

## Sample

**Name** : GNP\_11.4.16\_1.24\_5k\_1  
**Mesured On** : 11.04.2016 15:35  
**by** : Hannelore **logged as** : Expert  
**Comments from Hannelore** :

## SOP

**Name** : defaultSOP  
**Mode** : Statistical **Acquisitions** : 5  
**Time limitation** : 60 s  
**Temperature** : 25 °C

### Device Settings

<b>Time interval</b>	: 2 $\mu$ s	<b>Number of channels</b>	: 600
<b>Laser power</b>	: 59.6 %	<b>Wavelength</b>	: 657 nm
<b>DTC Position</b>	: UP		

### Liquid Medium

<b>Refractive index</b>	: 1.331	<b>Viscosity</b>	: 0.888 cP
-------------------------	---------	------------------	------------

### Particles

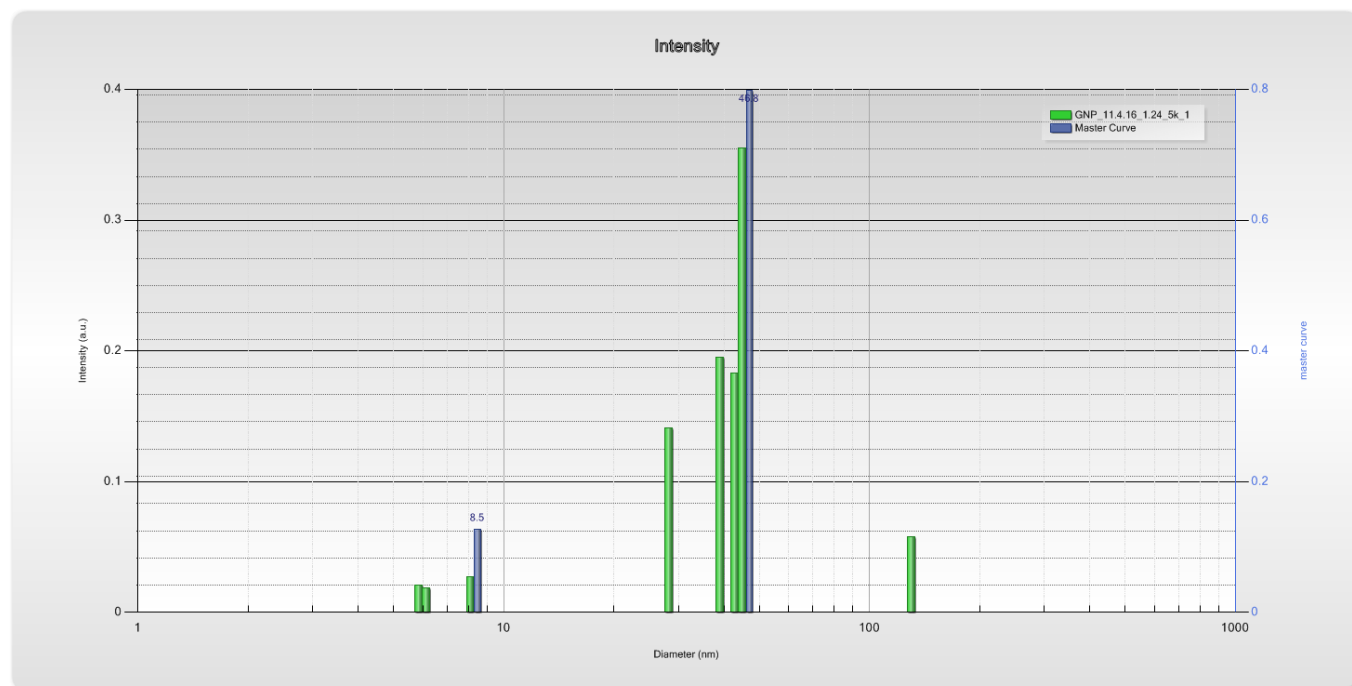
<b>Real part</b>	: 1.56	<b>Imaginary part</b>	: 0.01
------------------	--------	-----------------------	--------

### Algorithm

Pade Laplace	Cumulants
--------------	-----------

## Measurement

**Average count rate** : 2771 kcps **Duration** : 00:05:18  
**Number of rejected** : 0 **Number of modified** : 0



### Dispersion statistics

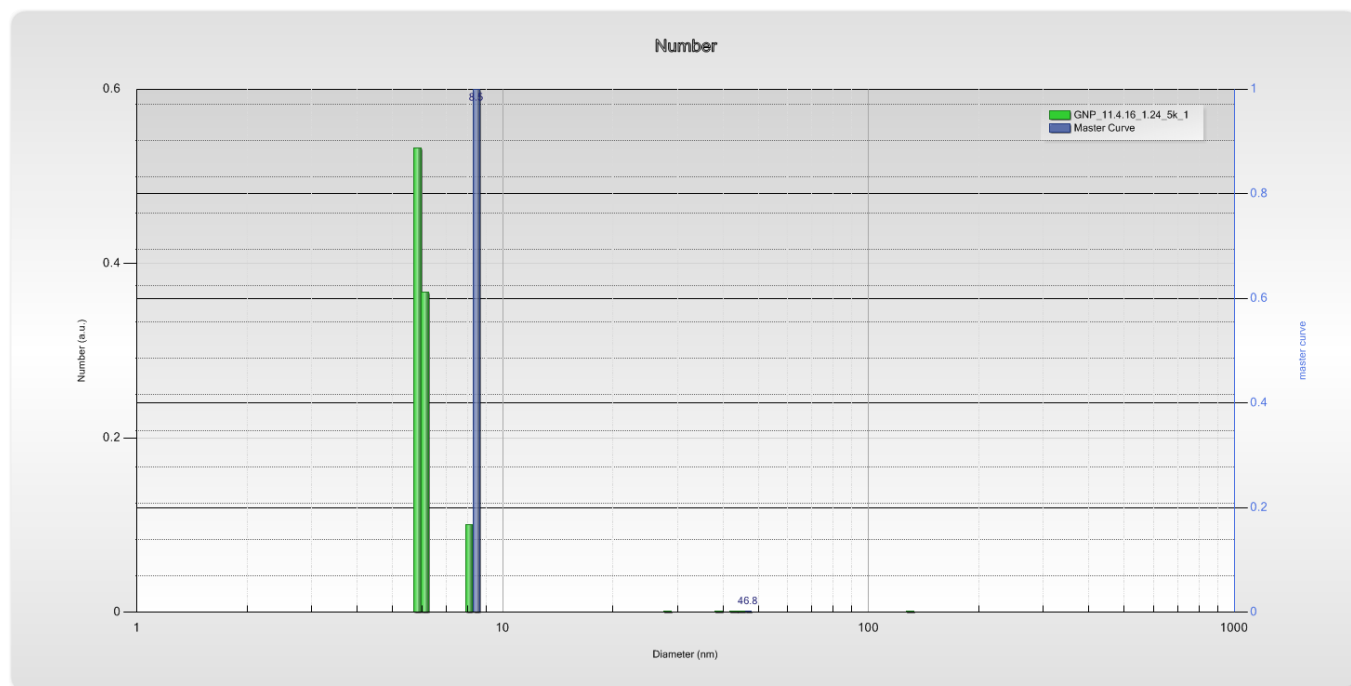
**Di 10%:** 28.17 nm

**Di 50%:** 42.71 nm

**Di 90%:** 44.73 nm

### Dispersion datas

Size (nm)	Intensity	Size (nm)	Intensity	Size (nm)	Intensity	Size (nm)	Intensity
5.85	0.02	28.17	0.14	44.73	0.36		
6.13	0.02	38.94	0.2	129.55	0.06		
8.08	0.03	42.71	0.18				



### Dispersion statistics

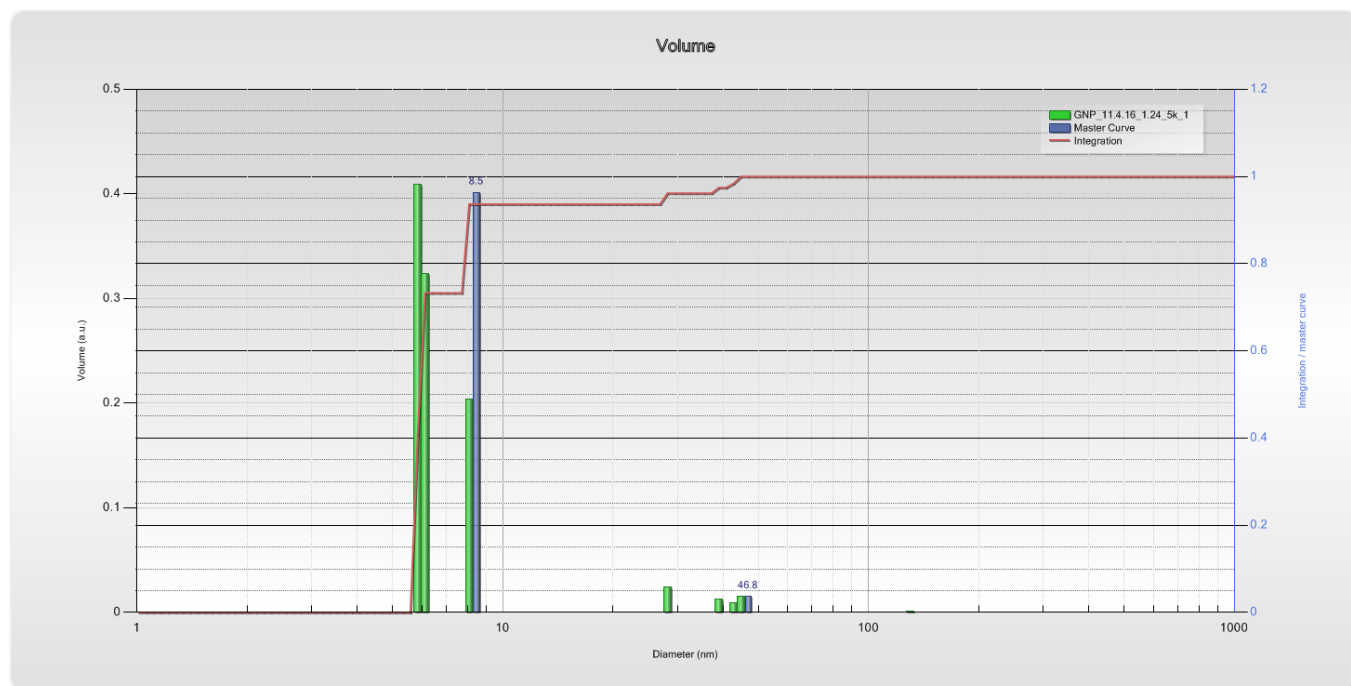
**Dn 10%:** 5.85 nm

**Dn 50%:** 5.85 nm

**Dn 90%:** 8.08 nm

### Dispersion datas

Size (nm)	Number	Size (nm)	Number	Size (nm)	Number
5.85	0.53	6.13	0.37	8.08	0.1



### Dispersion statistics

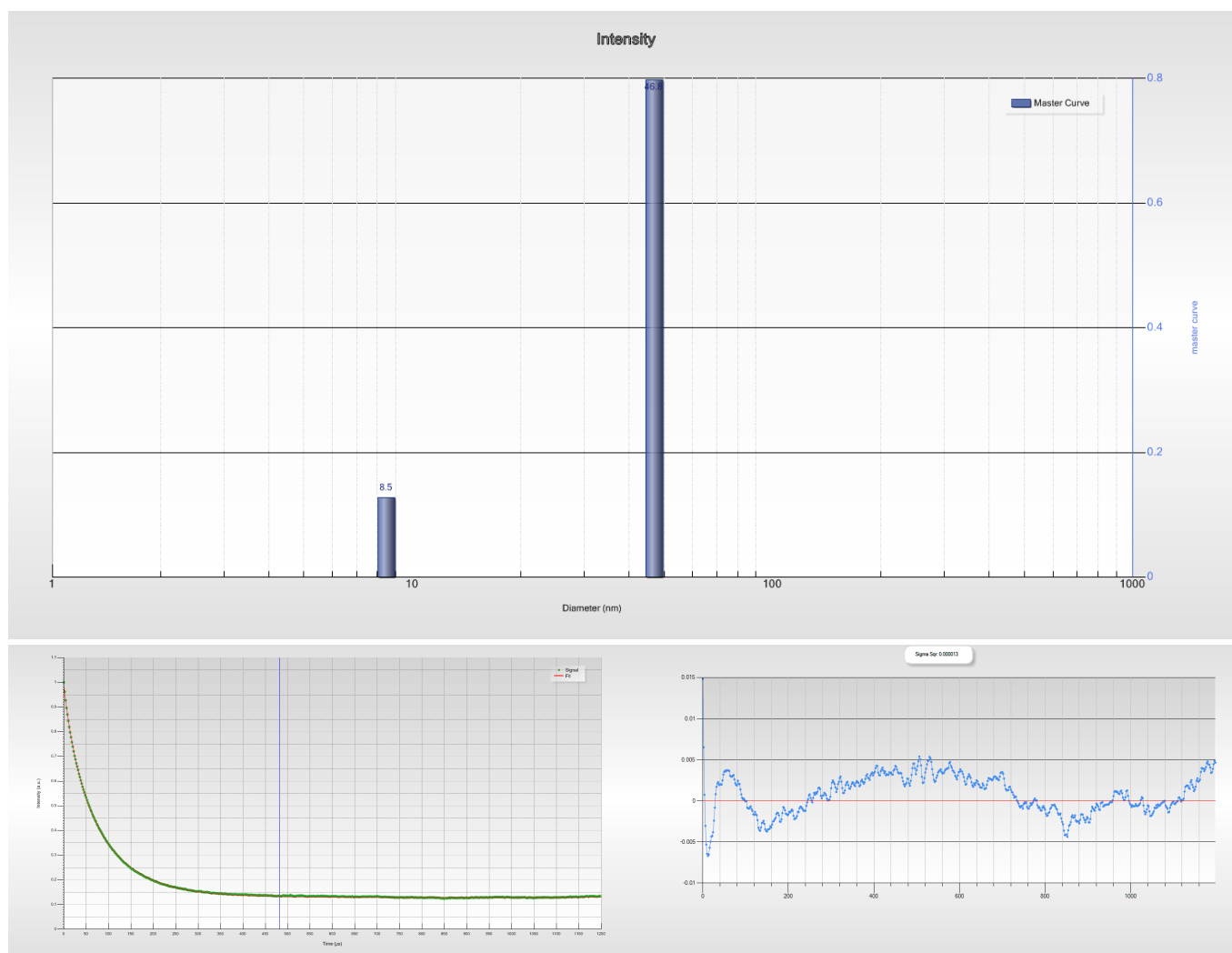
**Dv 10%:** 5.85 nm

**Dv 50%:** 6.13 nm

**Dv 90%:** 8.08 nm

### Dispersion datas

Size (nm)	Volume	Size (nm)	Volume	Size (nm)	Volume	Size (nm)	Volume
5.85	0.41	8.08	0.2	38.94	0.01	44.73	0.02
6.13	0.32	28.17	0.02	42.71	0.01		



### Dispersion statistics

**Di 10%: 8.47 nm**  
**Mean Intensity: 41.57 nm**

**Di 50%: 46.85 nm**

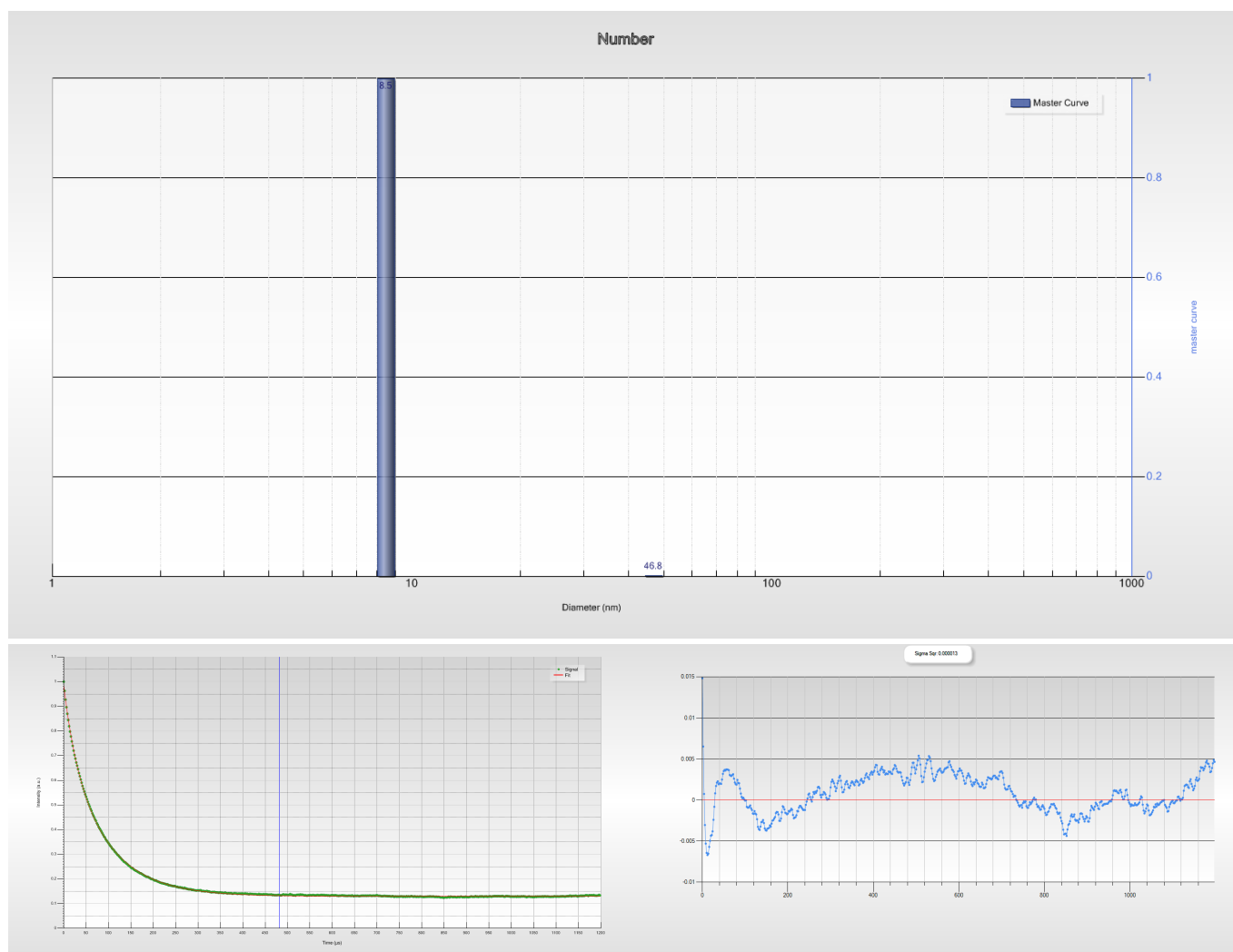
**Di 90%: 46.85 nm**

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
8.59	0.13	30258.85	57.24484E-012
46.87	0.8	5543.03	10.48652E-012

### Dispersion datas

Size (nm)	Intensity	Size (nm)	Intensity
8.47	0.14	46.85	0.86



### Dispersion statistics

**Dn 10%: 8.47 nm**  
**Mean Number: 8.48 nm**

**Dn 50%: 8.47 nm**

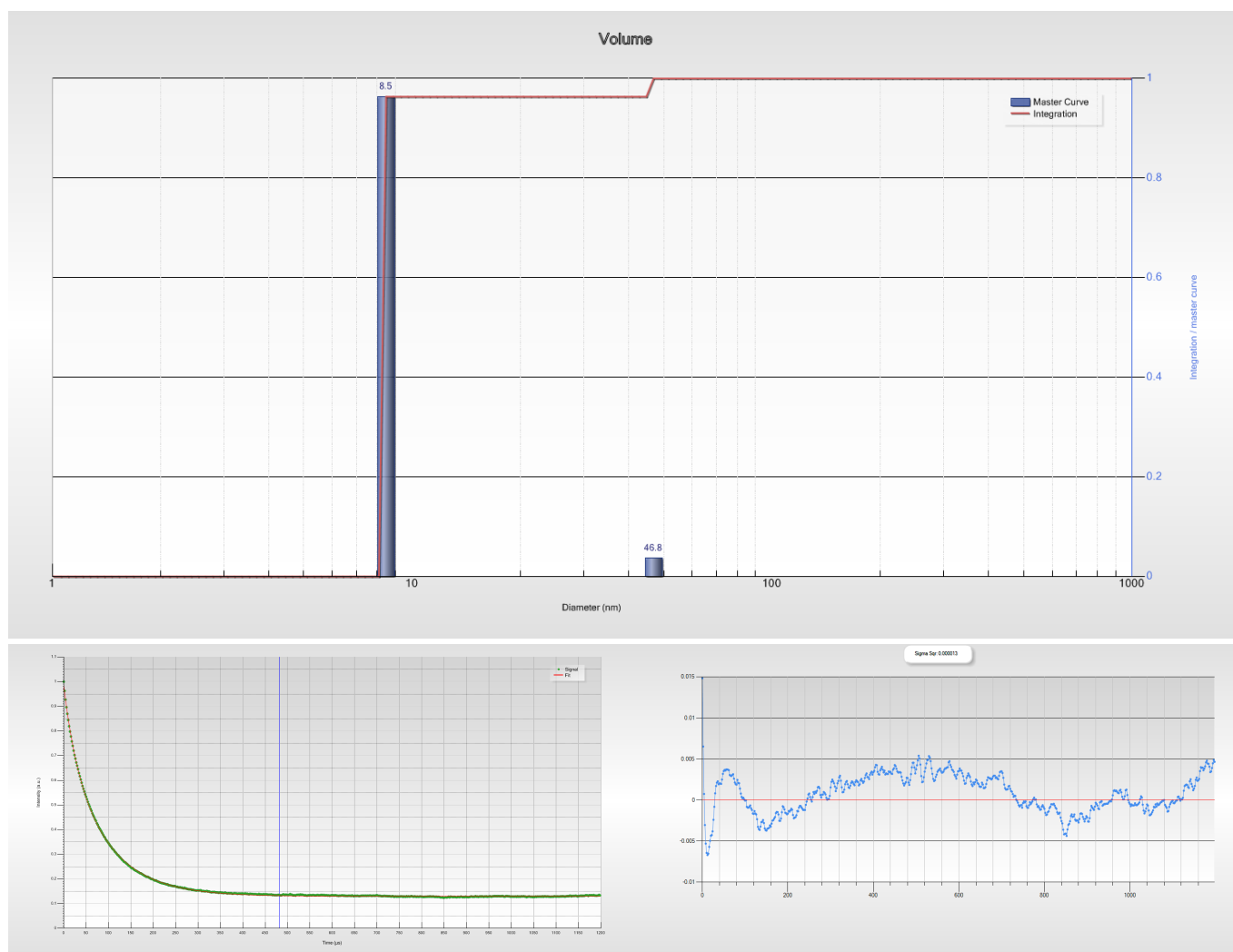
**Dn 90%: 8.47 nm**

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
8.59	0.13	30258.85	57.24484E-012
46.87	0.8	5543.03	10.48652E-012

### Dispersion datas

Size (nm)	Number
8.47	1



### Dispersion statistics

**Dv 10%: 8.47 nm**  
**Mean Volume: 9.87 nm**

**Dv 50%: 8.47 nm**

**Dv 90%: 8.47 nm**

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
8.59	0.13	30258.85	57.24484E-012
46.87	0.8	5543.03	10.48652E-012

### Dispersion datas

Size (nm)	Volume	Size (nm)	Volume
8.47	0.96	46.85	0.04



### Distribution statistics

**Di 10%:** 28.17 nm  
**Mean Intensity:** 42.45 nm  
**PDI** : 0.38249

**Di 50%:** 40.78 nm

**Di 90%:** 59.03 nm

**Std Dev:** 30.92%

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
35.35	0.83	7348.12	13.90145E-012





### Distribution statistics

**Dn 10%:** 16.17 nm  
**Mean Number:** 24.59 nm  
**PDI** : 0.38249

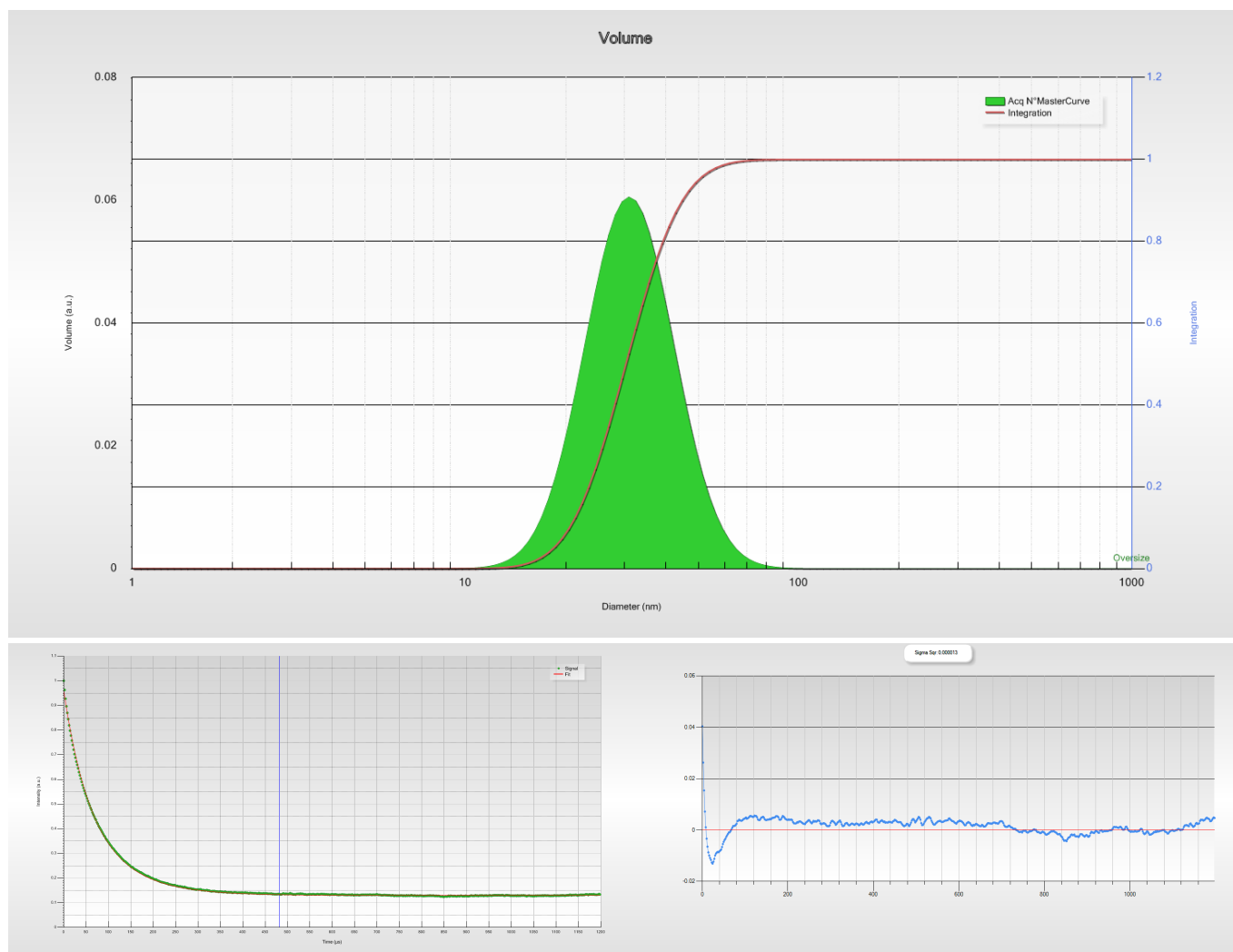
**Dn 50%:** 23.41 nm

**Dn 90%:** 33.89 nm

**Std Dev:** 30.92%

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
35.35	0.83	7348.12	13.90145E-012



### Distribution statistics

**Dv 10%:** 21.35 nm  
**Mean Volume:** 32.48 nm  
**PDI** : 0.38249

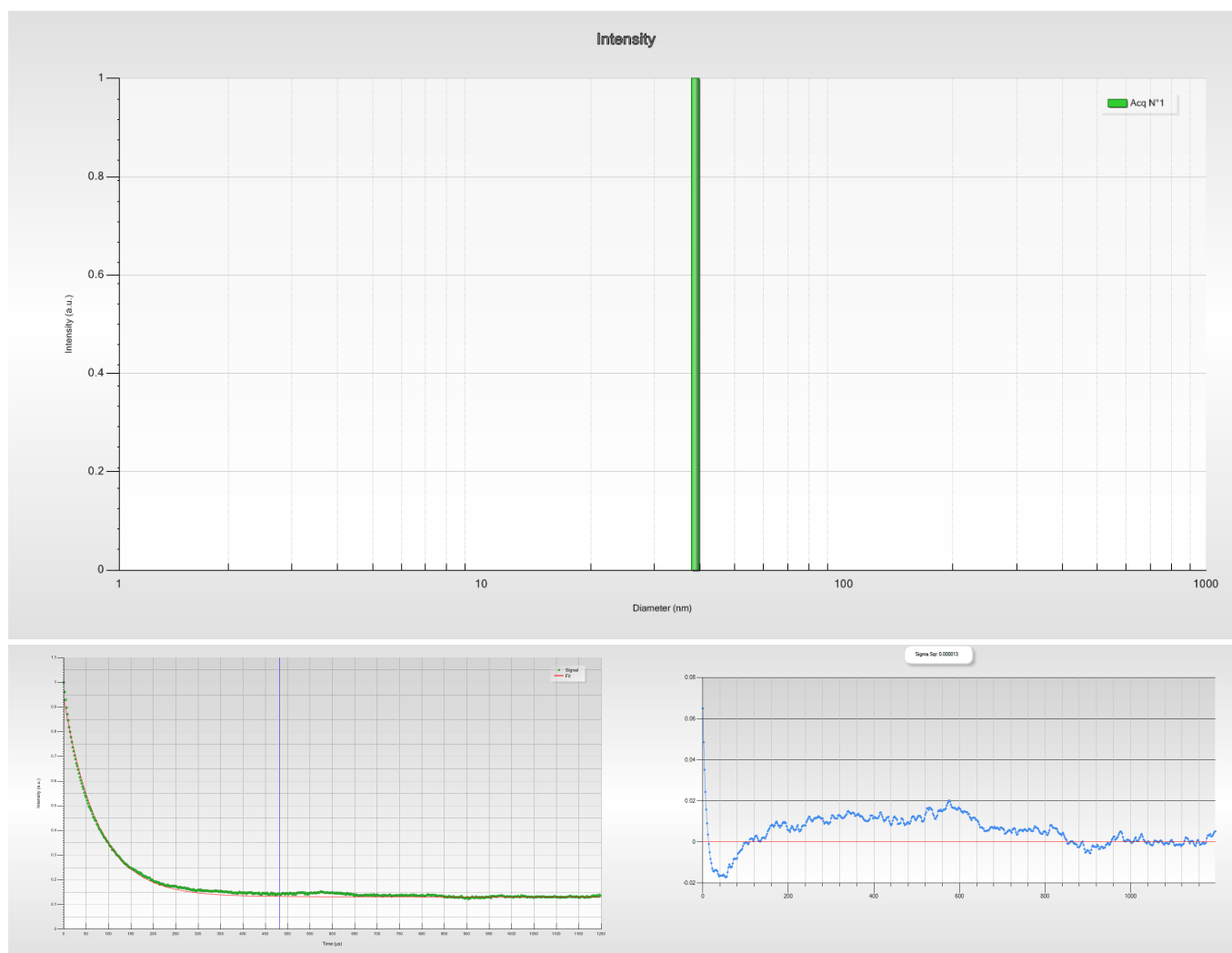
**Dv 50%:** 30.9 nm

**Dv 90%:** 46.85 nm

**Std Dev:** 30.92%

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
35.35	0.83	7348.12	13.90145E-012



### Dispersion statistics

**Di 10%: 38.94 nm**  
**Mean Intensity: 38.94 nm**

**Di 50%: 38.94 nm**

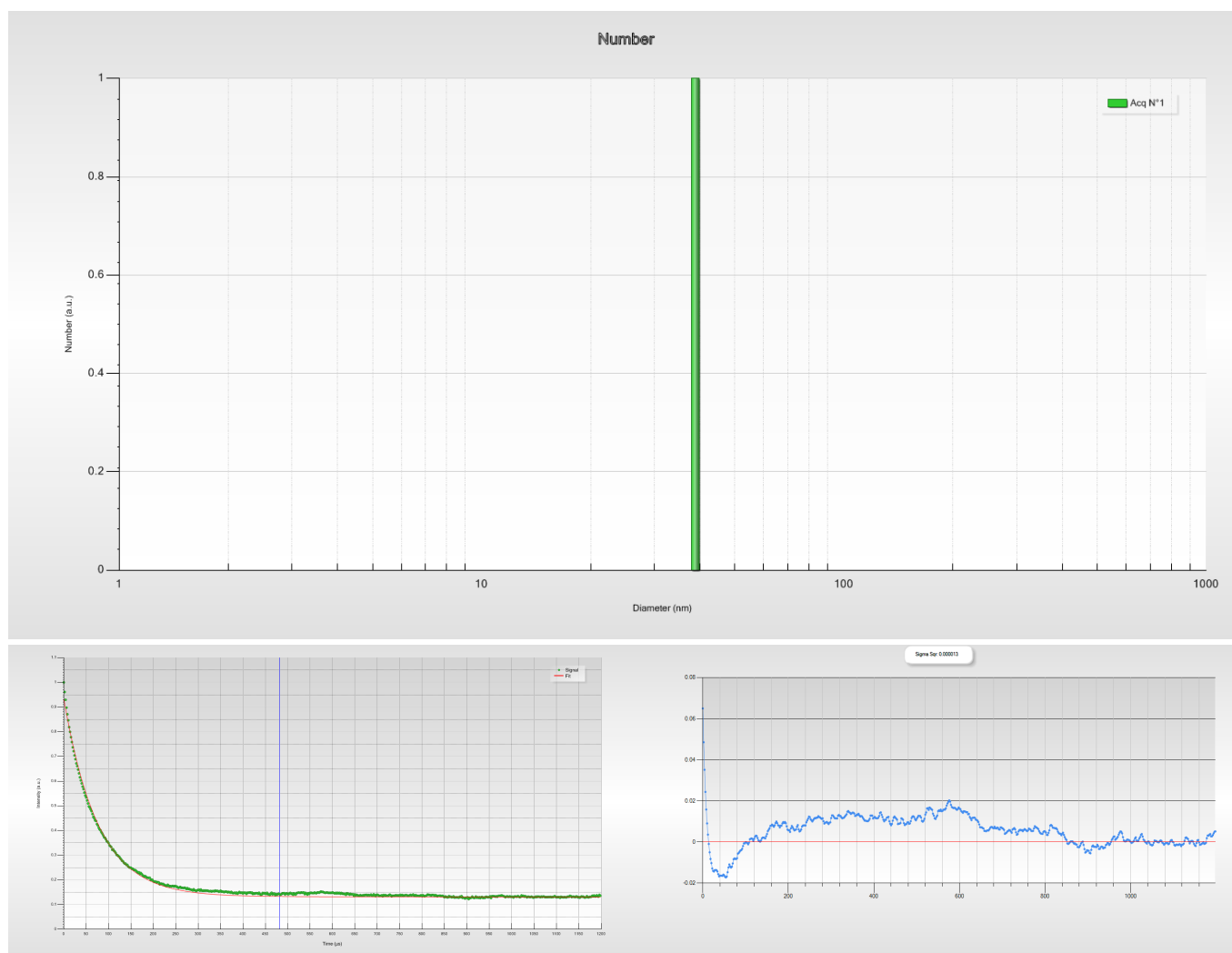
**Di 90%: 38.94 nm**

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m²/s)
39.66	0.9	6550.33	12.39216E-012

### Dispersion datas

Size (nm)	Intensity
38.94	1



### Dispersion statistics

**Dn 10%: 38.94 nm**  
**Mean Number: 38.94 nm**

**Dn 50%: 38.94 nm**

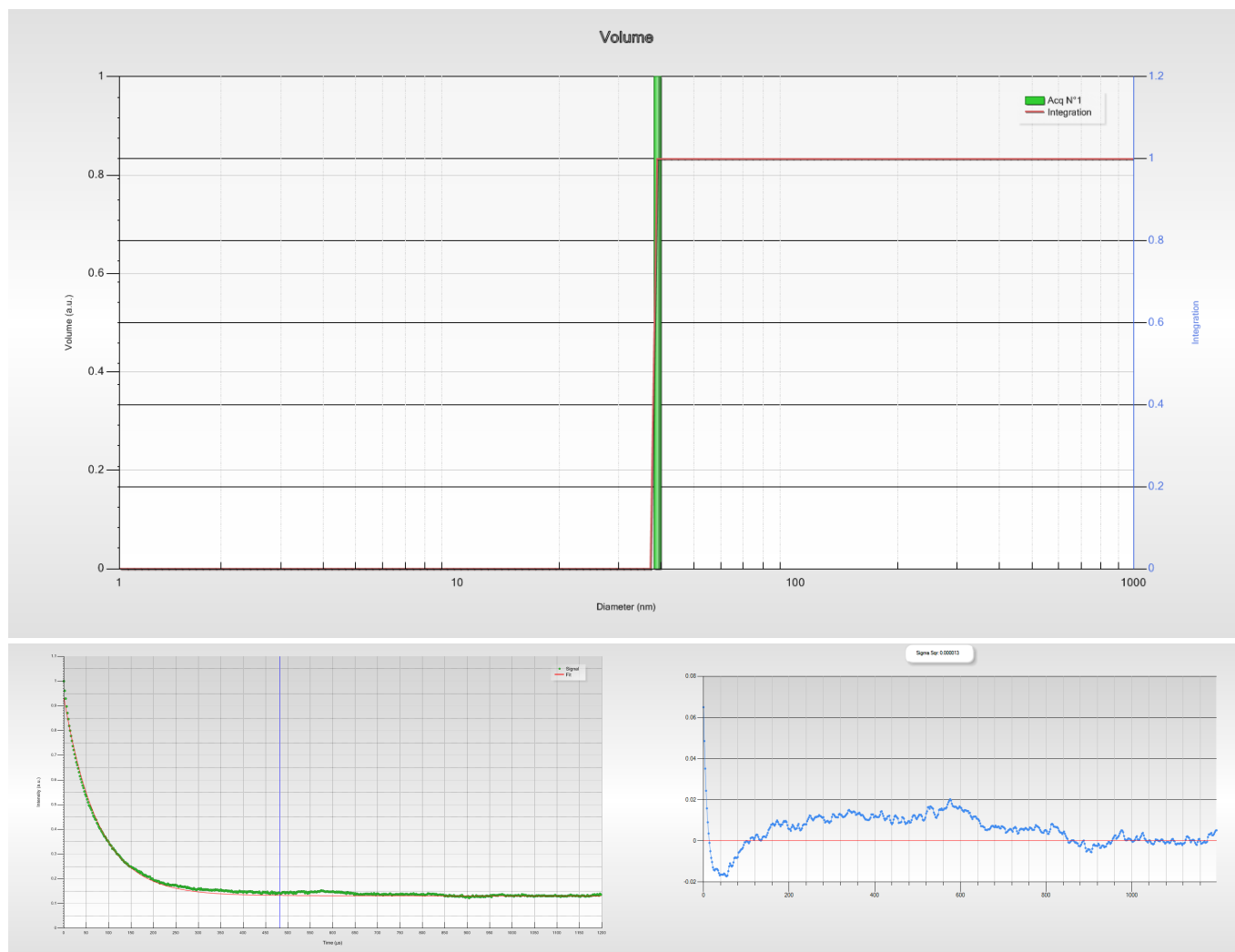
**Dn 90%: 38.94 nm**

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
39.66	0.9	6550.33	12.39216E-012

### Dispersion datas

Size (nm)	Number
38.94	1



### Dispersion statistics

**Dv 10%: 38.94 nm**  
**Mean Volume: 38.94 nm**

**Dv 50%: 38.94 nm**

**Dv 90%: 38.94 nm**

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
39.66	0.9	6550.33	12.39216E-012

### Dispersion datas

Size (nm)	Volume
38.94	1

**Distribution statistics**

**Di 10%:** 26.9 nm  
**Mean Intensity:** 42.84 nm  
**PDI** : 0.45711

**Di 50%:** 40.78 nm

**Di 90%:** 61.83 nm

**Std Dev:** 33.8%

**Detected size(s)**

<b>Z average (nm)</b>	<b>Intensity</b>	<b>Decay Rate</b>	<b>Diffusion Coeff. (m<sup>2</sup>/s)</b>
34.49	0.83	7531.39	14.24817E-012

**Distribution statistics**

**Dn 10%:** 14.08 nm  
**Mean Number:** 22.43 nm  
**PDI** : 0.45711

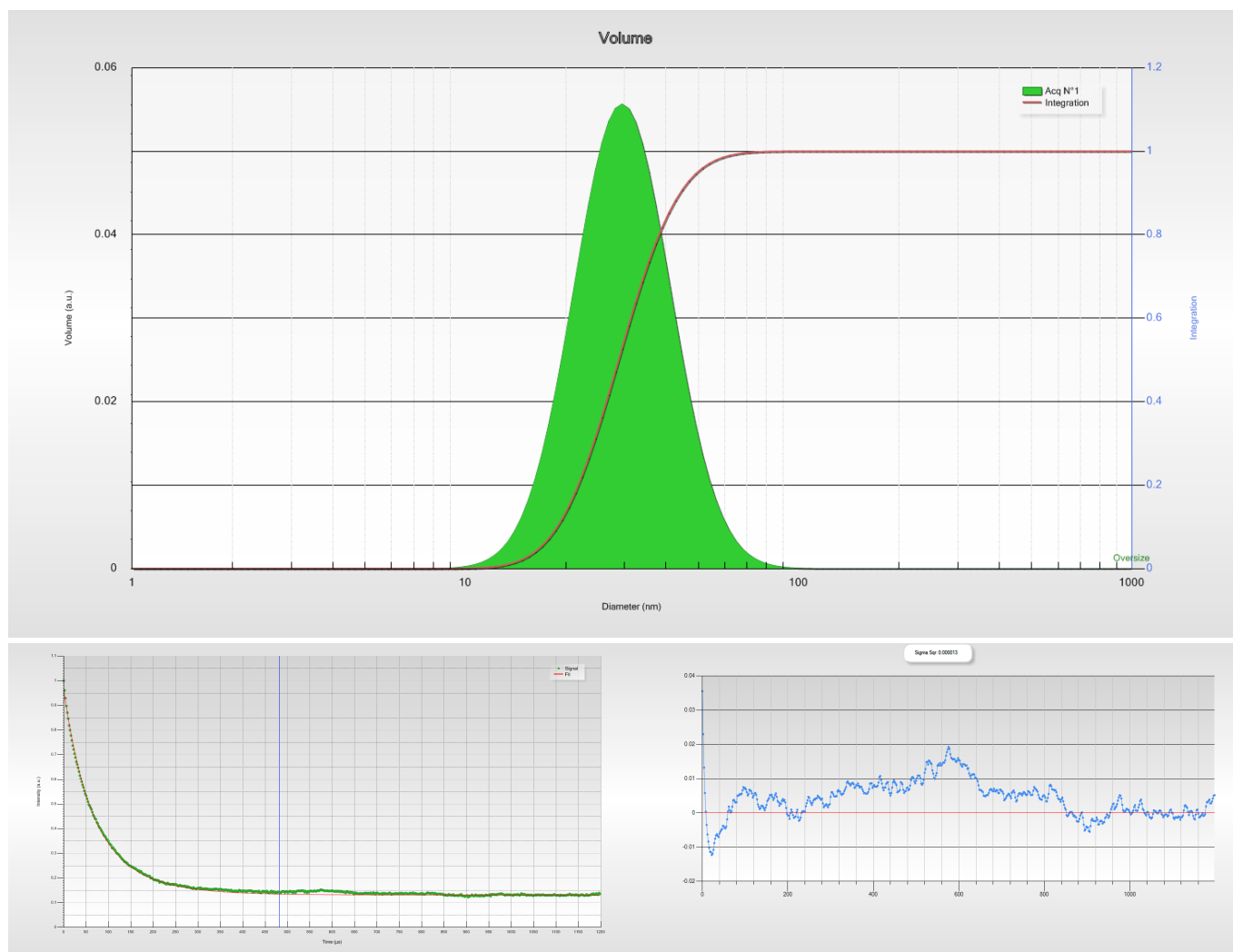
**Dn 50%:** 21.35 nm

**Dn 90%:** 32.36 nm

**Std Dev:** 33.8%

**Detected size(s)**

<b>Z average (nm)</b>	<b>Intensity</b>	<b>Decay Rate</b>	<b>Diffusion Coeff. (m<sup>2</sup>/s)</b>
34.49	0.83	7531.39	14.24817E-012



### Distribution statistics

**Dv 10%:** 19.46 nm  
**Mean Volume:** 31.17 nm  
**PDI** : 0.45711

**Dv 50%:** 29.5 nm

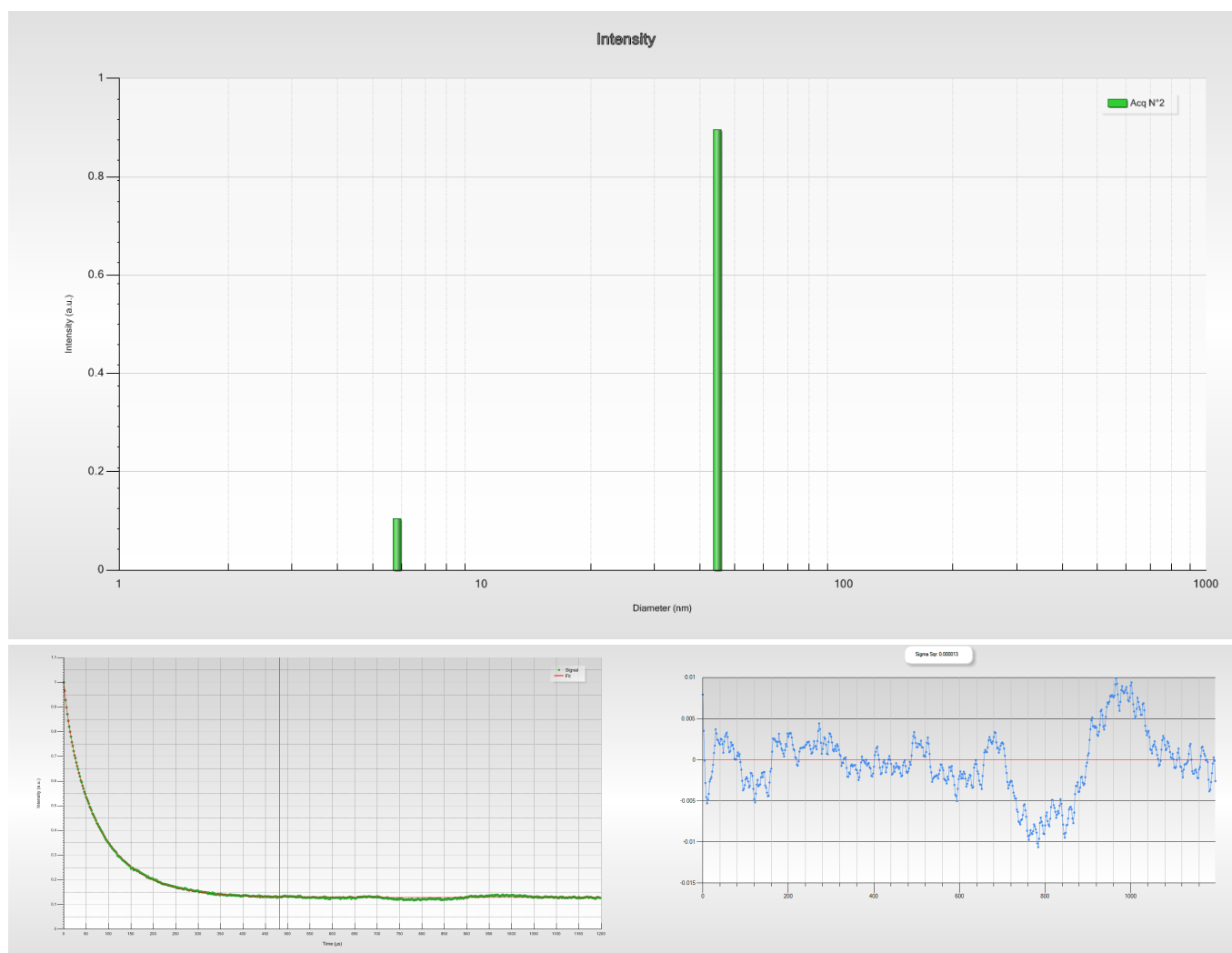
**Dv 90%:** 44.73 nm

**Std Dev:** 33.8%

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
34.49	0.83	7531.39	14.24817E-012





### Dispersion statistics

**Di 10%: 5.85 nm**  
**Mean Intensity: 40.7 nm**

**Di 50%: 44.73 nm**

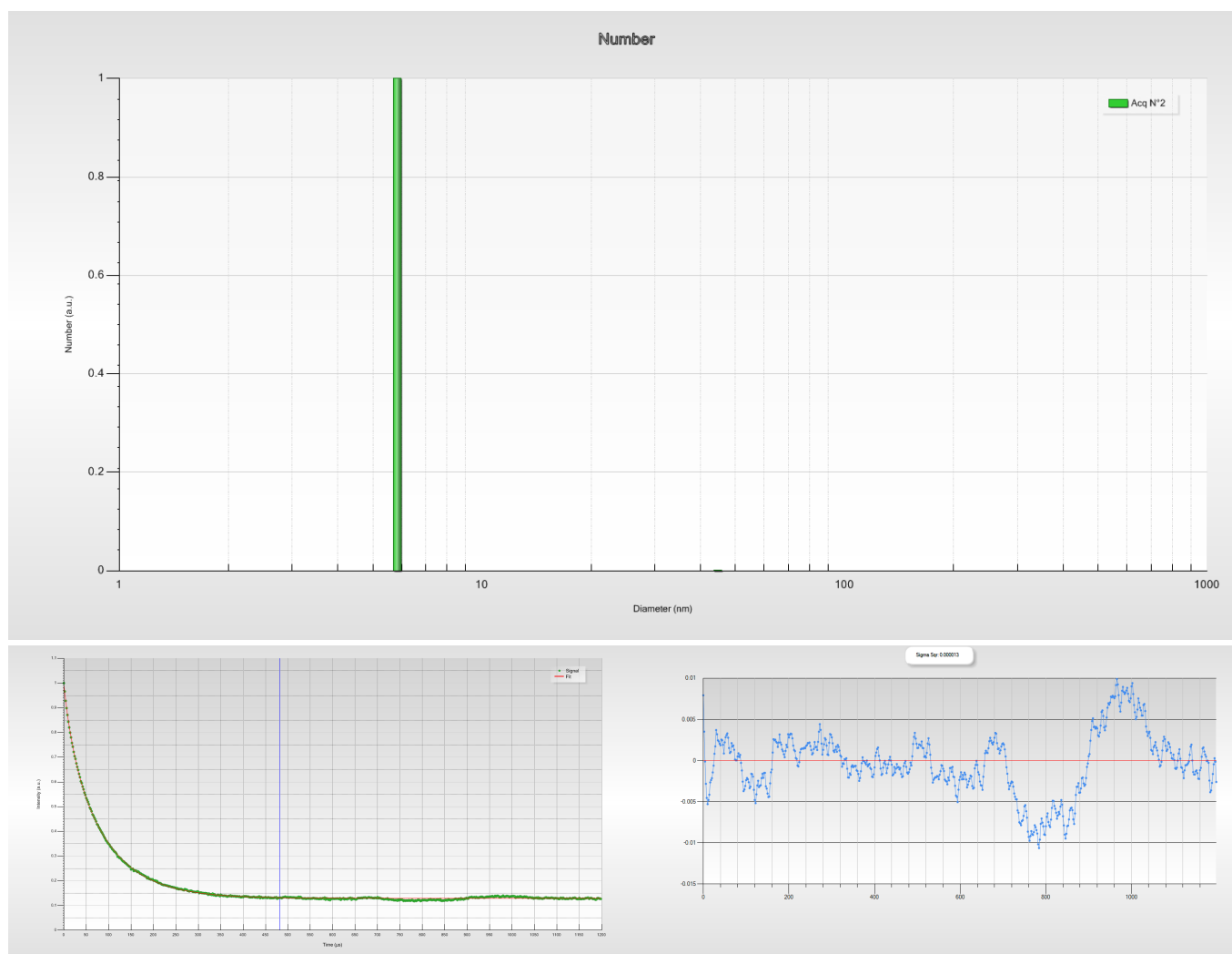
**Di 90%: 44.73 nm**

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
5.93	0.1	43828.15	82.91576E-012
45.52	0.83	5706.89	10.79652E-012

### Dispersion datas

Size (nm)	Intensity	Size (nm)	Intensity
5.85	0.1	44.73	0.9



### Dispersion statistics

**Dn 10%: 5.85 nm**  
**Mean Number: 5.85 nm**

**Dn 50%: 5.85 nm**

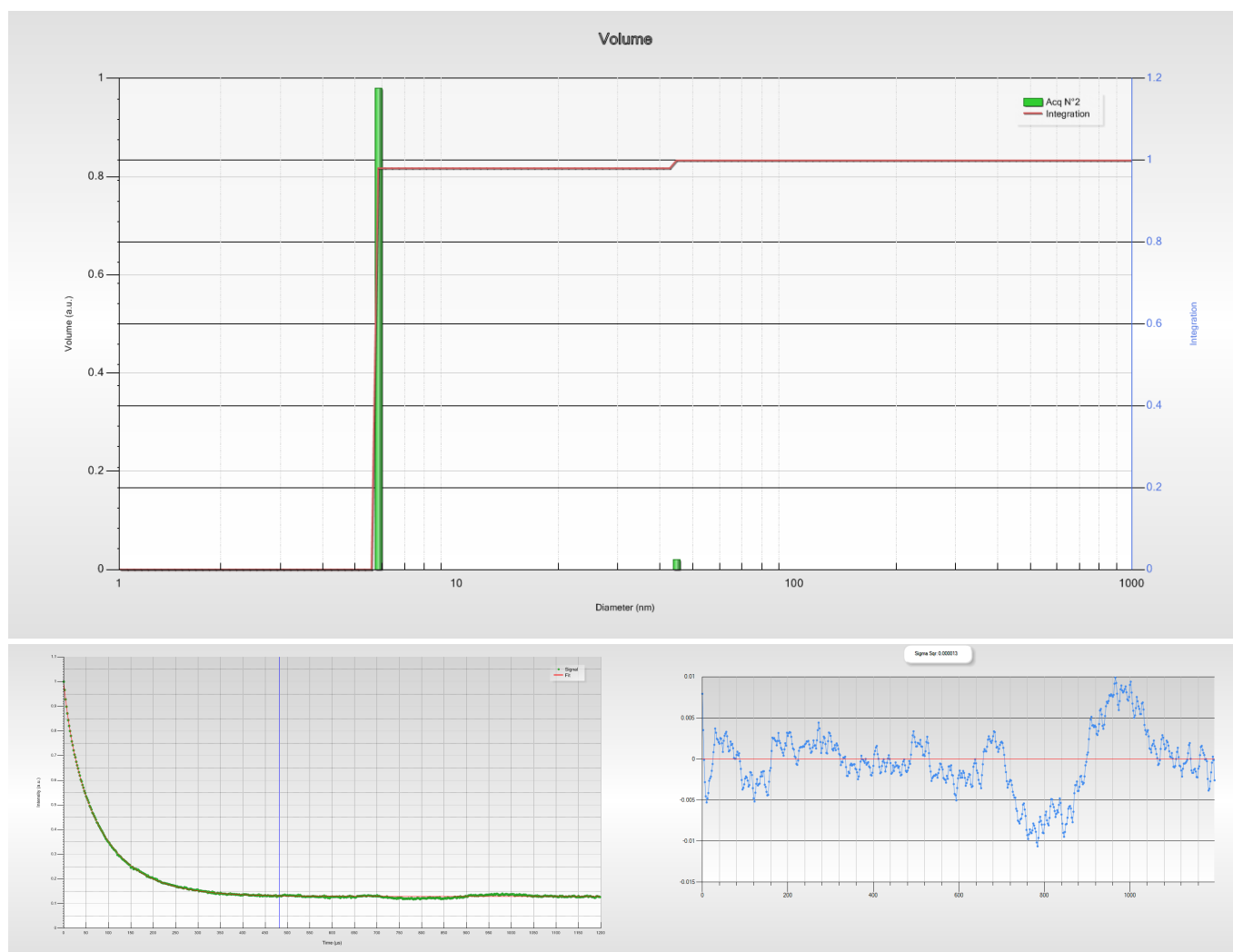
**Dn 90%: 5.85 nm**

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
5.93	0.1	43828.15	82.91576E-012
45.52	0.83	5706.89	10.79652E-012

### Dispersion datas

Size (nm)	Number
5.85	1



### Dispersion statistics

**Dv 10%: 5.85 nm**  
**Mean Volume: 6.6 nm**

**Dv 50%: 5.85 nm**

**Dv 90%: 5.85 nm**

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
5.93	0.1	43828.15	82.91576E-012
45.52	0.83	5706.89	10.79652E-012

### Dispersion datas

Size (nm)	Volume	Size (nm)	Volume
5.85	0.98	44.73	0.02



**Distribution statistics**

**Di 10%:** 28.17 nm  
**Mean Intensity:** 43.36 nm  
**PDI** : 0.38724

**Di 50%:** 40.78 nm

**Di 90%:** 61.83 nm

**Std Dev:** 31.11%

**Detected size(s)**

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
36.04	0.83	7208.96	13.63818E-012



**Distribution statistics**

**Dn 10%: 16.17 nm**  
**Mean Number: 24.96 nm**  
**PDI : 0.38724**

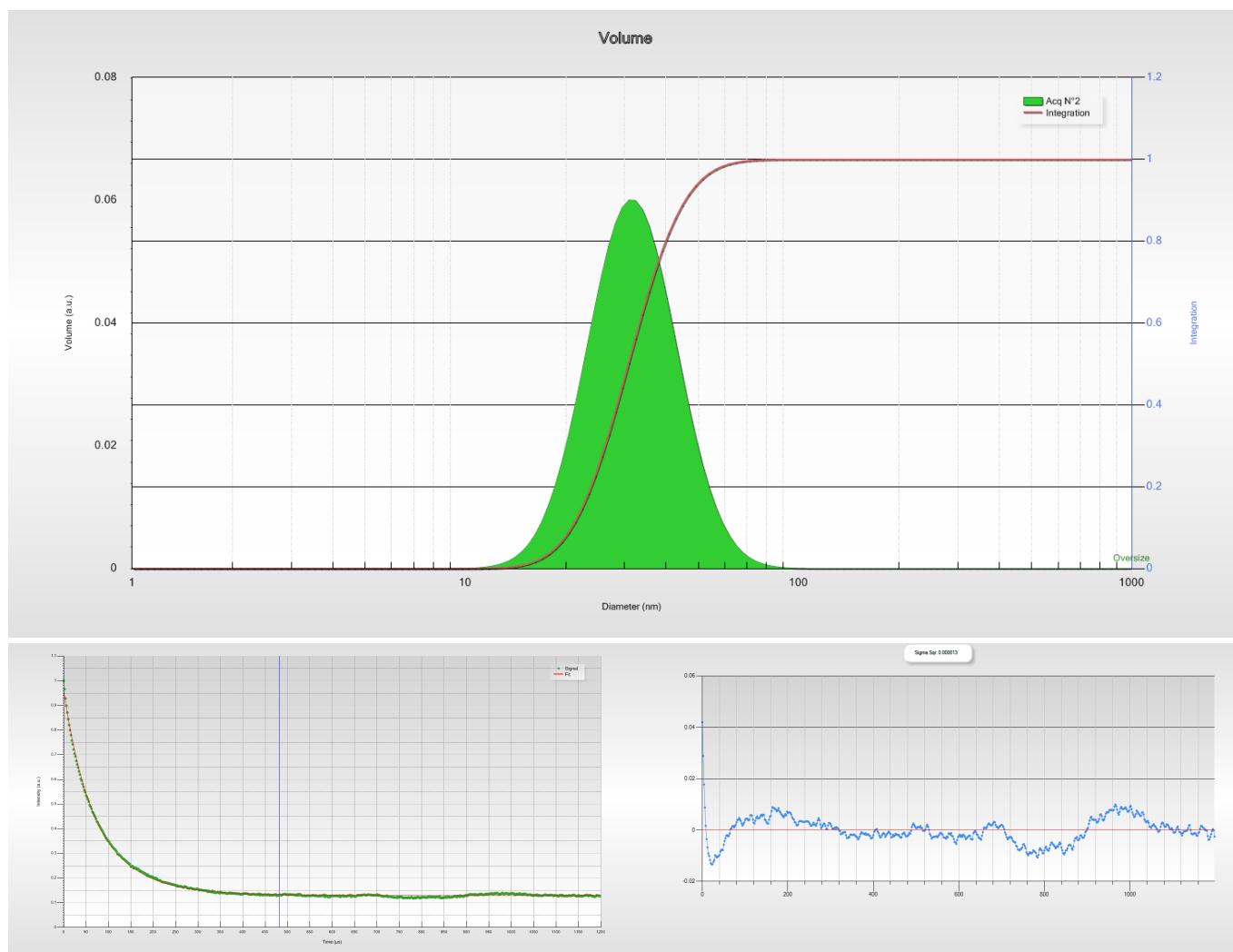
**Dn 50%: 23.41 nm**

**Dn 90%: 35.5 nm**

**Std Dev: 31.11%**

**Detected size(s)**

<b>Z average (nm)</b>	<b>Intensity</b>	<b>Decay Rate</b>	<b>Diffusion Coeff. (m²/s)</b>
36.04	0.83	7208.96	13.63818E-012



### Distribution statistics

**Dv 10%:** 21.35 nm  
**Mean Volume:** 33.08 nm  
**PDI** : 0.38724

**Dv 50%:** 30.9 nm

**Dv 90%:** 46.85 nm

**Std Dev:** 31.11%

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
36.04	0.83	7208.96	13.63818E-012



### Dispersion statistics

**Di 10%:** 42.71 nm  
**Mean Intensity:** 39.25 nm

**Di 50%:** 42.71 nm

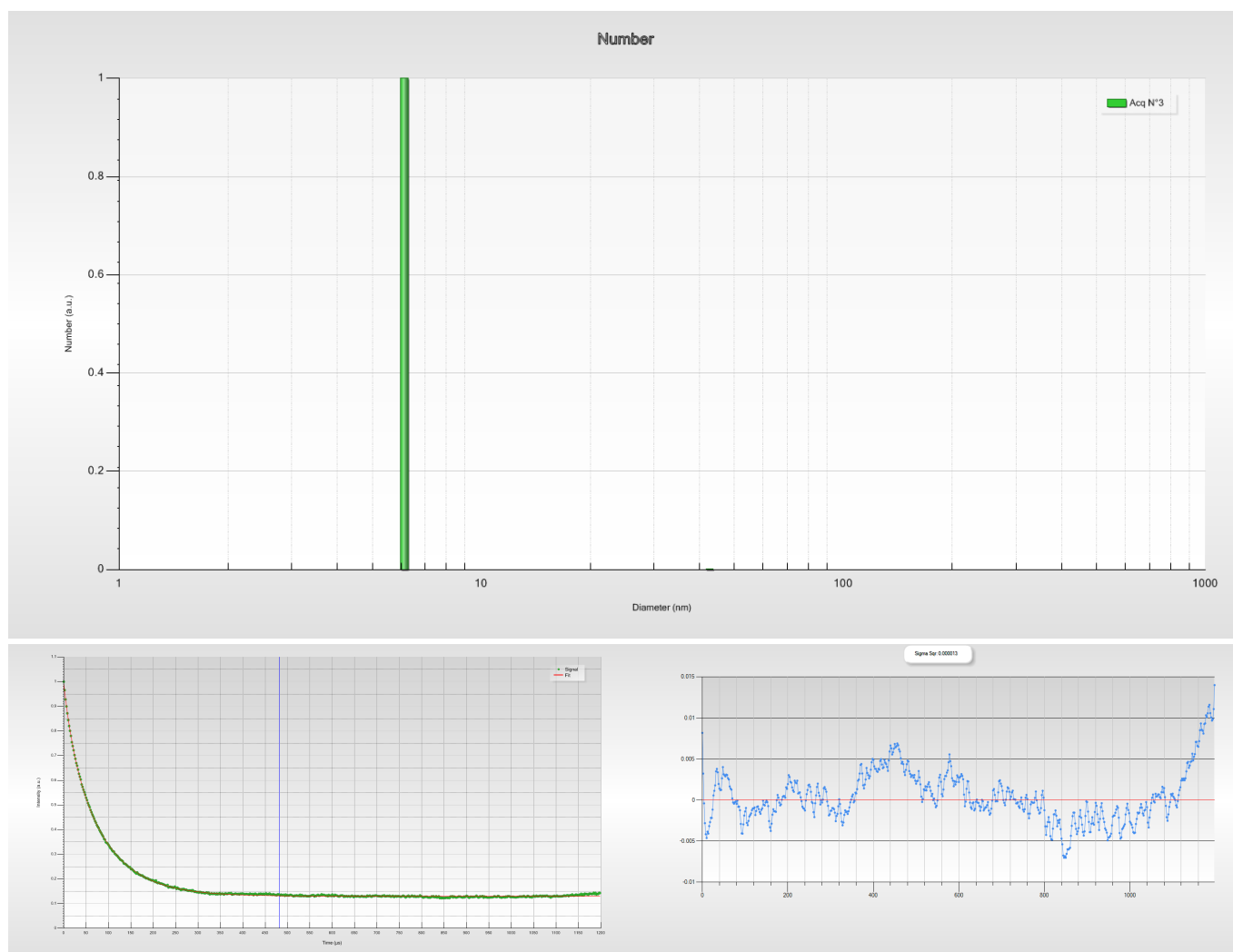
**Di 90%:** 42.71 nm

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
6.13	0.09	42392.52	80.19978E-012
42.45	0.84	6119.41	11.57694E-012

### Dispersion datas

Size (nm)	Intensity	Size (nm)	Intensity
6.13	0.09	42.71	0.91



### Dispersion statistics

**Dn 10%: 6.13 nm**  
**Mean Number: 6.13 nm**

**Dn 50%: 6.13 nm**

**Dn 90%: 6.13 nm**

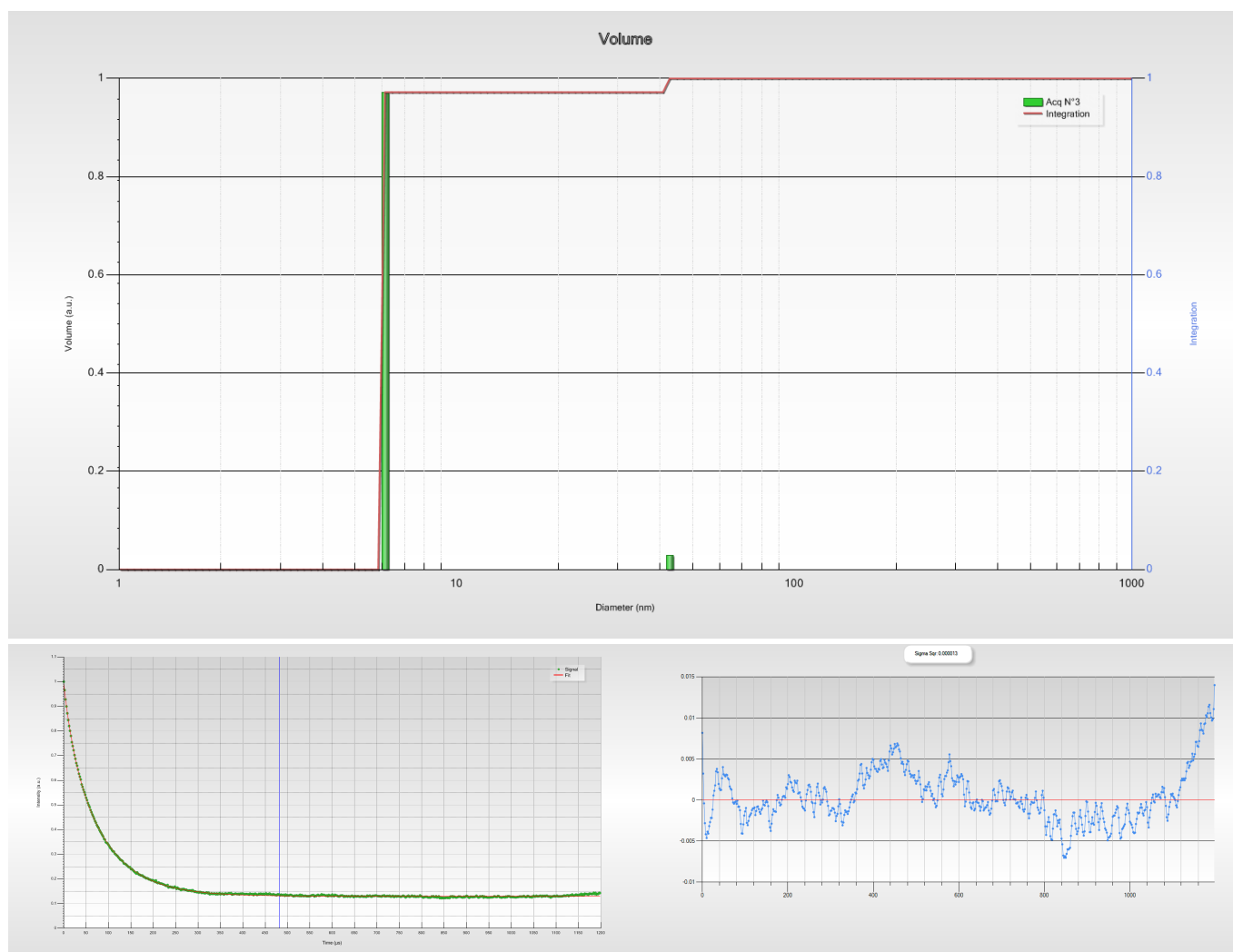
### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m²/s)
6.13	0.09	42392.52	80.19978E-012
42.45	0.84	6119.41	11.57694E-012

### Dispersion datas

Size (nm)	Number
6.13	1





### Dispersion statistics

**Dv 10%: 6.13 nm**  
**Mean Volume: 7.15 nm**

**Dv 50%: 6.13 nm**

**Dv 90%: 6.13 nm**

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
6.13	0.09	42392.52	80.19978E-012
42.45	0.84	6119.41	11.57694E-012

### Dispersion datas

Size (nm)	Volume	Size (nm)	Volume
6.13	0.97	42.71	0.03

**Distribution statistics**

**Di 10%:** 26.9 nm  
**Mean Intensity:** 40.71 nm  
**PDI** : 0.35552

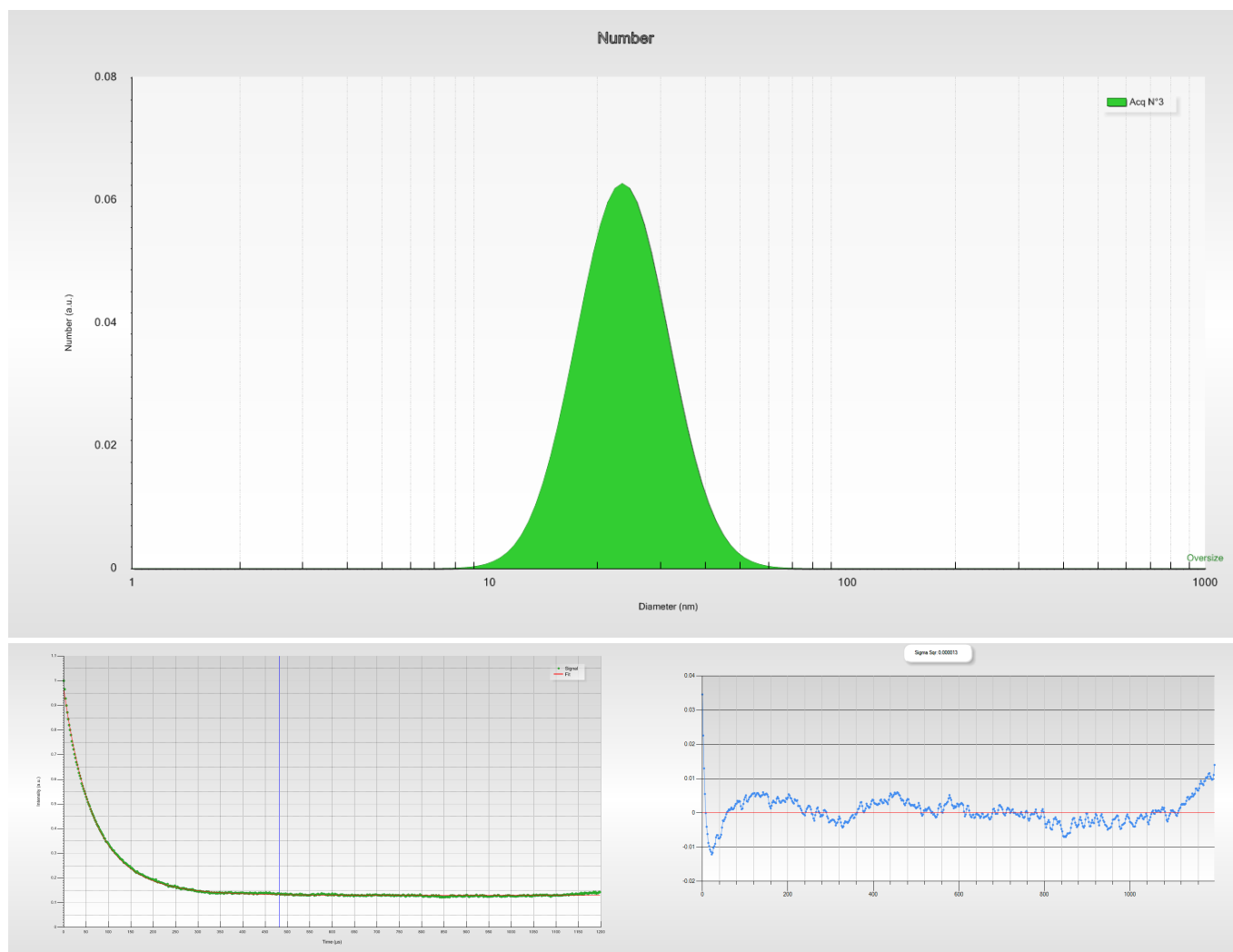
**Di 50%:** 38.94 nm

**Di 90%:** 56.36 nm

**Std Dev:** 29.81%

**Detected size(s)**

<b>Z average (nm)</b>	<b>Intensity</b>	<b>Decay Rate</b>	<b>Diffusion Coeff. (m²/s)</b>
34.32	0.84	7568.51	14.31839E-012



### Distribution statistics

**Dn 10%:** 16.17 nm  
**Mean Number:** 24.47 nm  
**PDI** : 0.35552

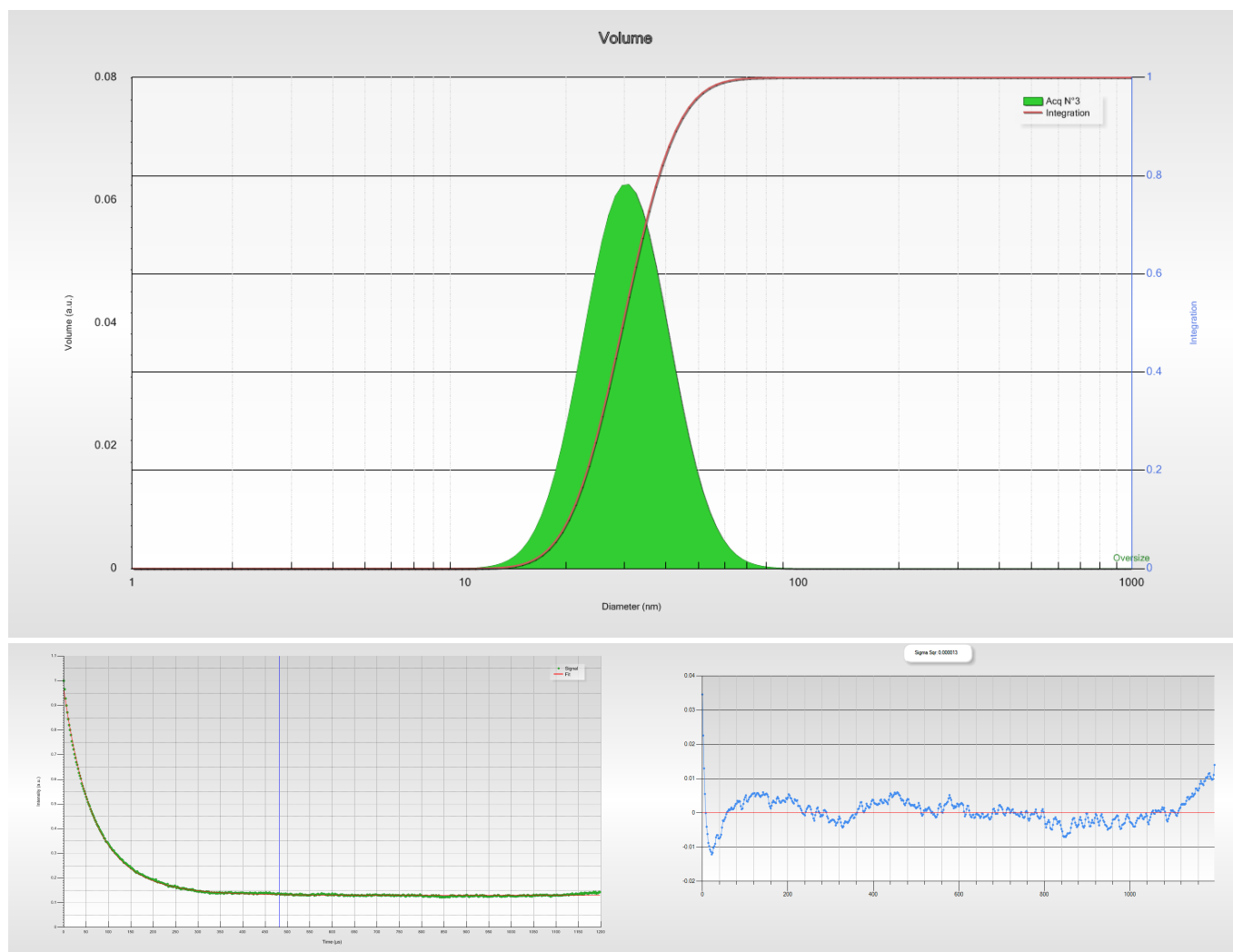
**Dn 50%:** 23.41 nm

**Dn 90%:** 33.89 nm

**Std Dev:** 29.81%

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
34.32	0.84	7568.51	14.31839E-012

**Distribution statistics**

**Dv 10%:** 20.38 nm  
**Mean Volume:** 31.72 nm  
**PDI** : 0.35552

**Dv 50%:** 30.9 nm

**Dv 90%:** 44.73 nm

**Std Dev:** 29.81%

**Detected size(s)**

<b>Z average (nm)</b>	<b>Intensity</b>	<b>Decay Rate</b>	<b>Diffusion Coeff. (m<sup>2</sup>/s)</b>
34.32	0.84	7568.51	14.31839E-012



### Dispersion statistics

**Di 10%: 28.17 nm**

**Di 50%: 28.17 nm**

**Di 90%: 129.55 nm**

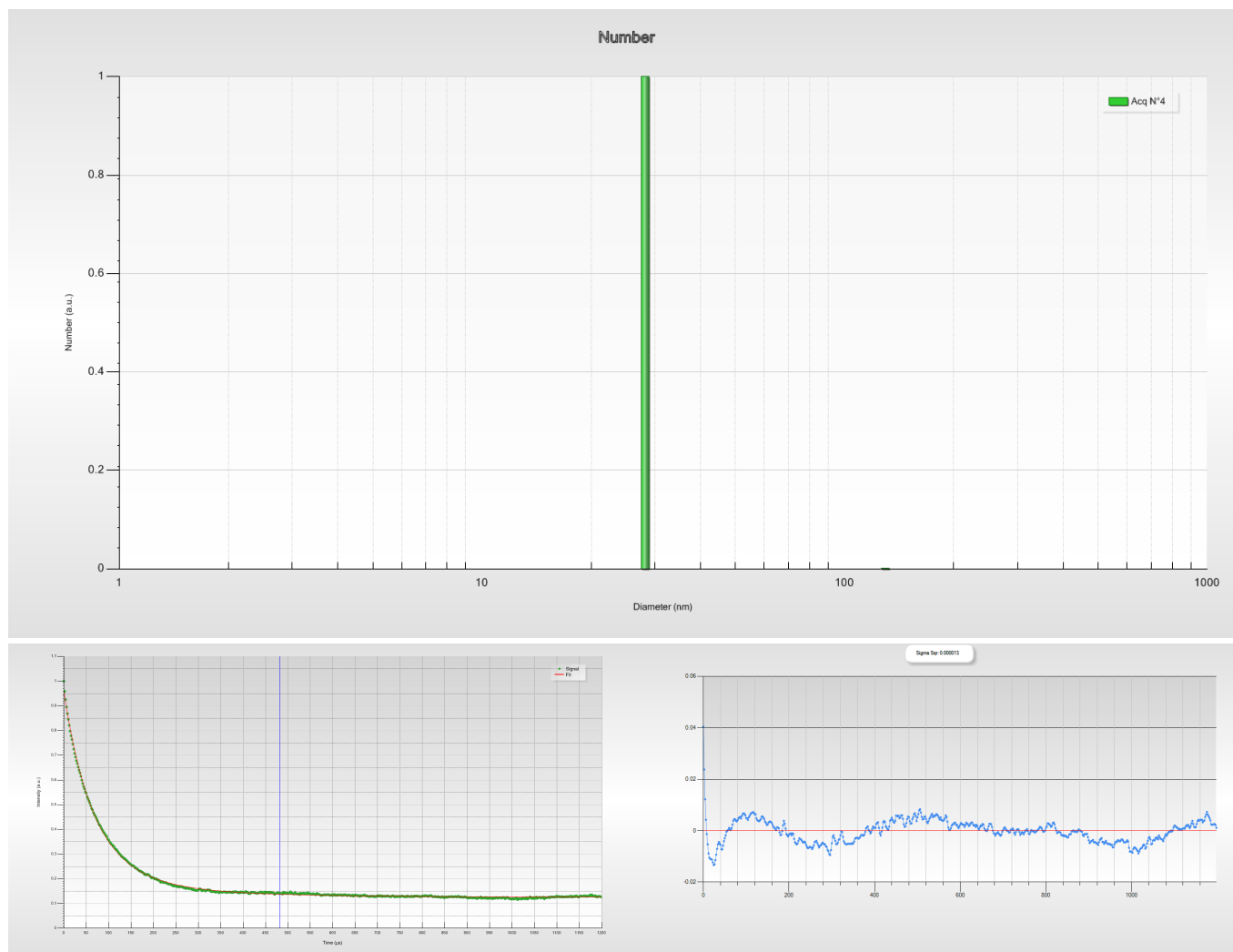
**Mean Intensity: 57.59 nm**

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
28.2	0.65	9211.85	17.42734E-012
130.65	0.26	1988.39	37.61706E-013

### Dispersion datas

Size (nm)	Intensity	Size (nm)	Intensity
28.17	0.71	129.55	0.29



### Dispersion statistics

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

**Dn 50%: 28.17 nm**

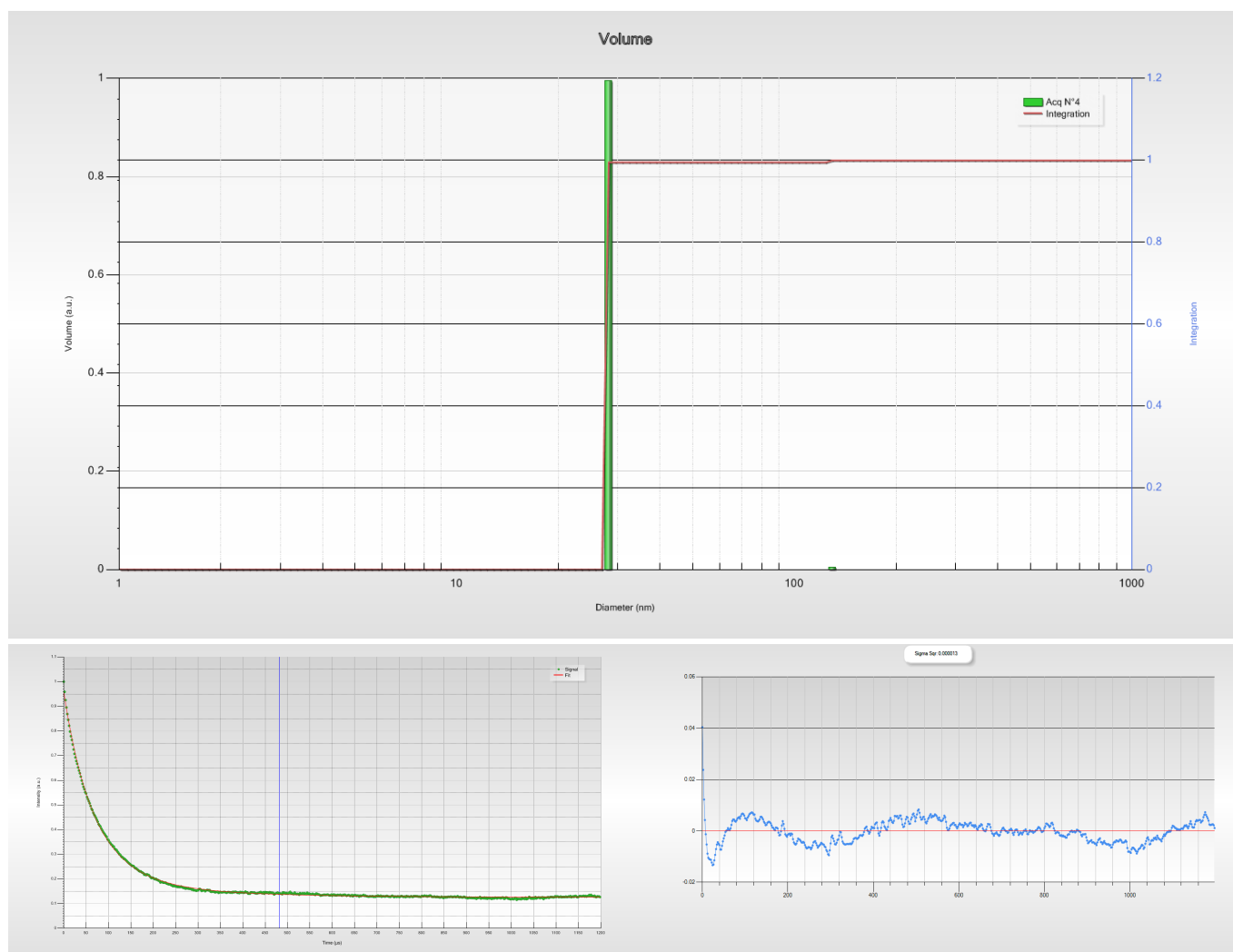
**Dn 90%: 28.17 nm**

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
28.2	0.65	9211.85	17.42734E-012
130.65	0.26	1988.39	37.61706E-013

### Dispersion datas

Size (nm)	Number
28.17	1



### Dispersion statistics

**Dv 10%: 28.17 nm**  
**Mean Volume: 28.68 nm**

**Dv 50%: 28.17 nm**

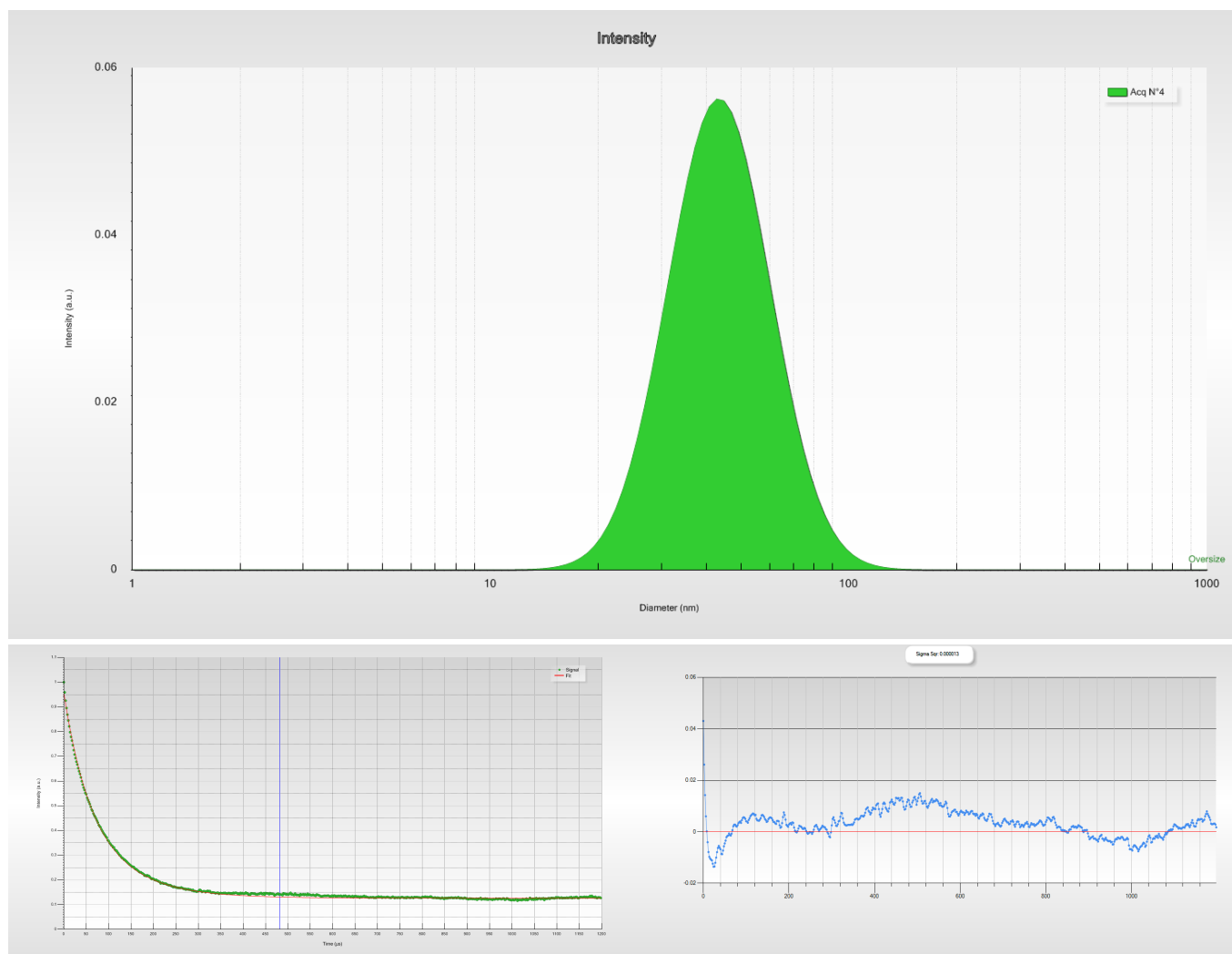
**Dv 90%: 28.17 nm**

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
28.2	0.65	9211.85	17.42734E-012
130.65	0.26	1988.39	37.61706E-013

### Dispersion datas

Size (nm)	Volume	Size (nm)	Volume
28.17	0.99	129.55	0.01

**Distribution statistics**

**Di 10%:** 28.17 nm  
**Mean Intensity:** 45.72 nm  
**PDI** : 0.45291

**Di 50%:** 42.71 nm

**Di 90%:** 64.75 nm

**Std Dev:** 33.65%

**Detected size(s)**

<b>Z average (nm)</b>	<b>Intensity</b>	<b>Decay Rate</b>	<b>Diffusion Coeff. (m<sup>2</sup>/s)</b>
36.88	0.83	7043.3	13.32478E-012



**Distribution statistics**

**Dn 10%:** 14.75 nm  
**Mean Number:** 24.08 nm  
**PDI** : 0.45291

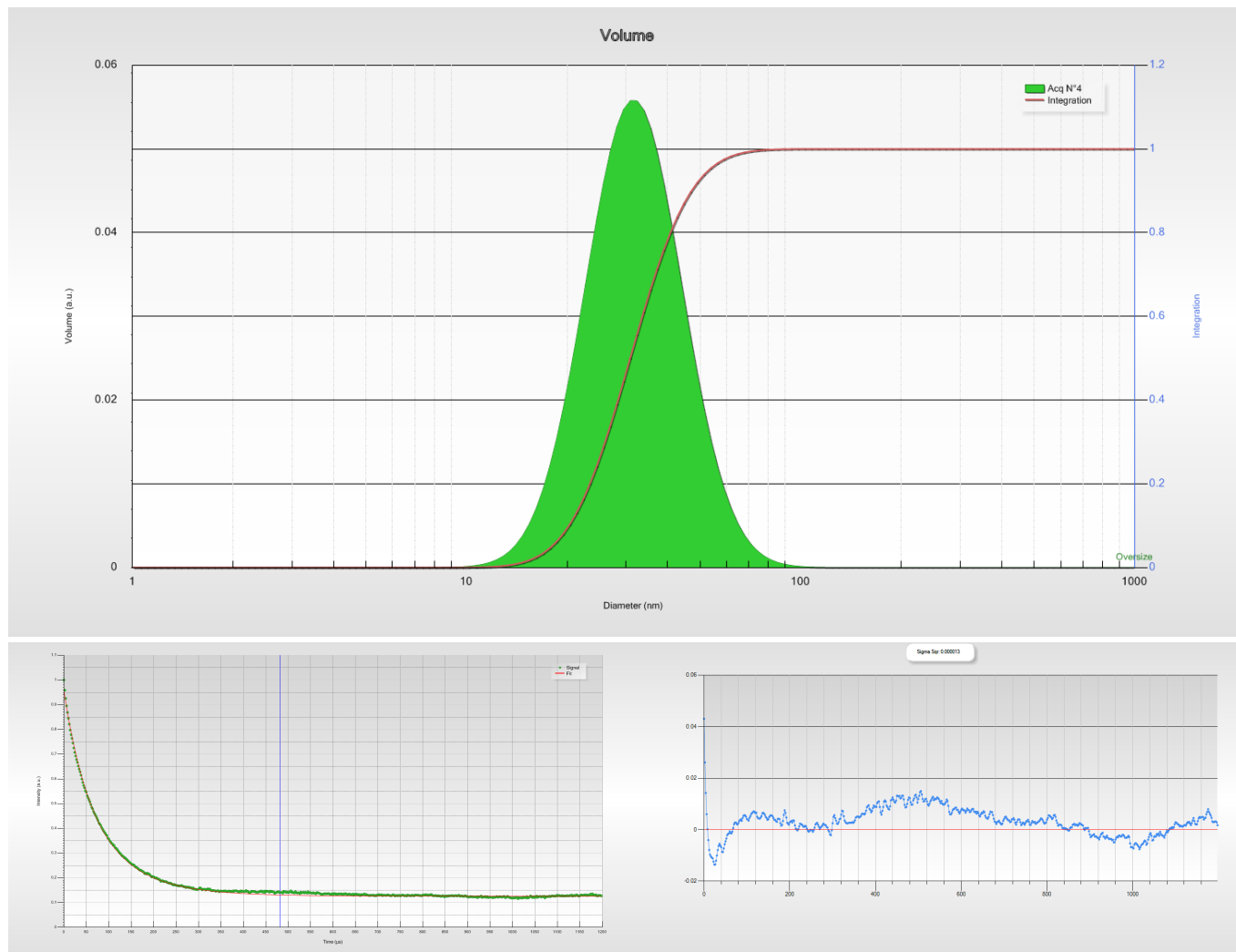
**Dn 50%:** 22.36 nm

**Dn 90%:** 35.5 nm

**Std Dev:** 33.65%

**Detected size(s)**

<b>Z average (nm)</b>	<b>Intensity</b>	<b>Decay Rate</b>	<b>Diffusion Coeff. (m<sup>2</sup>/s)</b>
36.88	0.83	7043.3	13.32478E-012



### Distribution statistics

**Dv 10%:** 20.38 nm  
**Mean Volume:** 33.38 nm  
**PDI** : 0.45291

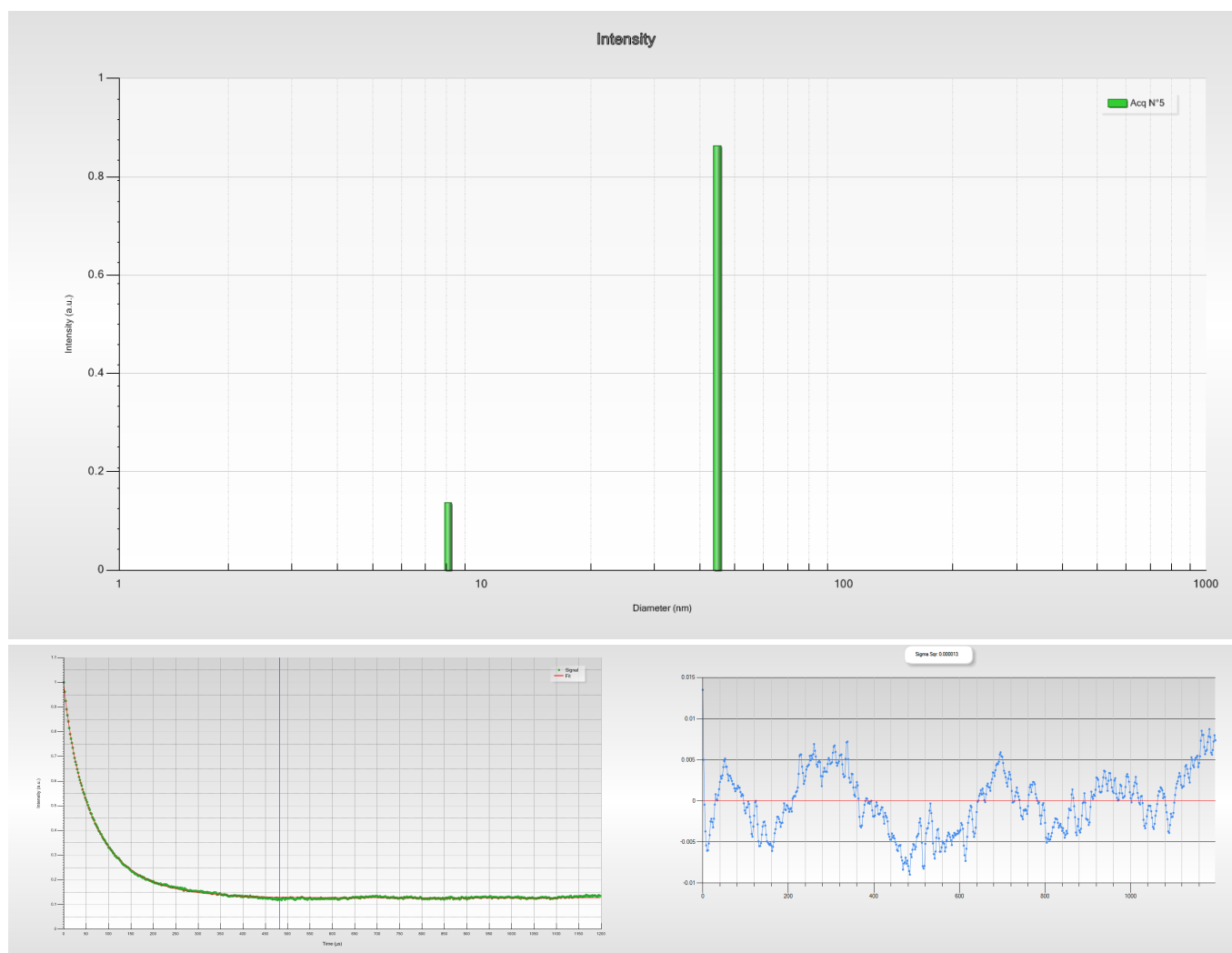
**Dv 50%:** 30.9 nm

**Dv 90%:** 49.06 nm

**Std Dev:** 33.65%

### Detected size(s)

Z average (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
36.88	0.83	7043.3	13.32478E-012



### Dispersion statistics

**Di 10%: 8.08 nm**  
**Mean Intensity: 39.71 nm**

**Di 50%: 44.73 nm**

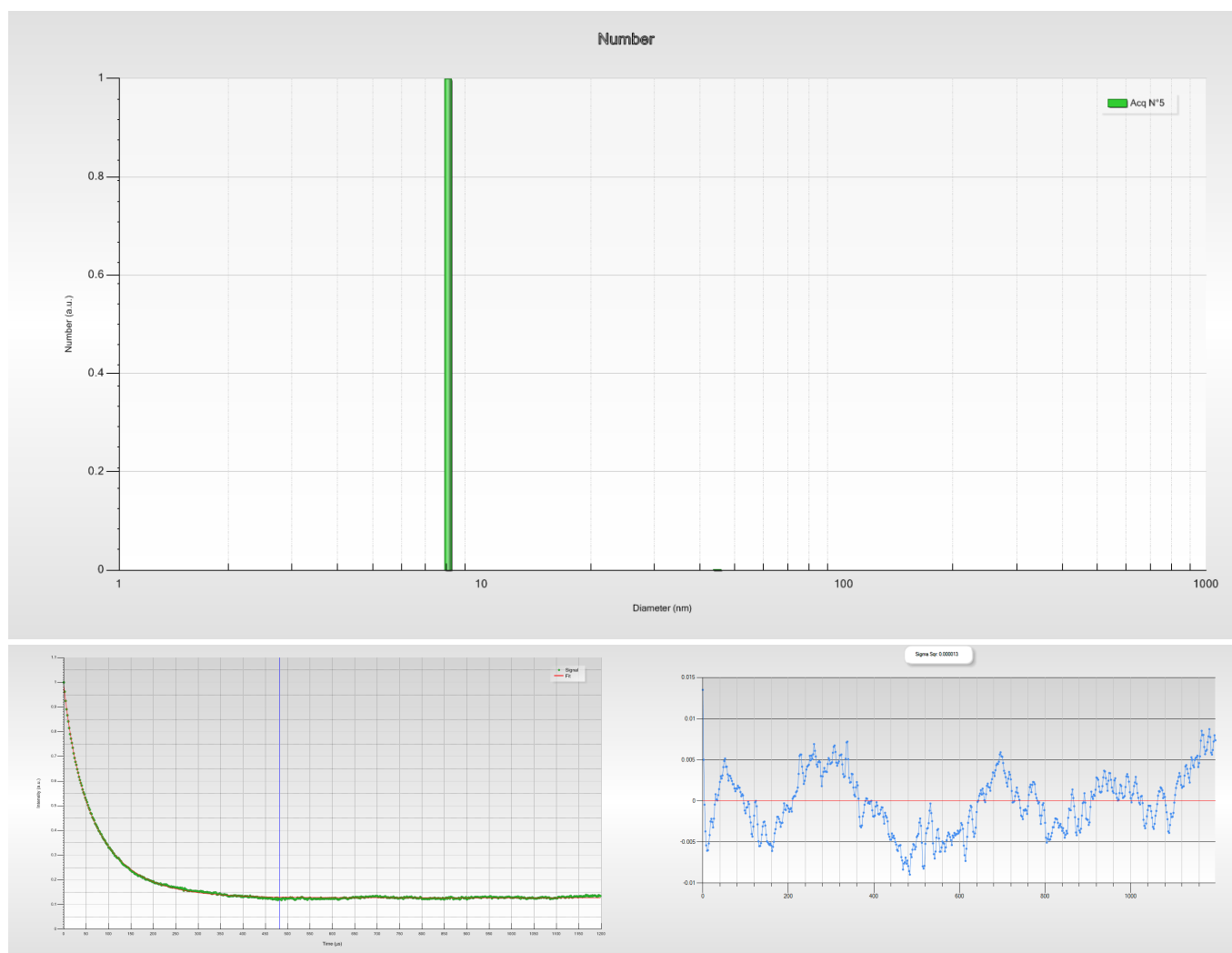
**Di 90%: 44.73 nm**

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m <sup>2</sup> /s)
8.01	0.13	32428.81	61.35005E-012
45.27	0.8	5738.81	10.8569E-012

### Dispersion datas

Size (nm)	Intensity	Size (nm)	Intensity
8.08	0.14	44.73	0.86



### Dispersion statistics

**Dn 10%: 8.08 nm**  
**Mean Number: 8.09 nm**

**Dn 50%: 8.08 nm**

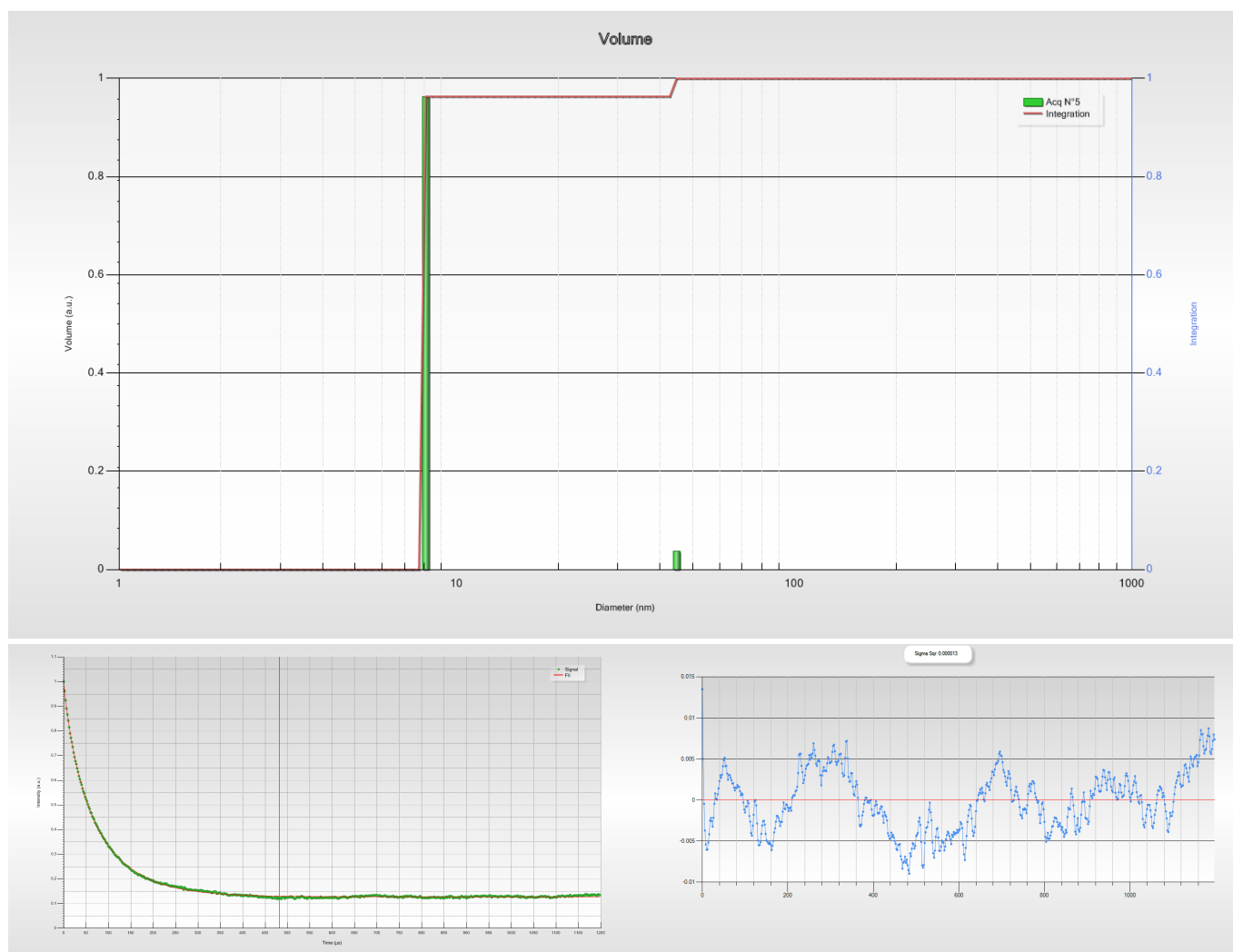
**Dn 90%: 8.08 nm**

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m²/s)
8.01	0.13	32428.81	61.35005E-012
45.27	0.8	5738.81	10.8569E-012

### Dispersion datas

Size (nm)	Number
8.08	1



### Dispersion statistics

**Dv 10%: 8.08 nm**  
**Mean Volume: 9.43 nm**

**Dv 50%: 8.08 nm**

**Dv 90%: 8.08 nm**

### Detected size(s)

Size (nm)	Intensity	Decay Rate	Diffusion Coeff. (m²/s)
8.01	0.13	32428.81	61.35005E-012
45.27	0.8	5738.81	10.8569E-012

### Dispersion datas

Size (nm)	Volume	Size (nm)	Volume
8.08	0.96	44.73	0.04



**Distribution statistics**

**Di 10%: 25.68 nm**  
**Mean Intensity: 41.31 nm**  
**PDI : 0.44023**

**Di 50%: 38.94 nm**

**Di 90%: 59.03 nm**

**Std Dev: 33.17%**

**Detected size(s)**

<b>Z average (nm)</b>	<b>Intensity</b>	<b>Decay Rate</b>	<b>Diffusion Coeff. (m²/s)</b>
33.51	0.84	7751.58	14.66473E-012

**Distribution statistics**

**Dn 10%:** 14.08 nm  
**Mean Number:** 22.12 nm  
**PDI** : 0.44023

**Dn 50%:** 21.35 nm

**Dn 90%:** 32.36 nm

**Std Dev:** 33.17%

**Detected size(s)**

<b>Z average (nm)</b>	<b>Intensity</b>	<b>Decay Rate</b>	<b>Diffusion Coeff. (m<sup>2</sup>/s)</b>
33.51	0.84	7751.58	14.66473E-012



**Distribution statistics**

**Dv 10%:** 18.58 nm  
**Mean Volume:** 30.39 nm  
**PDI** : 0.44023

**Dv 50%:** 28.17 nm

**Dv 90%:** 44.73 nm

**Std Dev:** 33.17%

**Detected size(s)**

<b>Z average (nm)</b>	<b>Intensity</b>	<b>Decay Rate</b>	<b>Diffusion Coeff. (m²/s)</b>
33.51	0.84	7751.58	14.66473E-012