

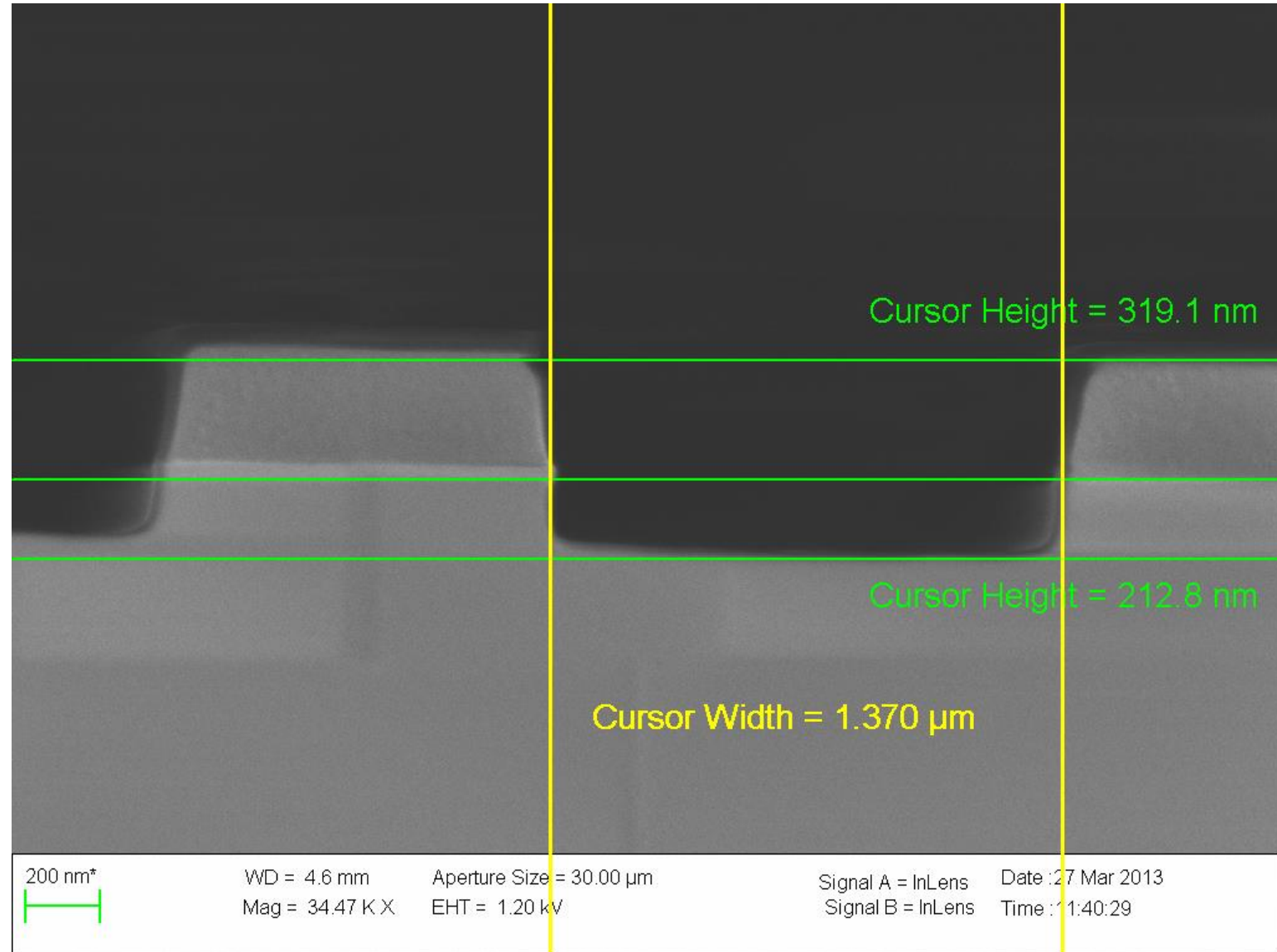
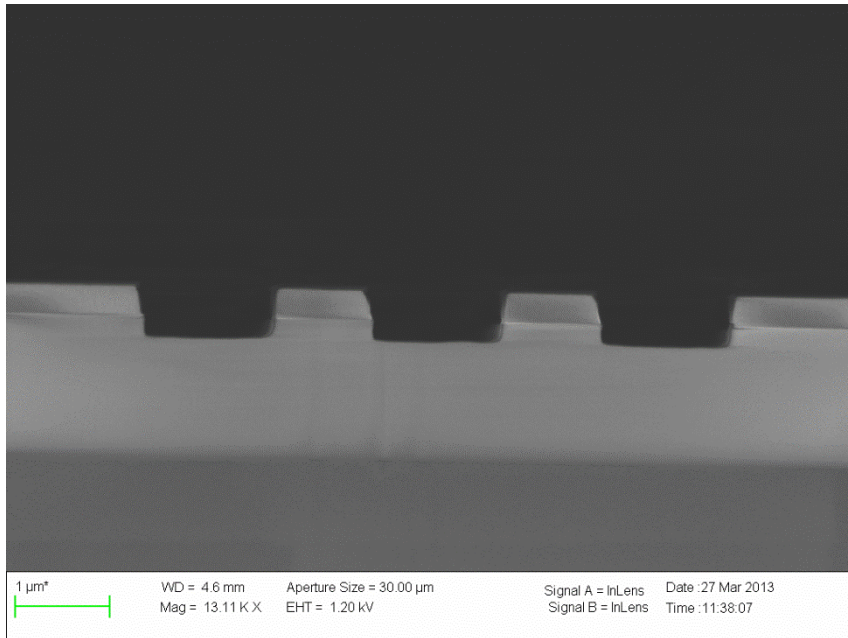
2013.05.09

## Ox 81 – New ER and Selectivity Values

Tool	Material	Chemistry	Etch Rate (nm/min)	Selectivity	Notes
Ox 81	LSN	CHF <sub>3</sub> /O <sub>2</sub>	86.2	1.8	10 min O <sub>2</sub> plasma clean, 10 min season
Ox 81	LSN	CF <sub>4</sub>	79	0.5	“
Ox 81	Si	CF <sub>4</sub>	53	0.53	“
Ox 81	Si	SF <sub>6</sub> /O <sub>2</sub>	1110	10.3	“
Ox 81	Si <sub>3</sub> N <sub>4</sub>	CHF <sub>3</sub> /O <sub>2</sub>	57	1.23	“
Ox 81	Si <sub>3</sub> N <sub>4</sub>	CF <sub>4</sub>	80	0.71	“
Ox 81	SiO <sub>2</sub>	CHF <sub>3</sub> /O <sub>2</sub>	31.9	0.86	“
Ox 81	SiO <sub>2</sub>	CF <sub>4</sub>	38.2	0.35	“
Ox 81	SiO <sub>2</sub>	CHF <sub>3</sub> /Ar	67.4	2.64	“

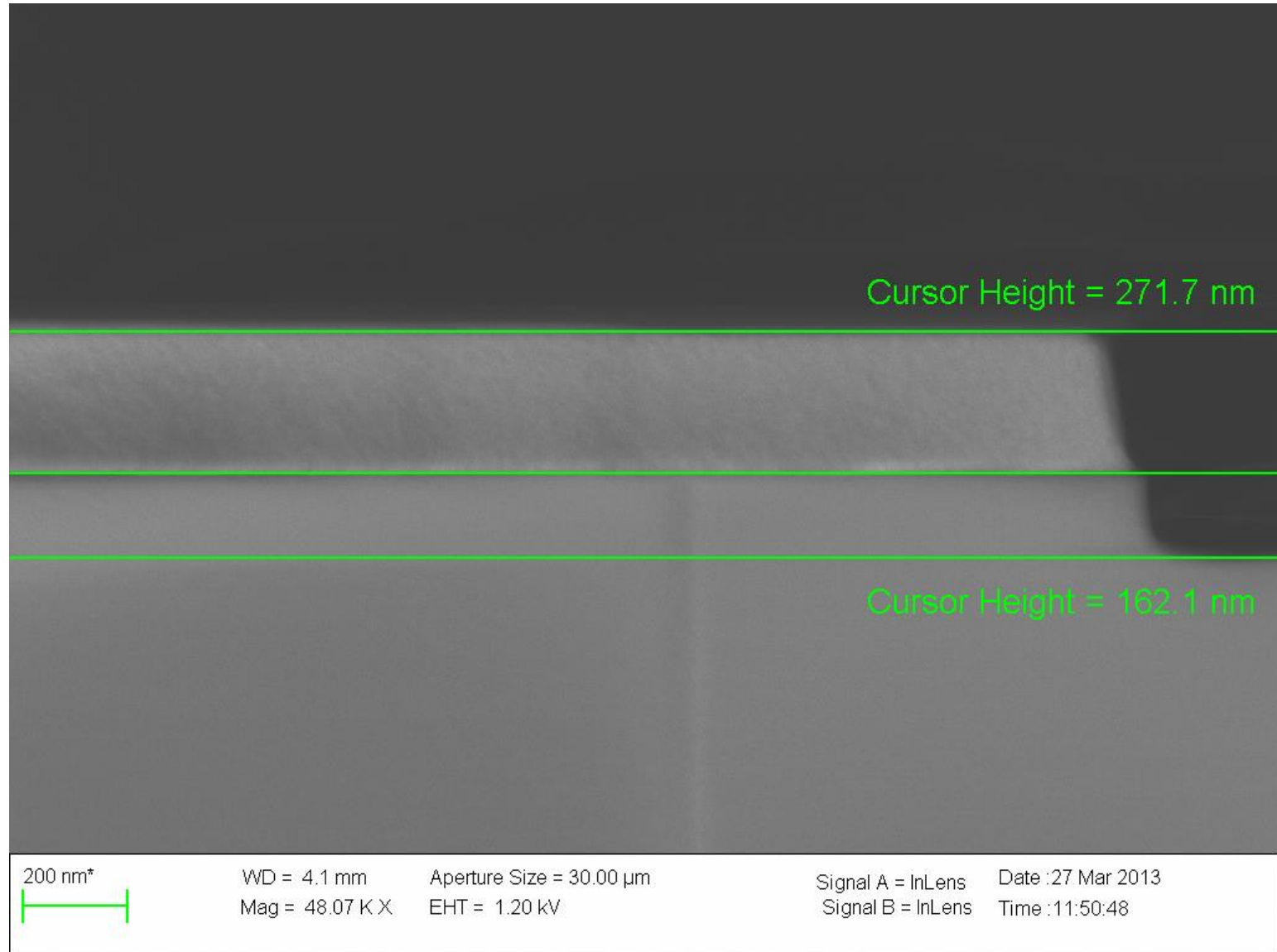
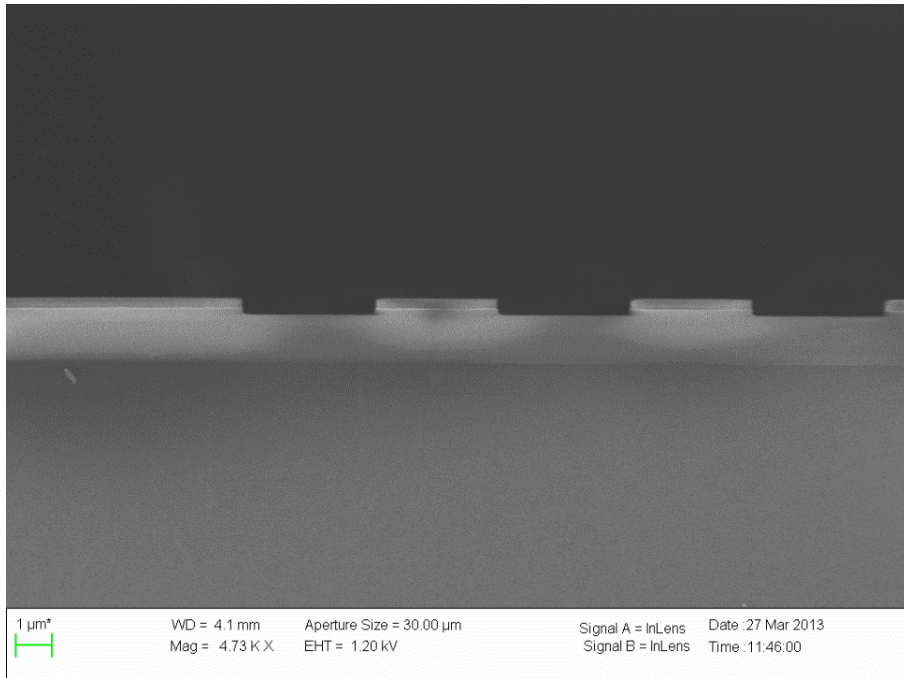
# LSN – CHF<sub>3</sub>/O<sub>2</sub> Etch

Etch Rate: 86.2 nm/min  
Selectivity: 1.8



# LSN – CF<sub>4</sub> Etch

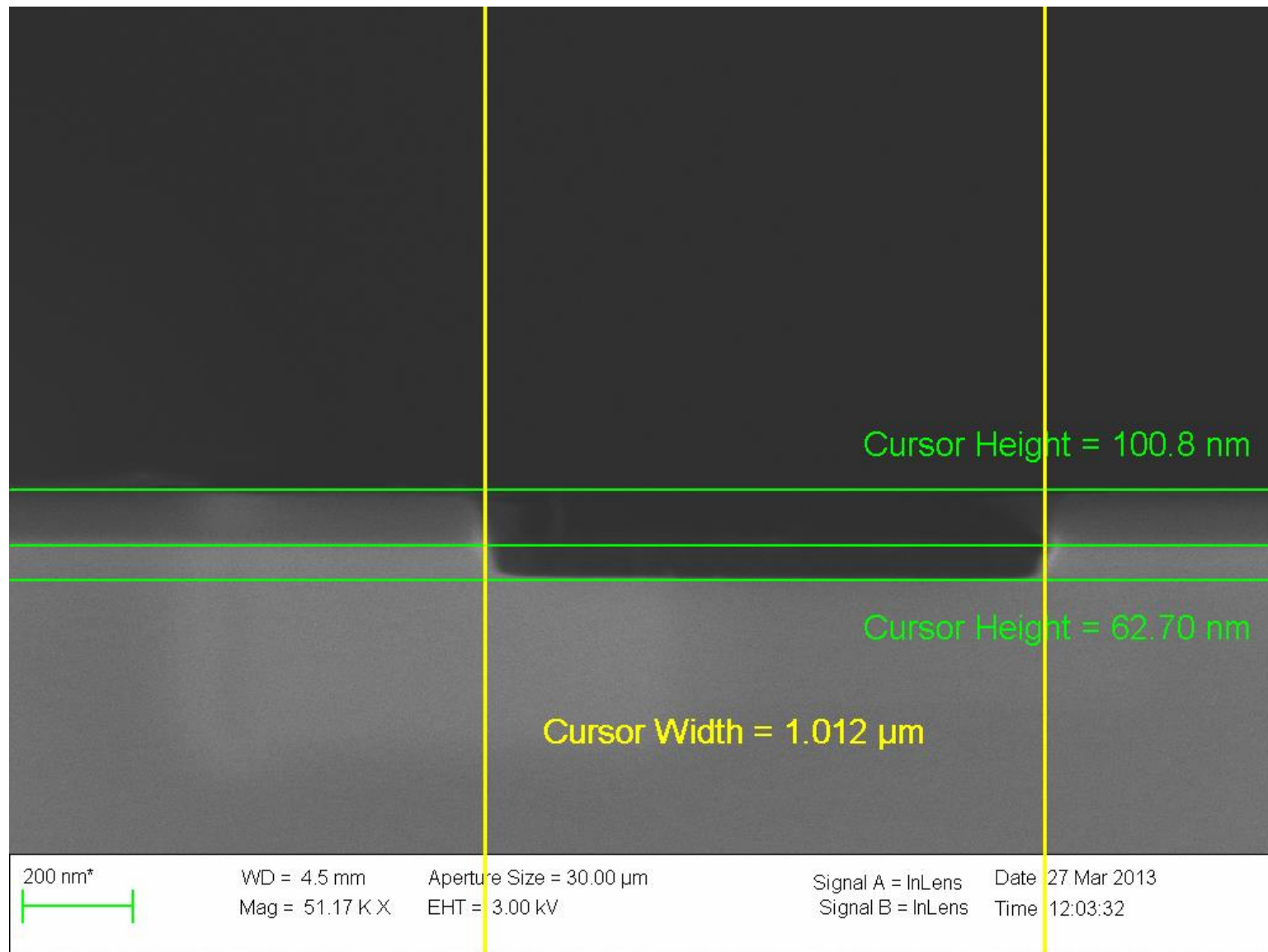
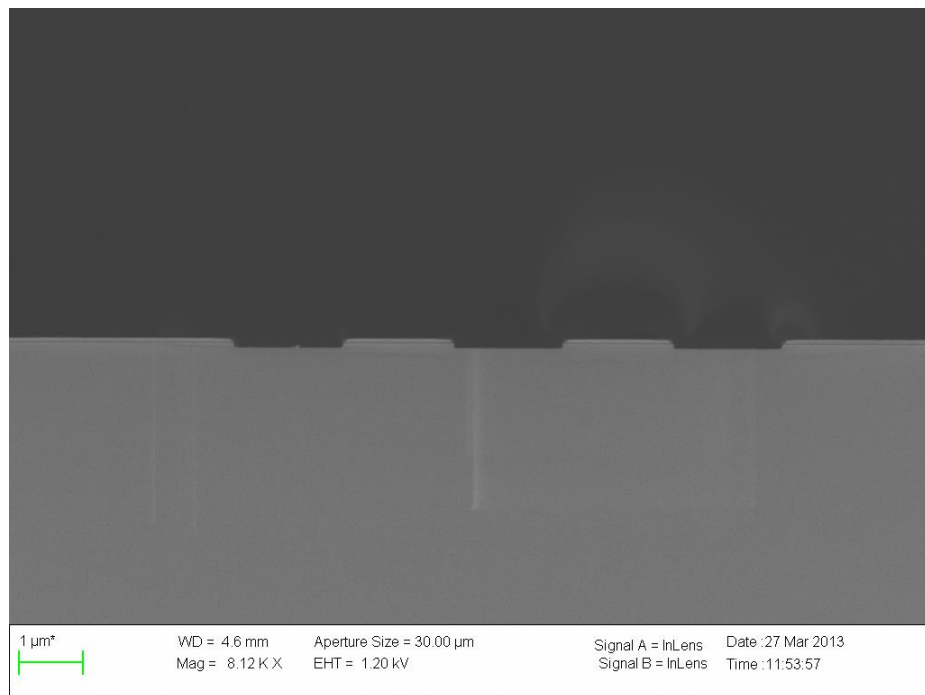
Etch Rate: 79 nm/min  
Selectivity: 0.5



# Si – CF<sub>4</sub> Etch

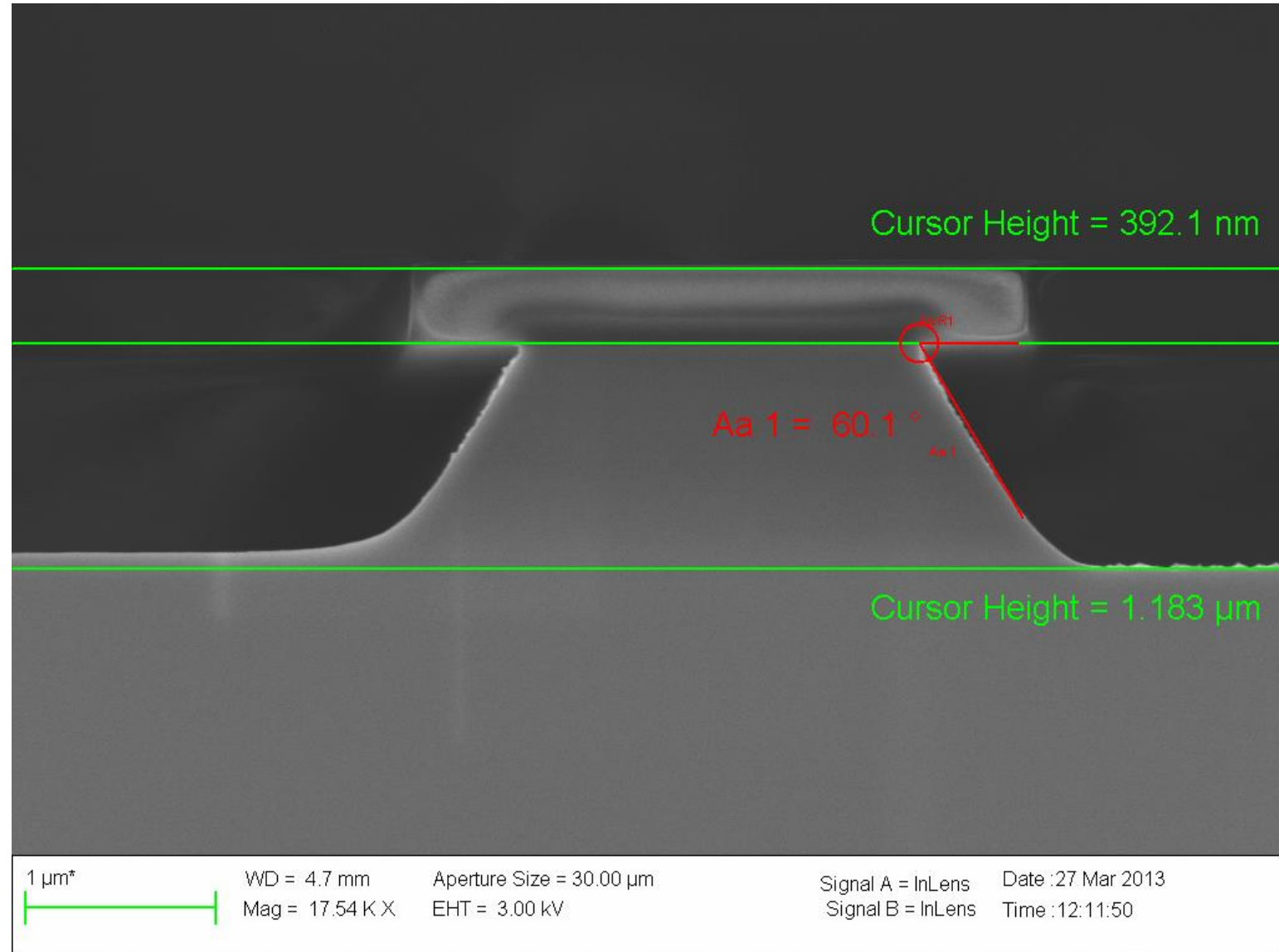
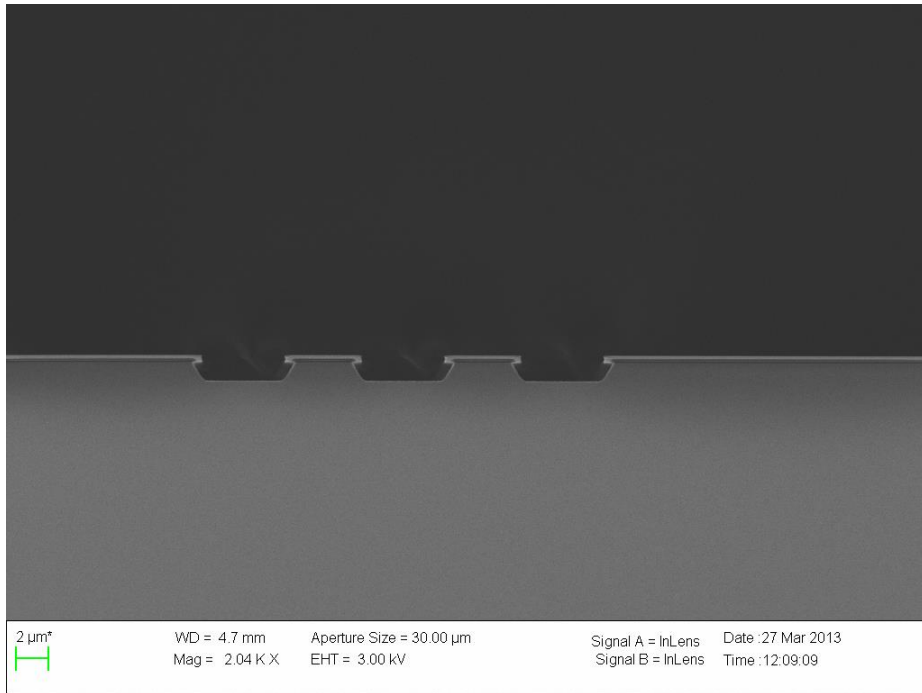
Etch Rate: 53 nm/min

Selectivity: 0.53



# Si – SF<sub>6</sub>/O<sub>2</sub> Etch

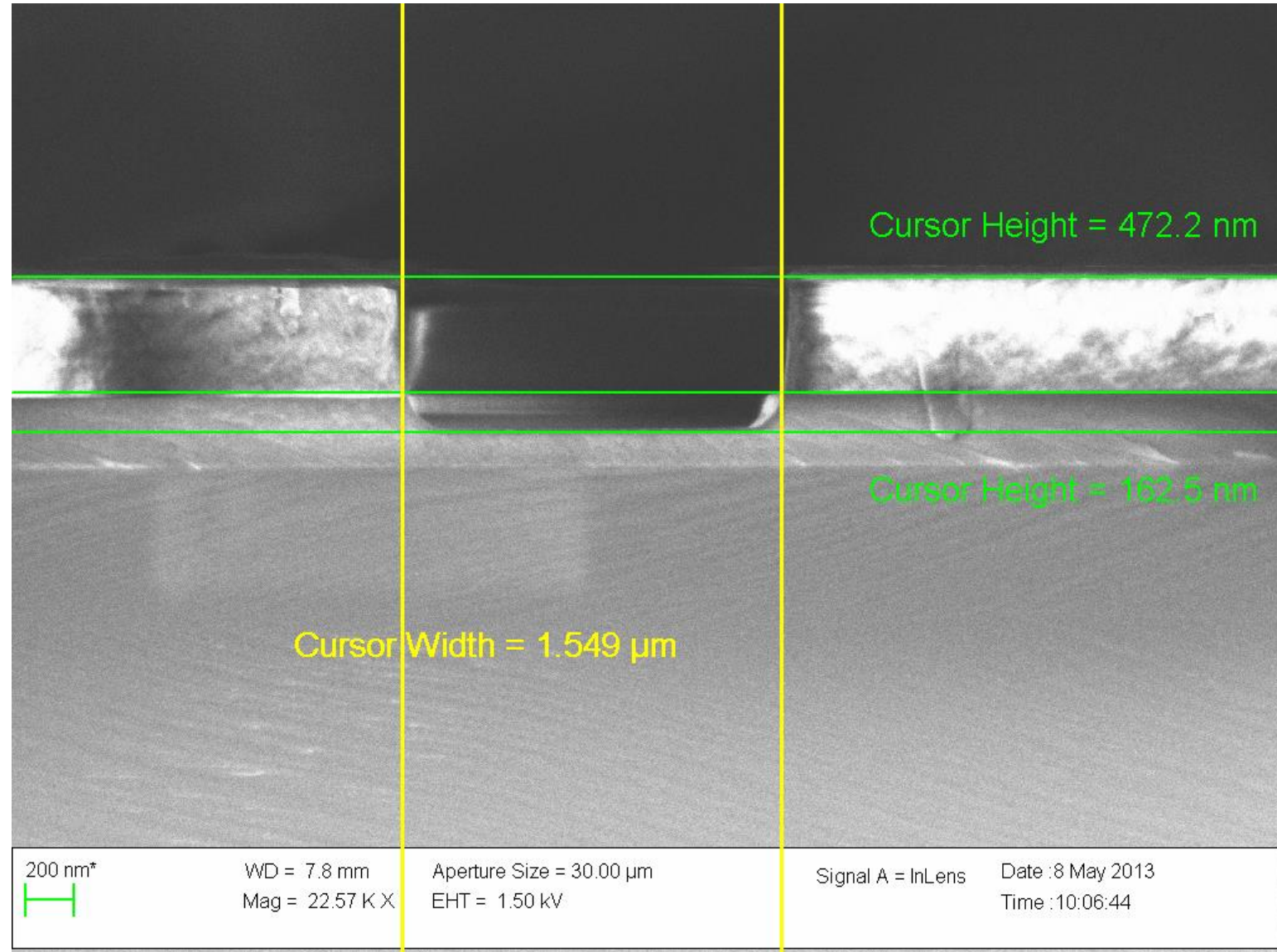
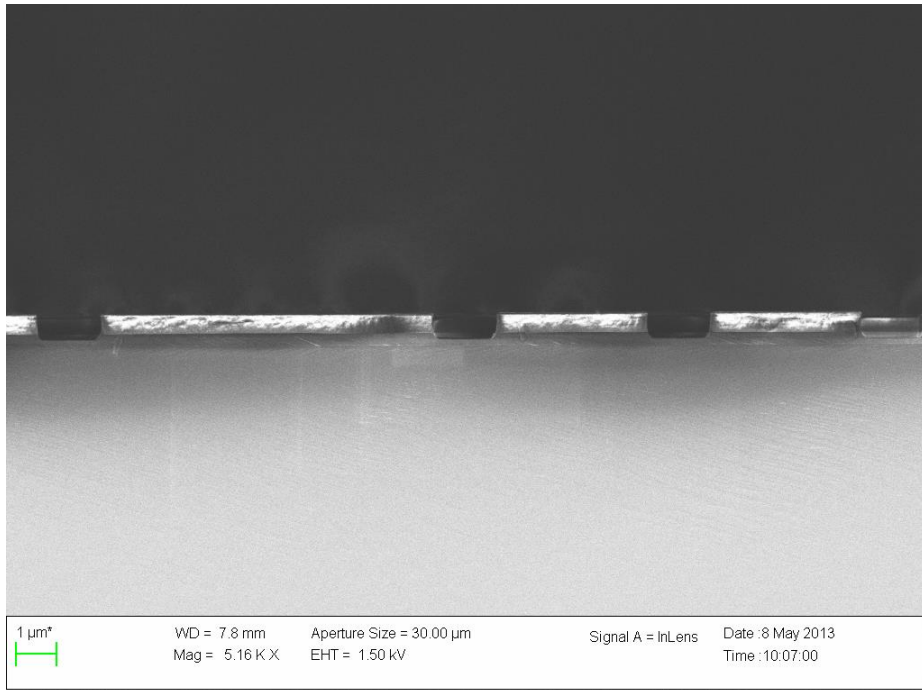
Etch Rate: 1110 nm/min  
Selectivity: 10.3





# Si<sub>3</sub>N<sub>4</sub> – CHF<sub>3</sub>/O<sub>2</sub> Etch

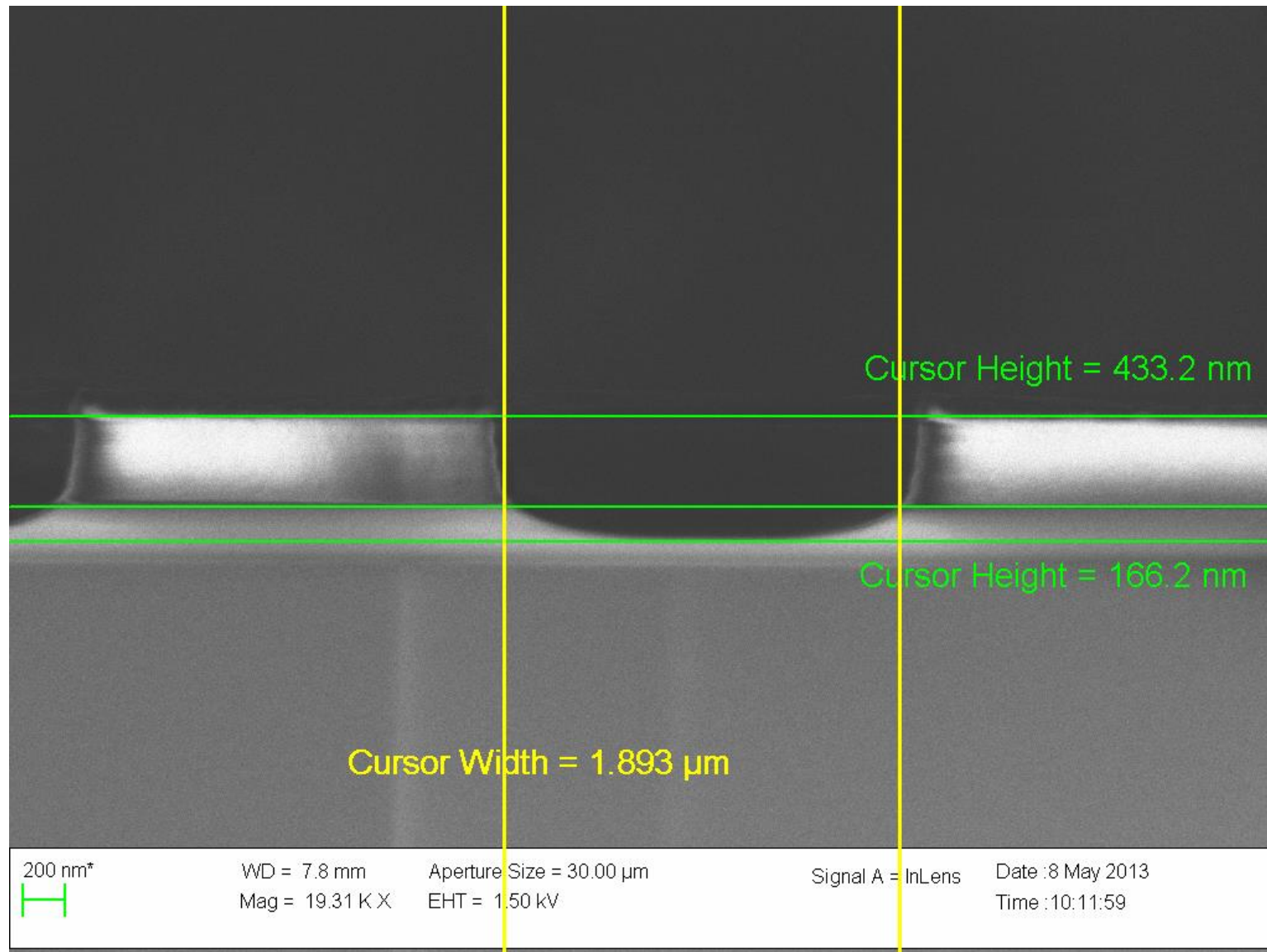
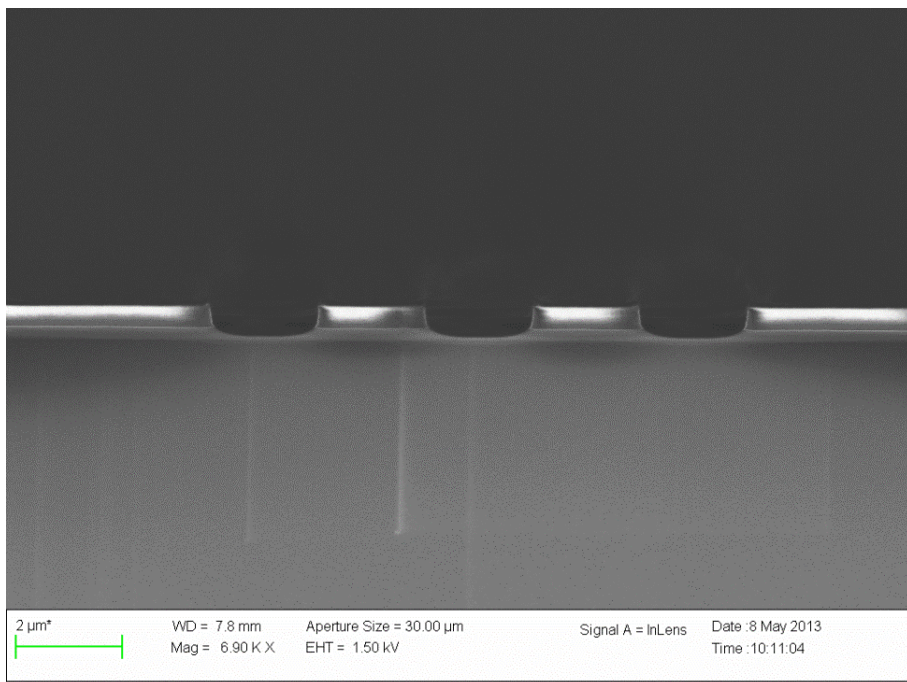
Etch Rate: 57 nm/min  
Selectivity: 1.23



# Si<sub>3</sub>N<sub>4</sub> – CF<sub>4</sub> Etch

Etch Rate: 80 nm/min

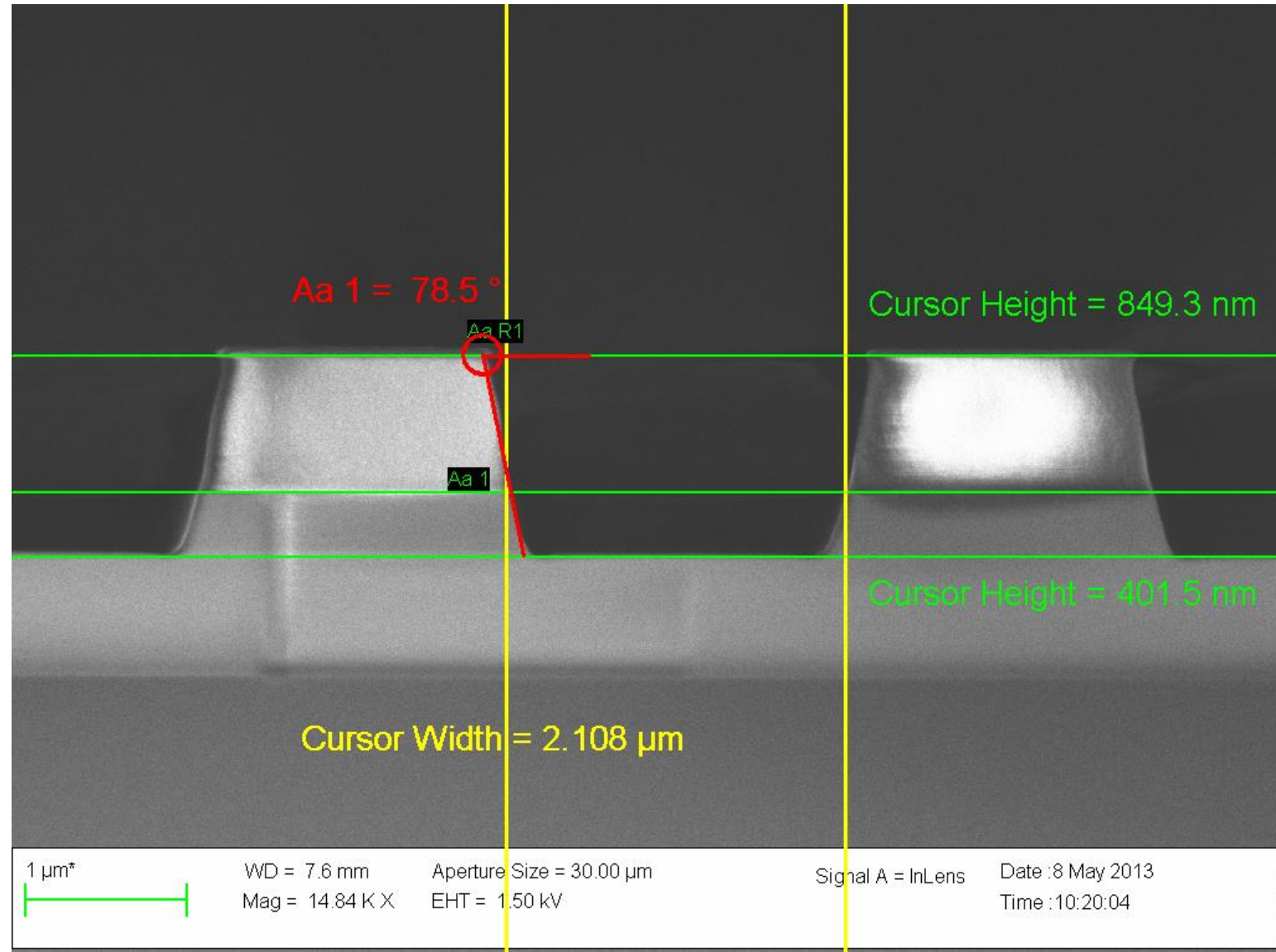
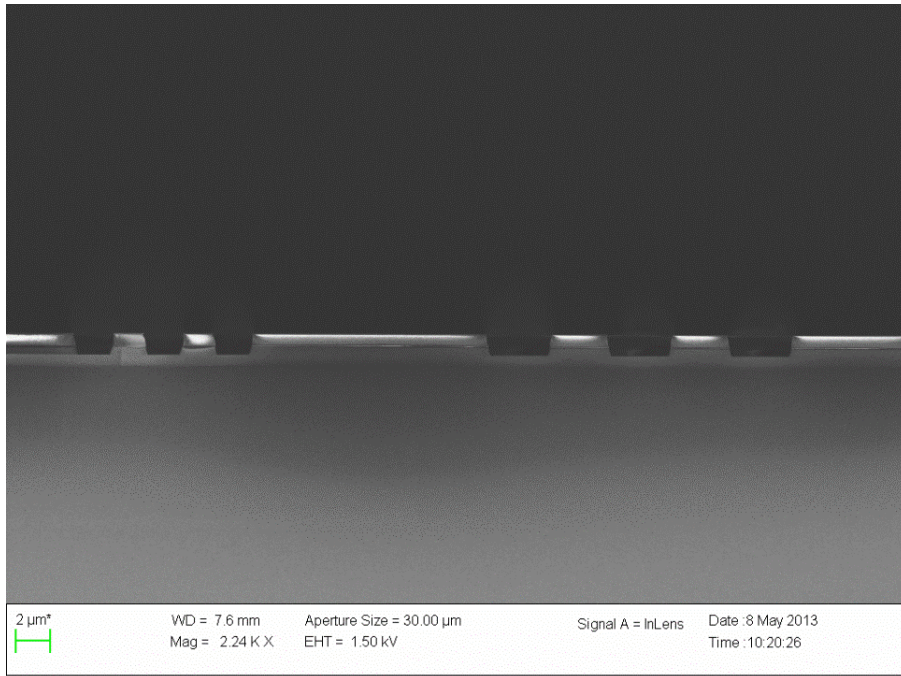
Selectivity: 0.71





# SiO<sub>2</sub> – CHF<sub>3</sub> / O<sub>2</sub> Etch

Etch Rate: 31.9 nm/min  
Selectivity: 0.86

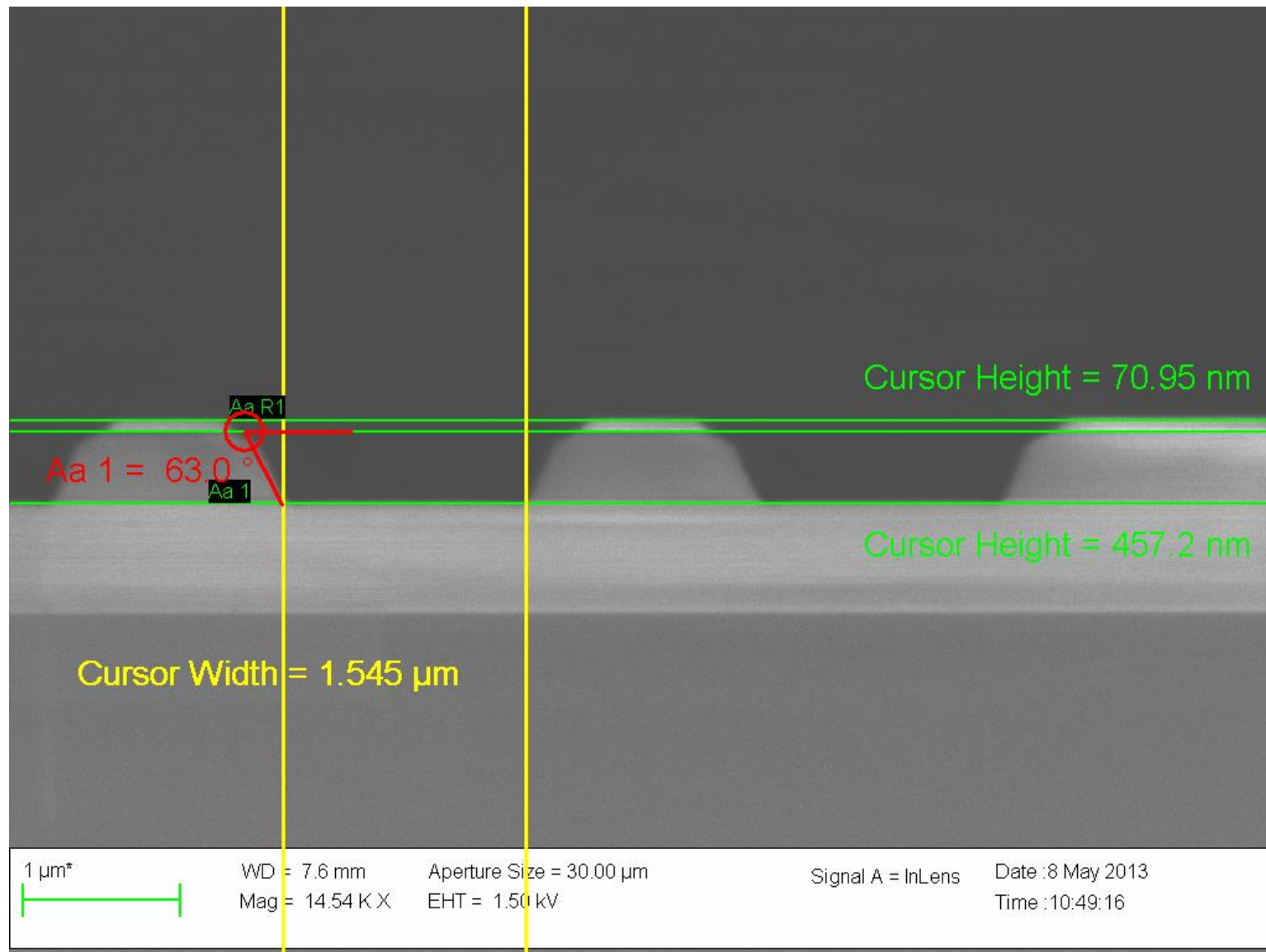
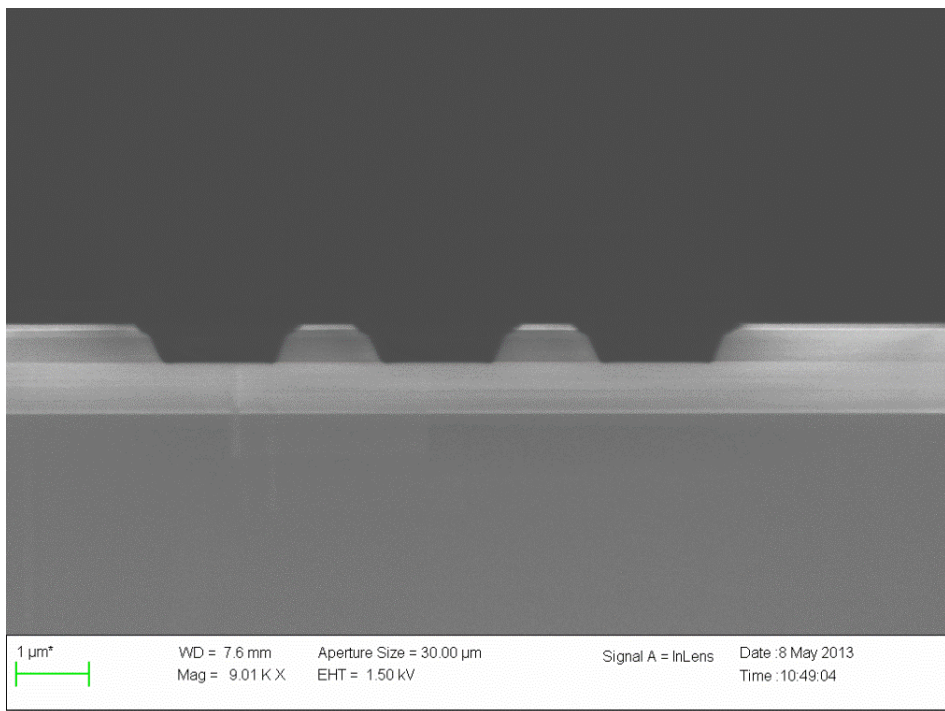




# SiO<sub>2</sub> – CF<sub>4</sub> Etch

Etch Rate: 38.2 nm/min

Selectivity: 0.35



# SiO<sub>2</sub> – CF<sub>3</sub>/Ar Etch

Etch Rate: 67.4 nm/min  
Selectivity: 2.64

