



Shell, Jr. 1000 & 2000 Radioactivity Detectors & Software for HPLC, & GC

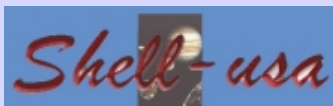
Radioactivity Detectors for HPLC, & GC

The screenshot displays the Shell-USA software interface. At the top, a menu bar includes 'File', 'Edit', 'View', 'Acquisition', and 'Help'. Below the menu is a '3D display' window showing a 3D chromatogram with multiple peaks. To the left of the 3D display are control buttons: 'Load...', 'Print', 'Move up', 'Move down', 'Delete', 'Clear', 'Settings...', and 'Close'. An 'Auto scaling' checkbox is also present. Below the 3D display is a 2D chromatogram showing several peaks. In the bottom left, a 'Calibration - channel 1 / 107' window contains a table with columns: 'Injected', 'Area/height', 'Previous1', 'Previous2', 'W', 'Result', 'CF', and 'TOLUENE.CAL'. Below the table is a graph of 'AREA' vs 'AMOUNT INJECTED' with a linear fit line. In the bottom center, a 'Data smoothing' dialog box is open, showing 'Source channel: 1', 'Destination channel: 2', and 'Method' options: 'Moving Average', 'Olympic', and 'Savitzky-Golay' (selected). Below the dialog is a 'Filter width: 2' input field and an 'Apply' button. In the bottom right, a 'Subtract/add channels' dialog box is open, showing 'Subtract' selected, 'channel 2' from 'channel 1', and 'OK' and 'Cancel' buttons.

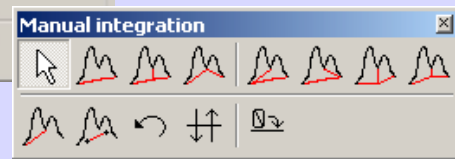
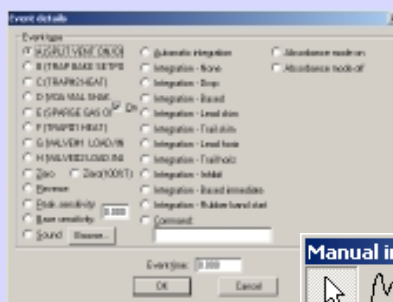
Injected	Area/height	Previous1	Previous2	W	Result	CF	TOLUENE.CAL
1	100.0000	0.0000	0.0000	1	100.0000	10.0000	
2	500.0000	0.0000	0.0000	1	500.0000	10.0000	
3	1000.0000	0.0000	0.0000	1	900.0000	9.0000	
4	0.0000	0.0000	0.0000	1	0.0000		
5	0.0000	0.0000	0.0000	1	0.0000		
6	0.0000	0.0000	0.0000	1	0.0000		
7	0.0000	0.0000	0.0000	1	0.0000		
8	0.0000	0.0000	0.0000	1	0.0000		
9	0.0000	0.0000	0.0000	1	0.0000		
10	0.0000	0.0000	0.0000	1	0.0000		



SOLUTIONS NOW!



- DISPLAY:** 6 digit LED display with dimmer control providing a range of 0 - 999999 counts
- LINEARITY:** Reading within plus or minus 2% of true value
- TIMER:** Adjustment from 0 - 999 minutes with selectable divisions of X0.1, and X1
- METER 1:** 0 - 500,000 CPM range
- METER 2:** 0 - 500 CPM; 0 - 2.5 kV; BAT TEST
- MULTIPLIERS:** X1, X10, X100, X1000
- LINEARITY:** Reading within plus or minus 1% of true value with detector connected
- RESPONSE:** FAST (4 seconds) or SLOW (22 seconds) from 10% to 90% of final reading
- ZERO:** Push button to zero meter
- VOLTAGE:** Adjustable from 200 - 2500 volts (*will support 60 megohm scintillation loads*)
- THRESHOLD:** Voltage sensitive; adjustable from 1.0 - 10.0
- WINDOW:** Adjustable from 0 - 10.0 above threshold setting (*can be turned on or off*)
- Discriminator:** Adjustable from 2 - 100 mV at a threshold setting of 1.0
- RS-232:** 9 pin connector allowing for printer, or software interface and Analog output



High energy Gamma & Positron detection (others available including BGO)

SCINTILLATOR: 2" (5.1 cm) diameter X 2" (5.1 cm) thick sodium iodide (NaI) scintillator

SENSITIVITY: Typically < 250 CPM

ENERGY RESPONSE: Energy dependent

TUBE: 2" (5.1 cm) diameter magnetically shielded photomultiplier

VOLTAGE: Typically 500 - 1200 volts

DYNODE RESISTANCE: 60 megohm



Background:

2" x 2" NaI ^{129}I ~ 150 CPM

Efficiency:

2" x 2" NaI ^{129}I ~ 50 %

1", 2" & 3" Scintillation Detectors available for all High energy Betas, Gammas and Positrons.

^{32}P , ^{123}I , ^{125}I , ^{131}I , ^{99}Tc , ^{55}Cr , ^{59}Fe , ^{137}Cs , ^{18}F , ^{11}C , ^{15}O , etc.

Applications in P.E.T. Labs, Pharmaceutical Labs, Waste effluent monitoring, Radioactivity Flow-through monitoring, Total activity measurement, Monitoring Radio-labelled compounds, etc.

Shell, Jr. 1000 & 2000 1D & 3D Chromatography software and controller with measurement of:

- Up to 4/6 channels for radioactivity, UV-detection etc.
- Digital data recording + storage
- Int./Ext. Standardisation
- Automatic range selection
- No overwriting and no data loss
- Manual range setting
- Auto/man. run time setting
- Time interval 1 - nnn sec.
- Selectable smoothing
- Auto/man peak detection
- Auto/man peak integration
- Auto/man base line detection
- Auto/man report generation
- Autosampler Queue and Batch Reprocessing
- Baseline Subtraction
- Multi-level Calibration Curves
- Manual/Automatic External Event Control
- Dynamic Data Exchange (DDE)
- Merge Results from Multiple Channels
- Data Smoothing
- Calibration Averaging
- Method file development
- Method files storage

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