

# SURFACE CLEANING MONITORING



**Subject:** Are there residues of surfactants on a cleaned surface ? Chemical identification of these residues ?

## Techniques used: XPS + ToF-SIMS

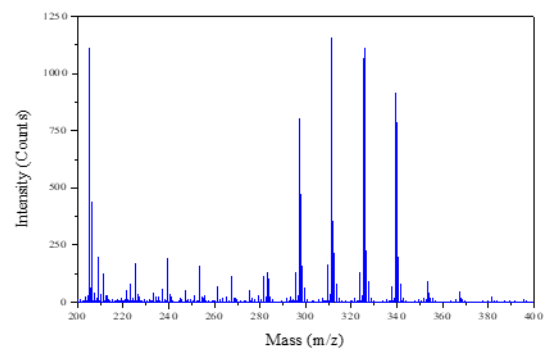
- ✓ **XPS** : quantification of the outmost surface residual contamination, according to the cleaning procedure.
- ✓ **ToF-SIMS** : surfactants identification.

## Results :

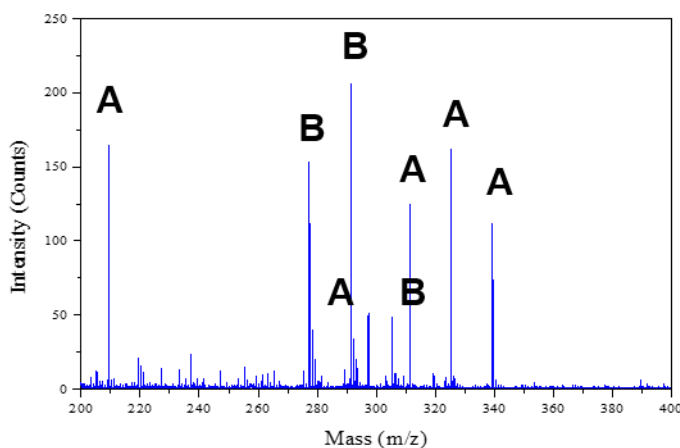
### Quantitative analysis (XPS)

	C at.%	O at.%	N at.%	Ti at.%
Cleaning 1	28.4	47.4	0.6	23.6
Cleaning 2	18.6	50.2	0.7	30.5

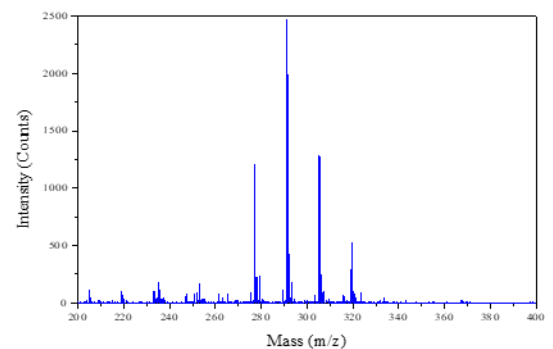
### Surfactant A



### Surface cleaning 1



### Surfactant B



## Conclusion :

- ✓ Traces of both surfactants are present with surface cleaning 1.