

Test : Removal of SAL resist with Colibrì plasma reactor



Customer : Università degli Studi Magna Grecia di Catanzaro

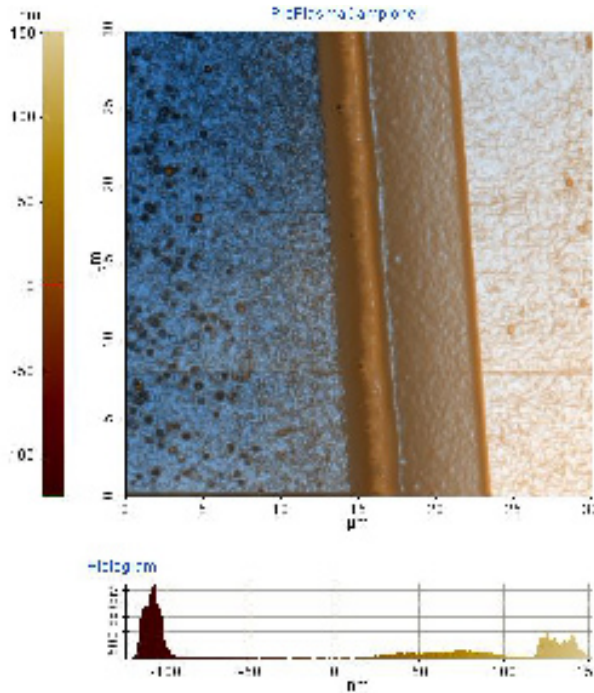
Binasco 20 Febbraio 2007

Description

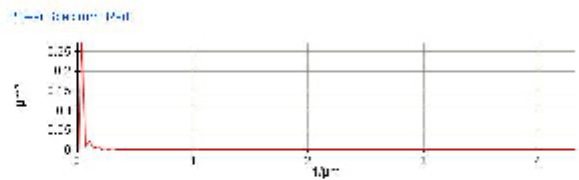
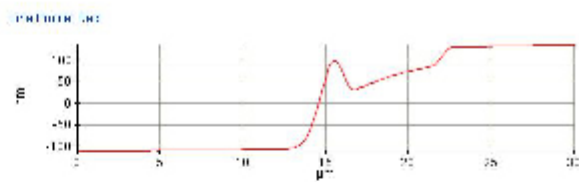
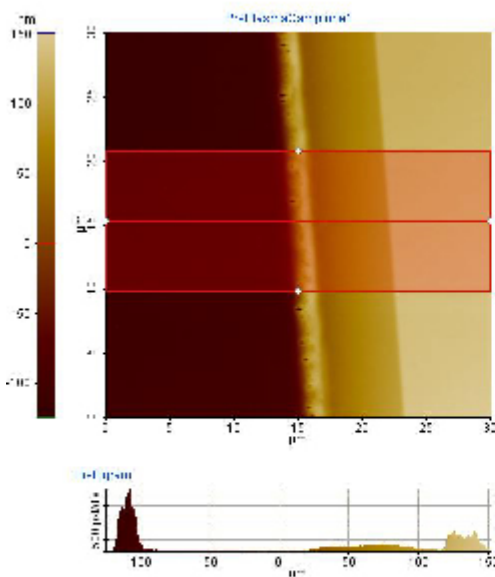
In this test, Colibri plasma reactor, is equipped if an RF power supply 13,56 MHz 150 Watt max power.

This test has been done, using air, at a pressure of 3.5×10^{-1} mbar with a power of 80 watts, during the experiment was necessary to remove 250-270 nm of SAL resist.

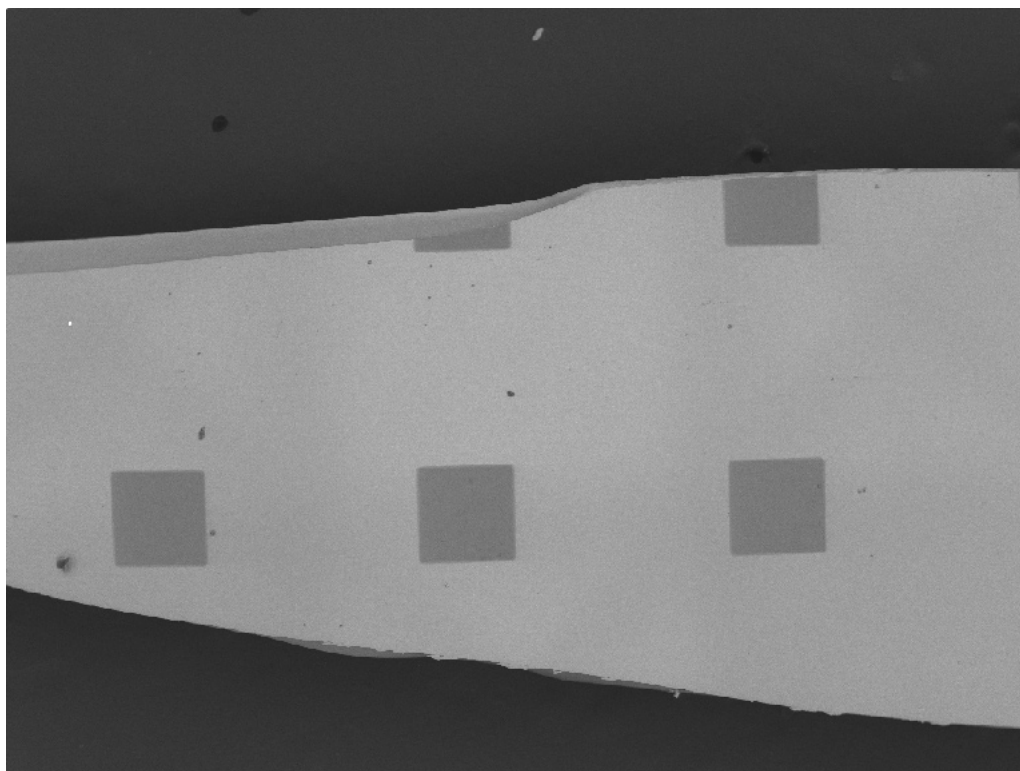
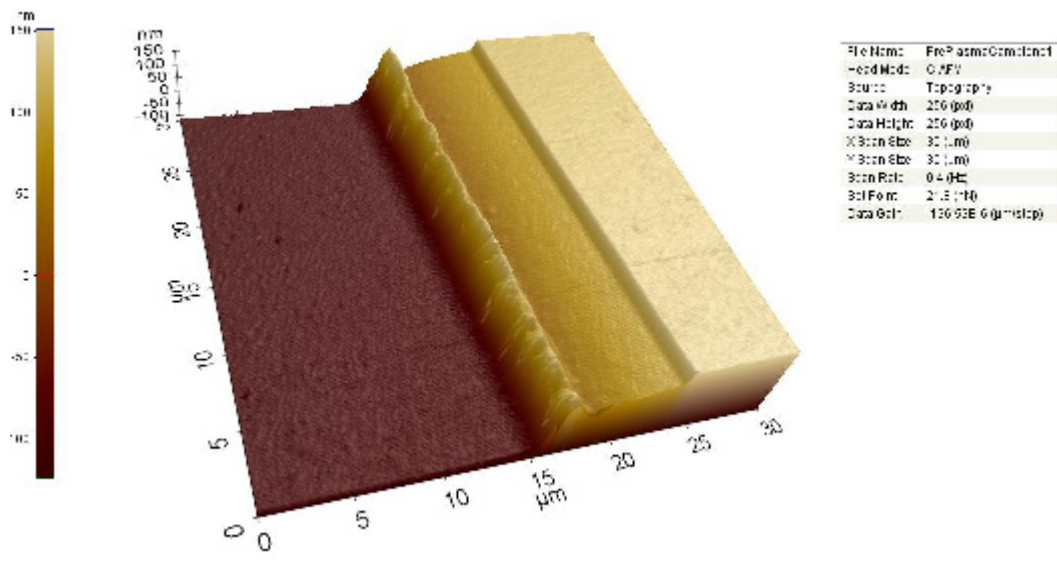
Measure performed with an AFM and SEM before plasma treatment



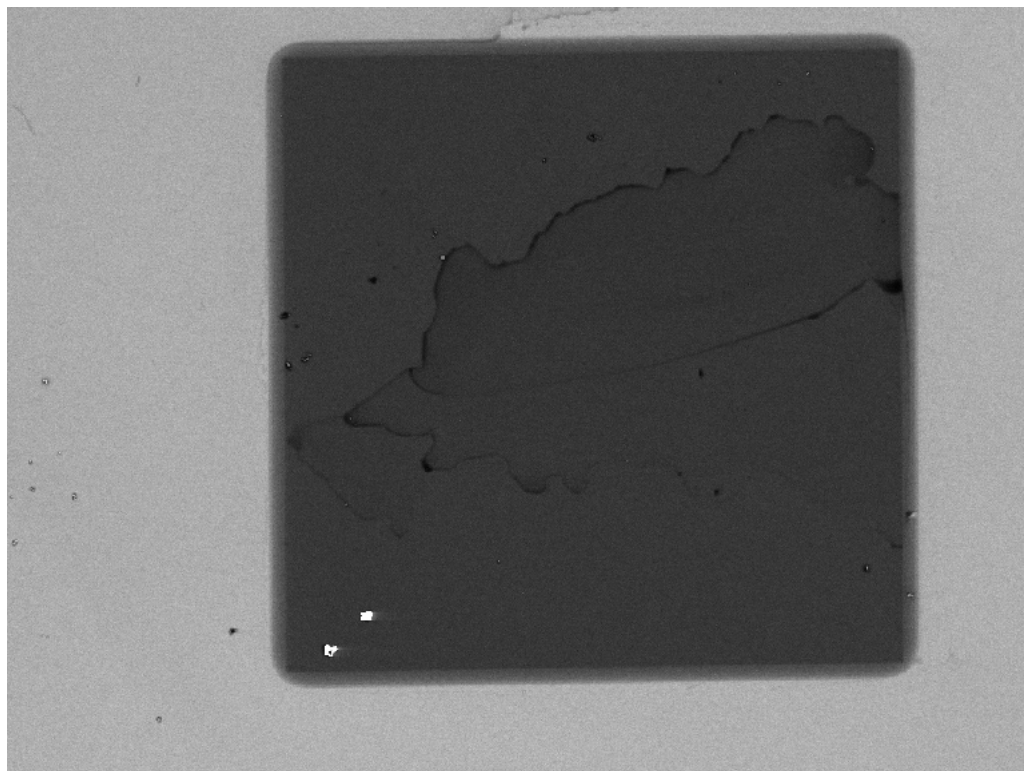
File Name	SalTexaCompone1
File Path	1.0.0
Comments	
Head Mode	32A-M
XZ Vertical Mode	zph
XZ Slope Mode	zph
XZ Slope Range	1
Source	acoustically
Use Phase Data	0
Scan L	01
Following	None
Scan Width	256 [nm]
Scan Depth	256 [nm]
Scan Scan	01
Scan Scan	10.0%
XZ Scan Mode	00
Head Scan Axis	x
Head Scan Dir	Right to Left
Scan Scan Dir	Left to Right
X Scan Size	30.0 μm
Y Scan Size	30.0 μm
X Scan Offset	5 [nm]
Y Scan Offset	0 [nm]
Scan Size	0 [nm]
Scan Size	0 [nm]
Scan Size	21.000%
Scan Size	0.0%
Sample Size	0.0%
Scan Size	4.0E-01 [-0.000000]
X Scan Size	1.0%



Line	Height	Width	Area	Perim	Depth	Angle	Radius	Area	Perim	Area
Red	-112.092	136.141	12.024	0.044	248.233	105.997	102.024	238.504	-0.091	1.201



SEM MAG: 94 x Det: BSE Detector 1 mm
 HV: 10.00 kV Date(m/d/y): 02/20/07
 View field: 3.20 mm Device: TS5136LM VEGA\\ TESCAN
 G. Gambetti Kenologia



SEM MAG: 619 x

Det: BSE Detector

HV: 10.00 kV

Date(m/d/y): 02/20/07

200 μ m

View field: 487.38 μ m

Device: TS5136LM

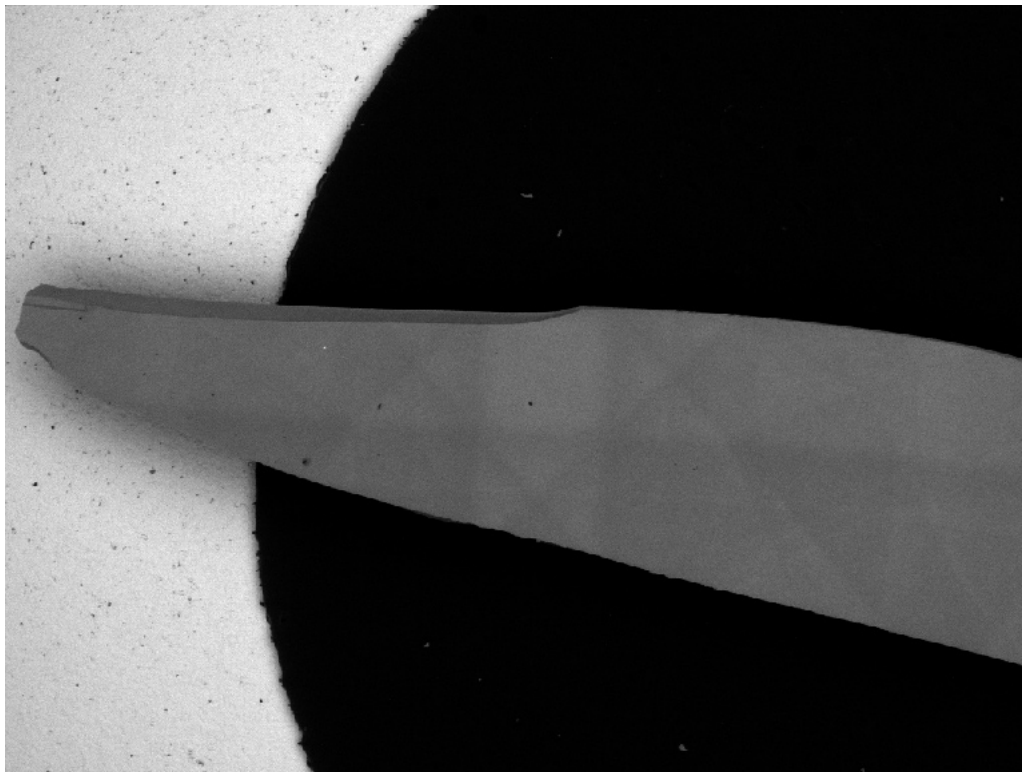
VEGAM TESCAN

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Test results

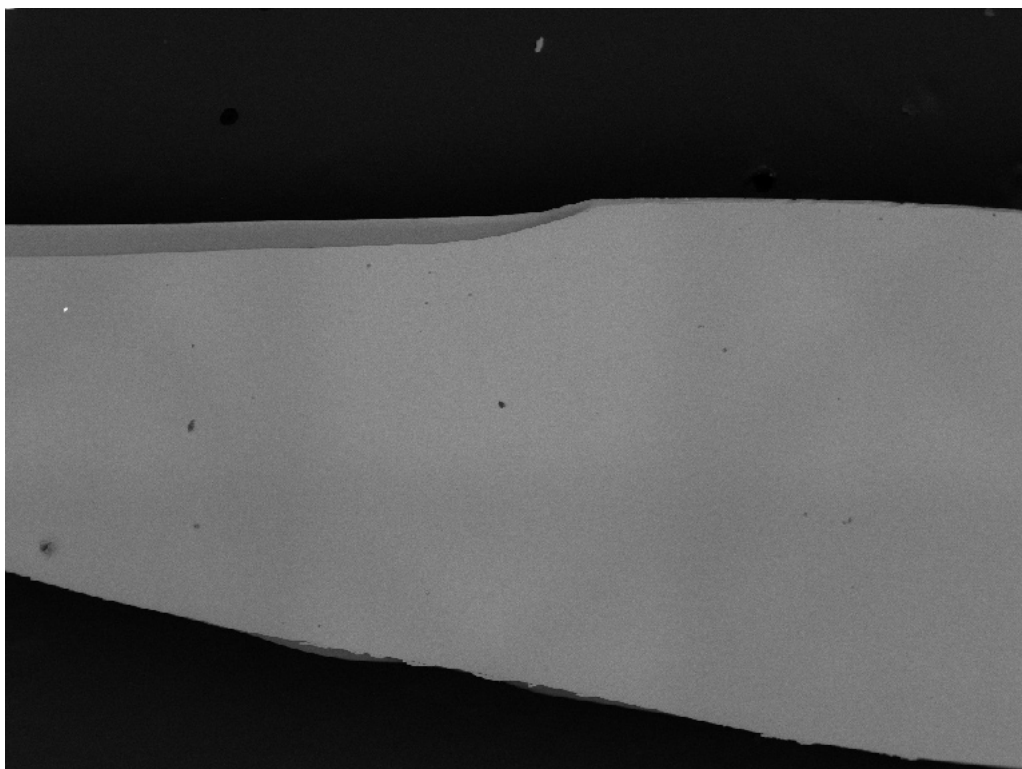
After five minutes of a plasma treatment with air, at a pressure of 3.5×10^{-1} mbar with a power of 80 watts, is clear from the pictures taken with a scanning electron microscope, that all resist has been removed.



SEM MAG: ---
HV: 10.00 kV
View field:

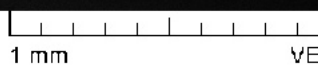
Det: BSE Detector
Date(m/d/y): 02/20/07
Device: TS5136LM

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SEM MAG: 94 x
HV: 10.00 kV
View field: 3.20 mm

Det: BSE Detector
Date(m/d/y): 02/20/07
Device: TS5136LM



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