

Circle pattern

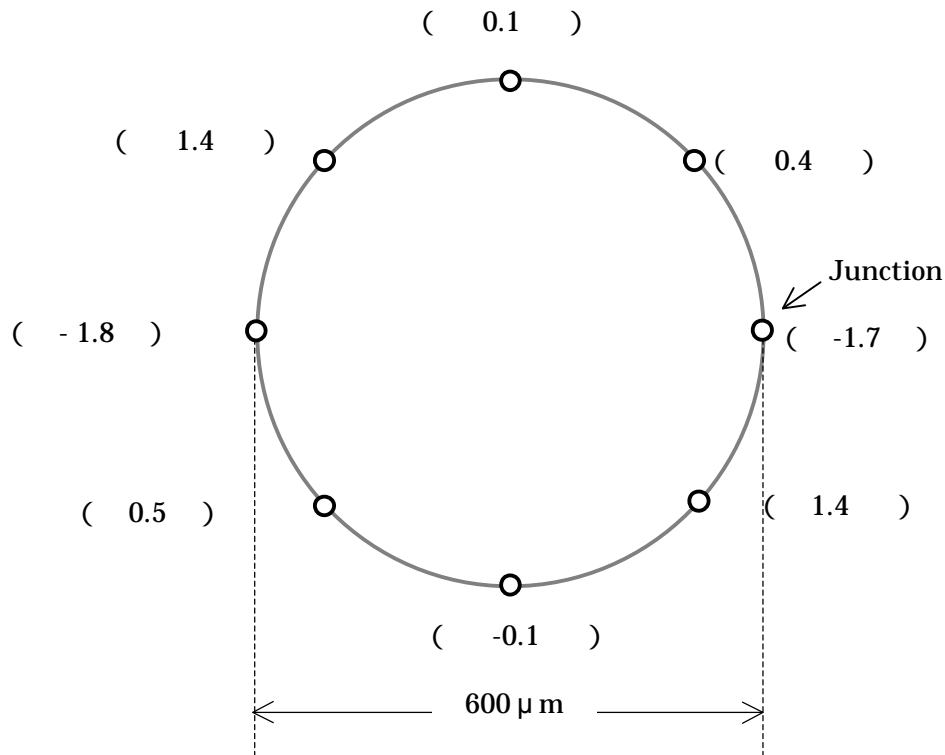
ACCEL. VOLT.	<u>50</u>	<u>kV</u>	EXT.VOLTAGE	<u>3.9</u>	<u>kV</u>
Emission CURR.	<u>68</u>	<u>uA</u>	CATHODE HEAT.	<u>2.31</u>	<u>A</u>
BEAM CURR.	<u>100</u>	<u>pA</u>	OL APERTURE	<u>0.30</u>	<u>mm</u>
FIELD SIZE	<u>0.6</u>	<u>mm</u>	Dot Map	<u>60000</u>	<u>dot</u>
DOSE TIME	<u>4.50</u>	<u>usec/dot</u>	RESIST NAME	<u>ZEP-520A</u>	
SUBSTRATE	<u>Si-wafer</u>		RESIST THICKNESS	<u>0.30</u>	<u>um</u>
Development temp	<u>room temp</u>		Development time	<u>360</u>	<u>sec</u>

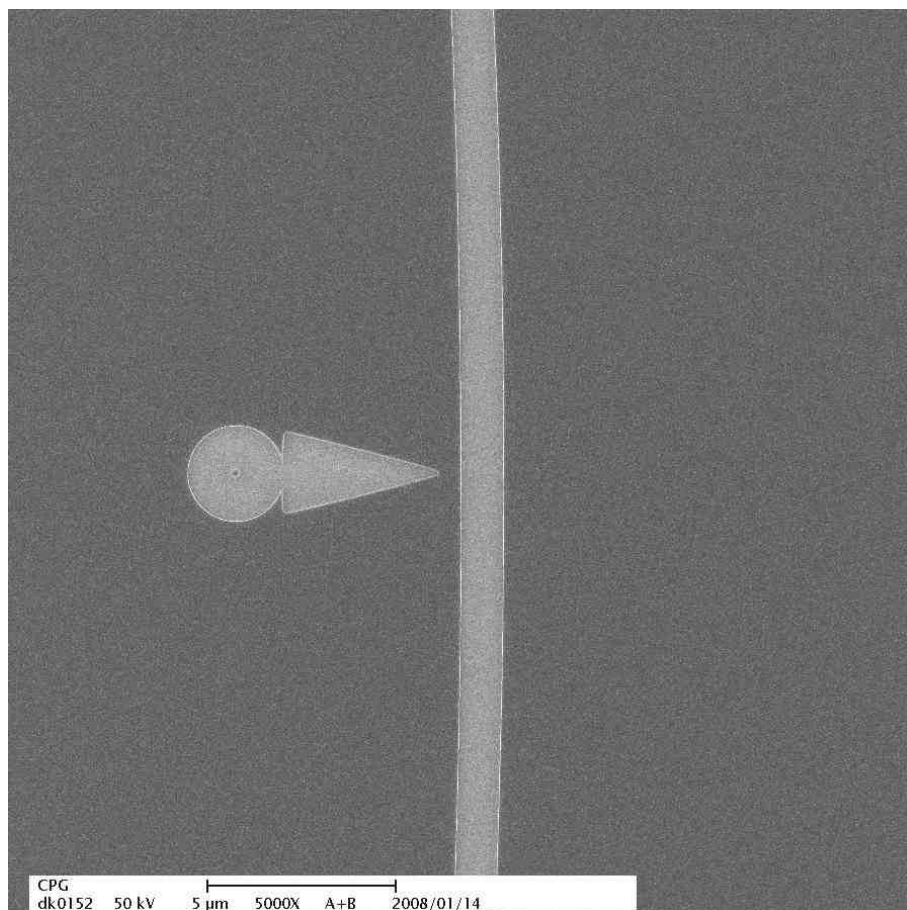
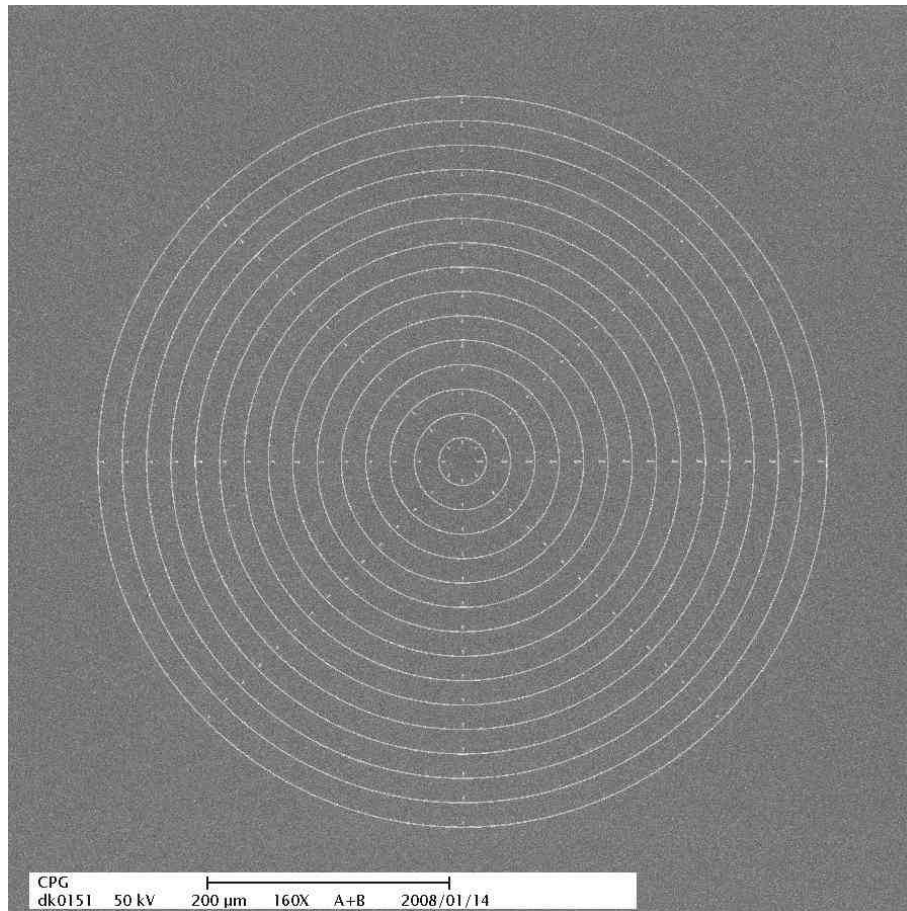
Measured :

	Standard	Measured
Fitting circle	600 um ± 2%	595.7um
Max. deviation	± 5um	1.4 um

The value in () are the deviation between the points on the circle pattern and the circle fitted by least squares method.

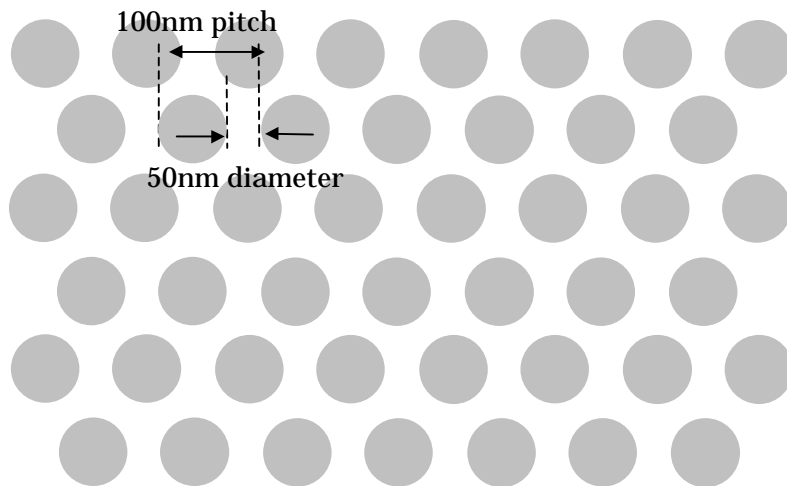
[unit : μm]

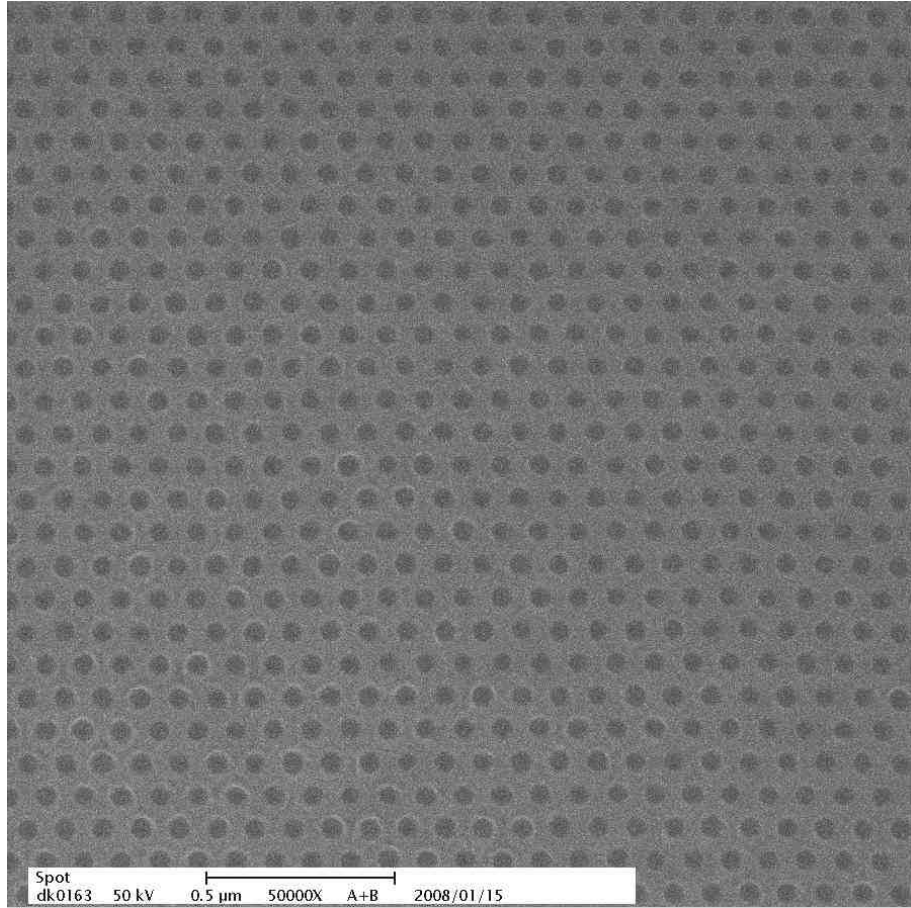




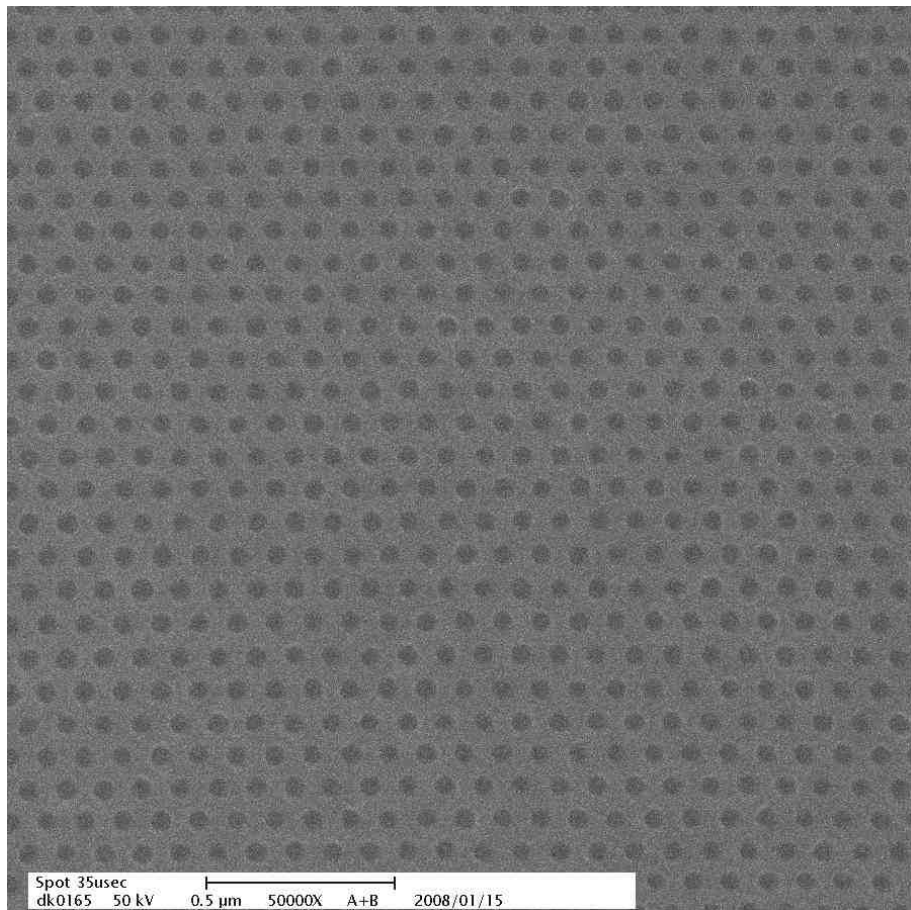
Spot Exposure

ACCEL. VOLT.	<u>50</u>	<u>kV</u>	EXT.VOLTAGE	<u>3.9</u>	<u>kV</u>
Emission CURR.	<u>68</u>	<u>uA</u>	CATHODE HEAT.	<u>2.31</u>	<u>A</u>
BEAM CURR.	<u>100</u>	<u>pA</u>	OL APERTURE	<u>0.30</u>	<u>mm</u>
FIELD SIZE	<u>0.075</u>	<u>mm</u>	Dot Map	<u>60000</u>	<u>dot</u>
DOSE TIME	<u>35.0</u>	<u>usec/dot</u>	RESIST NAME	<u>ZEP-520A</u>	
SUBSTRATE	<u>Si-wafer</u>		RESIST THICKNESS	<u>0.30</u>	<u>um</u>
Development temp	<u>room temp</u>		Development time	<u>360</u>	<u>sec</u>





100nm pitch/ 50nm hole(1)



100nm pitch/ 50nm hole(2)