

GAMMA SPECTROSCOPY & COMPTON EFFECT SC-3056



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

Analytical Technologies Limited

An ISO 9001 Certified Company

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►► Principle and Working :

This setup with internal pre-amplifier allows direct connection to scintillation detectors. The bipolar amplifier includes polarity selection and multiple shaping times when using different types of detectors with external pre-amplifiers. Upper and lower level discriminators may be set for rejection of unwanted signals. The high voltage supply is rated to +2048V for use with scintillation or proportional detectors. Optional polarity selection is available for use with detectors requiring negative bias. A pre-amplifier power connector ($\pm 12V$) is included for use with our model PA-1 external pre-amplifier. A 10 μ sec fixed conversion ADC allows high throughput with dead-time correction. Input selection for pre-amplifier, amplifier or ADC is controlled through computer. A background buffer is included for storing a spectrum when background subtraction, fractional spectrum stripping or overlay is required. Presets include real time, live time and ROI integral. Advanced spectrometer System may be operated as a multichannel scaler for time correlated studies e.g. half-life decay. A special mossbauer mode is included with MSB output for synchronization of the drive circuit. X-ray mapping may be performed with the optional ROI output. An auto-calibrate mode is provided that automatically sets the HV and amplifier gain to 1 keV/channel using a Cs-137 source.

Item Name	Qty.
Universal Computer Spectrometer	1
Scintillation probe with stand	1
Set of 20 Absorbers	1
Lead Shield for radioactive sources	1
USB cable	1
Manual CD	1

Universal Spectrometer ATL-S30-XK



►► SPECIFICATIONS :

Physical	Pulse height analysis and Multichannel Scaling modes, up to 4096-channels depending on model.
Data Input	BNC connector multi-function input. On-board relays select internal preamplifier, shaping amplifier or direct to ADC when using external signal processing.
Gate Input	BNC, open gate. TTL low closes gate to ADC.
HV Output	MHV connectors. Positive output, (switched positive or negative outputs with HV option). (SHV connectors optional), 0-2048 volts, 1mA maximum current at 1000 volts.
MCS Input	BNC connector bypasses internal preamp/ amplifier. Accepts positive TTL signal >150n sec., 5MHz maximum rate.
ROI Output	BNC, generates pulse each time an event occurs in set region of interest.
MSB Output	TTL output of dwell counter most-significant-bit for synchronizing Mossbauer drive.
USB	USB type "A" connector
Preamplifier	Charge sensitive preamplifier for use with scintillation detectors and PMTs.
Amplifier	Bipolar shaping amplifier with selectable peaking times of 1, 2, 4 and 8µsec. Coarse and fine gain from x1 to x160.
Ext. Preamp	DB-9F connector supplies ±12 volts.
ADC	Fixed conversion 10µsec. Conversion gain from 256 to 4096 channels depending on model. Direct input accepts pulse peaking times of 0.5µsec. to 10µsec.
LLD & ULD	Independently computer controlled discriminators over entire input range.
Modes	MCA for pulse height analysis, MCS for half-life decay or other time related studies and Mossbauer mode.
Timers	Real-time 1sec. increments for PHA, or dwell times from 10-60 msec. per channel in MCS mode. In Mossbauer mode, 100-500µsec.
Memory	Up to 4096 channels x 3 Bytes for data, plus region-of-interest flag.
Dead time	System dead time is computed.

Scintillation Probe With Stand ATL-38



SPECIFICATIONS	
Scintillation detector	38x38mm ² NaI(Tl) crystal with with voltage divider.
Resolution	7% @ 662 keV.
Stand	10 position stand with sample tray
BNC cable	BNC6 and MHV6 cable.

Set of 8 Gamma Sources ATL-8



SPECIFICATIONS				
Isotope	Activity	Half-life	Emissions	Energies (keV)
Ba133	1uCi.	10.7yrs	Gamma	81.0, 276.3, 303.7, 355.9, 383.7
Cd109	1uCi.	453days	Gamma	88.0
Co57	1uCi.	270days	Gamma	122.1, 136.4
Co60	1uCi.	5.27yrs	Gamma β	1173.2, 1332.5, β317.9
Cs137	1uCi.	30.1yrs	Gamma β	32, 661.6, β511.6, β1173.2
Mn54	1uCi.	312days	Gamma β	834.8, β542.2
Na22	1uCi.	2.6yrs	Gamma	1274.5, 511
Cs/Zn	1uCi.	Mixed	"Unknown"	32, 661.6, 1115.5

►► HPLC Servicing, Validation, Trainings and Preventive Maintenance :

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/U SFDA norms.
Instruments	:Instruments :We offer instruments / Renting Services Modules like pumps, detector etc. on Rent.



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►► Corporate Social Responsibility

Analytical Foundation is a Nonprofit Organization (NGO) found for the purpose of:



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►► Reach us @



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