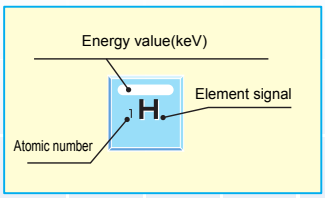
Energy Dispersive X- ray Fluorescence Analyzer

OURSTEX 160M

Features

1. Small-sized and lightweight , 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 AC230V - 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



1 H																	2 He
3 Li	4 Be											5 B	6 C	7 N	8 O	9 F	10 Ne
1.041 11 Na	1.253 12 Mg											1.486 13 Al	1.740 14 Si	2.013 15 P	2.307 16 S	2.621 17 Cl	2.956 18 Ar
3.312 19 K	3.690 20 Ca	4.088 21 Sc	4.508 22 Ti	4.949 23 V	5.411 24 Cr	5.894 25 Mn	6.399 26 Fe	6.924 27 Co	7.471 28 Ni	8.039 29 Cu	8.629 30 Zn	9.241 31 Ga	9.875 32 Ge	10.530 33 As	11.206 34 Se	11.907 35 Br	12.631 36 Kr
13.373 37 Rb	14.140 38 Sr	14.931 39 Y	15.744 40 Zr	16.581 41 Nb	17.441 42 Mo	18.325 43 Tc	19.233 44 Ru	20.165 45 Rh	21.122 46 Pd	22.102 47 Ag	23.107 48 Cd	24.137 49 In	25.191 50 Sn	26.272 51 Sb	27.378 52 Te	28.509 53 I	29.667 54 Xe
30.852 55 Cs	4.464 56 Ba	Lanthanoid 57-71	7.893 72 Hf	8.139 73 Ta	8.390 74 W	8.644 75 Re	8.903 76 Os	9.166 77 Ir	9.433 78 Pt	9.703 79 Au	9.978 80 Hg	10.257 81 Tl	10.540 82 Pb	10.826 83 Bi	11.118 84 Po	11.413 85 At	11.712 86 Rn
12.015 87 Fr	12.324 88 Ra	Actinoid 89-103	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt									
	Lanthanoid		4.648 57 La	4.837 58 Ce	5.031 59 Pr	5.227 60 Nd	5.430 61 Pm	5.632 62 Sm	5.842 63 Eu	6.053 64 Gd	6.269 65 Tb	6.490 66 Dy	6.715 67 Ho	6.943 68 Er	7.174 69 Tm	7.409 70 Yb	7.649 71 Lu
	Actinoid		12.635 89 Ac	12.951 90 Th	13.271 91 Pa	13.595 92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr

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 M

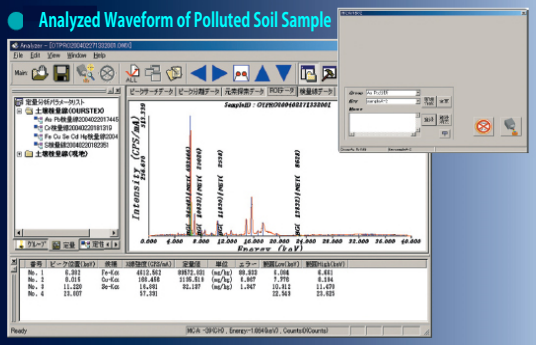
you can make an on-site judgment easily and quickly about the standard value of heavy metal content because of its compactness and portability.

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

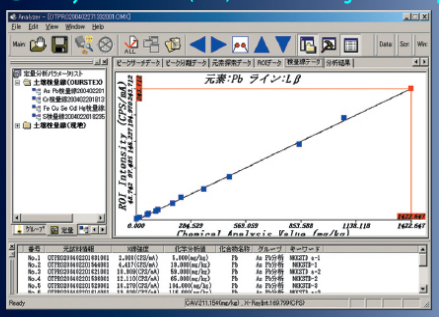
Substances for Analysis	Element	Soil Elution Criterion	Soil Content Criterion
Cadmium and its compounds	Cd	0.01 mg/ℓ or less	150mg/kg or less
Lead and its compounds	Pb	0.01 mg/ℓ or less	150mg/kg or less
Hexavalent chromium compounds	Cr	0.05 mg/ℓ or less	250mg/kg or less
Arsenic compounds	As	0.01 mg/ℓ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



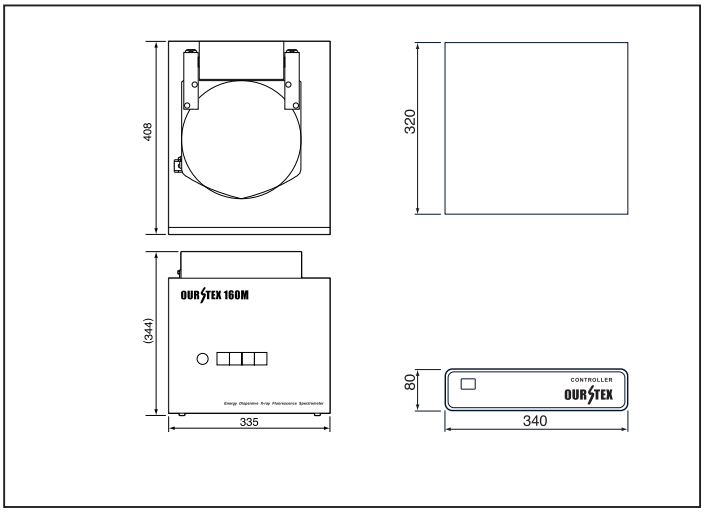
Lower Detection Limit of Hazardous Substances (standard value)

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		31mmφ open end sample holder
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℃
	Humidity	20 to 75%
	Power supply	AC230V, 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 160M,
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

OURSTEX

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