Liquid Scintillation Counter User Guide
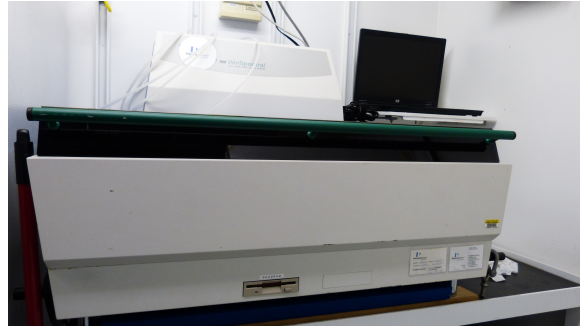
Wallac 1414 Scintillation Counter

Setup

Computer/Laptop is connected through comp port #2 on the counter

Startup

1. Verify "Wallac 1414 WinSpecial Ins.Prog "3.5" disc is inserted in the front port
2. Log on to the computer using daq/daq
3. Open "1414 Winspecial" software on the computer
4. Turn on the scintillation counter, the power switch is on the back
5. Winspecial main window status line should show "Loading" > "counter is busy"> "counter online"
6. Now the counter is ready

Sample Loading

1. Two types of sample racks, can be used in combination
2. Locate the barcode on the side of the sample rack. This should be your first rack, so the instrument knows where to "start" the measurement
3. Barcode should be facing the right hand side, when operator is facing the counter. The first rack should go in the right side of the instrument closer to the back
4. Place an empty rack or a "stop" rack after your samples, the counter will stop all the measurement after it detect the empty/stop rack
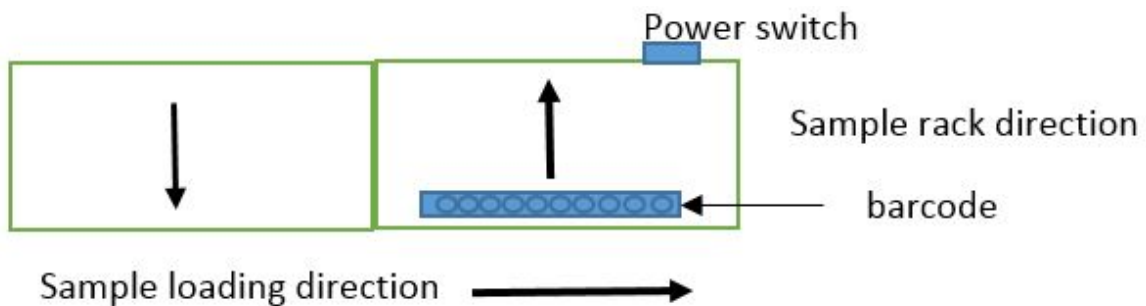
To Run Sample/Standard

1. 5 Sub-windows show up in the Winspecial main window in minimized windows. To open the window, select "restore"

   Easy GLP   Protocol for standard reference measurement

Control Live   To view live signal

User Biolab   Easy Count is default method for unknown sample

Latest result   show latest result

FineTuning   Select spectra to plot or store

2. Standards used in Perkin Elmer Unquenched LSC-std, Loading order is ^{3}H, ^{14}C, and Blank.
3. Our standards have the following strength. This information is entered in Easy GLP

^{3}H   196600   2001/7/01   half life 12.35yrs

^{14}C   101000   2001/7/01   half life 5730 yrs

4. Instrument will calculate base on the half-life and give you the current strength in comparison to the measurement result.
5. Easy counter cam measure ^{3}H, ^{14}C, ^{125}I, ^{32}P, ^{35}S, and ^{45}Ca. We only carry the first 2 standards.
6. Easy counter test value, please refer to software manual P67.

Result

1. Once the measurement is finished, software will ask if user want to print result. The Laptop is setup to print directly to the Fdeck copier (via TCPIP). In 1414 Winspecial software, select file/print/setting and select Fdeck hall-color printer. (iprint connection resulted in error message and tend to shut down the software. see MCS if need to use iprint)
2. User can also export the data to a USB dri

Safety

1. Store all the standards in the grey plastic boxes when they are not being used.
2. Wash hands with soap after touching the standards and other potential contaminated samples.
3. Always follow Microbiology Van user protocol.

Credits

This document originated from Word document Liquid Scintillation Counter Quick User Guide (see Archived Versions below for a pdf copy) that was written by Chieh Peng (Sept - Oct 2010) and edited by Chieh Peng (2018-12-23). Credits for subsequent changes to this document are given in the page history.

Archives

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