

HIDEK

Hidex 300SL

QA Report

Counter

Serial number:	2190848
Firmware version:	1.906

Beta spectra ¹

C-14 efficiency	97.2 %
C-14 TDCR	0.967
H-3 efficiency	71.6 %
H-3 TDCR	0.669
C-14 QPE, 600 ± 5	599.04
H-3 QPE, 300 ± 5	300.46
C-14 QPE - H-3 QPE, 300 ± 3	298.6

Background ²

Normal (typical 12.5)	8.5
Low level option (typical 8.5)	
Super low level option (typical 4.0)	

Alpha Beta ³

External Standard ⁴

Cooling

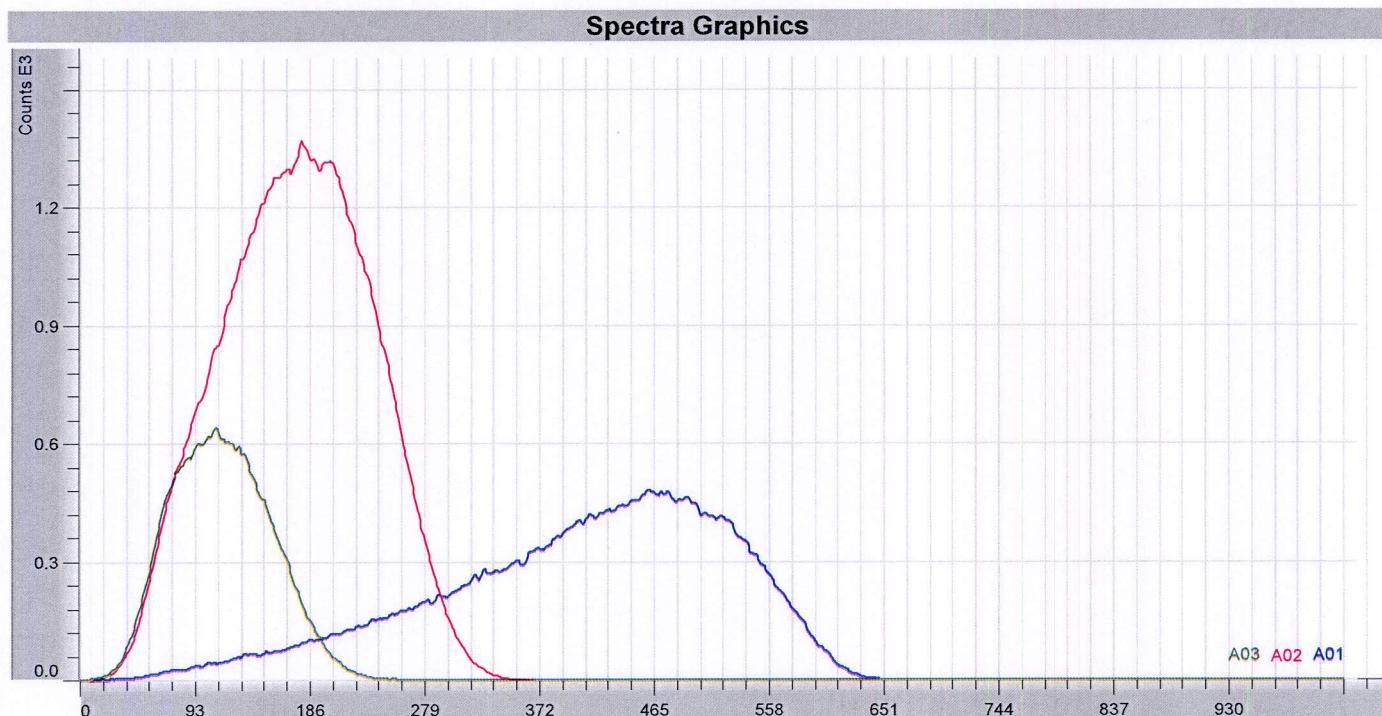
Accepted by: ILa

Date: 21.8.2019



1. Beta spectra measurement done with 20mL UQ C14 and H3 standards s/n 109464 (product code 462-320). Efficiency = CPM (UQ std)/DPM (UQ std).
2. Background value measured using a window with 25% counting efficiency for H3 in 8mL H₂O + 12mL Aqualight uLLT cocktail. Background sample 8mL aged H₂O+12mL AL uLLT, preparation date 11.6.2019.
3. Alpha Beta measurement done with Rn-222 in 20mL Maxilight cocktail.
4. Eu-152 standard, activity 74 kBq. Quench curves measured with 20mL quench set for C-14 in toluene (462-8314) and H-3 in toluene (462-8303), preparation date C-14: 25 AUG 2014, H-3: 11 AUG 2014. Measurements performed at temperature of 22°C ± 2°C (16°C ± 2°C with temperature control option) and at normal humidity conditions of Hidex laboratory, Turku, Finland (relative humidity not measured). Background may vary locally depending on natural environmental radiation.

Sample type / CPM / TDCR / QPE							
1	2	3	4	5	6	7	8
A C-14 UQ std 66491.1 0.967 599.040	H-3 UQ std 116291 0.669 300.460	...2O 8+12 DW 34330.7 0.313 209.480					



----- General Data -----

Measurement Type: EndPoint, Time: 20.8.19 / 10:37:55, State: Valid Measurement
 14 labels included, label No.1 selected

Template Files Template loaded during measurement time : c:\programdata\...\para\300 sl beta spectra qa.par; Embedded template file
 Data file : 2190848 Beta spectra QA.dat - 20.8.19 / 12:00:38 - Operator was Unknown User - Created with Version 5.58
 Template file : Embedded template file

Sample IDs Reader PlateOrganizer : BETA SPECTRA_A01-E08.mw5imp
 Hidex 300 SL, Driver Version: 5.14, Device Serial: 2190848, Firmware: 1.90
 Installed features: LSC,
 Activity Type: Low
 Counting Time: 120 s, Maximum Counts: Not limited, Ionized Delay: 2 s, Coincidence Time: 35 ns,
 Delay Before Measurement: No
 Tray Size: 8x5, Well Repeats: 1, Range Repeats: 1
 Screen CPM: None
 ROI Number: 1
 -ROI1 Free Channel Limits 5 - 1023, Type Beta

Calculation Program Calculation Status : Valid Assay, Calculation Time : 20.8.19 / 12:00:11
 MikroWin, Version 5.58; License No.: 117030
 Assembly Code A : 001F 0200 0000 0000 0000 FFFF
 Assembly Code B : 0057 FF3F FEFF FFCF FFC0 FFFF

System Printer Operating System Name : Windows 10, System User : sini.raitanen
 Printer Name : Kyocera TASKalfa 3051ci KX

H INDEX

2190848 Beta spectra QA.csv
- ROI1 Free Channel Limits 5 - 1023

Measurement file : 2190848 Background QA
Template file : 300 SL Background QA

Valid Assay

Measurement date : 20.8.19
Measurement time : 14:20:31

SID / counts / CPM / TDCR / Chemi CPM

1 2 3 4 5 6 7 8

A							
B							
C							
D							
E						<p>...g 8+12 AL DW 4657.80 77.586 0.772 0.085</p>	<p>...pty plastic vial 1797.00 29.930 0.502 0.030</p>

— General Data —

Measurement Type: Kinetic, Time: 20.8.19 / 14:20:31, State: Measurement Cancelled
1024 measurements included, measurement No.1 at 0 Channel selected, 49.000 sec. interval time
32 labels included, label No.32 selected

Template Files Template loaded during measurement time : c:\programdata..\para\300 sl background qa.par;
Data file : 2190848 Background QA.dat - 21.8.19 / 07:59:45 - Operator was Unknown User - Created with Version 5.58

Sample IDs Reader Template file : 300 SL Background QA.par - 26.4.19 / 14:11:08 - Created by Unknown User - Created with Version 5.58
PlateOrganizer : BACKGROUND_A01-E08.mw5imp
Hidex 300 SL, Driver Version: 5.14, Device Serial: 2190848, Firmware: 1.90
Installed features: LSC,
Activity Type: Low
Counting Time: 3600 s, Maximum Counts: 3999999, Ionized Delay: 2 s, Coincidence Time: 35 ns,
Delay Before Measurement: No
Tray Size: 8x5, Well Repeats: 10, Range Repeats: 1
Screen CPM: None
ROI Number: 1
- ROI1 Free Channel Limits 5 - 1023, Type Beta

Calculation Program Calculation Status : Valid Assay, Calculation Time : 21.8.19 / 07:57:46
MikroWin, Version 5.58; License No. : 117030
Assembly Code A : 001F 0200 0000 0000 FFFF
Assembly Code B : 0057 FF3F FEFF FFC0 FFFF

System Printer Operating System Name : Windows 10, System User : sini.raitanen
Printer Name : Microsoft Print to PDF

— Kinetics Statistics —

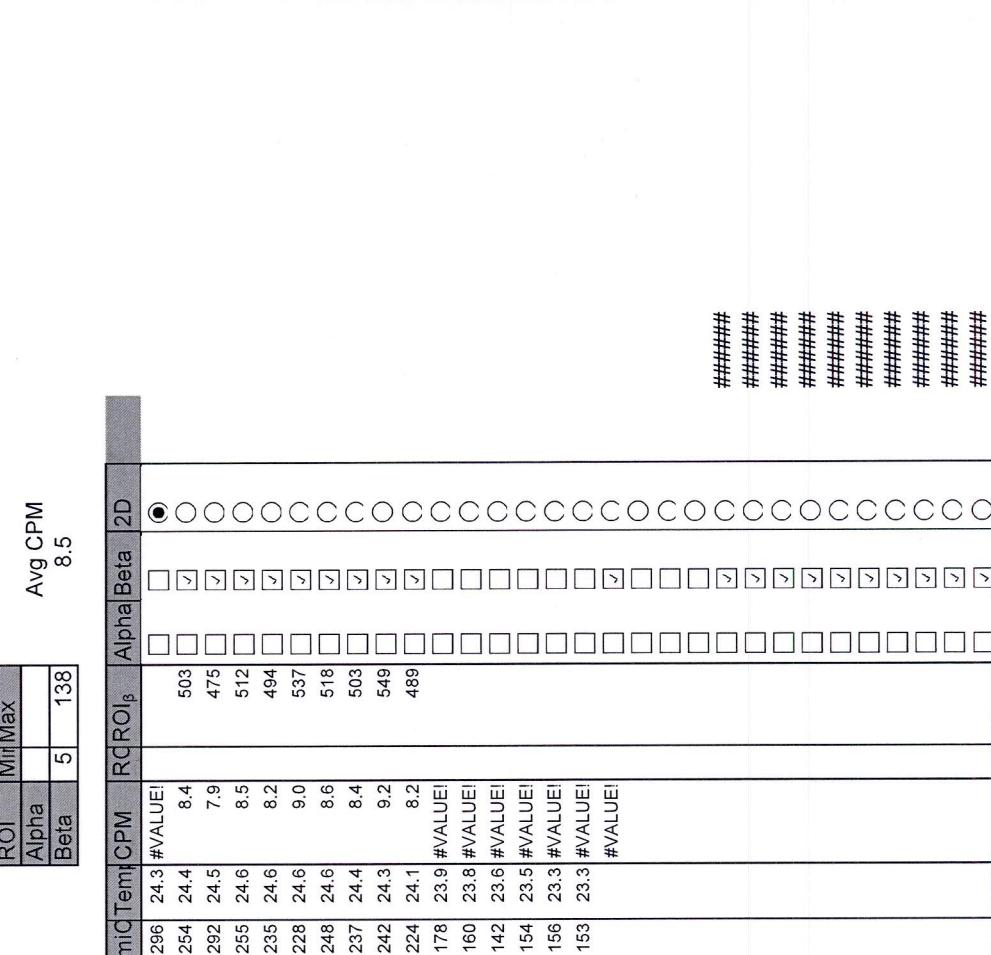
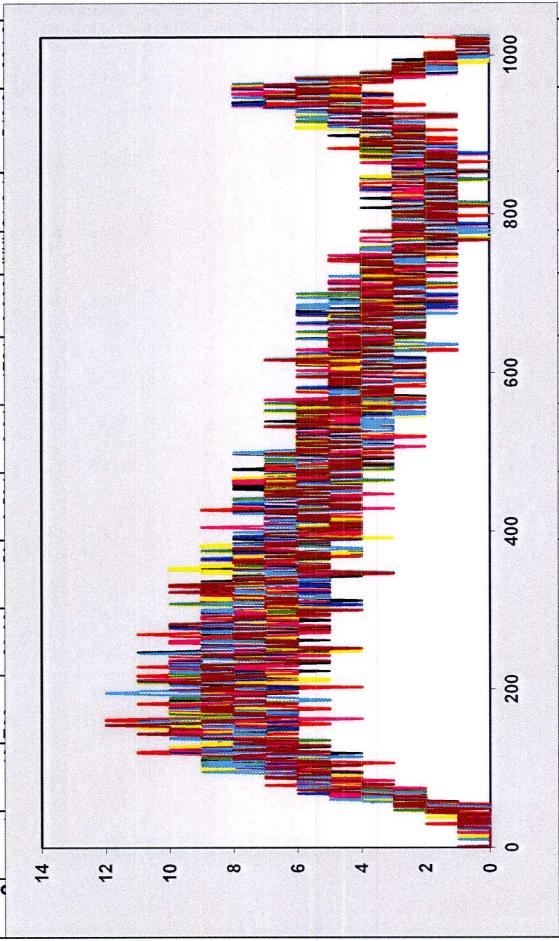
Description	Settings
Kinetic time setup:	Entire measurement time = 06:28:54, Interval time = 00:00:00
Readings to calculate	Kinetics Minimum = 1, Kinetics Maximum = 1, Maximal Slope = 2
Onsettime	KMIN(MEA) + 0.5
Calculation Range (RG2)	Start at 2:09:38 - measurement No.3, Stop at 00:00:00 - measurement No.0

HIDE X

2190848 Background QA.csv
- ROI1 Free Channel Limits 5 - 1023

Cou nting tyc : Low

Sam	Repe.	Vial	W/Nan	CPM	DPM	TDCR	Chem	Count	DTime	Time	EndT	QPE	QPI	LumiC	Temp	CPM	R ROI ₅	Alpha	Beta	2D
1	1	39 E07	78.29	102	0.767	0.12	4700	1	###	20.8.19	978.14	430.88	296	24.3	#VALUE!					
1	2	39 E07	78.48	101	0.776	0.09	4711	1	###	20.8.19	977.36	440.4	254	24.4	8.4					
1	3	39 E07	76.89	98	0.785	0.11	4616	1	###	20.8.19	977.16	439.07	292	24.5	7.9					
1	4	39 E07	75.24	98	0.767	0.09	4517	1	###	20.8.19	975.38	424.35	255	24.6	8.5					
1	5	39 E07	78.54	102	0.773	0.07	4715	1	###	20.8.19	975.14	437.36	235	24.6	8.2					
1	6	39 E07	79.19	102	0.773	0.07	4754	1	###	20.8.19	972.9	435.34	228	24.6	9.0					
1	7	39 E07	77.37	100	0.774	0.08	4645	1	###	20.8.19	976.86	436.04	248	24.6	8.6					
1	8	39 E07	78.07	100	0.779	0.07	4687	1	###	20.8.19	982.31	442.04	237	24.4	8.4					
1	9	39 E07	77.67	102	0.76	0.08	4663	1	###	21.8.19	975.66	429.99	242	24.3	9.2					
1	10	39 E07	76.12	99	0.769	0.07	4570	1	###	21.8.19	983.92	431.75	224	24.1	8.2					
													178	23.9	#VALUE!					
													160	23.8	#VALUE!					
													142	23.6	#VALUE!					
													154	23.5	#VALUE!					
													156	23.3	#VALUE!					
													153	23.3	#VALUE!					



Measurement file : 2190848 C-14 TDCR Quench curve QA
Template file : <Embedded>

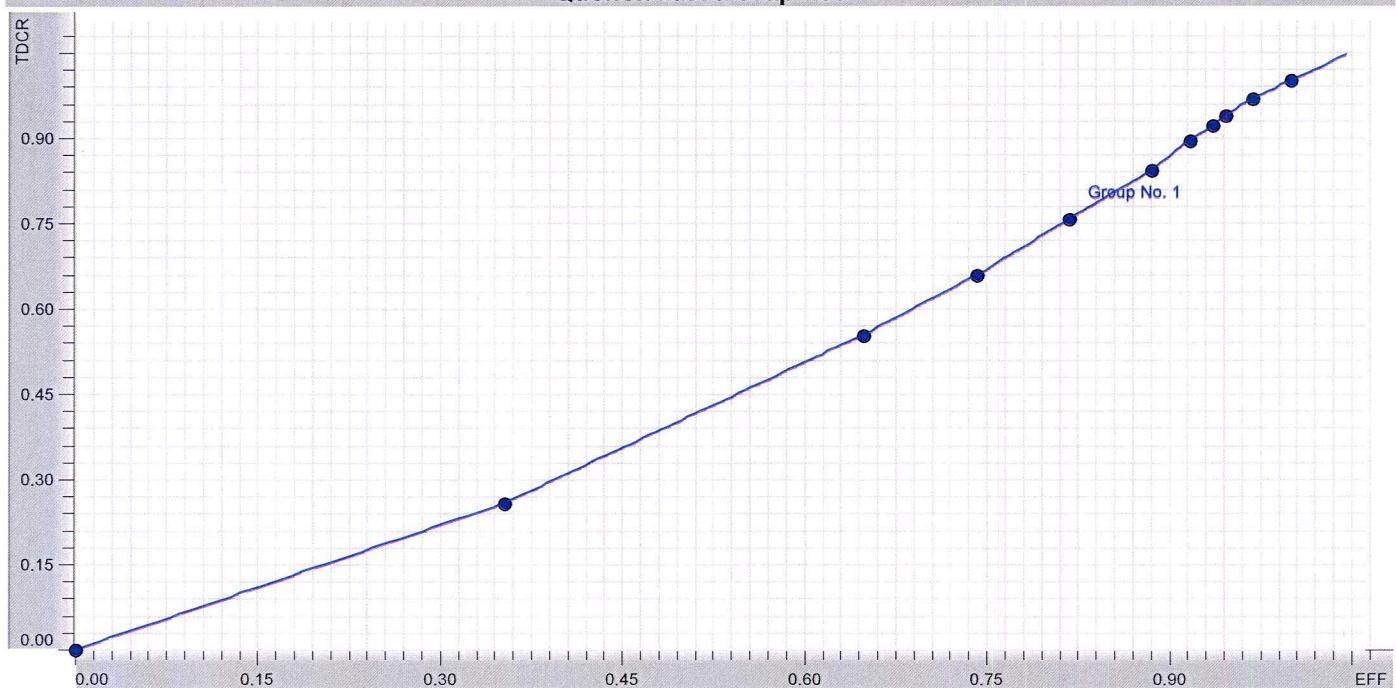
Valid Assay

Measurement date : 20.8.19
Measurement time : 11:08:18

CPM / DPM value of STD / Efficiency / TDCR

	1	2	3	4	5	6	7	8
A								
B								
C								
D			102957 106300 0.969 0.969			100509 106300 0.946 0.939	99440.1 106300 0.935 0.922	97449.8 106300 0.917 0.896
E	94113.6 106300 0.885 0.843	86965.3 106300 0.818 0.758	78895.0 106300 0.742 0.659	68916.8 106300 0.648 0.554	37514.4 106300 0.353 0.259			

QuenchCurve Graphics



Measurement file : 2190848 C-14 TDCR Quench curve QA	Valid Assay	Measurement date : 20.8.19
Template file : <Embedded>		Measurement time : 11:08:18

General Data	
Measurement	Type: EndPoint, Time: 20.8.19 / 11:08:18, State: Valid Measurement 14 labels included, label No.1 selected
Template Files	Template loaded during measurement time : 300 sl c-14 tdcr quench curve qa.par; Embedded template file Data file : 2190848 C-14 TDCR Quench curve QA.dat - 20.8.19 / 12:04:29 - Operator was Unknown User - Created with Version 5.58
Sample IDs Reader	Template file : Embedded template file PlateOrganizer : C14 TDCR_A01-E08.mw5imp Hidex 300 SL, Driver Version: 5.14, Device Serial: 2190848, Firmware: 1.90 Installed features: LSC, Activity Type: Low Counting Time: 60 s, Maximum Counts: 3999999, Ionized Delay: 1 s, Coincidence Time: 35 ns, Delay Before Measurement: No Tray Size: 8x5, Well Repeats: 1, Range Repeats: 1 Screen CPM: None ROI Number: 1 -ROI1 Isotope C-14 Channel Limits 5 - 650, Type Beta
Calculation Program	Calculation Status : Valid Assay, Calculation Time : 20.8.19 / 12:04:20 MikroWin, Version 5.58; License No.: 117030 Assembly Code A : 001F 0200 0000 0000 0000 FFFF Assembly Code B : 0057 FF3F FEFF FFCF FFC0 FFFF
System Printer	Operating System Name : Windows 10, System User : sini.raitanen Printer Name : Microsoft Print to PDF

QuenchCurve Statistics				
Algorithm	Point to Point, Version 5.01			
Group	Assay	Source Matrix	State	
Group 1	Default	TDCR	Valid fitting	

Measurement file : 2190848 H-3 TDCR Quench curve QA
 Template file : <Embedded>

Valid Assay

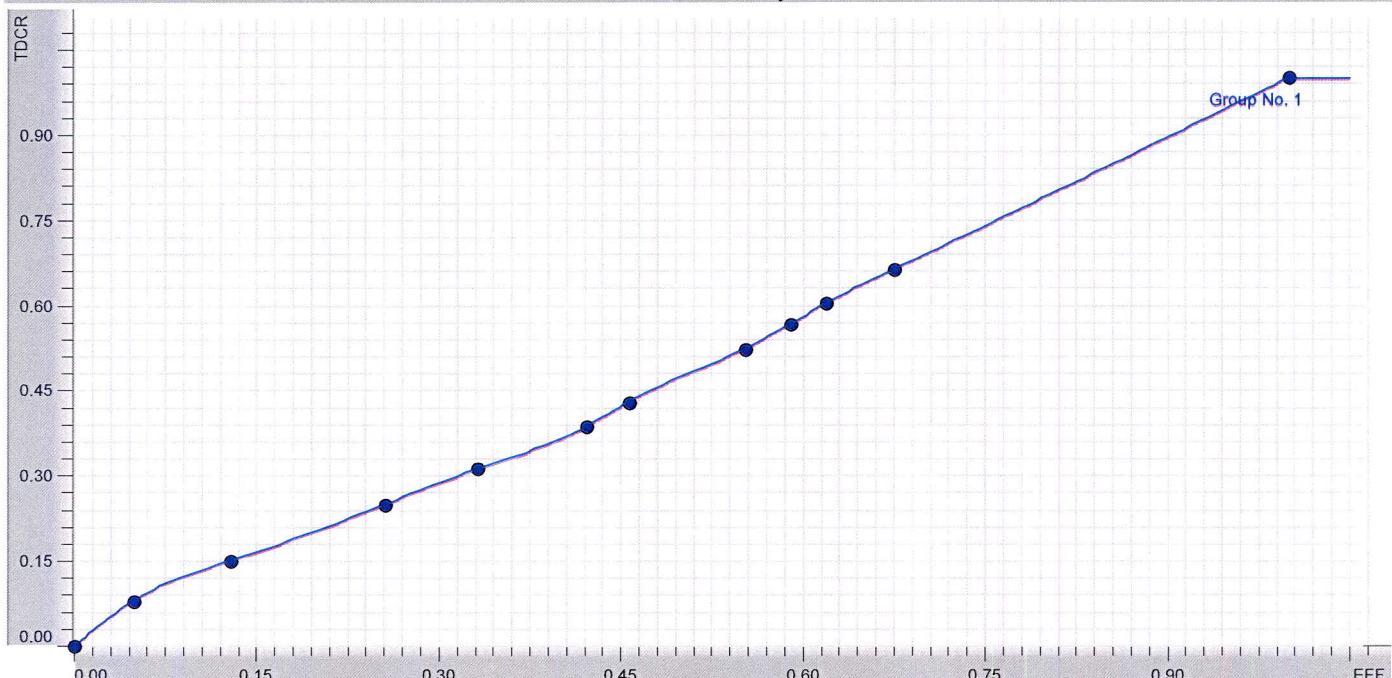
Measurement date : 20.8.19
 Measurement time : 11:28:32

CPM / DPM value of STD / Efficiency / TDCR

1 2 3 4 5 6 7 8

A								
B								
C	129057 191200 0.675 0.663	118444 191200 0.619 0.604	112761 191200 0.590 0.567	105544 191200 0.552 0.523	87224.6 191200 0.456 0.430	80621.4 191200 0.422 0.387	63463.3 191200 0.332 0.312	48795.6 191200 0.255 0.249
D	24536.5 191200 0.128 0.150	9376.88 191200 0.049 0.080						

QuenchCurve Graphics



----- General Data -----

Measurement	Type: EndPoint, Time: 20.8.19 / 11:28:32, State: Valid Measurement 14 labels included, label No.1 selected
Template Files	Template loaded during measurement time : 300 sl h-3 tdcr quench curve qa.par; Embedded template file Data file : 2190848 H-3 TDCR Quench curve QA.dat - 20.8.19 / 12:03:34 - Operator was Unknown User - Created with Version 5.58
Sample IDs Reader	Template file : Embedded template file PlateOrganizer : H-3 TDCR_A01-E08.mw5imp Hidex 300 SL, Driver Version: 5.14, Device Serial: 2190848, Firmware: 1.90 Installed features: LSC, Activity Type: Low Counting Time: 60 s, Maximum Counts: 3999999, Ionized Delay: 1 s, Coincidence Time: 35 ns, Delay Before Measurement: No Tray Size: 8x5, Well Repeats: 1, Range Repeats: 1 Screen CPM: None ROI Number: 1 - ROI1 Isotope H-3 Channel Limits 5 - 350, Type Beta
Calculation Program	Calculation Status : Valid Assay, Calculation Time : 20.8.19 / 12:03:00 MikroWin, Version 5.58; License No. : 117030 Assembly Code A : 001F 0200 0000 0000 0000 FFFF Assembly Code B : 0057 FF3F FEFF FFCF FFC0 FFFF
System Printer	Operating System Name : Windows 10, System User : sini.raitanen Printer Name : Microsoft Print to PDF

Measurement file : 2190848 H-3 TDCR Quench curve QA
Template file : <Embedded>

Valid Assay

Measurement date : 20.8.19
Measurement time : 11:28:32

Algorithm Smoothed Cubic Spline, Version 5.02
Group Assay Source Matrix State
Group 1 Default TDCR Valid fitting

H I D E X

