

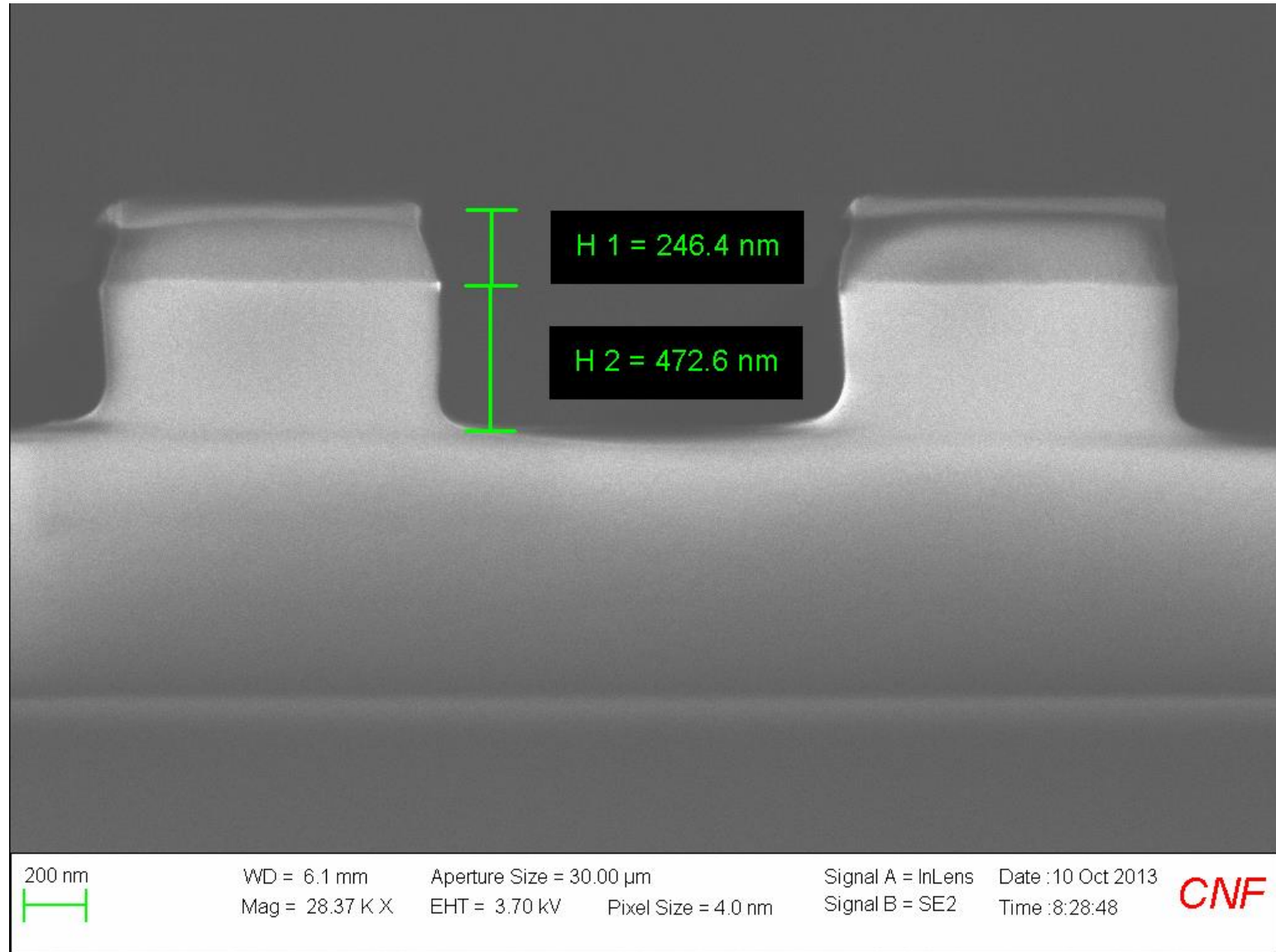
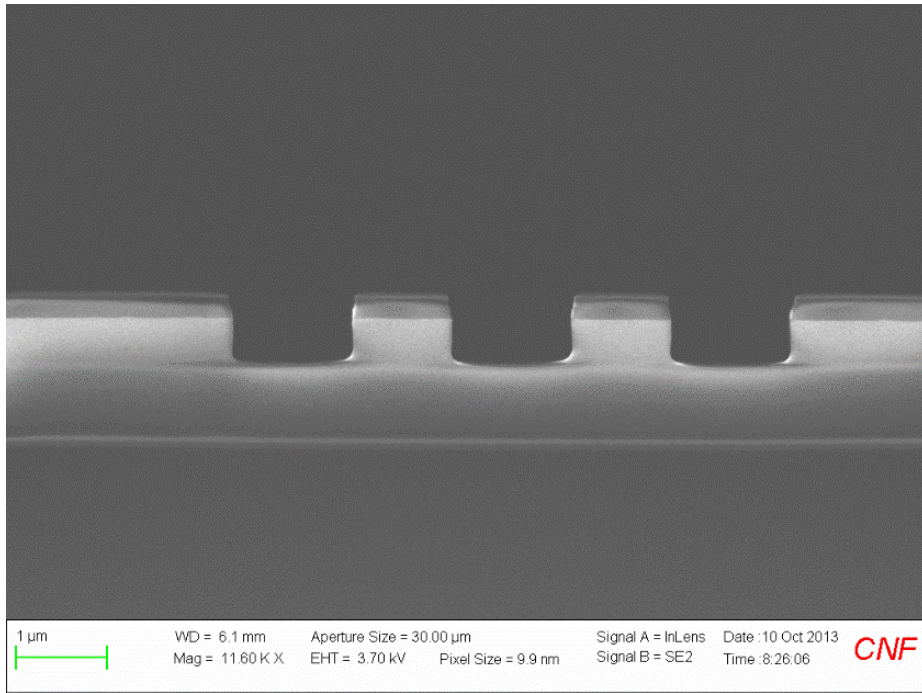
Pt 72 – New Etch Rate and Selectivity Values

2013.10.09

Tool	Material	Chemistry	Etch Rate (nm/min)	Selectivity	Notes
Pt 72	LSN	CHF ₃ /O ₂	64.6	2.5	5 min O ₂ plasma clean, 10 min season
Pt 72	LSN	CF ₄	67.5	1.6	“
Pt 72	Si	CF ₄	32.5	0.23	10 min O ₂ plasma clean, 10 min season
Pt 72	Si	SF ₆ /O ₂	15.5	0.83	5 min O ₂ plasma clean, 10 min season
Pt 72	Si ₃ N ₄	CHF ₃ /O ₂	50	2.5	“
Pt 72	Si ₃ N ₄	CF ₄	60	0.4	“
Pt 72	SiO ₂	CHF ₃ /O ₂	20.2	0.4	“
Pt 72	SiO ₂	CF ₄	27.1	1.1	“

LSN – CHF₃/O₂ Etch

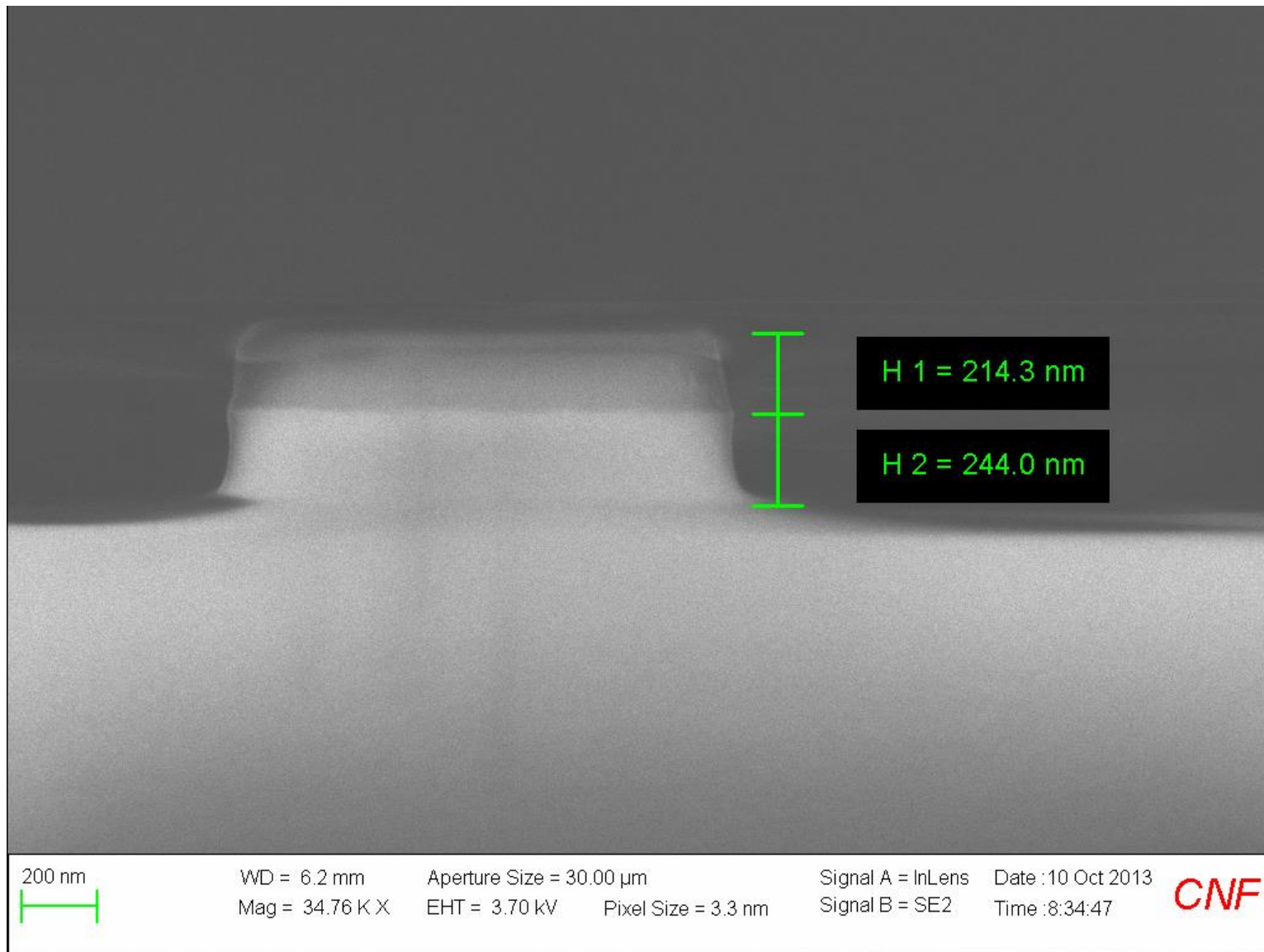
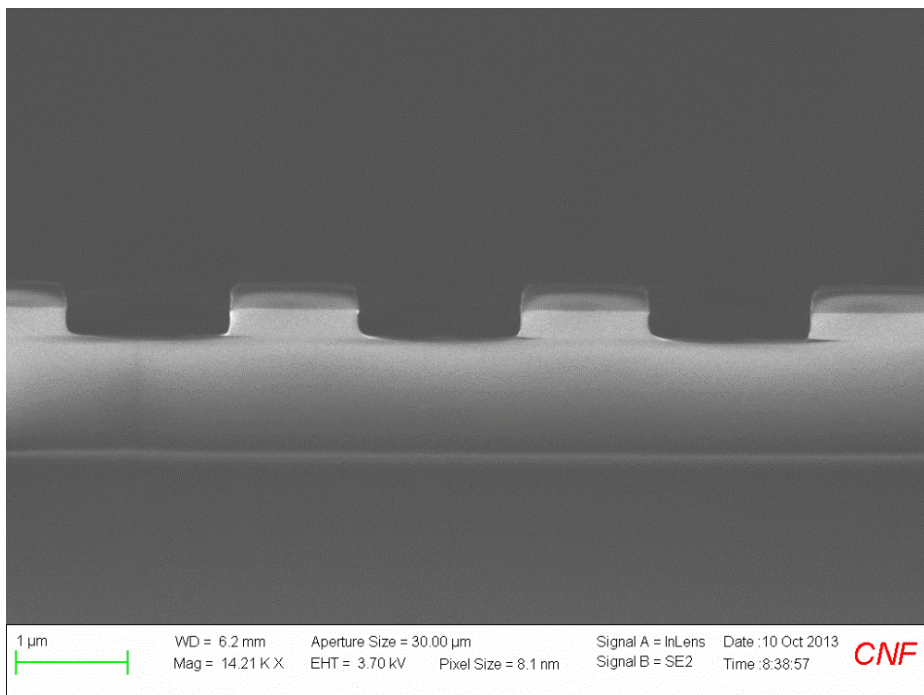
Etch Rate: 64.6 nm/min
Selectivity: 2.5



LSN – CF₄ Etch

Etch Rate: 67.5 nm/min

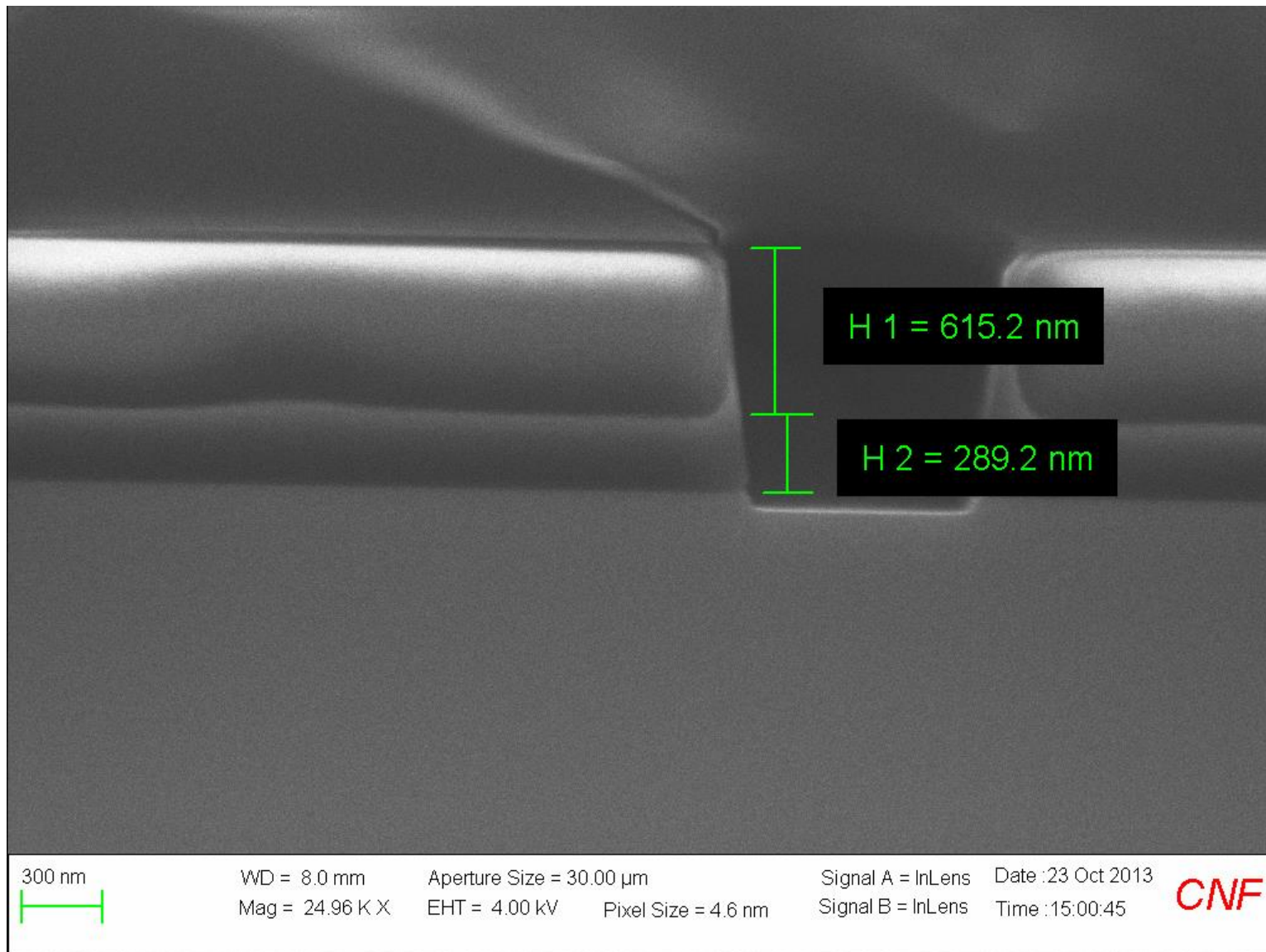
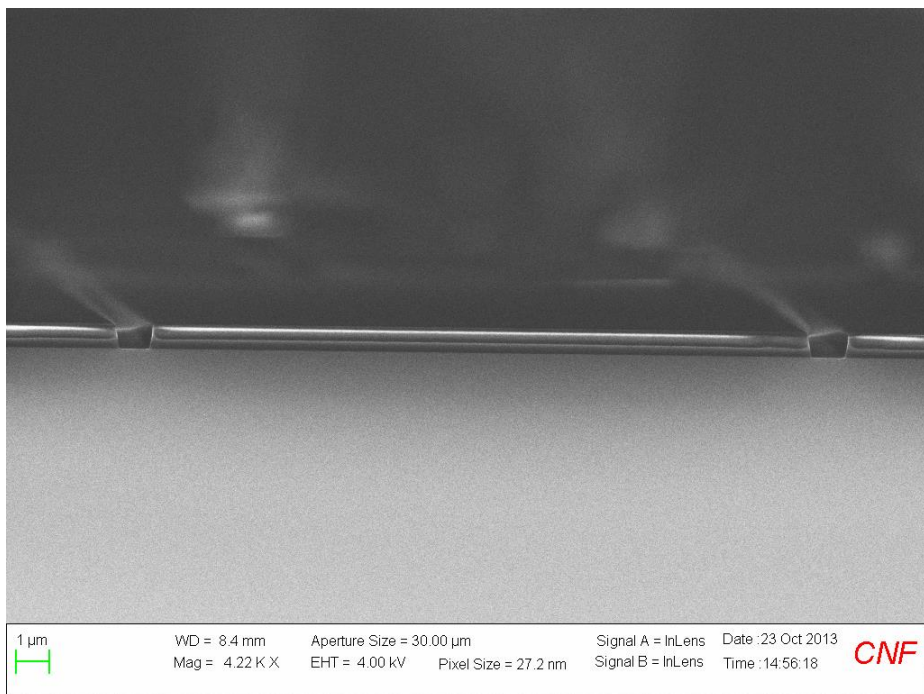
Selectivity: 1.6



Si – CF₄ Etch

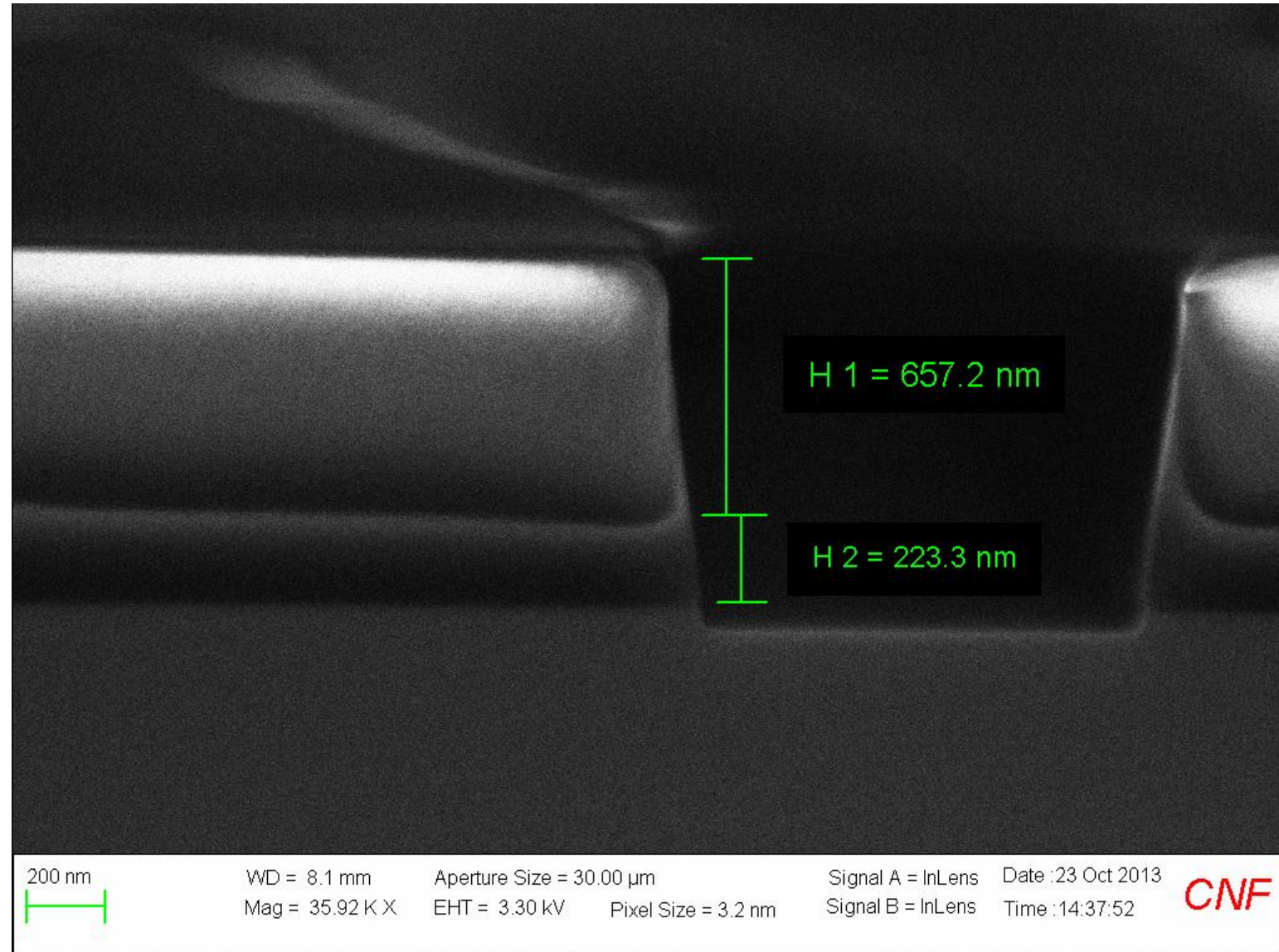
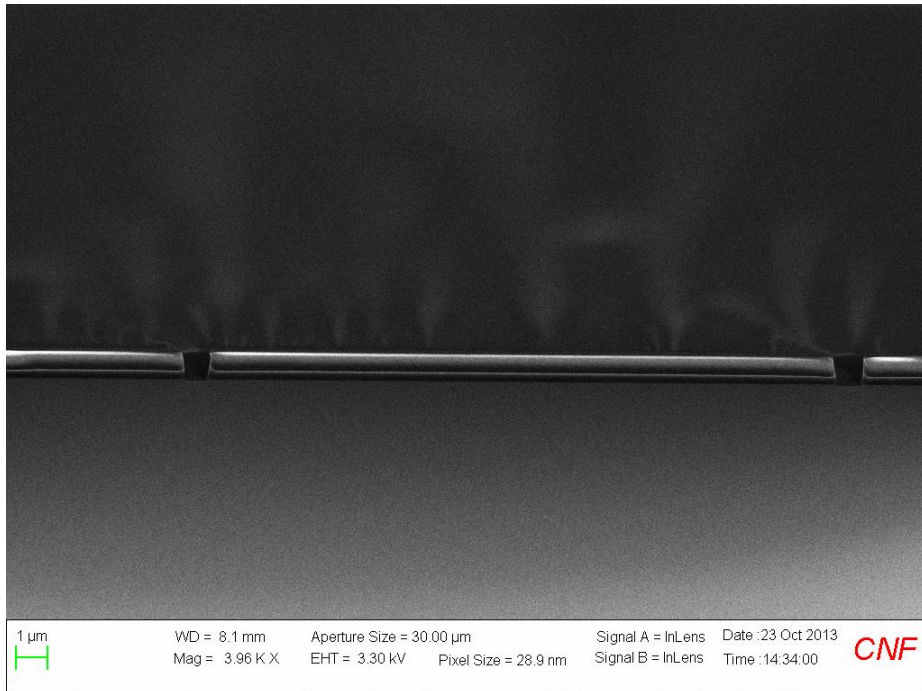
Etch Rate: 32.5 nm/min

Selectivity: 0.23



Si – SF₆/O₂ Etch

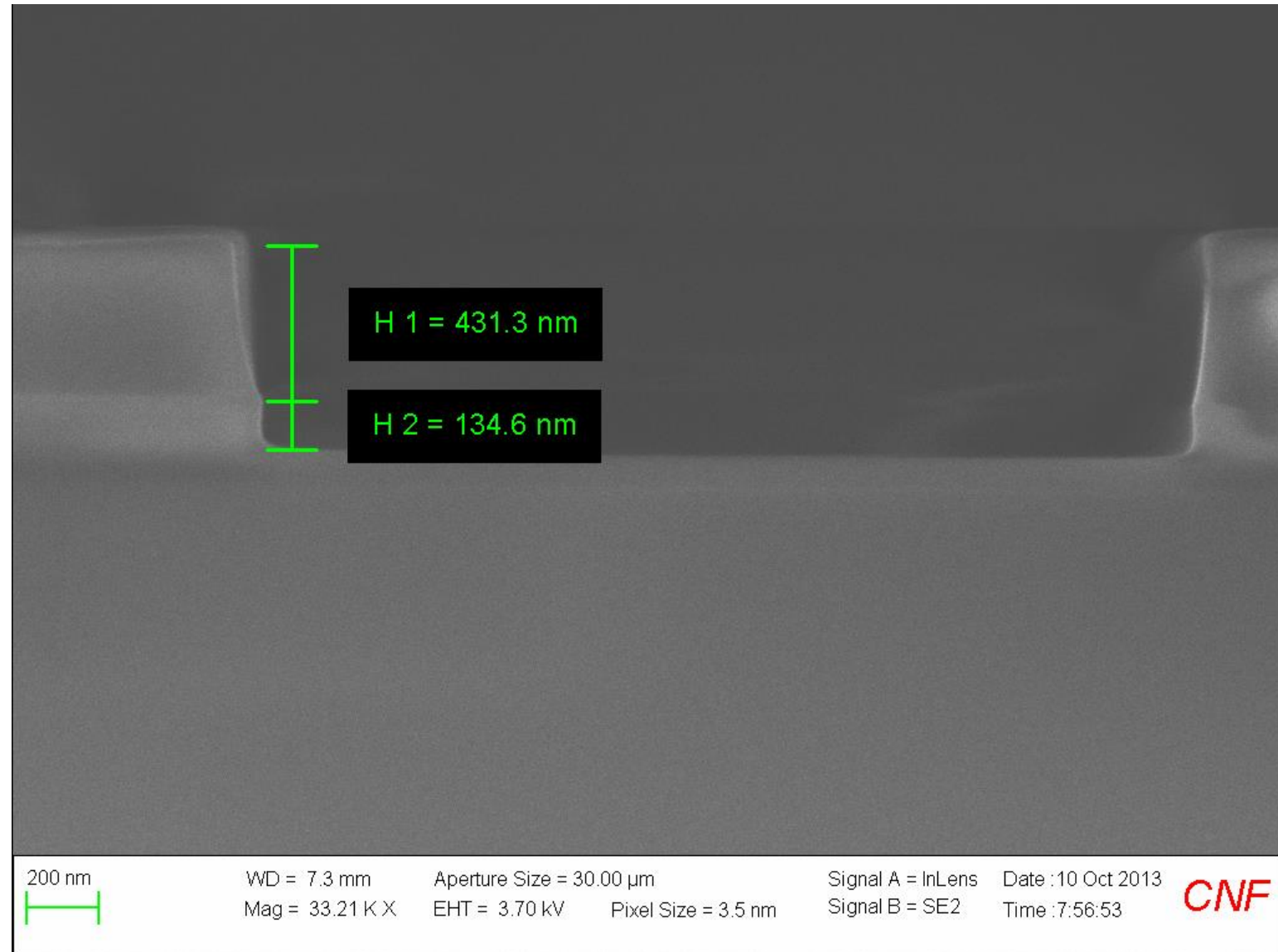
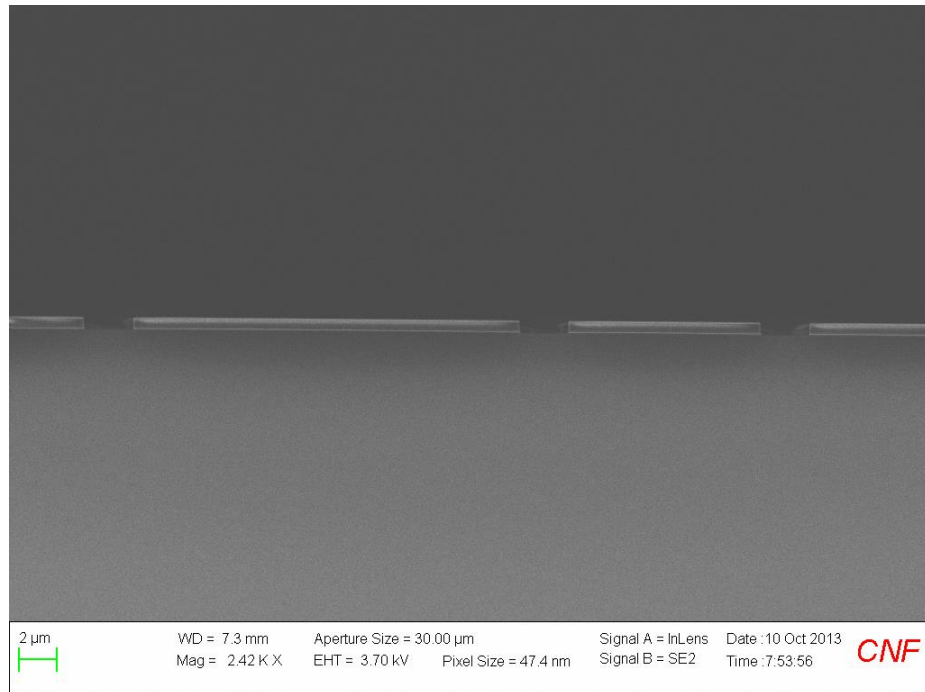
Etch Rate: 15.5 nm/min
Selectivity: 0.83



$\text{Si}_3\text{N}_4 - \text{CHF}_3/\text{O}_2$ Etch

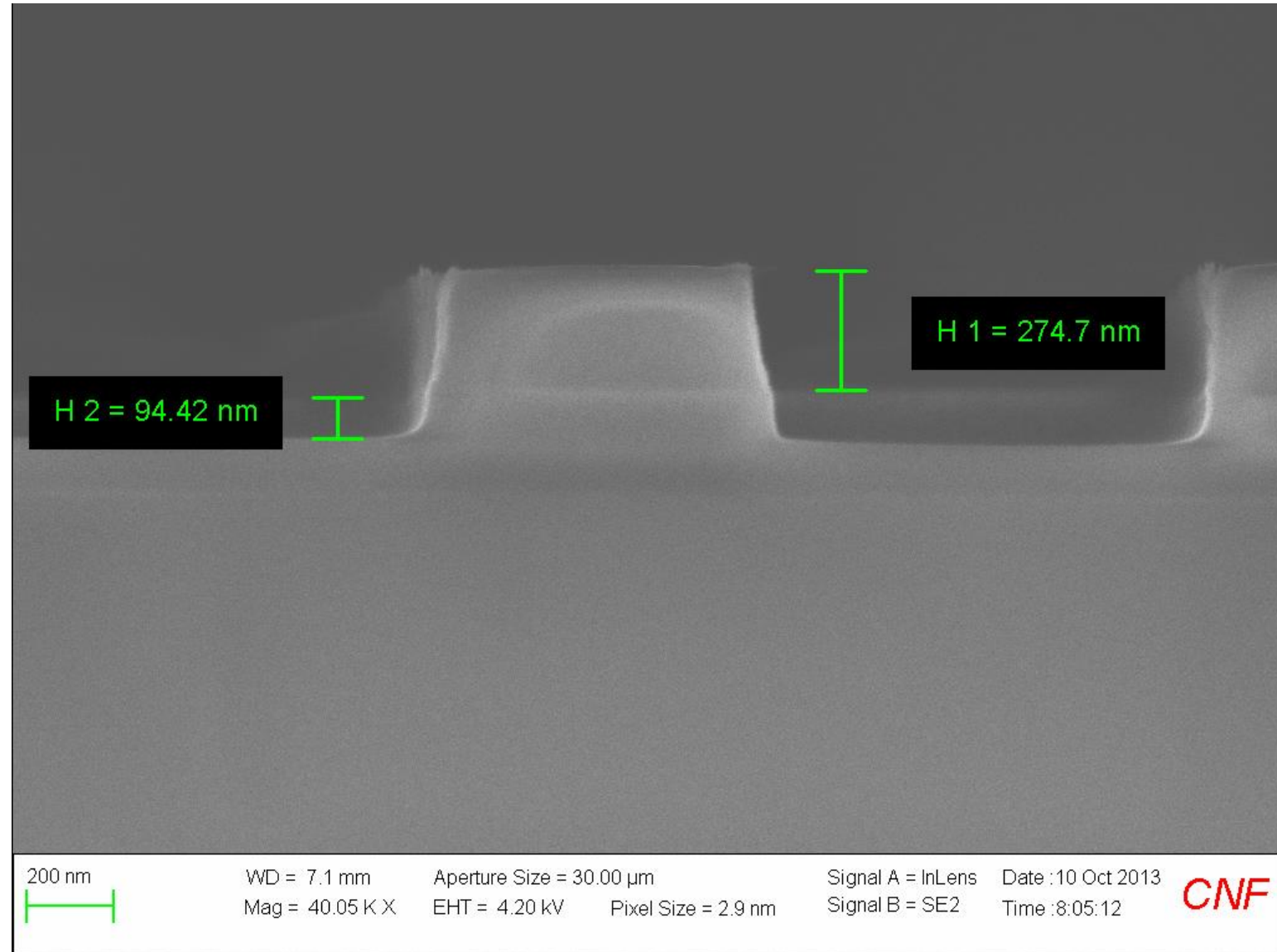
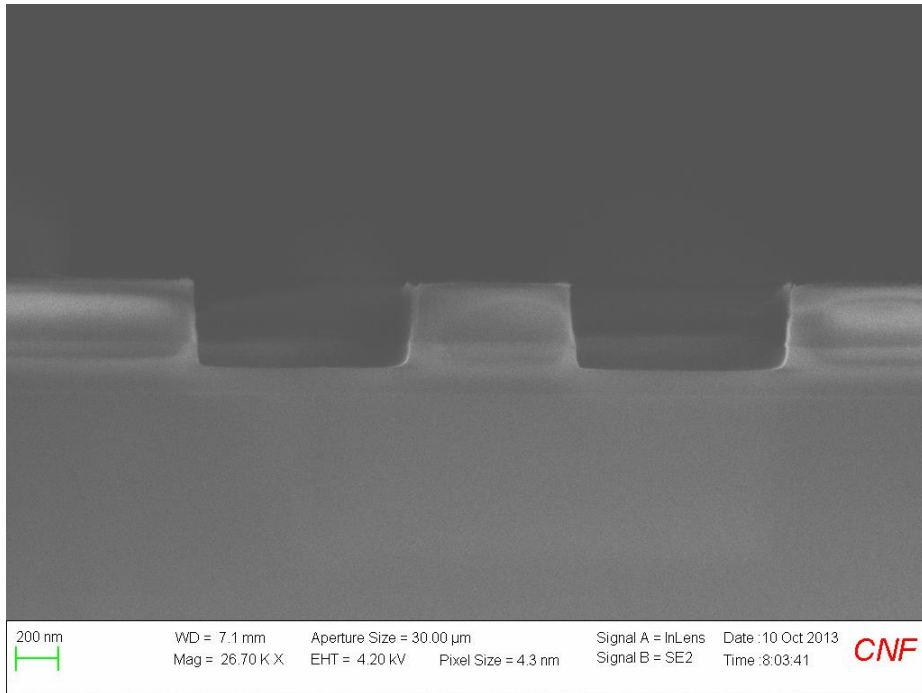
Etch Rate: 50 nm/min

Selectivity: 2.5



Si₃N₄ – CF₄ Etch

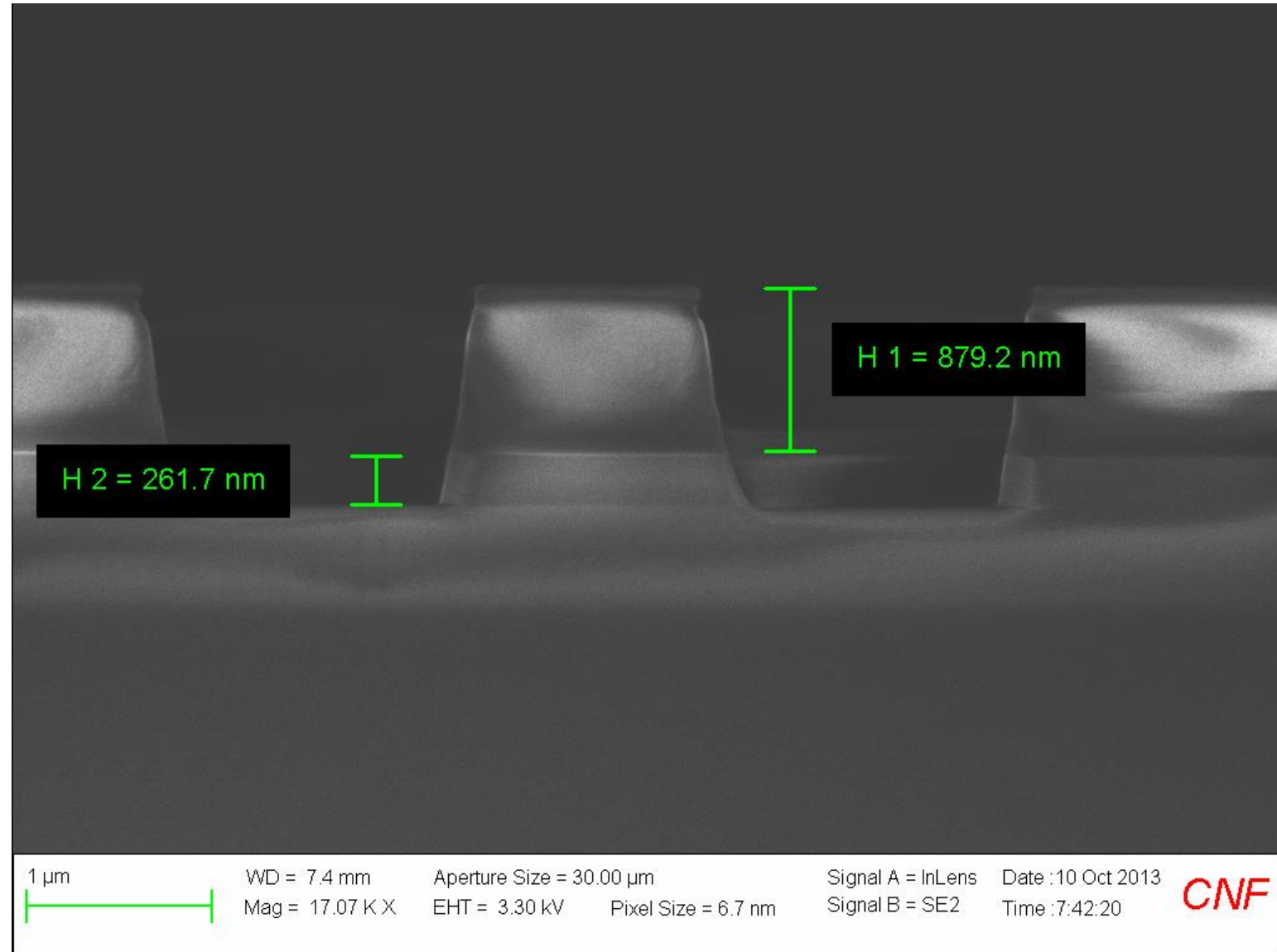
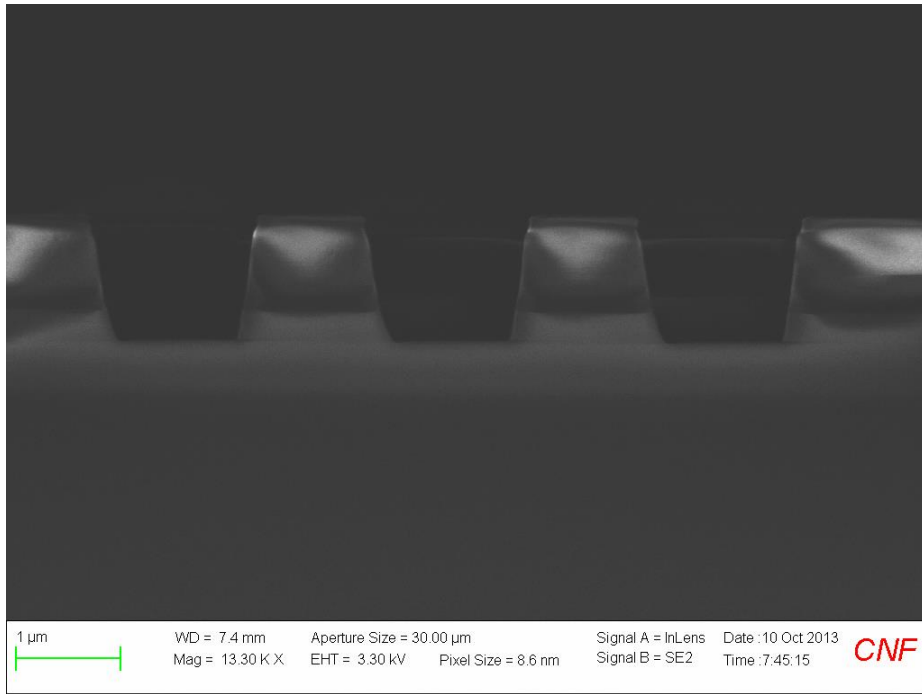
Etch Rate: 60 nm/min
Selectivity: 0.4



SiO₂ – CHF₃ / O₂ Etch

Etch Rate: 20.2 nm/min

Selectivity: 0.4



SiO₂ – CF₄ Etch

Etch Rate: 27.1 nm/min
Selectivity: 1.1

