

OES-3095 CCD SPECTROMETER

- Precise
- Reliable
- Fast
- Versatile



EPC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

Analytical Technologies Limited

An ISO 9001 Certified Company

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OES-3095 CCD Spectrometer provides the ideal performance and fit for product assurance testing and material identification. This spectrometer delivers maximum convenience and reliability based on CCD technology.

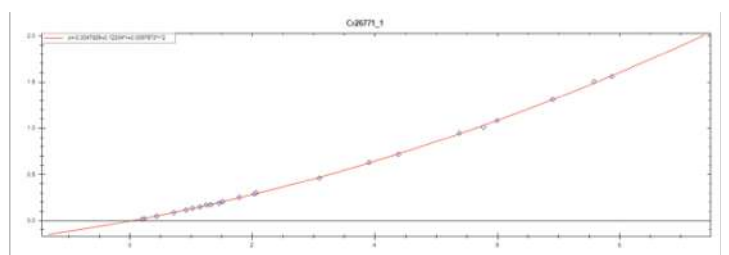
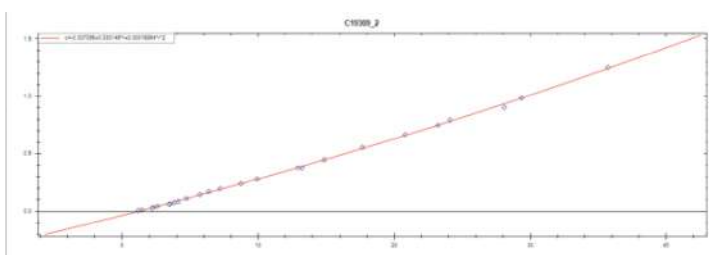
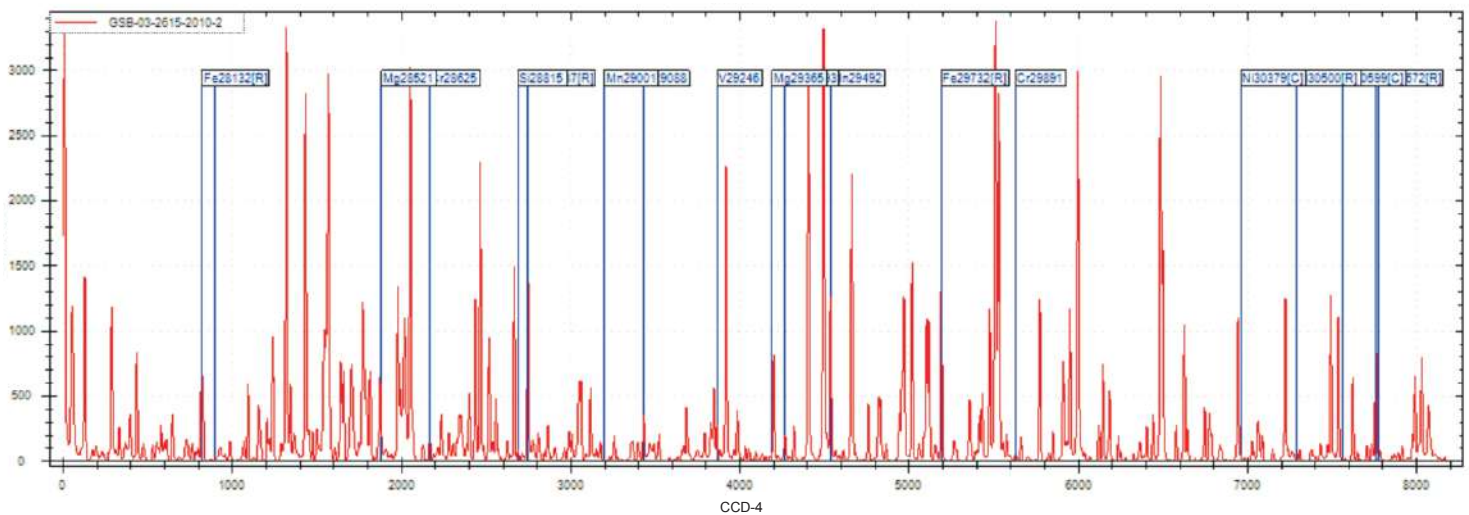


OES-3095 CCD Spectrometer is most suitable instrument for the determination of various elements in different matrices (Fe, Al, Cu, Zn, Ti, Ni, Pb, etc.). In steel, raw iron, cast iron, non-ferrous metal production a fully or even partially automated analysis results in a cost reduction. In order to meet individual requirements, modular systems have been developed for laboratory automation. This also gives the user a truly portable spectrometer that's both easy to use and easy to space save.



OES-3095 CCD Spectrometer is Innovative Solution to Metal Analysis.

- Optimized to customer requirements
- Complete analysis within a few seconds.
- Extreme sensitivity due to latest CCD technology and software.
- Wavelength coverage 170nm-800nm, permitting simultaneous analysis for up to 31 elements.
- Available for routine analysis of small sample, diameter from 1mm to 8mm.
- Humanized design, configuring as a bench top or floor model with storage possibilities for consumables and spares.
- Optimal advisory services best suited to your needs.
- Technology support and software update for free.
- Adding additional analysis method without any change of hardware.
- Precise reliable fast, versatile and affordable.



SPECIFICATION

Optical System	Optical Structure	Paschen-Runge Mount
	Rowland Circle Of Diameter	350mm
	Wavelength Range	170nm-800nm
	Detector	Multi high resolution CCD detectors
	Pixel Resolution	30pm
	Full Spectrum	
	Light room temperature is controlled automatically	
Spark Source	Type	Digital arc and spark source/New plasma generator
	Spark Frequency	100-1000Hz
	Plasma Current	1-80A
	Ignition Voltage	>8000V
Spark Stand	Argon flushed with minimal consumption of Argon	
	Spray discharge electrode technology	
	Adjustable sample clamp	
Others	Measurable Elements	Fe base, Al base, Cu base, Zn base, etc.
	Dimension	657mm(L)*670mm(W)*340mm(H)(Benchtop)
	Weight	40Kg (Benchtop)
	Storage Temperature	0°C-45°C
	Operating Temperature	10°C-30°C, 23±2°C is recommended
	Power	AC220V/50Hz
	Power Consumption	Excitation: 300W/Stand by:100W
	Argon Quality	99.999%, Argon pressure >4MPa
	Argon Consumption	5L/min during spark mode

CORE COMPONENTS

No.	Product	Brand	Place of origin
1	Linear ray CCD	Toshiba	Japan
2	Optical grating	Zeiss	Germany
3	Optical lens	Zeiss	Germany
4	Optical fiber	Agilent	America
5	slit	Lenox laser	America
6	Filter	TDK	Japan
7	Pressure sensor	SSI	Canada
8	Magnetic valve	Burkert	Germany
9	Light source module	Analytical technologies Limited	India
10	system control module	Analytical technologies Limited	India
11	data acquisition module	Analytical technologies Limited	India
12	Vacuum optical module	Analytical technologies Limited	India
13	Spark stand module	Analytical technologies Limited	India
14	System software	Analytical technologies Limited	India
15	Laptop or PC	Lenovo	China
16	Printer	HP	America
17	Standard sample	National Standard	China or Import



Matrices

- Available for Fe, Al, Cu, Zn, Ti, Ni, Pb, etc.

Spark Stand

- Argon flushed with minimal consumption.
- Minimal maintenance requirements.
- Customized small sample clamp .

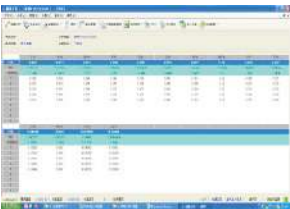


Read-out System

- Ethernet data transmission based on DM9000A
- High performance Read-out System processes the spectrum data five times faster than traditional systems

Excitation Source

- Optimized ignition parameters
- Pre-spark with high discharge energy
- HEPS digital excitation source
- Maximum power : 700w, standby 40W

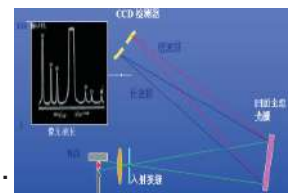


Software

- High accurate analysis results are easily achieved.
- Status monitor in sparking
- Microsoft Windows 7 operating system
- Strong Database capability
- Customized format of report

Optical system

- Multi-CCD detectors with high resolution
- Paschen-Runge structure with full wavelength coverage
- Saving valuable analytical time and enhancing accuracy and detection limits.
- Incorporate sample excitation and automated sample monitoring techniques.



Electrical and Environmental Requirements:

- Voltage : AC220V, 50Hz
- Temperature : 10°C~30°C.
- Humidity : 20%~80%
- Purity of Argon : 99.999%

Dimensions

	Bench top
Length	657 mm
Width	670 mm
Height	340 mm

OES-3095

**The Quantity of Measured Elements and also
The Top and Bottom Borders of Ranges of Concentrations.**

OES-3095 CCD Analytical module of Fe-base										
		FE-000	FE-001	FE-002	FE-003	FE-004	FE-005	FE-006	FE-007	FE-008
NO.	Element	Fe-orientation	low alloy steel	cast iron	Cr-Cr/Ni-steel	Mn-steel	Cr-hard cast	Cr-resist	tool steel	Ni-resist
1	C	015-4.3	0.0015-1.3	1.8-4.5	0.008-2.5	0.5-2.4	0.9-3.4	0.04-2.2	0.08-2.2	1.2-3.5
2	Si	0.001-5.5	0.01-3.9	0.2-4.7	0.09-4.0	0.3-1.7	0.2-2.5	0.1-1.4	0.04-1.5	0.04-1.5
3	Mn	0.001-19.6	0.03-2.1	0.06-4.7	0.12-16	5.3-23	0.1-2.4	0.1-1.5	0.04-1.7	0.001-2.1
4	P	0.0015-2.4	0.002-0.12	0.02-0.8	0.003-0.3	0.01-0.2	0.01-0.3	0.006-0.05	0.004-0.07	0.0015-0.56
5	S	0.0015-0.35	0.002-0.16	0.003-0.2	0.001-0.4	0.006-0.11	0.01-0.15	0.001-0.3	0.001-0.06	0.0015-0.24
6	Cr	0.001-32.1	0.01-4.5	0.03-10.5	7.4-32	0.08-3.8	0.4-34	7.8-24	1.8-14	0.0015-9.1
7	Ni	0.0025-43.4	0.004-4.4	0.05-6.8	0.8-32	0.04-3.5	0.05-32	0.09-4.2	0.07-0.55	0.9-36.6
8	Mo	0.001-9.5	0.004-1.3	0.01-2.1	0.08-4.2	0.1-2.0	0.1-4	0.02-1	0.02-9.4	0.0015-1.5
9	Al	0.003-2.1	0.003-1.5	0.002-0.12	0.005-1.7	0.008-0.12	0.003-1.5	0.1-1.7	0.005-1.6	
10	Cu	0.002-8.1	0.002-0.5	0.06-2.2	0.05-4.5	0.02-0.6	0.06-1.5	0.02-0.5	0.04-0.5	0.005-0.3
11	Co	0.001-17.9	0.001-0.5	0.008-0.03	0.008-17	0.007-0.1	0.001-0.5	0.01-0.5	0.008-8.0	
12	Ti	0.002-1.2	0.002-1.2	0.007-1.0	0.005-1.1	0.004-0.4	0.01-0.14	0.006-0.4	0.006-0.4	
13	Nb	0.002-2.0	0.002-0.3	0.002-0.7	0.02-2.0	0.08-0.42	0.1-0.7	0.002-0.7	0.002-0.7	0.003-0.38
14	V	0.003-9.5	0.003-0.9	0.01-0.7	0.02-9.5	0.01-0.84	0.02-1.2	0.03-1.1	0.03-2.5	
15	W	0.03-19	0.03-2.1	0.007-1.0	0.002-4.1	0.03-2.1	0.03-2.1	0.05-0.7	0.06-19	
16	Pb	0.001-0.07	0.003-0.03	0.002-0.04	0.001-0.02	0.003-0.03	0.003-0.03	0.003-0.03	0.001-0.07	
17	Fe	Balance	Balance	Balance	Balance	Balance	Balance	Balance	Balance	Balance

OES-3095 CCD Analytical module of Al-base5							
		AL-000	AL-001	AL-002	AL-003	AL-004	AL-005
NO.	Element	Al-orientation	pure/ low alloy	Al/Si-alloys	Al/Zn-alloys	Al/Cu-alloys	Al/Mg-alloys
1	Si	0.01-24	0.01-1.2	0.02-24	0.02-9.4	0.02-7	0.02-2.3
2	Fe	0.01-4	0.01-4	0.02-4	0.03-1	0.05-1.9	0.07-0.8
3	Cu	0.002-6	0.002-1	0.005-6	0.01-4.3	0.01-13	0.007-1
4	Mn	0.001-2.4	0.001-1	0.005-1	0.02-1	0.05-1	0.03-2.4
5	Mg	0.002-4	0.002-1	0.01-1.5	0.01-4	0.01-2.7	0.006-10.2
6	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
7	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
8	Zn	0.002-12	0.002-0.5	0.005-3.5	0.01-12	0.05-3.5	0.01-1
9	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
10	Pb	0.001-0.5	0.002-0.5	0.005-0.5	0.005-0.5	0.01-0.5	0.001-0.5
11	Al	Balance	Balance	Balance	Balance	Balance	Balance

OES-3095 CCD Analytical module of Cu-base5								
		Cu-000	Cu-001	Cu-002	Cu-003	Cu-004	Cu-005	Cu-006
NO.	Element	Cu-orientation	Cu/Zn-alloys	Cu/Zn/Ni-alloys	Cu/Al-alloys	Cu/Be/Co/Ag-alloys	Cu/Sn/Pb-alloys	pure Cu
1	Zn	0.001-42	0.5-42	15-26	0.04-7	0.005-0.23	0.003-11.3	0.001-0.3
2	Pb	0.001-6	0.01-6	0.002-1.3	0.002-0.12	0.005-0.3	0.001-21	0.001-1.5
3	Sn	0.001-9.5	0.009-9.5	0.009-5.8	0.003-2.5	0.005-0.18	0.005-19	0.001-0.3
4	Mn	0.001-5.3	0.001-5.3	0.001-1.8	0.001-2.4	0.005-0.08	0.001-0.4	0.001-0.1
5	Fe	0.001-6	0.02-3	0.03-2.7	0.005-6	0.02-0.28	0.003-1	0.001-0.2
6	Co	0.004-2.0	0.004-0.5	0.007-0.3		0.15-2.0	0.001-0.2	0.001-0.05
7	Ni	0.001-34	0.009-1.8	5.5-34	0.002-6	0.005-0.35	0.001-5	0.001-0.5
8	Si	0.001-4.6	0.001-4.6	0.002-0.8	0.004-0.3	0.02-0.3	0.002-1.4	
9	As	0.001-0.3	0.001-0.2	0.005-0.05	0.001-0.03		0.004-0.2	0.005-0.3
10	Sb	0.001-0.6	0.001-0.4		0.001-0.1		0.001-0.6	0.005-0.35
11	Cd	0.001-0.03	0.001-0.02		0.001-0.01			0.001-0.03
12	Bi	0.002-5.5	0.002-5.5	0.001-0.1	0.002-0.12		0.006-1.0	0.001-0.07
13	Al	0.001-12	0.001-6.7	0.001-2.0	3.0-12	0.02-0.2	0.01-0.6	0.002-0.02
14	P	0.001-1	0.002-0.2	0.003-0.05	0.002-0.2		0.001-1	0.001-0.02
15	Be	0.32-3.2				0.32-3.2		
16	Cu	Balance	Balance	Balance	Balance	Balance	Balance	Balance

OES-3095 CCD Analytical module of Zn-base								
		Zn-001	Zn-002	Zn-003	Zn-004	Zn-005	Zn-006	Zn-007
NO.	Element	pure zinc	Zn/Al/Pb	remelted zinc	Zn/Al 2%	Zamak 2, 3, 5	Zamak 6, 8, 12, 15	Zamak 27
1	Al	0.005-1.3	0.01-1.3	0.005-1.4	1.5-4	2-6	4-15	8-60
2	Cd	0.001-0.38	0.001-0.38	0.001-0.5	0.001-0.003	0.001-0.03	0.002-0.024	0.001-0.015
3	Cu	0.005-2	0.005-1.9	0.002-0.8	0.005-1	0.005-3	0.1-3.2	0.1-3.2
4	Fe	0.005-0.08	0.005-0.42	0.005-1.3	0.00-0.036	0.003-0.1	0.003-0.09	0.001-0.14
5	Mg	0.005-0.055	0.03-0.11		0.005-0.07	0.005-0.2	0.005-0.055	0.005-0.06
6	Mn	0.005-0.006	0.005-0.018		0.005-0.032	0.005-0.05	0.005-0.02	0.005-0.015
7	Ni	0.005-0.05	0.005-0.01		0.005-0.02	0.005-0.05	0.005-0.012	
8	Pb	0.004-0.25	0.004-1.4	0.003-2.6	0.002-0.012	0.002-0.055	0.002-0.082	0.004-0.028
9	Sn	0.001-0.09	0.002-0.12	0.001-1.6	0.005-0.005	0.005-0.02	0.005-0.022	0.005-0.015
10	Ce	0.001-0.05				0.005-0.055		
11	La	0.002-0.025				0.002-0.05		
12	Zn	Balance	Balance	Balance	Balance	Balance	Balance	Balance

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and Defined by the Customer.**

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HPLC Servicing :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

Trainings :We also take up preventive Maintenance to reduce downtime of HPLC's Trainings.

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Validations :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

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Counter



Optical Emission
Spectrophotometer



DSC/TGA



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Reader/Washer



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Urine Analyzer



Total Organic
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