

株式会社salomb 20240624測定

	個数濃度測定結果 [個/ml]	個数濃度測定結果（原水補正後） [個/ml]	平均粒径 [nm]
原水（純水）	$3.4E+06 \pm 5.8E+05$	-	190.4 ± 36.1
試験水10L/min	$7.2E+06 \pm 1.2E+06$	$3.9E+06 \pm 1.4E+06$	105.3 ± 9.3
試験水10L/min（ノズル逆方向）	$4.9E+06 \pm 4.4E+05$	$1.5E+06 \pm 7.3E+05$	100.4 ± 11.0

試験水作成時の流量（10L/min）

シャワーヘッドを外した状態（ノズルのみ）の流量（11L/min）

シャワーヘッドとノズルを外した状態（ホースから直接）の流量（15L/min）

UFB測定評価

- 1 依頼者 : 株式会社salomb
 2 測定年月日 : 2024/6/24
 3 測定装置 : Nanosight NS300(Malvern製)
 4 ソフトウェア : NTA 3.4 - Sample Assistant Build 3.4.003-SA(Non-UpGrade)
 5 設定値 : Camera Level 15 / Detection Threshold 5
 6 環境測定結果 : 室温25°C 湿度56%
 7 対象試料測定結果

1. 対象: 原水

原水(純水)

測定時刻 (13:39-13:50)		1	2	3	4	5	6	AVE	SD	SE	
粒径 [nm]	平均径	254.8	118.7	116.6	266.4	96.2	289.5	190.4	88.5	36.1	
	ピーク径	163.5	120.6	116.5	315.3	96.0	177.6	164.9	79.8	32.6	
	中央径	167.4	119.7	116.6	310.8	96.1	178.4	164.8	78.2	31.9	
個数濃度 [個/mL]	total	4.3E+06	3.0E+06	2.6E+06	5.5E+06	1.4E+06	3.2E+06	3.4E+06	1.4E+06	5.8E+05	
個数濃度±標準誤差 [個/mL]		3.4E+06 ± 5.8E+05			原水補正後の個数濃度 [個/mL]			-			

2. 対象: UFB水

試験水10L/min

測定時刻 (15:07-15:16)		1	2	3	4	5	6	AVE	SD	SE	
粒径 [nm]	平均径	121.2	89.9	86.8	133.9	79.0	120.8	105.3	22.7	9.3	
	ピーク径	70.4	96.7	58.7	149.4	77.9	41.4	82.4	37.7	15.4	
	中央径	127.0	94.5	67.9	143.4	78.6	85.3	99.4	29.5	12.0	
個数濃度 [個/mL]	total	7.4E+06	8.4E+06	2.4E+06	8.8E+06	5.3E+06	1.1E+07	7.2E+06	3.0E+06	1.2E+06	
個数濃度±標準誤差 [個/mL]		7.2E+06 ± 1.2E+06			原水補正後の個数濃度±標準誤差 [個/mL]			3.9E+06 ± 1.4E+06			

試験水10L/min(ノズル逆方向)

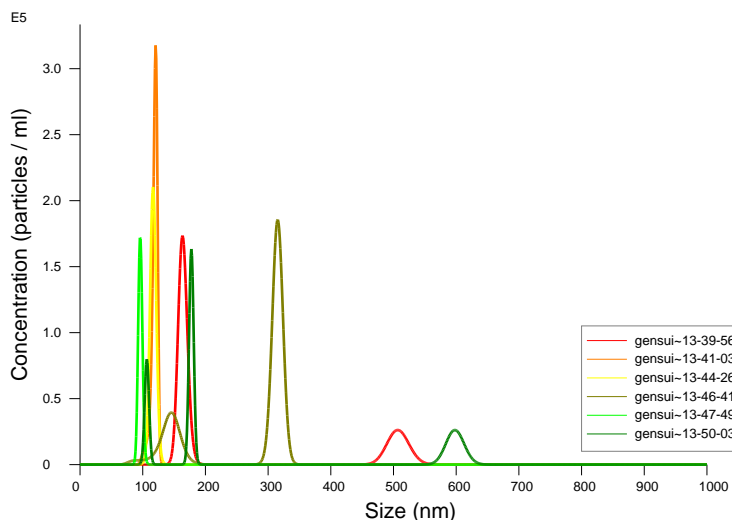
測定時刻 (16:14-16:24)		1	2	3	4	5	6	AVE	SD	SE	
粒径 [nm]	平均径	91.6	146.5	88.0	114.8	69.4	91.8	100.4	26.8	11.0	
	ピーク径	67.7	147.0	101.3	96.8	70.8	92.8	96.1	28.6	11.6	
	中央径	80.2	146.7	99.4	103.3	70.0	92.2	98.6	26.6	10.8	
個数濃度 [個/mL]	total	6.4E+06	6.0E+06	4.8E+06	3.6E+06	4.1E+06	4.5E+06	4.9E+06	1.1E+06	4.4E+05	
個数濃度±標準誤差 [個/mL]		4.9E+06 ± 4.4E+05			原水補正後の個数濃度±標準誤差 [個/mL]			1.5E+06 ± 7.3E+05			

特記事項:

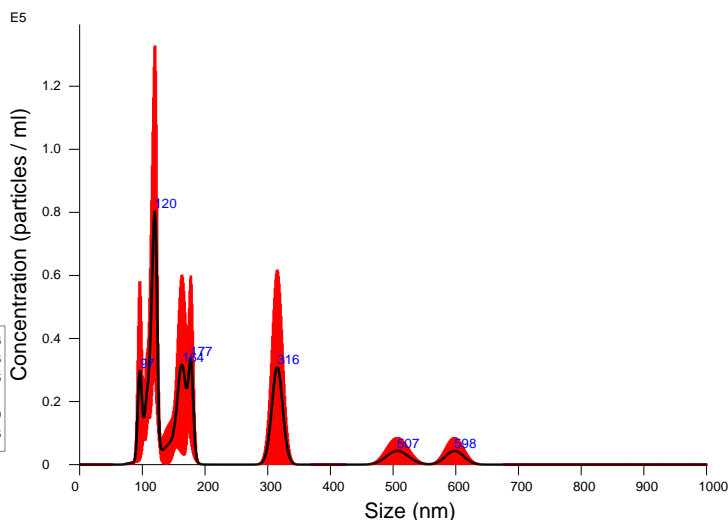
表中のAVEは平均値を、SDは測定結果の標準偏差を、SEは標準誤差を示す。

原水補正後の個数濃度±標準誤差は、試験水から原水の個数濃度を差し引き、試験水と原水の標準誤差を合成したものである。

測定結果には個体粒子など気泡以外の物質も含まれることがある。



FTLA Concentration / Size graph for Experiment:
gensui 2024-06-24 13-38-34



Averaged FTLA Concentration / Size for Experiment:
gensui 2024-06-24 13-38-34
Error bars indicate + / - 1 standard error of the mean

Included Files

gensui 2024-06-24 13-39-56
 gensui 2024-06-24 13-41-03
 gensui 2024-06-24 13-44-26
 gensui 2024-06-24 13-46-41
 gensui 2024-06-24 13-47-49
 gensui 2024-06-24 13-50-03

Details

NTA Version: NTA 3.4 - Sample Assistant Build 3.4.4 - SA
 Script Used: SOP Standard Measurement 01-38-34PM 24J-
 Time Captured: 13:38:34 24/06/2024
 Operator: GB
 Pre-treatment:
 Sample Name: gensui
 Diluent:
 Remarks:

Capture Settings

Camera Type: sCMOS
 Laser Type: Blue488
 Camera Level: 15
 Slider Shutter: 1206
 Slider Gain: 366
 FPS: 25.0
 Number of Frames: 1498
 Temperature: 25.0 - 25.0 °C
 Viscosity: (Water) 0.9 cP
 Dilution factor: Dilution not recorded
 Syringe Pump Speed: 80

Analysis Settings

Detect Threshold: 5
 Blur Size: Auto
 Max Jump Distance: Auto: 14.0 - 15.6 pix

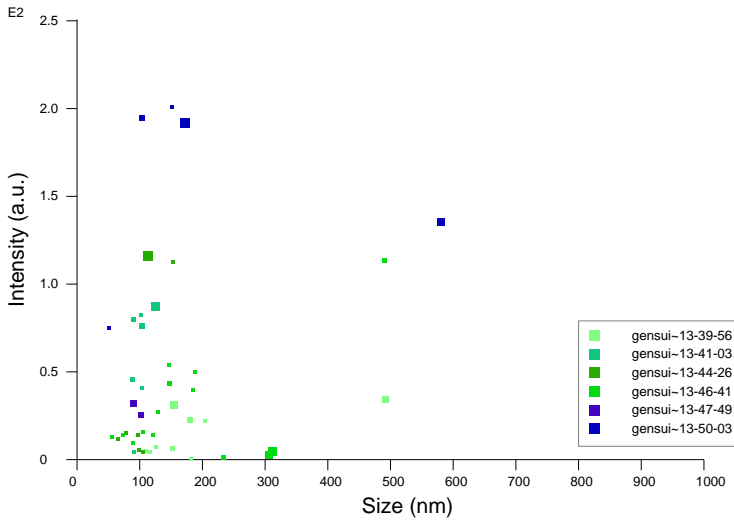
Results

Stats: Merged Data

Mean: 213.8 nm
 Mode: 119.8 nm
 SD: 137.6 nm
 D10: 106.2 nm
 D50: 160.1 nm
 D90: 483.3 nm

Stats: Mean +/- Standard Error

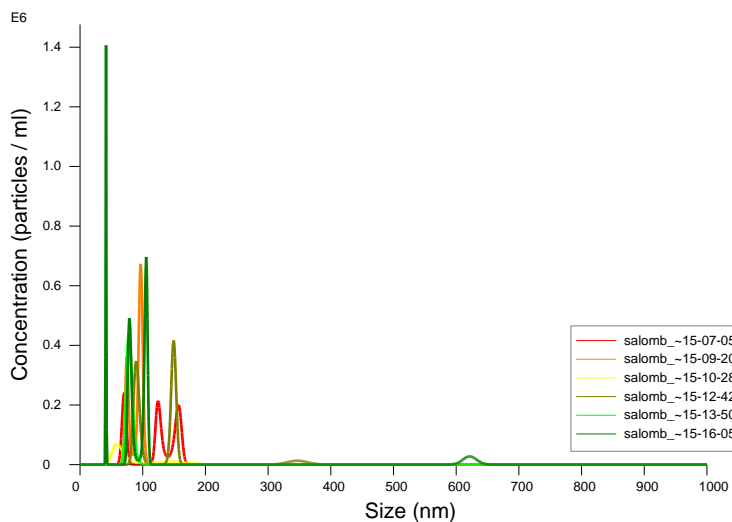
Mean: 190.4 +/- 36.1 nm
 Mode: 164.9 +/- 32.6 nm
 SD: 75.0 +/- 35.5 nm
 D10: 119.1 +/- 9.5 nm
 D50: 164.8 +/- 31.9 nm
 D90: 298.2 +/- 89.6 nm
 Concentration: 3.35e+06 +/- 5.81e+05 particles/ml
 0.2 +/- 0.0 particles/frame
 0.2 +/- 0.0 centres/frame



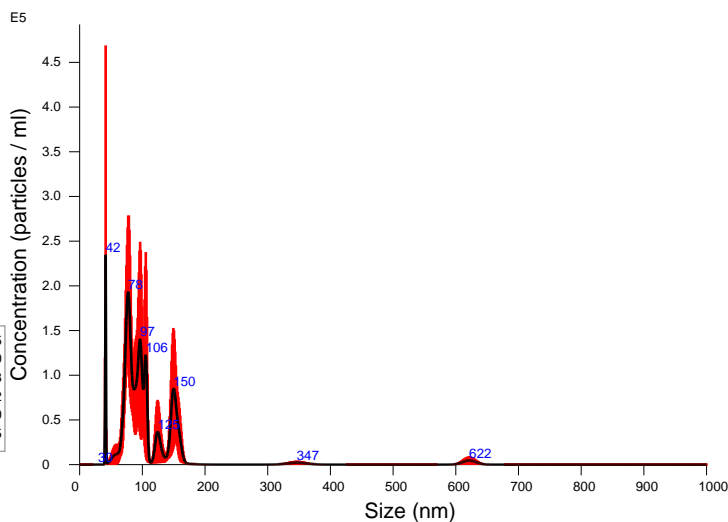
Intensity / Size graph for Experiment:
gensui 2024-06-24 13-38-34

Script Used: (Full Text):

SOP Standard Measurement 01-38-34PM 24Jun2024.txt



FTLA Concentration / Size graph for Experiment:
salomb_10L 2024-06-24 15-04-39



Averaged FTLA Concentration / Size for Experiment:
salomb_10L 2024-06-24 15-04-39
Error bars indicate + / -1 standard error of the mean

Included Files

salomb_10L 2024-06-24 15-07-05
salomb_10L 2024-06-24 15-09-20
salomb_10L 2024-06-24 15-10-28
salomb_10L 2024-06-24 15-12-42
salomb_10L 2024-06-24 15-13-50
salomb_10L 2024-06-24 15-16-05

Details

NTA Version: NTA 3.4 - Sample Assistant Build 3.4.4 - SA
Script Used: SOP Standard Measurement 03-04-39PM 24J-
Time Captured: 15:04:39 24/06/2024
Operator: GB
Pre-treatment:
Sample Name: salomb 10L
Diluent:
Remarks:

Capture Settings

Camera Type: sCMOS
Laser Type: Blue488
Camera Level: 15
Slider Shutter: 1206
Slider Gain: 366
FPS: 25.0
Number of Frames: 1498
Temperature: 25.0 - 25.0 °C
Viscosity: (Water) 0.9 cP
Dilution factor: Dilution not recorded
Syringe Pump Speed: 80

Analysis Settings

Detect Threshold: 5
Blur Size: Auto
Max Jump Distance: Auto: 14.0 - 23.5 pix

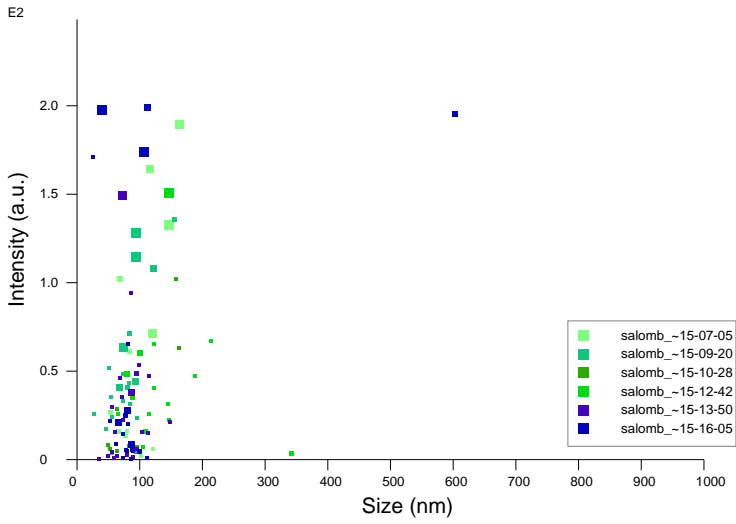
Results

Stats: Merged Data

Mean: 110.6 nm
Mode: 41.4 nm
SD: 79.6 nm
D10: 70.1 nm
D50: 93.5 nm
D90: 152.8 nm

Stats: Mean +/- Standard Error

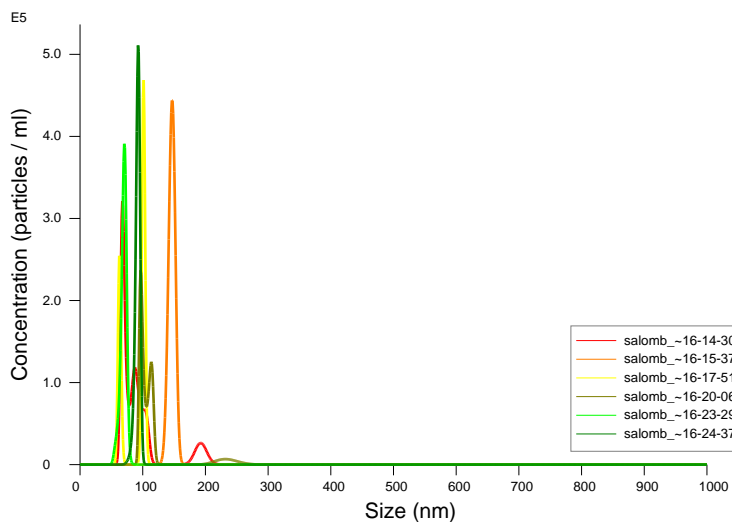
Mean: 105.3 +/- 9.3 nm
Mode: 82.4 +/- 15.4 nm
SD: 48.3 +/- 19.8 nm
D10: 66.1 +/- 6.6 nm
D50: 99.4 +/- 12.0 nm
D90: 127.2 +/- 13.3 nm
Concentration: 7.22e+06 +/- 1.23e+06 particles/ml
0.4 +/- 0.1 particles/frame
0.4 +/- 0.1 centres/frame



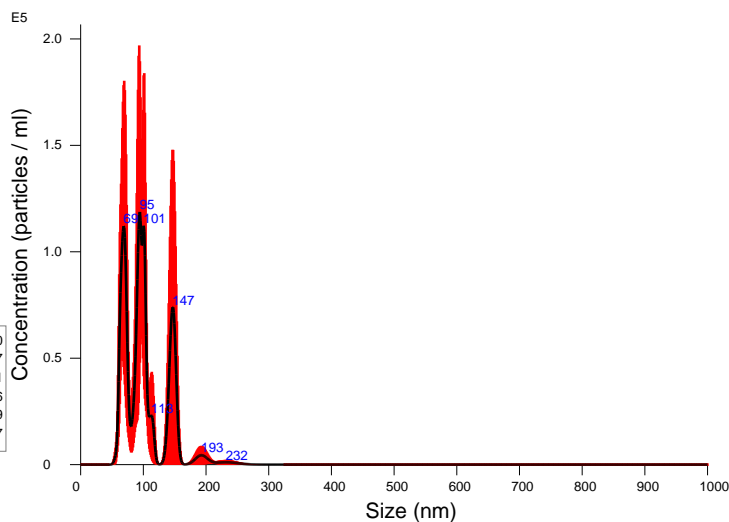
Intensity / Size graph for Experiment:
salomb_10L 2024-06-24 15-04-39

Script Used: (Full Text):

SOP Standard Measurement 03-04-39PM 24Jun2024.txt



FTLA Concentration / Size graph for Experiment:
salomb_10L_reverse 2024-06-24 16-13-10



Averaged FTLA Concentration / Size for Experiment:
salomb_10L_reverse 2024-06-24 16-13-10
Error bars indicate + / -1 standard error of the mean

Included Files

salomb_10L_reverse 2024-06-24 16-14-30
salomb_10L_reverse 2024-06-24 16-15-37
salomb_10L_reverse 2024-06-24 16-17-51
salomb_10L_reverse 2024-06-24 16-20-06
salomb_10L_reverse 2024-06-24 16-23-29
salomb_10L_reverse 2024-06-24 16-24-37

Details

NTA Version: NTA 3.4 - Sample Assistant Build 3.4.4 - SA
Script Used: SOP Standard Measurement 04-13-10PM 24J-
Time Captured: 16:13:10 24/06/2024
Operator: GB
Pre-treatment:
Sample Name: salomb 10L reverse
Diluent:
Remarks:

Capture Settings

Camera Type: sCMOS
Laser Type: Blue488
Camera Level: 15
Slider Shutter: 1206
Slider Gain: 366
FPS: 25.0
Number of Frames: 1498
Temperature: 25.0 - 25.0 °C
Viscosity: (Water) 0.9 cP
Dilution factor: Dilution not recorded
Syringe Pump Speed: 80

Analysis Settings

Detect Threshold: 5
Blur Size: Auto
Max Jump Distance: Auto: 14.0 - 15.5 pix

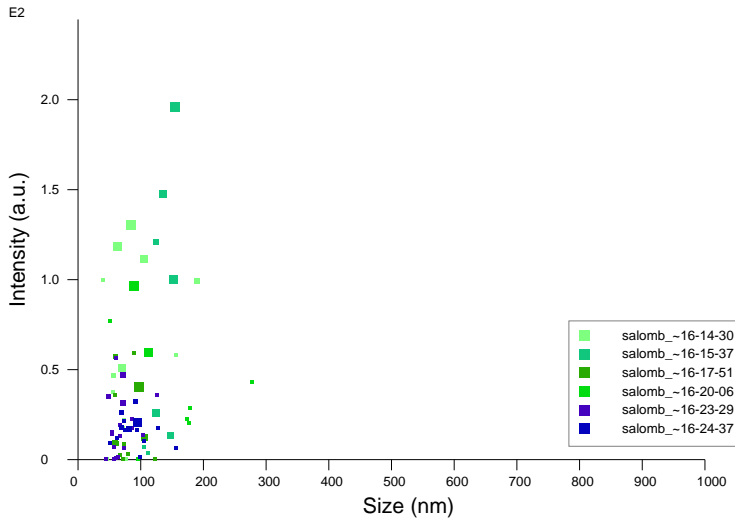
Results

Stats: Merged Data

Mean: 102.0 nm
Mode: 94.2 nm
SD: 34.2 nm
D10: 65.9 nm
D50: 95.4 nm
D90: 149.0 nm

Stats: Mean +/- Standard Error

Mean: 100.4 +/- 11.0 nm
Mode: 96.1 +/- 11.6 nm
SD: 17.7 +/- 6.4 nm
D10: 85.2 +/- 12.2 nm
D50: 98.6 +/- 10.8 nm
D90: 111.2 +/- 10.8 nm
Concentration: 4.89e+06 +/- 4.36e+05 particles/ml
0.3 +/- 0.0 particles/frame
0.3 +/- 0.0 centres/frame



Intensity / Size graph for Experiment:
salomb_10L_reverse 2024-06-24 16-13-10

Script Used: (Full Text):

SOP Standard Measurement 04-13-10PM 24Jun2024.txt