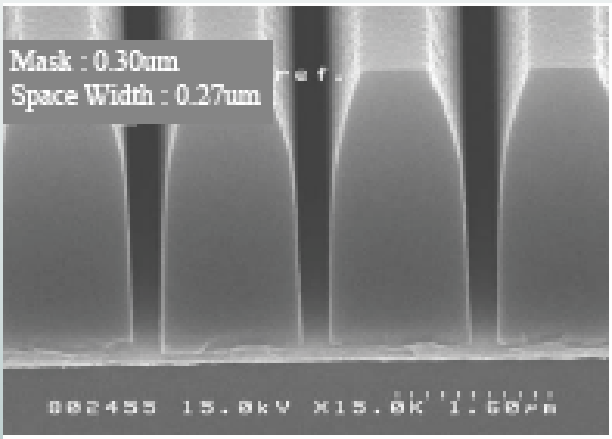
Shin-Etsu MicroSi

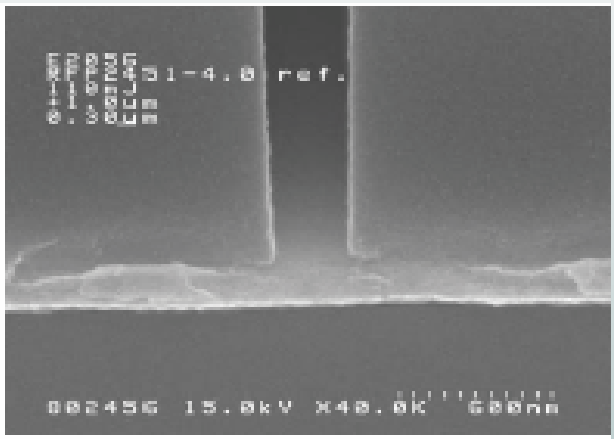
SEPR-I051

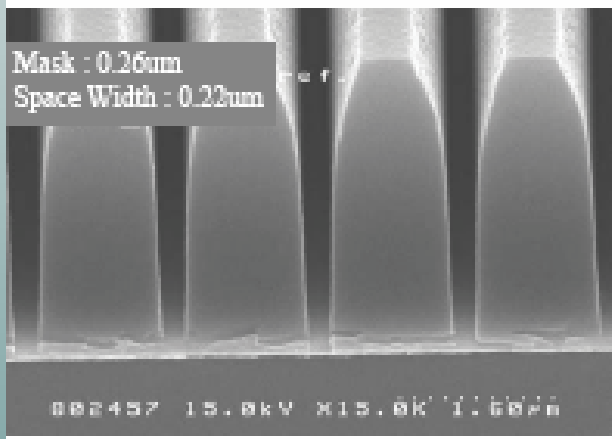
SEPR-I051
NiFe Sputtered Substrate

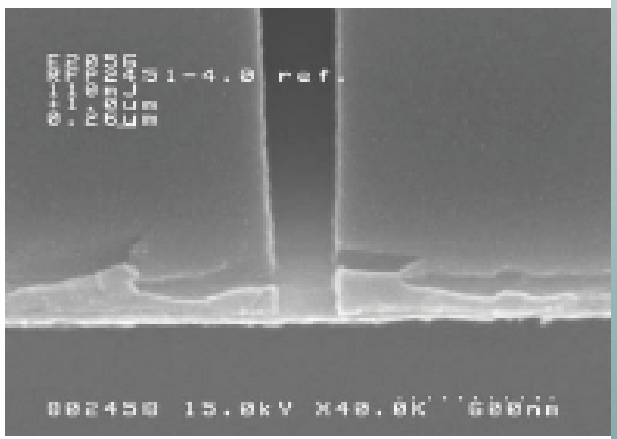
(FT:4.0 µm, Exp.:110mJ/cm^2, Focus:+1.0 µm) 1/2

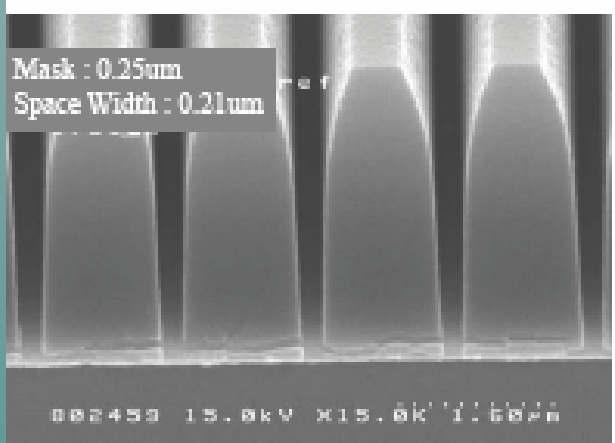
Film Thickness:4.0µm Prebake: 120°Cx240 sec
Exp.: 110mJ/cm2 (NSR-2005Ex8A , NA = 0.50, σ = 0.70)
Mask: 0.30. 0.26. 0.25µm (S/L =1/5) Focus: +1.0 µm PEB: 100°C x 120 sec
Dev.: 50 sec x 3 puddles (SSFD-238N)

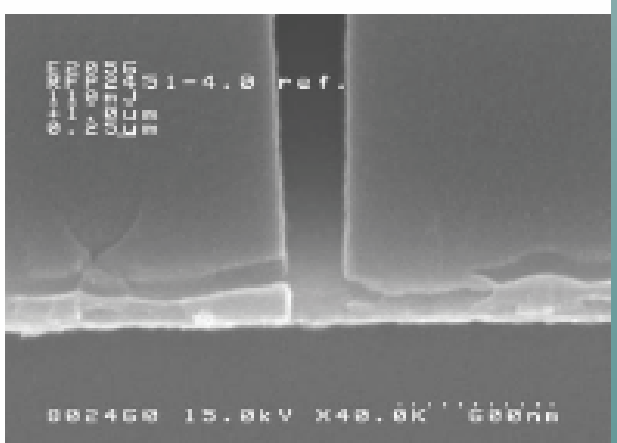








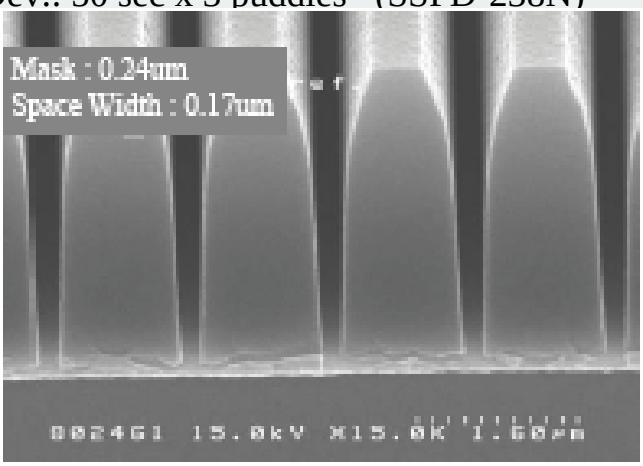


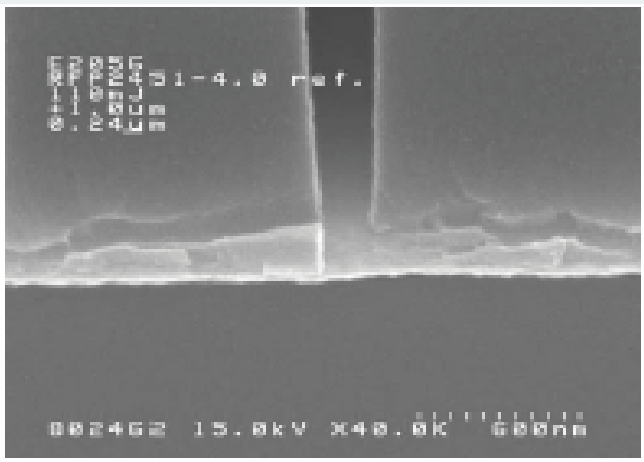


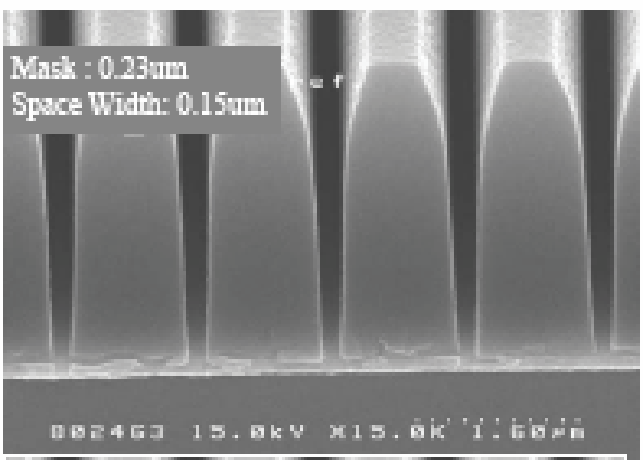
SEPR-I051
NiFe Sputtered Substrate

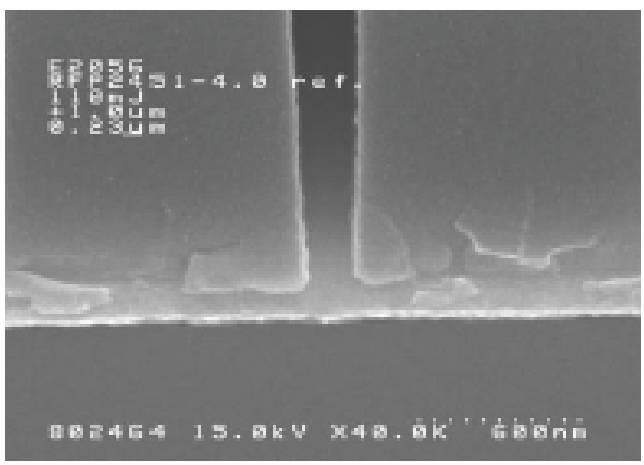
(FT:4.0 µm, Exp.:110mJ/cm^2, Focus:+1.0 µm) 2/2

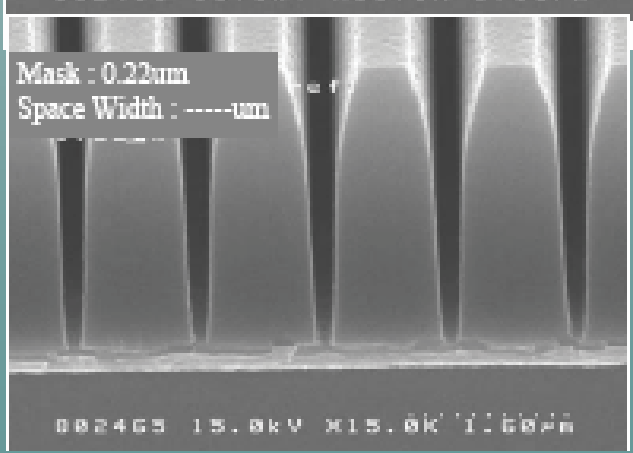
Film Thickness:4.0µm Prebake: 120°Cx240 sec
Exp.: 110mJ/cm2 (NSR-2005Ex8A , NA = 0.50, σ = 0.70)
Mask: 0.24 . 0.23. 0.22µm (S/L =1/5) Focus: +1.0 µm PEB: 100°C x 120 sec
Dev.: 50 sec x 3 puddles (SSFD-238N)







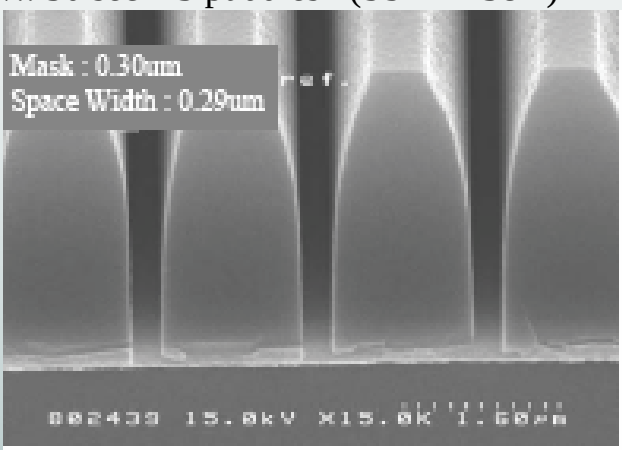


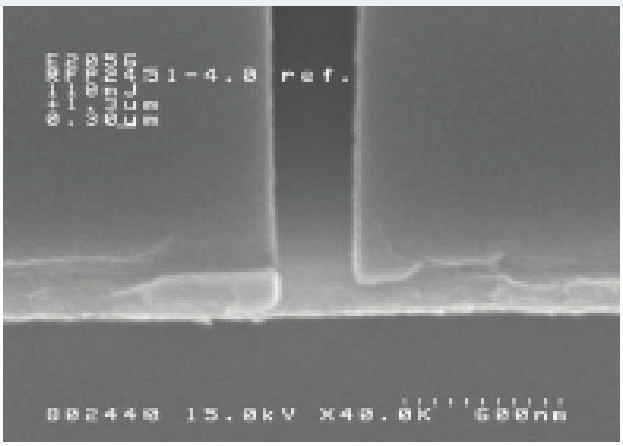


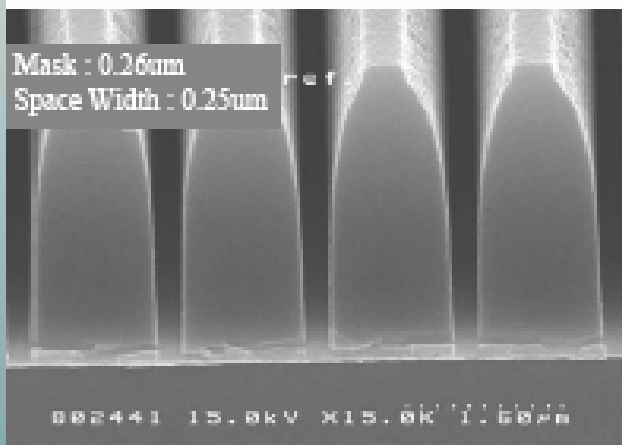
SEPR-I051
NiFe Sputtered Substrate

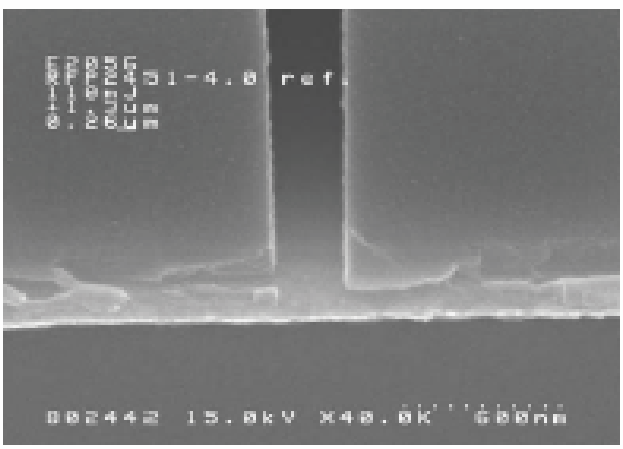
(FT:4.0 µm, Exp.:110mJ/cm^2, Focus:+1.3 µm) 1/3

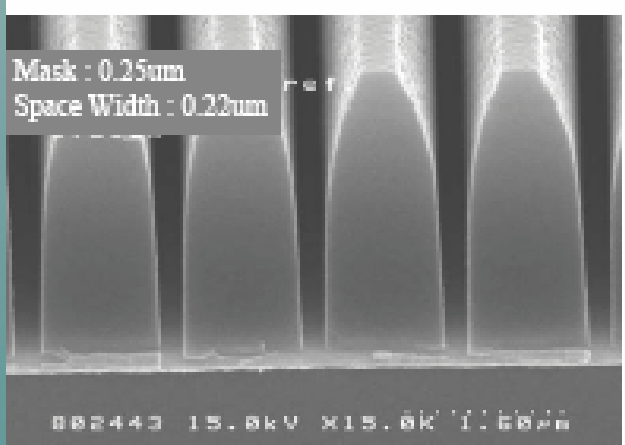
Film Thickness:4.0µm Prebake: 120°Cx240 sec
Exp.: 110mJ/cm2 (NSR-2005Ex8A , NA = 0.50, σ = 0.70)
Mask: 0.30 . 0.26. 0.25µm (S/L =1/5) Focus: +1.3 µm PEB: 100°C x 120 sec
Dev.: 50 sec x 3 puddles (SSFD-238N)

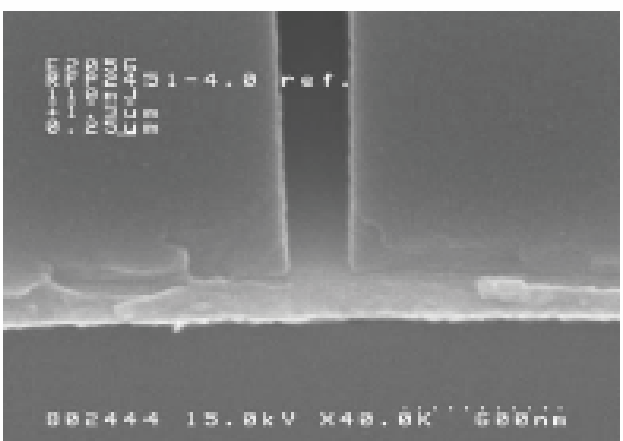








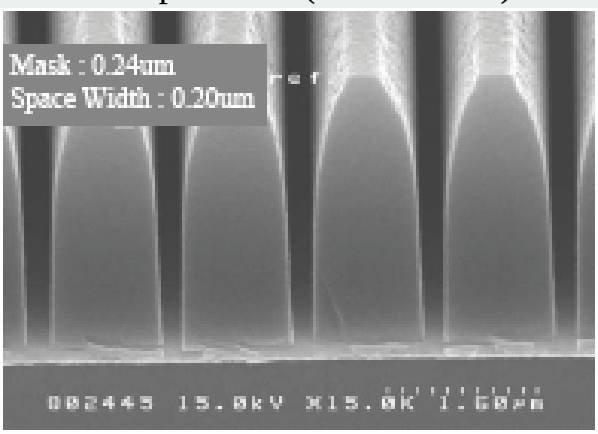


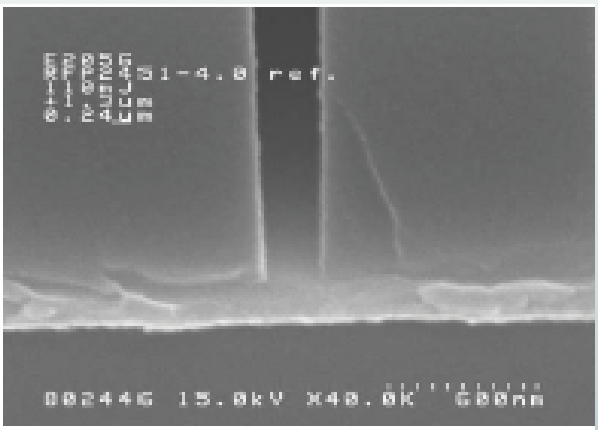


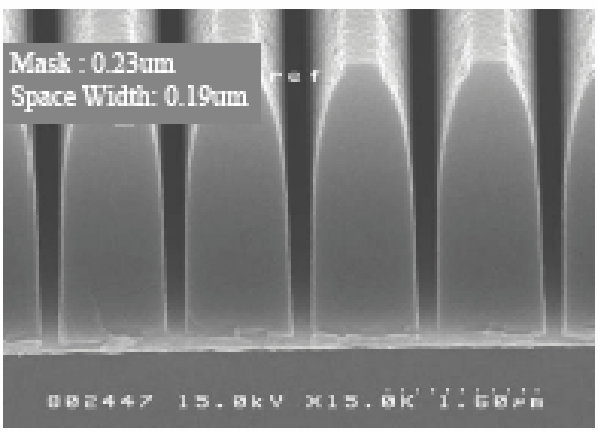
SEPR-I051
NiFe Sputtered Substrate

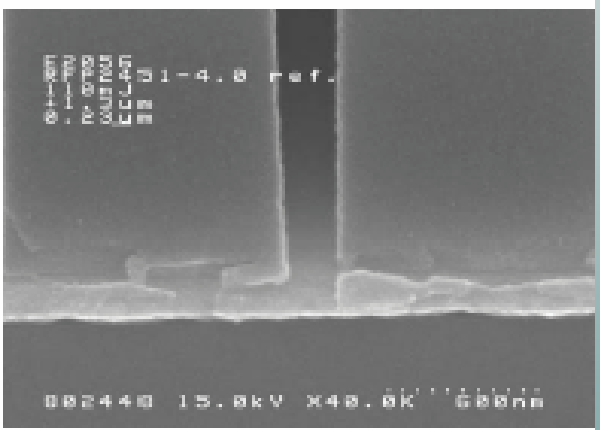
(FT:4.0 µm, Exp.:110mJ/cm^2, Focus:+1.3 µm) 2/3

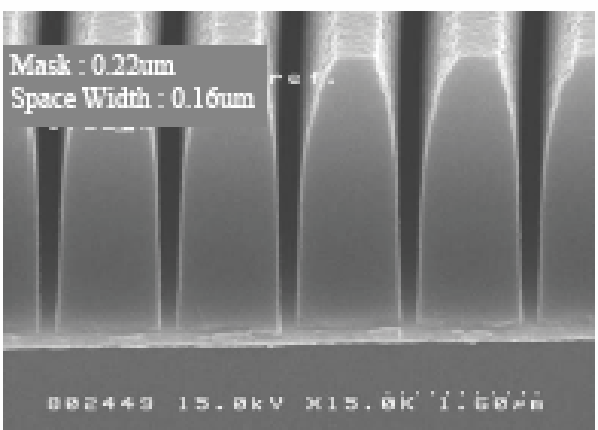
Film Thickness:4.0µm Prebake: 120°Cx240 sec
Exp.: 110mJ/cm2 (NSR-2005Ex8A , NA = 0.50, σ = 0.70)
Mask: 0.24 . 0.23. 0.22µm (S/L =1/5) Focus: +1.3 µm PEB: 100°C x 120 sec
Dev.: 50 sec x 3 puddles (SSFD-238N)

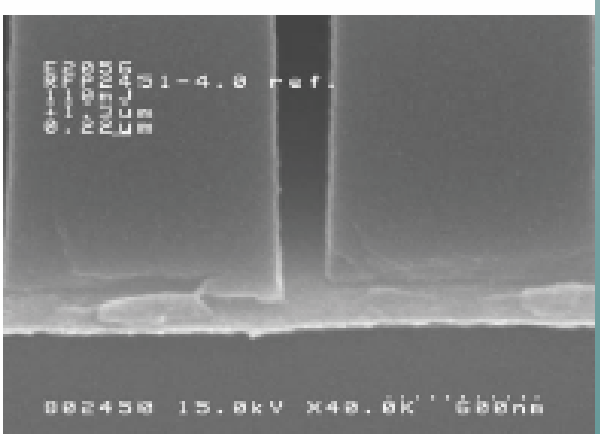








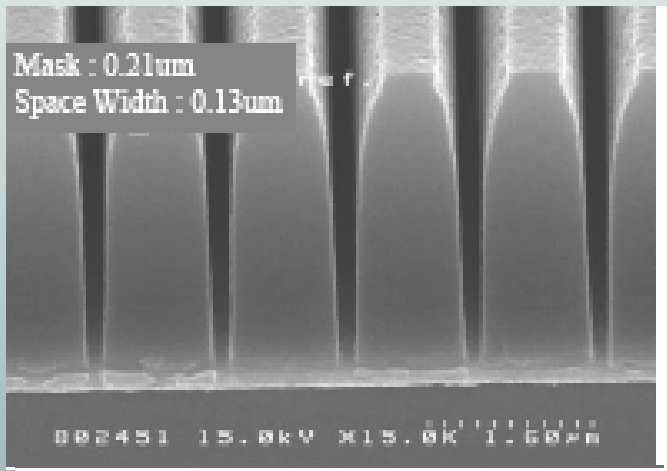


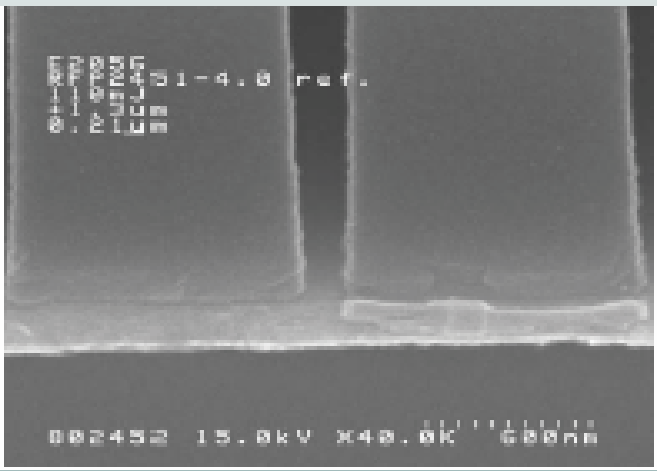


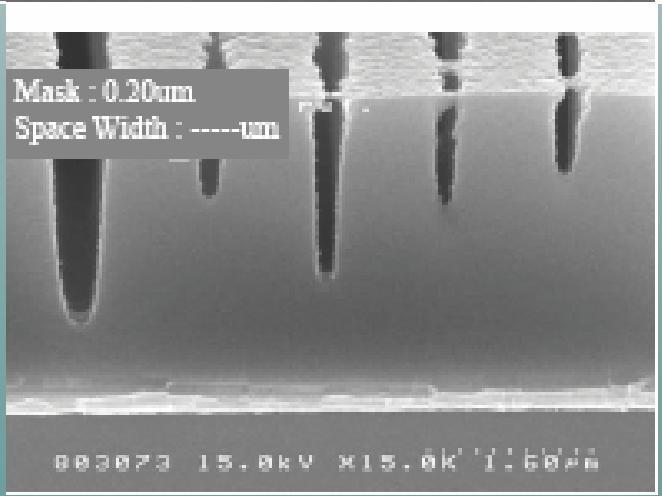
SEPR-I051
NiFe Sputtered Substrate

(FT:4.0 µm, Exp.:110mJ/cm^2, Focus:+1.3 µm) 3/3

Film Thickness:4.0µm Prebake: 120°Cx240 sec
Exp.: 110mJ/cm2 (NSR-2005Ex8A , NA = 0.50, σ = 0.70)
Mask: 0.21 . 0.20. 0.19µm (S/L =1/5) Focus: +1.3 µm PEB: 100°C x 120 sec
Dev.: 50 sec x 3 puddles (SSFD-238N)





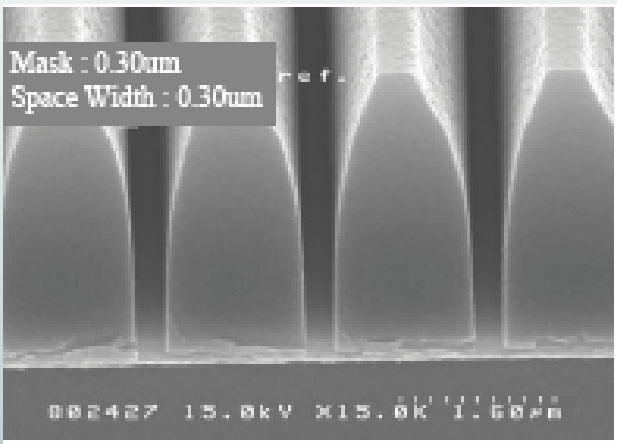


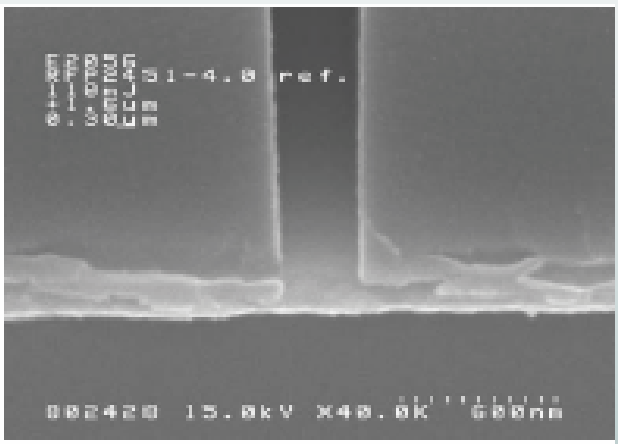
Mask : 0.19um
Space Width : -----um

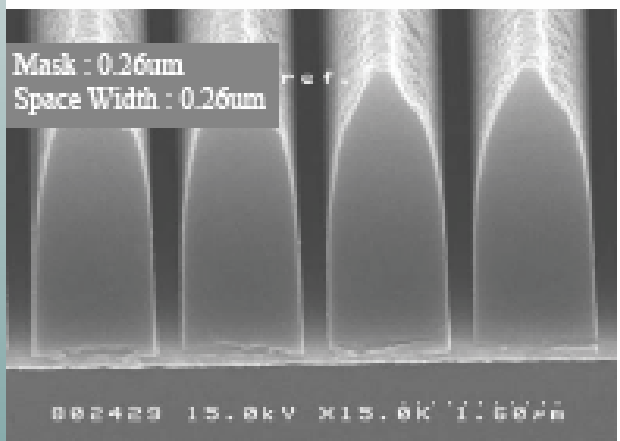
SEPR-I051
NiFe Sputtered Substrate

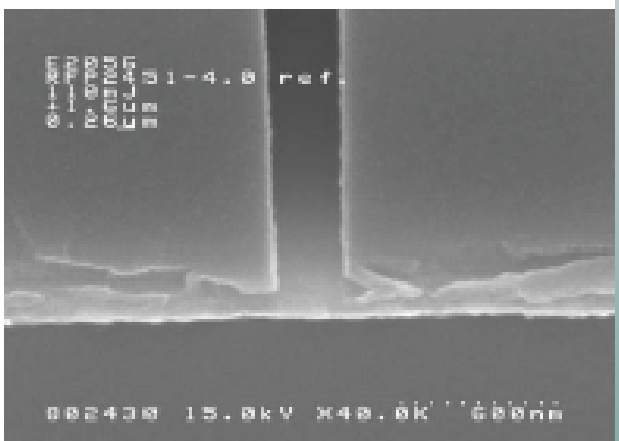
(FT:4.0 µm, Exp.:110mJ/cm^2, Focus:+1.6 µm) 1/2

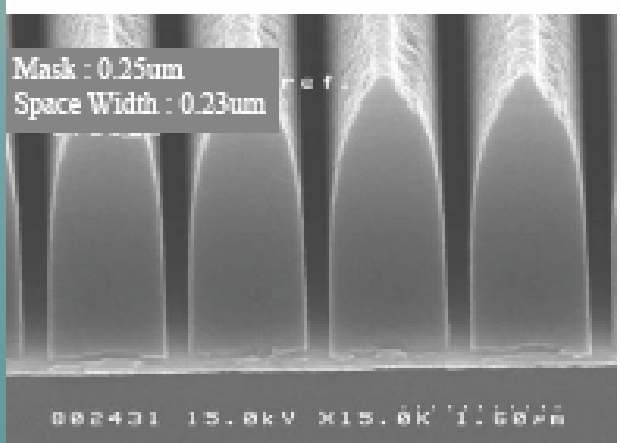
Film Thickness:4.0µm Prebake: 120°Cx240 sec
Exp.: 110mJ/cm2 (NSR-2005Ex8A , NA = 0.50, σ = 0.70)
Mask: 0.30 . 0.26. 0.25µm (S/L =1/5) Focus: +1.6 µm PEB: 100°C x 120 sec
Dev.: 50 sec x 3 puddles (SSFD-238N)

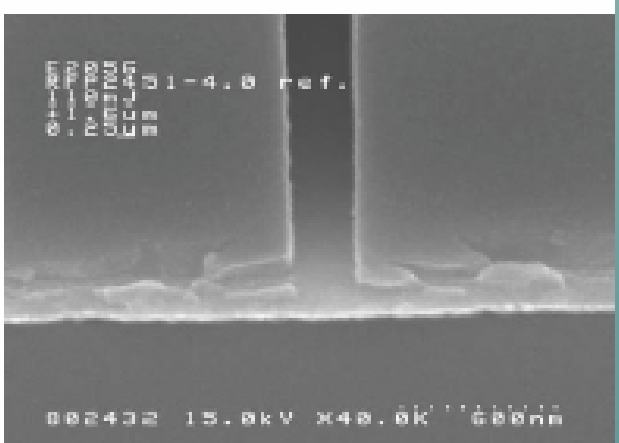








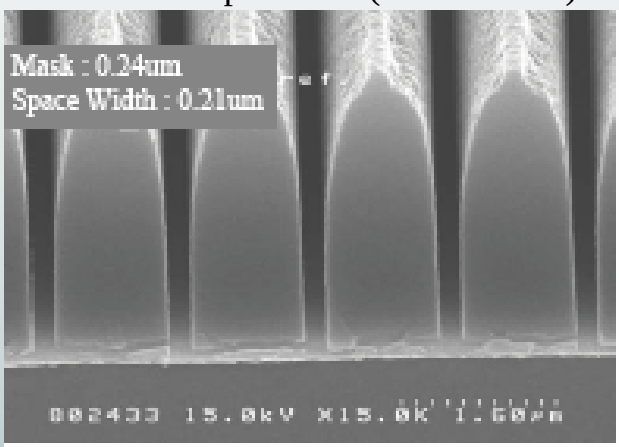


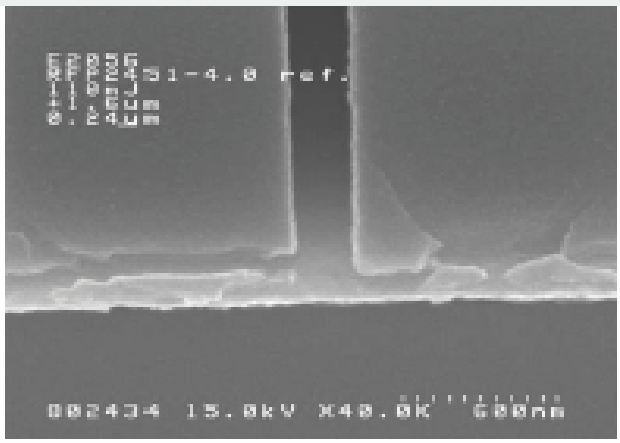


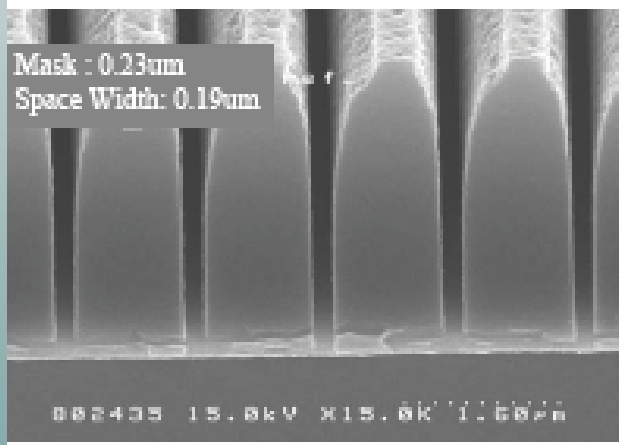
SEPR-I051
NiFe Sputtered Substrate

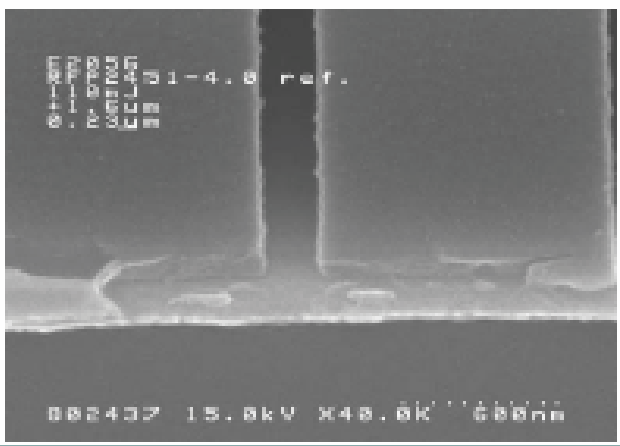
(FT:4.0 µm, Exp.:110mJ/cm^2, Focus:+1.6 µm) 2/2

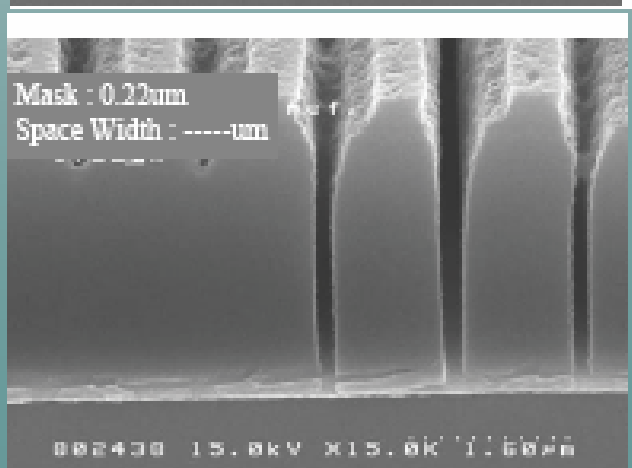
Film Thickness:4.0µm Prebake: 120°Cx240 sec
Exp.: 110mJ/cm2 (NSR-2005Ex8A , NA = 0.50, σ = 0.70)
Mask: 0.24 . 0.23. 0.22µm (S/L =1/5) Focus: +1.6 µm PEB: 100°C x 120 sec
Dev.: 50 sec x 3 puddles (SSFD-238N)





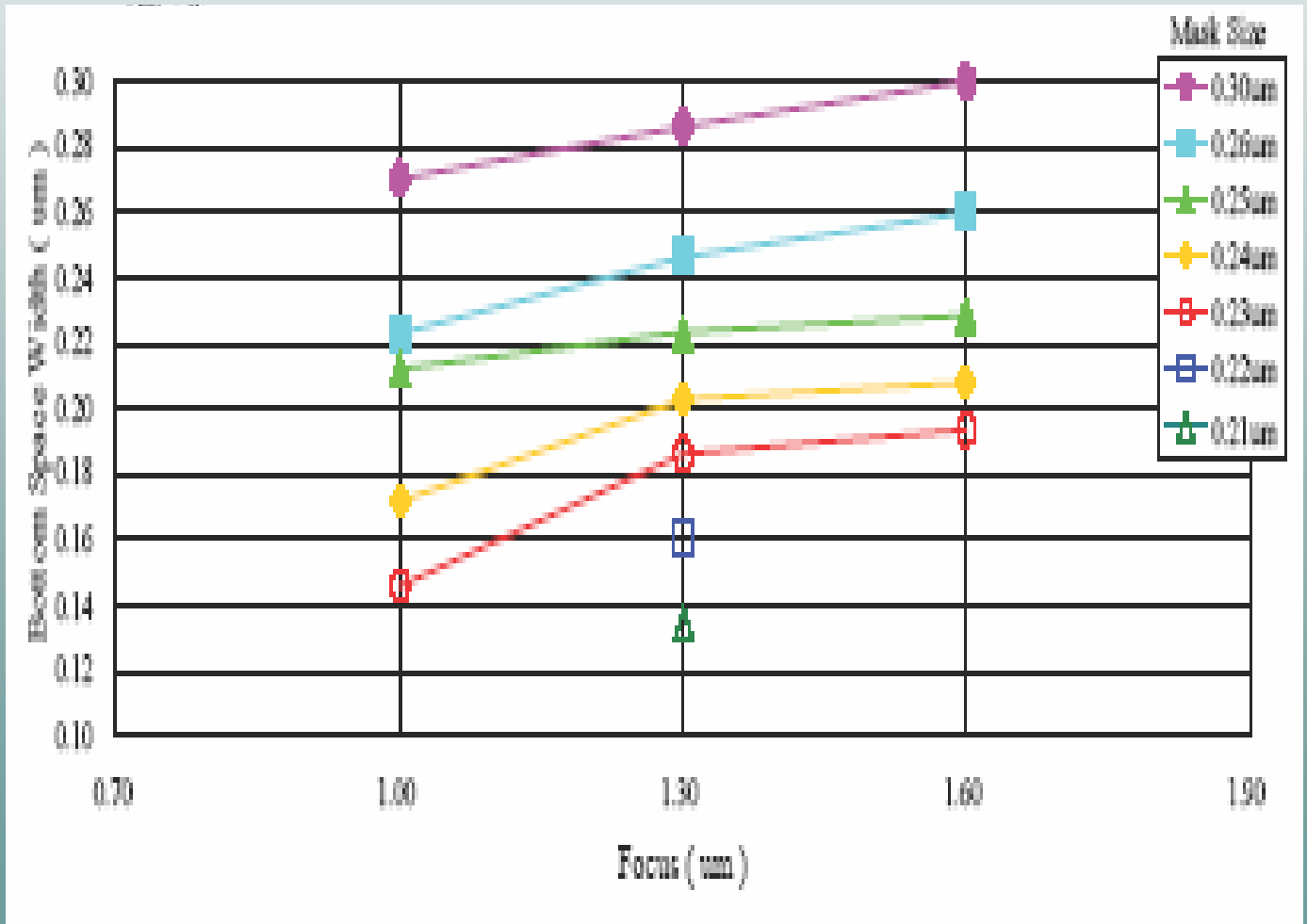






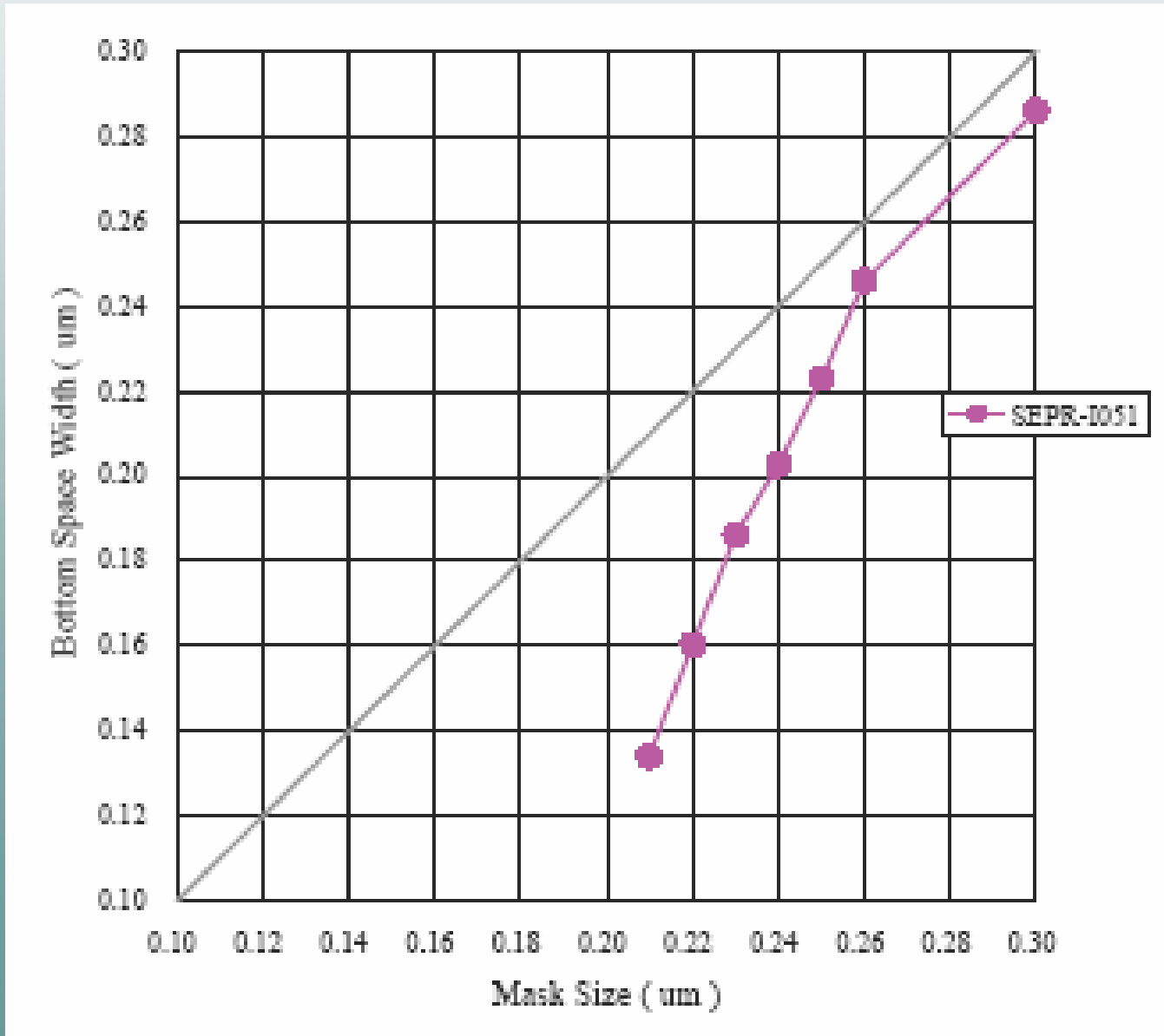
SEPR-I051-4.0 DOF NiFe Sputtered Substrate

Film Thickness:4.0µm Prebake: 120°Cx240 sec
Exp.: 110mJ/cm2 (NSR-2005Ex8A , NA = 0.50, σ = 0.70)
Mask: 0.30 ~ 0.21µm (S/L =1/5) Focus: +1.0 ~ +1.6 µm
PEB: 100°C x 120 sec
Dev.: 50 sec x 3 puddles (SSFD-238N [TMAH = 2.38%])



SEPR-I051-4.0 Linearity NiFe Sputtered Substrate

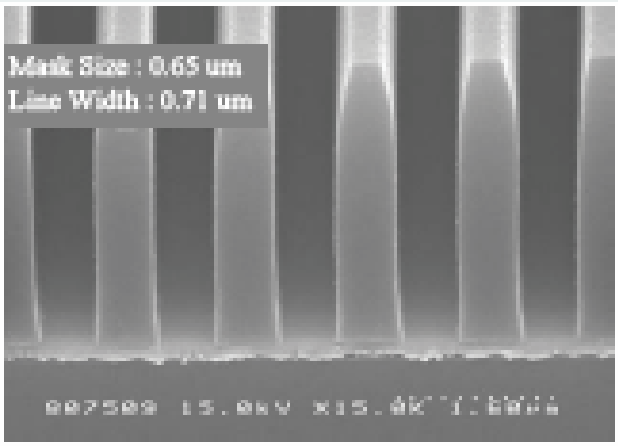
Film Thickness:4.0µm Prebake: 120°Cx240 sec
Exp.: 110mJ/cm2 (NSR-2005Ex8A , NA = 0.50, σ = 0.70)
Mask: 0.30 ~ 0.21µm (S/L =1/5) Focus: +1.3µm
PEB: 100°C x 120 sec
Dev.: 50 sec x 3 puddles (SSFD-238N [TMAH = 2.38%])

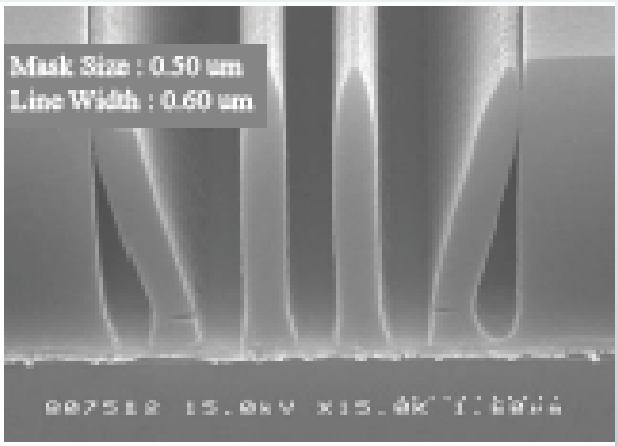


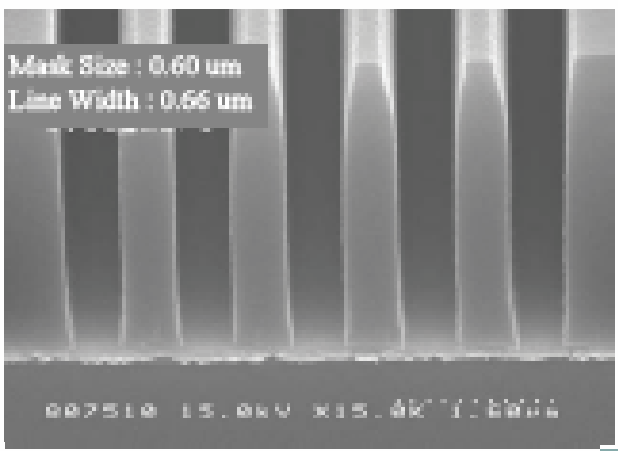
SEPR-I051-4.0 Cu Sputtered Substrate

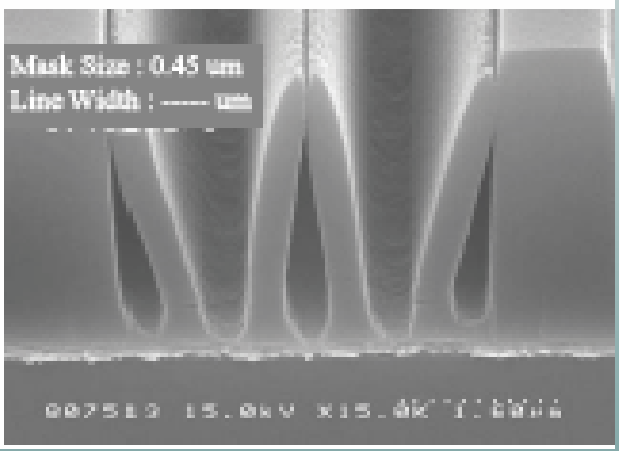
(FT:4.0 µm, Exp.:75mJ/cm^2, Focus: ± 0.0 µm)

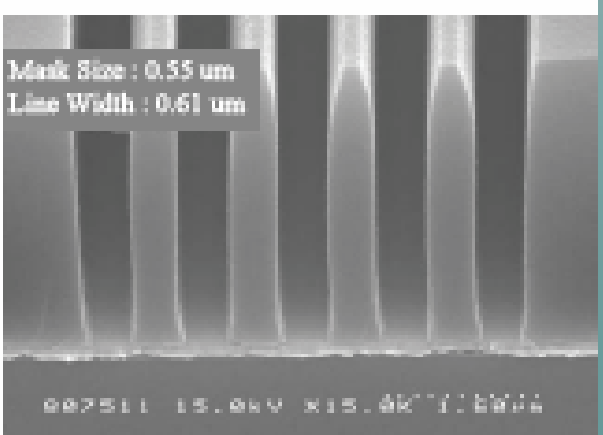
Film Thickness:4.0µm Prebake: 120°Cx240 sec
Exp.: 75mJ/cm2 (NSR-2005Ex8A , NA = 0.50, σ = 0.70)
Mask: 0.65 . 0.60. 0.55. 0.50 . 0.45 . 0.40 µm (S/L =1/1) Focus: ±0.0 µm
PEB: 100°C x 120 sec Dev.: 50 sec x 3 puddles (SSFD-238N)







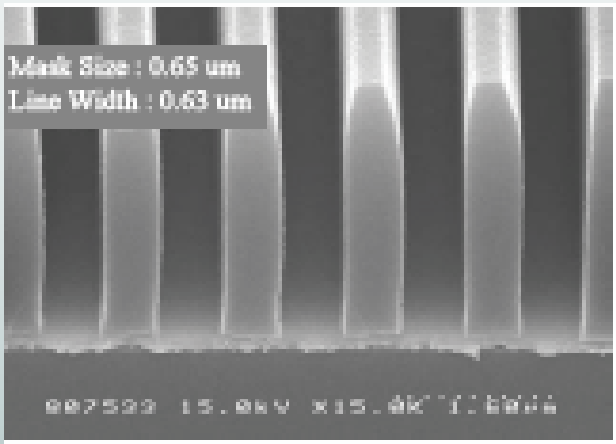


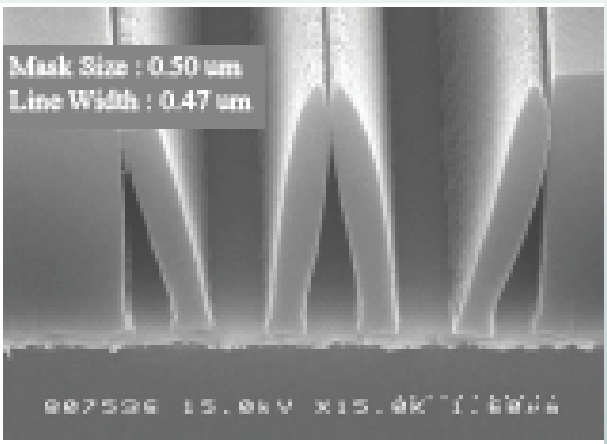


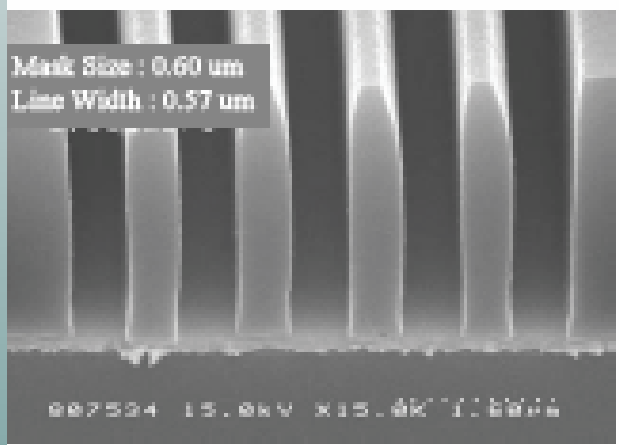
SEPR-I051
Cu Sputtered Substrate

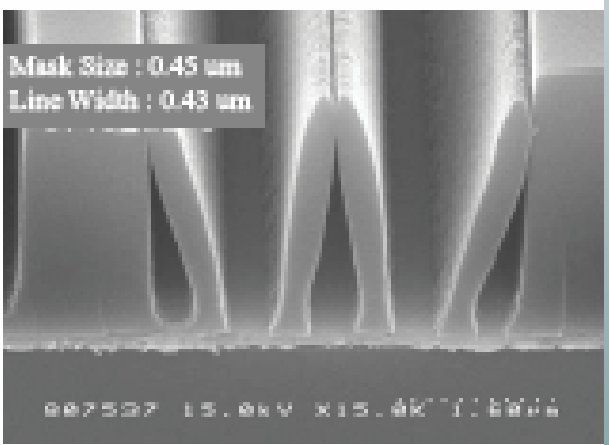
(FT:4.0 µm, Exp.:80mJ/cm^2, Focus: ± 0.0 µm)

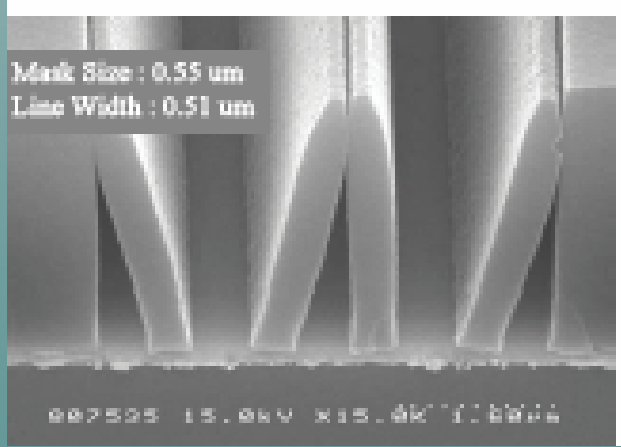
Film Thickness:4.0µm Prebake: 120°Cx240 sec
Exp.: 80mJ/cm2 (NSR-2005Ex8A , NA = 0.50, σ = 0.70)
Mask: 0.65 . 0.60. 0.55. 0.50 . 0.45 . 0.40 µm (S/L =1/1) Focus: ±0.0 µm
PEB: 100°C x 120 sec Dev.: 50 sec x 3 puddles (SSFD-238N)

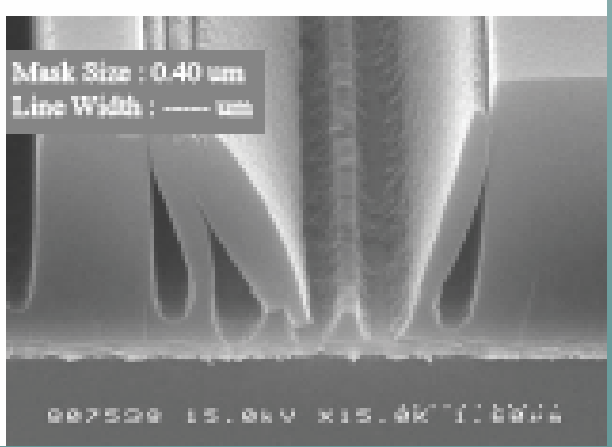






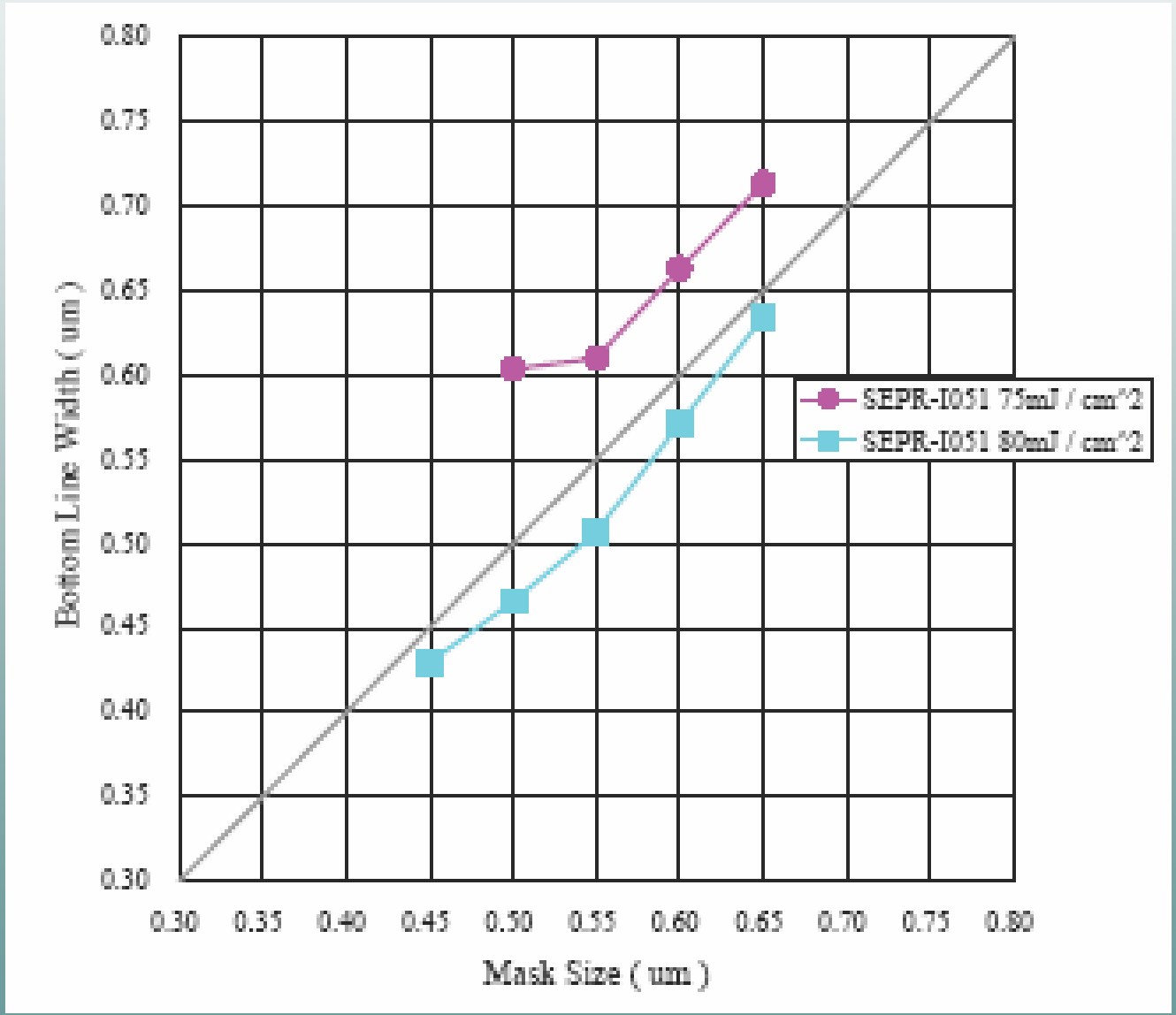






SEPR-I051 Linearity
Cu Sputtered Substrate

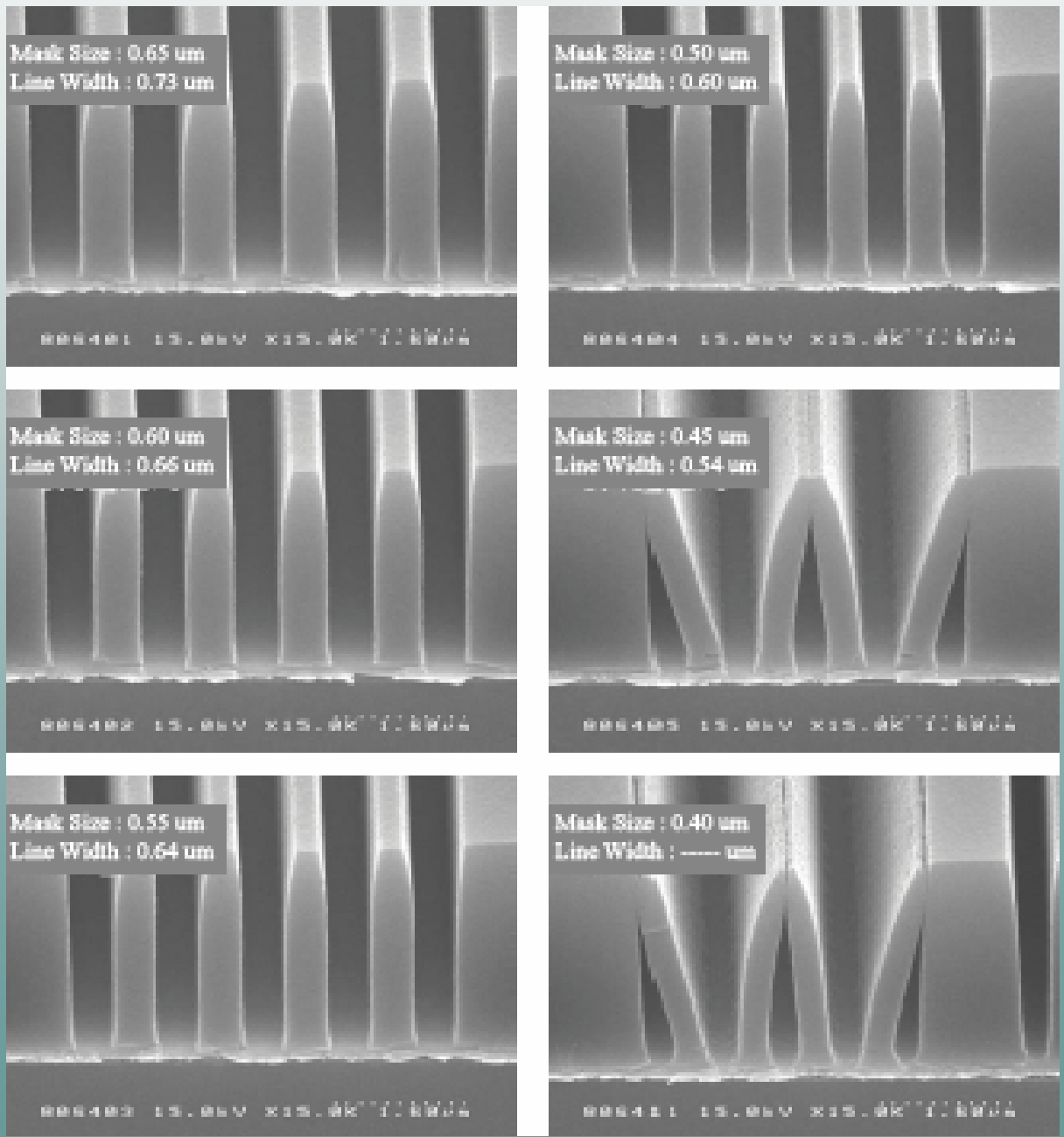
Film Thickness:4.0µm Prebake: 120°Cx240 sec
Exp.: 75 , 80 mJ/cm2 (NSR-2005Ex8A , NA = 0.50, σ = 0.70)
Mask: 0.65 ~ 0.45 µm (S/L =1/1) Focus: ±0.0 µm PEB: 100°C x 120 sec
Dev.: 50 sec x 3 puddles (SSFD-238N[TMAH = 2.38%])



SEPR-I051
Cu Sputtered Substrate (SIPR-PRIC Coated)

(FT: 3.5 µm, Exp.:65mJ/cm^2,
Focus: ± 0.0 µm)

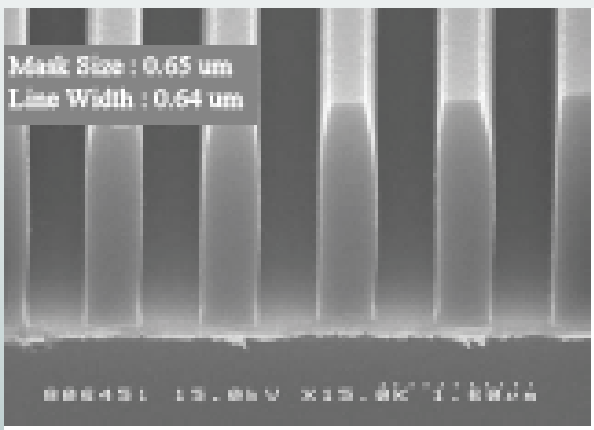
Film Thickness:3.5µm Prebake: 120°Cx240 sec
Exp.: 65mJ/cm2 (NSR-2005Ex8A , NA = 0.50, σ = 0.70)
Mask: 0.65 . 0.60. 0.55. 0.50 . 0.45 . 0.40 µm (S/L =1/1) Focus: ±0.0 µm
PEB: 100°C x 120 sec Dev.: 50 sec x 3 puddles (SSFD-238N)

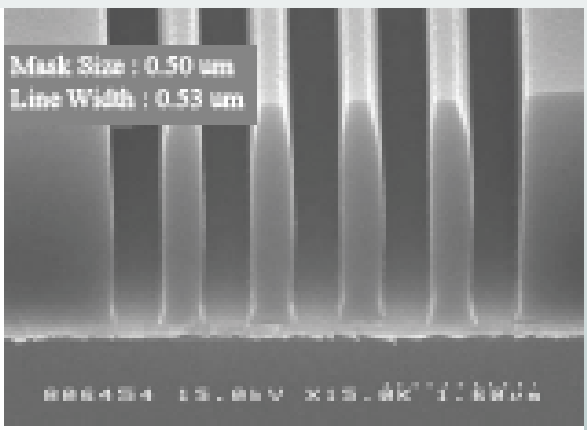


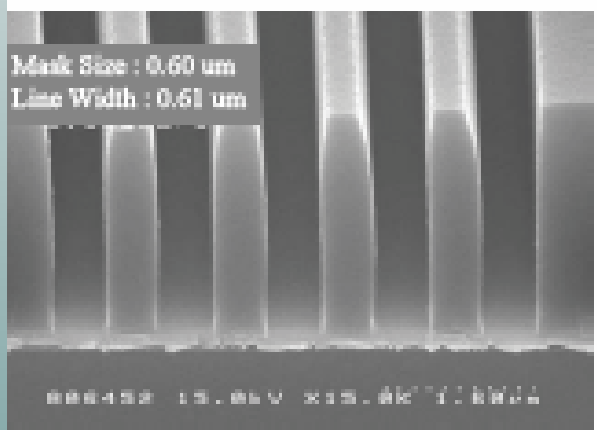
SEPR-I051
Cu Sputtered Substrate (SIPR-PRIC Coated)

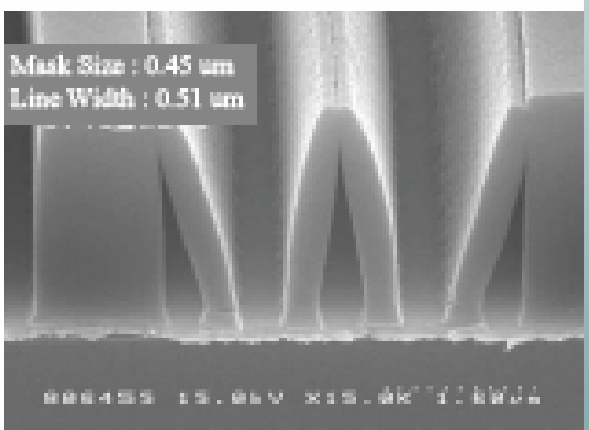
(FT: 3.5 µm, Exp.:70mJ/cm^2, Focus: ± 0.0 µm)

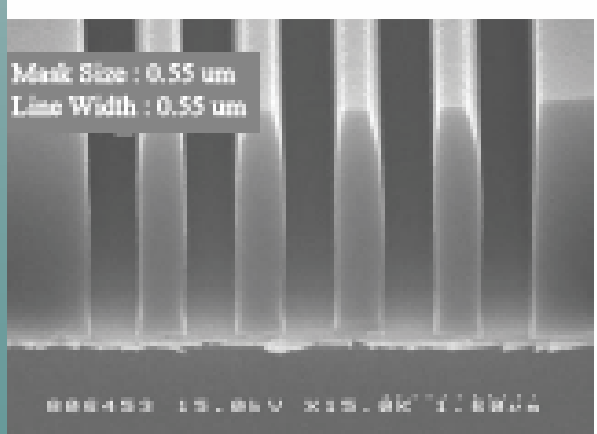
Film Thickness:3.5µm Prebake: 120°Cx240 sec
Exp.: 70mJ/cm2 (NSR-2005Ex8A , NA = 0.50, σ = 0.70)
Mask: 0.65 . 0.60. 0.55. 0.50 . 0.45 . 0.40 µm (S/L =1/1) Focus: ±0.0 µm
PEB: 100°C x 120 sec Dev.: 50 sec x 3 puddles (SSFD-238N)

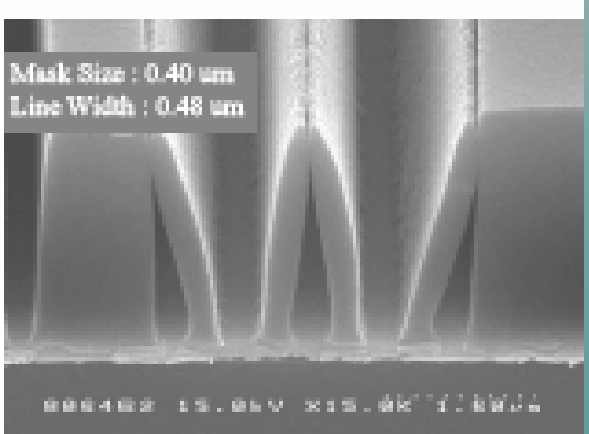












SEPR-I051 Linearity
Cu Sputtered Substrate
(SIPR-PR1C Coated)

Film Thickness:3.5µm Prebake: 120°Cx240 sec
Exp.: 65 , 70 mJ/cm2 (NSR-2005Ex8A , NA = 0.50, σ = 0.70)
Mask: 0.65 ~ 0.40 µm (S/L =1/1) Focus: ±0.0 µm PEB: 100°C x 120 sec
Dev.: 50 sec x 3 puddles (SSFD-238N[TMAH = 2.38%])