



THE GLOW DISCHARGE OPTICAL EMISSION SPECTROMETRY [GDOES]

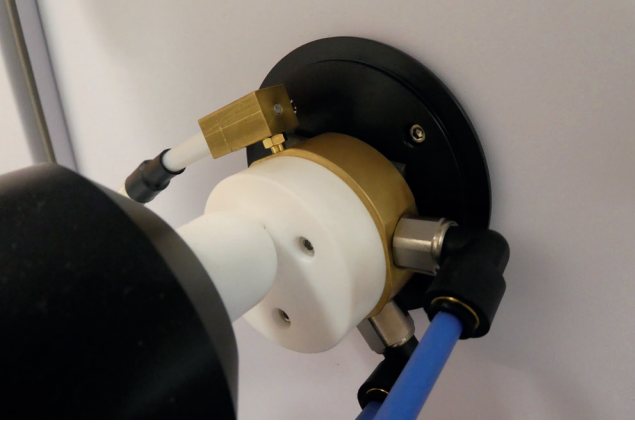
THE GLOW DISCHARGE OPTICAL EMISSION SPECTROMETRY (GDOES) WITH PULSED RF IS THE ONLY TECHNIQUE THAT IS ABLE TO GIVE SURFACE CHEMICAL COMPOSITION, CONCENTRATION PROFILES FROM THE SURFACE TO THE CORE AND THE BULK CHEMICAL COMPOSITION, WITH A HIGH SENSITIVITY FOR ALL THE ELEMENTS OF SOLID MATERIALS – METALS, ALLOYS AND THEIR COATINGS.

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Un équipement

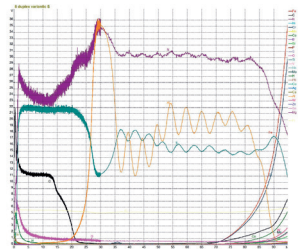
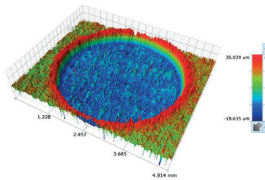




THE GLOW DISCHARGE OPTICAL EMISSION SPECTROMETRY (GDOES) IS A DIRECT TECHNIQUE USED FOR THE ANALYSIS OF QUALITATIVE AND QUANTITATIVE CHEMICAL COMPOSITION AND TO PERFORM CONCENTRATION PROFILES FROM THE SURFACE TO THE CORE OF A PART.

APPLICATIONS

- **Benchmark**
 - Material conformity
 - Heat treatment validation
 - Contamination at interfaces
- **Quantitative analysis of the chemical composition for :**
 - Low alloyed steels
 - Stainless steels
 - Tool steels
 - Aluminum
- **Carbone and Nitrogen measurement after heat-treatment on steels**



- **Qualitative analysis of coatings until nano layers**
 - Depth distribution profile (10 nm to 150 μm)
 - Possibility to detect 28 elements : H, O, N, C, Nb, Cu, Ag, Ni, Co, P, S, Ti, Fe, Mo, Ca, Al, V, Cr (x2), W, Pb, Zn, Sn, B, Mn, Mg, Si, Na.

TECHNICAL CHARACTERISTICS

The glow discharge spectrometry technique is based on material erosion (2-4 mm impact) and allows to obtain a concentration profile of elements, including gases, with excellent depth resolution and good sensitivity. Depth distribution profiles of 10 nm to 150 μm can be achieved with erosion rates on the order of a few microns per minute.