

5E-DMA3000

Direct Mercury Analyzer

Standard Configuration

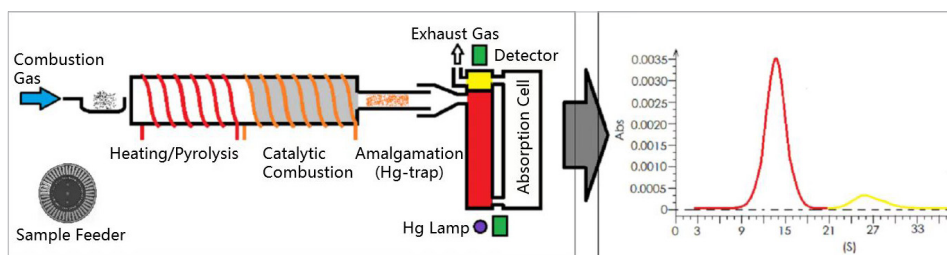
Sample Boat
Sample Holder
Low Pressure Mercury Lamp
Integrated Catalytic Amalgamation Tube
Amalgamation Tube Resistance Wire



Application

5E-DMA3000 Direct Mercury Analyzer is used to determine mercury content in soil, sludge, waste water, food, produce, cosmetics, feed, fertilizer, coal, cooper concentrate, etc. It is able to directly measure the total mercury in solid and liquid samples without the need of complex sample pretreatment, effectively avoiding the loss of mercury in the pretreatment process, cross contamination and experimental environmental pollution, and ensuring the accuracy of the analysis data. Compared with the traditional chemical vapor generation- atomic fluorescence spectrometry method, the pyrolysis method is more efficient, accurate, stable and reliable in measuring mercury, which can greatly reduce labor intensity, and save 70% of analysis time and cost.

Principle



Features

Wide Applicability

Suitable for solid and liquid samples, Able to detect samples in 6 different levels, 0.005ng-1500ng.

High Efficiency

Single test only takes 2-4mins, one batch includes 45 samples, and able to add sample in cycle at any time.

Easy Operation

Weigh sample and place it on auto feeder without digestion. Complete analysis with just one click on Start key.

Excellent Repeatability & Accuracy

Integrated catalytic-amalgamation tube ensures measurement repeatability; composite catalytic agent of high efficiency guarantees the accuracy of test results.

Low Cost

No need for dehydration consumables, consumable cost is 70% lower than the traditional method.

Eco-friendly

No harmful chemicals are used in the whole analysis process. The exhaust gas produced by the analysis is effectively absorbed.

Precision of test methods (n=6)

Sample	Certified Material No.	Reference Value(mg/kg)	DMA3000Test Value(mg/kg)
Rice	GBW(E)100362	(0.0017)	0.0016±0.0002
Citrus leaf	GBW10020	0.150±0.020	0.149±0.003
Celery	GBW10048	0.0146±0.0024	0.0145±0.0005
Chicken	GBW10018	0.0036±0.0015	0.0033±0.0001
Soil	GSS-2	0.015±0.003	0.014±0.001
Soil	GSS-5	0.29±0.03	0.30±0.01
Coal	GBW10060	0.096±0.06	0.092±0.003
Coal of South Africa	SARM20	0.25±0.03	0.25±0.005

Specification

Model	5E-DMA3000
Conforms to Method	EPA 7473, ASTM D6722, ASTM D7623, GB/T 5009.17, GB/T 31947
Principle	Pyrolysis-Mercury Amalgamation-Cold Atomic Absorption
Max Sample QTY	1500mg(Solid) 1500µL(Liquid)
Optical Source	Low-pressure Mercury Lamp
Wave Length	253.7nm
Detector	Double UV Photodetector
Repeatability	RSD<1% @1ng Hg
Analysis Time	2-4mins(depends on samples)
Detection Limit	0.001ng
Working Range	0.005ng-1500ng
Analysis Method	Adjustable according to samples
Carrier Gas	Oxygen(>99.5%) or compressed air
Energy Consumption	Peak<2200W, standby<100W
Calibration	Standard Solution or CRM
Net Weight	40kg
Dimension(L×W×H)	610×505×350mm
Power Supply	AC220V, 50/60Hz, ≤3kW