

SURFACE CLEANING MONITORING



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

Techniques used: XPS + ToF-SIMS

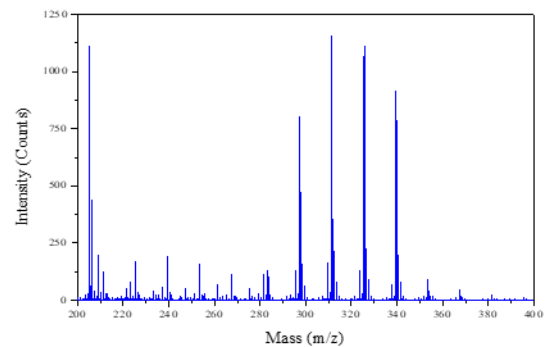
- ✓ XPS : quantification of the outmost surface residual contamination, according to the cleaning procedure.
- ✓ ToF-SIMS : surfactants identification.

Results :

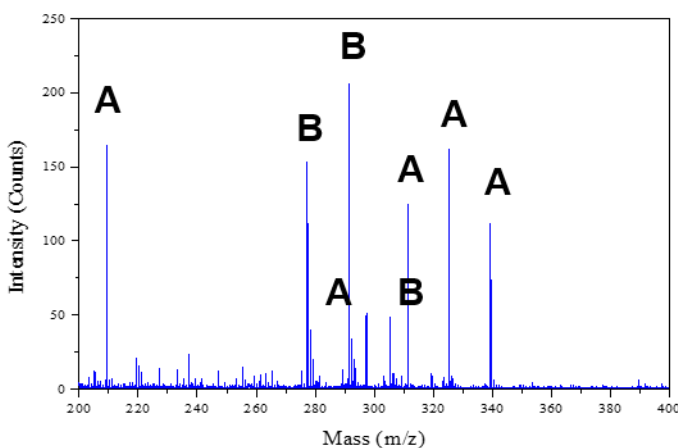
Quantitative analysis (XPS)

	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

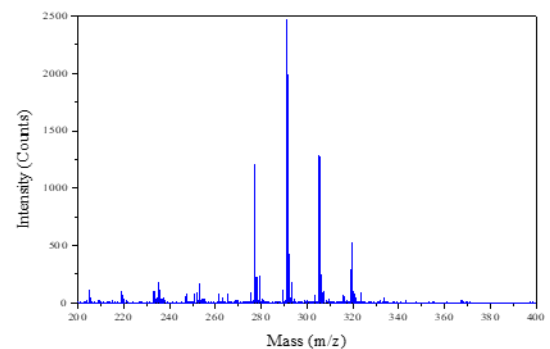
Surfactant A



Surface cleaning 1



Surfactant B



Conclusion :

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