

Energy Dispersive X-ray Fluorescence Analyzer

OUR TEX 160

Features

1. Small-sized and lightweight (21kg + 9kg), most suited analyzer for on-site analysis.
2. Quickly attainable nondestructive analysis of composition
3. Enhanced sensitivity targeting medium or heavy metal elements
4. Only AC100V - 5A is used for utility. (No liquid nitrogen or cooling water)
5. No setting of controlled area is required.

SMALL-SIZED, LIGHTWEIGHT AND HIGH-SENSITIVITY ANALYZER EXCLUSIVELY USED FOR MEASUREMENT OF HAZARDOUS ELEMENTS



Energy value(keV)																					
1	2															10	11				
3	4															5	6	7	8	9	10
1.041	1.253															1.486	1.740	2.013	2.307	2.621	2.956
11	12															13	14	15	16	17	18
3.312	3.690	4.068	4.508	4.949	5.411	5.894	6.399	6.924	7.471	8.039	8.629	9.241	9.875	10.530	11.208	11.907	12.631				
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
13.373	14.140	14.931	15.744	16.581	17.441	18.325	19.233	20.165	21.122	22.102	23.107	24.137	25.191	26.272	27.378	28.509	29.667				
37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54				
30.852	4.464		7.893	8.139	8.390	8.644	8.903	9.166	9.433	9.703	9.978	10.257	10.540	10.826	11.118	11.413	11.712				
55	56	57-71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86				
12.015	12.324																				
87	88	89-103	104	105	106	107	108	109													
	lanthanoid		4.648	4.837	5.031	5.227	5.430	5.632	5.842	6.053	6.269	6.490	6.715	6.943	7.174	7.409	7.649				
			57	58	59	60	61	62	63	64	65	66	67	68	69	70	71				
	Actinoid		12.635	12.951	13.271	13.595															
			89	90	91	92	93	94	95	96	97	98	99	100	101	102	103				

CONCENTRATION OF ELEMENTAL TECHNOLOGIES WITH HIGH-SENSITIVITY AND HIGH-PRECISION

The energy dispersive X-ray fluorescence analyzer irradiates a primary X-ray to a sample from its X-ray tube. The fluorescent X-ray generated by the analyzer is measured with a semi-conductive detector. Then you can conduct nondestructive qualitative and quantitative analyses of a sample, regardless of its shape.

With use of electronic cooling system Silicon Drift Detector (SDD) for semiconductor detection needing no liquid nitrogen, you can attain analysis of a high count rate and high resolution power in combination with Digital Signal Processor (DSP).

In order to enhance analytical performances, the analyzer is prepared to satisfy the conditions for optical excitation what can maximize energy resolution power and count sensitivity.

Compliance with the Soil Pollution Control Law

Following the enactment of "Soil Pollution Control Law" effective on February 15, 2003, the implementation of content test is also mandatory in addition to dissolution test.

with **OURSTEX 160**

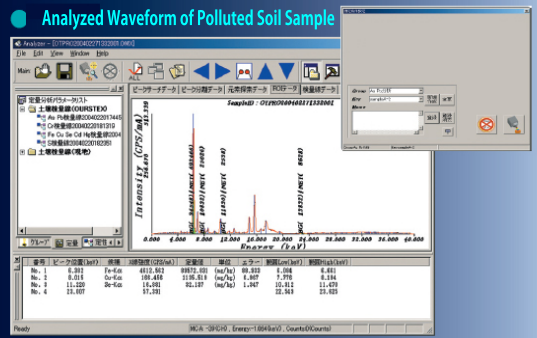
you can make an on-site judgment easily and quickly about the standard value of heavy metal content because of its compactness and portability.

● Designated Hazardous Substances and Criterion in Controlled Area (Excerpt in part)

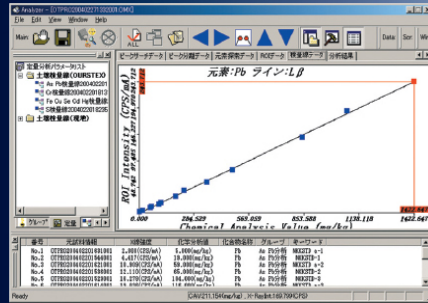
Substances for Analysis	Element	Soil Elution Criterion	Soil Content Criterion
Cadmium and its compounds	Cd	0.01 mg/l or less	150mg/kg or less
Lead and its compounds	Pb	0.01 mg/l or less	150mg/kg or less
Hexavalent chromium compounds	Cr	0.05 mg/l or less	250mg/kg or less
Arsenic compounds	As	0.01 mg/l or less	150mg/kg or less
Mercury and its compounds	Hg	0.0005 mg/l or less	15mg/kg or less
Selenium and its compounds	Se	0.01 mg/l or less	150mg/kg or less

Examples of Analysis

Analyzed Waveform of Polluted Soil Sample



Analytical line of Pb (lead) with Soil Management Sample



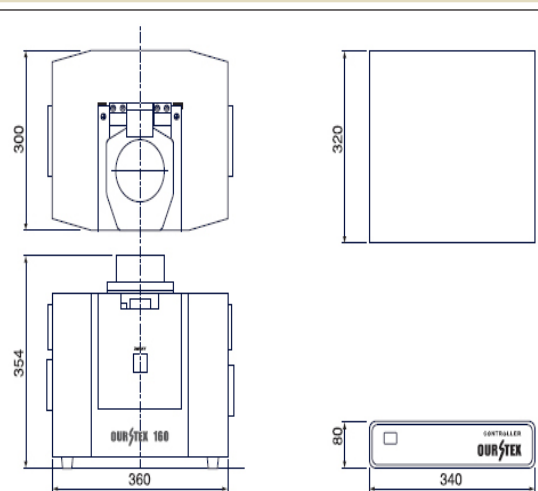
Lower Detection Limit of Hazardous Substances (standard value)

Element	Time for Analysis (300sec)
Cd	3mg/kg
Pb	4mg/kg
Cr	25mg/kg
As	4mg/kg
Hg	6mg/kg
Se	4mg/kg

Specifications

Analytical principle	Energy Dispersive X-ray Fluorescence Analyzer	
Analytical object	Environmental samples (solid, powder and liquid) for soil analysis	
Element to be analyzed	S, Cr, As, Se, Cd, Hg, Pb (13Al to 92U)	
Filtration mechanism	Primary filter (3 types) / Secondary filter- Auto change for one type only	
Shape of sample chamber	78mm φ x 55mmH	
Environment of sample chamber	Atmospheric	
Rated X-ray output	48kV, 2mA, 50W maximum	
Detector	Electronic cooling Silicon Drift Detector	
Counting circuit	Digital processing type	
Conditions of use	Temperature	5 to 27°C
	Humidity	20 to 75%
	Power supply	AC100V, 5A (50/60Hz)
	Facility	Grounding Class D
Other (optional)	Ink jet color printer and mouse Heavy metal sample for analysis management (for creation of analytical line)	

Dimensional drawing



Before an implementation of OURSTEX 160, a notification to Labor Standards Supervision Office is required.

⚠ For your correct and safe use, please be sure to read the operation manual in advance.

Contact for Inquiry

- The product specifications or designs in this literature are subject to change without notice for improvements.
- The product colors may differ from actual ones due to printing.

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