

Characterization of negative Photoresist: AZ nLOF 5510

2. Exposed by GCA Autostep(new)

Stepper:

Lens: Olympus 2145: NA = 0.45
Intensity (700W Hg, I-line): 475mW / cm²

Conditions:

Focus offset: -7 -> 11 (inc:3)
Exposure time: 0.2s -> 0.5s (inc:0.05s)
Coating photo resist: 2500rpm (1μm)
Soft bake: 60s@90C
Post bake: 60s@110C
Develop: 60 sec. AZ300MIF

Exposure time →

0.2s 0.25s 0.3s 0.35s 0.4s 0.45s 0.5s

Focus offset ↓

-7	71	72	73	74	75	76	77
-4	61	62	63	64	65	66	67
-1	51	52	53	54	55	56	57
2	41	42	43	44	45	46	47
5	31	32	33	34	35	36	37
8	21	22	23	24	25	26	27
11	11	12	13	14	15	16	17

1. Autostep200(new stepper) 0.4 lines

Az nLOF 5510

0.2s

0.25s

0.3s

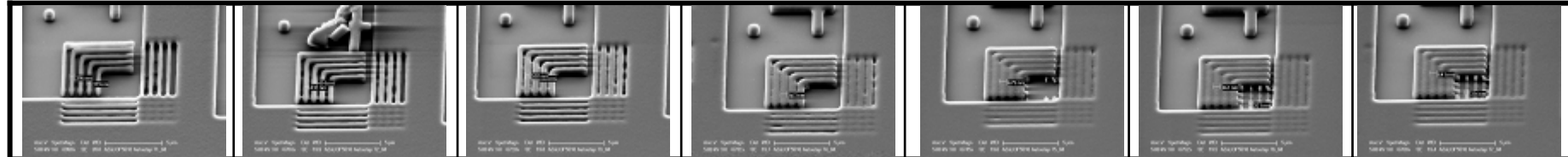
0.35s

0.4s

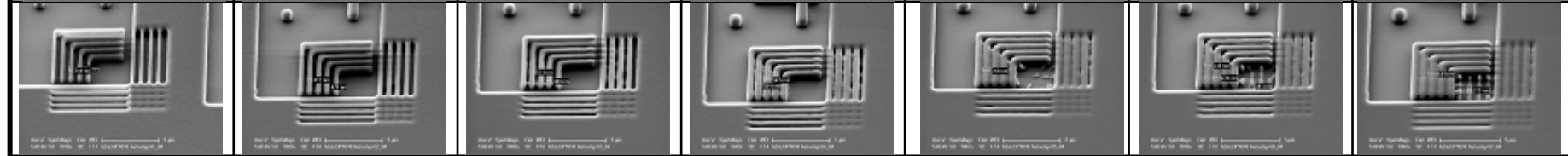
0.45s

0.5s

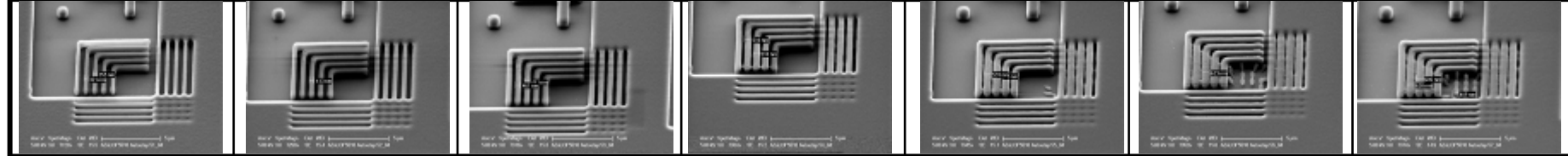
-7



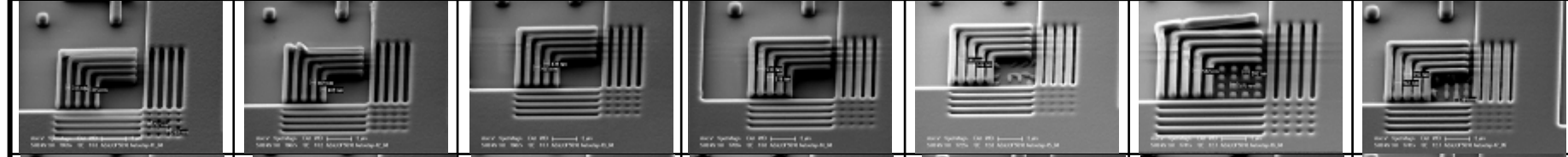
-4



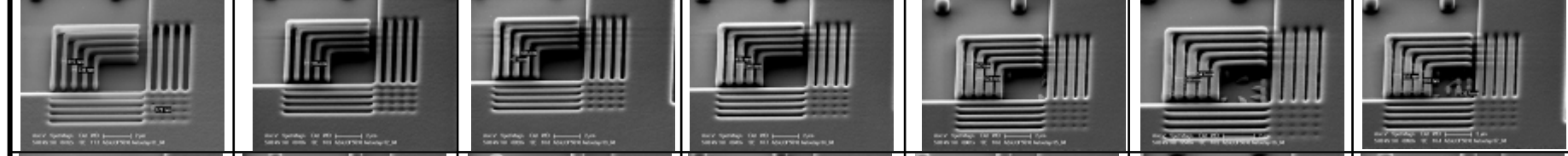
-1



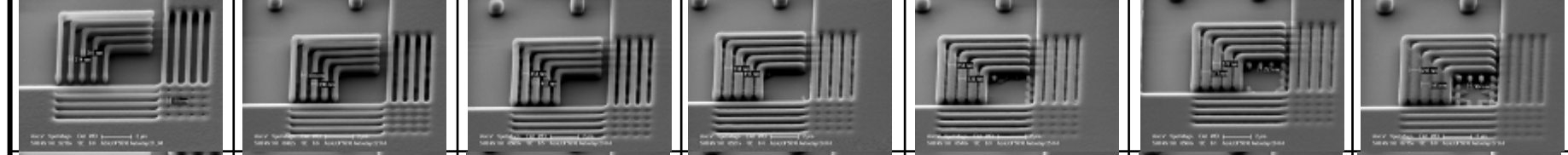
2



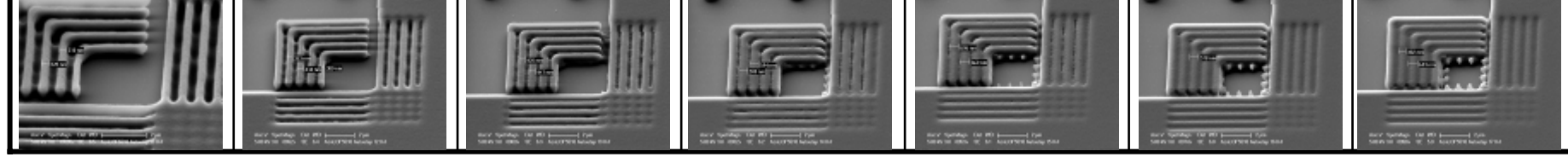
4



7



11



1. Autostep200(new stepper) 0.5 lines

Az nLOF 5510

0.2s

0.25s

0.3s

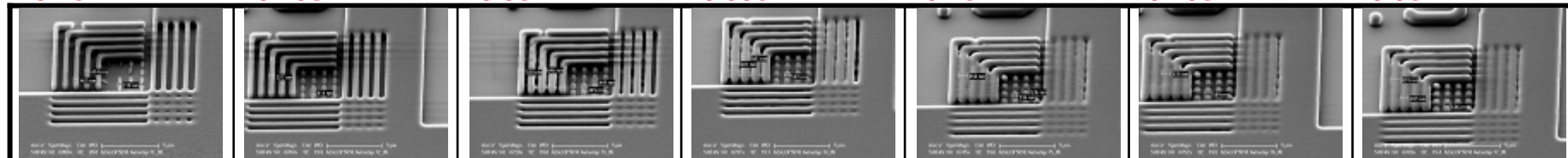
0.35s

0.4s

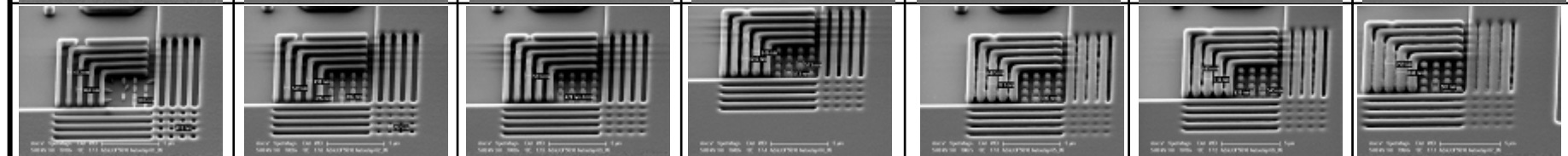
0.45s

0.5s

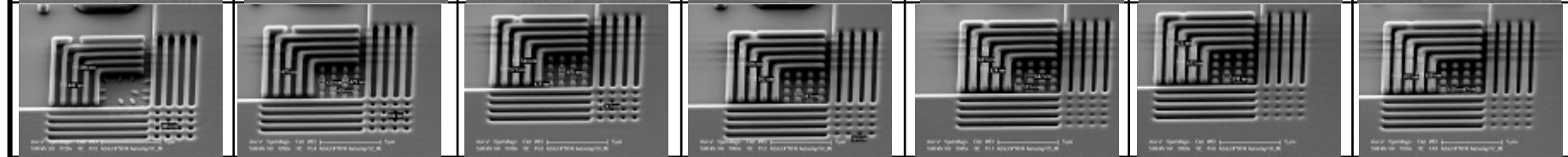
-7



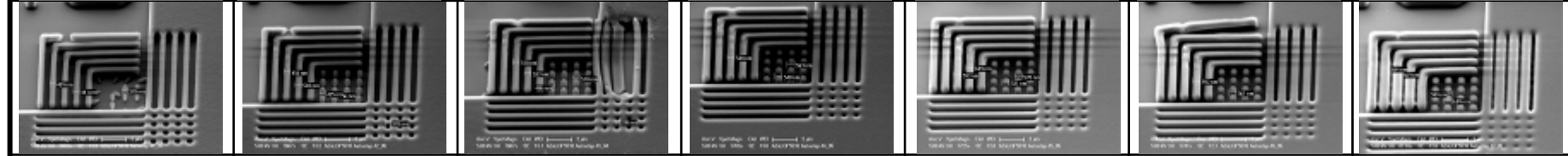
-4



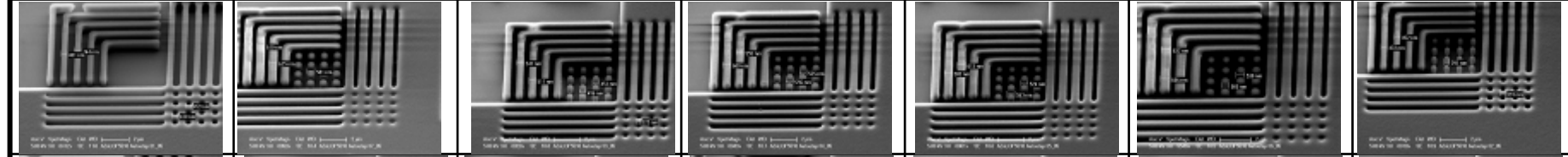
-1



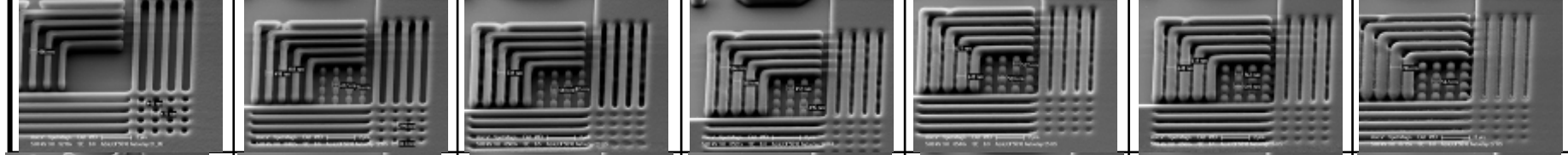
2



4



7



11

