

## Sample

**Name** : GNP\_11.4.16\_1.24\_1k\_1  
**Mesured On** : 11.04.2016 18:50  
**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>	: 56.8 %	<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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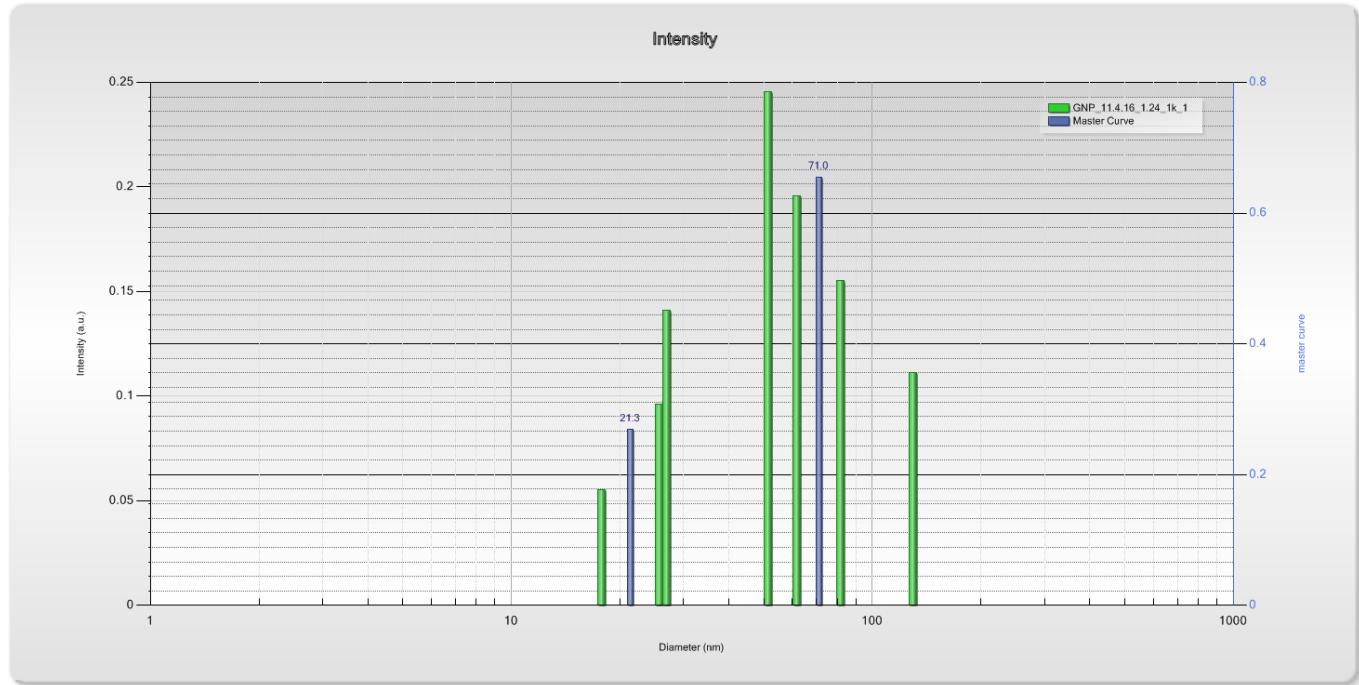
## Algorithm

Pade Laplace	Cumulants
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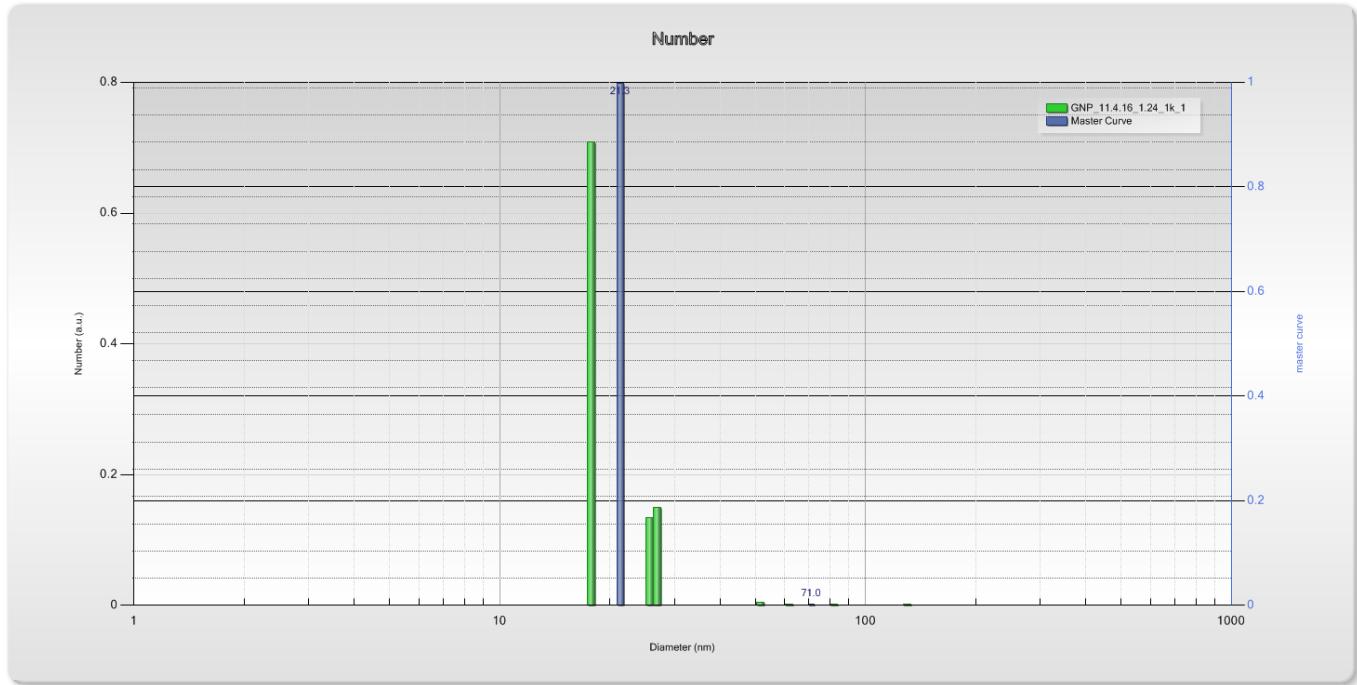
## Measurement

**Average count rate** : 2692 kcps  
**Number of rejected** : 1

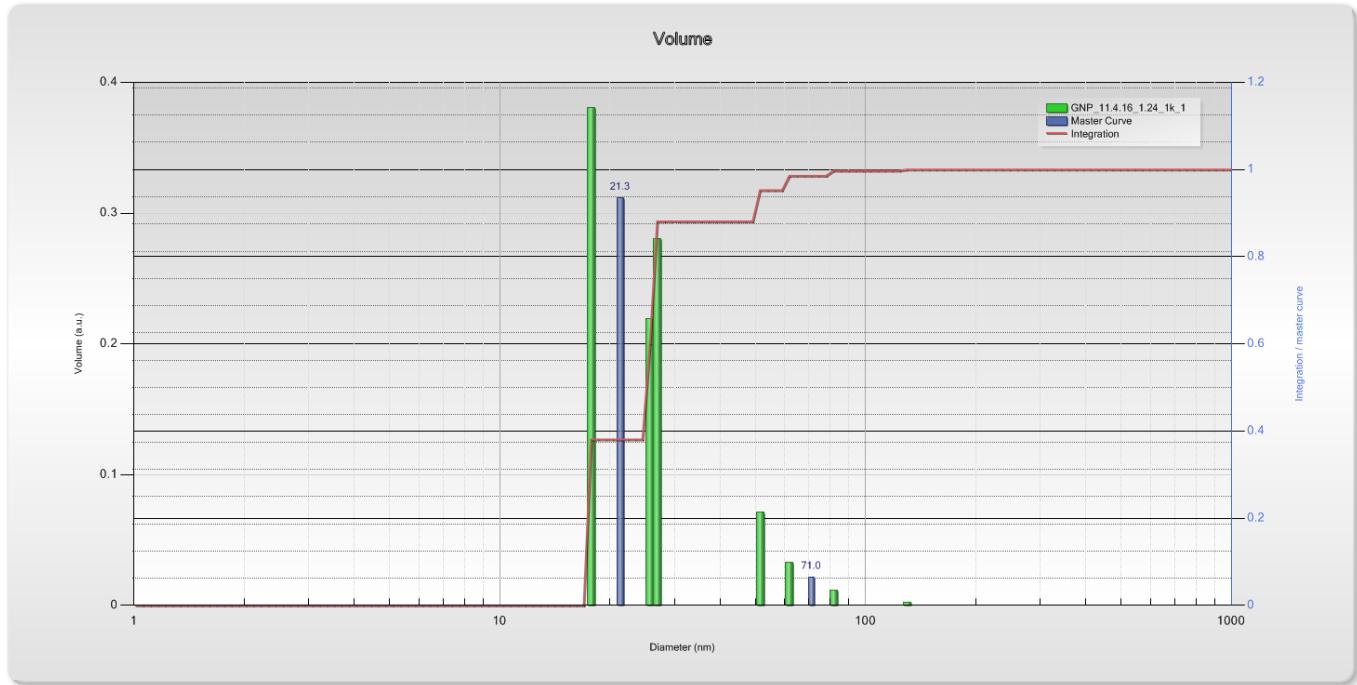
**Duration** : 00:05:21  
**Number of modified** : 0

**Dispersion statistics*****Di 10%:*** 25.68 nm***Di 50%:*** 51.39 nm***Di 90%:*** 129.55 nm**Dispersion data**

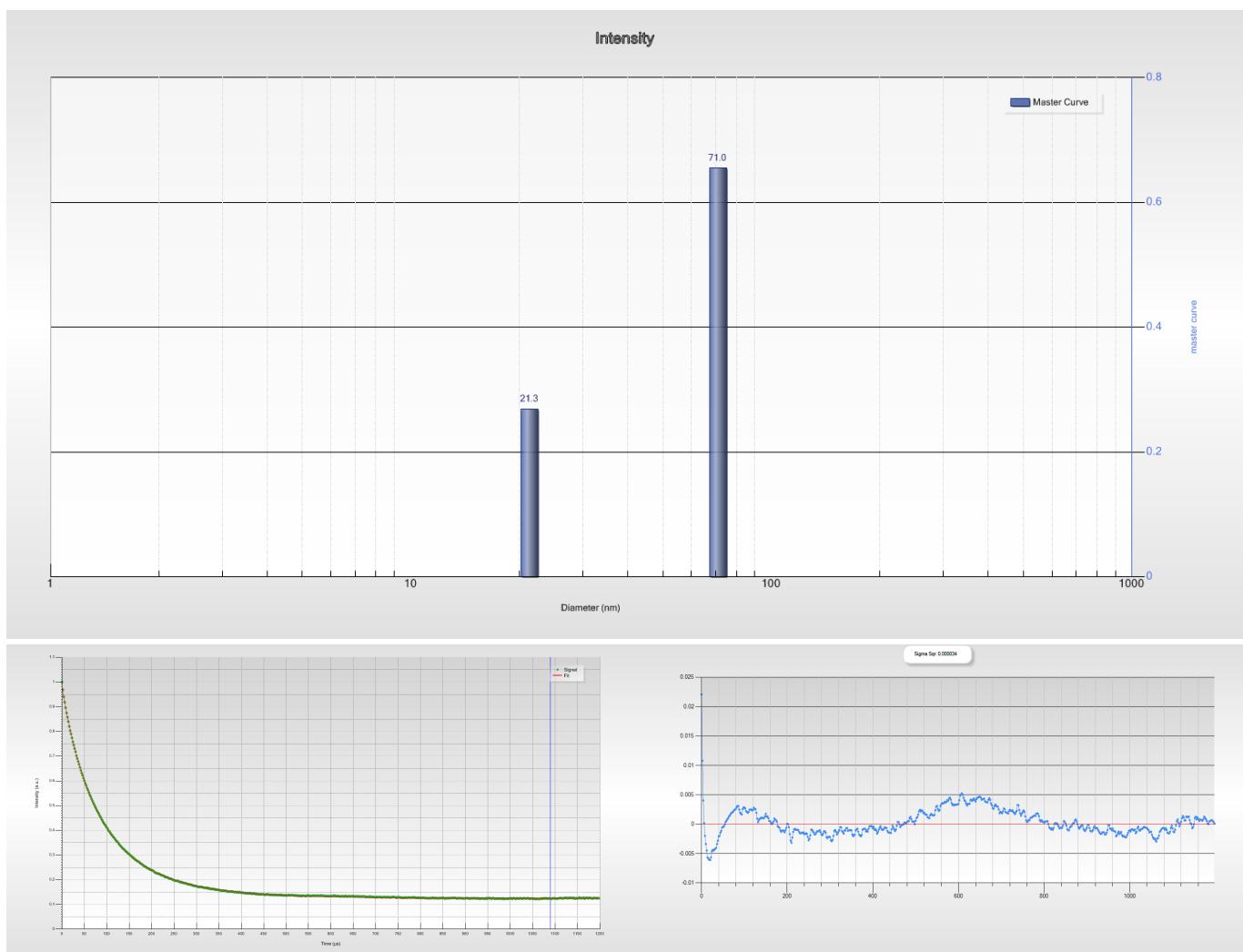
Size (nm)	Intensity						
17.74	0.06	26.9	0.14	61.83	0.2	129.55	0.11
25.68	0.1	51.39	0.25	81.59	0.16		

***Dispersion statistics******Dn 10%: 17.74 nm******Dn 50%: 17.74 nm******Dn 90%: 26.9 nm******Dispersion data***

<b>Size (nm)</b>	<b>Number</b>						
17.74	0.71	26.9	0.15				
25.68	0.13	51.39	0.01	71.0			

**Dispersion statistics****D<sub>v</sub> 10%:** 17.74 nm**D<sub>v</sub> 50%:** 25.68 nm**D<sub>v</sub> 90%:** 51.39 nm**Dispersion data**

Size (nm)	Volume						
17.74	0.38	26.9	0.28	61.83	0.03		
25.68	0.22	51.39	0.07	81.59	0.01		



### Dispersion statistics

**Di 10%:** 21.35 nm  
**Mean Intensity:** 56.57 nm

**Di 50%:** 71.02 nm

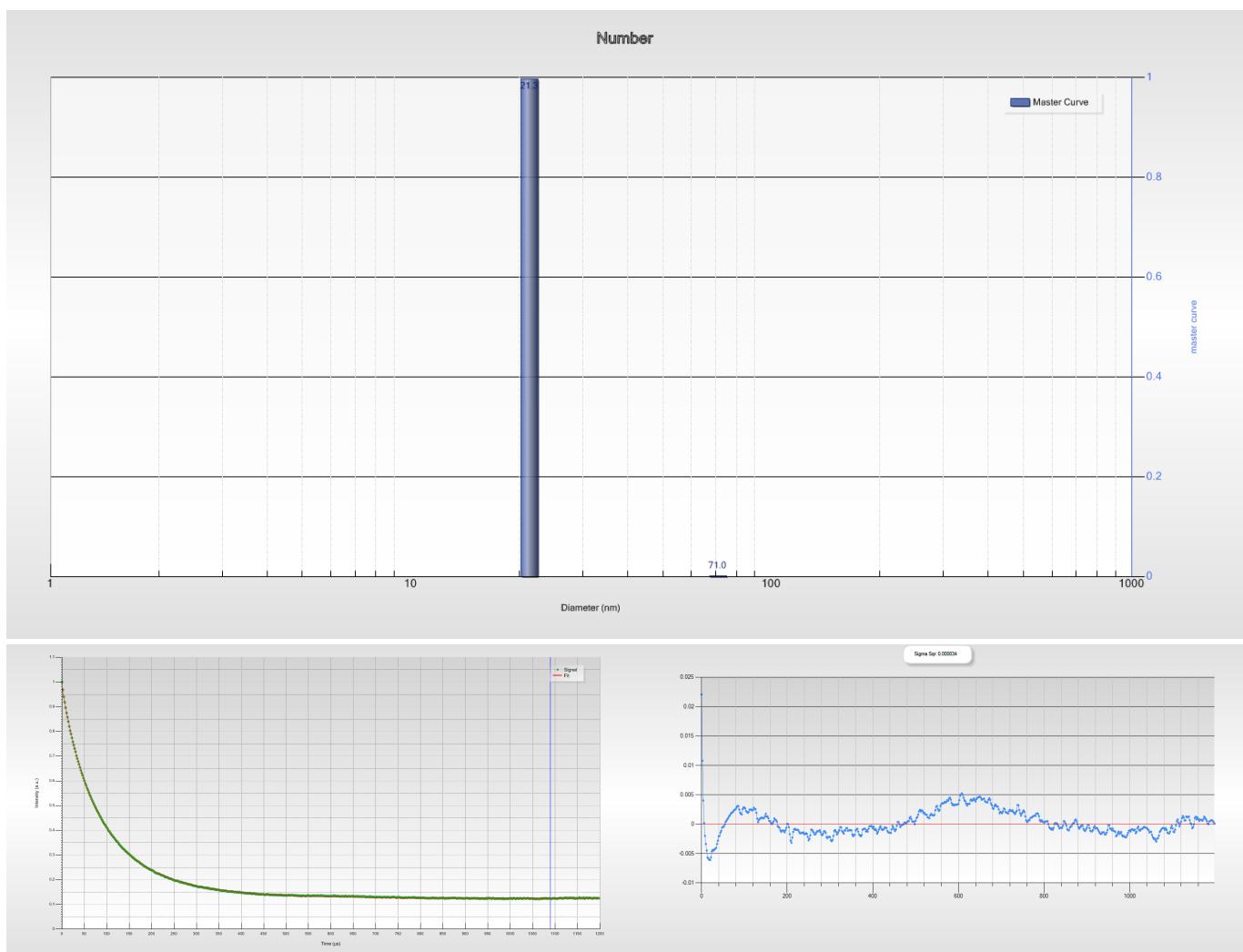
**Di 90%:** 71.02 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
20.94	0.27	12423.23	23.50274E-012
71.21	0.65	3653.87	69.12522E-013

### Dispersion data

Size (nm)	Intensity	Size (nm)	Intensity
21.35	0.29	71.02	0.71



### Dispersion statistics

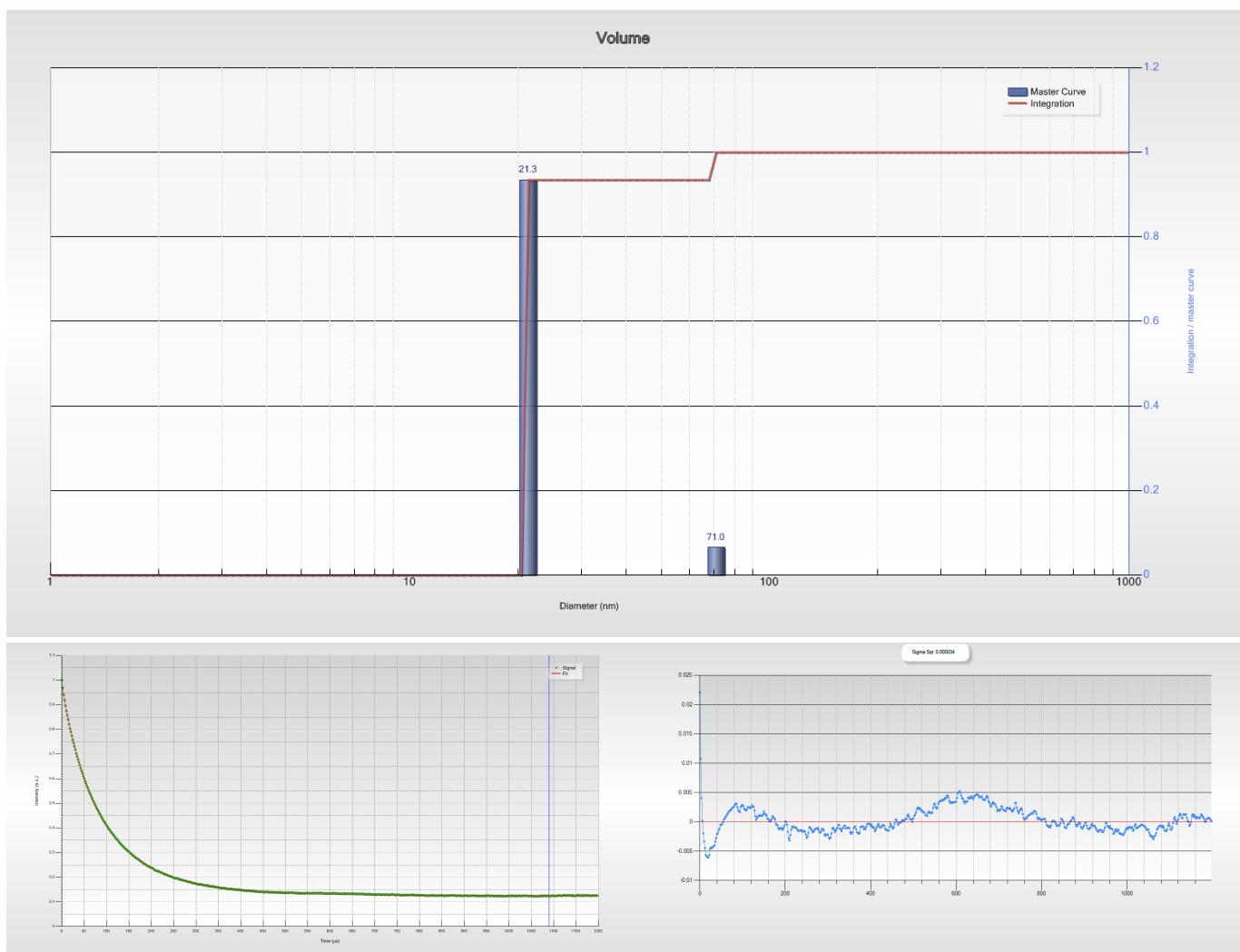
**Dn 10%:** 21.35 nm      **Dn 50%:** 21.35 nm      **Dn 90%:** 21.35 nm  
**Mean Number:** 21.44 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. ( $m^2/s$ )
20.94	0.27	12423.23	23.50274E-012
71.21	0.65	3653.87	69.12522E-013

### Dispersion data

Size (nm)	Number
21.35	1



### Dispersion statistics

**D<sub>v</sub> 10%:** 21.35 nm  
**Mean Volume:** 24.58 nm

**D<sub>v</sub> 50%:** 21.35 nm

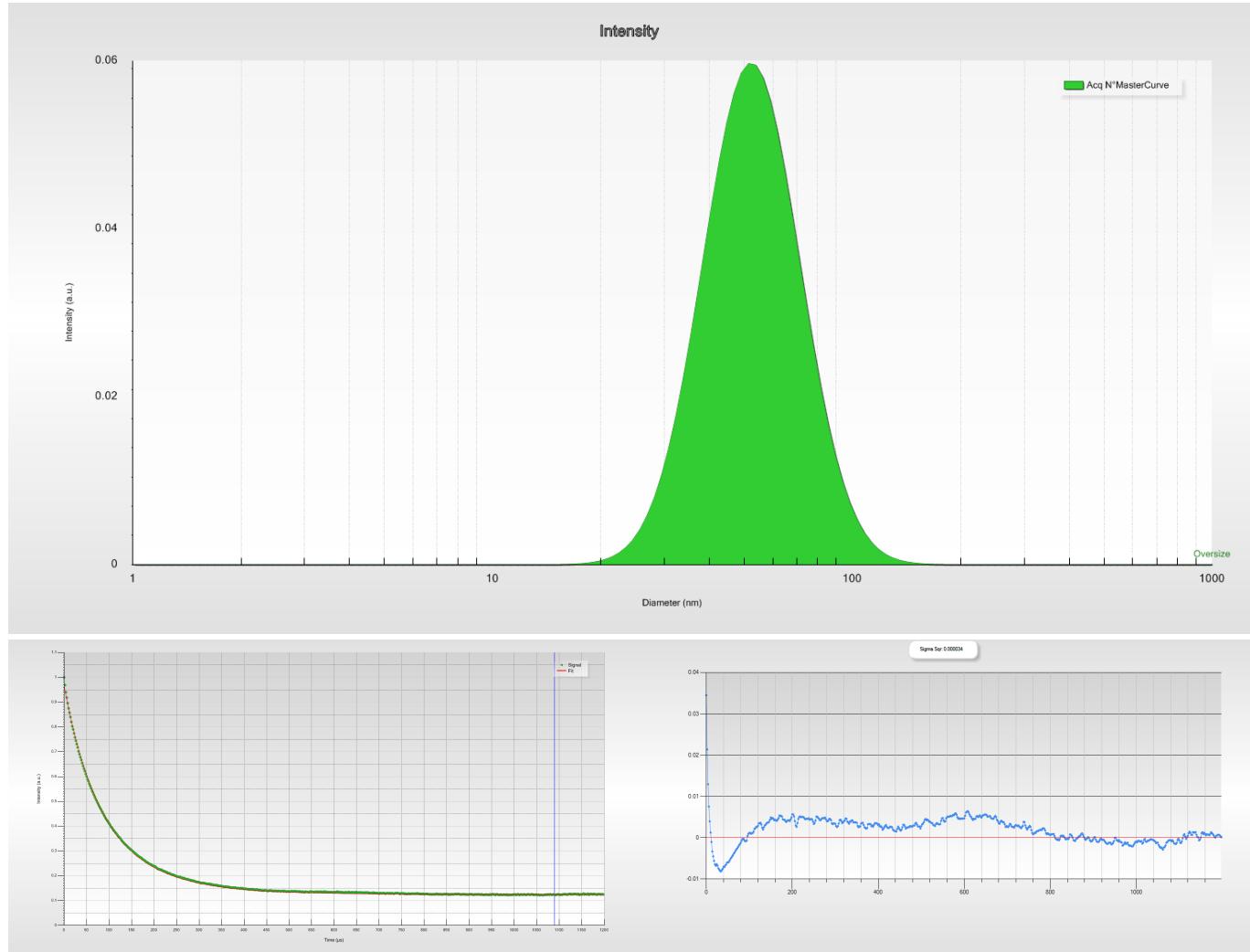
**D<sub>v</sub> 90%:** 21.35 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
20.94	0.27	12423.23	23.50274E-012
71.21	0.65	3653.87	69.12522E-013

### Dispersion data

Size (nm)	Volume	Size (nm)	Volume
21.35	0.93	71.02	0.07



### Distribution statistics

<b>Di 10%:</b> 35.5 nm	<b>Di 50%:</b> 51.39 nm	<b>Di 90%:</b> 77.91 nm
<b>Mean Intensity:</b> 54.8 nm		
<b>PDI</b> : 0.39983		<b>Std Dev:</b> 31.62%

### Detected size(s)

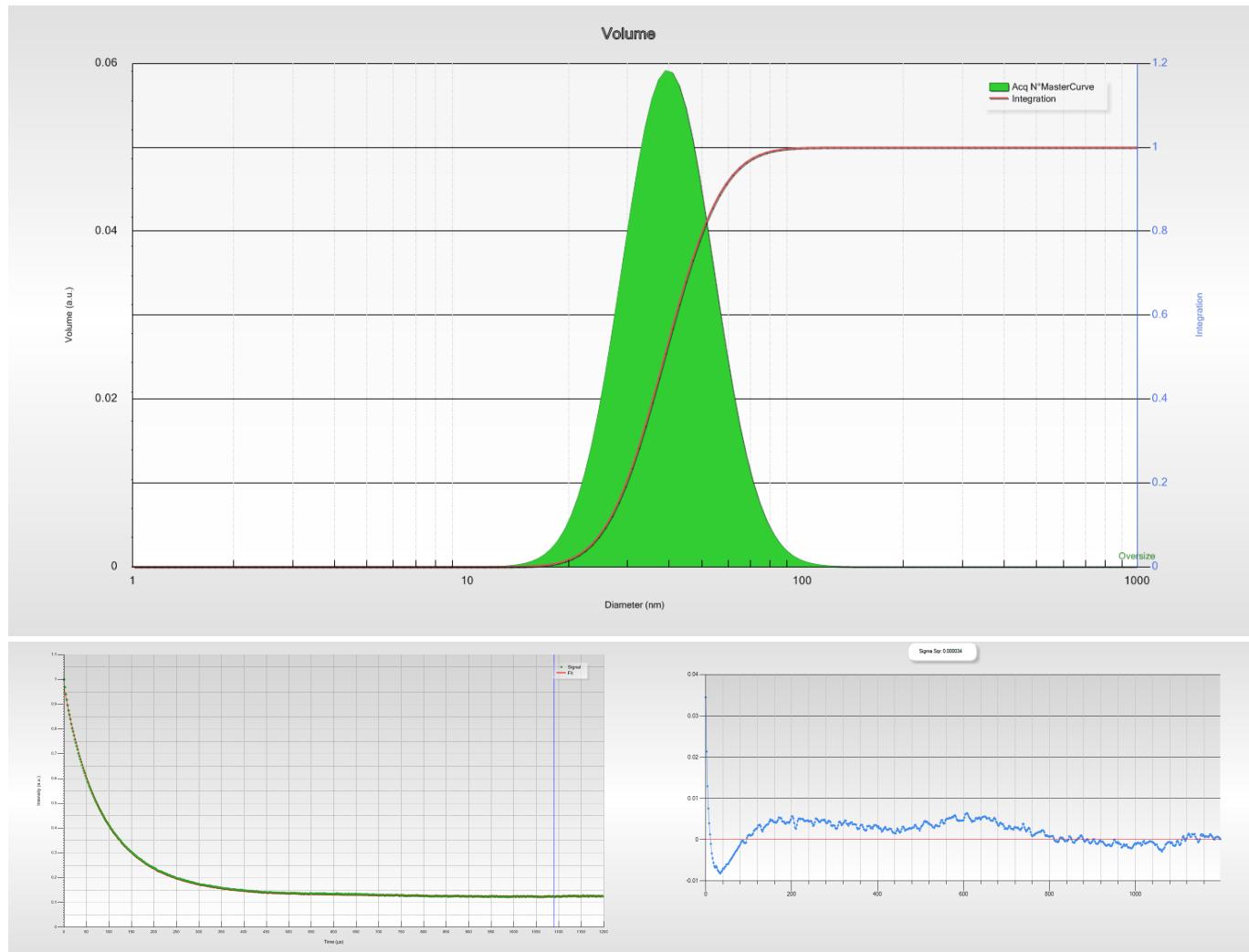
Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
45.3	0.84	5736.52	10.85257E-012

**Distribution statistics**

<b>Dn 10%:</b> 19.46 nm	<b>Dn 50%:</b> 29.5 nm	<b>Dn 90%:</b> 44.73 nm
<b>Mean Number:</b> 31.04 nm		
<b>PDI</b> : 0.39983		<b>Std Dev:</b> 31.62%

**Detected size(s)**

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
45.3	0.84	5736.52	10.85257E-012

**Distribution statistics**

**D<sub>v</sub> 10%:** 26.9 nm  
**Mean Volume:** 41.52 nm  
**PDI** : 0.39983

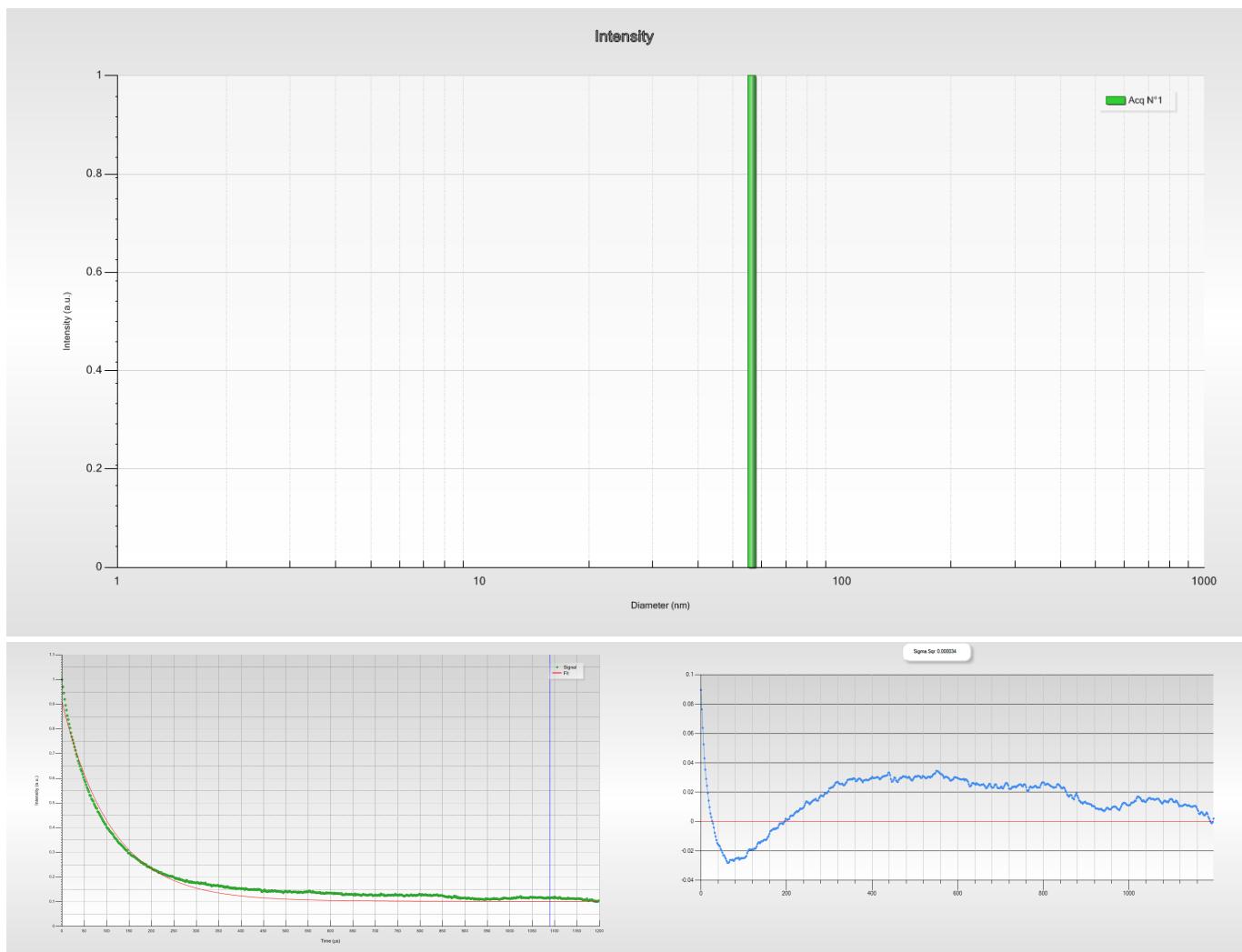
**D<sub>v</sub> 50%:** 38.94 nm

**D<sub>v</sub> 90%:** 59.03 nm

**Std Dev:** 31.62%

**Detected size(s)**

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
45.3	0.84	5736.52	10.85257E-012



### Dispersion statistics

**Di 10%:** 56.36 nm  
**Mean Intensity:** 56.36 nm

**Di 50%:** 56.36 nm

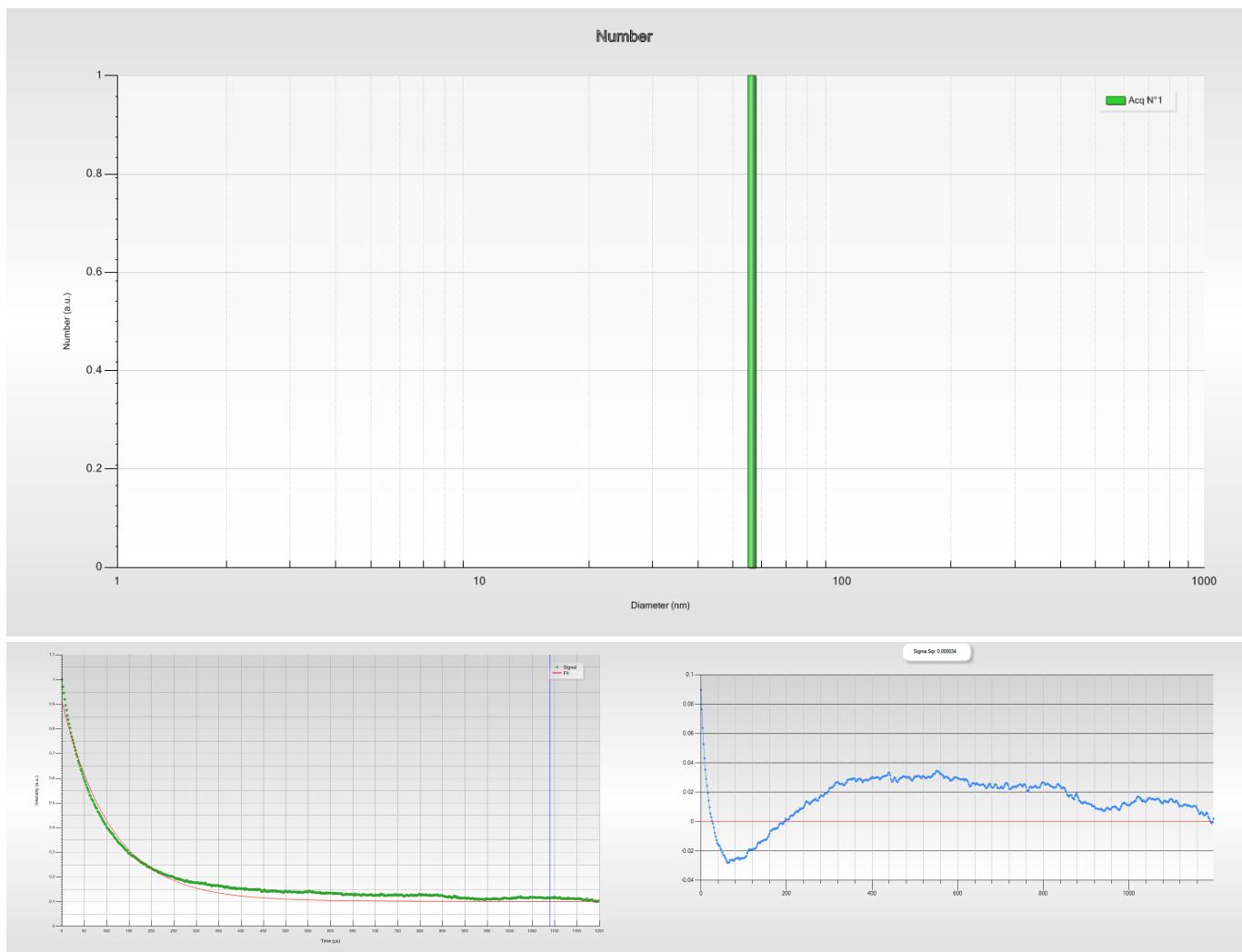
**Di 90%:** 56.36 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
57.49	0.9	4528.52	85.67232E-013

### Dispersion datas

Size (nm)	Intensity
56.36	1



### Dispersion statistics

Dn 10%: 56.36 nm  
Mean Number: 56.36 nm

Dn 50%: 56.36 nm

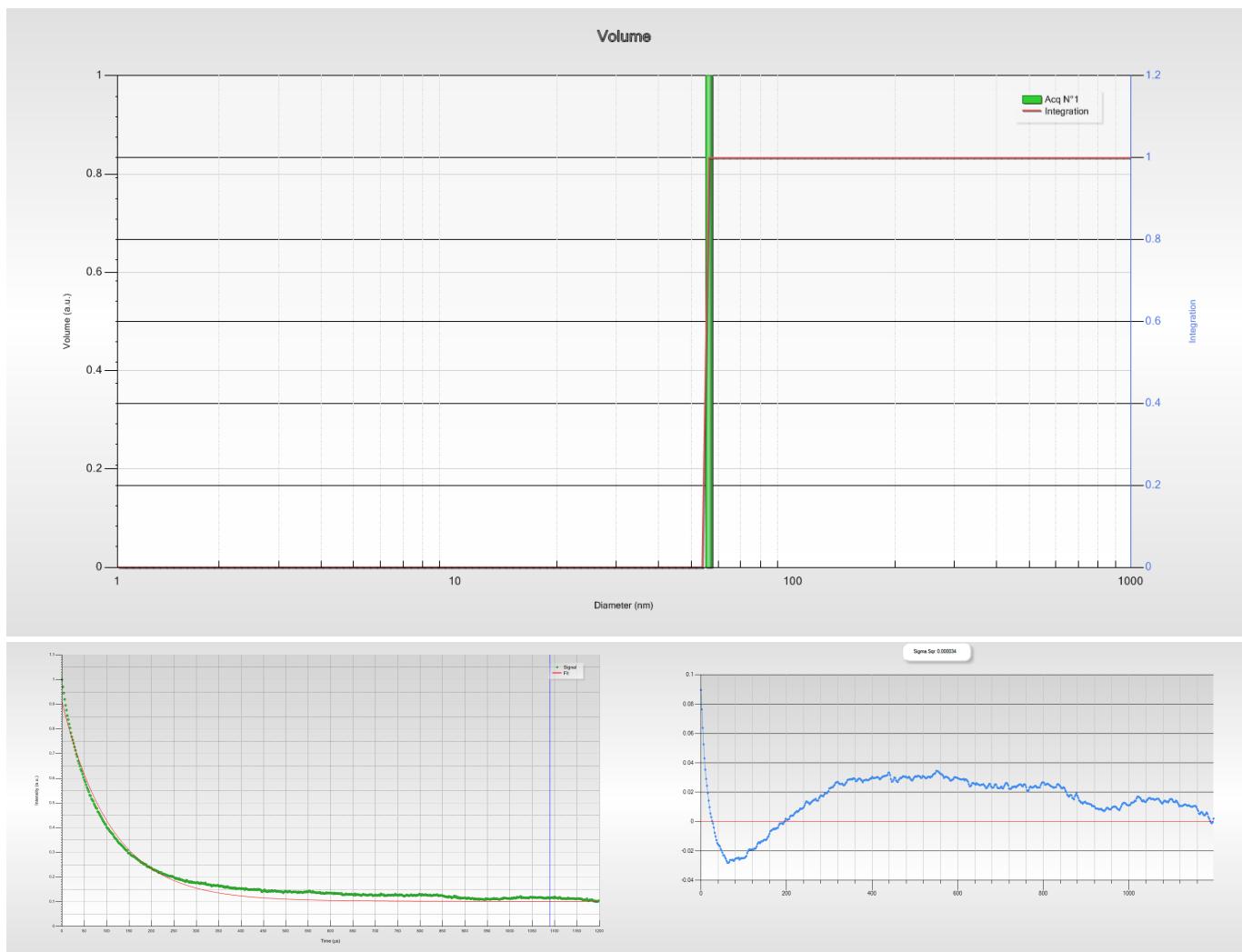
Dn 90%: 56.36 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
57.49	0.9	4528.52	85.67232E-013

### Dispersion datas

Size (nm)	Number
56.36	1



### Dispersion statistics

**D<sub>v</sub> 10%:** 56.36 nm  
**Mean Volume:** 56.36 nm

**D<sub>v</sub> 50%:** 56.36 nm

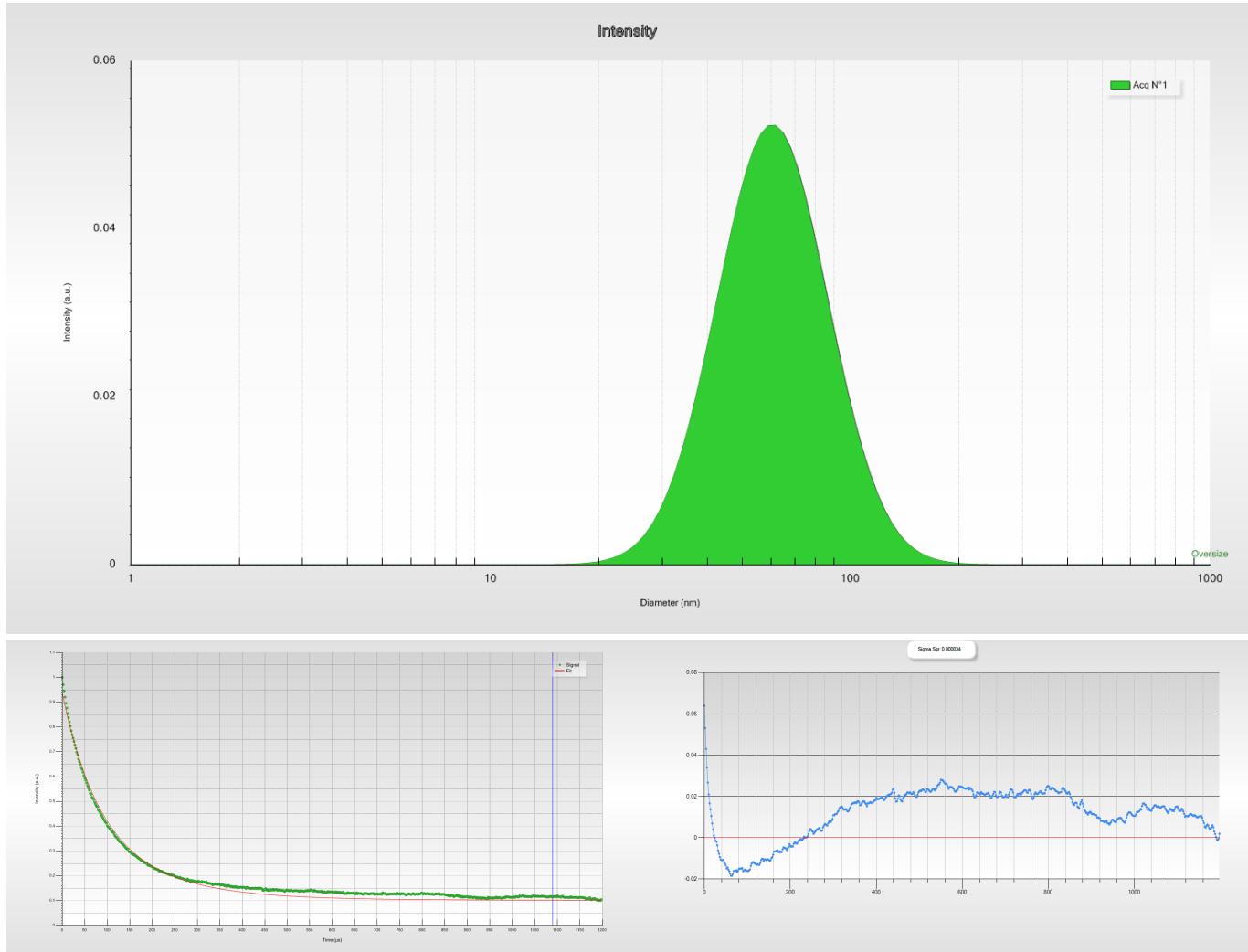
**D<sub>v</sub> 90%:** 56.36 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
57.49	0.9	4528.52	85.67232E-013

### Dispersion datas

Size (nm)	Volume
56.36	1

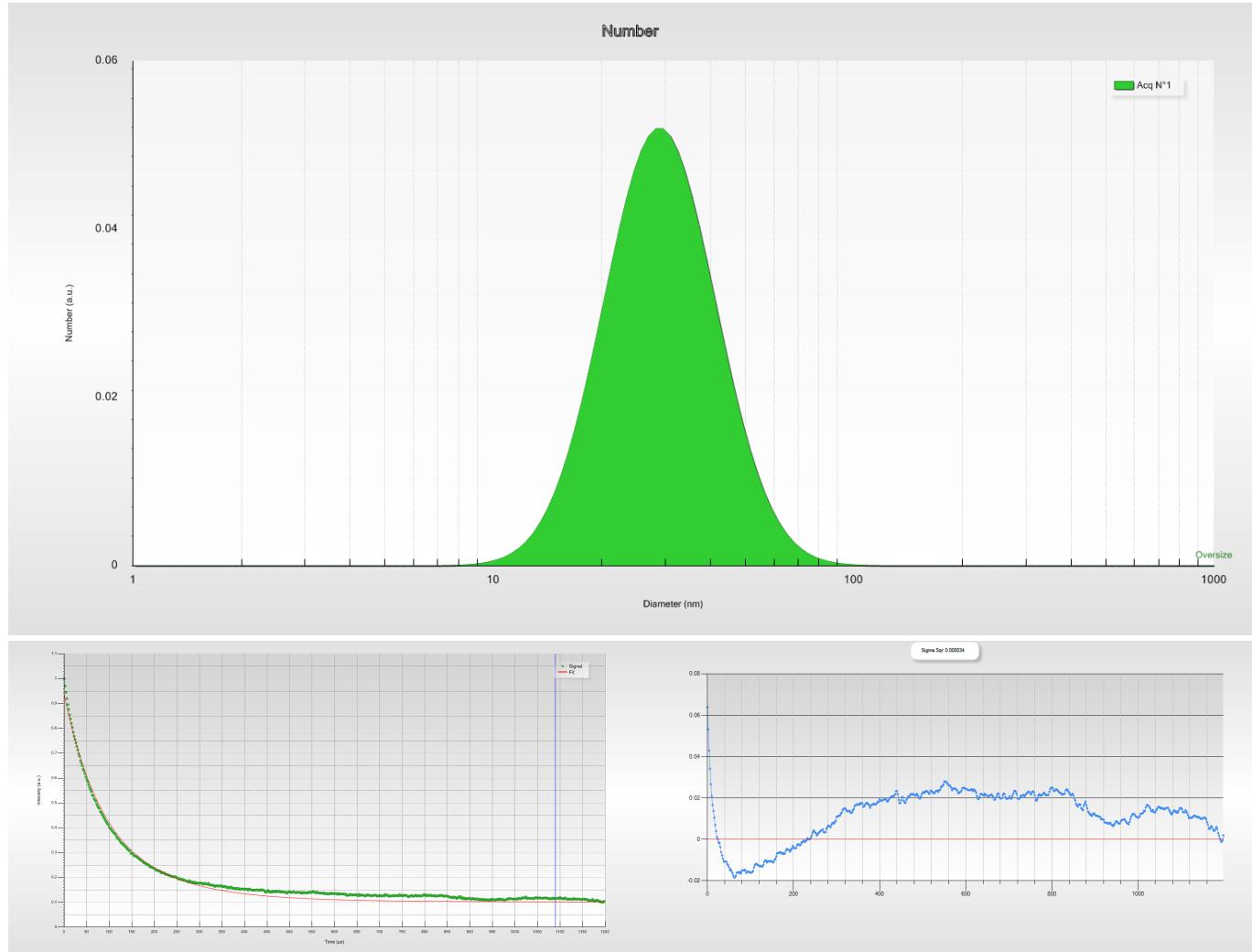


### Distribution statistics

<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> 64.4 nm		
<b>PDI</b> : 0.52738		<b>Std Dev:</b> 36.31%

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
50.37	0.83	5168.54	97.78043E-013

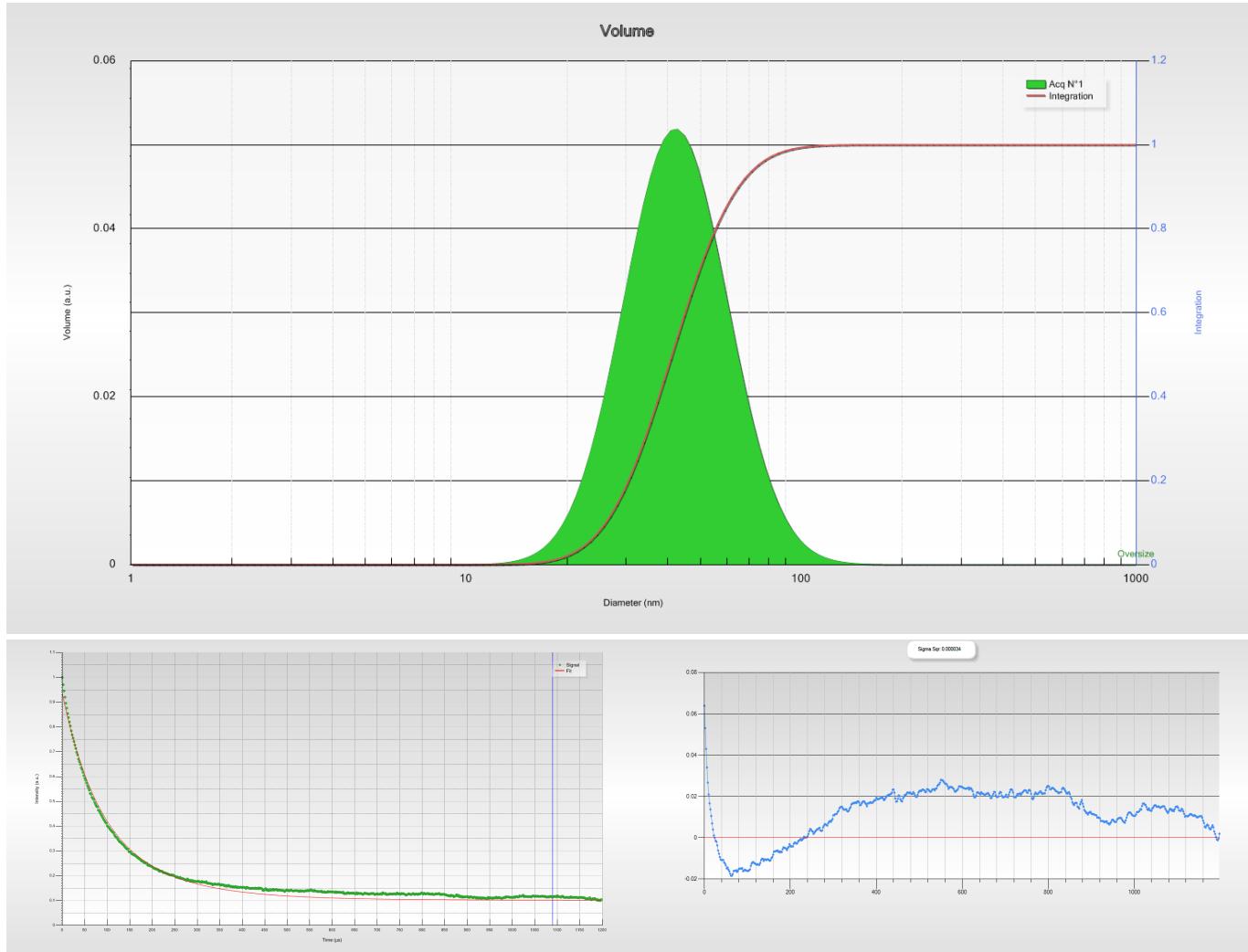


### Distribution statistics

**Dn 10%:** 18.58 nm      **Dn 50%:** 29.5 nm      **Dn 90%:** 44.73 nm  
**Mean Number:** 30.75 nm      **Std Dev:** 36.31%  
**PDI** : 0.52738

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
50.37	0.83	5168.54	97.78043E-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> 67.81 nm
<b>Mean Volume:</b> 44.91 nm		
<b>PDI :</b> 0.52738		<b>Std Dev:</b> 36.31%

**Detected size(s)**

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
50.37	0.83	5168.54	97.78043E-013



### Dispersion statistics

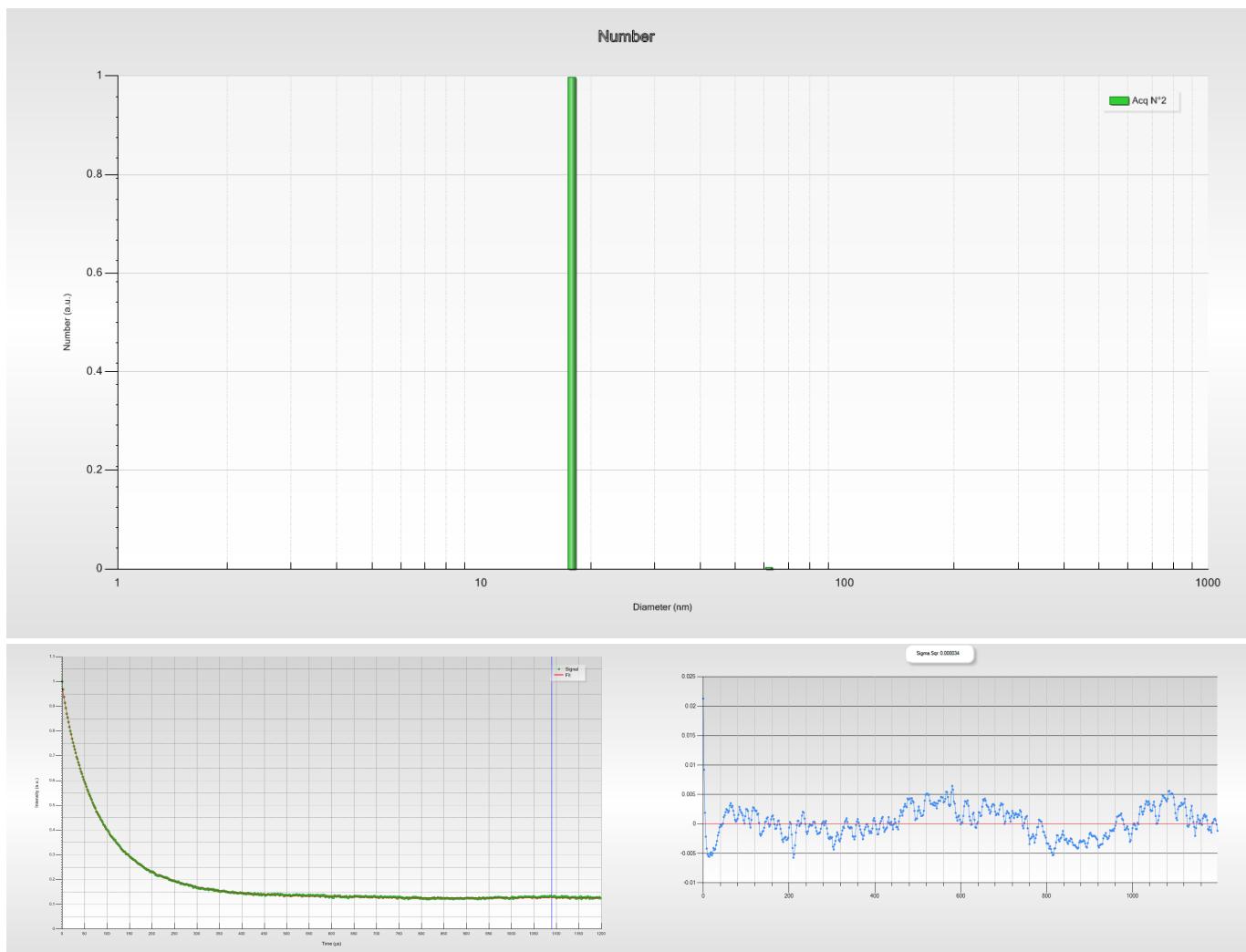
**Di 10%:** 17.74 nm      **Di 50%:** 61.83 nm      **Di 90%:** 61.83 nm  
**Mean Intensity:** 52.13 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
17.85	0.2	14586.67	27.59562E-012
62.6	0.72	4159.03	78.68205E-013

### Dispersion data

Size (nm)	Intensity	Size (nm)	Intensity
17.74	0.22	61.83	0.78



### Dispersion statistics

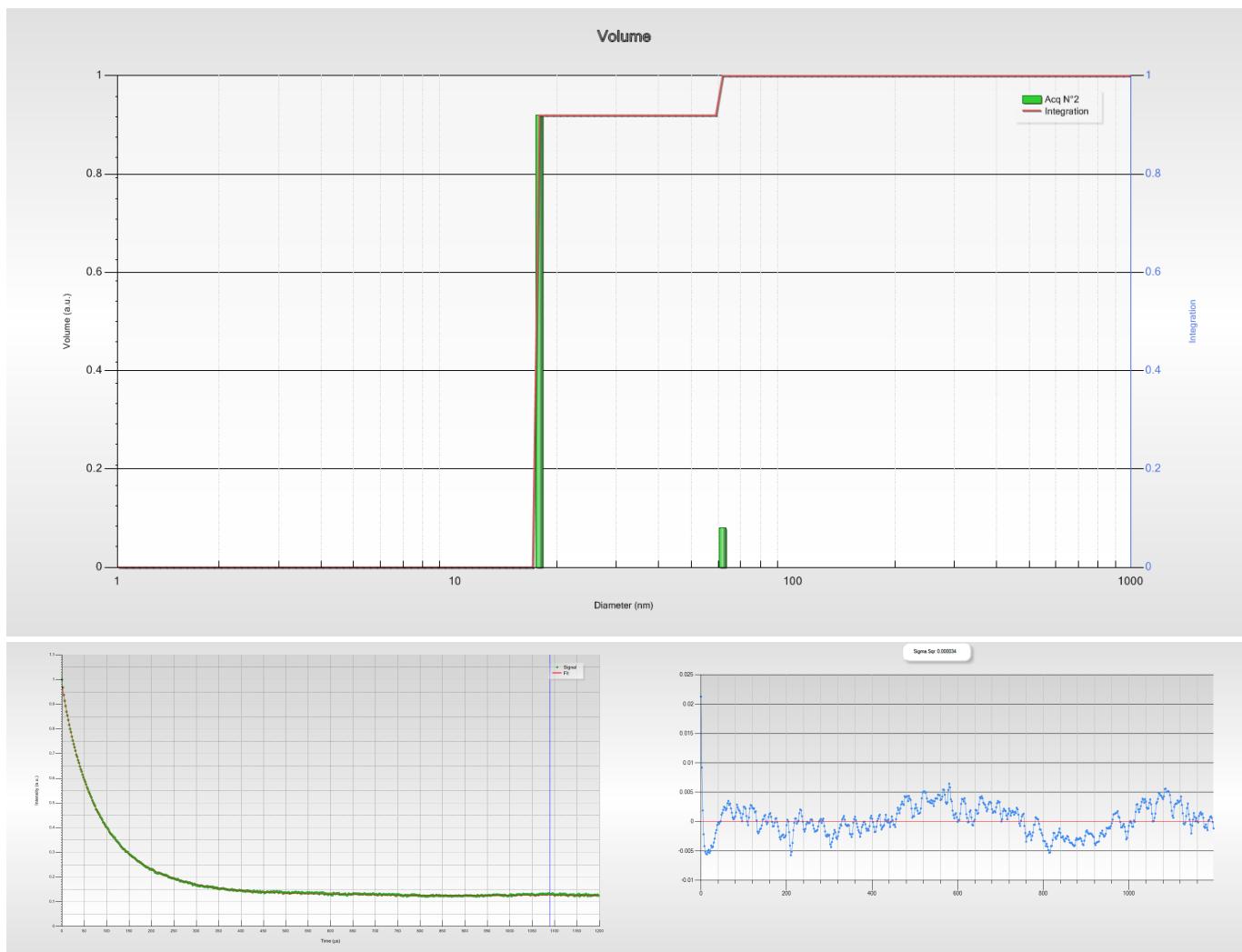
Dn 10%: 17.74 nm      Dn 50%: 17.74 nm      Dn 90%: 17.74 nm  
 Mean Number: 17.83 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
17.85	0.2	14586.67	27.59562E-012
62.6	0.72	4159.03	78.68205E-013

### Dispersion datas

Size (nm)	Number
17.74	1



### Dispersion statistics

D<sub>v</sub> 10%: 17.74 nm  
Mean Volume: 21.28 nm

D<sub>v</sub> 50%: 17.74 nm

D<sub>v</sub> 90%: 17.74 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
17.85	0.2	14586.67	27.59562E-012
62.6	0.72	4159.03	78.68205E-013

### Dispersion data

Size (nm)	Volume	Size (nm)	Volume
17.74	0.92	61.83	0.08

**Distribution statistics**

<b>Di 10%:</b> 33.89 nm	<b>Di 50%:</b> 49.06 nm	<b>Di 90%:</b> 74.39 nm
<b>Mean Intensity:</b> 52.33 nm		
<b>PDI</b> : 0.37471		<b>Std Dev:</b> 30.61%

**Detected size(s)**

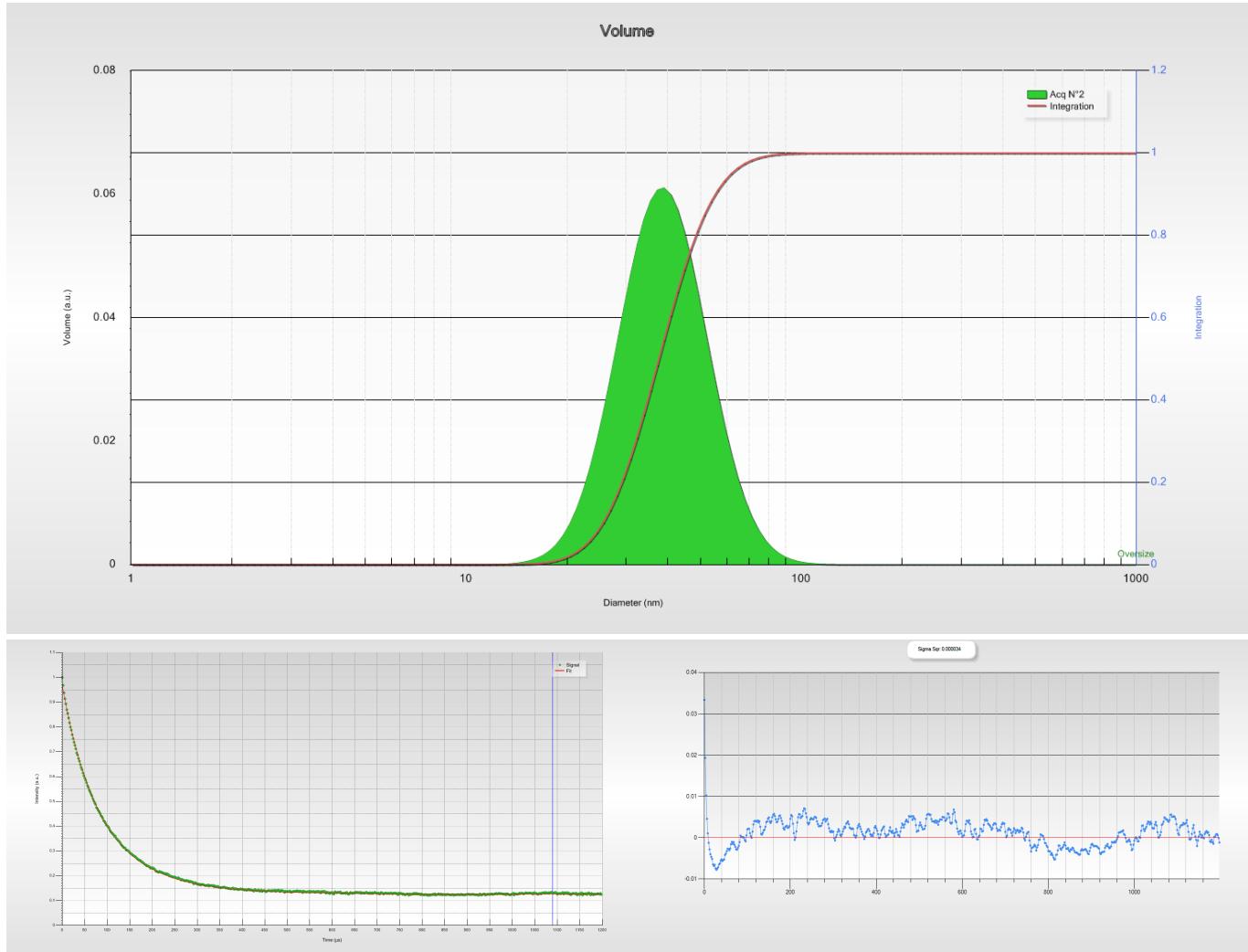
Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
43.83	0.84	5939.53	11.23664E-012

**Distribution statistics**

<b>Dn 10%:</b> 19.46 nm	<b>Dn 50%:</b> 29.5 nm	<b>Dn 90%:</b> 42.71 nm
<b>Mean Number:</b> 30.66 nm		
<b>PDI</b> : 0.37471		<b>Std Dev:</b> 30.61%

**Detected size(s)**

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
43.83	0.84	5939.53	11.23664E-012

**Distribution statistics**

**D<sub>v</sub> 10%:** 25.68 nm  
**Mean Volume:** 40.31 nm  
**PDI :** 0.37471

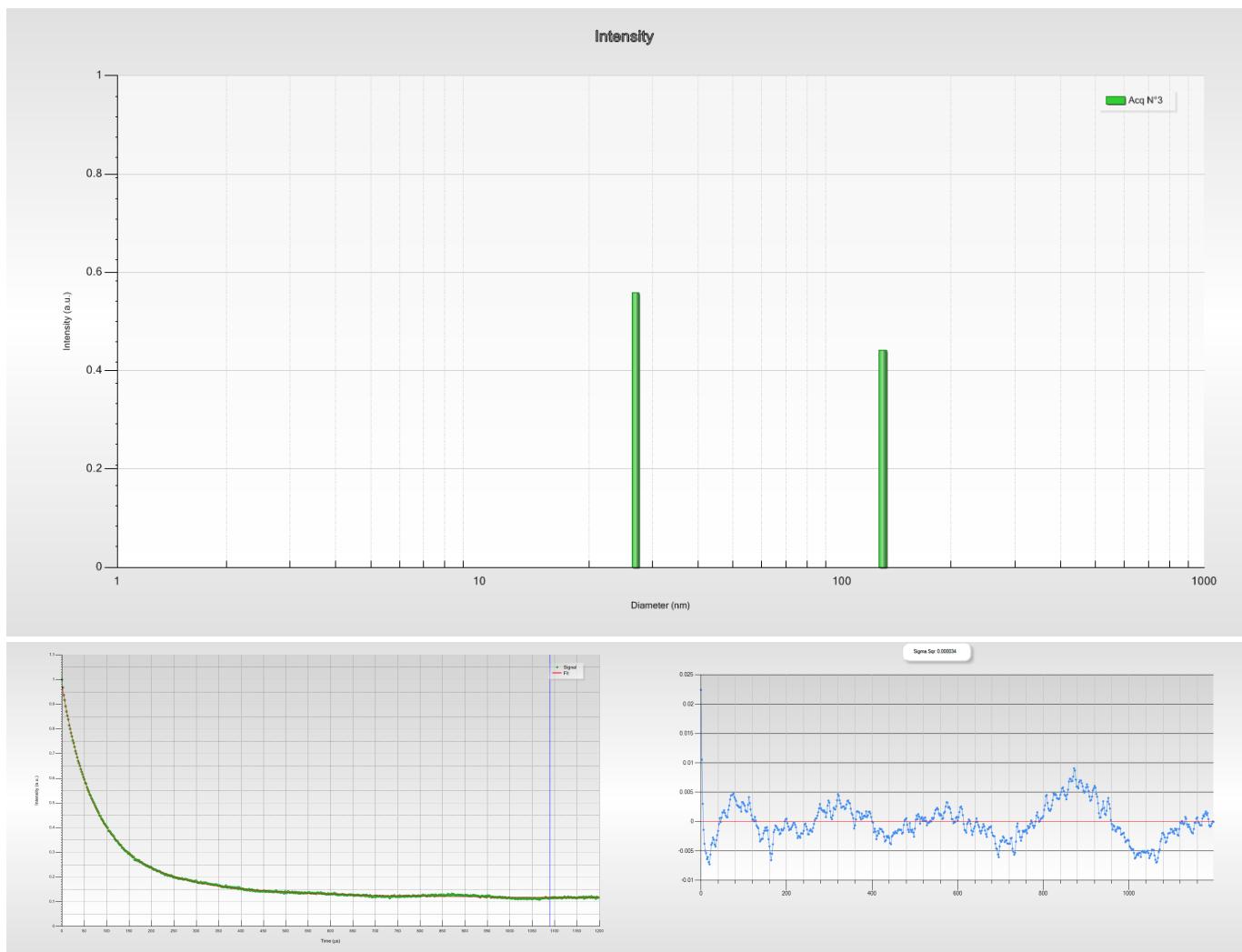
**D<sub>v</sub> 50%:** 38.94 nm

**D<sub>v</sub> 90%:** 56.36 nm

**Std Dev:** 30.61%

**Detected size(s)**

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
43.83	0.84	5939.53	11.23664E-012



### Dispersion statistics

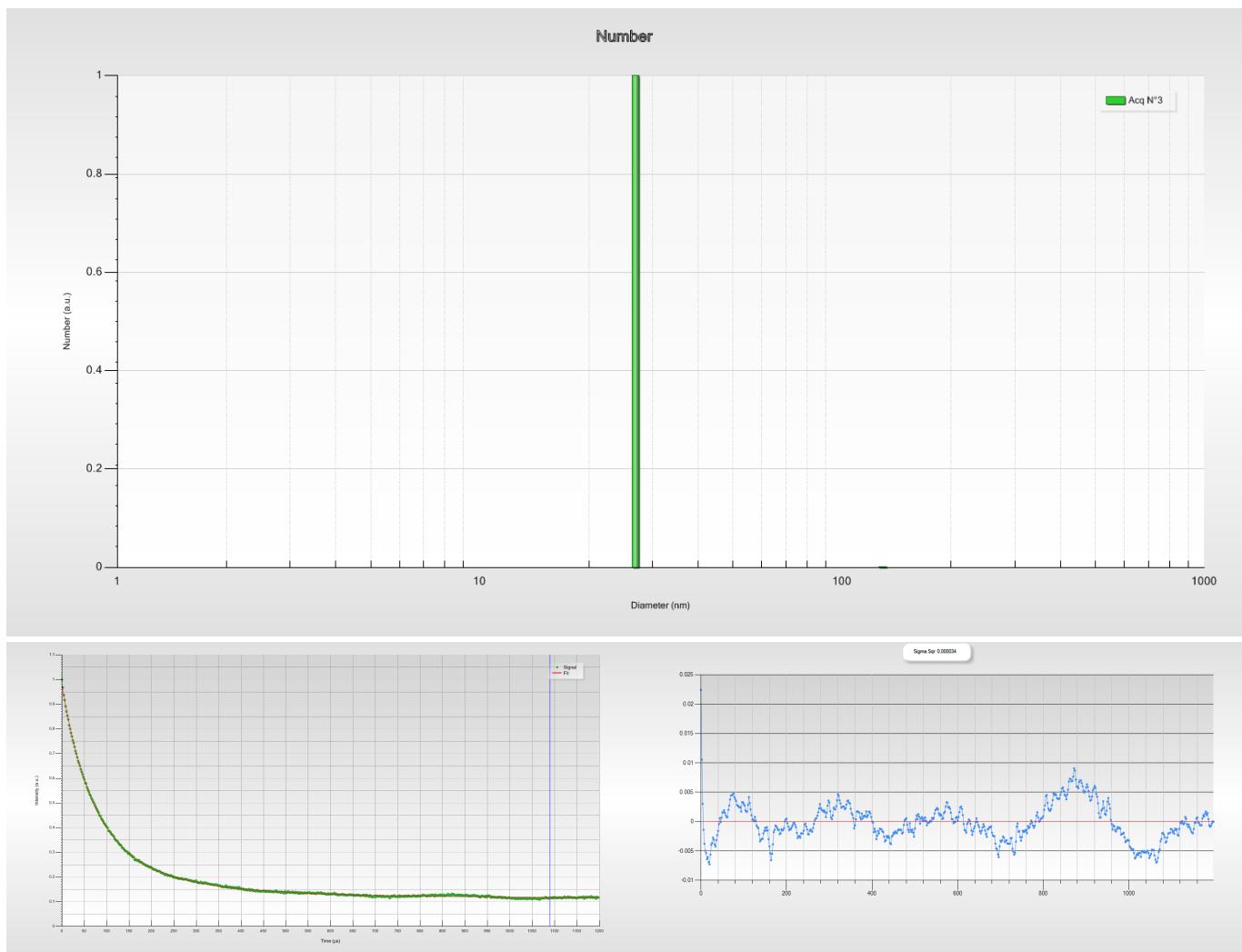
**Di 10%:** 26.9 nm      **Di 50%:** 26.9 nm      **Di 90%:** 129.55 nm  
**Mean Intensity:** 72.17 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
27.2	0.52	9569.87	18.10464E-012
126.94	0.41	2050.79	38.7977E-013

### Dispersion data

Size (nm)	Intensity	Size (nm)	Intensity
26.9	0.56	129.55	0.44



### Dispersion statistics

**Dn 10%:** 26.9 nm  
**Mean Number:** 26.91 nm

**Dn 50%:** 26.9 nm

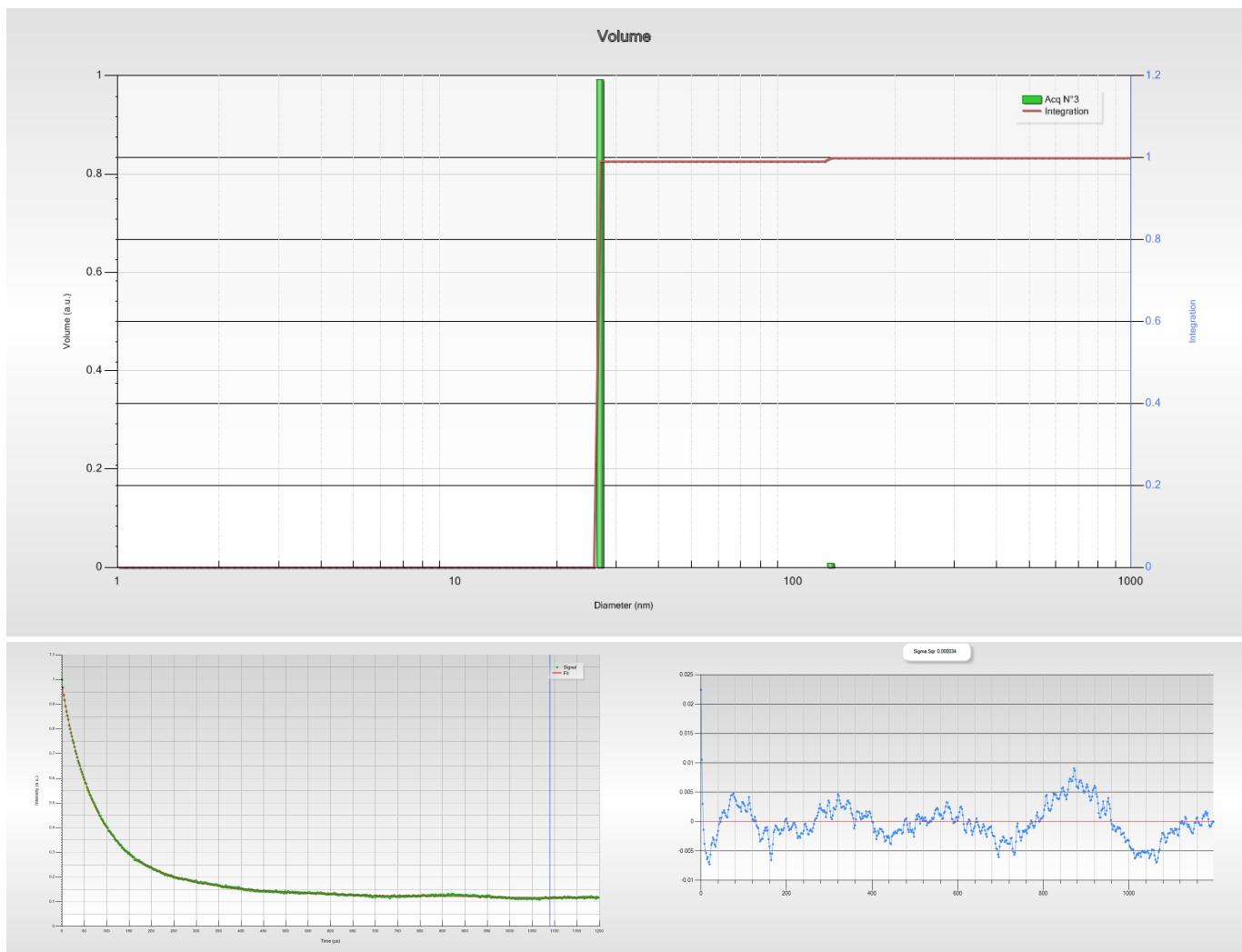
**Dn 90%:** 26.9 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
27.2	0.52	9569.87	18.10464E-012
126.94	0.41	2050.79	38.7977E-013

### Dispersion data

Size (nm)	Number
26.9	1



### Dispersion statistics

Dv 10%: 26.9 nm  
Mean Volume: 27.77 nm

Dv 50%: 26.9 nm

Dv 90%: 26.9 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
27.2	0.52	9569.87	18.10464E-012
126.94	0.41	2050.79	38.7977E-013

### Dispersion data

Size (nm)	Volume	Size (nm)	Volume
26.9	0.99	129.55	0.01



### Distribution statistics

<b>Di 10%:</b> 35.5 nm	<b>Di 50%:</b> 53.82 nm	<b>Di 90%:</b> 85.45 nm
<b>Mean Intensity:</b> 57.53 nm		
<b>PDI</b> : 0.48636		<b>Std Dev:</b> 34.87%

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
45.82	0.84	5681.65	10.74876E-012

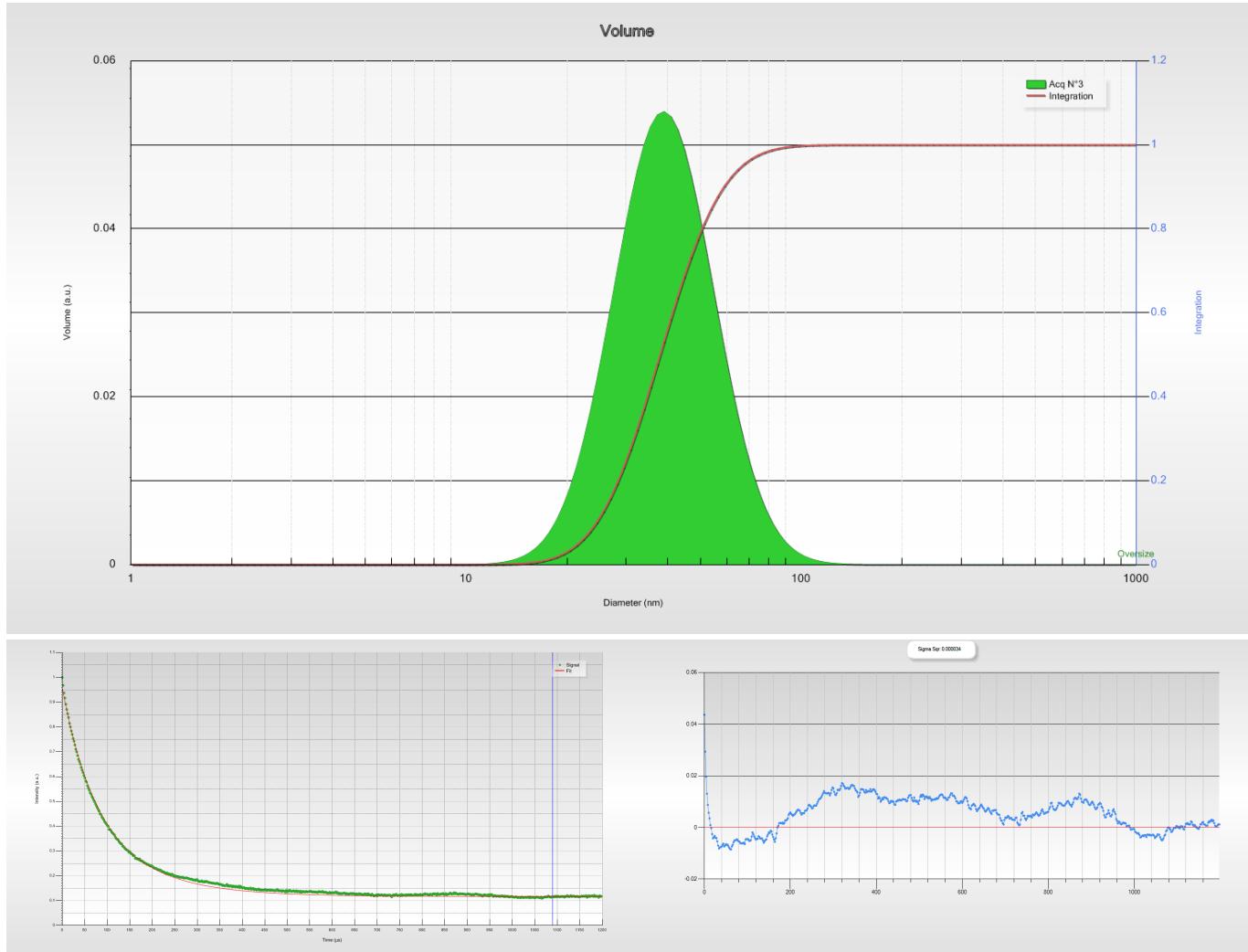


### Distribution statistics

<b>Dn 10%:</b> 17.74 nm	<b>Dn 50%:</b> 26.9 nm	<b>Dn 90%:</b> 42.71 nm
<b>Mean Number:</b> 28.99 nm		
<b>PDI</b> : 0.48636		<b>Std Dev:</b> 34.87%

### Detected size(s)

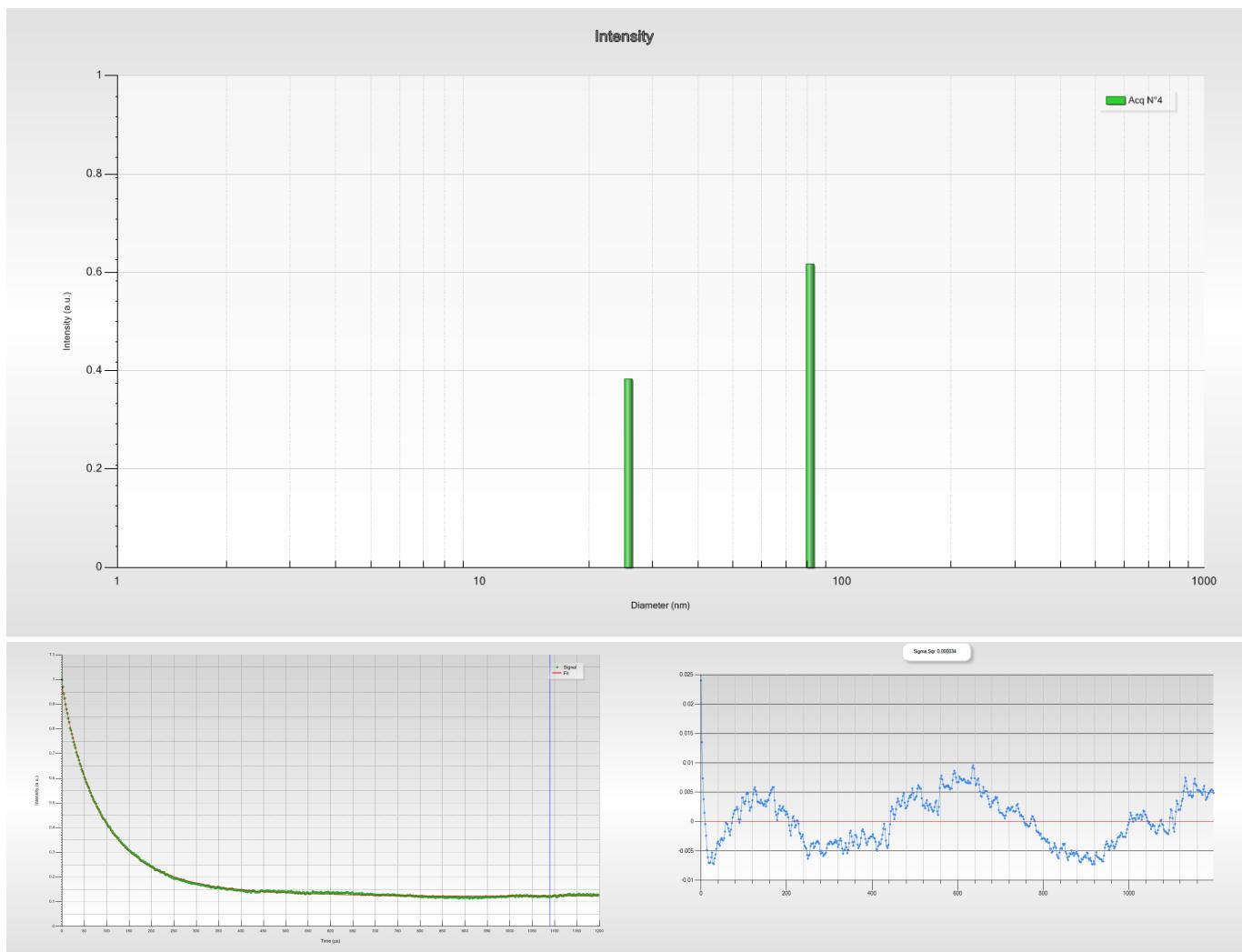
Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
45.82	0.84	5681.65	10.74876E-012

**Distribution statistics**

<b>D<sub>v</sub> 10%:</b> 24.52 nm	<b>D<sub>v</sub> 50%:</b> 38.94 nm	<b>D<sub>v</sub> 90%:</b> 59.03 nm
<b>Mean Volume:</b> 41.16 nm		
<b>PDI</b> : 0.48636		<b>Std Dev:</b> 34.87%

**Detected size(s)**

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
45.82	0.84	5681.65	10.74876E-012



### Dispersion statistics

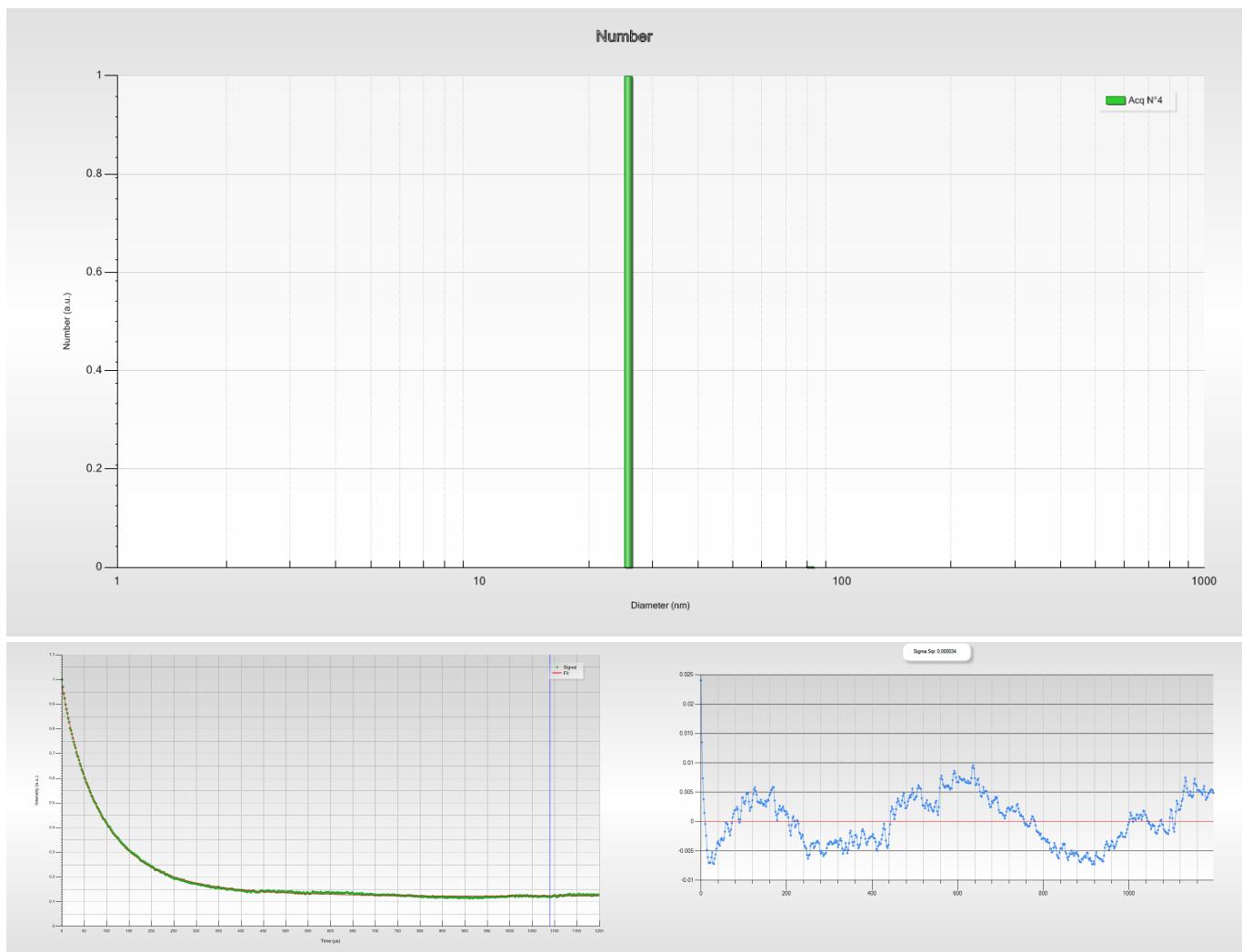
**Di 10%:** 25.68 nm      **Di 50%:** 81.59 nm      **Di 90%:** 81.59 nm  
**Mean Intensity:** 60.21 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
25.52	0.35	10200.92	19.29849E-012
80.13	0.57	3248.81	61.46214E-013

### Dispersion data

Size (nm)	Intensity	Size (nm)	Intensity
25.68	0.38	81.59	0.62



### Dispersion statistics

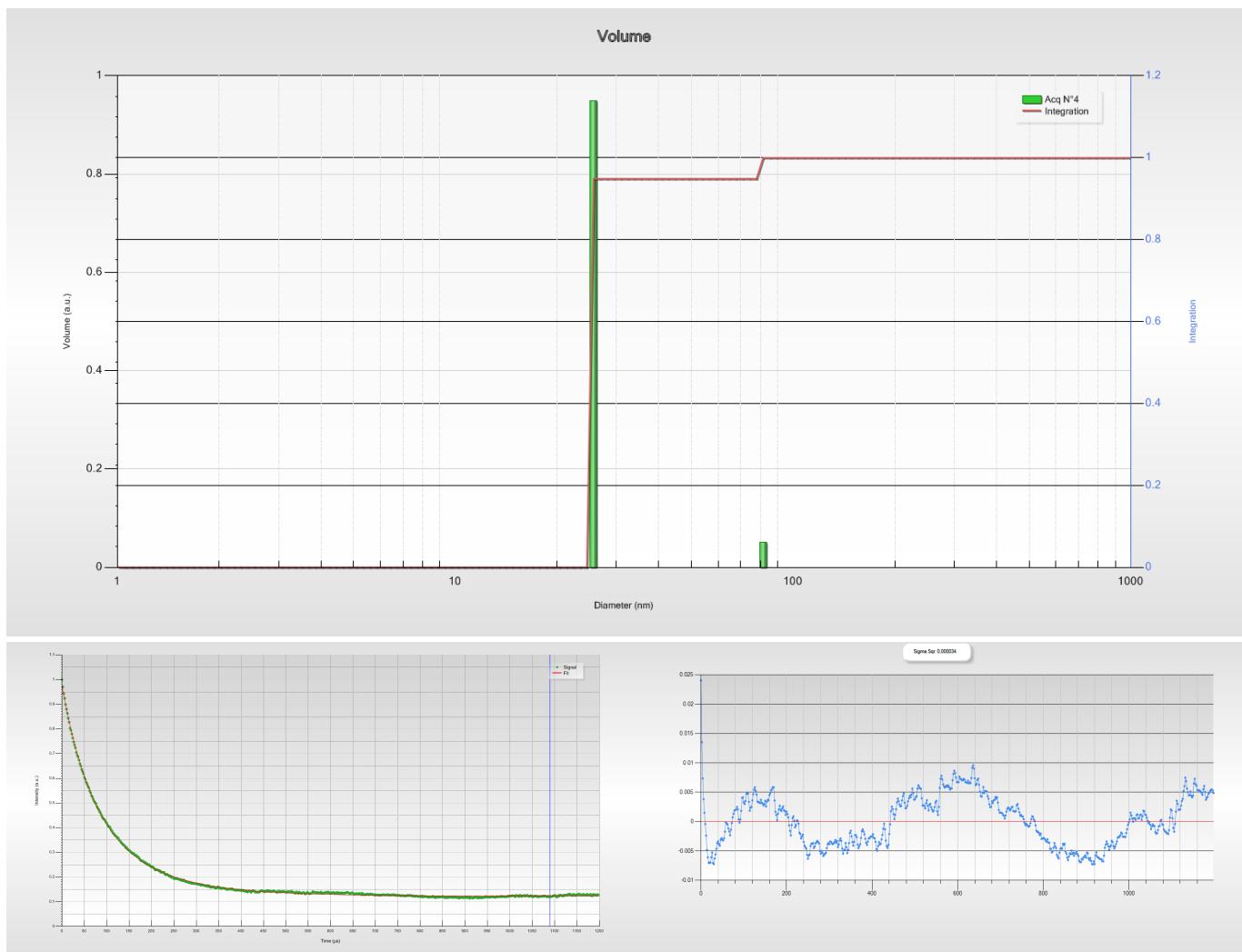
**Dn 10%:** 25.68 nm      **Dn 50%:** 25.68 nm      **Dn 90%:** 25.68 nm  
**Mean Number:** 25.78 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
25.52	0.35	10200.92	19.29849E-012
80.13	0.57	3248.81	61.46214E-013

### Dispersion data

Size (nm)	Number
25.68	1



### Dispersion statistics

**D<sub>v</sub> 10%:** 25.68 nm  
**Mean Volume:** 28.54 nm

**D<sub>v</sub> 50%:** 25.68 nm

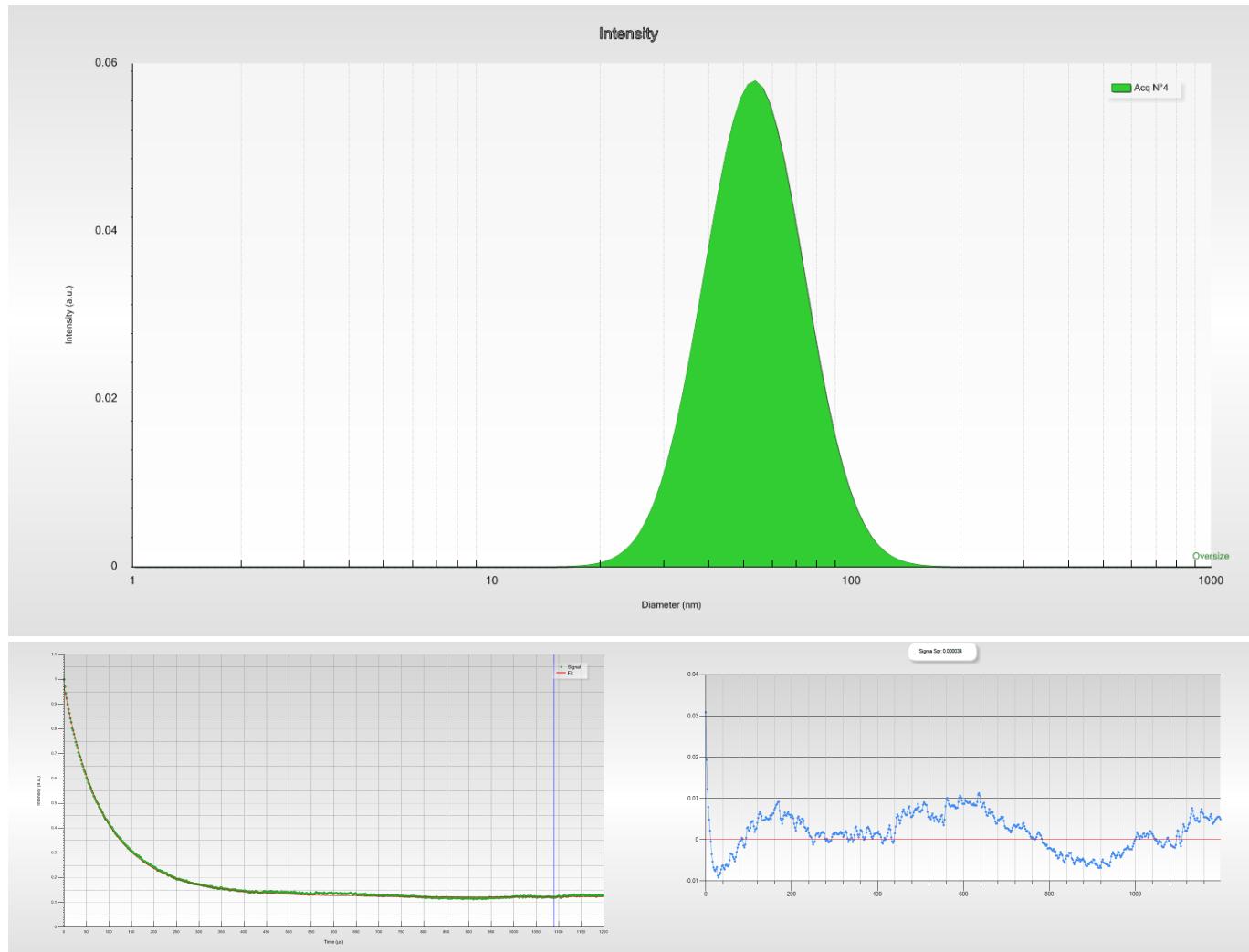
**D<sub>v</sub> 90%:** 25.68 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
25.52	0.35	10200.92	19.29849E-012
80.13	0.57	3248.81	61.46214E-013

### Dispersion data

Size (nm)	Volume	Size (nm)	Volume
25.68	0.95	81.59	0.05

**Distribution statistics**

<b>Di 10%:</b> 35.5 nm	<b>Di 50%:</b> 53.82 nm	<b>Di 90%:</b> 81.59 nm
<b>Mean Intensity:</b> 56.27 nm		
<b>PDI</b> : 0.4265		<b>Std Dev:</b> 32.65%

**Detected size(s)**

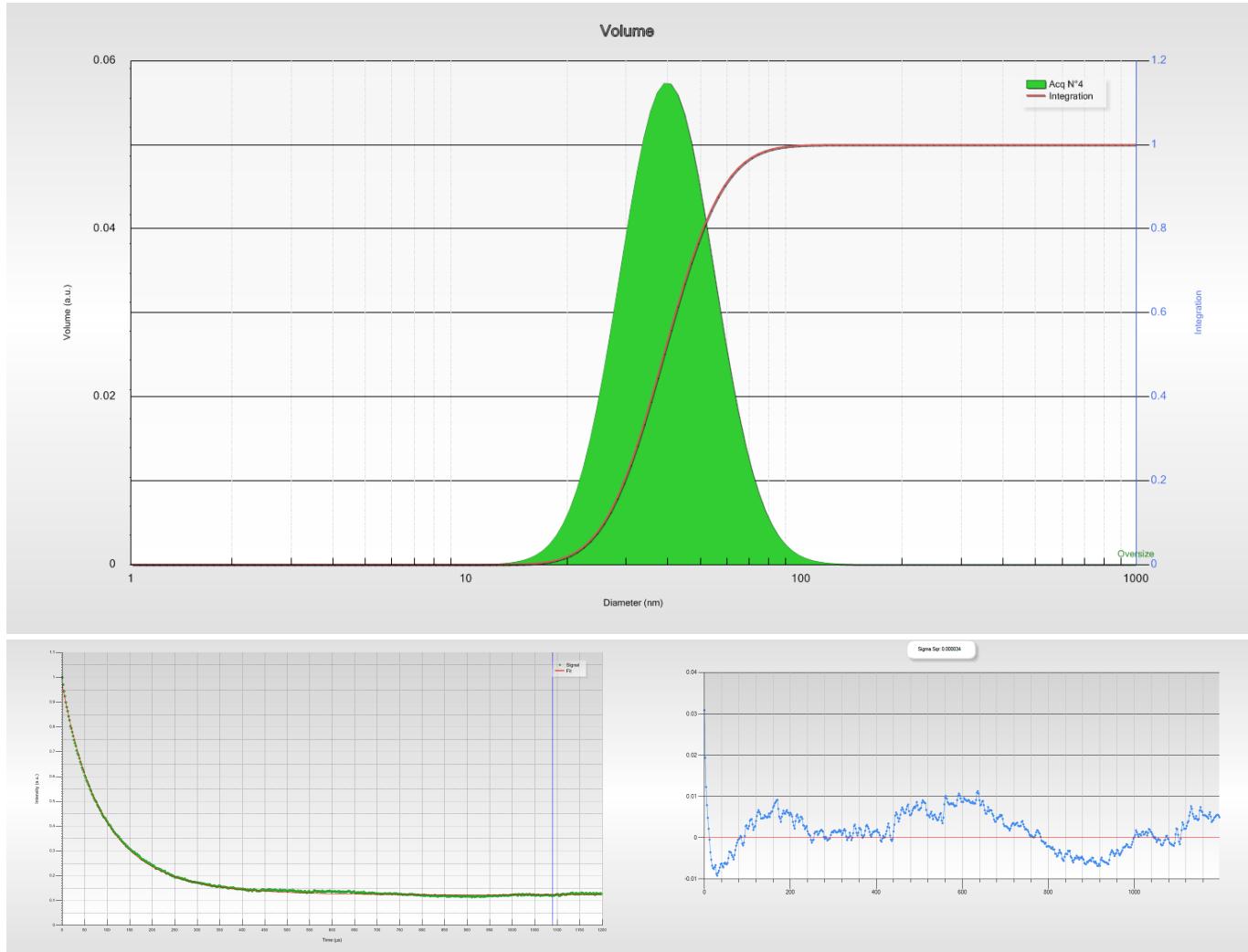
Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
46.04	0.85	5654.57	10.69754E-012

**Distribution statistics**

<b>Dn 10%:</b> 19.46 nm	<b>Dn 50%:</b> 29.5 nm	<b>Dn 90%:</b> 44.73 nm
<b>Mean Number:</b> 30.74 nm		
<b>PDI</b> : 0.4265		<b>Std Dev:</b> 32.65%

**Detected size(s)**

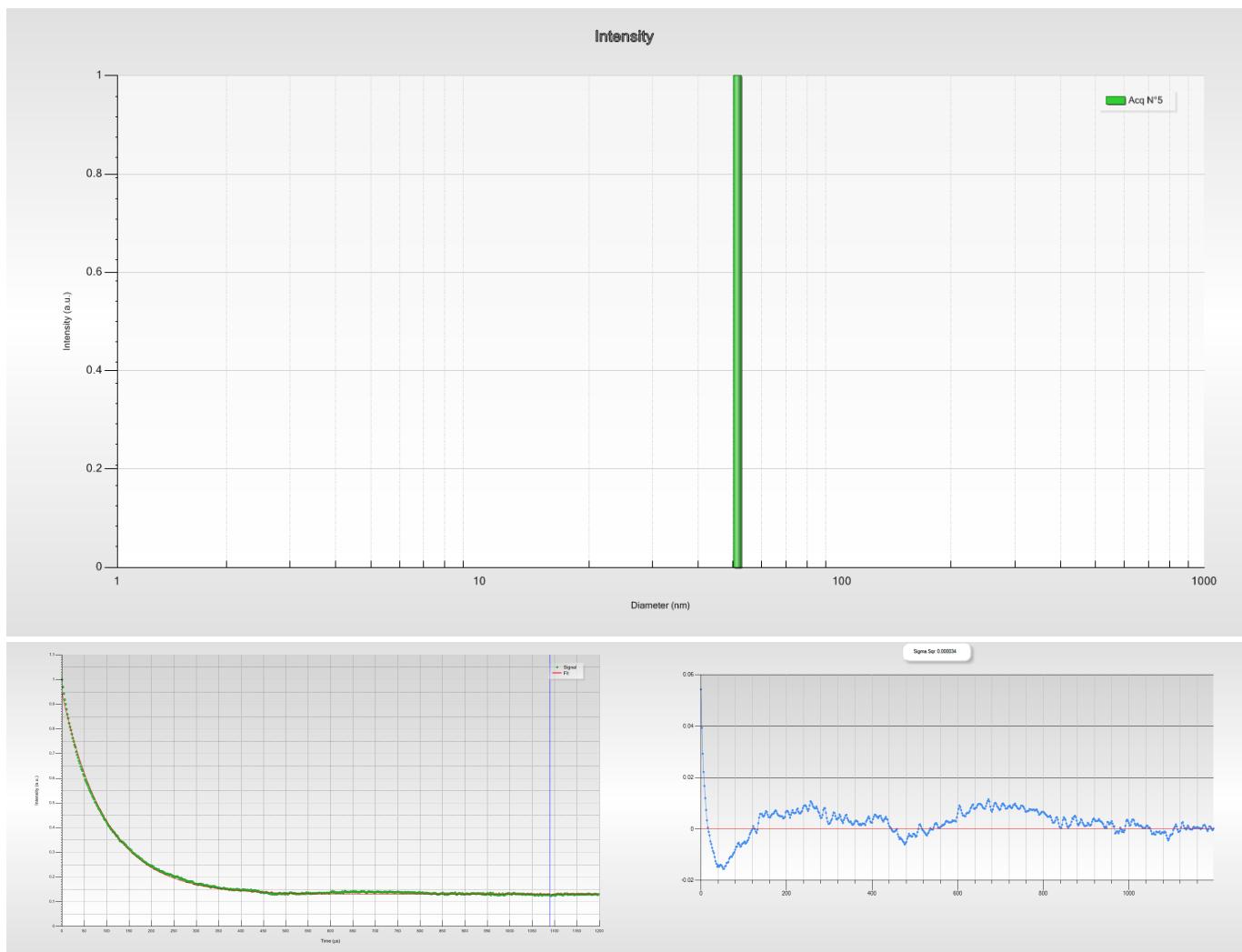
Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
46.04	0.85	5654.57	10.69754E-012

**Distribution statistics**

<b>D<sub>v</sub> 10%:</b> 26.9 nm	<b>D<sub>v</sub> 50%:</b> 38.94 nm	<b>D<sub>v</sub> 90%:</b> 59.03 nm
<b>Mean Volume:</b> 41.89 nm		
<b>PDI :</b> 0.4265		<b>Std Dev:</b> 32.65%

**Detected size(s)**

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
46.04	0.85	5654.57	10.69754E-012



### Dispersion statistics

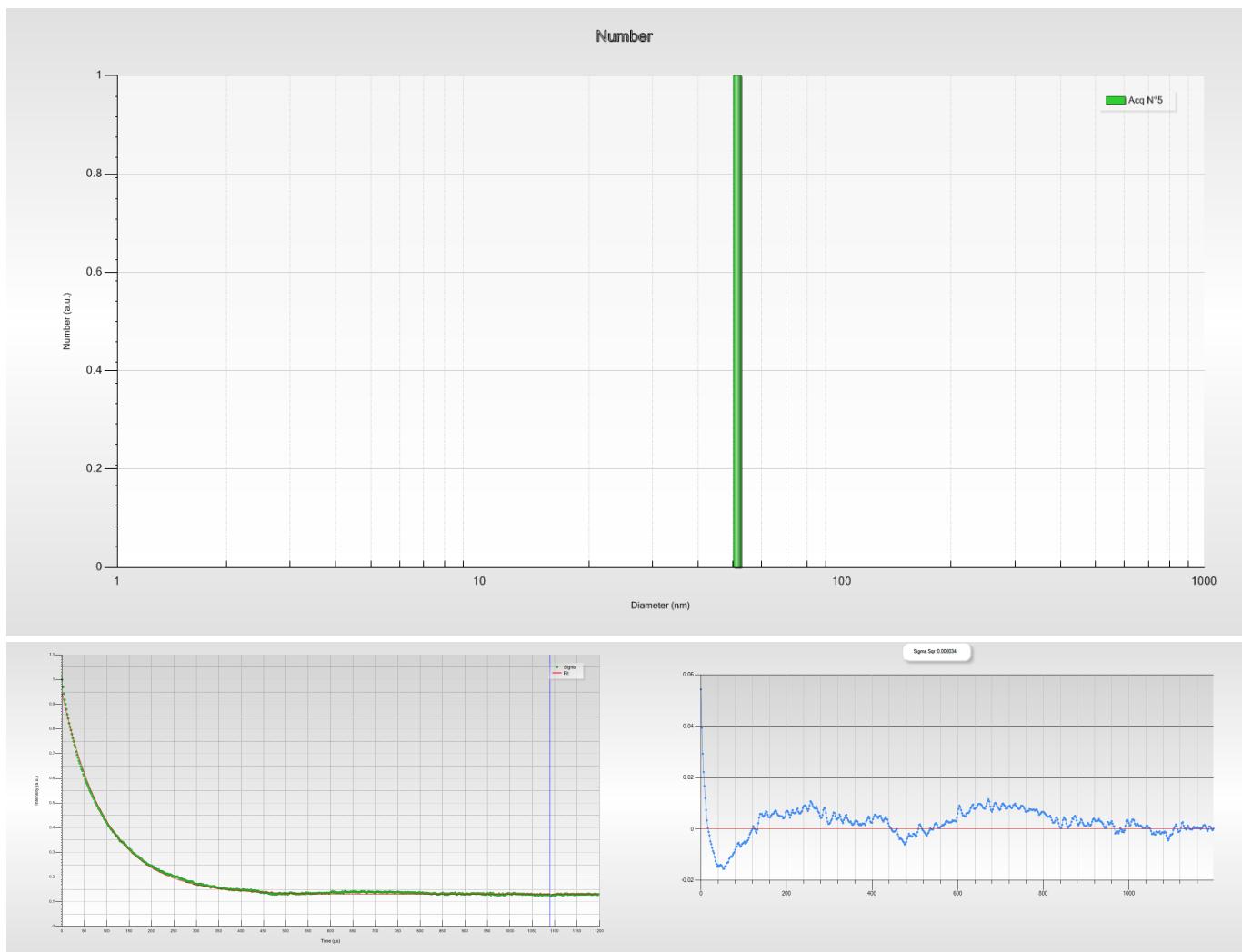
**Di 10%:** 51.39 nm      **Di 50%:** 51.39 nm      **Di 90%:** 51.39 nm  
**Mean Intensity:** 51.39 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
51.39	0.9	5054.94	95.63126E-013

### Dispersion datas

Size (nm)	Intensity
51.39	1



### Dispersion statistics

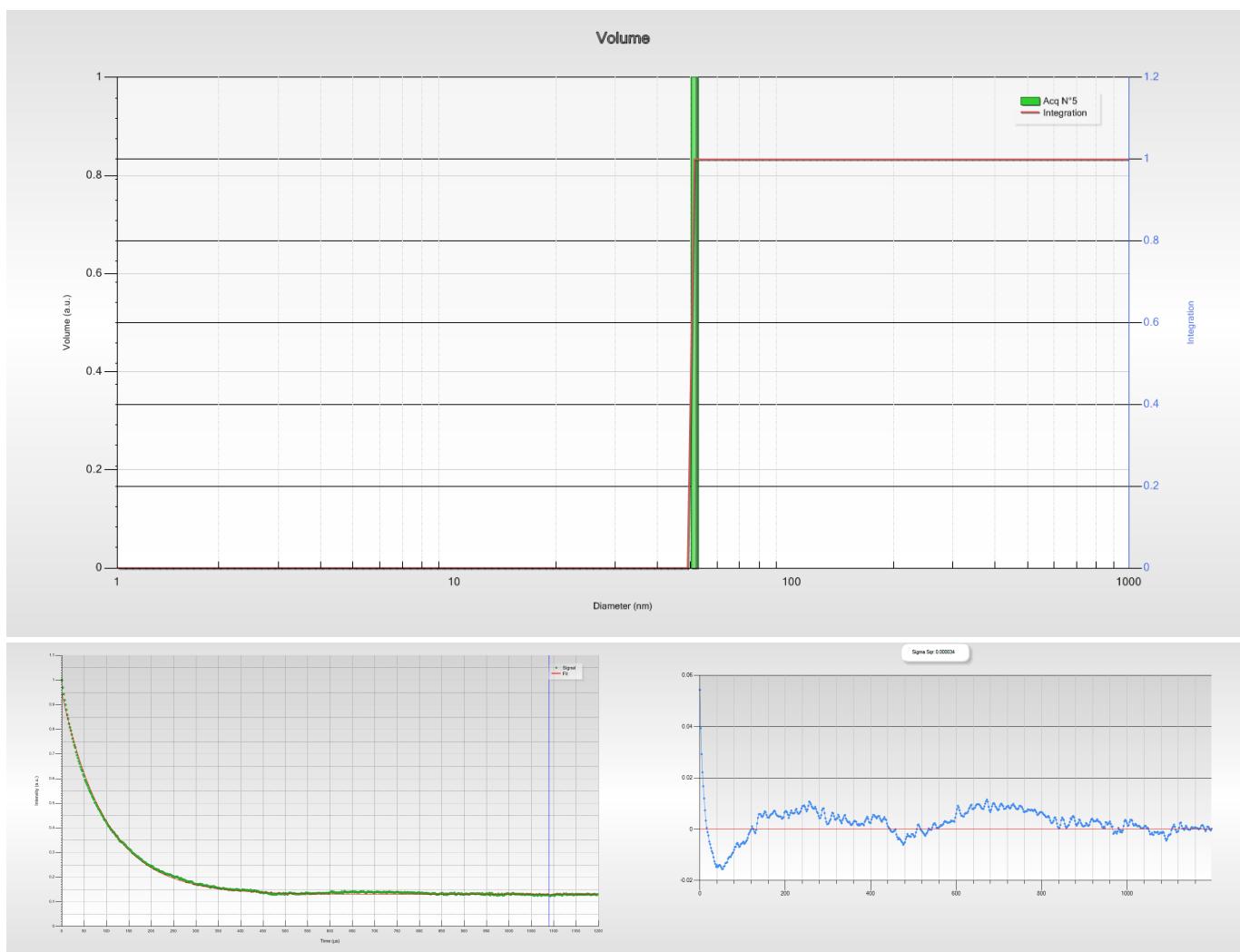
Dn 10%: 51.39 nm      Dn 50%: 51.39 nm      Dn 90%: 51.39 nm  
 Mean Number: 51.39 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
51.39	0.9	5054.94	95.63126E-013

### Dispersion data

Size (nm)	Number
51.39	1



### Dispersion statistics

**D<sub>v</sub> 10%:** 51.39 nm  
**Mean Volume:** 51.39 nm

**D<sub>v</sub> 50%:** 51.39 nm

**D<sub>v</sub> 90%:** 51.39 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
51.39	0.9	5054.94	95.63126E-013

### Dispersion datas

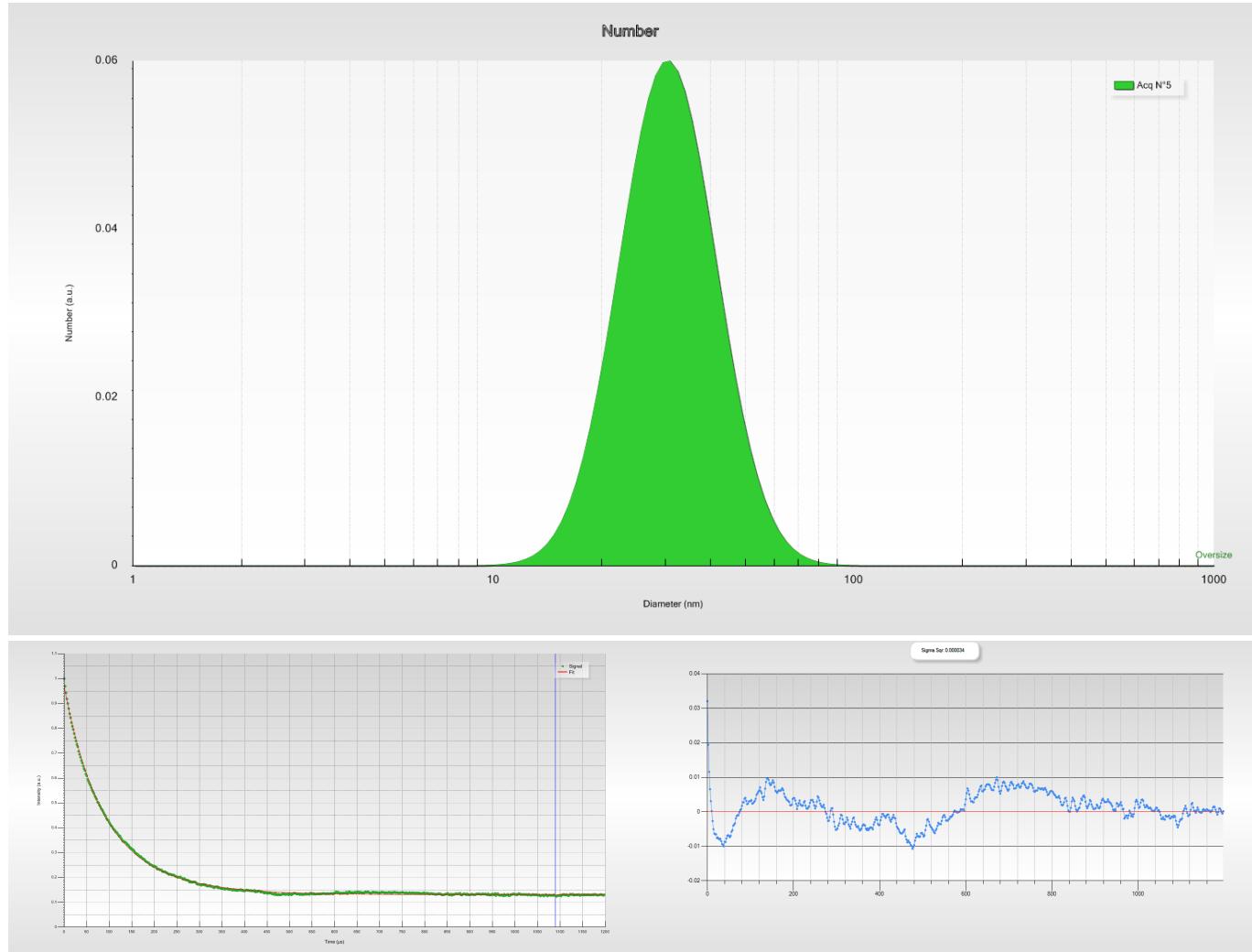
Size (nm)	Volume
51.39	1

**Distribution statistics**

<b>Di 10%:</b> 35.5 nm	<b>Di 50%:</b> 53.82 nm	<b>Di 90%:</b> 77.91 nm
<b>Mean Intensity:</b> 55.48 nm		
<b>PDI</b> : 0.38912		<b>Std Dev:</b> 31.19%

**Detected size(s)**

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
46.07	0.84	5638.6	10.66731E-012

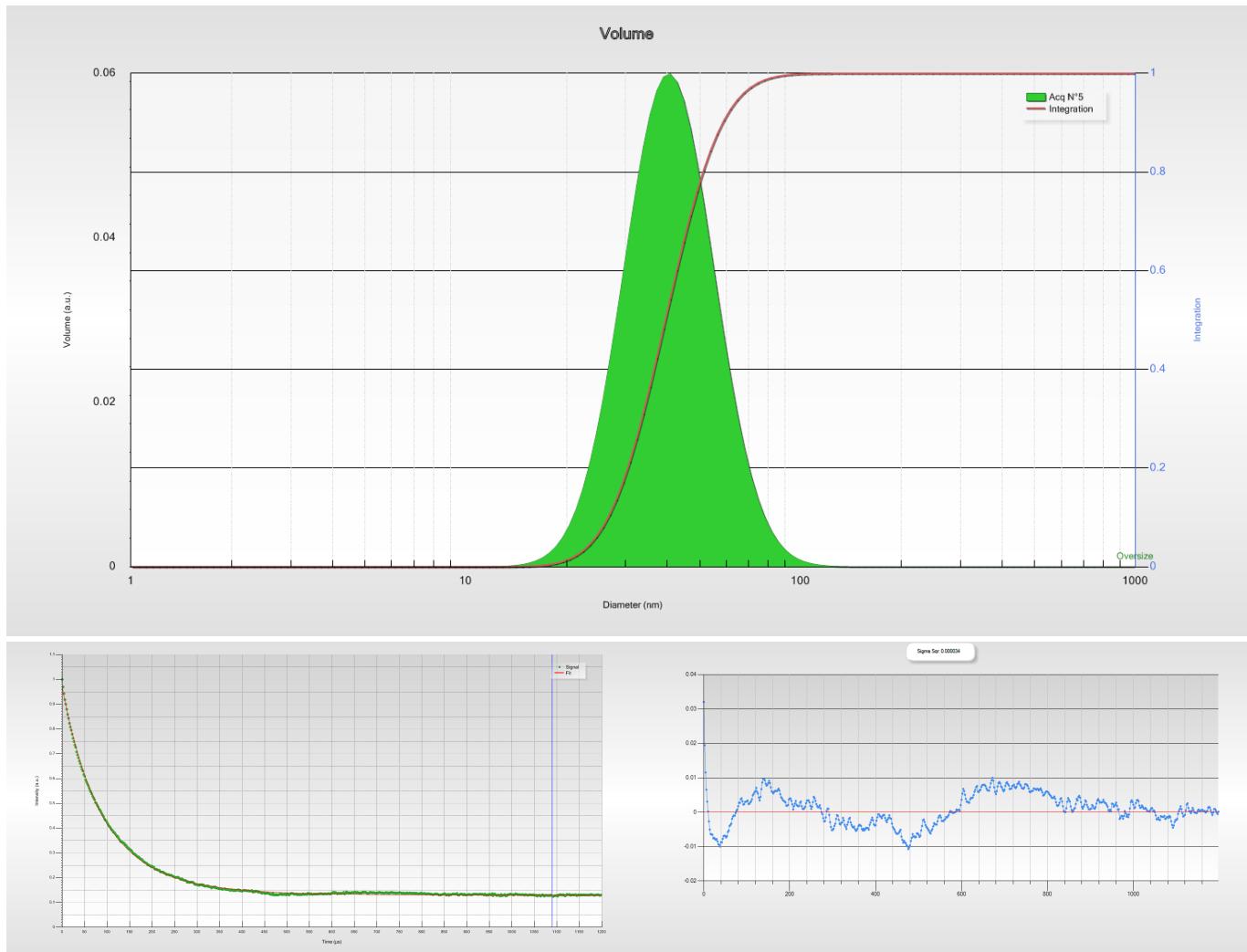


### Distribution statistics

<b>Dn 10%:</b> 20.38 nm	<b>Dn 50%:</b> 30.9 nm	<b>Dn 90%:</b> 44.73 nm
<b>Mean Number:</b> 31.89 nm		
<b>PDI</b> : 0.38912		<b>Std Dev:</b> 31.19%

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
46.07	0.84	5638.6	10.66731E-012

**Distribution statistics**

<b>D<sub>v</sub> 10%:</b> 26.9 nm	<b>D<sub>v</sub> 50%:</b> 40.78 nm	<b>D<sub>v</sub> 90%:</b> 59.03 nm
<b>Mean Volume:</b> 42.35 nm		
<b>PDI</b> : 0.38912		<b>Std Dev:</b> 31.19%

**Detected size(s)**

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
46.07	0.84	5638.6	10.66731E-012