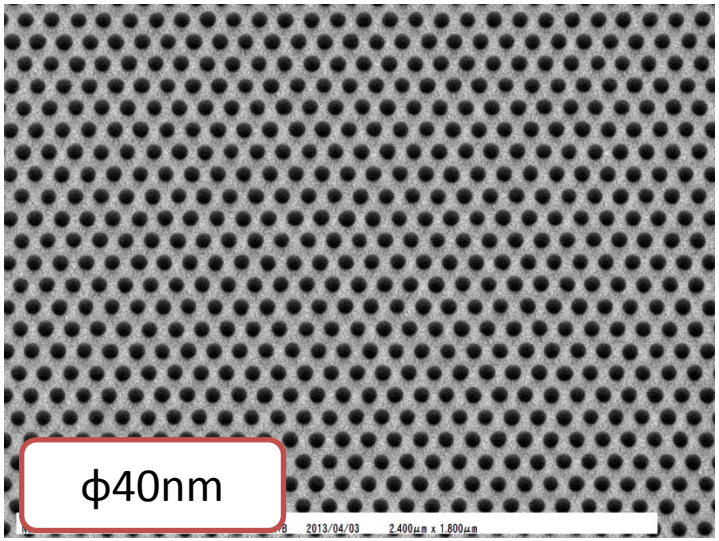
Film thickness :60nm　100kV　10pA
Developer　:gL Developer ＠RT×30sec.

Dot pattern & Donut pattern

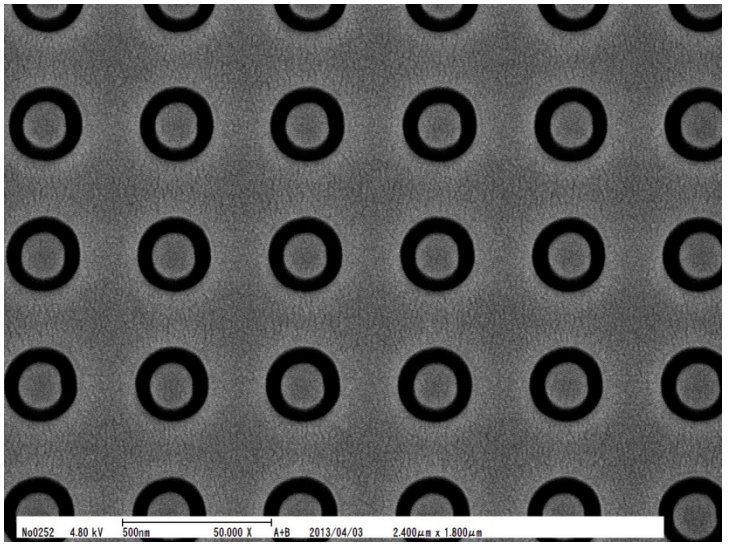
Film thickness :230nm 100kV 50pA

Developer :gL Developer @RT 120sec

Dot pattern



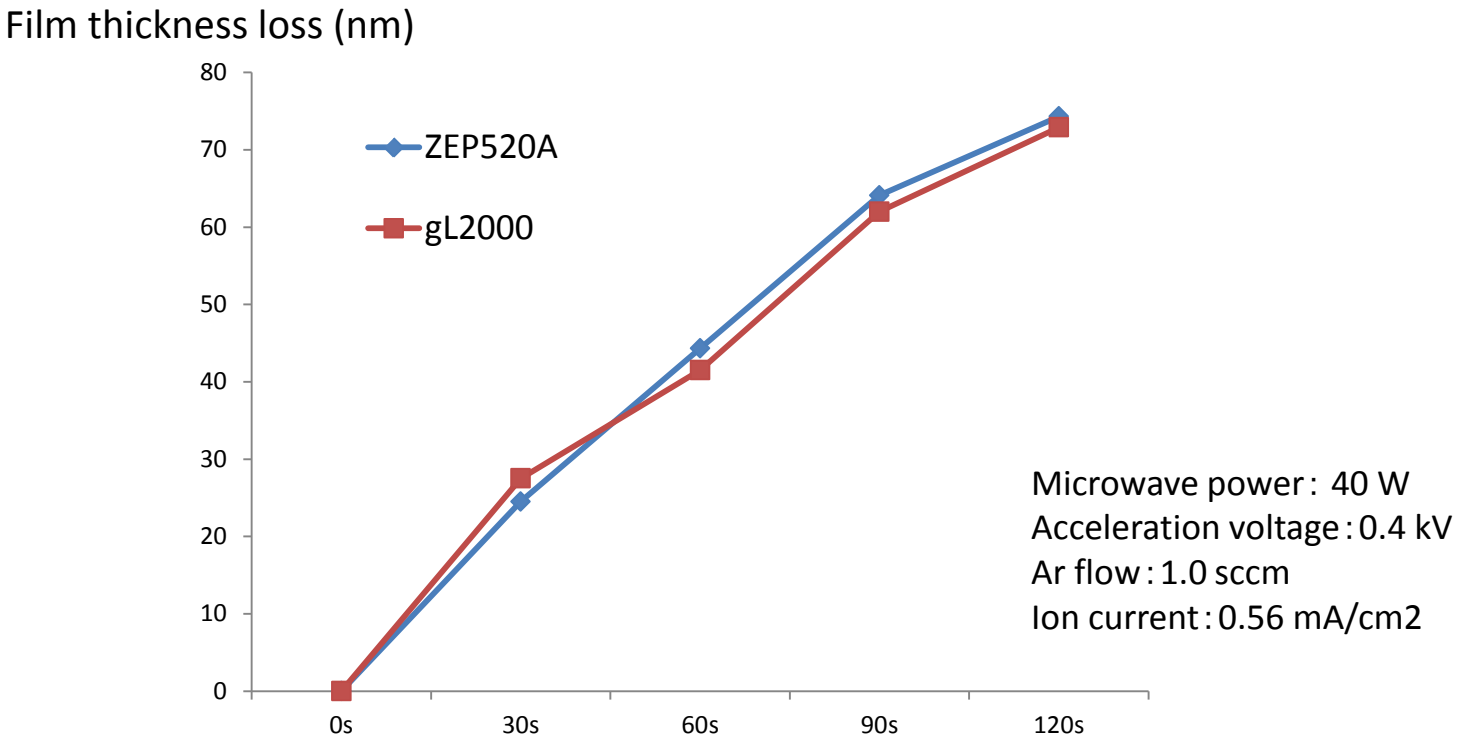
Donut pattern



Dry-etching resistance

- Compared to leading competitor

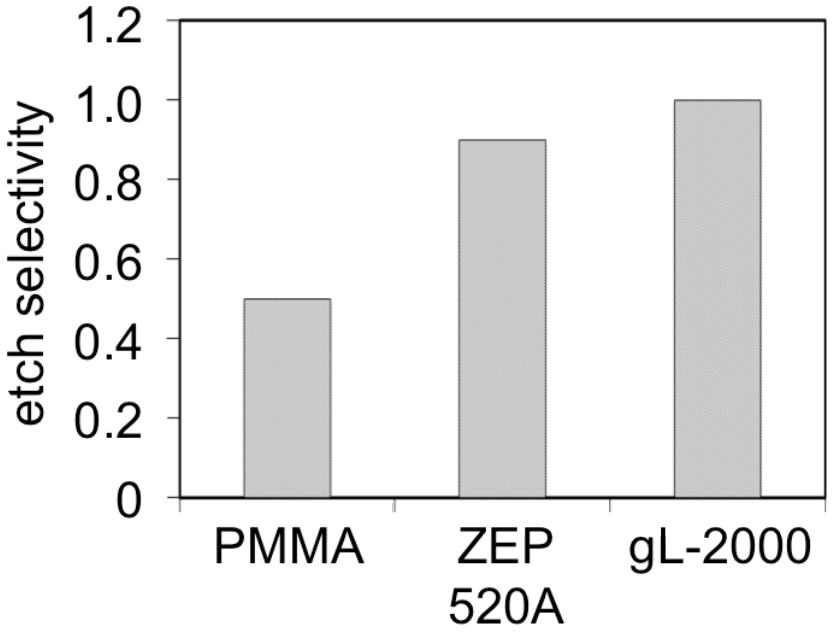
Ar (Argon)



Dry-etching resistance

- Compared to leading competitor and PMMA

CF_4 (Reactive-ion-etch process)



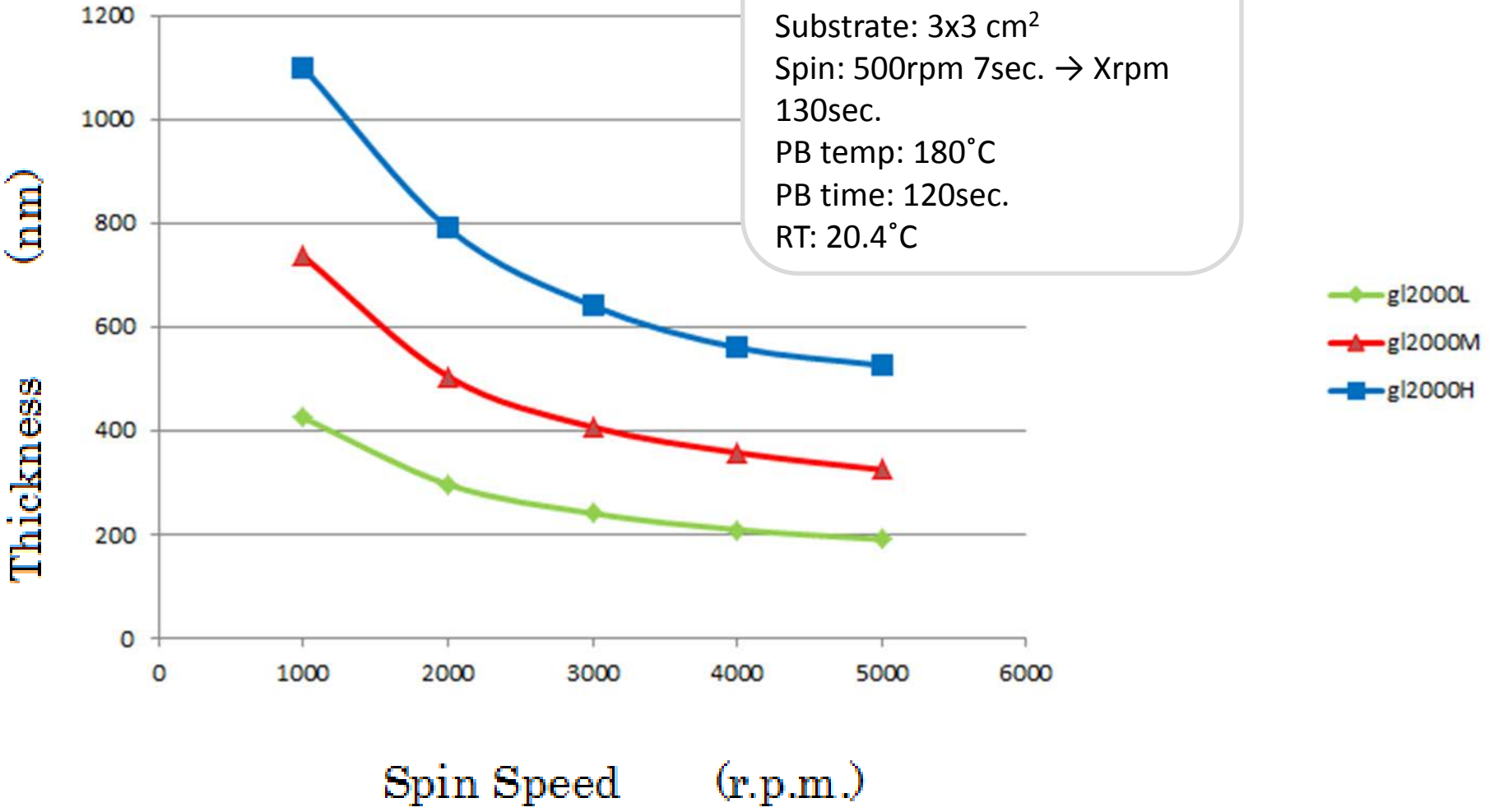
CF_4 flow : 15 sccm
Power : 75 W
Pressure: 10mTorr
Voltage: 110V DC
Time: 60 s

Etch Selectivity of PMMA, ZEP 250A and gL2000 vs. SiO_2. The difference in etch selectivity values for ZEP 250A and gL2000 is within the margin of error of the measurement.

*** Data courtesy of R. G. Hobbs, M. K. Mondol and K. K. Berggren, Research Laboratory of Electronics, Massachusetts Institute of Technology*

gL2000 Spin curve

Process conditions:
Substrate: 3x3 cm^2
Spin: 500rpm 7sec. → Xrpm 130sec.
PB temp: 180˚C
PB time: 120sec.
RT: 20.4˚C



gL2000 Line-up

Resist : gL2000-L, M, H

Package Sizes: ・100ml ・946ml (Quart)

Developer : gL Developer (Standard Developer)
: gL Developer HR (High Resolution Developer)
Rinse : gL Rinse
Remover : gL Remover

Available in 4 liter containers

MICRO CHEM

MicroChem Corp. now distributes the gL2000 resists and manufactures the associated ancillaries.