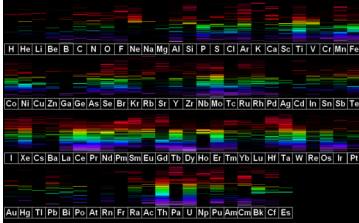


# HITACHI PMI-SmartMaster OES System

## Optical Emission Spectroscopy

The study of the spectra of atoms and molecules in the various wavelength regions of the electro-magnetic spec-



A demand for accurate material testing has raised the bar high for the instruments used for positive material identification (PMI) in petrochemical, petroleum, power plants and MEGA Rules for Oil & Gas

Our Smart-PMI OES system meets and/or exceeds the Industries' most stringent PMI metallurgical alloy chemistry testing requirements. A USDOT workshop was held in Arlington Virginia, covering PHMSA on August 7, 2013 stated: Establish Material Properties by an approved process:

### ***"In Situ Non-Destructive Testing (if validated and Code approved)"***

The Smart-PMI system meets several codes including API 5L, ASME section IX B&PV, ISO 17025 and A2LA standards.

In-Situ OES nondestructive testing method for materials identification excels at providing full chemistry of critical alloy elements at low detection limits where handheld X-ray and LIBS analyzers cannot: Carbon, phosphorus, sulfur, boron, arsenic and tin in low alloy and stainless steels, and nitrogen in duplex steels are no problem. That is why spark OES is the most trusted and widely used method for creation and verification of MTR's (mill testing reports) in



the system is portable and is designed for use "in-situ", in the field gathering, and analysis of chemical property and grade determinations.



### **UVTOUCH Probe**

Sample area preparation is important. Approximately 0.001" will be removed from the surface to assure removal of all contaminants. Post plasma burn the test area will be restored leading to another 0.002" of material removal. Pre and post-test operations are equally important to the operation of the equipment.

### **Custom and proprietary materials: "No Problem"**

