

PORTABLE ZEEMAN MERCURY ANALYZER



RA-915⁺ analyzer; RP-91 and RP-91C attachments



METHOD AND APPLICATIONS

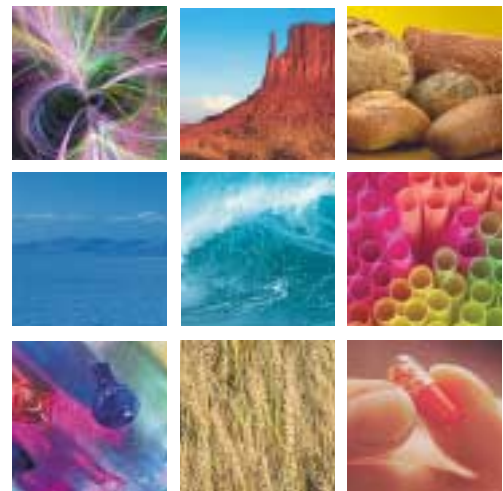
A portable spectrometer designed for interference free analysis/monitoring of mercury content in ambient air; water; soil, natural and stack gases, chlorine alkali manufacturing, spill response, hazardous waste, foodstuff, biological materials.

PRINCIPLE OF OPERATION

Atomic absorption spectrometer with a 10-meter multipath optical cell and Zeeman background correction. This combination eliminates interferences and provides the highest sensitivity.

FEATURES AND BENEFITS

- direct detection of mercury without its preliminary accumulation on a gold trap
- ultralow mercury detection limit in air (2 ng/m³) in real-time operation mode
- wide dynamic quantification measuring range (0.00001 – 0.1 mg/m³)
- mercury determination in complex samples without sample pretreatment
- field operation from a built-in battery for measurements of atmospheric air and industrial gases measurements
- built-in test cell for field performance verification



LUMEX

APPLICATION SAMPLES

Samples	Detection limit	Sample volume or weight	Atomization technique	Number of analyses per hour
Ambient air	2 ng/m ³	20 l/min	without atomization	*
Natural and other gases	2 – 500 ng/m ³	5 – 20 l/min	without atomization	*
Water	0.5 ng/l	20 ml	cold vapor	15
Oil and condensate	50 µg/kg	10 mg	pyrolysis	15
Soil and sediments	0.5 µg/kg	200 mg	pyrolysis	15
Urine	5 ng/l	1 ml	cold vapor	15
Tissues	5 µg/kg	10 mg	pyrolysis	15
Hair	20 µg/kg	10 mg	pyrolysis	15
Blood	0.5 µg/l	0.2 ml	cold vapor	15
Plants	2 µg/kg	50 mg	pyrolysis	15
Foodstuff	2 – 10 µg/kg	5 – 50 mg	pyrolysis	15

* Real-time assaying with a response time of 1 sec

EQUIPMENT AND OPTIONS

- RA-915+ portable Zeeman mercury analyzer
- MS Windows® software
- RP-91 attachment (for liquid samples)
- RP-91C attachment (for complex samples)

For software installation a PC is necessary. Minimal system requirements: Windows®-95/98, Pentium® 120 MHz, 20 Mb RAM, free serial port.



RA-915+ with RP-91C



RA-915+ with RP-91

SPECIFICATIONS

	Size	Weight	Power supply	Power consumption	Rate of analyses per hour
RA-915+ (air)	460x210x110 mm	7.5 kg	~220/110 V, 50/60 Hz; dc 10/14 V	15 W	*
RP-91 attachment ("cold vapor" technique)	340x240x120 mm	4 kg	~220/110 V, 50/60 Hz; dc 6 V	15 W	12 – 15
RP-91C attachment (pyrolysis technique)	340x240x120 mm	5.5 kg	~220/110 V, 50/60 Hz	250 W	6 – 8

* Real-time analysis with a response time of 1 sec

WARRANTY

The unit is so portable and light that we offer a 48-hour replacement policy on the instrument returned to our service site for repairs. A yearly calibration and service contract are available. Experienced Technical support will answer questions and work through problems.

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