AD01

Wafer Fabrication sheet AD1 Date :Mai 2010 Operator(s): Andreas + Denis

Date	**Operator**	**Wafer Name**	**Lot**	**Oxide Thickness [nm]**		**Remarks** ---------- ---------- ----------
25/05/ 2010	AD + DV	AD1	9362	500		
Deposition: Sputtering						
Base Pressure	Argon Pressure	Power	Current	Pre-Deposition Time [min]	Deposition Time [min,sec]	
	1.25 mbar	500		5	2,20	
Lithograpy 02/06/2010						
Resist/	**/ Spinning**	**Baking**	**Exposure**	**Development**		
S1813 + Primer Shipley (30 sec)	6000 U / min, 60 sec	115 C, 1 min 15 sec	30 sec at 5 mW / cm2 (?)	MF 319 (pure) 50 sec		
Etching (RIE)						
Initial pressure	Composition	Pressure	RF power	Voltage bias	Time	
< 4e-5	SF6 20 cc, Ar 10 cc, O2 2 cc	0.0133 mbar	50 W	150 V	62 '' + 9 '' (finish)	Optical inspection OK. Resist removed in hot Acetone (40 deg C) during 10 min. Wafer fell upside down on the hotplate,

						therefore probably many defects on top of it.
Regeneration						
< 4e-5	SF6 20 cc, Ar 10 cc	0.0133 mbar	50 W	150 V	8 ''	
MAA / PMMA Bi-Layer Spinning						473.63 nm SiO2
Spinned MAA EL 10 twice at 2000 UPM for 60 s, 6000 UPM for 2 s. Baked after each step at 170 deg C for 60 secs. Spinned PMMA 950k A3 (AFM / STM) at 4000 UPM for 60 s, 6000 UPM for 2 s. Baked at 170 deg C for 20 min.						1057 nm MAA tickness. 113 ns PMMA thickness.
Cutting						

Gravure RIE

P< 4.10-5 mbar || SF6 20cc/ Ar 10cc / O2 2cc || 0.0133 mbar || RFpower = 50 W (Autobias ~ 170 V)

- 1ère RIE *à vide* pendant ~1’ pour nettoyer le bâti

- gravure des 150 nm de Nb du wafer : 1’15’’ à 1’30’’ (suivi au laser)

- retrait résine dans Acétone à chaud + US pendant 10’