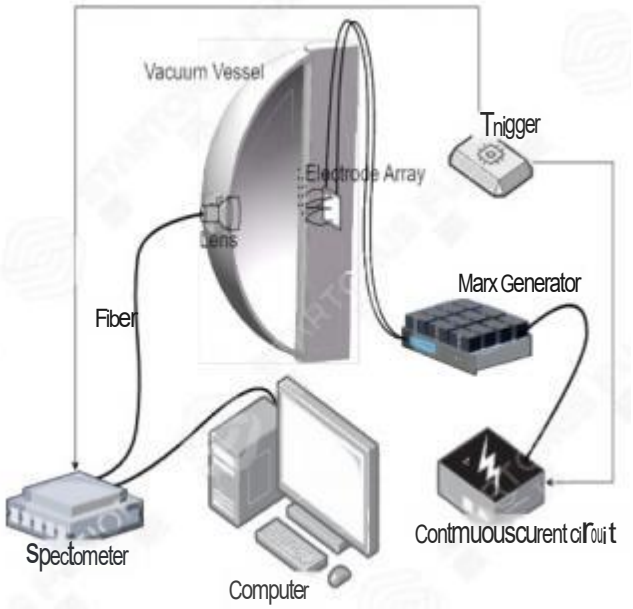
Vacuum Spark Spectroscopy System

Product Overview

Vacuum spark spectroscopy system involves placing detection electrodes inside a vacuum chamber and applying high-voltage pulses to generate electric sparks that ablate solid surfaces. By collecting and analyzing the plasma spectra, information on the compositional changes of the solid surface can be obtained, enabling in-situ real-time diagnosis of the vacuum chamber surface.

This technology complements Laser Induced Breakdown Spectroscopy (LIBS). Compared to LIBS, it offers advantages such as lightweight equipment, not limited by viewing angles, and not affected by window transmittance.



Parameters

- Maximum output voltage of the high-voltage pulse power supply: **-10 kV**
- Discharge energy: **5-12.2 J**, continuously adjustable
- Spectral wavelength range: **400-716 nm**

Applications

The vacuum spark spectroscopy diagnostic system can be applied to real-time compositional diagnosis of solid surfaces inside vacuum chambers and similar scenarios.