PORTABLE SPARK DIRECT READING SPECTROMETER
CODE OES-P200

STANDARD CURVES: LOW AND MEDIUM ALLOY STEEL, CHROME/NICKEL STAINLESS STEEL

CURVES CAN BE CUSTOMIZED OR ADDED ACCORDING TO REQUIREMENTS

CURVES CAN BE CUSTOMIZED FOR SPECIAL BASE MATERIALS NI, MG, ZN, ETC. (SAMPLES ARE NEEDED)

- Widely used in metallurgy, casting, machining, automobile manufacturing, metal processing, production process control, pre-furnace testing, laboratory inspection and other industries
- Argon flushing UV optical system incorporating CMOS detector technology, dual chamber optical structure, can accurately determine the content of C, P, S, B and other elements in the material
- Automatically eliminates spectral drift due to temperature and pressure changes for accurate measurements
- Ability to add desired measurement curves without adding hardware
- Unique jet electrode technology, can save the use of argon gas, reduce the use of costs
- Replaceable lithium batteries, long battery life, hundreds of consecutive excitation times, to ensure the integrity of the field work
- Small size, easy to carry, analysis and measurement are not limited by the site, can be conveniently brought to the high platform, to complete the outdoor work

STANDARD DELIVERY

Main unit	1 pc
Computer	1 pc
Analysis software	1 pc
Battery	2 pcs
Electrode brush pen	2 pcs
Pressure valve	1 pc
Mobile cart	1 pc
Charger	1 pc
Consumable and spare parts	1 set*

*Including quartz mirror, mirror paper, wrench, air connection line and other common consumables

SPECIFICATION

Optical system	Detector	high performance CMOS
	Optical system construction	paschen-runge double optical chamber structure
	Visible room temperature	34°C±0.5°C
	UV room temperature	34°C±0.5°C
	Raster scribing	3600 lines/mm
	Spectral range	165~580nm
	Average resolution	≤10pm/pixel
	Visible focal length	300mm
	Ultraviolet focal length	298mm
Excitation source	Light source	high energy excitation light source
	Frequency	100~1000Hz
	Excitation voltage	300V
	Excitation current	400A
Excitation stand	Gas supply	argon (purity≥99.9995%, pressure: ≥0.3MPa)
	Flow rate	excitation: 3L/min, standby: 0.3L/min
	Electrode	tungsten electrode
	Purge	automatic cleaning
	Design	self-compensating thermal deformation design
	Analysis interval	2.8mm
Analysis software		automatic calibration control according to the given deviation and number of excitations,display of analytical results in percent, matrix calibration, display of light intensity values, intensity ratio, recalibration and correction of intensity ratio, electrode cleaning according to the set data,display and corresponding deviation, storage and printing of analytical results storage and printing of the results of the detected elements, transfer of the analyzed data to an external computer
Transmission		DM9000A-based ethernet data transmission
Work hours		standby: 10h, continuous excitation: 160~180 times
Work environment		5~35°C
Work power		replaceable lithium battery, 24V
Dimension (LxWxH)		840×700×1050mm
Weight		50kg

IRON BASE CURVES

Elemental content (%)	Fe base (included)	Low alloy steel (included)	Cr/Ni stainless steel (included)	High speed tool steel (**optional**)	High Mn steel (**optional**)	High Cr cast iron* (**optional**)	High Ni cast iron* (**optional**)	Cast iron* (**optional**)
C	0.006-4.5	0.006-1.3	0.008-2.5	0.08-2.2	0.5-2.4	0.9-3.4	1.2-3.8	1.8-4.5
Si	0.01-4.2	0.01-2.9	0.09-4.0	0.04-1.5	0.3-1.7	0.2-2.5	0.04-3.5	0.2-4.2
Mn	0.001-23	0.03-14	0.12-16	0.04-1.7	5.3-23	0.1-2.4	0.001-6.8	0.06-4.7
P	0.0015-0.8	0.002-0.12	0.003-0.3	0.004-0.007	0.01-0.2	0.01-0.3	0.0015-0.56	0.02-0.8
S	0.0015-0.46	0.002-0.46	0.001-0.4	0.001-0.06	0.006-0.11	0.01-0.15	0.0015-0.24	0.003-0.2
Cr	0.0015-32	0.01-12.5	7.4-32	1.8-8.1	0.08-3.8	0.4-34	0.0015-9.1	0.03-2.8
Ni	0.0025-40	0.004-4.4	0.8-40	0.07-0.55	0.04-3.5	0.05-2.75	0.9-36.6	0.05-5.1
Mo	0.0015-9.4	0.004-1.76	0.08-4.2	0.02-9.4	0.1-2.0	0.1-4	0.0015-1.5	0.01-2.1
Al	0.003-1.7	0.003-0.5	0.005-1.7	0.005-1.6	0.008-0.12	-	-	0.002-0.25
Cu	0.002-4.5	0.002-0.7	0.05-4.5	0.04-0.5	0.02-0.6	0.06-1.5	0.005-0.3	0.06-2.0
Co	0.001-16	0.001-0.5	0.008-0.62	0.008-16	0.007-0.1	-	-	0.008-0.03
Ti	0.002-1.1	0.002-0.5	0.005-1.1	-	0.004-0.4	0.01-0.14	-	0.007-0.7
Nb	0.002-2.0	0.002-0.53	0.02-2.0	-	0.08-0.42	0.1-0.7	0.003-0.38	0.002-0.7
V	0.003-2.5	0.003-0.9	0.02-0.58	0.03-2.5	0.01-0.84	0.02-1.2	-	0.01-0.7
Ca	0.0001-0.001	-	-	-	-	-	-	-
B	0.006-0.3	0.006-0.02	0.007-0.02	-	-	-	-	0.002-0.3
Sn	0.001-0.3	0.001-0.09	0.003-0.05	-	-	-	-	0.003-0.3
As	0.001-0.1	0.001-0.1	0.004-0.04	-	-	-	-	0.008-0.09
Sb	0.0005-0.2	0.002-0.02	-	-	-	-	-	0.004-0.2
Fe	REF	REF	REF	REF	REF	REF	REF	REF

*Cast iron samples need to be whitened samples

ALUMINUM BASE CURVES

Elemental content (%)	Al base (optional)	Al low alloy (optional)	Al-Si alloy (optional)	Al-Zn alloy (optional)	Al-Cu alloy (optional)	Al-Mg-Si alloy (optional)
Si	0.01-24	0.01-1.63	0.02-24	0.02-9.4	0.02-7	0.02-2.3
Fe	0.01-4	0.01-1.65	0.02-4	0.03-1	0.05-1.9	0.07-0.80
Cu	0.002-13	0.002-1	0.005-6	0.01-4.3	0.01-13	0.07-1
Mn	0.001-2.4	0.001-1	0.005-1	0.02-1	0.05-1	0.03-2.4
Mg	0.002-10.2	0.002-1	0.01-1.5	0.01-4	0.01-2.7	0.006-10.2
Cr	0.001-0.5	0.001-0.15	0.005-0.5	0.01-0.4	0.01-0.14	0.01-0.4
Ni	0.001-2.5	0.001-0.16	0.02-2.5	0.01-0.2	0.01-2.3	0.005-0.25
Zn	0.002-12	0.002-0.5	0.005-3.5	0.01-12	0.05-3.5	0.01-1
Ti	0.001-0.4	0.001-0.15	0.005-0.4	0.005-0.3	0.001-0.2	0.007-0.3
Ca	0.002-0.03	-	0.002-0.03	-	-	-
Cd	0.001-0.3	0.01-0.3	0.001-0.3	0.002-0.3	0.01-0.3	0.01-0.3
Ga	0.002-0.2	0.002-0.06	0.005-0.2	-	-	0.009-0.02
Pb	0.001-0.5	0.02-0.5	0.005-0.5	0.005-0.5	0.01-0.5	0.001-0.5
Sb	0.005-0.4	-	0.005-0.4	-	-	-
Sn	0.005-0.5	0.01-0.2	0.003-0.5	0.005-0.2	0.02-0.3	0.007-0.2
V	0.002-0.2	0.004-0.05	0.005-0.2	0.005-0.03	0.01-0.03	0.002-0.03
Zr	0.001-0.3	0.001-0.12	0.005-0.2	0.01-0.3	0.001-0.2	0.003-0.12
P	0.002-0.005	-	0.002-0.005	-	-	-
Al	REF	REF	REF	REF	REF	REF

COBALT BASE CURVES

Elemental content (%)	Cu base (optional)	Brass (optional)	Copper (optional)	Al-Cu alloy (optional)	Beryllium bronze (optional)	Sn-Pb-Cu alloy (optional)	Pure copper (optional)	Si-Bronze (optional)
Zn	0.001-43.0	0.5-43.0	0.01-23.0	0.04-2.2	0.005-0.23	0.003-0.7	0.001-0.3	0.2-6.0
Pb	0.001-21.0	0.01-6.0	0.002-0.13	0.002-0.068	0.005-0.3	0.001-21	0.001-1.5	0.01-08
Sn	0.001-11.2	0.009-4.8	0.009-0.13	0.003-0.35	0.005-0.18	0.005-11.2	0.001-0.3	0.05-0.7
P	0.001-0.42	0.002-0.14	0.003-0.07	-	-	0.001-0.42	0.001-0.078	0.005-0.08
Mn	0.001-5.3	0.001-5.3	0.009-1.1	0.001-3.1	-	0.001-0.4	0.001-0.1	0.2-1.8
Fe	0.001-6.0	0.02-3.0	0.03-1.03	0.005-6.0	0.02-0.28	0.003-0.028	0.001-0.2	0.1-1.7
Ni	0.001-32.5	0.009-1.8	5.5-32.5	0.005-6.0	0.005-0.35	0.001-1.0	0.001-0.5	0.05-1.0
Si	0.001-5.0	0.001-4.6	0.009-0.46	0.004-0.3	0.02-0.3	0.002-0.009	0.001-0.055	1.5-5.0
Mg	0.001-0.7	0.001-0.01	0.003-0.14	-	0.003-0.7	-	0.001-0.01	-
Cr	0.001-0.2	0.001-0.2	-	-	-	-	0.001-0.081	-
As	0.001-0.3	0.001-0.2	0.003-0.05	-	-	0.004-0.2	0.005-0.3	-
Sb	0.001-0.6	0.001-0.4	0.001-0.012	-	-	0.001-0.6	0.005-0.35	0.005-0.07
Ag	0.001-0.06	-	-	-	-	0.001-0.14	0.006-0.13	-
Co	0.001-0.1	0.004-0.1	-	-	-	0.001-0.1	-	-
Al	0.001-12.9	0.001-6.7	-	3.0-12.9	0.02-0.2	0.01-0.1	-	-
S	0.001-0.15	0.001-0.15	0.004-0.06	-	-	0.001-0.14	0.001-0.05	-
Cu	REF	REF	REF	REF	REF	REF	REF	REF