

## Sample

**Name** : GNP\_11.4.16\_1.24\_1k\_2  
**Mesured On** : 11.04.2016 19:01  
**by** : Hannelore **logged as** : Expert

**Comments from Hannelore :**

## SOP

**Name** : defaultSOP  
**Mode** : Statistical  
**Time limitation** : 60 s  
**Temperature** : 25 °C

**Acquisitions** : 5

## Device Settings

<b>Time interval</b>	: 2 µs	<b>Number of channels</b>	: 600
<b>Laser power</b>	: 58.1 %	<b>Wavelength</b>	: 657 nm
<b>DTC Position</b>	: UP		

## Liquid Medium

<b>Refractive index</b>	: 1.331	<b>Viscosity</b>	: 0.888 cP
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## Particles

<b>Real part</b>	: 1.56	<b>Imaginary part</b>	: 0.01
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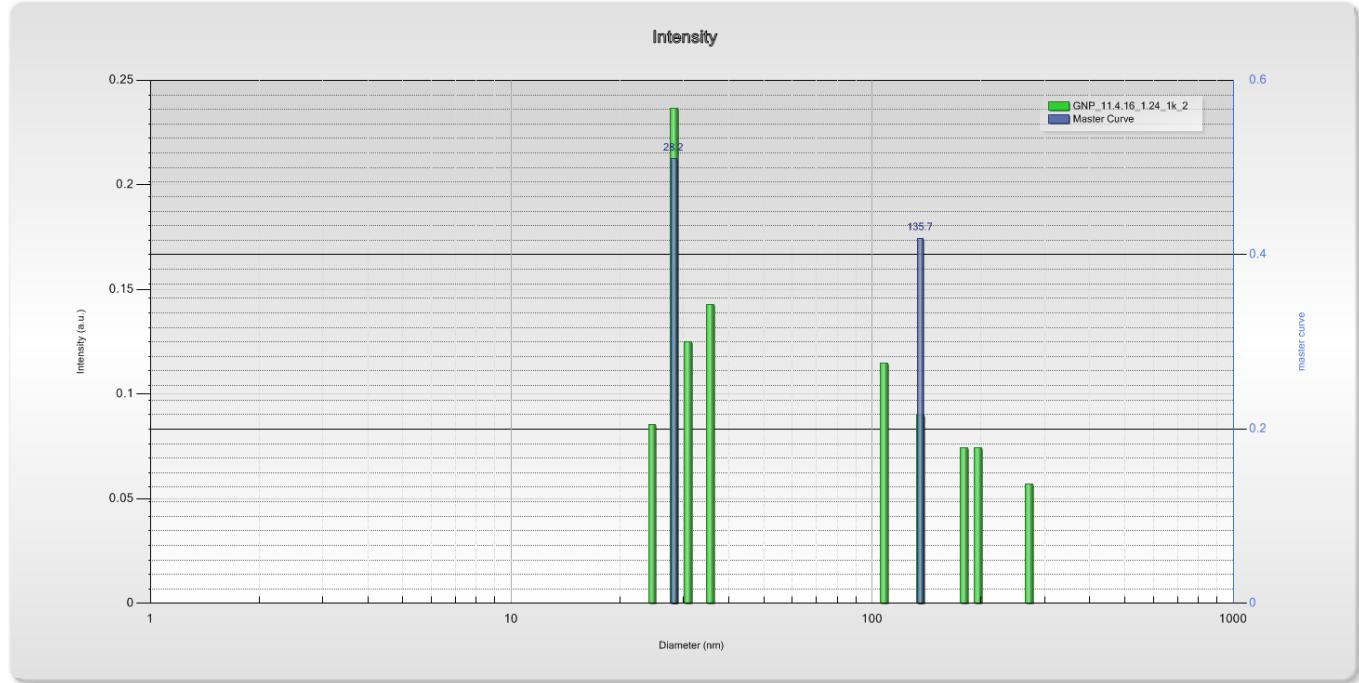
## Algorithm

Pade Laplace	Cumulants
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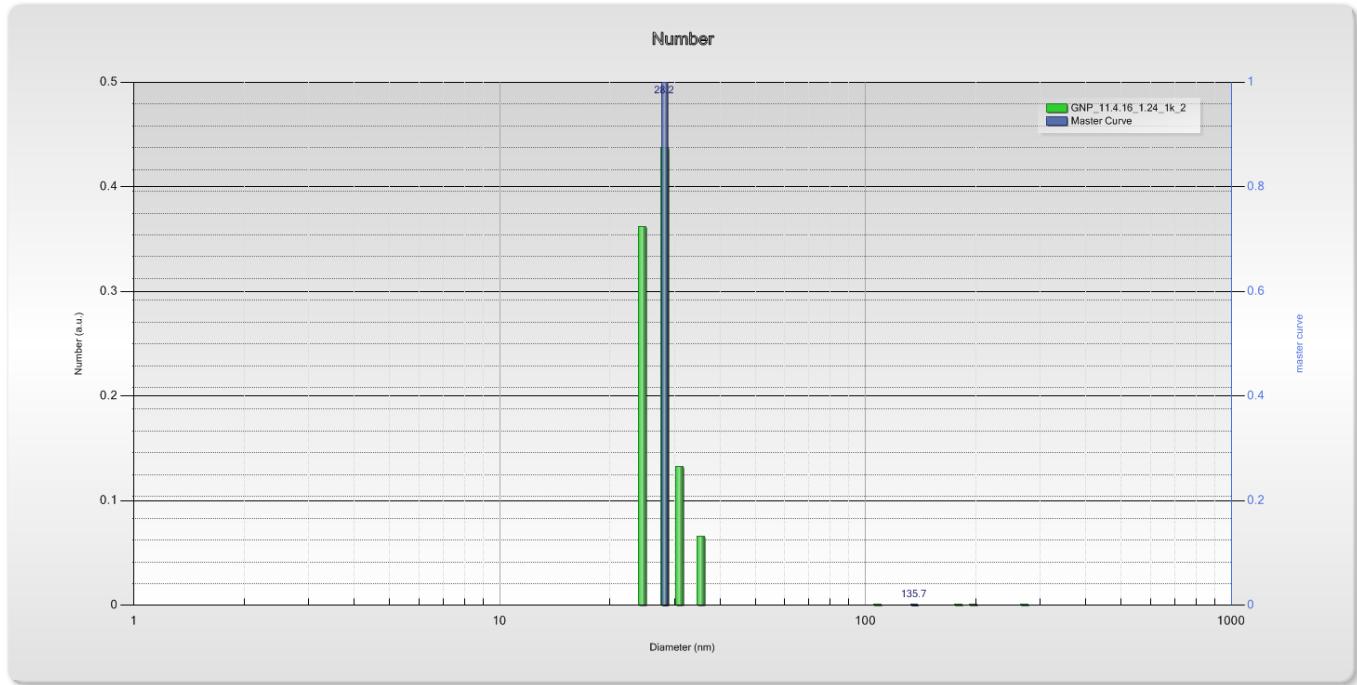
## Measurement

**Average count rate** : 2881 kcps  
**Number of rejected** : 0

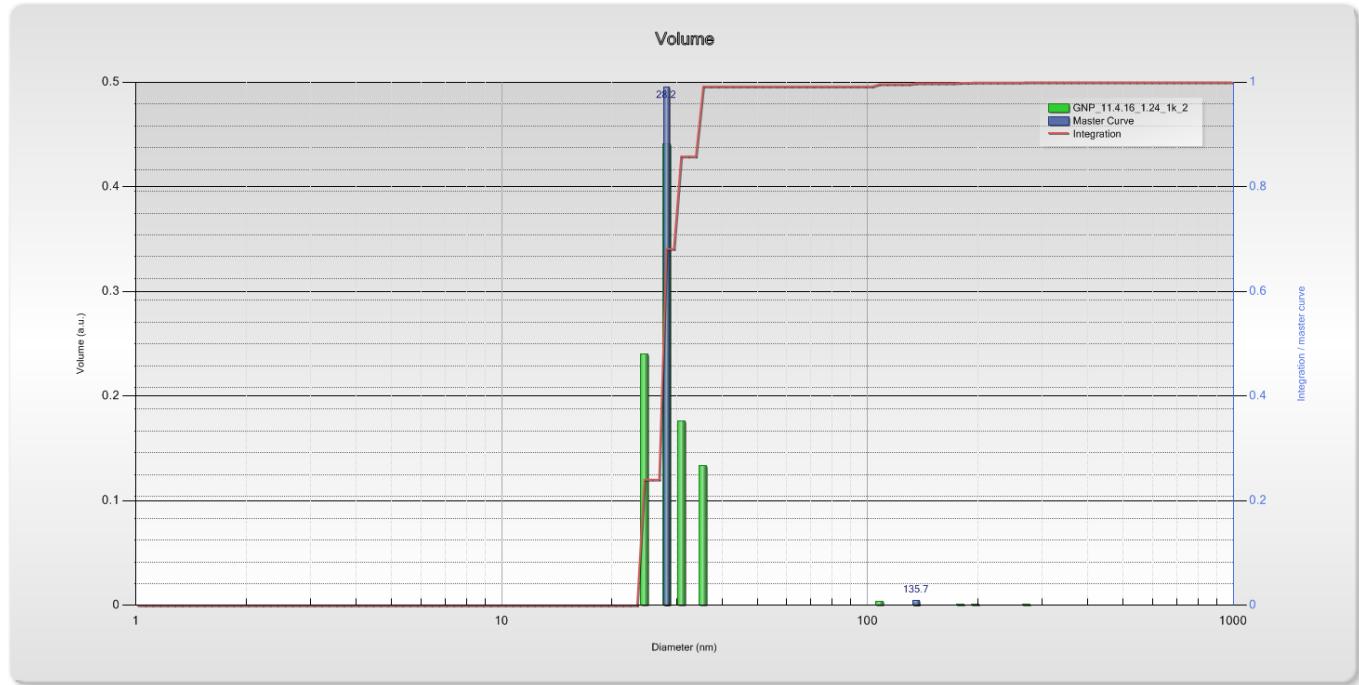
**Duration** : 00:05:18  
**Number of modified** : 0

***Dispersion statistics******Di 10%:*** 28.17 nm***Di 50%:*** 35.5 nm***Di 90%:*** 196.41 nm***Dispersion data***

Size (nm)	Intensity						
24.52	0.09	35.5	0.14	179.07	0.07		
28.17	0.24	107.68	0.11	196.41	0.07		
30.9	0.12	135.68	0.09	271.48	0.06		

***Dispersion statistics******Dn 10%: 24.52 nm******Dn 50%: 28.17 nm******Dn 90%: 30.9 nm******Dispersion data***

<b>Size (nm)</b>	<b>Number</b>						
24.52	0.36	30.9	0.13				
28.17	0.44	35.5	0.07				



### Dispersion statistics

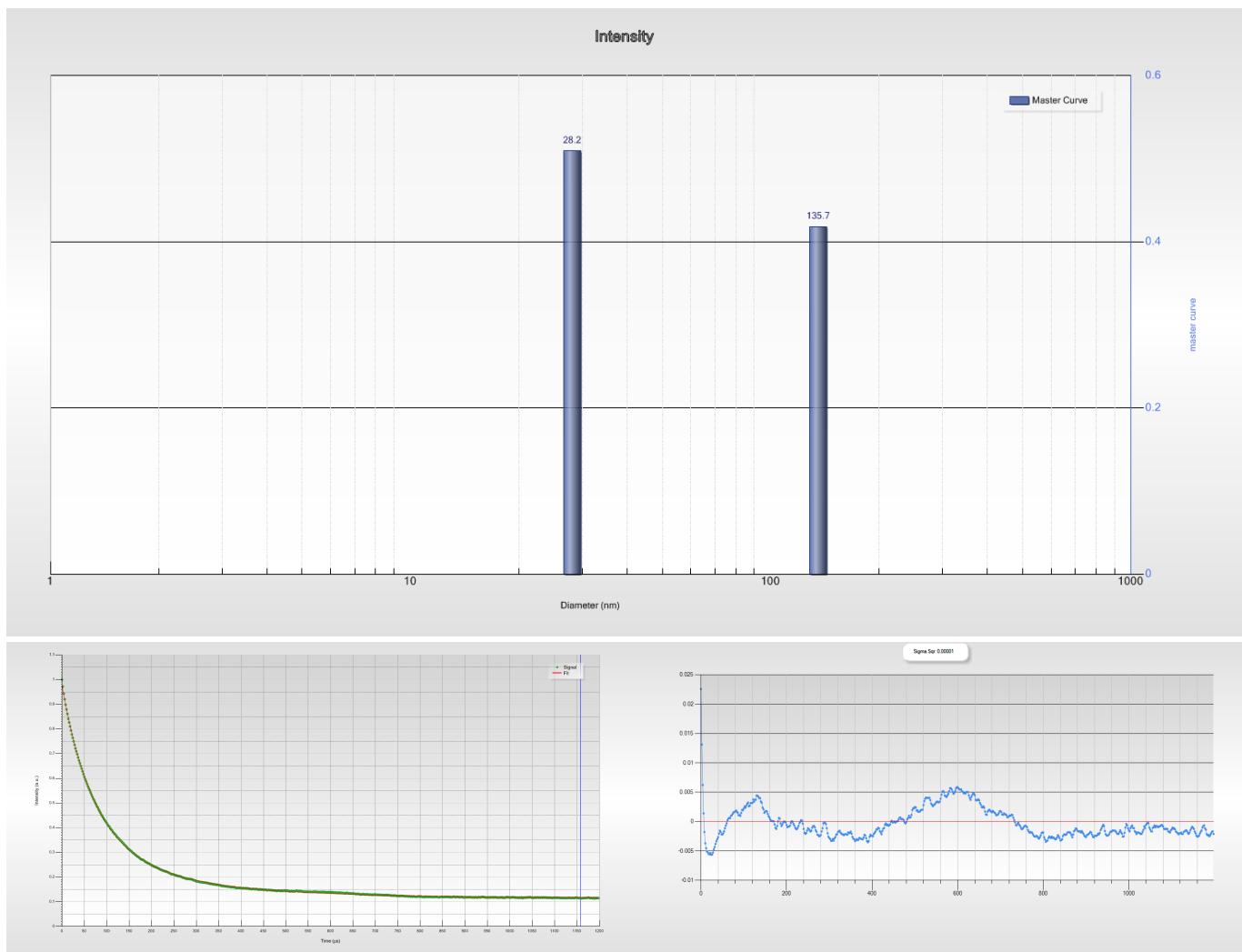
D<sub>v</sub> 10%: 24.52 nm

D<sub>v</sub> 50%: 28.17 nm

D<sub>v</sub> 90%: 35.5 nm

### Dispersion data

Size (nm)	Volume						
24.52	0.24	30.9	0.18				
28.17	0.44	35.5	0.13				



### Dispersion statistics

**Di 10%:** 28.17 nm

**Mean Intensity:** 76.65 nm

**Di 50%:** 28.17 nm

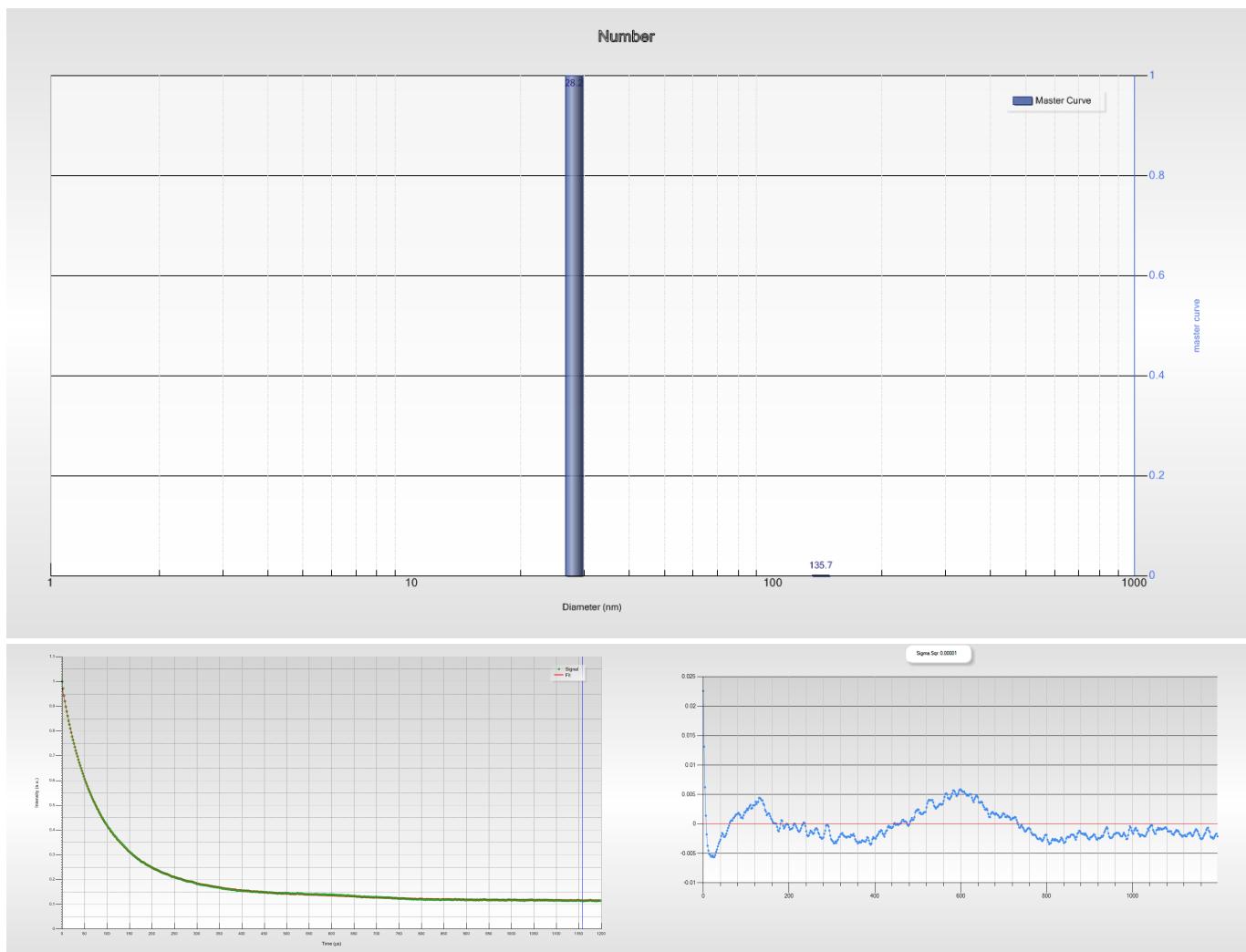
**Di 90%:** 135.68 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
28.25	0.51	9195.26	17.39595E-012
134.7	0.42	1928.58	36.48554E-013

### Dispersion data

Size (nm)	Intensity	Size (nm)	Intensity
28.17	0.55	135.68	0.45



### Dispersion statistics

**Dn 10%:** 28.17 nm  
**Mean Number:** 28.18 nm

**Dn 50%:** 28.17 nm

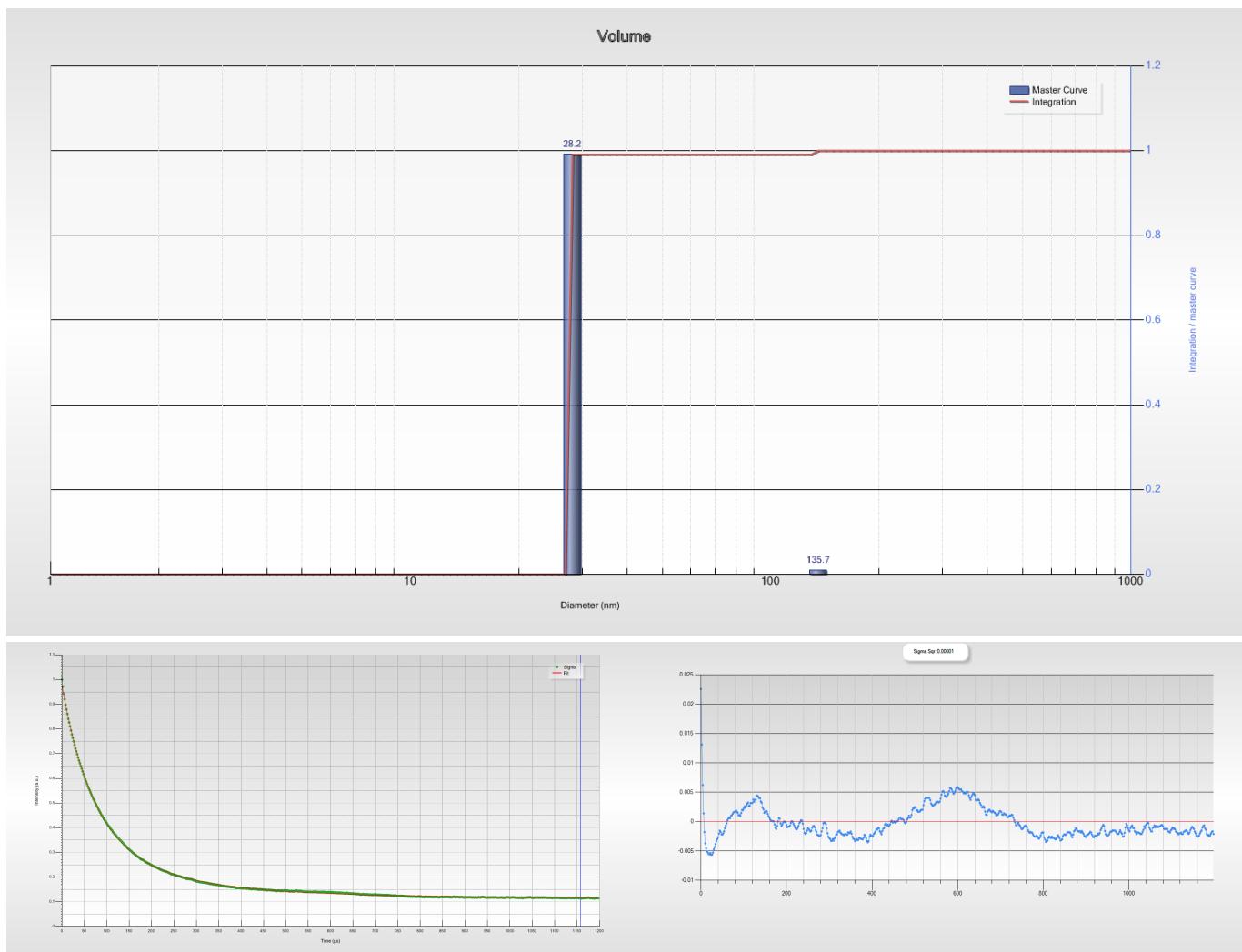
**Dn 90%:** 28.17 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
28.25	0.51	9195.26	17.39595E-012
134.7	0.42	1928.58	36.48554E-013

### Dispersion data

Size (nm)	Number
28.17	1



### Dispersion statistics

**D<sub>v</sub> 10%:** 28.17 nm      **D<sub>v</sub> 50%:** 28.17 nm      **D<sub>v</sub> 90%:** 28.17 nm  
**Mean Volume:** 29.14 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
28.25	0.51	9195.26	17.39595E-012
134.7	0.42	1928.58	36.48554E-013

### Dispersion data

Size (nm)	Volume	Size (nm)	Volume
28.17	0.99	135.68	0.01

**Distribution statistics**

<b>Di 10%:</b> 37.18 nm	<b>Di 50%:</b> 56.36 nm	<b>Di 90%:</b> 89.5 nm
<b>Mean Intensity:</b> 61.3 nm		
<b>PDI :</b> 0.52384		<b>Std Dev:</b> 36.19%

**Detected size(s)**

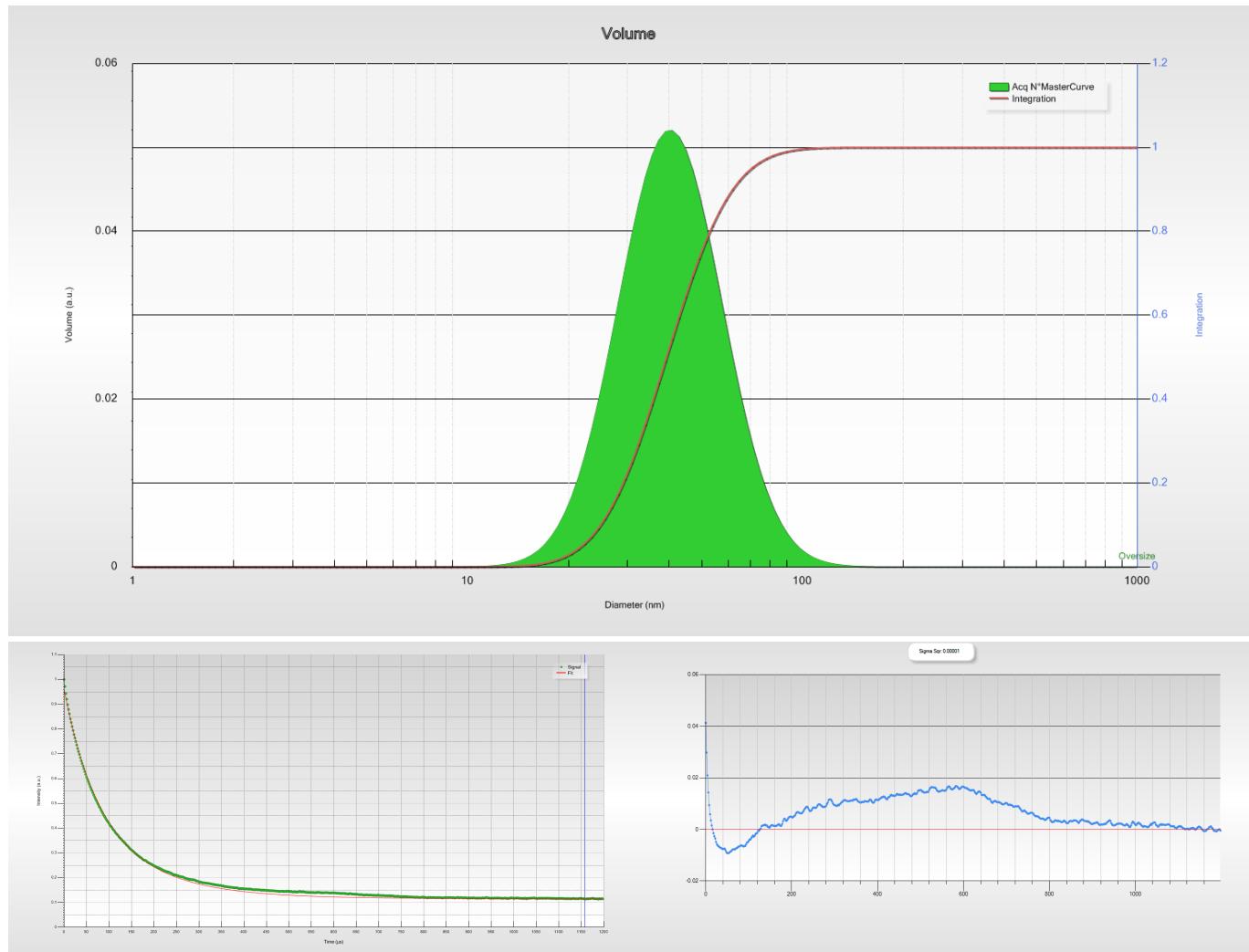
Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
47.92	0.84	5421.76	10.25709E-012

**Distribution statistics**

<b>Dn 10%:</b> 17.74 nm	<b>Dn 50%:</b> 28.17 nm	<b>Dn 90%:</b> 42.71 nm
<b>Mean Number:</b> 29.4 nm		
<b>PDI</b> : 0.52384		<b>Std Dev:</b> 36.19%

**Detected size(s)**

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
47.92	0.84	5421.76	10.25709E-012

**Distribution statistics**

**D<sub>v</sub> 10%:** 25.68 nm  
**Mean Volume:** 42.82 nm  
**PDI** : 0.52384

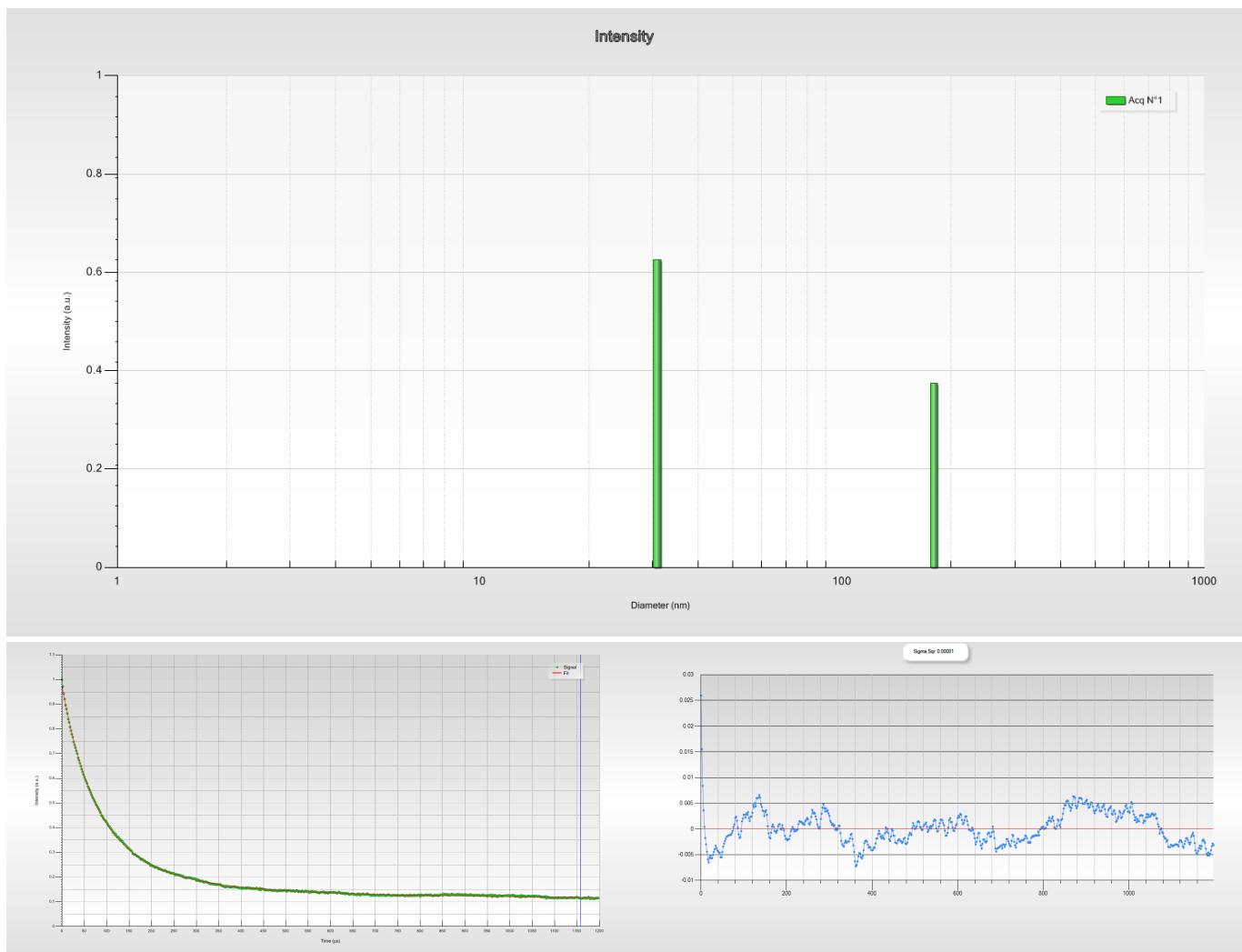
**D<sub>v</sub> 50%:** 40.78 nm

**D<sub>v</sub> 90%:** 64.75 nm

**Std Dev:** 36.19%

**Detected size(s)**

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
47.92	0.84	5421.76	10.25709E-012



### Dispersion statistics

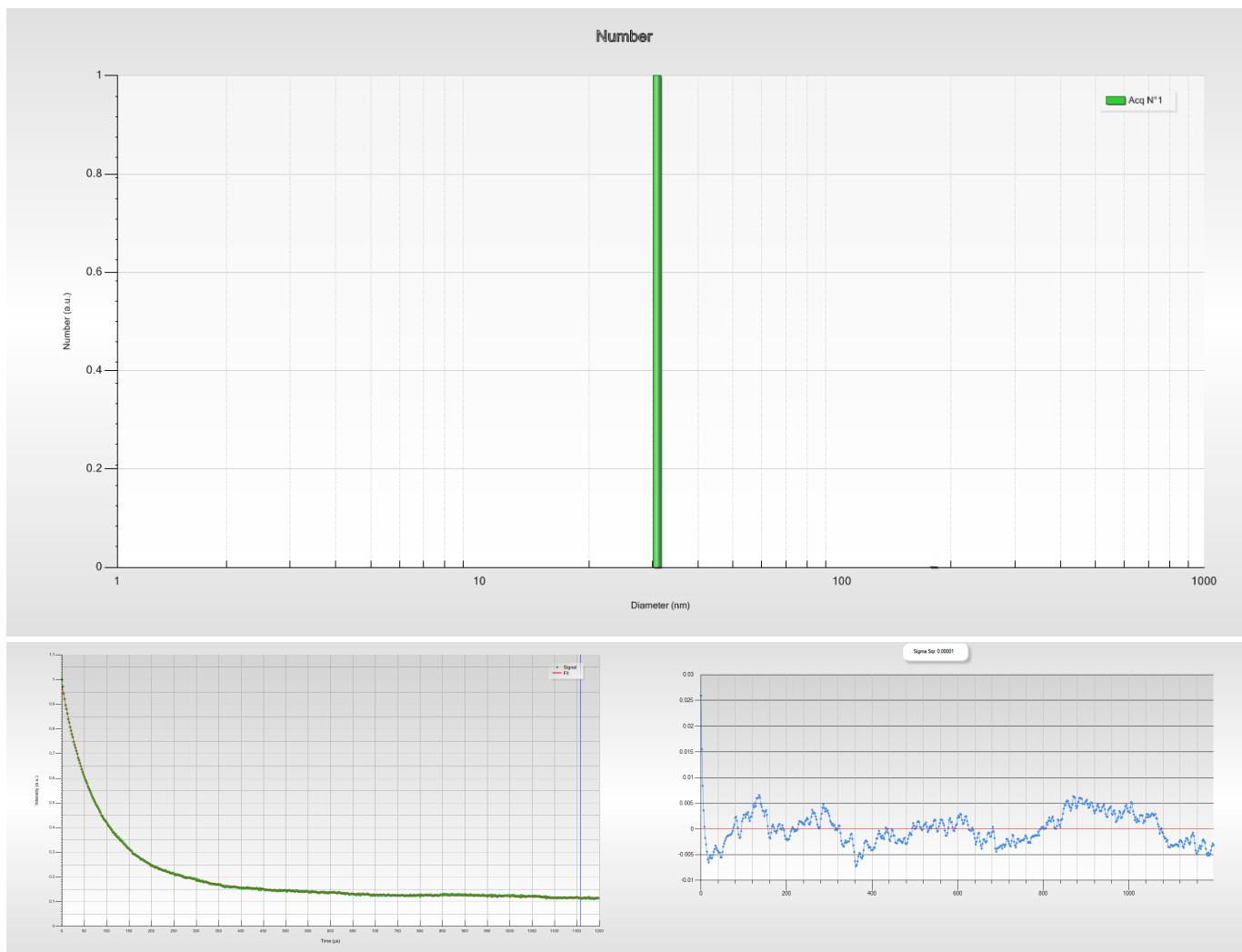
**Di 10%:** 30.9 nm      **Di 50%:** 30.9 nm      **Di 90%:** 179.07 nm  
**Mean Intensity:** 86.31 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
30.97	0.58	8388.3	15.8693E-012
176.98	0.35	1467.89	27.77006E-013

### Dispersion data

Size (nm)	Intensity	Size (nm)	Intensity
30.9	0.63	179.07	0.37



### Dispersion statistics

**Dn 10%:** 30.9 nm  
**Mean Number:** 30.9 nm

**Dn 50%:** 30.9 nm

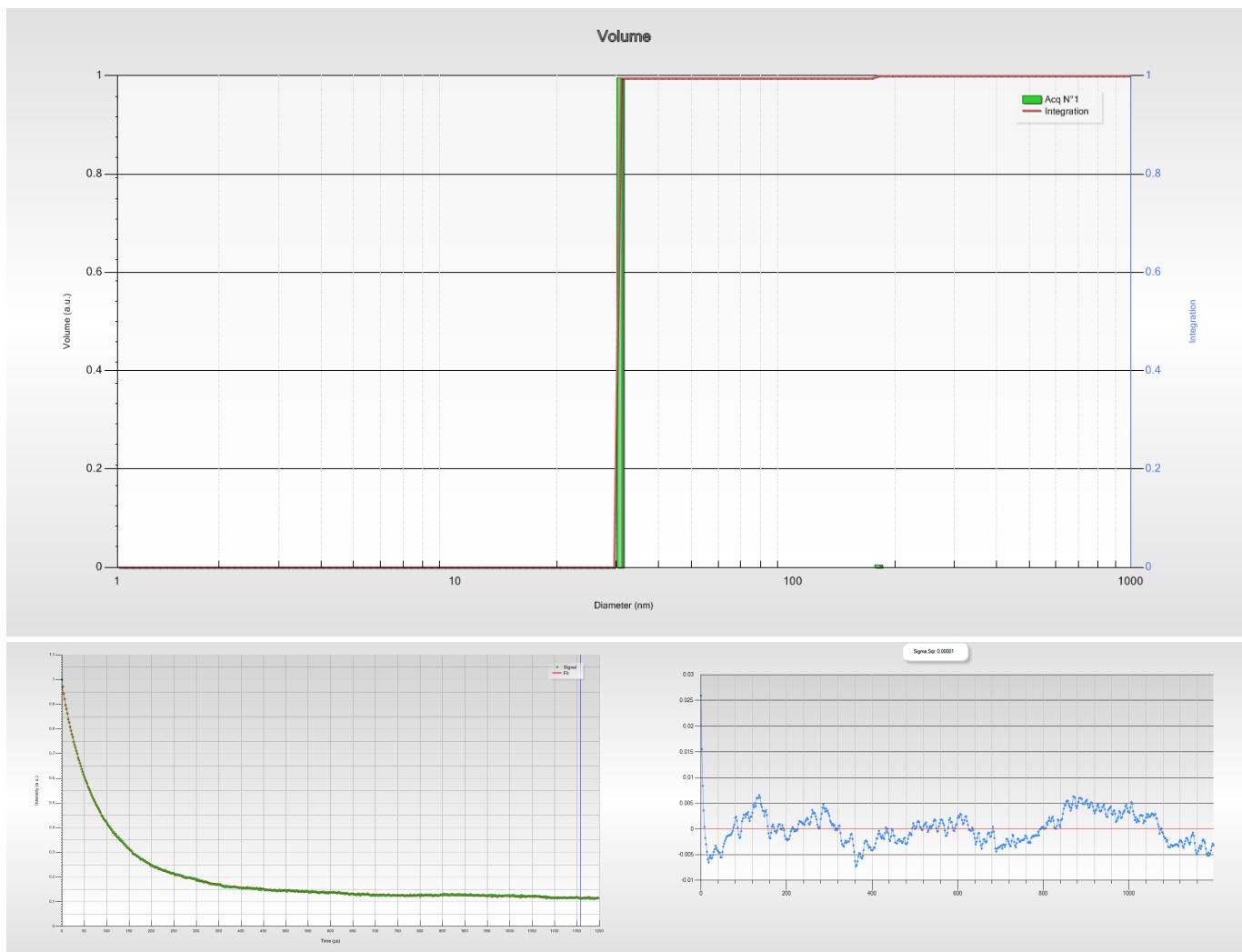
**Dn 90%:** 30.9 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
30.97	0.58	8388.3	15.8693E-012
176.98	0.35	1467.89	27.77006E-013

### Dispersion data

Size (nm)	Number
30.9	1



### Dispersion statistics

**Dv 10%:** 30.9 nm  
**Mean Volume:** 31.57 nm

**Dv 50%:** 30.9 nm

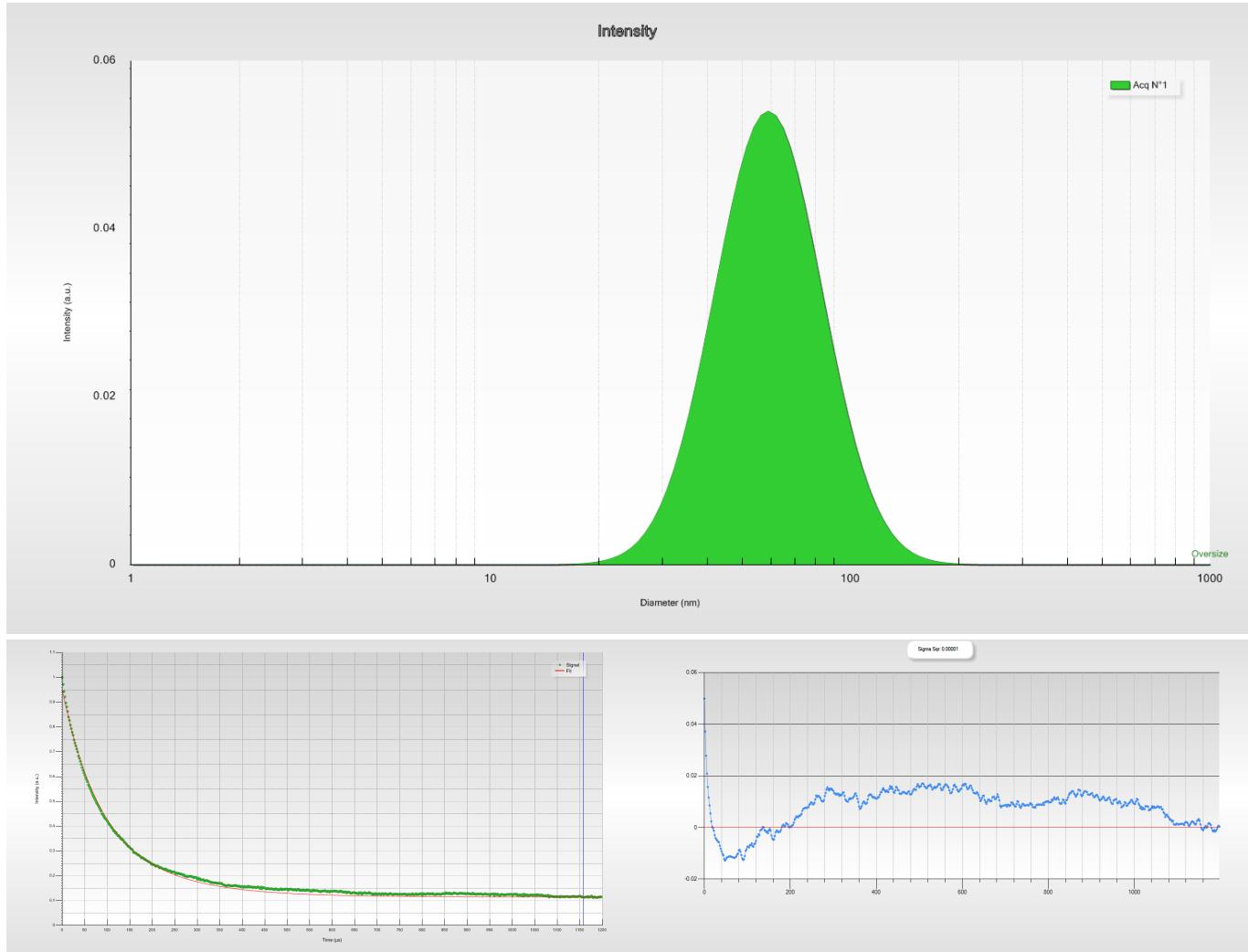
**Dv 90%:** 30.9 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
30.97	0.58	8388.3	15.8693E-012
176.98	0.35	1467.89	27.77006E-013

### Dispersion data

Size (nm)	Volume
30.9	1



### Distribution statistics

**Di 10%:** 38.94 nm      **Di 50%:** 59.03 nm      **Di 90%:** 89.5 nm  
**Mean Intensity:** 62.58 nm      **Std Dev:** 35.18%  
**PDI** : 0.49503

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
49.54	0.84	5243.74	99.20315E-013



### Distribution statistics

**Dn 10%:** 18.58 nm  
**Mean Number:** 31.19 nm  
**PDI :** 0.49503

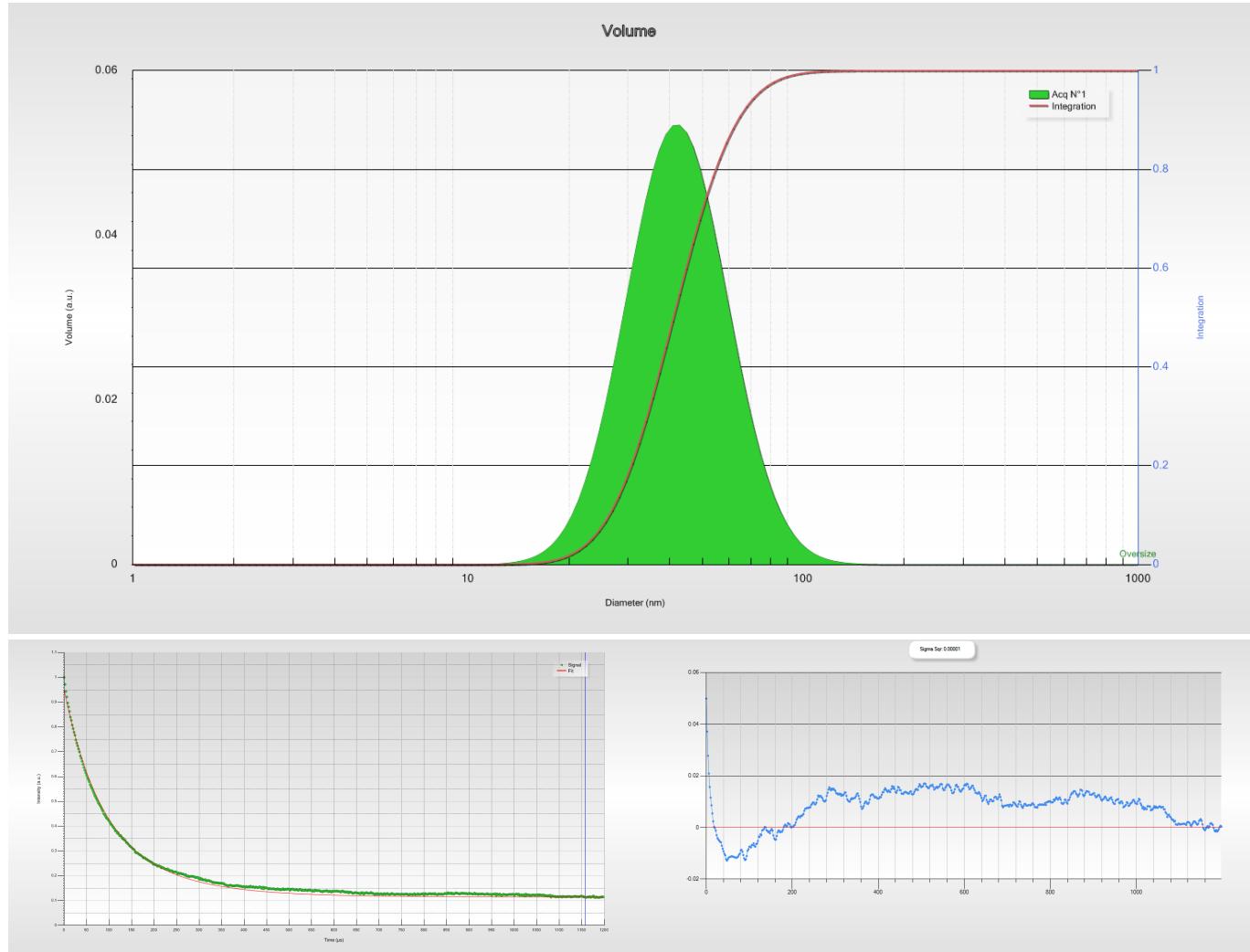
**Dn 50%:** 29.5 nm

**Dn 90%:** 44.73 nm

**Std Dev:** 35.18%

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
49.54	0.84	5243.74	99.20315E-013



### Distribution statistics

<b>D<sub>v</sub> 10%:</b> 26.9 nm	<b>D<sub>v</sub> 50%:</b> 42.71 nm	<b>D<sub>v</sub> 90%:</b> 64.75 nm
<b>Mean Volume:</b> 44.56 nm		
<b>PDI</b> : 0.49503		<b>Std Dev:</b> 35.18%

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
49.54	0.84	5243.74	99.20315E-013



### Dispersion statistics

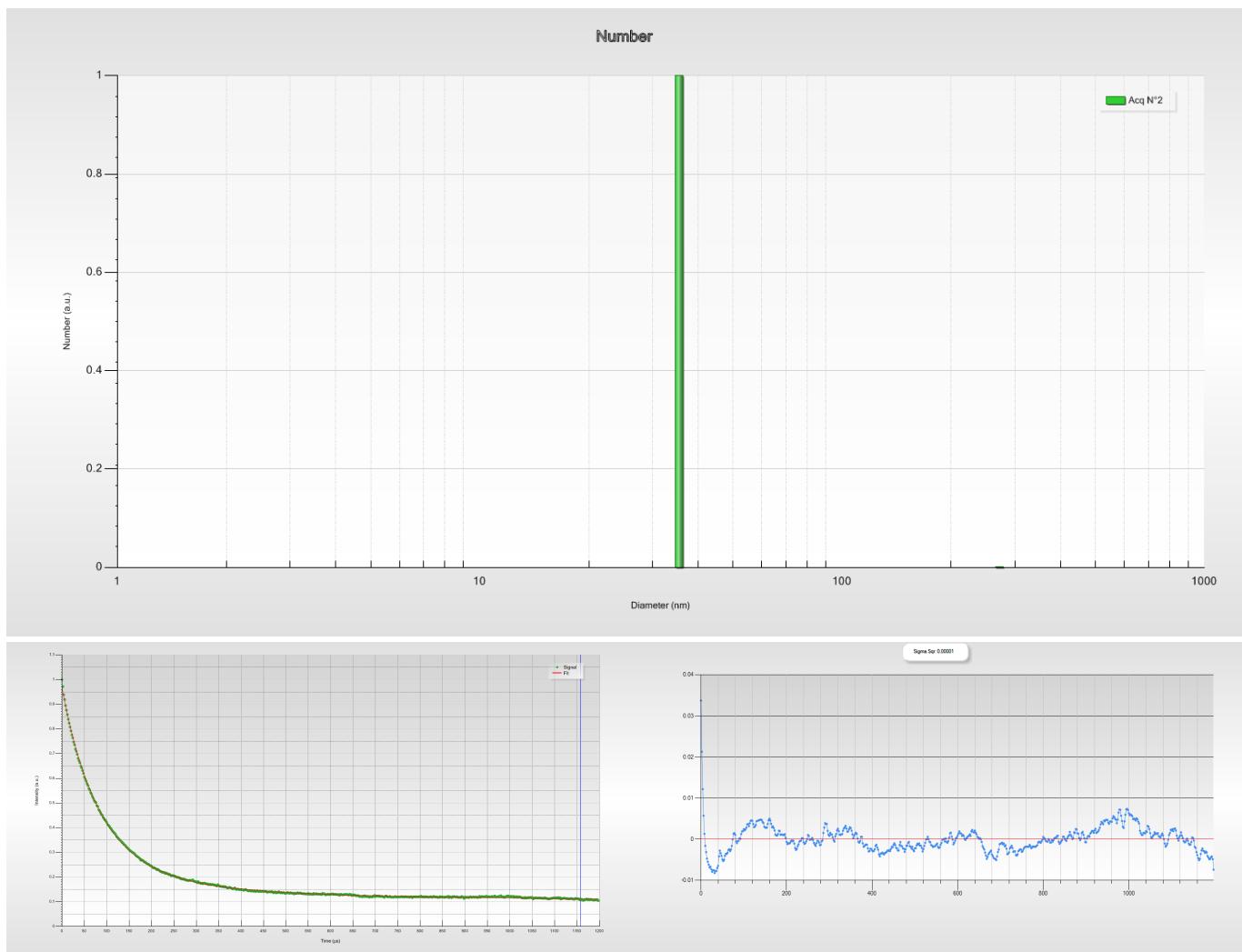
**Di 10%:** 35.5 nm      **Di 50%:** 35.5 nm      **Di 90%:** 271.48 nm  
**Mean Intensity:** 102.89 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
35.44	0.66	7329.95	13.86709E-012
276.28	0.27	940.29	17.78882E-013

### Dispersion data

Size (nm)	Intensity	Size (nm)	Intensity
35.5	0.71	271.48	0.29



### Dispersion statistics

**Dn 10%:** 35.5 nm  
**Mean Number:** 35.5 nm

**Dn 50%:** 35.5 nm

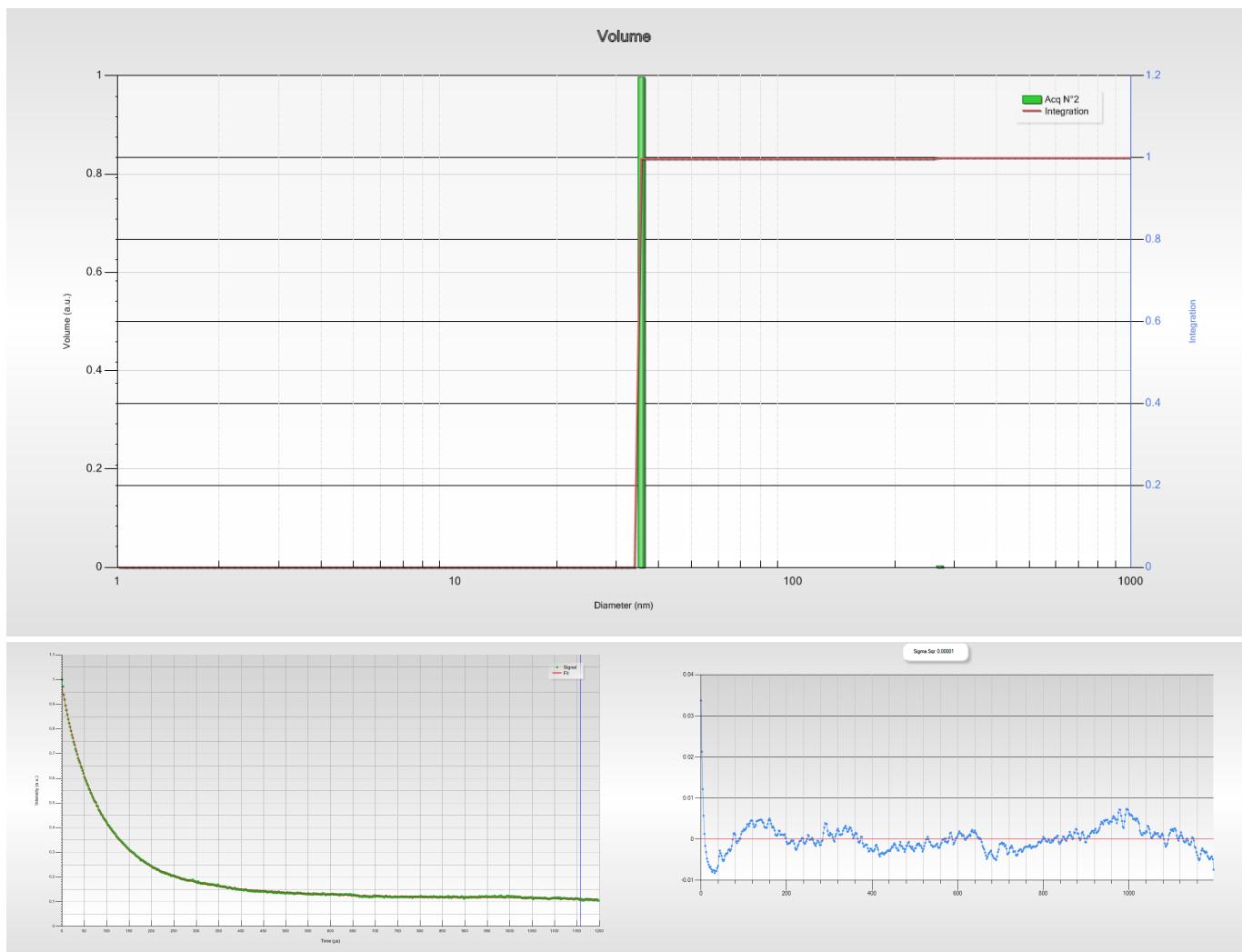
**Dn 90%:** 35.5 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
35.44	0.66	7329.95	13.86709E-012
276.28	0.27	940.29	17.78882E-013

### Dispersion datas

Size (nm)	Number
35.5	1



### Dispersion statistics

Dv 10%: 35.5 nm  
Mean Volume: 36.13 nm

Dv 50%: 35.5 nm

Dv 90%: 35.5 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
35.44	0.66	7329.95	13.86709E-012
276.28	0.27	940.29	17.78882E-013

### Dispersion data

Size (nm)	Volume
35.5	1

**Distribution statistics**

<b>Di 10%:</b> 38.94 nm	<b>Di 50%:</b> 61.83 nm	<b>Di 90%:</b> 93.73 nm
<b>Mean Intensity:</b> 64.33 nm		
<b>PDI</b> : 0.49439		<b>Std Dev:</b> 35.16%

**Detected size(s)**

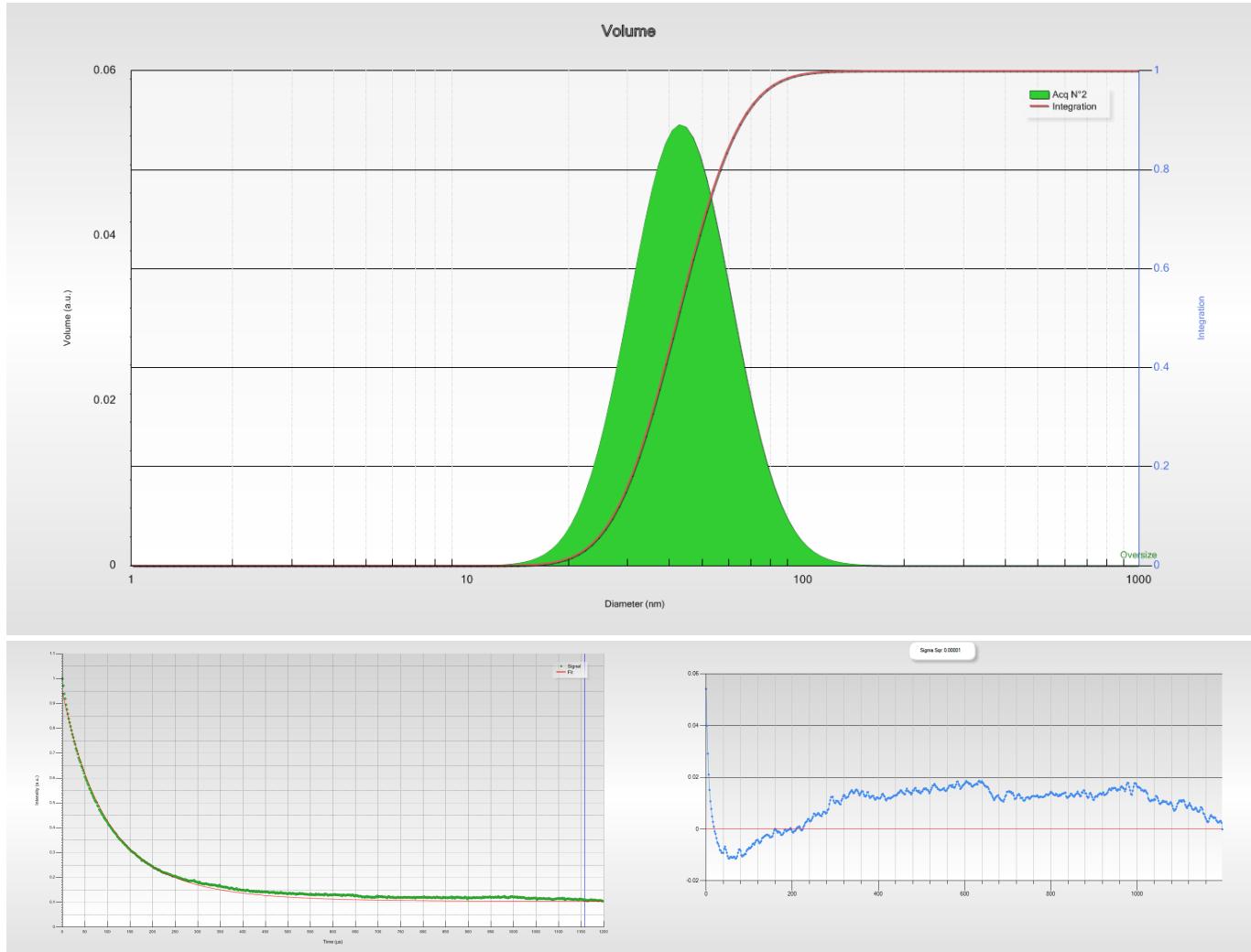
Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
50.94	0.84	5099.59	96.47594E-013

**Distribution statistics**

<b>Dn 10%:</b> 19.46 nm	<b>Dn 50%:</b> 30.9 nm	<b>Dn 90%:</b> 46.85 nm
<b>Mean Number:</b> 32.1 nm		
<b>PDI</b> : 0.49439		<b>Std Dev:</b> 35.16%

**Detected size(s)**

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
50.94	0.84	5099.59	96.47594E-013

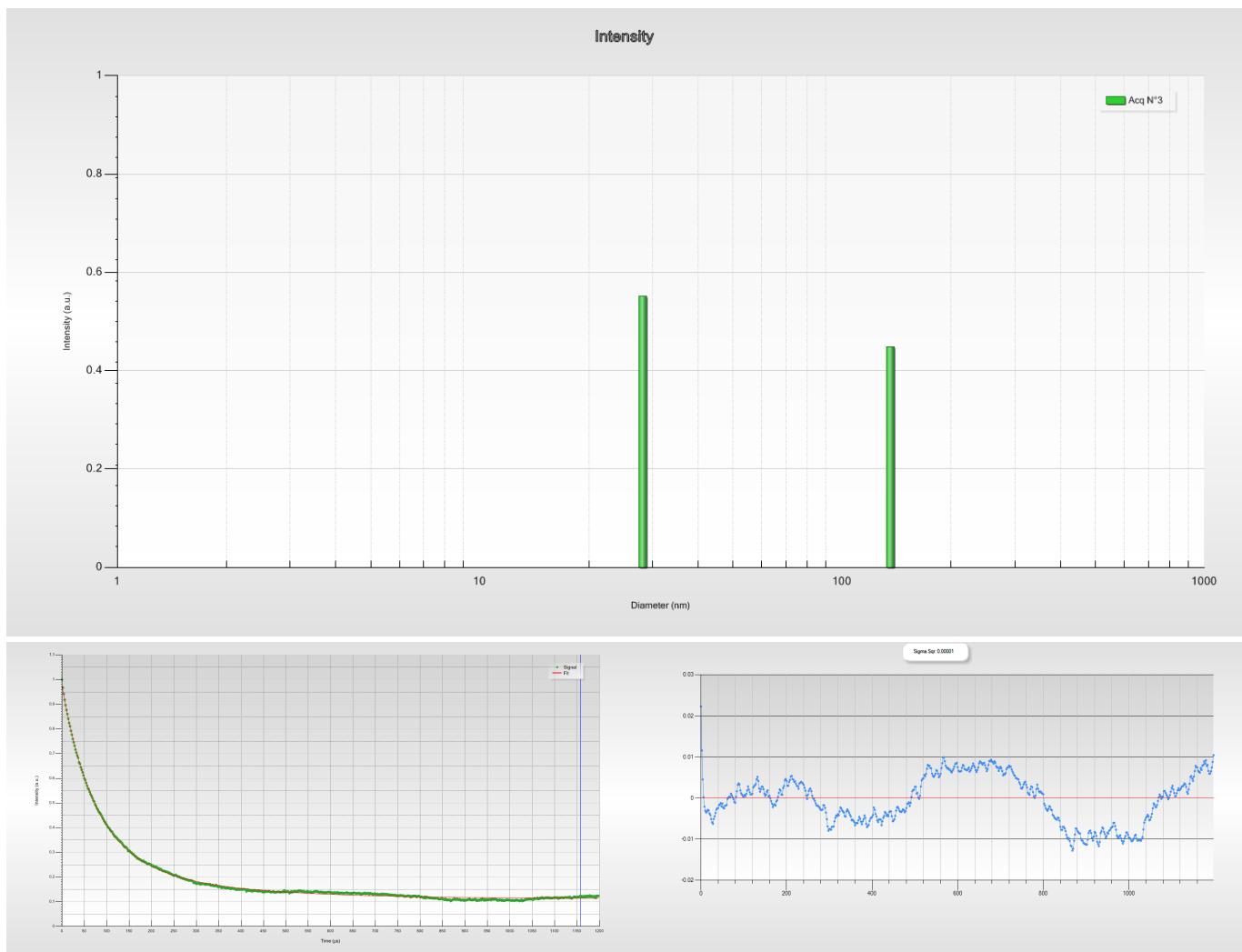


### Distribution statistics

<b>D<sub>v</sub> 10%:</b> 28.17 nm	<b>D<sub>v</sub> 50%:</b> 42.71 nm	<b>D<sub>v</sub> 90%:</b> 67.81 nm
<b>Mean Volume:</b> 45.84 nm		
<b>PDI</b> : 0.49439		<b>Std Dev:</b> 35.16%

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
50.94	0.84	5099.59	96.47594E-013



### Dispersion statistics

**Di 10%:** 28.17 nm  
**Mean Intensity:** 76.41 nm

**Di 50%:** 28.17 nm

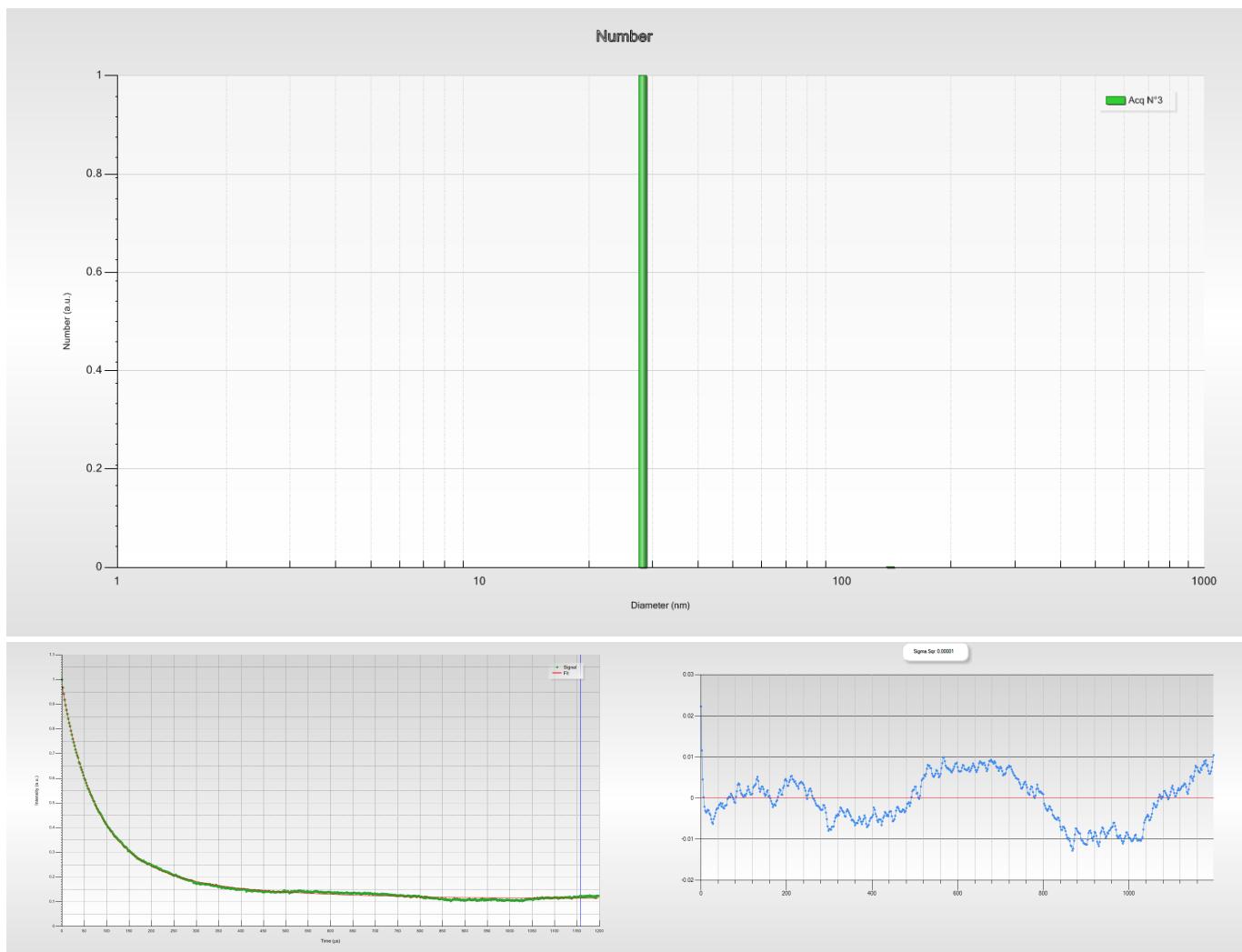
**Di 90%:** 135.68 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
27.84	0.51	9329.79	17.65046E-012
135.17	0.42	1921.91	36.3594E-013

### Dispersion data

Size (nm)	Intensity	Size (nm)	Intensity
28.17	0.55	135.68	0.45



### Dispersion statistics

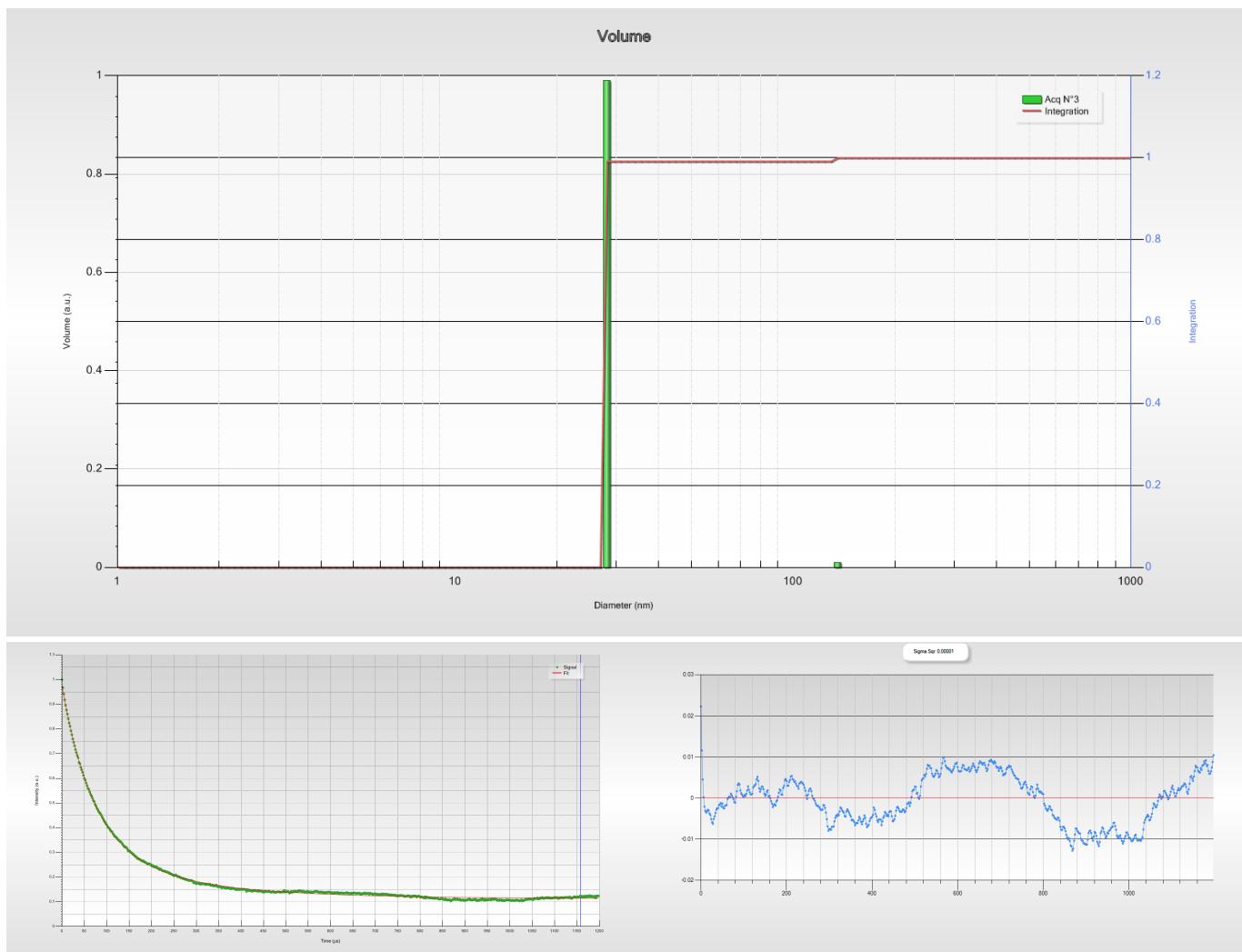
**Dn 10%:** 28.17 nm      **Dn 50%:** 28.17 nm      **Dn 90%:** 28.17 nm  
**Mean Number:** 28.18 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
27.84	0.51	9329.79	17.65046E-012
135.17	0.42	1921.91	36.3594E-013

### Dispersion data

Size (nm)	Number
28.17	1



### Dispersion statistics

D<sub>v</sub> 10%: 28.17 nm  
Mean Volume: 29.13 nm

D<sub>v</sub> 50%: 28.17 nm

D<sub>v</sub> 90%: 28.17 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
27.84	0.51	9329.79	17.65046E-012
135.17	0.42	1921.91	36.3594E-013

### Dispersion data

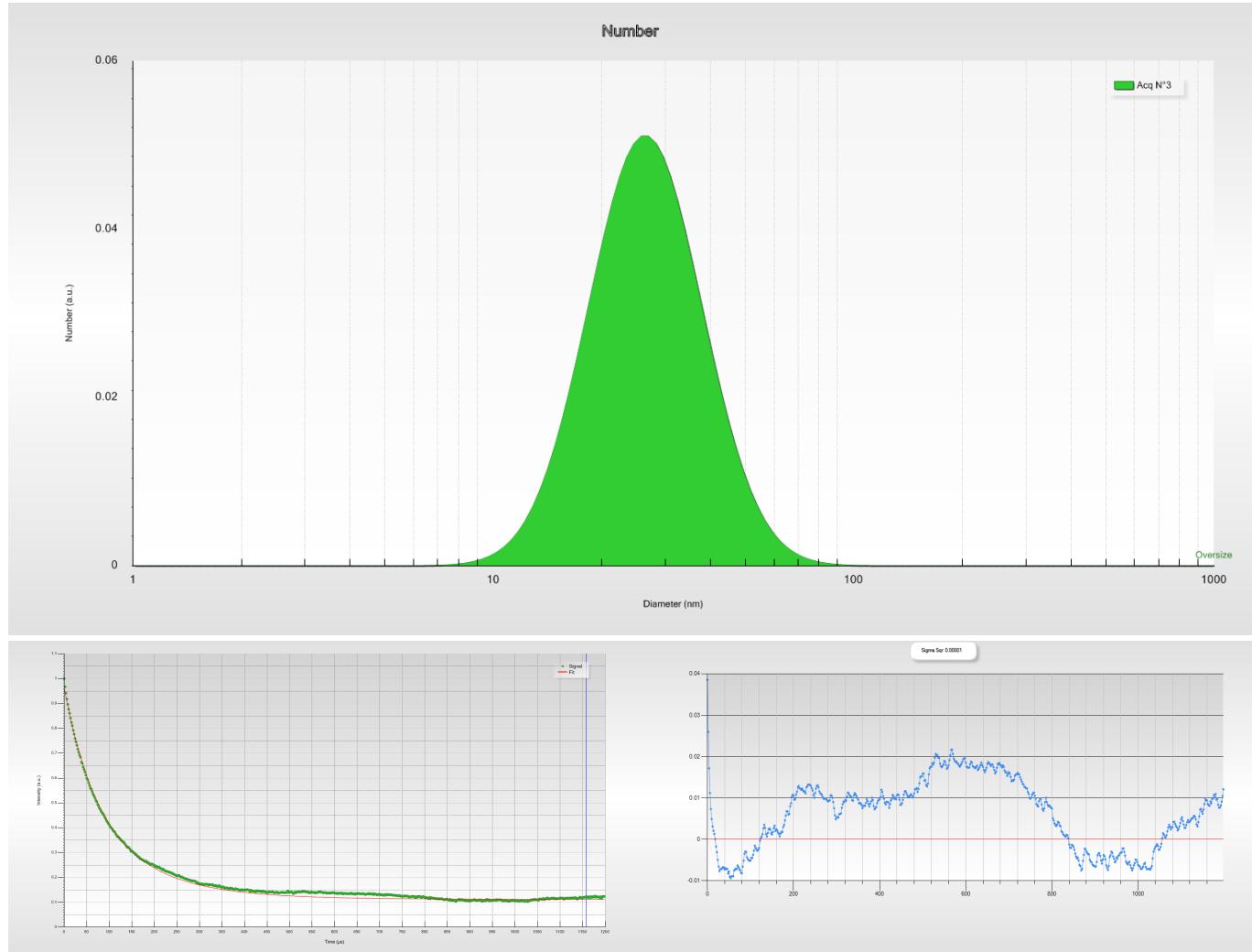
Size (nm)	Volume	Size (nm)	Volume
28.17	0.99	135.68	0.01

**Distribution statistics**

<b>Di 10%:</b> 35.5 nm	<b>Di 50%:</b> 56.36 nm	<b>Di 90%:</b> 89.5 nm
<b>Mean Intensity:</b> 60.47 nm		
<b>PDI</b> : 0.54761		<b>Std Dev</b> : 37%

**Detected size(s)**

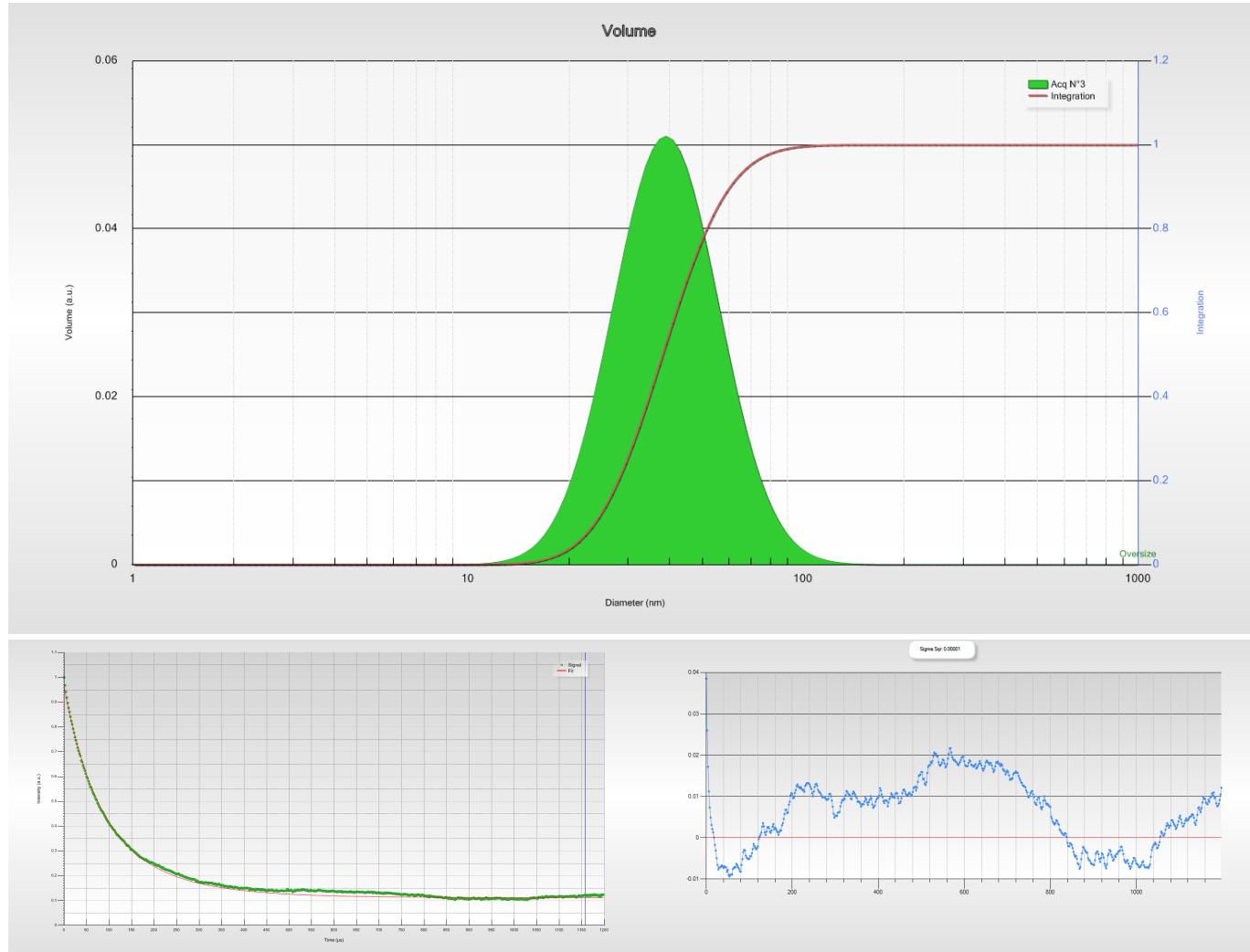
Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
46.77	0.85	5553.98	10.50724E-012

**Distribution statistics**

<b>Dn 10%:</b> 16.94 nm	<b>Dn 50%:</b> 26.9 nm	<b>Dn 90%:</b> 42.71 nm
<b>Mean Number:</b> 28.1 nm		
<b>PDI</b> : 0.54761		<b>Std Dev</b> : 37%

**Detected size(s)**

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
46.77	0.85	5553.98	10.50724E-012

**Distribution statistics**

**D<sub>v</sub> 10%:** 24.52 nm  
**Mean Volume:** 41.58 nm  
**PDI :** 0.54761

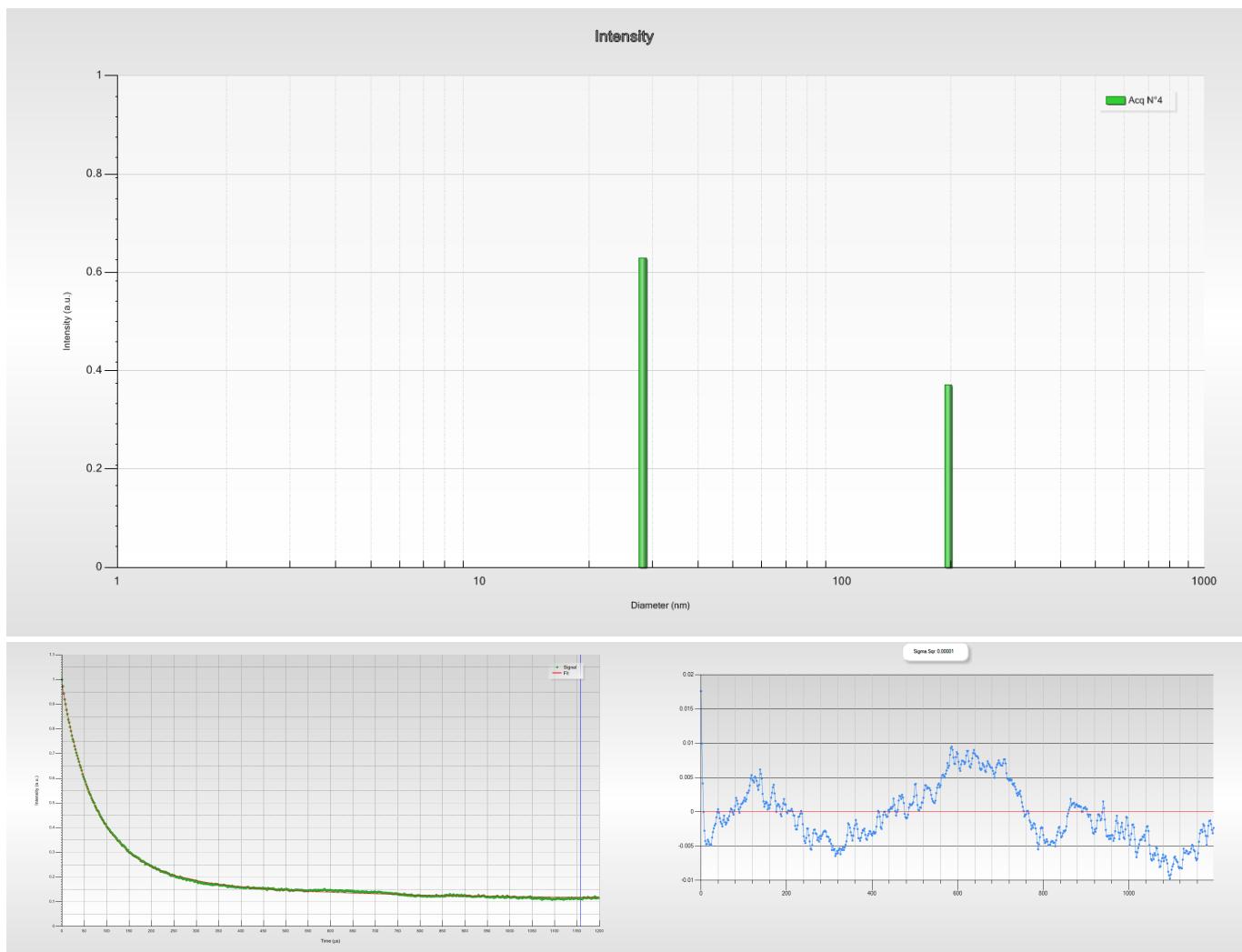
**D<sub>v</sub> 50%:** 38.94 nm

**D<sub>v</sub> 90%:** 61.83 nm

**Std Dev :** 37%

**Detected size(s)**

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
46.77	0.85	5553.98	10.50724E-012



### Dispersion statistics

**Di 10%:** 28.17 nm

**Mean Intensity:** 90.61 nm

**Di 50%:** 28.17 nm

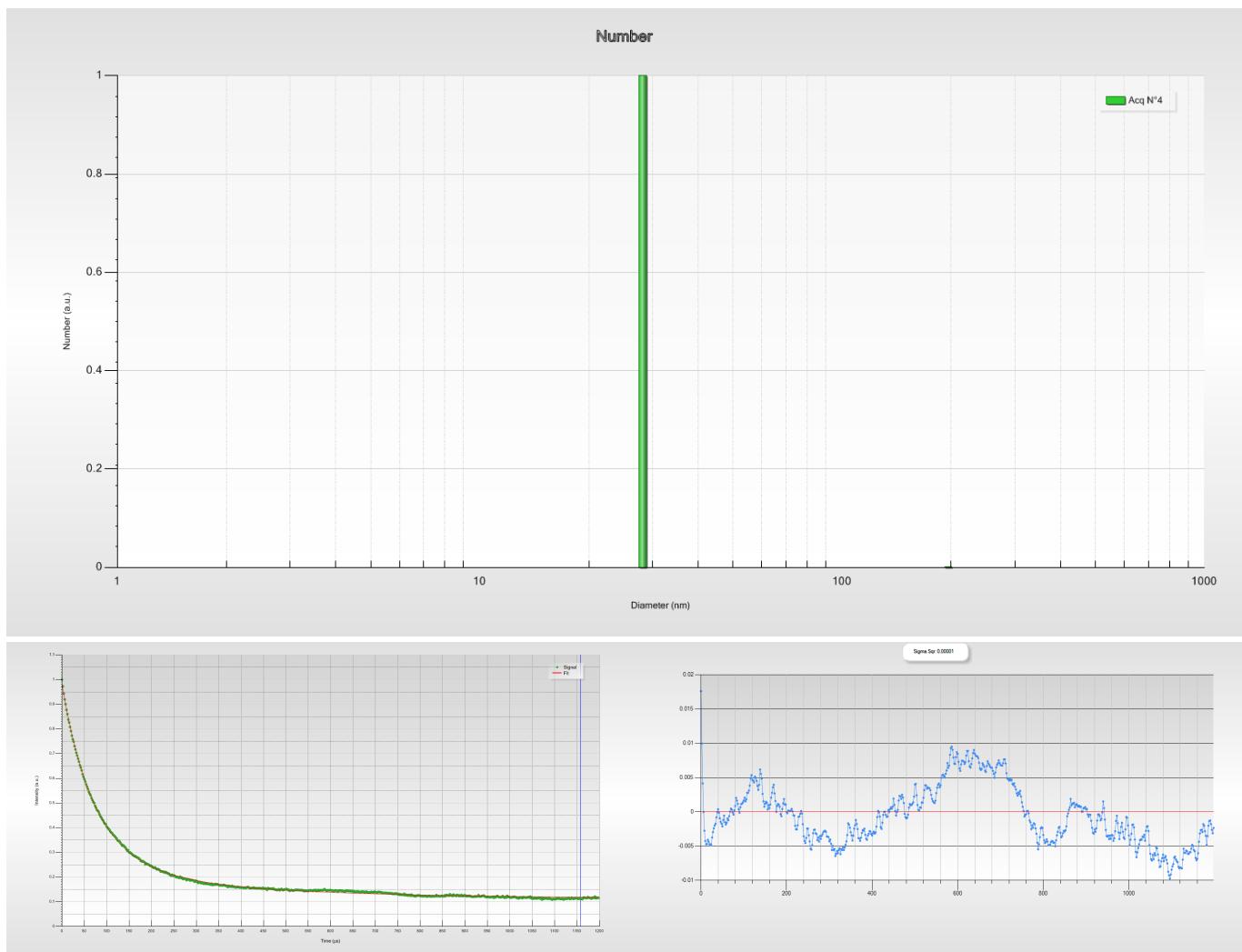
**Di 90%:** 196.41 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
28.64	0.59	9069.7	17.1584E-012
192.73	0.35	1347.96	25.5012E-013

### Dispersion data

Size (nm)	Intensity	Size (nm)	Intensity
28.17	0.63	196.41	0.37



### Dispersion statistics

Dn 10%: 28.17 nm  
Mean Number: 28.17 nm

Dn 50%: 28.17 nm

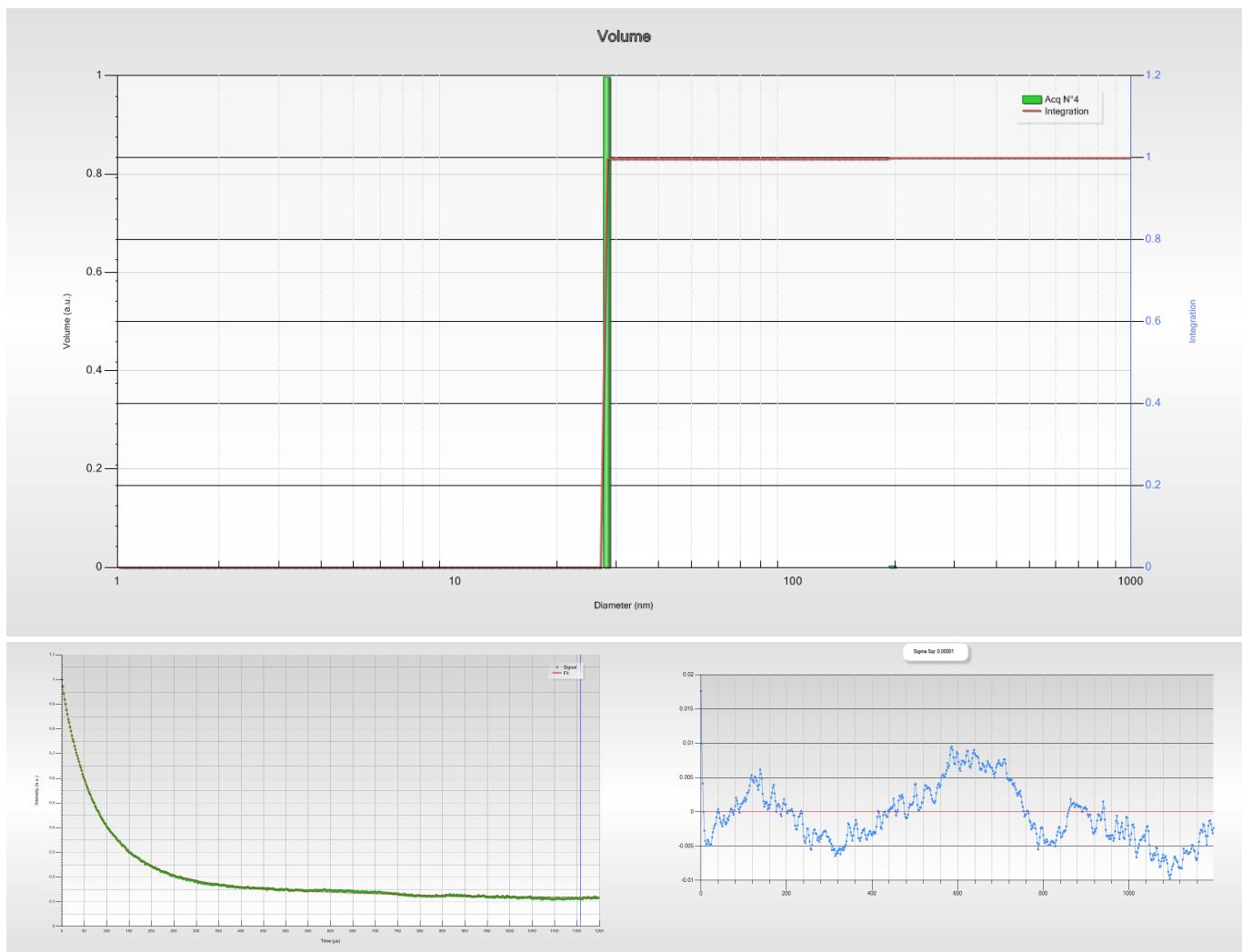
Dn 90%: 28.17 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
28.64	0.59	9069.7	17.1584E-012
192.73	0.35	1347.96	25.5012E-013

### Dispersion datas

Size (nm)	Number
28.17	1



### Dispersion statistics

D<sub>v</sub> 10%: 28.17 nm  
Mean Volume: 28.65 nm

D<sub>v</sub> 50%: 28.17 nm

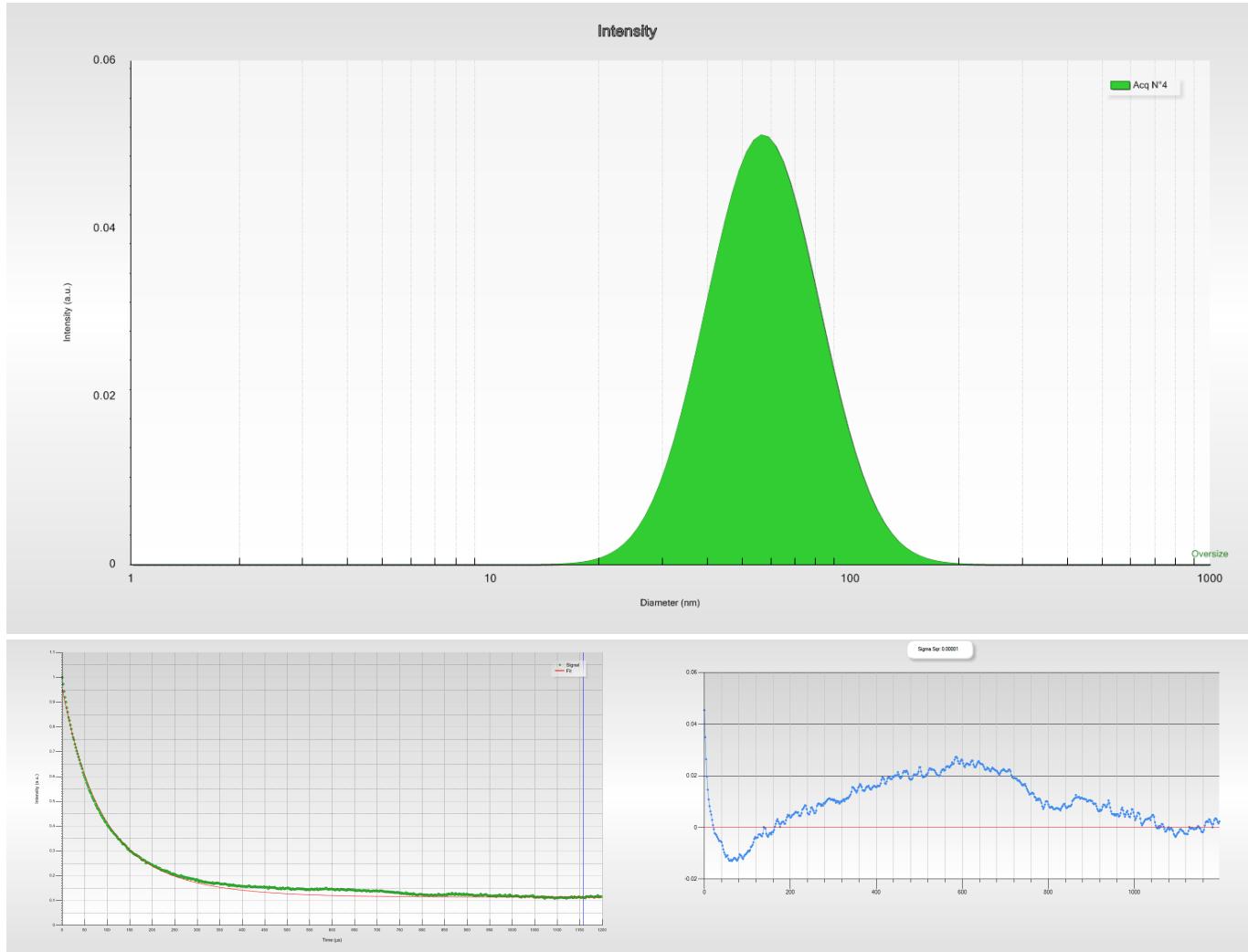
D<sub>v</sub> 90%: 28.17 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
28.64	0.59	9069.7	17.1584E-012
192.73	0.35	1347.96	25.5012E-013

### Dispersion data

Size (nm)	Volume
28.17	1



### Distribution statistics

<b>Di 10%:</b> 35.5 nm	<b>Di 50%:</b> 56.36 nm	<b>Di 90%:</b> 89.5 nm
<b>Mean Intensity:</b> 60.78 nm		
<b>PDI :</b> 0.55451		<b>Std Dev:</b> 37.23%

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
46.87	0.84	5542.16	10.48486E-012

**Distribution statistics**

**Dn 10%:** 16.17 nm  
**Mean Number:** 27.99 nm  
**PDI** : 0.55451

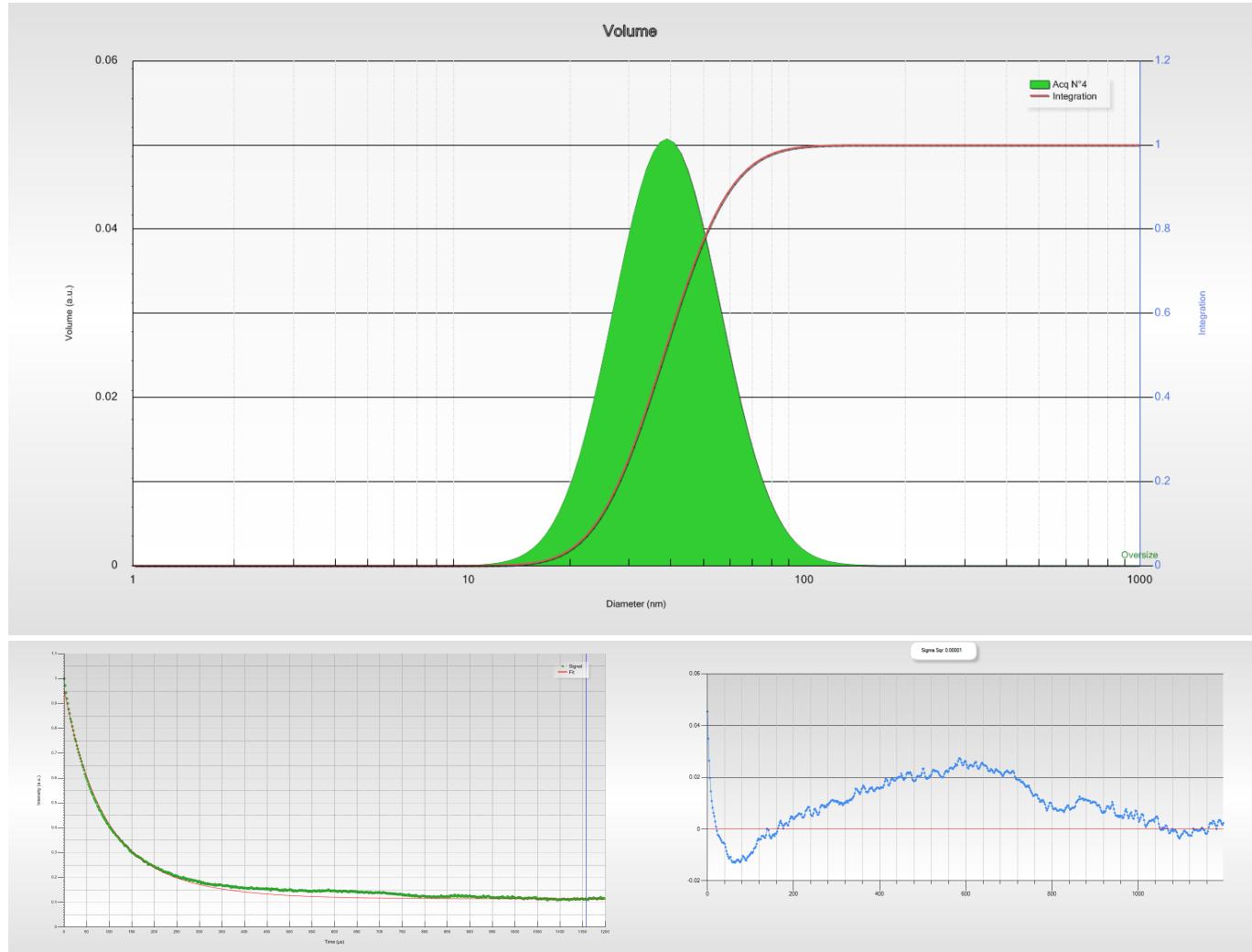
**Dn 50%:** 25.68 nm

**Dn 90%:** 40.78 nm

**Std Dev:** 37.23%

**Detected size(s)**

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
46.87	0.84	5542.16	10.48486E-012

**Distribution statistics**

**D<sub>v</sub> 10%:** 24.52 nm  
**Mean Volume:** 41.61 nm  
**PDI :** 0.55451

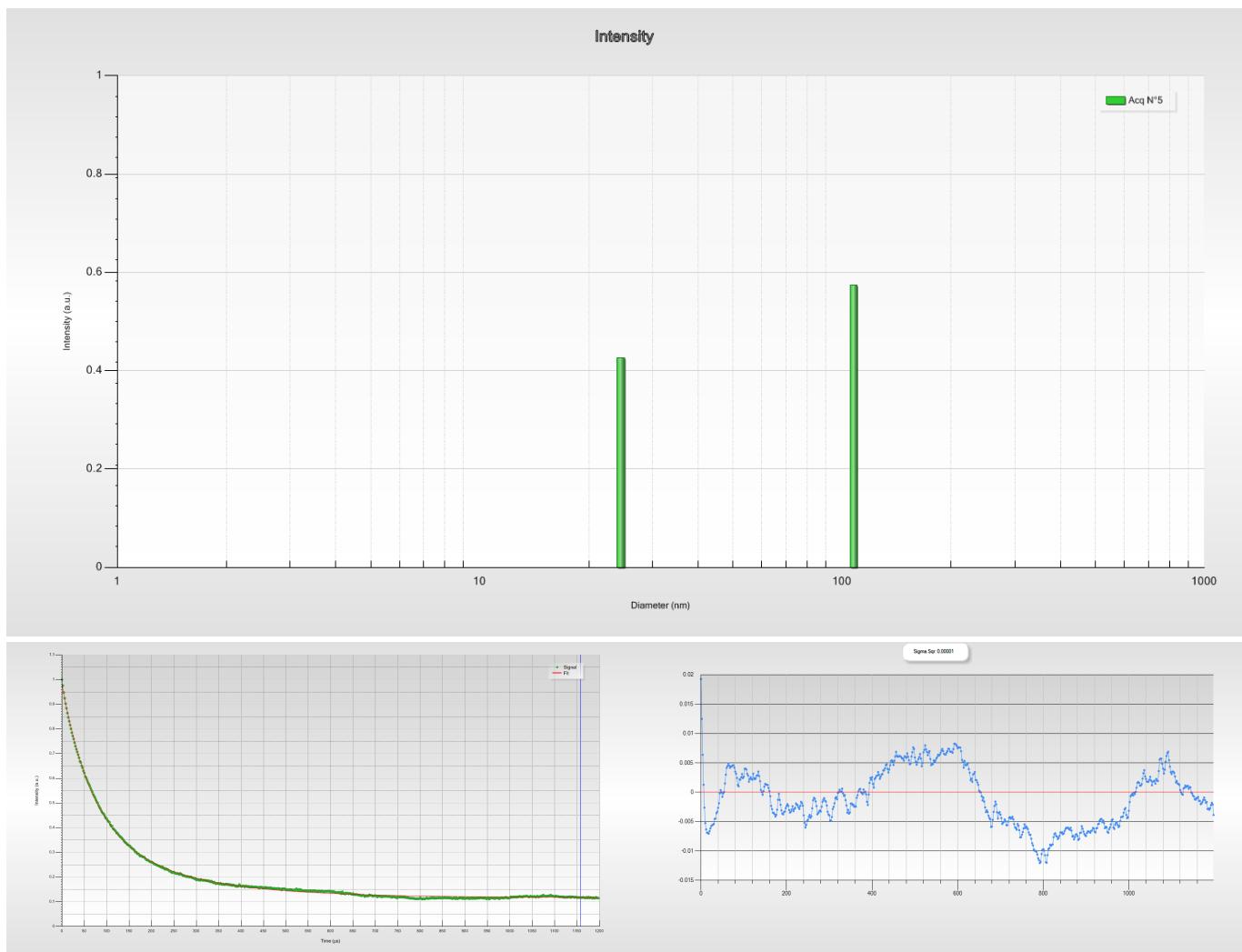
**D<sub>v</sub> 50%:** 38.94 nm

**D<sub>v</sub> 90%:** 61.83 nm

**Std Dev:** 37.23%

**Detected size(s)**

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
46.87	0.84	5542.16	10.48486E-012



### Dispersion statistics

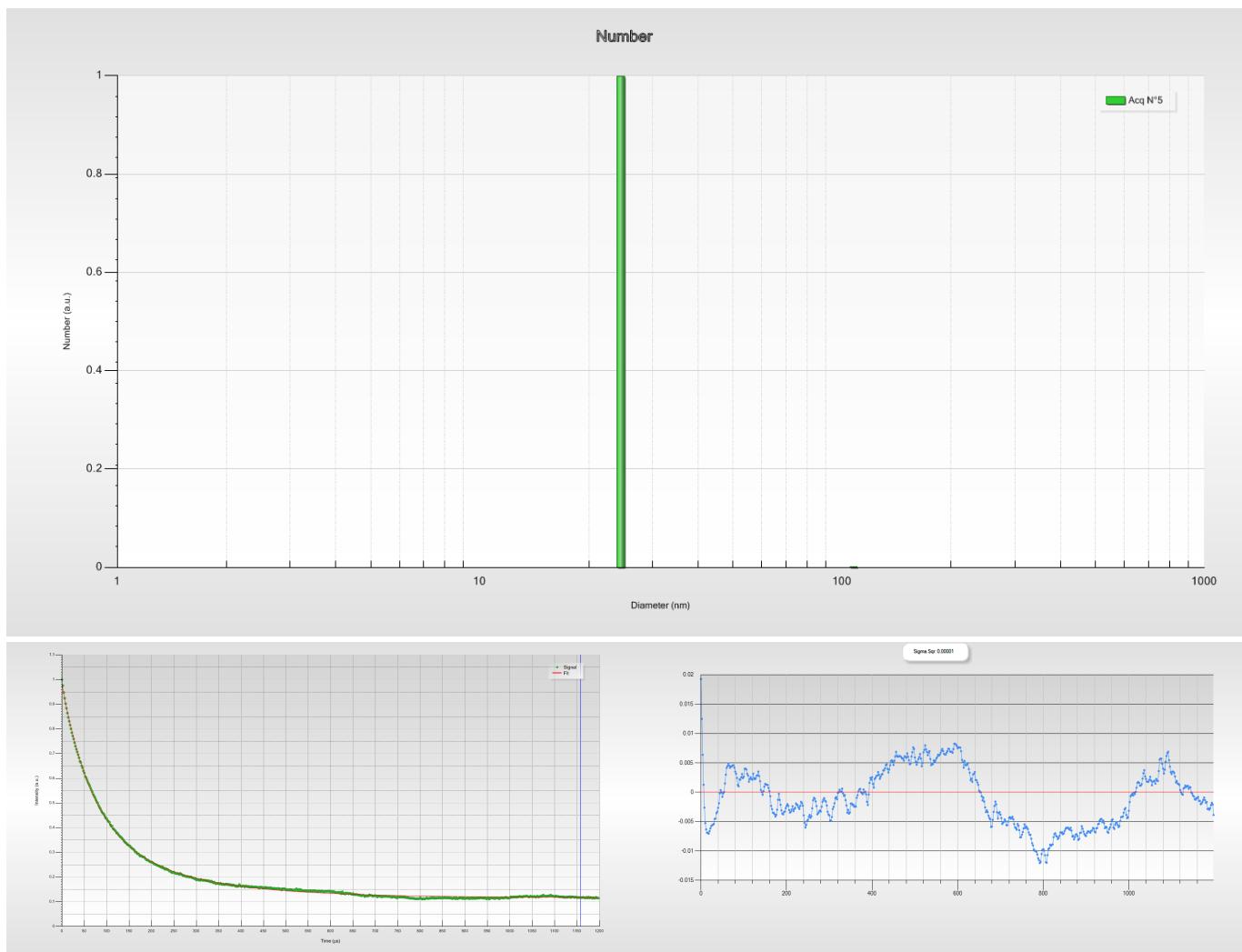
**Di 10%:** 24.52 nm      **Di 50%:** 107.68 nm      **Di 90%:** 107.68 nm  
**Mean Intensity:** 72.21 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
25.05	0.4	10370.6	19.6195E-012
109.53	0.53	2371.8	44.87068E-013

### Dispersion data

Size (nm)	Intensity	Size (nm)	Intensity
24.52	0.43	107.68	0.57



### Dispersion statistics

**Dn 10%:** 24.52 nm  
**Mean Number:** 24.54 nm

**Dn 50%:** 24.52 nm

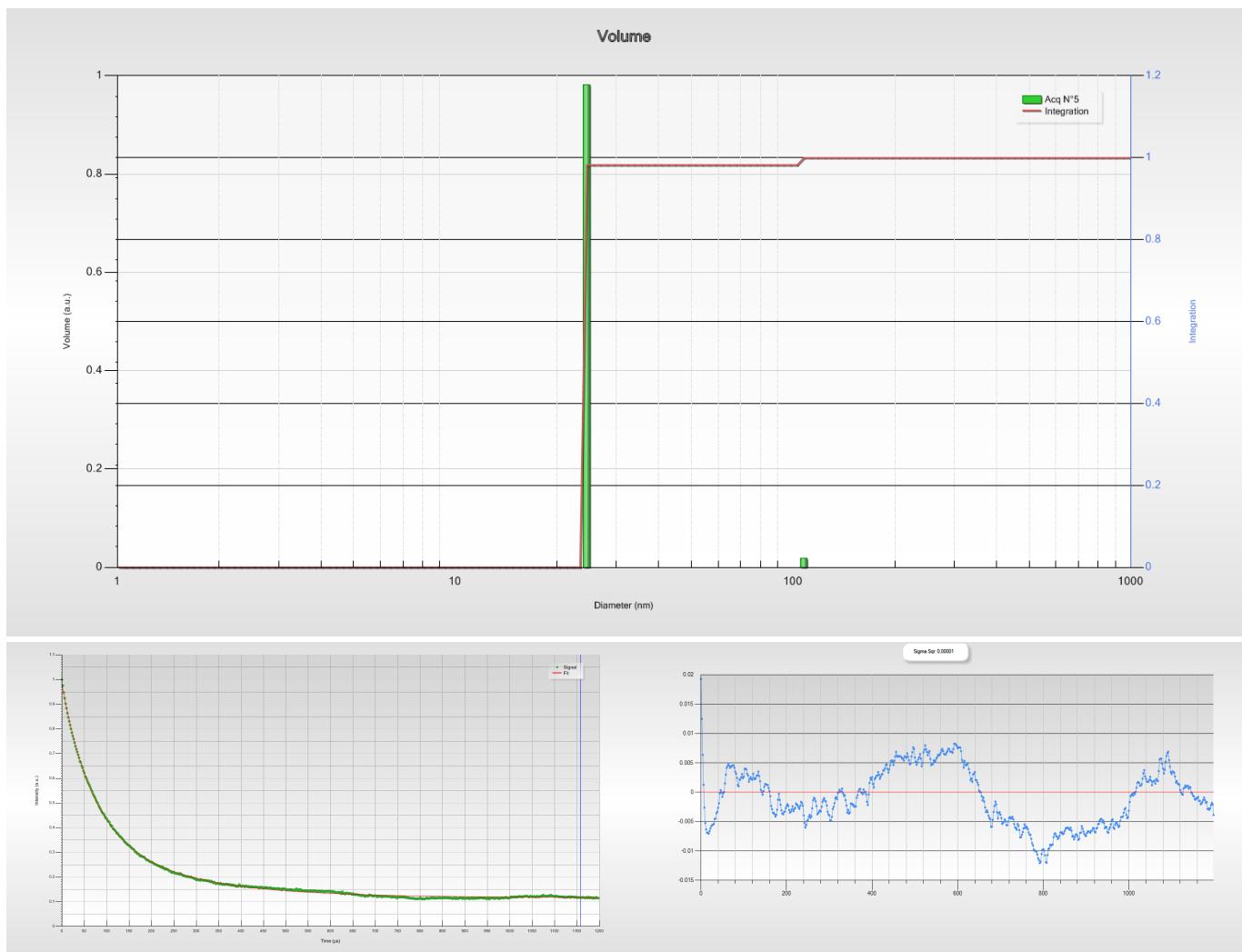
**Dn 90%:** 24.52 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
25.05	0.4	10370.6	19.6195E-012
109.53	0.53	2371.8	44.87068E-013

### Dispersion data

Size (nm)	Number
24.52	1



### Dispersion statistics

**D<sub>v</sub> 10%:** 24.52 nm  
**Mean Volume:** 26 nm

**D<sub>v</sub> 50%:** 24.52 nm

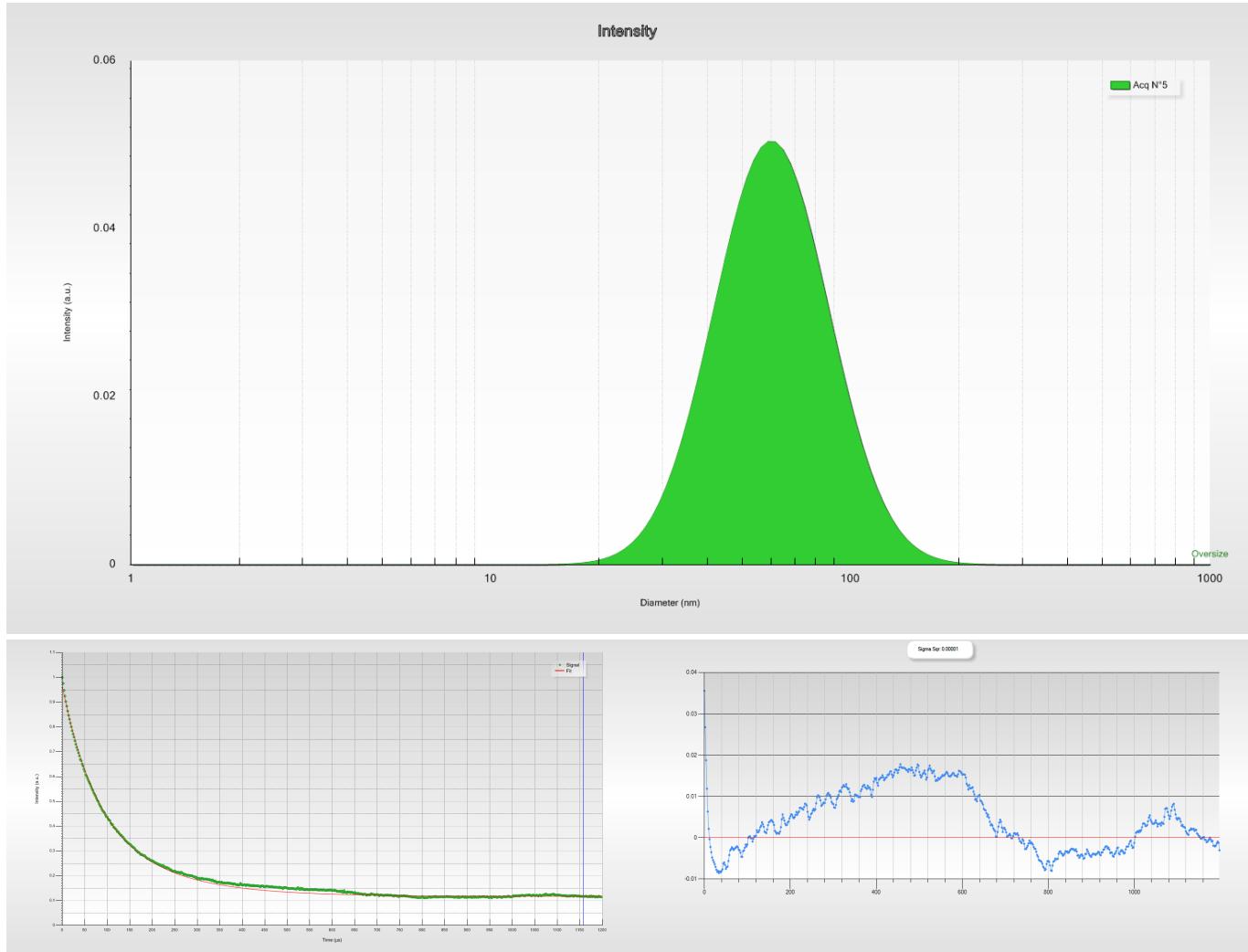
**D<sub>v</sub> 90%:** 24.52 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
25.05	0.4	10370.6	19.6195E-012
109.53	0.53	2371.8	44.87068E-013

### Dispersion data

Size (nm)	Volume	Size (nm)	Volume
24.52	0.98	107.68	0.02

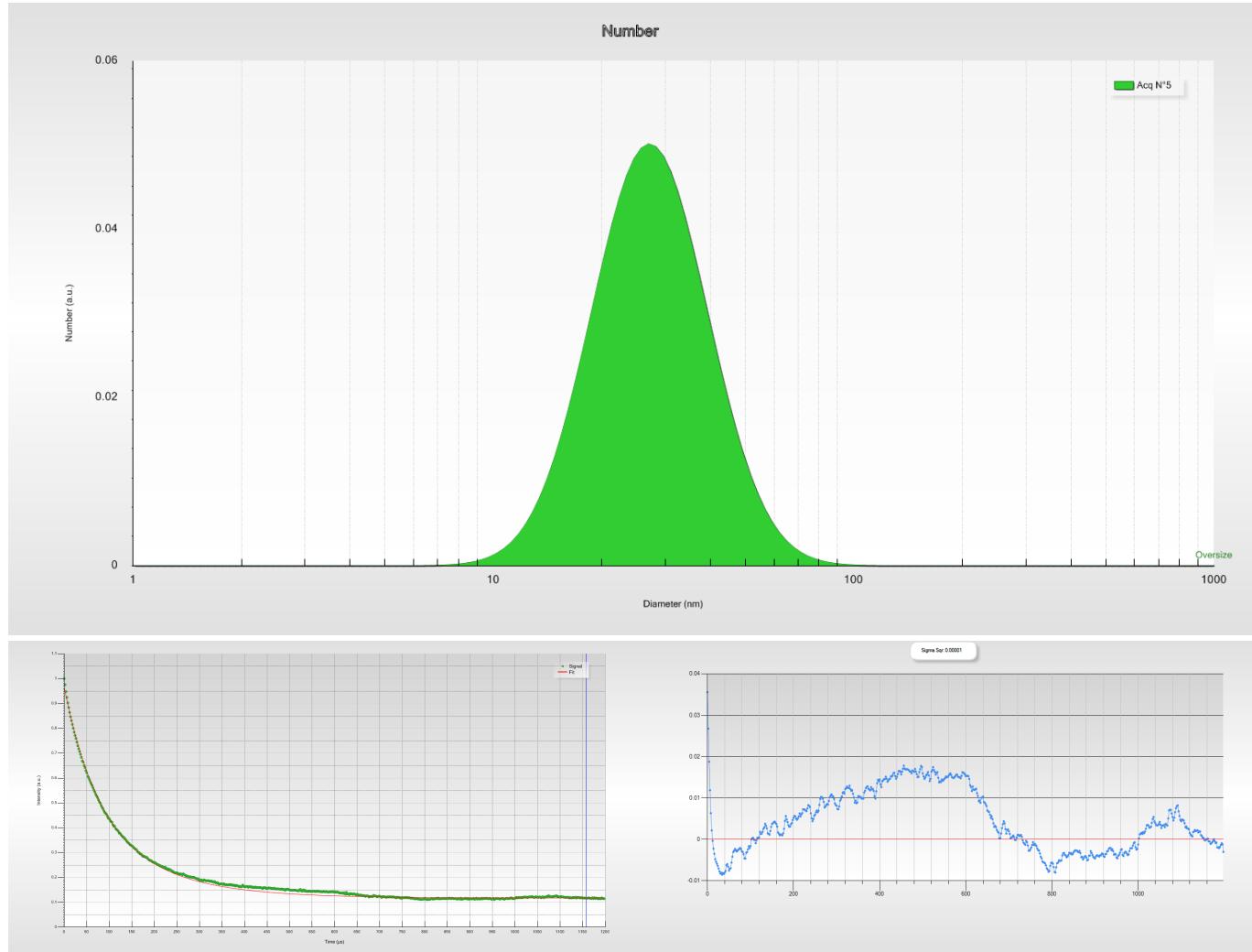


### Distribution statistics

<b>Di 10%:</b> 37.18 nm	<b>Di 50%:</b> 59.03 nm	<b>Di 90%:</b> 98.17 nm
<b>Mean Intensity:</b> 64.32 nm		
<b>PDI</b> : 0.57157		<b>Std Dev:</b> 37.8%

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
49.23	0.85	5276.53	99.82347E-013

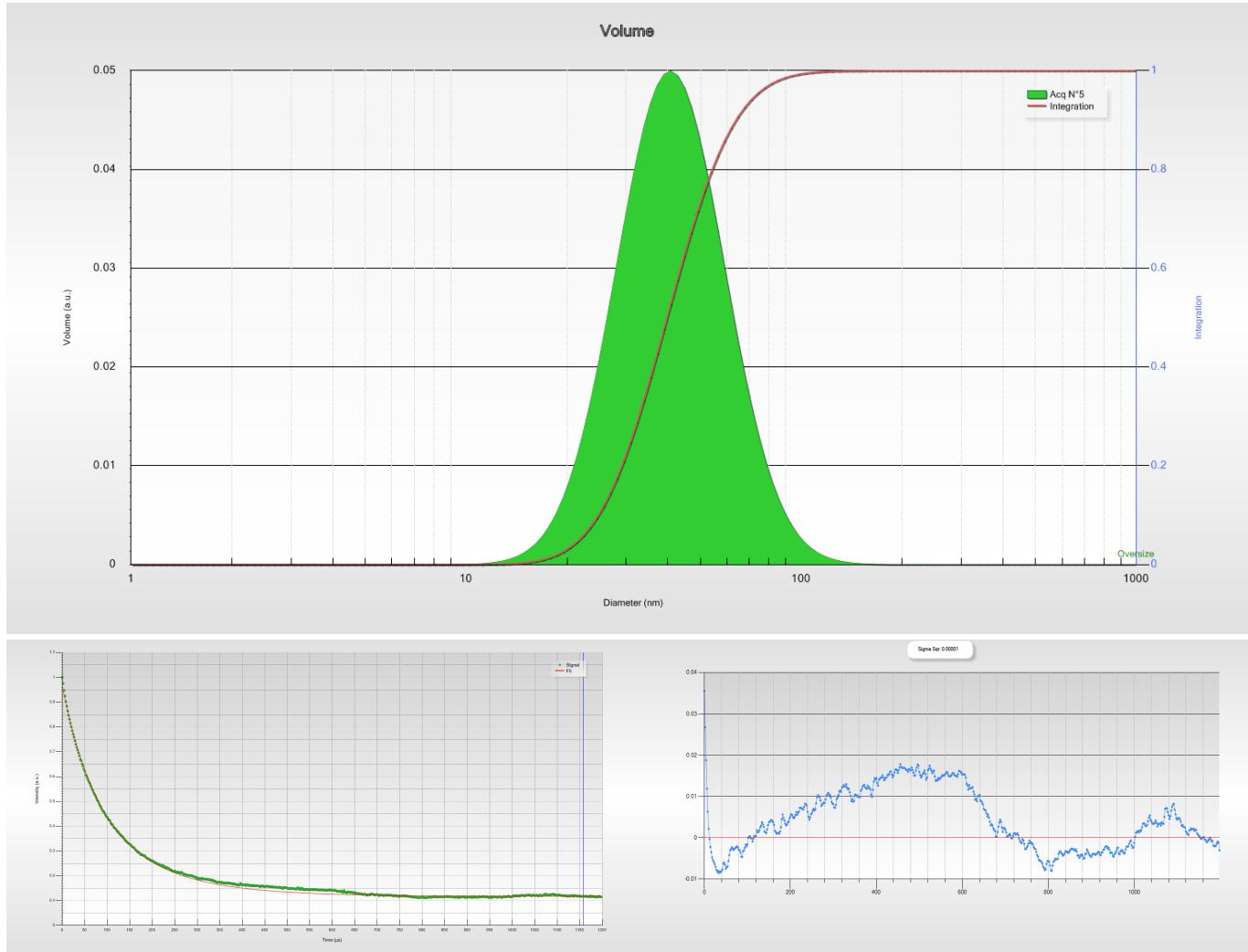


### Distribution statistics

<b>Dn 10%:</b> 16.94 nm	<b>Dn 50%:</b> 26.9 nm	<b>Dn 90%:</b> 42.71 nm
<b>Mean Number:</b> 28.97 nm		
<b>PDI</b> : 0.57157		<b>Std Dev:</b> 37.8%

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
49.23	0.85	5276.53	99.82347E-013



### Distribution statistics

<b>D<sub>v</sub> 10%:</b> 25.68 nm	<b>D<sub>v</sub> 50%:</b> 40.78 nm	<b>D<sub>v</sub> 90%:</b> 64.75 nm
<b>Mean Volume:</b> 43.58 nm		
<b>PDI</b> : 0.57157		<b>Std Dev:</b> 37.8%

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
49.23	0.85	5276.53	99.82347E-013