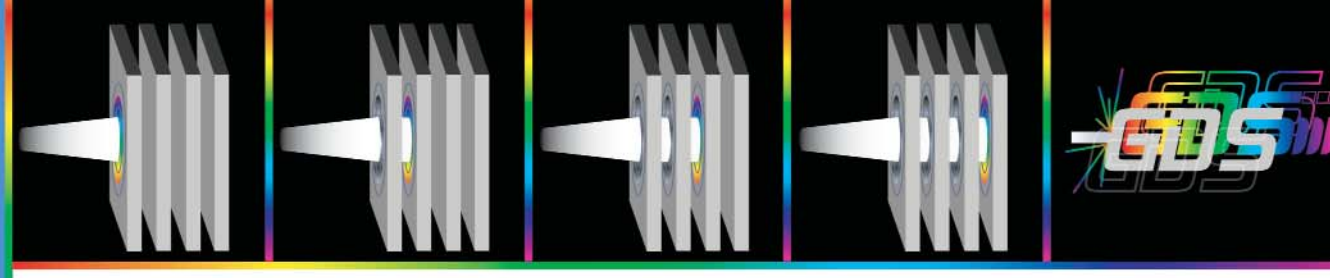
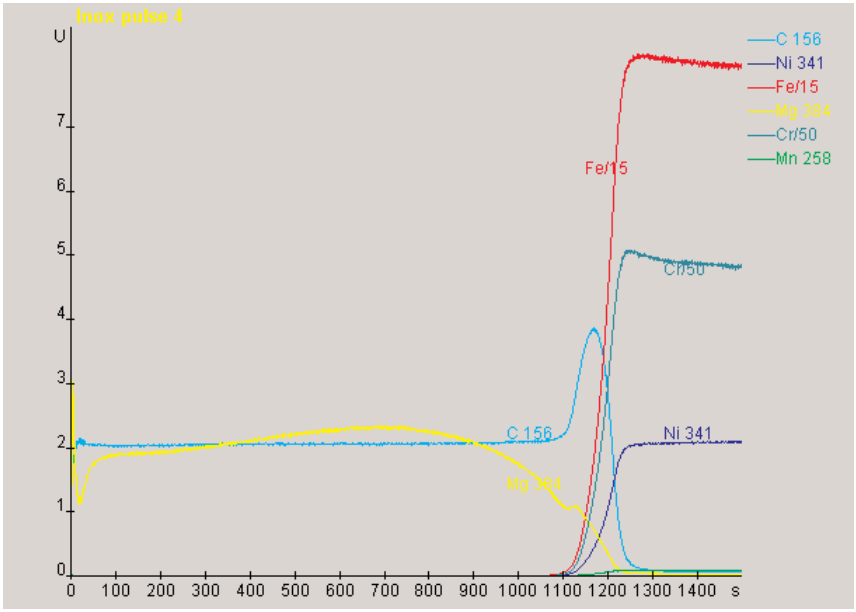
Glow Discharge



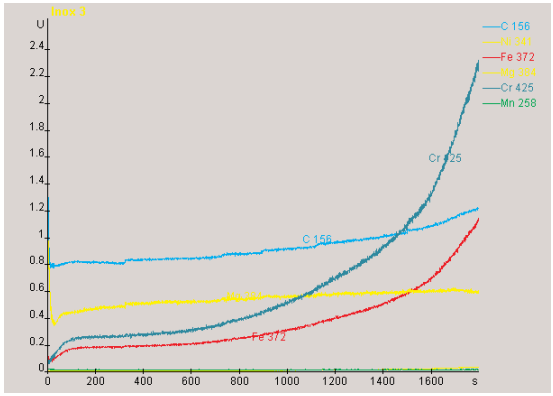
Rubber layer on stainless steel

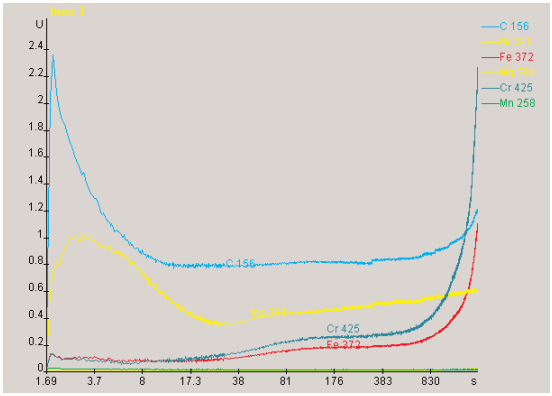
The sample is a stainless steel covered with a double non conductive layer : Bonderite and Rubber.
The rubber layer is thin and melts with normal RF conditions. However with the use of pulsed RF, the heating of the sample is avoided and the analysis made possible.

In the pulsed mode, the RF potential is turned on and off, allowing to operate with high powers (providing sputtering efficiency) and a reduced heating of the sample.



Measurement with Pulsed RF mode. The different layers are clearly identified.





Measurement with normal RF mode (no pulsing). 2 graphs are provided (X axis, and log X). The Fe signal comes out in the rubber layer indicating that the layer has melted and that preferential sputtering is occurring.

Key point : RF in pulsed mode extends the use of GD to low meting point and fragile materials.

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