

## Bead 2401

Date : Mon Oct 17 13:53:18 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

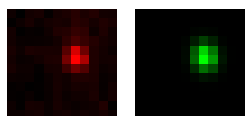
Coordinates : -159  $\mu\text{m}$  (x), 65.5  $\mu\text{m}$  (y), 36.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

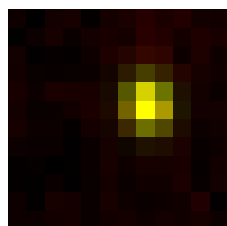
FWHM	Non corrected	Corrected	Theoretical
min	428 nm	446 nm	270 nm
max	512 nm	533 nm	270 nm
z	2.1 $\mu\text{m}$	2.11 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.837		
Theta	-80.5°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.932$



Parameters:

A = 229.119 (brightness)

B = 114.164 (background)

a = 0.727 px

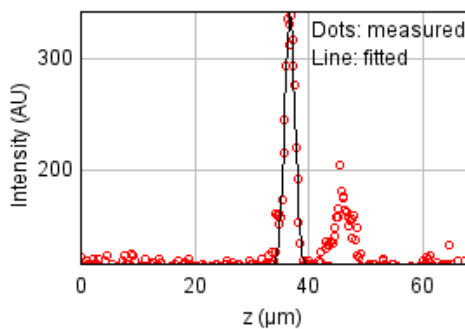
b = -0.036 px

c = 0.519 px

xc = 7.131 px

yc = 4.700 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 66431.1098

Standard deviation: 14.71013

$R^2$ : 0.84178

Parameters:

a = 114.59820

b = 341.87602

c = 36.74355

d = 0.89079

## Bead 2402

Date : Mon Oct 17 13:53:18 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

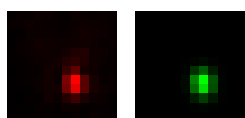
Coordinates : 7.9  $\mu\text{m}$  (x), 49.7  $\mu\text{m}$  (y), 46.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

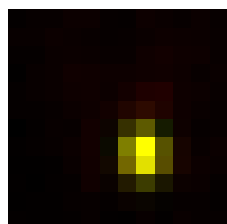
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	397 nm	270 nm
max	478 nm	498 nm	270 nm
z	1.93 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.798		
Theta	-83.8°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.966$



Parameters:

A = 881.664 (brightness)

B = 128.328 (background)

a = 0.919 px

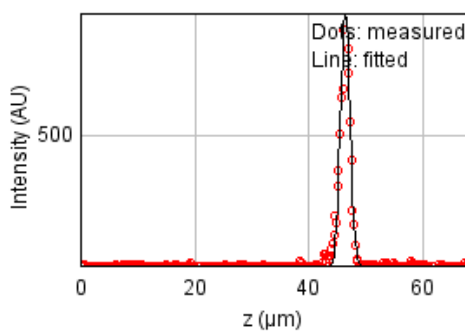
b = -0.036 px

c = 0.591 px

xc = 6.897 px

yc = 7.382 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 57144.8950

Standard deviation: 13.64330

$R^2$ : 0.98401

Parameters:

a = 114.59329

b = 860.25454

c = 46.44885

d = 0.82043

## Bead 2403

Date : Mon Oct 17 13:53:18 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

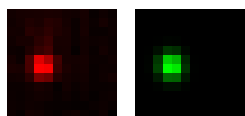
Coordinates : -137  $\mu\text{m}$  (x), 45.5  $\mu\text{m}$  (y), 25.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

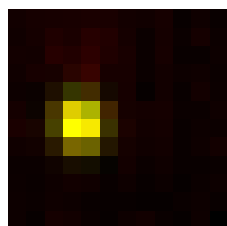
FWHM	Non corrected	Corrected	Theoretical
min	428 nm	446 nm	270 nm
max	489 nm	509 nm	270 nm
z	2.29 $\mu\text{m}$	2.3 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.877		
Theta	-81.5°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.954$



Parameters:

$A = 414.207$  (brightness)

$B = 118.588$  (background)

$a = 0.728$  px

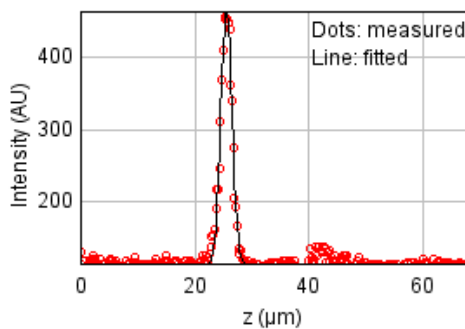
$b = -0.025$  px

$c = 0.566$  px

$x_c = 3.428$  px

$y_c = 5.710$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 23412.3857

Standard deviation: 8.73280

$R^2: 0.97524$

Parameters:

$a = 113.14058$

$b = 465.00350$

$c = 25.63454$

$d = 0.97397$

## Bead 2404 (Rejected)

Date : Mon Oct 17 13:53:19 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : -57.8  $\mu\text{m}$  (x), 29.9  $\mu\text{m}$  (y), 46.4  $\mu\text{m}$  (z)

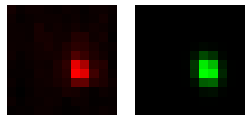
Corresponding bead : Not found

Reason of rejection : The fitted bead is likely to be a different bead from the center bead.

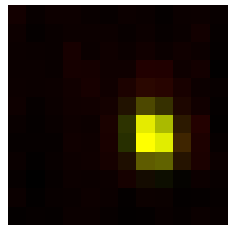
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	402 nm	270 nm
max	501 nm	521 nm	270 nm
z	3.23 $\mu\text{m}$	3.24 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.771		
Theta	-77.1°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.960$



Parameters:

A = 512.751 (brightness)

B = 120.904 (background)

a = 0.882 px

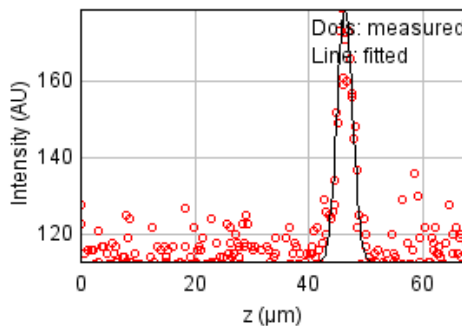
b = -0.079 px

c = 0.554 px

xc = 7.424 px

yc = 6.635 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 14581.6704

Standard deviation: 6.89183

$R^2$ : 0.75267

Parameters:

a = 112.61262

b = 178.41481

c = 46.37853

d = 1.37024

## Bead 2405

Date : Mon Oct 17 13:53:19 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

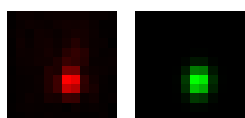
Coordinates : 67.0  $\mu\text{m}$  (x), -28.3  $\mu\text{m}$  (y), 46.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

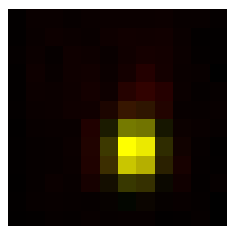
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	427 nm	270 nm
max	520 nm	541 nm	270 nm
z	2.13 $\mu\text{m}$	2.14 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.789		
Theta	86.8°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.952$



Parameters:

$A = 689.154$  (brightness)

$B = 125.461$  (background)

$a = 0.797$  px

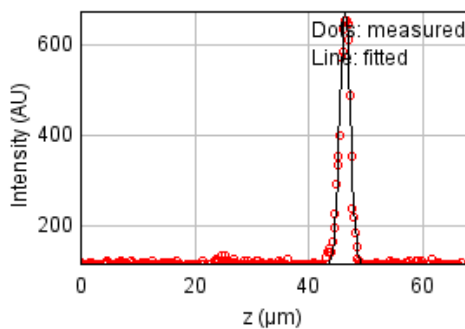
$b = 0.017$  px

$c = 0.498$  px

$x_c = 6.438$  px

$y_c = 7.227$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 38907.5432

Standard deviation: 11.25765

$R^2: 0.98249$

Parameters:

$a = 114.47100$

$b = 675.29489$

$c = 46.41931$

$d = 0.90423$

## Bead 2406

Date : Mon Oct 17 13:53:19 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

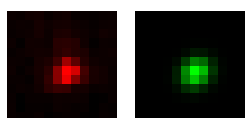
Coordinates : -84.9  $\mu\text{m}$  (x), -71.2  $\mu\text{m}$  (y), 46.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

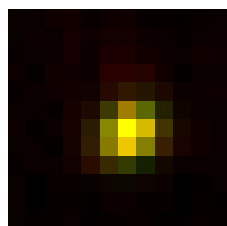
FWHM	Non corrected	Corrected	Theoretical
min	494 nm	515 nm	270 nm
max	570 nm	594 nm	270 nm
z	2.12 $\mu\text{m}$	2.13 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.867		
Theta	42.6°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.957$



Parameters:

$A = 482.318$  (brightness)

$B = 121.761$  (background)

$a = 0.475$  px

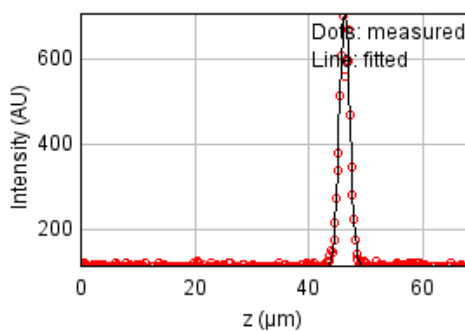
$b = 0.068$  px

$c = 0.487$  px

$x_c = 6.130$  px

$y_c = 6.227$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 61108.8874

Standard deviation: 14.10857

$R^2: 0.97565$

Parameters:

$a = 112.21973$

$b = 707.22443$

$c = 46.33944$

$d = 0.90087$

## Bead 2407

Date : Mon Oct 17 13:53:19 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

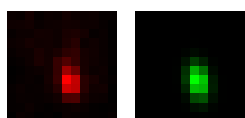
Coordinates : 77.5  $\mu\text{m}$  (x), 79.9  $\mu\text{m}$  (y), 46.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

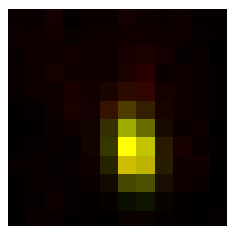
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	400 nm	270 nm
max	641 nm	668 nm	270 nm
z	1.98 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.598		
Theta	-80.0°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.953$



Parameters:

A = 542.242 (brightness)

B = 124.700 (background)

a = 0.893 px

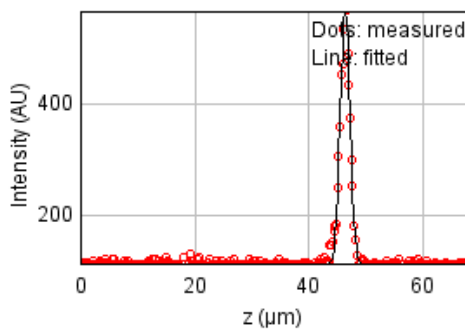
b = -0.100 px

c = 0.344 px

xc = 6.372 px

yc = 7.174 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 19225.8291

Standard deviation: 7.91359

$R^2$ : 0.98579

Parameters:

a = 113.16144

b = 566.81463

c = 46.41756

d = 0.84164

## Bead 2408

Date : Mon Oct 17 13:53:19 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

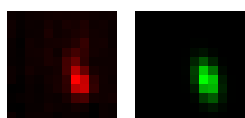
Coordinates : 108  $\mu\text{m}$  (x), 49.8  $\mu\text{m}$  (y), 46.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

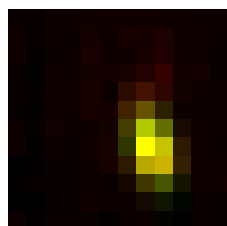
FWHM	Non corrected	Corrected	Theoretical
min	377 nm	393 nm	270 nm
max	691 nm	720 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.545		
Theta	-74.8°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.939$



Parameters:

A = 528.271 (brightness)

B = 118.534 (background)

a = 0.899 px

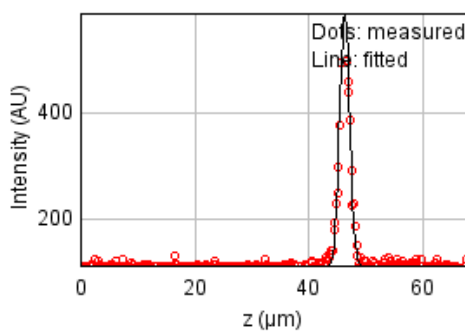
b = -0.168 px

c = 0.327 px

$x_c = 7.360$  px

$y_c = 7.041$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 36663.6760

Standard deviation: 10.92820

$R^2$ : 0.97599

Parameters:

a = 112.76090

b = 588.20850

c = 46.33830

d = 0.85684



## Bead 2409

Date : Mon Oct 17 13:53:19 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

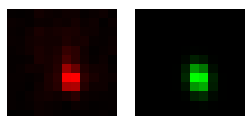
Coordinates : 78.2  $\mu\text{m}$  (x), 36.6  $\mu\text{m}$  (y), 46.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

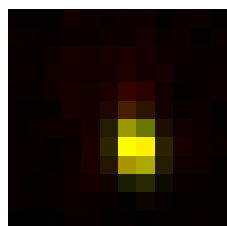
FWHM	Non corrected	Corrected	Theoretical
min	369 nm	384 nm	270 nm
max	513 nm	534 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.719		
Theta	-78.3°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.947$



Parameters:

A = 518.996 (brightness)

B = 122.123 (background)

a = 0.968 px

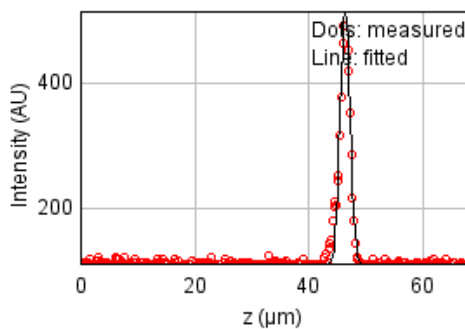
b = -0.095 px

c = 0.530 px

$x_c = 6.477$  px

$y_c = 7.079$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 29149.8438

Standard deviation: 9.74426

$R^2$ : 0.97316

Parameters:

a = 112.68427

b = 512.59887

c = 46.42666

d = 0.85882

## Bead 2410

Date : Mon Oct 17 13:53:19 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

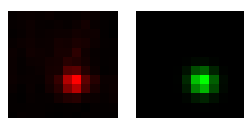
Coordinates : 57.6  $\mu\text{m}$  (x), 26.0  $\mu\text{m}$  (y), 47.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

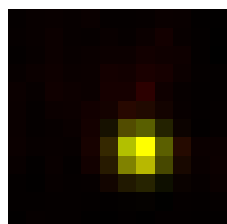
FWHM	Non corrected	Corrected	Theoretical
min	445 nm	463 nm	270 nm
max	466 nm	486 nm	270 nm
z	1.92 $\mu\text{m}$	1.92 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.954		
Theta	-34.6°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.959$



Parameters:

A = 860.056 (brightness)

B = 134.784 (background)

a = 0.637 px

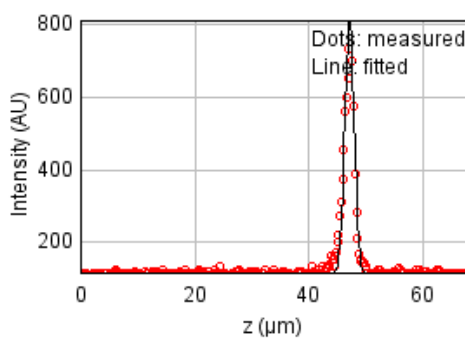
b = -0.028 px

c = 0.658 px

xc = 6.735 px

yc = 7.237 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 104691.273

Standard deviation: 18.46656

$R^2$ : 0.96729

Parameters:

a = 115.13652

b = 817.52916

c = 47.19115

d = 0.81345

## Bead 2411 (Rejected)

Date : Mon Oct 17 13:53:20 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : -164  $\mu\text{m}$  (x), 17.8  $\mu\text{m}$  (y), 45.8  $\mu\text{m}$  (z)

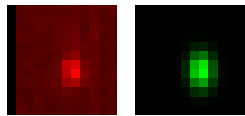
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

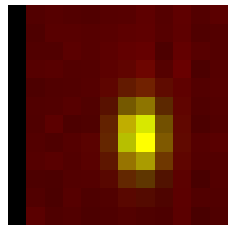
FWHM	Non corrected	Corrected	Theoretical
min	447 nm	466 nm	270 nm
max	676 nm	704 nm	270 nm
z	2.13 $\mu\text{m}$	2.13 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.662		
Theta	-89.3°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.530$



Parameters:

A = 228.627 (brightness)

B = 100.964 (background)

a = 0.671 px

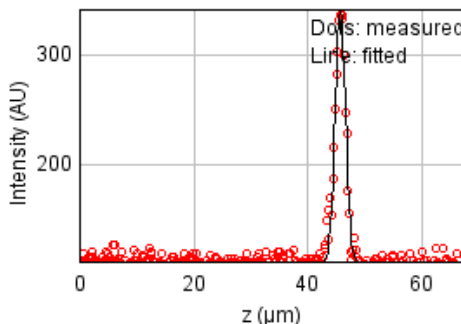
b = -0.004 px

c = 0.294 px

xc = 6.714 px

yc = 6.662 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 14770.4568

Standard deviation: 6.93630

$R^2$ : 0.96065

Parameters:

a = 112.05480

b = 340.20179

c = 45.75937

d = 0.90254

## Bead 2412 (Rejected)

Date : Mon Oct 17 13:53:20 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : 8.8  $\mu\text{m}$  (x), -19.2  $\mu\text{m}$  (y), 43.1  $\mu\text{m}$  (z)

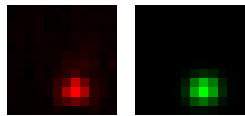
Corresponding bead : Not found

Reason of rejection : The fitted bead is likely to be a different bead from the center bead.

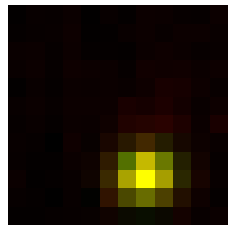
FWHM	Non corrected	Corrected	Theoretical
min	474 nm	493 nm	270 nm
max	540 nm	563 nm	270 nm
z	3.16 $\mu\text{m}$	3.17 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.876		
Theta	10.3°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.954$



Parameters:

A = 423.447 (brightness)

B = 122.153 (background)

a = 0.464 px

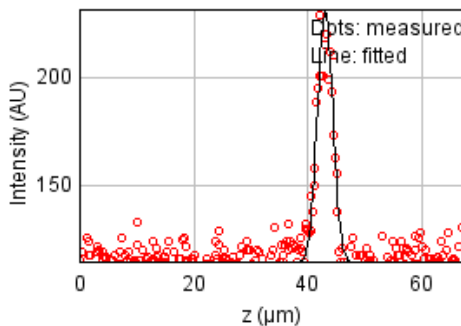
b = 0.024 px

c = 0.594 px

xc = 6.998 px

yc = 8.775 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 19041.5955

Standard deviation: 7.87558

$R^2$ : 0.87968

Parameters:

a = 114.08542

b = 231.74840

c = 43.08967

d = 1.34243

## Bead 2413

Date : Mon Oct 17 13:53:20 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

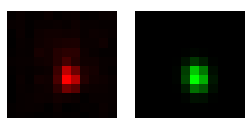
Coordinates : -112  $\mu\text{m}$  (x), -29.5  $\mu\text{m}$  (y), 46.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

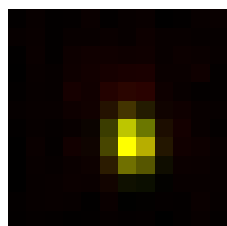
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	413 nm	270 nm
max	503 nm	524 nm	270 nm
z	2.28 $\mu\text{m}$	2.29 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.789		
Theta	-78.6°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.958$



Parameters:

A = 716.959 (brightness)

B = 126.083 (background)

a = 0.839 px

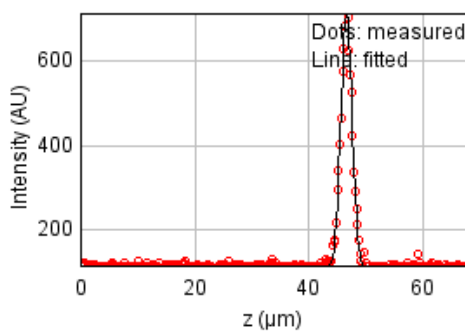
b = -0.062 px

c = 0.542 px

xc = 6.254 px

yc = 6.765 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 25339.2918

Standard deviation: 9.08507

$R^2$ : 0.99062

Parameters:

a = 111.95225

b = 713.30166

c = 46.66793

d = 0.96703

## Bead 2414

Date : Mon Oct 17 13:53:20 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

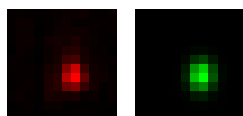
Coordinates : -38.6  $\mu\text{m}$  (x), -30.2  $\mu\text{m}$  (y), 46.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

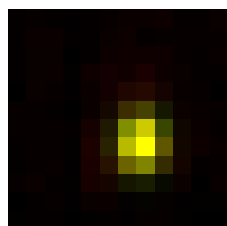
FWHM	Non corrected	Corrected	Theoretical
min	437 nm	455 nm	270 nm
max	548 nm	571 nm	270 nm
z	2.05 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.797		
Theta	86.3°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.969$



Parameters:

A = 598.809 (brightness)

B = 122.359 (background)

a = 0.702 px

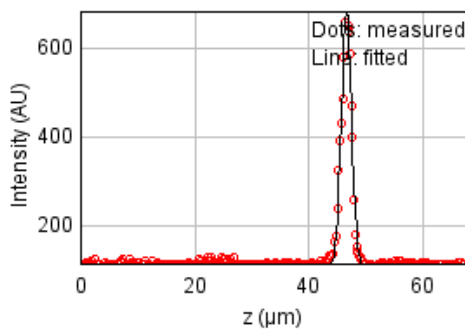
b = 0.016 px

c = 0.448 px

xc = 6.730 px

yc = 6.771 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 27691.2662

Standard deviation: 9.49735

$R^2$ : 0.98723

Parameters:

a = 114.73446

b = 680.68840

c = 46.65789

d = 0.86903

## Bead 2415

Date : Mon Oct 17 13:53:20 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

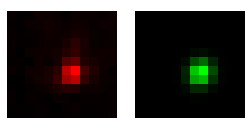
Coordinates : -91.4  $\mu\text{m}$  (x), -40.0  $\mu\text{m}$  (y), 46.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

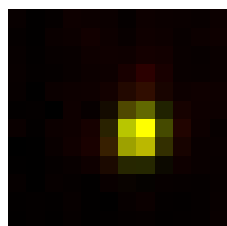
FWHM	Non corrected	Corrected	Theoretical
min	417 nm	435 nm	270 nm
max	477 nm	497 nm	270 nm
z	1.87 $\mu\text{m}$	1.87 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.875		
Theta	70.0°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.956$



Parameters:

A = 646.588 (brightness)

B = 124.788 (background)

a = 0.749 px

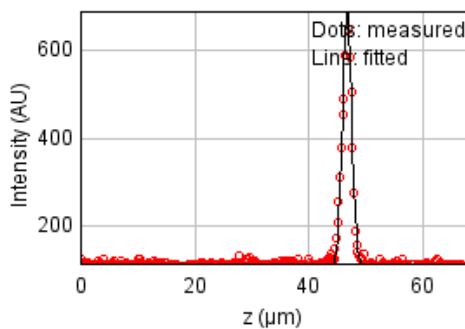
b = 0.058 px

c = 0.611 px

xc = 6.650 px

yc = 6.267 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 31138.2697

Standard deviation: 10.07113

$R^2$ : 0.98501

Parameters:

a = 114.02597

b = 692.24328

c = 46.76905

d = 0.79264

## Bead 2416

Date : Mon Oct 17 13:53:20 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

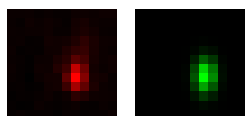
Coordinates : 148  $\mu\text{m}$  (x), -44.3  $\mu\text{m}$  (y), 46.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

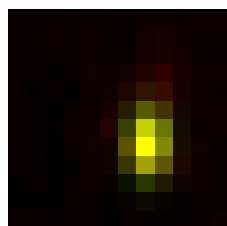
FWHM	Non corrected	Corrected	Theoretical
min	393 nm	409 nm	270 nm
max	642 nm	668 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.612		
Theta	88.5°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.954$



Parameters:

$A = 419.600$  (brightness)

$B = 117.007$  (background)

$a = 0.870$  px

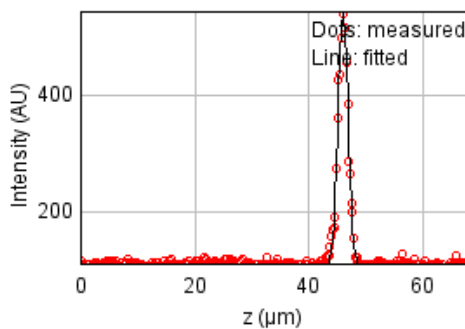
$b = 0.015$  px

$c = 0.326$  px

$x_c = 7.149$  px

$y_c = 6.791$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 18901.0482

Standard deviation: 7.84646

$R^2: 0.98506$

Parameters:

$a = 111.20550$

$b = 545.67054$

$c = 46.06518$

$d = 0.85809$



## Bead 2417

Date : Mon Oct 17 13:53:20 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

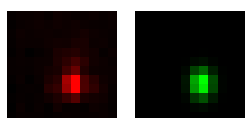
Coordinates : 90.4  $\mu\text{m}$  (x), -47.1  $\mu\text{m}$  (y), 46.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

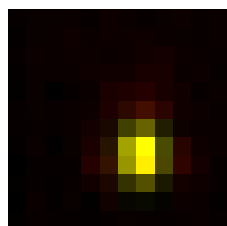
FWHM	Non corrected	Corrected	Theoretical
min	401 nm	417 nm	270 nm
max	515 nm	536 nm	270 nm
z	2.01 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.778		
Theta	-89.0°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.941$



Parameters:

$A = 728.914$  (brightness)

$B = 128.793$  (background)

$a = 0.836$  px

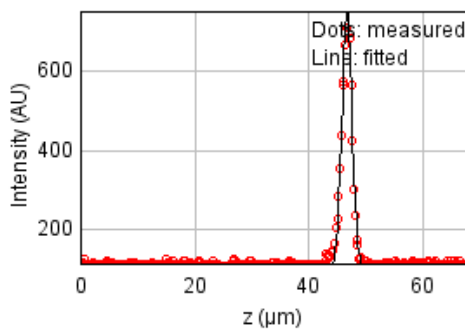
$b = -0.006$  px

$c = 0.506$  px

$x_c = 6.770$  px

$y_c = 7.425$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 37311.2900

Standard deviation: 11.02430

$R^2: 0.98643$

Parameters:

$a = 112.13152$

$b = 754.95701$

$c = 46.75403$

$d = 0.85299$

## Bead 2418

Date : Mon Oct 17 13:53:20 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

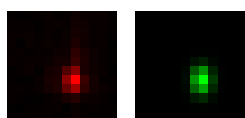
Coordinates : 23.5  $\mu\text{m}$  (x), -59.7  $\mu\text{m}$  (y), 46.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

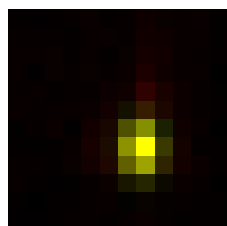
FWHM	Non corrected	Corrected	Theoretical
min	362 nm	377 nm	270 nm
max	512 nm	534 nm	270 nm
z	2.04 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.706		
Theta	89.1°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.957$



Parameters:

A = 728.644 (brightness)

B = 125.435 (background)

a = 1.025 px

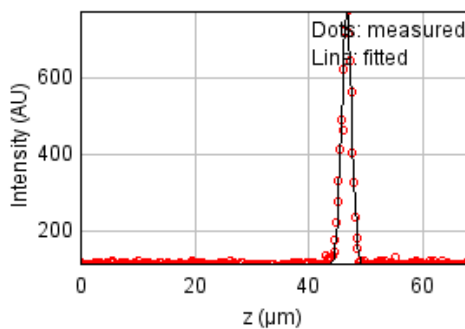
b = 0.008 px

c = 0.511 px

$x_c = 6.774$  px

$y_c = 7.065$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 43844.9275

Standard deviation: 11.95062

$R^2$ : 0.98504

Parameters:

a = 114.05447

b = 772.52559

c = 46.70171

d = 0.86575

## Bead 2419

Date : Mon Oct 17 13:53:20 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

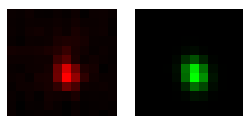
Coordinates : -116  $\mu\text{m}$  (x), -70.2  $\mu\text{m}$  (y), 46.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

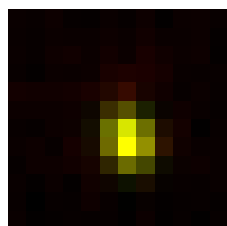
FWHM	Non corrected	Corrected	Theoretical
min	423 nm	440 nm	270 nm
max	540 nm	562 nm	270 nm
z	2.24 $\mu\text{m}$	2.24 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.784		
Theta	-72.7°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.962$



Parameters:

A = 494.417 (brightness)

B = 120.919 (background)

a = 0.725 px

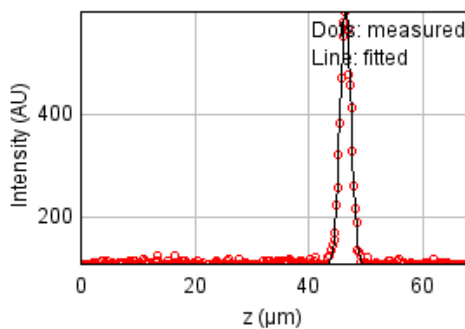
b = -0.082 px

c = 0.486 px

$x_c = 6.063$  px

$y_c = 6.616$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 15611.9291

Standard deviation: 7.13114

$R^2$ : 0.99104

Parameters:

a = 111.22697

b = 598.76226

c = 46.51448

d = 0.94928

## Bead 2420

Date : Mon Oct 17 13:53:20 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

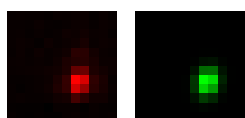
Coordinates : -23.9  $\mu\text{m}$  (x), -71.0  $\mu\text{m}$  (y), 46.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

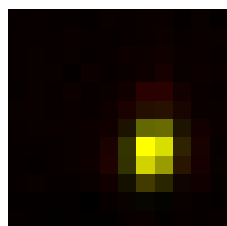
FWHM	Non corrected	Corrected	Theoretical
min	389 nm	405 nm	270 nm
max	506 nm	527 nm	270 nm
z	2.11 $\mu\text{m}$	2.12 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.769		
Theta	76.9°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.970$



Parameters:

A = 835.978 (brightness)

B = 126.908 (background)

a = 0.868 px

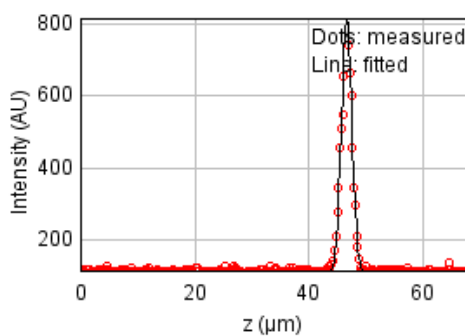
b = 0.080 px

c = 0.544 px

$x_c = 7.396$  px

$y_c = 7.263$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 29519.8358

Standard deviation: 9.80591

$R^2$ : 0.99138

Parameters:

a = 113.69347

b = 816.29113

c = 46.69838

d = 0.89609

## Bead 2421

Date : Mon Oct 17 13:53:20 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

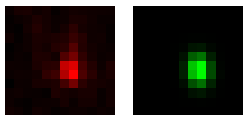
Coordinates : 154  $\mu\text{m}$  (x), -73.0  $\mu\text{m}$  (y), 45.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

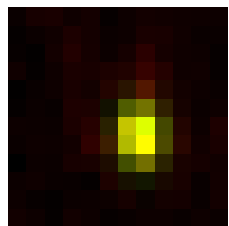
FWHM	Non corrected	Corrected	Theoretical
min	419 nm	436 nm	270 nm
max	577 nm	601 nm	270 nm
z	2.08 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.725		
Theta	-86.3°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.923$



Parameters:

$A = 272.898$  (brightness)

$B = 115.397$  (background)

$a = 0.765$  px

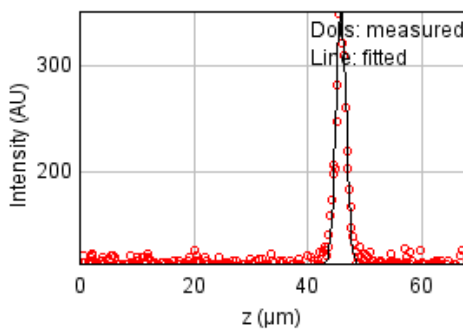
$b = -0.023$  px

$c = 0.405$  px

$x_c = 6.681$  px

$y_c = 6.468$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 20342.6834

Standard deviation: 8.14020

$R^2: 0.95177$

Parameters:

$a = 111.07414$

$b = 354.05618$

$c = 45.87381$

$d = 0.88502$

## Bead 2422

Date : Mon Oct 17 13:53:20 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

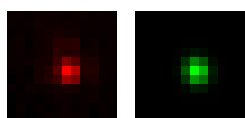
Coordinates : -103  $\mu\text{m}$  (x), -76.5  $\mu\text{m}$  (y), 46.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

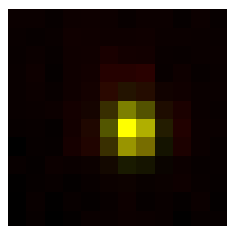
FWHM	Non corrected	Corrected	Theoretical
min	425 nm	443 nm	270 nm
max	470 nm	490 nm	270 nm
z	2.1 $\mu\text{m}$	2.11 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.904		
Theta	-75.8°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.948$



Parameters:

A = 533.907 (brightness)

B = 120.200 (background)

a = 0.734 px

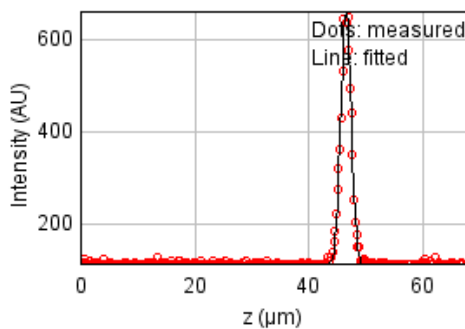
b = -0.032 px

c = 0.615 px

xc = 6.245 px

yc = 6.076 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 16803.2909

Standard deviation: 7.39823

$R^2$ : 0.99190

Parameters:

a = 111.76249

b = 660.09686

c = 46.57855

d = 0.89141

## Bead 2423 (Rejected)

Date : Mon Oct 17 13:53:20 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : -153 um (x), -93.4 um (y), 44.2 um (z)

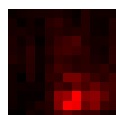
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	270 nm
max	0	0	270 nm
z	3.03 um	3.05 um	1.3 um
Asymmetry	0.0		
Theta	0.0°		

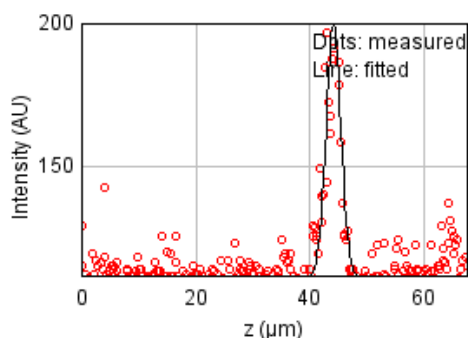
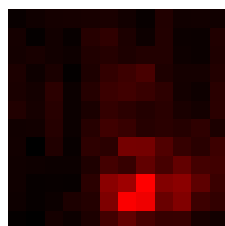
### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $y = a + (b-a) \cdot \exp(-(x-c)^2/(2 \cdot d^2))$

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a) \cdot \exp(-(x-c)^2/(2 \cdot d^2))$

Sum of residuals squared: 22046.5705

Standard deviation: 8.47425

R<sup>2</sup>: 0.77286

Parameters:

a = 111.96446

b = 200.01044

c = 44.20891

d = 1.28786

## Bead 2424 (Rejected)

Date : Mon Oct 17 13:53:20 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : 149 um (x), -95.1 um (y), 46.2 um (z)

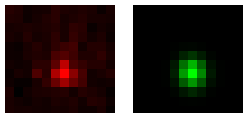
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

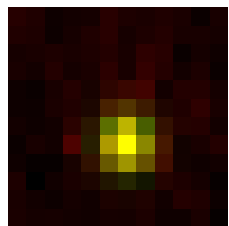
FWHM	Non corrected	Corrected	Theoretical
min	487 nm	507 nm	270 nm
max	552 nm	575 nm	270 nm
z	1.92 um	1.93 um	1.3 um
Asymmetry	0.882		
Theta	-85.0°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.873$



Parameters:

A = 161.073 (brightness)

B = 114.054 (background)

a = 0.566 px

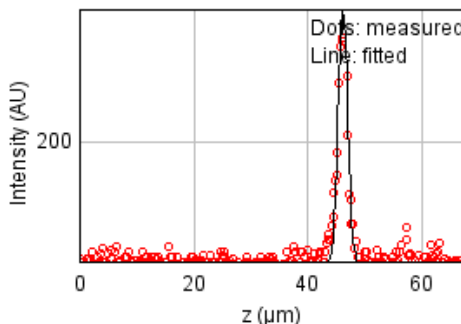
b = -0.011 px

c = 0.441 px

xc = 5.940 px

yc = 6.892 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 17030.1493

Standard deviation: 7.44801

$R^2$ : 0.92930

Parameters:

a = 110.91609

b = 299.48292

c = 46.21553

d = 0.81632



## Bead 2425

Date : Mon Oct 17 13:53:20 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : 47.7  $\mu\text{m}$  (x), 93.8  $\mu\text{m}$  (y), 46.7  $\mu\text{m}$  (z)

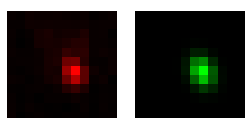
Corresponding bead : Not found



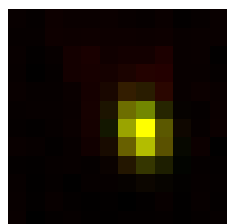
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	427 nm	270 nm
max	559 nm	582 nm	270 nm
z	1.81 $\mu\text{m}$	1.81 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.734		
Theta	-70.4°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.953$



Parameters:

$A = 567.850$  (brightness)

$B = 122.323$  (background)

$a = 0.756$  px

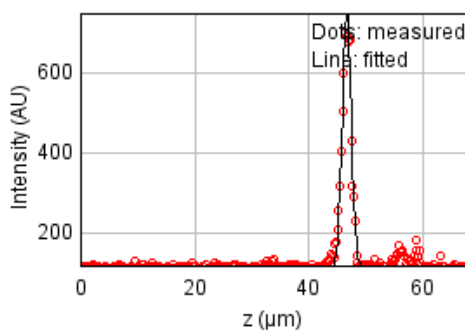
$b = -0.117$  px

$c = 0.471$  px

$x_c = 6.812$  px

$y_c = 6.132$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 65062.6195

Standard deviation: 14.55783

$R^2: 0.97349$

Parameters:

$a = 117.42984$

$b = 752.01830$

$c = 46.71554$

$d = 0.76727$

## Bead 2426

Date : Mon Oct 17 13:53:20 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

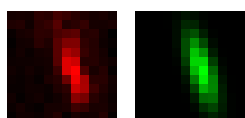
Coordinates : 147 um (x), 79.1 um (y), 45.6 um (z)

Corresponding bead : Not found

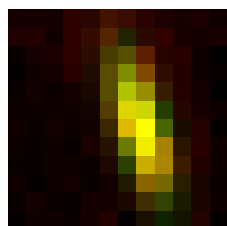
FWHM	Non corrected	Corrected	Theoretical
min	444 nm	463 nm	270 nm
max	1.36 um	1.41 um	270 nm
z	2.04 um	2.04 um	1.3 um
Asymmetry	0.327		
Theta	-73.5°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.914$



Parameters:

A = 195.286 (brightness)

B = 113.882 (background)

a = 0.631 px

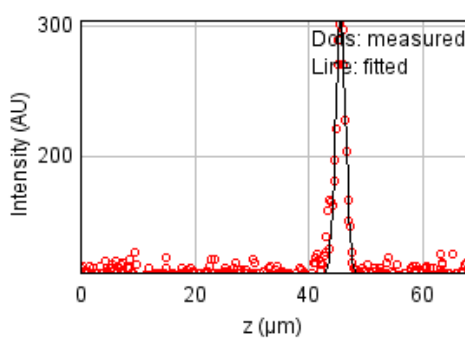
b = -0.165 px

c = 0.122 px

xc = 6.722 px

yc = 5.838 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 17777.1683

Standard deviation: 7.60960

$R^2$ : 0.93382

Parameters:

a = 110.80151

b = 305.01644

c = 45.63006

d = 0.86456

## Bead 2427

Date : Mon Oct 17 13:53:20 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

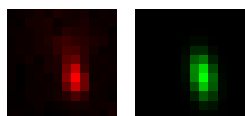
Coordinates : 132  $\mu\text{m}$  (x), 76.3  $\mu\text{m}$  (y), 46.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

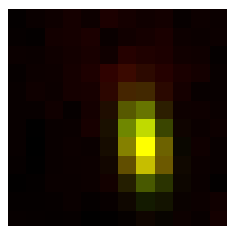
FWHM	Non corrected	Corrected	Theoretical
min	401 nm	417 nm	270 nm
max	795 nm	828 nm	270 nm
z	1.99 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.504		
Theta	-80.4°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.925$



Parameters:

$A = 359.587$  (brightness)

$B = 121.668$  (background)

$a = 0.818$  px

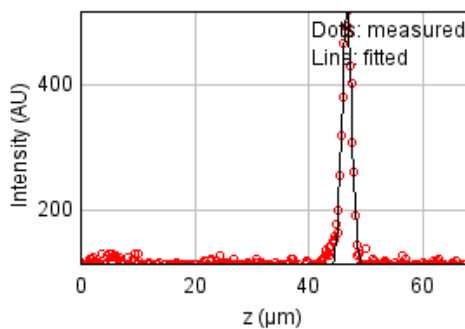
$b = -0.102$  px

$c = 0.230$  px

$x_c = 6.893$  px

$y_c = 6.803$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 24180.0624

Standard deviation: 8.87482

$R^2: 0.97823$

Parameters:

$a = 112.48229$

$b = 521.32935$

$c = 46.72967$

$d = 0.84397$

## Bead 2428

Date : Mon Oct 17 13:53:21 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

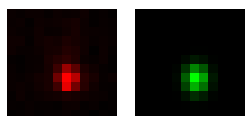
Coordinates : -126  $\mu\text{m}$  (x), 23.0  $\mu\text{m}$  (y), 46.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

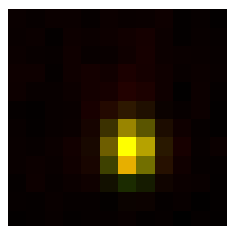
FWHM	Non corrected	Corrected	Theoretical
min	430 nm	448 nm	270 nm
max	511 nm	532 nm	270 nm
z	2.15 $\mu\text{m}$	2.16 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.842		
Theta	89.7°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.956$



Parameters:

A = 532.502 (brightness)

B = 122.522 (background)

a = 0.725 px

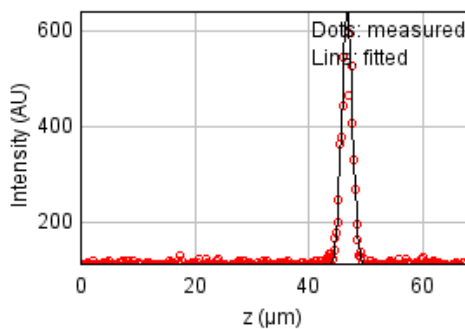
b = 0.001 px

c = 0.514 px

xc = 6.186 px

yc = 7.135 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 56981.5584

Standard deviation: 13.62379

$R^2$ : 0.97185

Parameters:

a = 113.00859

b = 643.19953

c = 46.76270

d = 0.91218

## Bead 2429

Date : Mon Oct 17 13:53:21 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

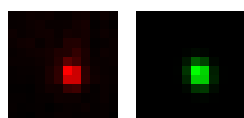
Coordinates : -52.7  $\mu\text{m}$  (x), 14.5  $\mu\text{m}$  (y), 46.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

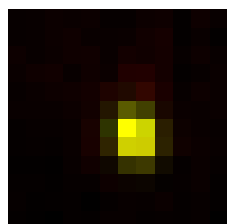
FWHM	Non corrected	Corrected	Theoretical
min	383 nm	398 nm	270 nm
max	476 nm	496 nm	270 nm
z	1.89 $\mu\text{m}$	1.89 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.804		
Theta	-74.5°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.967$



Parameters:

$A = 787.034$  (brightness)

$B = 121.952$  (background)

$a = 0.894$  px

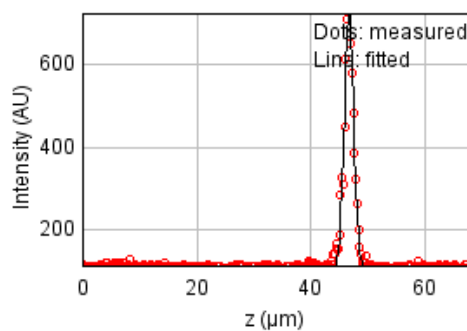
$b = -0.084$  px

$c = 0.616$  px

$x_c = 6.432$  px

$y_c = 6.393$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 33088.0641

Standard deviation: 10.38165

$R^2 = 0.98586$

Parameters:

$a = 114.11503$

$b = 725.02259$

$c = 46.75734$

$d = 0.80088$

## Bead 2430

Date : Mon Oct 17 13:53:21 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

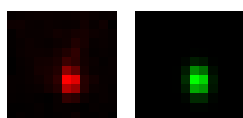
Coordinates : 56.6  $\mu\text{m}$  (x), -10.7  $\mu\text{m}$  (y), 46.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

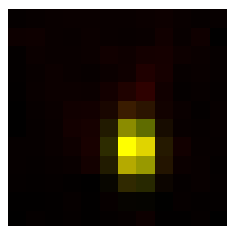
FWHM	Non corrected	Corrected	Theoretical
min	371 nm	386 nm	270 nm
max	518 nm	540 nm	270 nm
z	2.11 $\mu\text{m}$	2.12 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.715		
Theta	-85.2°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.962$



Parameters:

A = 831.392 (brightness)

B = 129.066 (background)

a = 0.974 px

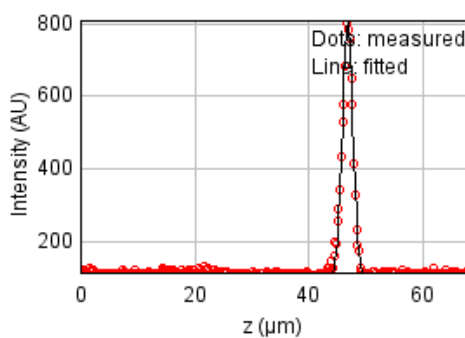
b = -0.040 px

c = 0.503 px

xc = 6.411 px

yc = 7.129 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 33690.1256

Standard deviation: 10.47568

$R^2$ : 0.98991

Parameters:

a = 114.31279

b = 807.72729

c = 46.86848

d = 0.89470

## Bead 2431 (Rejected)

Date : Mon Oct 17 13:53:21 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : -96.1  $\mu\text{m}$  (x), -53.2  $\mu\text{m}$  (y), 36.3  $\mu\text{m}$  (z)

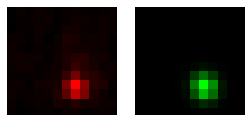
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

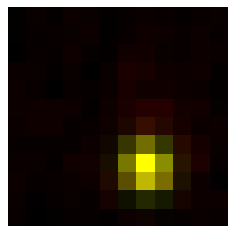
FWHM	Non corrected	Corrected	Theoretical
min	441 nm	460 nm	270 nm
max	480 nm	500 nm	270 nm
z	2.04 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.92		
Theta	-70.6°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.949$



Parameters:

A = 478.374 (brightness)

B = 120.824 (background)

a = 0.677 px

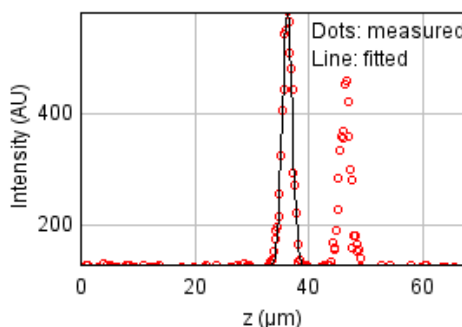
b = -0.033 px

c = 0.594 px

xc = 7.075 px

yc = 8.222 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 755423.325

Standard deviation: 49.60506

$R^2$ : 0.64989

Parameters:

a = 125.68147

b = 584.33596

c = 36.29949

d = 0.86668

## Bead 2432

Date : Mon Oct 17 13:53:21 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

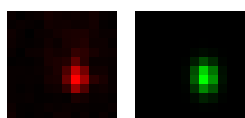
Coordinates : 140  $\mu\text{m}$  (x), -55.1  $\mu\text{m}$  (y), 46.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

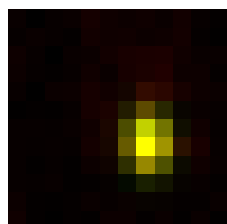
FWHM	Non corrected	Corrected	Theoretical
min	412 nm	429 nm	270 nm
max	568 nm	591 nm	270 nm
z	2.1 $\mu\text{m}$	2.11 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.726		
Theta	-87.1°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.948$



Parameters:

A = 413.408 (brightness)

B = 117.794 (background)

a = 0.790 px

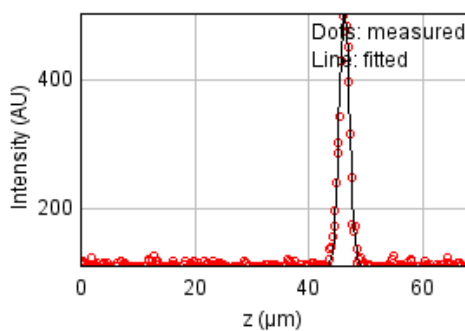
b = -0.019 px

c = 0.417 px

$x_c = 7.149$  px

$y_c = 6.748$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 19476.4057

Standard deviation: 7.96499

$R^2$ : 0.98187

Parameters:

a = 110.89931

b = 502.99412

c = 46.29151

d = 0.89358



## Bead 2433

Date : Mon Oct 17 13:53:22 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

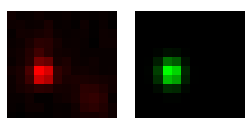
Coordinates : -102  $\mu\text{m}$  (x), -58.0  $\mu\text{m}$  (y), 47.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

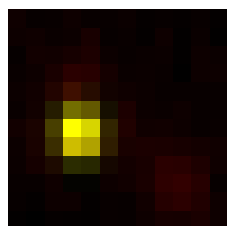
FWHM	Non corrected	Corrected	Theoretical
min	413 nm	430 nm	270 nm
max	484 nm	504 nm	270 nm
z	2.16 $\mu\text{m}$	2.17 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.852		
Theta	-86.5°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.921$



Parameters:

$A = 636.153$  (brightness)

$B = 136.720$  (background)

$a = 0.788$  px

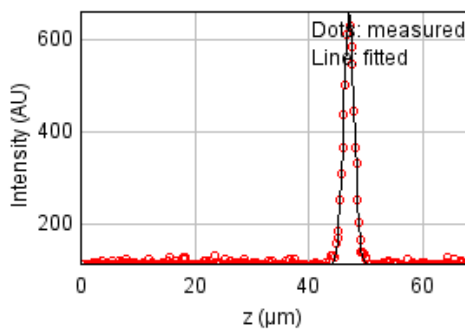
$b = -0.013$  px

$c = 0.573$  px

$x_c = 3.390$  px

$y_c = 6.246$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 17922.0547

Standard deviation: 7.64055

$R^2: 0.99158$

Parameters:

$a = 112.58437$

$b = 660.21912$

$c = 47.08728$

$d = 0.91801$

## Bead 2434 (Rejected)

Date : Mon Oct 17 13:53:22 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : 162  $\mu\text{m}$  (x), -68.7  $\mu\text{m}$  (y), 18.3  $\mu\text{m}$  (z)

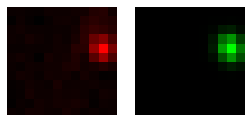
Corresponding bead : Not found

Reason of rejection : The fitted bead is likely to be a different bead from the center bead.

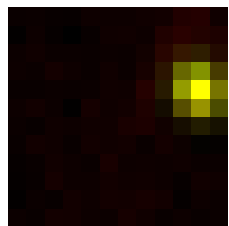
FWHM	Non corrected	Corrected	Theoretical
min	446 nm	464 nm	270 nm
max	510 nm	531 nm	270 nm
z	2.71 $\mu\text{m}$	2.72 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.873		
Theta	-61.7°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.947$



Parameters:

A = 351.123 (brightness)

B = 117.164 (background)

a = 0.640 px

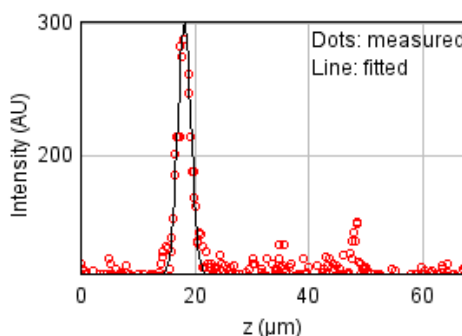
b = -0.067 px

c = 0.552 px

xc = 9.882 px

yc = 3.984 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 24513.2046

Standard deviation: 8.93575

$R^2$ : 0.92688

Parameters:

a = 112.00976

b = 300.98411

c = 18.27003

d = 1.14902

## Bead 2435

Date : Mon Oct 17 13:53:22 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

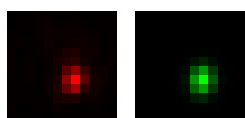
Coordinates : -86.7  $\mu\text{m}$  (x), -86.4  $\mu\text{m}$  (y), 47.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

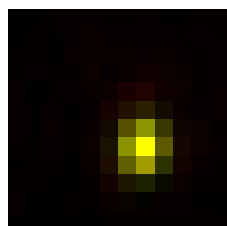
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	426 nm	270 nm
max	513 nm	534 nm	270 nm
z	2.01 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.797		
Theta	84.4°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.977$



Parameters:

A = 908.889 (brightness)

B = 126.250 (background)

a = 0.800 px

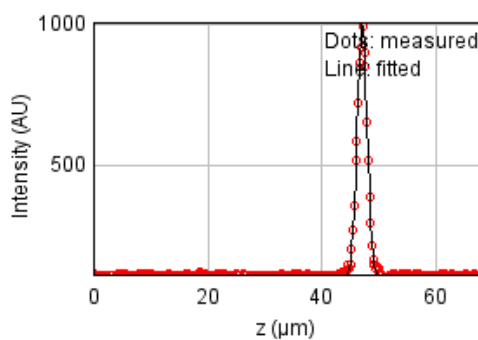
b = 0.028 px

c = 0.513 px

xc = 6.839 px

yc = 7.028 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 21128.9903

Standard deviation: 8.29603

$R^2$ : 0.99600

Parameters:

a = 113.80824

b = 1008.70623

c = 47.13090

d = 0.85297

## Bead 2436 (Rejected)

Date : Mon Oct 17 13:53:22 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : -25.3 um (x), -96.2 um (y), 33.1 um (z)

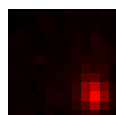
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	270 nm
max	0	0	270 nm
z	2.53 um	2.54 um	1.3 um
Asymmetry	0.0		
Theta	0.0°		

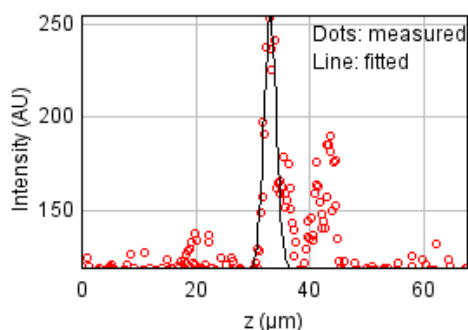
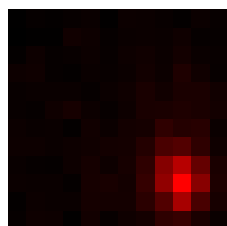
### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $y = a + (b-a) \cdot \exp(-(x-c)^2/(2 \cdot d^2))$

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a) \cdot \exp(-(x-c)^2/(2 \cdot d^2))$

Sum of residuals squared: 82581.7354

Standard deviation: 16.40109

R<sup>2</sup>: 0.64725

Parameters:

a = 118.83399

b = 255.02672

c = 33.12880

d = 1.07436

## Bead 2437 (Rejected)

Date : Mon Oct 17 13:53:22 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : 138  $\mu\text{m}$  (x), 53.2  $\mu\text{m}$  (y), 46.6  $\mu\text{m}$  (z)

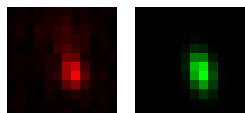
Corresponding bead : Not found

Reason of rejection : The fitted bead is likely to be a different bead from the center bead.

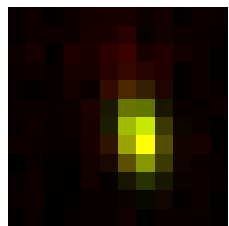
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	416 nm	270 nm
max	692 nm	721 nm	270 nm
z	2.95 $\mu\text{m}$	2.96 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.578		
Theta	-78.3°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.911$



Parameters:

A = 320.652 (brightness)

B = 119.673 (background)

a = 0.817 px

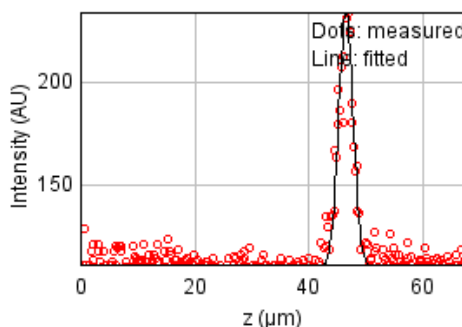
b = -0.112 px

c = 0.303 px

xc = 6.706 px

yc = 6.542 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 16417.0283

Standard deviation: 7.31271

$R^2$ : 0.89624

Parameters:

a = 111.20245

b = 233.91479

c = 46.56473

d = 1.25068

## Bead 2438 (Rejected)

Date : Mon Oct 17 13:53:22 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : 86.1  $\mu\text{m}$  (x), 2.29  $\mu\text{m}$  (y), 43.8  $\mu\text{m}$  (z)

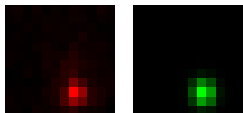
Corresponding bead : Not found

Reason of rejection : The fitted bead is likely to be a different bead from the center bead.

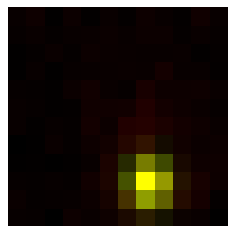
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	421 nm	270 nm
max	473 nm	493 nm	270 nm
z	3.32 $\mu\text{m}$	3.34 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.855		
Theta	-88.2°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.939$



Parameters:

A = 414.643 (brightness)

B = 121.020 (background)

a = 0.821 px

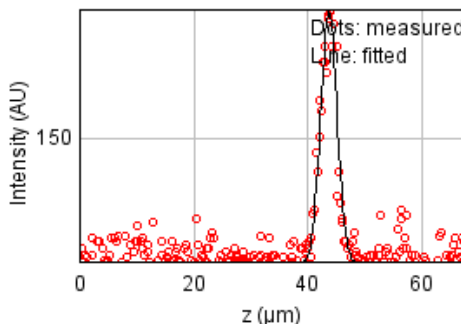
b = -0.007 px

c = 0.600 px

xc = 7.190 px

yc = 9.102 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 11157.2323

Standard deviation: 6.02850

$R^2$ : 0.85474

Parameters:

a = 111.29140

b = 190.27116

c = 43.75180

d = 1.41047

## Bead 2439

Date : Mon Oct 17 13:53:22 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

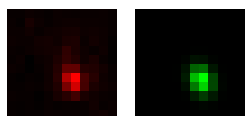
Coordinates : -102  $\mu\text{m}$  (x), -15.6  $\mu\text{m}$  (y), 47.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

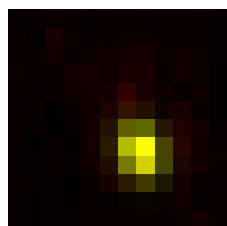
FWHM	Non corrected	Corrected	Theoretical
min	395 nm	411 nm	270 nm
max	517 nm	539 nm	270 nm
z	2.53 $\mu\text{m}$	2.54 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.763		
Theta	-70.4°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.957$



Parameters:

A = 601.721 (brightness)

B = 125.360 (background)

a = 0.821 px

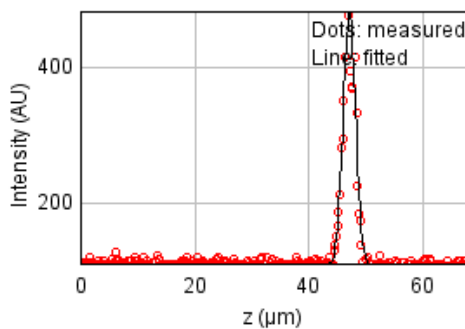
b = -0.114 px

c = 0.542 px

xc = 6.727 px

yc = 7.254 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 69785.6422

Standard deviation: 15.07696

$R^2$ : 0.94082

Parameters:

a = 112.49958

b = 481.10690

c = 47.16854

d = 1.07388

## Bead 2440

Date : Mon Oct 17 13:53:23 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

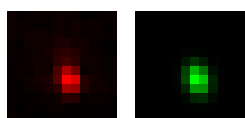
Coordinates : -38.4  $\mu\text{m}$  (x), -15.9  $\mu\text{m}$  (y), 47.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

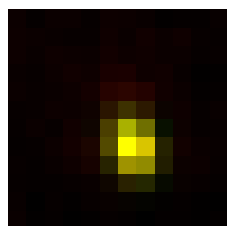
FWHM	Non corrected	Corrected	Theoretical
min	415 nm	432 nm	270 nm
max	559 nm	582 nm	270 nm
z	2.08 $\mu\text{m}$	2.08 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.742		
Theta	-72.1°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.965$



Parameters:

A = 769.469 (brightness)

B = 128.201 (background)

a = 0.747 px

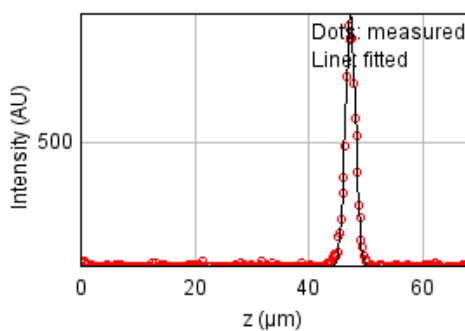
b = -0.103 px

c = 0.463 px

$x_c = 6.322$  px

$y_c = 6.970$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 51497.2831

Standard deviation: 12.95159

$R^2$ : 0.98809

Parameters:

a = 113.97398

b = 908.26021

c = 47.35172

d = 0.88134



## Bead 2441

Date : Mon Oct 17 13:53:23 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

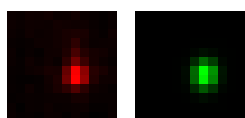
Coordinates : -155  $\mu\text{m}$  (x), -17.6  $\mu\text{m}$  (y), 46.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

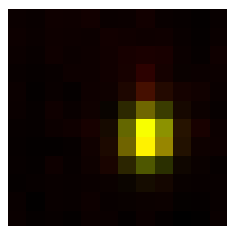
FWHM	Non corrected	Corrected	Theoretical
min	426 nm	444 nm	270 nm
max	525 nm	547 nm	270 nm
z	1.97 $\mu\text{m}$	1.98 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.811		
Theta	87.2°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.959$



Parameters:

$A = 549.226$  (brightness)

$B = 120.444$  (background)

$a = 0.739$  px

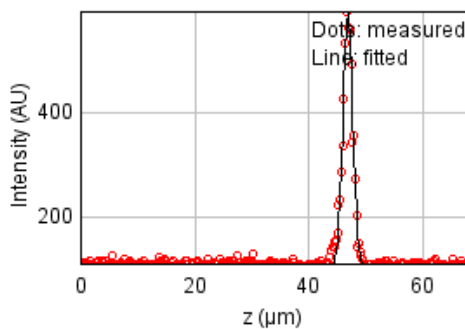
$b = 0.012$  px

$c = 0.487$  px

$x_c = 7.111$  px

$y_c = 6.441$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 26168.0846

Standard deviation: 9.23245

$R^2: 0.98280$

Parameters:

$a = 112.12199$

$b = 593.37508$

$c = 46.90533$

$d = 0.83808$

## Bead 2442

Date : Mon Oct 17 13:53:23 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

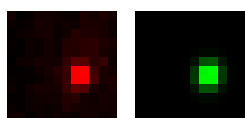
Coordinates : -153  $\mu\text{m}$  (x), -92.2  $\mu\text{m}$  (y), 46.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

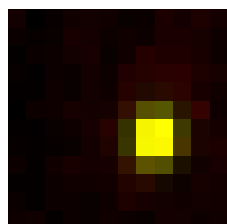
FWHM	Non corrected	Corrected	Theoretical
min	416 nm	434 nm	270 nm
max	490 nm	510 nm	270 nm
z	2.7 $\mu\text{m}$	2.72 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.85		
Theta	83.8°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.946$



Parameters:

$A = 413.304$  (brightness)

$B = 120.332$  (background)

$a = 0.772$  px

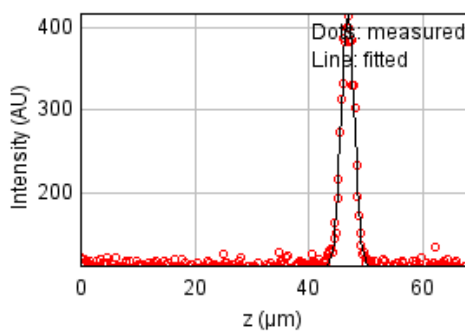
$b = 0.023$  px

$c = 0.562$  px

$x_c = 7.515$  px

$y_c = 6.494$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 15083.1471

Standard deviation: 7.00933

$R^2: 0.98163$

Parameters:

$a = 111.64652$

$b = 416.12744$

$c = 46.88815$

$d = 1.14836$

## Bead 2443

Date : Mon Oct 17 13:53:23 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

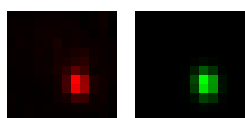
Coordinates : -41.3  $\mu\text{m}$  (x), 85.6  $\mu\text{m}$  (y), 47.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

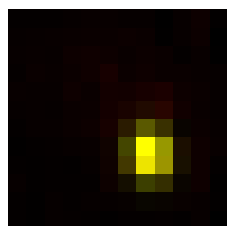
FWHM	Non corrected	Corrected	Theoretical
min	382 nm	398 nm	270 nm
max	482 nm	502 nm	270 nm
z	1.87 $\mu\text{m}$	1.87 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.793		
Theta	-81.7°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.974$



Parameters:

A = 959.212 (brightness)

B = 128.117 (background)

a = 0.911 px

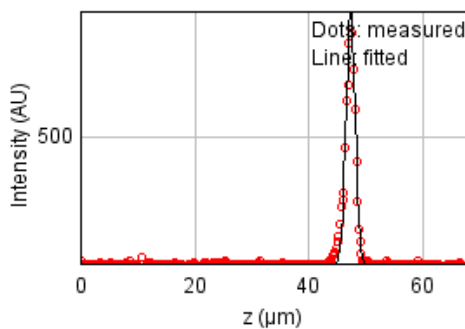
b = -0.049 px

c = 0.584 px

$x_c = 7.236$  px

$y_c = 7.422$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 52970.9793

Standard deviation: 13.13560

$R^2$ : 0.98563

Parameters:

a = 113.13501

b = 883.90210

c = 47.37615

d = 0.79213

## Bead 2444 (Rejected)

Date : Mon Oct 17 13:53:23 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : 148 um (x), 73.3 um (y), 47.1 um (z)

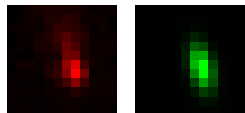
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

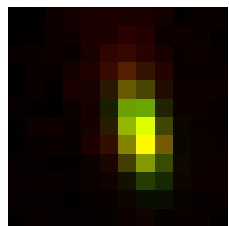
FWHM	Non corrected	Corrected	Theoretical
min	398 nm	414 nm	270 nm
max	835 nm	869 nm	270 nm
z	1.99 um	2.0 um	1.3 um
Asymmetry	0.477		
Theta	-76.5°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.883$



Parameters:

A = 367.138 (brightness)

B = 122.499 (background)

a = 0.812 px

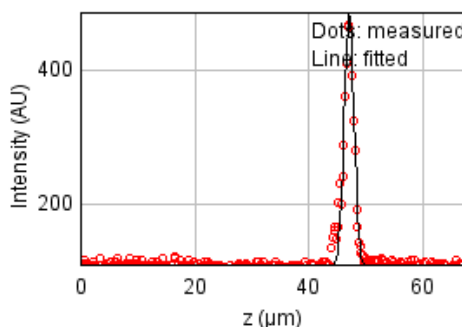
b = -0.149 px

c = 0.228 px

xc = 6.756 px

yc = 6.276 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 33254.3104

Standard deviation: 10.40770

$R^2$ : 0.96460

Parameters:

a = 111.26632

b = 484.40857

c = 47.12089

d = 0.84511

## Bead 2445

Date : Mon Oct 17 13:53:24 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

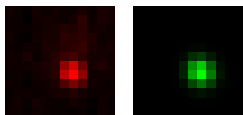
Coordinates : -133  $\mu\text{m}$  (x), 56.5  $\mu\text{m}$  (y), 46.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

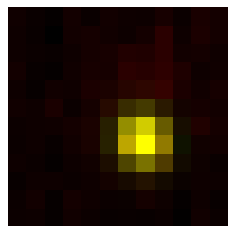
FWHM	Non corrected	Corrected	Theoretical
min	473 nm	493 nm	270 nm
max	518 nm	539 nm	270 nm
z	2.19 $\mu\text{m}$	2.2 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.914		
Theta	-67.1°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.941$



Parameters:

A = 339.815 (brightness)

B = 120.150 (background)

a = 0.585 px

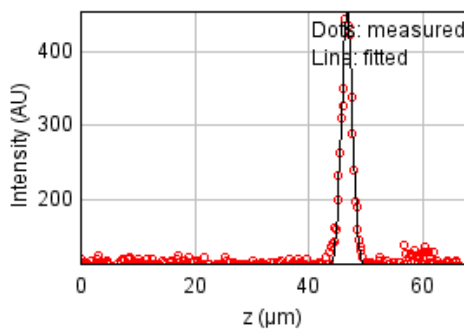
b = -0.036 px

c = 0.516 px

$x_c = 6.853$  px

$y_c = 6.709$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 25625.7504

Standard deviation: 9.13627

$R^2 = 0.97021$

Parameters:

a = 113.38857

b = 455.21881

c = 46.75216

d = 0.93211

## Bead 2446

Date : Mon Oct 17 13:53:24 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

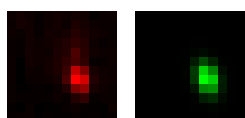
Coordinates : 83.2  $\mu\text{m}$  (x), 55.4  $\mu\text{m}$  (y), 47.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

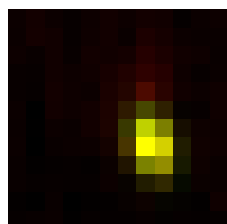
FWHM	Non corrected	Corrected	Theoretical
min	378 nm	394 nm	270 nm
max	581 nm	605 nm	270 nm
z	2.22 $\mu\text{m}$	2.23 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.652		
Theta	-73.8°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.933$



Parameters:

A = 523.125 (brightness)

B = 123.147 (background)

a = 0.895 px

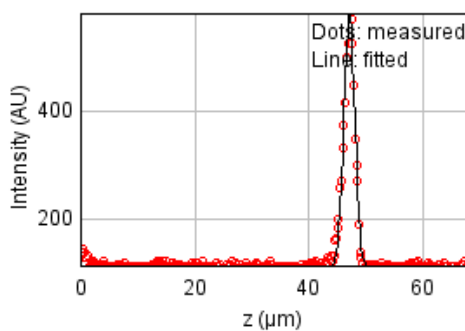
b = -0.145 px

c = 0.440 px

$x_c = 7.359$  px

$y_c = 6.850$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 29283.9372

Standard deviation: 9.76665

$R^2$ : 0.98207

Parameters:

a = 113.36347

b = 584.29930

c = 47.16314

d = 0.94415

## Bead 2447 (Rejected)

Date : Mon Oct 17 13:53:24 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : 138  $\mu\text{m}$  (x), 53.2  $\mu\text{m}$  (y), 46.6  $\mu\text{m}$  (z)

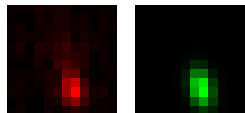
Corresponding bead : Not found

Reason of rejection : The fitted bead is likely to be a different bead from the center bead.

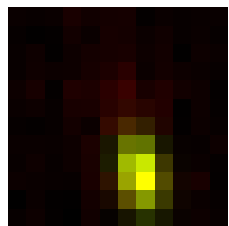
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	413 nm	270 nm
max	694 nm	722 nm	270 nm
z	2.95 $\mu\text{m}$	2.96 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.572		
Theta	-78.5°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.913$



Parameters:

A = 319.338 (brightness)

B = 120.854 (background)

a = 0.830 px

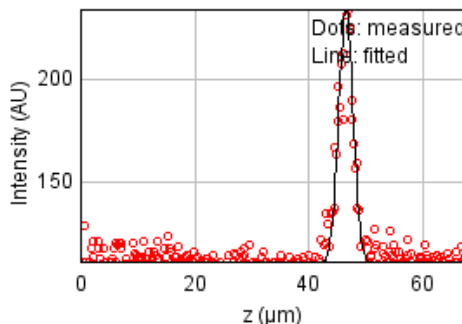
b = -0.112 px

c = 0.302 px

xc = 6.706 px

yc = 8.546 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 16417.0283

Standard deviation: 7.31271

$R^2$ : 0.89624

Parameters:

a = 111.20245

b = 233.91479

c = 46.56473

d = 1.25068

## Bead 2448

Date : Mon Oct 17 13:53:24 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

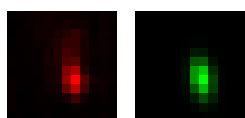
Coordinates : 159  $\mu\text{m}$  (x), 45.7  $\mu\text{m}$  (y), 47.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

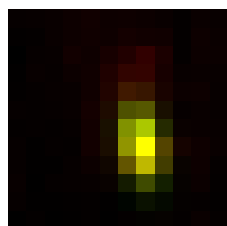
FWHM	Non corrected	Corrected	Theoretical
min	375 nm	390 nm	270 nm
max	708 nm	738 nm	270 nm
z	2.09 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.529		
Theta	-80.2°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.924$



Parameters:

$A = 607.226$  (brightness)

$B = 125.208$  (background)

$a = 0.935$  px

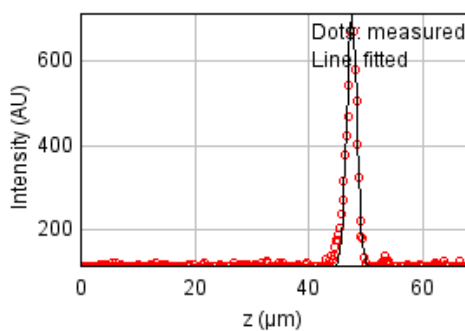
$b = -0.115$  px

$c = 0.287$  px

$x_c = 6.770$  px

$y_c = 6.838$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 60202.7218

Standard deviation: 14.00357

$R^2: 0.97634$

Parameters:

$a = 111.43044$

$b = 715.61863$

$c = 47.59082$

$d = 0.88560$



## Bead 2449

Date : Mon Oct 17 13:53:24 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

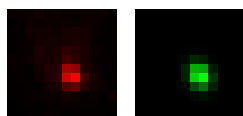
Coordinates : 30.5  $\mu\text{m}$  (x), 30.1  $\mu\text{m}$  (y), 47.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

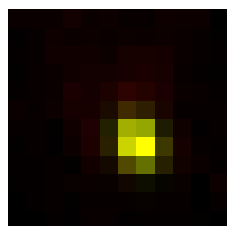
FWHM	Non corrected	Corrected	Theoretical
min	385 nm	401 nm	270 nm
max	481 nm	501 nm	270 nm
z	2.03 $\mu\text{m}$	2.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.799		
Theta	-66.7°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.946$



Parameters:

$A = 589.727$  (brightness)

$B = 124.954$  (background)

$a = 0.856$  px

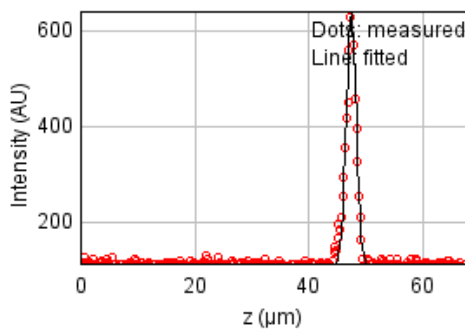
$b = -0.119$  px

$c = 0.631$  px

$x_c = 6.575$  px

$y_c = 6.762$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 37581.7598

Standard deviation: 11.06418

$R^2: 0.97989$

Parameters:

$a = 112.97610$

$b = 638.75183$

$c = 47.48613$

$d = 0.86108$

## Bead 2450

Date : Mon Oct 17 13:53:24 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

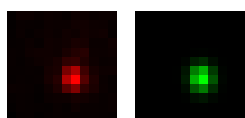
Coordinates : -65.4  $\mu\text{m}$  (x), 29.2  $\mu\text{m}$  (y), 47.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

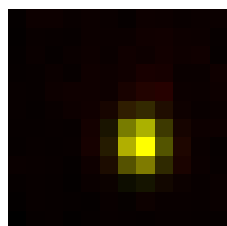
FWHM	Non corrected	Corrected	Theoretical
min	424 nm	441 nm	270 nm
max	494 nm	514 nm	270 nm
z	2.01 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.858		
Theta	-86.9°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.974$



Parameters:

$A = 904.538$  (brightness)

$B = 131.999$  (background)

$a = 0.747$  px

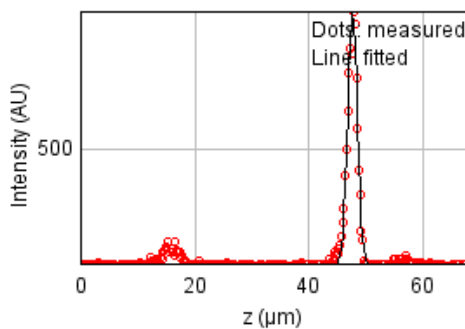
$b = -0.011$  px

$c = 0.551$  px

$x_c = 6.750$  px

$y_c = 6.830$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 108661.273

Standard deviation: 18.81344

$R^2: 0.97719$

Parameters:

$a = 119.75030$

$b = 960.66661$

$c = 47.70816$

$d = 0.85552$

## Bead 2451

Date : Mon Oct 17 13:53:24 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

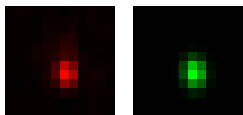
Coordinates : 20.3  $\mu\text{m}$  (x), 3.67  $\mu\text{m}$  (y), 47.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

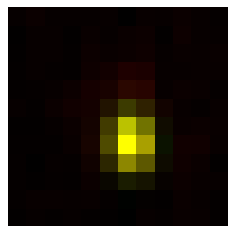
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	413 nm	270 nm
max	542 nm	565 nm	270 nm
z	2.12 $\mu\text{m}$	2.13 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.732		
Theta	-86.5°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.967$



Parameters:

A = 590.541 (brightness)

B = 121.629 (background)

a = 0.850 px

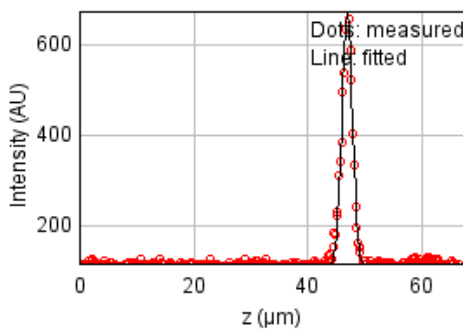
b = -0.024 px

c = 0.458 px

xc = 6.218 px

yc = 6.814 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 27869.2132

Standard deviation: 9.52781

$R^2$ : 0.98747

Parameters:

a = 114.87431

b = 678.10712

c = 46.96565

d = 0.90189

## Bead 2452

Date : Mon Oct 17 13:53:24 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

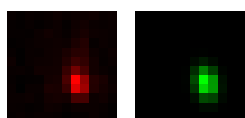
Coordinates : -131  $\mu\text{m}$  (x), -9.21  $\mu\text{m}$  (y), 47.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

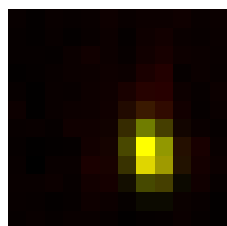
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	400 nm	270 nm
max	560 nm	583 nm	270 nm
z	2.07 $\mu\text{m}$	2.08 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.686		
Theta	-78.6°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.954$



Parameters:

$A = 572.565$  (brightness)

$B = 121.637$  (background)

$a = 0.892$  px

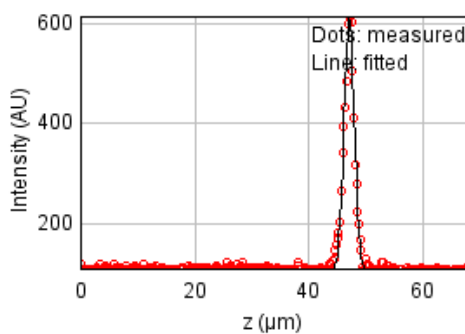
$b = -0.094$  px

$c = 0.447$  px

$x_c = 7.246$  px

$y_c = 7.351$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 24384.9650

Standard deviation: 8.91234

$R^2 = 0.98589$

Parameters:

$a = 111.18796$

$b = 613.46843$

$c = 47.13384$

$d = 0.87842$

## Bead 2453 (Rejected)

Date : Mon Oct 17 13:53:24 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : -283 nm (x), -19.4 um (y), 43.5 um (z)

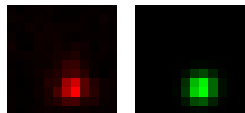
Corresponding bead : Not found

Reason of rejection : The fitted bead is likely to be a different bead from the center bead.

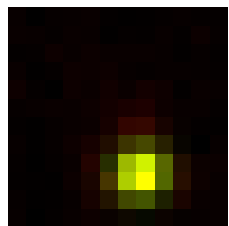
FWHM	Non corrected	Corrected	Theoretical
min	474 nm	493 nm	270 nm
max	497 nm	518 nm	270 nm
z	3.46 um	3.48 um	1.3 um
Asymmetry	0.952		
Theta	35.8°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.949$



Parameters:

A = 530.077 (brightness)

B = 123.890 (background)

a = 0.562 px

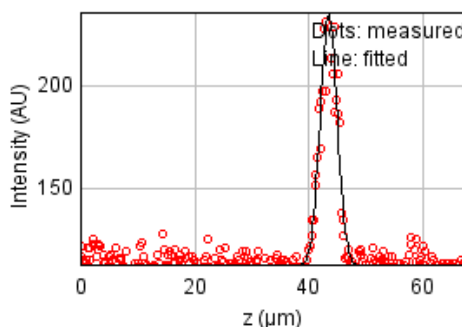
b = 0.026 px

c = 0.579 px

xc = 6.712 px

yc = 8.560 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 13481.8718

Standard deviation: 6.62683

$R^2$ : 0.92585

Parameters:

a = 112.13224

b = 236.22944

c = 43.54703

d = 1.46985

## Bead 2454

Date : Mon Oct 17 13:53:24 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

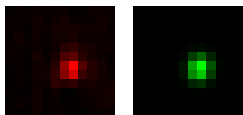
Coordinates : -99.0  $\mu\text{m}$  (x), -39.6  $\mu\text{m}$  (y), 47.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

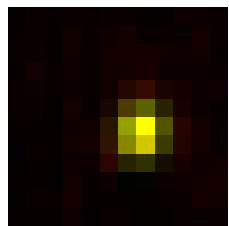
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	427 nm	270 nm
max	477 nm	497 nm	270 nm
z	1.88 $\mu\text{m}$	1.89 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.859		
Theta	80.2°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.950$



Parameters:

$A = 498.630$  (brightness)

$B = 122.587$  (background)

$a = 0.793$  px

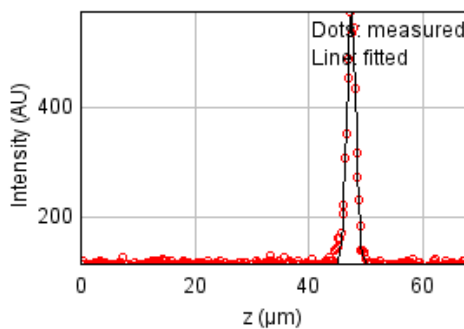
$b = 0.035$  px

$c = 0.596$  px

$x_c = 6.775$  px

$y_c = 6.309$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 20507.3930

Standard deviation: 8.17309

$R^2: 0.98479$

Parameters:

$a = 113.70829$

$b = 577.48879$

$c = 47.49632$

$d = 0.79971$

## Bead 2455 (Rejected)

Date : Mon Oct 17 13:53:24 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : 117  $\mu\text{m}$  (x), -59.2  $\mu\text{m}$  (y), 47.7  $\mu\text{m}$  (z)

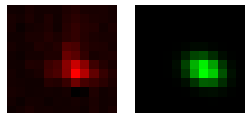
Corresponding bead : Not found

Reason of rejection : The fitted bead is likely to be a different bead from the center bead.

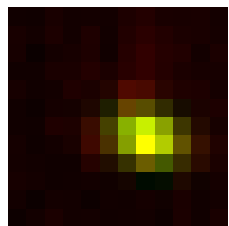
FWHM	Non corrected	Corrected	Theoretical
min	485 nm	506 nm	270 nm
max	654 nm	681 nm	270 nm
z	4.17 $\mu\text{m}$	4.18 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.742		
Theta	-21.5°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.897$



Parameters:

A = 326.876 (brightness)

B = 117.914 (background)

a = 0.348 px

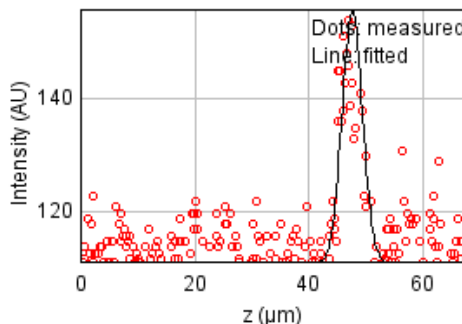
b = -0.087 px

c = 0.535 px

xc = 7.074 px

yc = 6.571 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 15530.1847

Standard deviation: 7.11245

$R^2$ : 0.62164

Parameters:

a = 111.17066

b = 155.58089

c = 47.67938

d = 1.76964

## Bead 2456 (Rejected)

Date : Mon Oct 17 13:53:25 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : -64.8  $\mu\text{m}$  (x), -67.1  $\mu\text{m}$  (y), 43.9  $\mu\text{m}$  (z)

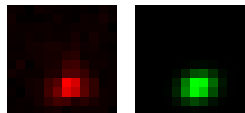
Corresponding bead : Not found

Reason of rejection : The fitted bead is likely to be a different bead from the center bead.

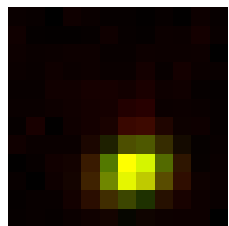
FWHM	Non corrected	Corrected	Theoretical
min	461 nm	480 nm	270 nm
max	602 nm	627 nm	270 nm
z	2.81 $\mu\text{m}$	2.82 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.765		
Theta	17.4°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.935$



Parameters:

A = 410.142 (brightness)

B = 122.817 (background)

a = 0.394 px

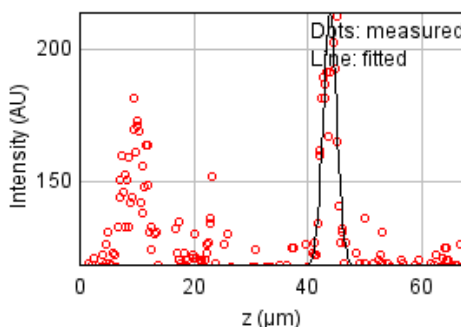
b = 0.075 px

c = 0.609 px

xc = 6.364 px

yc = 8.422 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 60901.2315

Standard deviation: 14.08458

$R^2$ : 0.57904

Parameters:

a = 117.79194

b = 214.23596

c = 43.94258

d = 1.19222



## Bead 2457

Date : Mon Oct 17 13:53:25 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

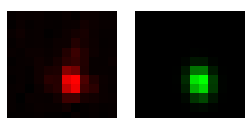
Coordinates : 98.5  $\mu\text{m}$  (x), -66.8  $\mu\text{m}$  (y), 47.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

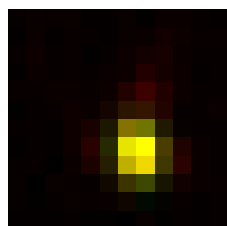
FWHM	Non corrected	Corrected	Theoretical
min	412 nm	429 nm	270 nm
max	536 nm	559 nm	270 nm
z	1.98 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.768		
Theta	-81.5°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.952$



Parameters:

$A = 715.607$  (brightness)

$B = 124.797$  (background)

$a = 0.784$  px

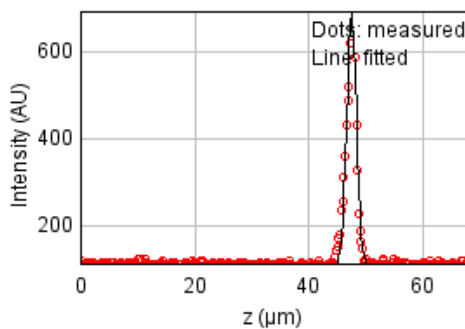
$b = -0.047$  px

$c = 0.474$  px

$x_c = 6.590$  px

$y_c = 7.282$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 58607.1680

Standard deviation: 13.81676

$R^2: 0.97372$

Parameters:

$a = 112.79480$

$b = 691.95860$

$c = 47.55022$

$d = 0.84048$

## Bead 2458

Date : Mon Oct 17 13:53:25 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

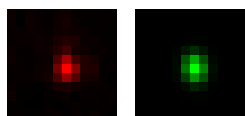
Coordinates : -94.8  $\mu\text{m}$  (x), -85.0  $\mu\text{m}$  (y), 47.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

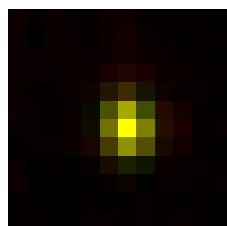
FWHM	Non corrected	Corrected	Theoretical
min	418 nm	436 nm	270 nm
max	528 nm	550 nm	270 nm
z	2.07 $\mu\text{m}$	2.08 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.792		
Theta	-81.4°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.963$



Parameters:

A = 552.289 (brightness)

B = 121.431 (background)

a = 0.760 px

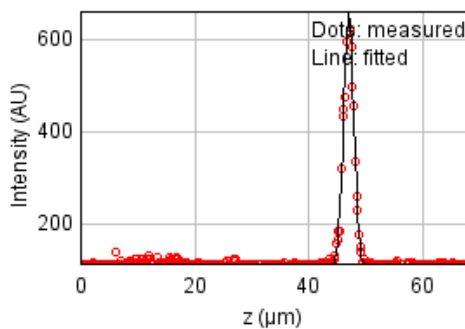
b = -0.042 px

c = 0.488 px

xc = 6.034 px

yc = 5.924 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 25970.1093

Standard deviation: 9.19746

$R^2$ : 0.98731

Parameters:

a = 113.49099

b = 660.34324

c = 47.04635

d = 0.87900

## Bead 2459

Date : Mon Oct 17 13:53:25 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

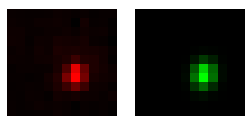
Coordinates : -73.5  $\mu\text{m}$  (x), -89.6  $\mu\text{m}$  (y), 46.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

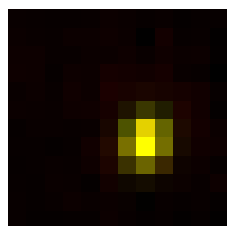
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	416 nm	270 nm
max	490 nm	511 nm	270 nm
z	2.06 $\mu\text{m}$	2.07 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.814		
Theta	79.4°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.972$



Parameters:

A = 501.603 (brightness)

B = 117.979 (background)

a = 0.833 px

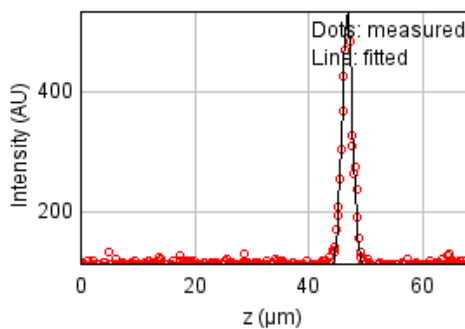
b = 0.051 px

c = 0.568 px

xc = 7.014 px

yc = 6.673 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 32263.9703

Standard deviation: 10.25155

$R^2$ : 0.97393

Parameters:

a = 112.74028

b = 535.60597

c = 46.80636

d = 0.87671

## Bead 2460 (Rejected)

Date : Mon Oct 17 13:53:25 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : -57.9  $\mu\text{m}$  (x), 30.5  $\mu\text{m}$  (y), 46.4  $\mu\text{m}$  (z)

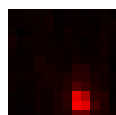
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	270 nm
max	0	0	270 nm
z	3.23 $\mu\text{m}$	3.24 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

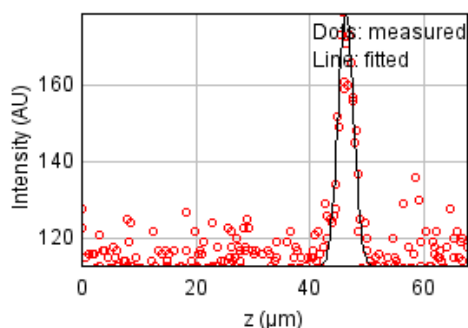
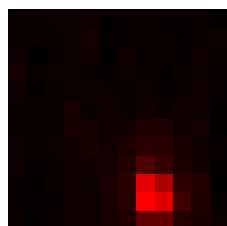
### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $y = a + (b-a) \cdot \exp(-(x-c)^2/(2 \cdot d^2))$

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a) \cdot \exp(-(x-c)^2/(2 \cdot d^2))$

Sum of residuals squared: 14581.6704

Standard deviation: 6.89183

R<sup>2</sup>: 0.75267

Parameters:

a = 112.61262

b = 178.41481

c = 46.37853

d = 1.37024

## Bead 2461 (Rejected)

Date : Mon Oct 17 13:53:25 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : -76.1  $\mu\text{m}$  (x), 27.4  $\mu\text{m}$  (y), 43.4  $\mu\text{m}$  (z)

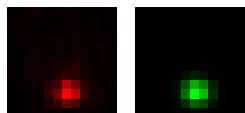
Corresponding bead : Not found

Reason of rejection : The fitted bead is likely to be a different bead from the center bead.

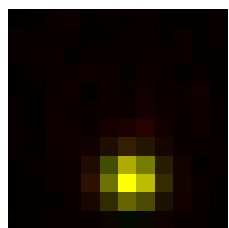
FWHM	Non corrected	Corrected	Theoretical
min	450 nm	468 nm	270 nm
max	489 nm	509 nm	270 nm
z	4.5 $\mu\text{m}$	4.52 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.919		
Theta	-1.6°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.971$



Parameters:

A = 738.592 (brightness)

B = 129.701 (background)

a = 0.561 px

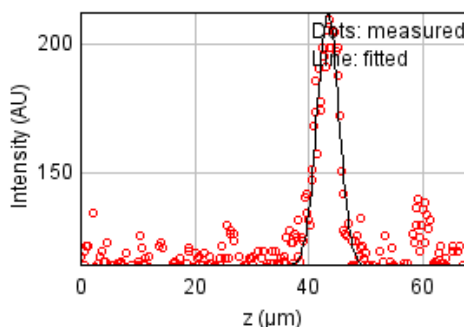
b = -0.003 px

c = 0.664 px

xc = 6.226 px

yc = 8.796 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 22267.8558

Standard deviation: 8.51667

$R^2$ : 0.85747

Parameters:

a = 114.13869

b = 212.44701

c = 43.42258

d = 1.91169

## Bead 2462

Date : Mon Oct 17 13:53:26 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

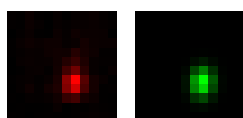
Coordinates : 2.6  $\mu\text{m}$  (x), 23.1  $\mu\text{m}$  (y), 47.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

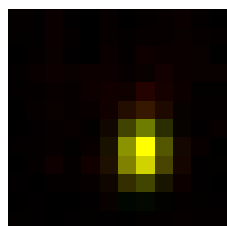
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	423 nm	270 nm
max	543 nm	565 nm	270 nm
z	1.97 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.748		
Theta	85.1°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.967$



Parameters:

A = 586.364 (brightness)

B = 122.310 (background)

a = 0.812 px

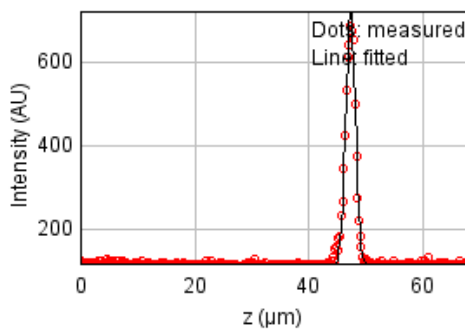
b = 0.031 px

c = 0.458 px

xc = 6.830 px

yc = 7.300 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 26583.3725

Standard deviation: 9.30542

$R^2$ : 0.98907

Parameters:

a = 113.96885

b = 725.48864

c = 47.37364

d = 0.83525

## Bead 2463

Date : Mon Oct 17 13:53:26 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

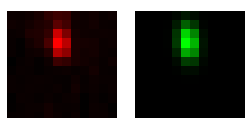
Coordinates : 124  $\mu\text{m}$  (x), 20.2  $\mu\text{m}$  (y), 50.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

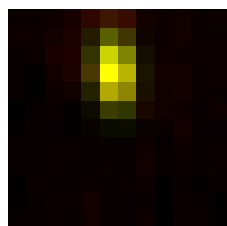
FWHM	Non corrected	Corrected	Theoretical
min	378 nm	393 nm	270 nm
max	668 nm	696 nm	270 nm
z	2.17 $\mu\text{m}$	2.18 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.565		
Theta	-84.8°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.961$



Parameters:

$A = 481.767$  (brightness)

$B = 118.663$  (background)

$a = 0.936$  px

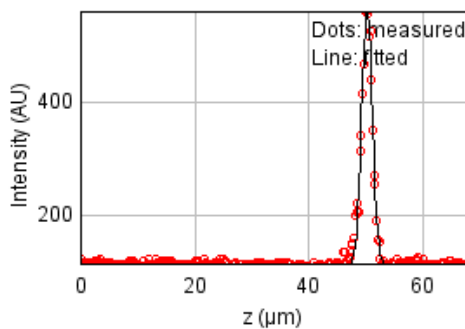
$b = -0.058$  px

$c = 0.306$  px

$x_c = 5.304$  px

$y_c = 2.869$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 25265.7019

Standard deviation: 9.07186

$R^2: 0.98276$

Parameters:

$a = 111.97409$

$b = 563.48813$

$c = 50.26717$

$d = 0.92157$

## Bead 2464

Date : Mon Oct 17 13:53:26 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

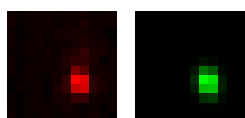
Coordinates : -85.0  $\mu\text{m}$  (x), 12.6  $\mu\text{m}$  (y), 47.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

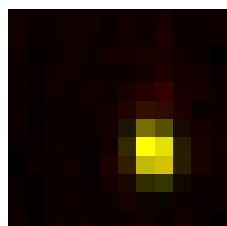
FWHM	Non corrected	Corrected	Theoretical
min	368 nm	384 nm	270 nm
max	490 nm	511 nm	270 nm
z	1.95 $\mu\text{m}$	1.96 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.751		
Theta	-78.7°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.963$



Parameters:

A = 560.239 (brightness)

B = 121.009 (background)

a = 0.973 px

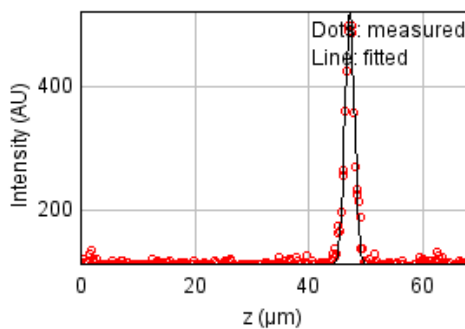
b = -0.083 px

c = 0.575 px

xc = 7.461 px

yc = 7.295 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 29222.4878

Standard deviation: 9.75640

$R^2$ : 0.97371

Parameters:

a = 112.71360

b = 523.97448

c = 47.22426

d = 0.83021



## Bead 2465

Date : Mon Oct 17 13:53:26 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

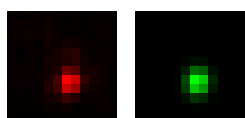
Coordinates : -80.4  $\mu\text{m}$  (x), -70.3  $\mu\text{m}$  (y), 47.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

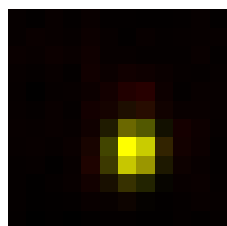
FWHM	Non corrected	Corrected	Theoretical
min	416 nm	434 nm	270 nm
max	486 nm	506 nm	270 nm
z	2.12 $\mu\text{m}$	2.13 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.857		
Theta	81.8°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.971$



Parameters:

A = 859.302 (brightness)

B = 130.564 (background)

a = 0.770 px

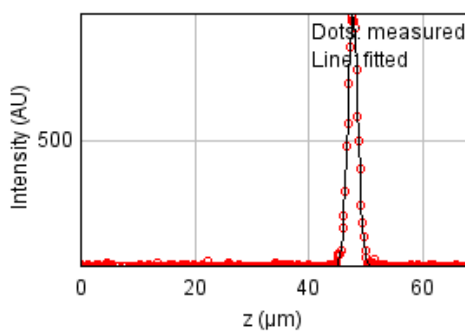
b = 0.029 px

c = 0.572 px

xc = 6.342 px

yc = 7.265 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 17471.9779

Standard deviation: 7.54400

$R^2$ : 0.99592

Parameters:

a = 112.95644

b = 897.56688

c = 47.78131

d = 0.90142

## Bead 2466

Date : Mon Oct 17 13:53:26 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

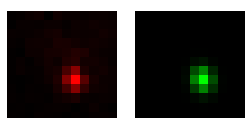
Coordinates : -96.6  $\mu\text{m}$  (x), 94.3  $\mu\text{m}$  (y), 47.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

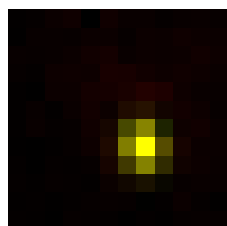
FWHM	Non corrected	Corrected	Theoretical
min	373 nm	388 nm	270 nm
max	452 nm	471 nm	270 nm
z	2.02 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.823		
Theta	-79.6°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.954$



Parameters:

$A = 470.790$  (brightness)

$B = 119.773$  (background)

$a = 0.957$  px

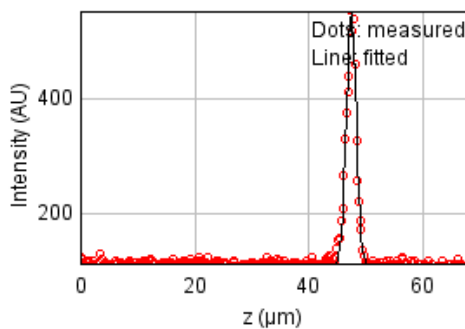
$b = -0.055$  px

$c = 0.666$  px

$x_c = 6.866$  px

$y_c = 6.982$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 28479.7694

Standard deviation: 9.63161

$R^2: 0.97818$

Parameters:

$a = 112.76097$

$b = 553.00675$

$c = 47.49265$

$d = 0.85598$

## Bead 2467 (Rejected)

Date : Mon Oct 17 13:53:26 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : -143  $\mu\text{m}$  (x), 63.3  $\mu\text{m}$  (y), 46.8  $\mu\text{m}$  (z)

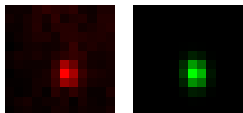
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

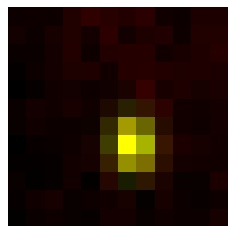
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	404 nm	270 nm
max	503 nm	524 nm	270 nm
z	2.11 $\mu\text{m}$	2.12 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.77		
Theta	-83.6°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.893$



Parameters:

A = 249.724 (brightness)

B = 117.941 (background)

a = 0.888 px

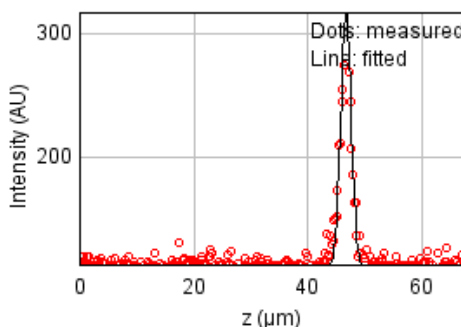
b = -0.040 px

c = 0.534 px

xc = 6.303 px

yc = 6.986 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 17790.7174

Standard deviation: 7.61250

$R^2$ : 0.94305

Parameters:

a = 111.89589

b = 318.95056

c = 46.75934

d = 0.89485

## Bead 2468

Date : Mon Oct 17 13:53:27 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : 104  $\mu\text{m}$  (x), 62.7  $\mu\text{m}$  (y), 47.6  $\mu\text{m}$  (z)

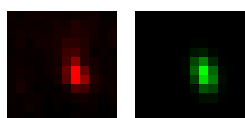
Corresponding bead : Not found



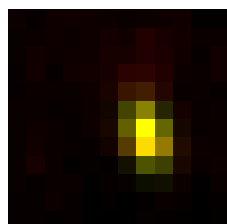
FWHM	Non corrected	Corrected	Theoretical
min	368 nm	383 nm	270 nm
max	606 nm	631 nm	270 nm
z	1.9 $\mu\text{m}$	1.9 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.607		
Theta	-74.2°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.939$



Parameters:

$A = 579.331$  (brightness)

$B = 125.747$  (background)

$a = 0.946$  px

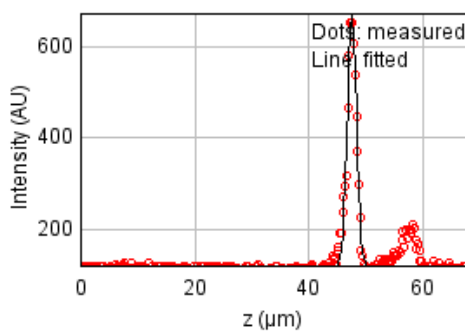
$b = -0.164$  px

$c = 0.412$  px

$x_c = 7.076$  px

$y_c = 6.351$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 117821.464

Standard deviation: 19.59039

$R^2: 0.94238$

Parameters:

$a = 118.95614$

$b = 675.91159$

$c = 47.60019$

$d = 0.80502$

## Bead 2469

Date : Mon Oct 17 13:53:27 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

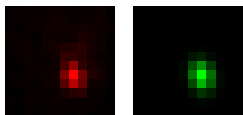
Coordinates : -136  $\mu\text{m}$  (x), 52.9  $\mu\text{m}$  (y), 48.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

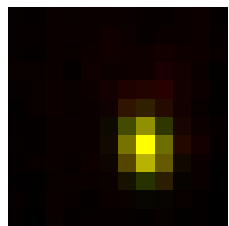
FWHM	Non corrected	Corrected	Theoretical
min	401 nm	417 nm	270 nm
max	548 nm	571 nm	270 nm
z	2.26 $\mu\text{m}$	2.27 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.731		
Theta	-78.5°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.958$



Parameters:

$A = 637.686$  (brightness)

$B = 124.079$  (background)

$a = 0.820$  px

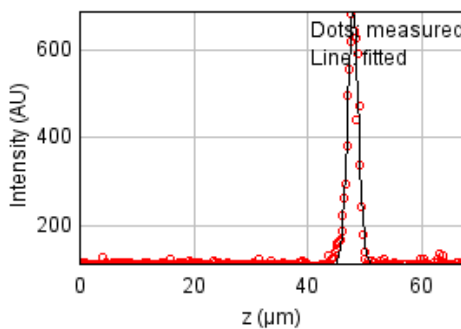
$b = -0.076$  px

$c = 0.462$  px

$x_c = 6.999$  px

$y_c = 7.117$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 84424.1315

Standard deviation: 16.58304

$R^2: 0.96614$

Parameters:

$a = 112.27800$

$b = 685.34671$

$c = 47.97611$

$d = 0.95864$

## Bead 2470

Date : Mon Oct 17 13:53:27 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

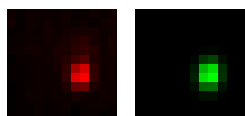
Coordinates : -43.0  $\mu\text{m}$  (x), 52.3  $\mu\text{m}$  (y), 47.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

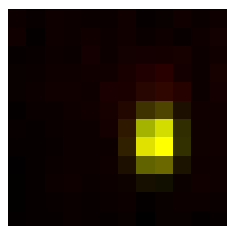
FWHM	Non corrected	Corrected	Theoretical
min	385 nm	401 nm	270 nm
max	510 nm	531 nm	270 nm
z	2.31 $\mu\text{m}$	2.32 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.756		
Theta	83.9°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.963$



Parameters:

A = 668.722 (brightness)

B = 122.597 (background)

a = 0.899 px

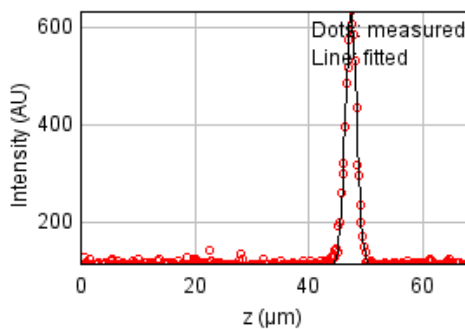
b = 0.041 px

c = 0.521 px

xc = 7.587 px

yc = 6.671 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 24264.3732

Standard deviation: 8.89028

$R^2$ : 0.98812

Parameters:

a = 113.29500

b = 632.54866

c = 47.44790

d = 0.97919

## Bead 2471

Date : Mon Oct 17 13:53:27 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

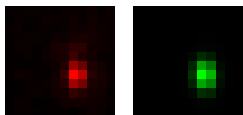
Coordinates : -131  $\mu\text{m}$  (x), 46.7  $\mu\text{m}$  (y), 47.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

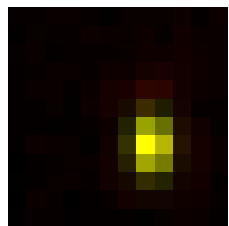
FWHM	Non corrected	Corrected	Theoretical
min	372 nm	387 nm	270 nm
max	551 nm	574 nm	270 nm
z	1.86 $\mu\text{m}$	1.86 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.675		
Theta	-87.9°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.961$



Parameters:

A = 506.401 (brightness)

B = 121.297 (background)

a = 0.971 px

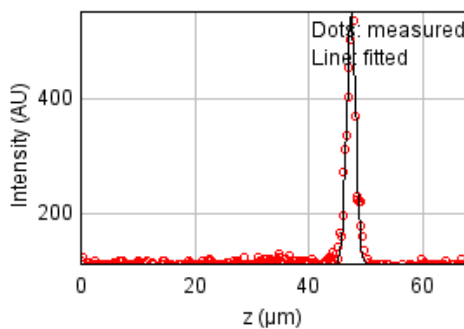
b = -0.020 px

c = 0.443 px

$x_c = 7.329$  px

$y_c = 7.025$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 53917.9448

Standard deviation: 13.25249

$R^2$ : 0.95608

Parameters:

a = 113.10690

b = 552.06864

c = 47.47564

d = 0.78859

## Bead 2472

Date : Mon Oct 17 13:53:27 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

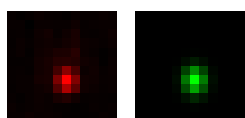
Coordinates : -65.3  $\mu\text{m}$  (x), 45.4  $\mu\text{m}$  (y), 47.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

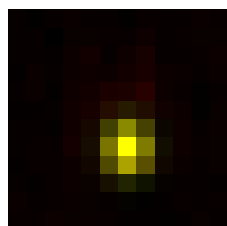
FWHM	Non corrected	Corrected	Theoretical
min	420 nm	437 nm	270 nm
max	502 nm	523 nm	270 nm
z	2.16 $\mu\text{m}$	2.17 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.836		
Theta	-88.1°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.969$



Parameters:

$A = 851.348$  (brightness)

$B = 130.917$  (background)

$a = 0.761$  px

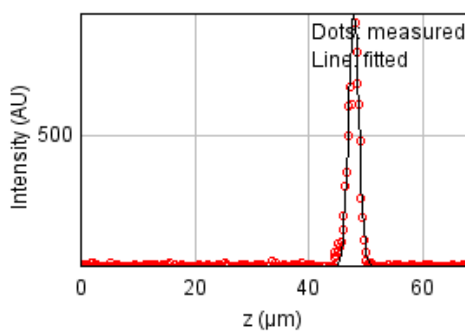
$b = -0.008$  px

$c = 0.533$  px

$x_c = 6.013$  px

$y_c = 7.080$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 118691.831

Standard deviation: 19.66261

$R^2: 0.97075$

Parameters:

$a = 113.78786$

$b = 862.62562$

$c = 47.93334$

$d = 0.91588$



## Bead 2473

Date : Mon Oct 17 13:53:27 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

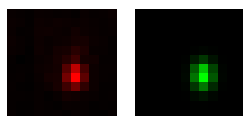
Coordinates : -14.1  $\mu\text{m}$  (x), 1.49  $\mu\text{m}$  (y), 47.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

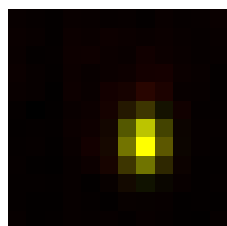
FWHM	Non corrected	Corrected	Theoretical
min	379 nm	395 nm	270 nm
max	504 nm	525 nm	270 nm
z	2.01 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.751		
Theta	89.6°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.972$



Parameters:

A = 843.656 (brightness)

B = 126.172 (background)

a = 0.935 px

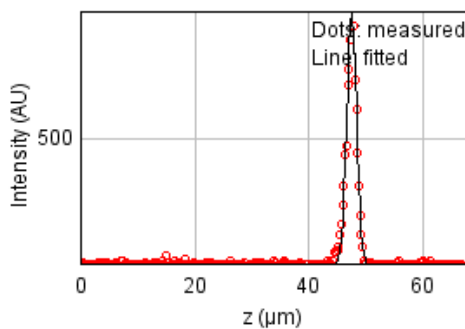
b = 0.003 px

c = 0.528 px

xc = 6.926 px

yc = 6.750 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 44770.8789

Standard deviation: 12.07615

$R^2$ : 0.98885

Parameters:

a = 114.09644

b = 890.89411

c = 47.56263

d = 0.85489

## Bead 2474

Date : Mon Oct 17 13:53:27 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

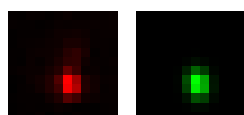
Coordinates : 40.8  $\mu\text{m}$  (x), -58.5  $\mu\text{m}$  (y), 47.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

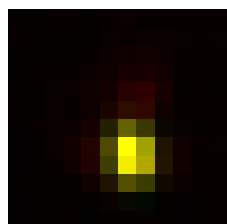
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	412 nm	270 nm
max	512 nm	533 nm	270 nm
z	1.95 $\mu\text{m}$	1.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.773		
Theta	-81.5°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.959$



Parameters:

$A = 929.397$  (brightness)

$B = 126.786$  (background)

$a = 0.848$  px

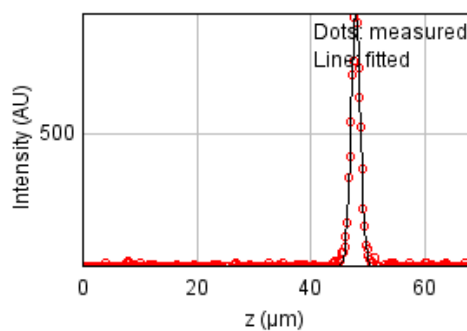
$b = -0.051$  px

$c = 0.519$  px

$x_c = 6.260$  px

$y_c = 7.453$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 26125.2202

Standard deviation: 9.22488

$R^2: 0.99252$

Parameters:

$a = 113.73395$

$b = 851.37462$

$c = 47.91615$

$d = 0.82610$

## Bead 2475

Date : Mon Oct 17 13:53:27 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

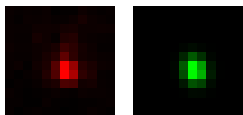
Coordinates : -13.6  $\mu\text{m}$  (x), -62.5  $\mu\text{m}$  (y), 48.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

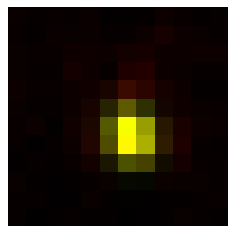
FWHM	Non corrected	Corrected	Theoretical
min	414 nm	432 nm	270 nm
max	504 nm	525 nm	270 nm
z	1.97 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.822		
Theta	-74.1°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.958$



Parameters:

A = 680.498 (brightness)

B = 125.395 (background)

a = 0.762 px

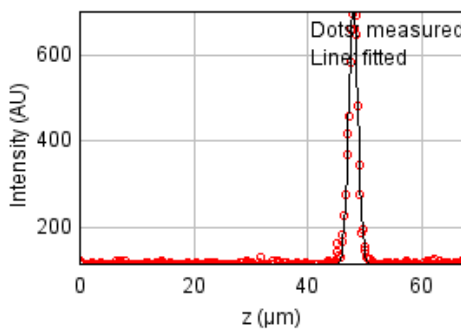
b = -0.067 px

c = 0.547 px

xc = 6.228 px

yc = 6.500 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 33895.7165

Standard deviation: 10.50759

$R^2$ : 0.98506

Parameters:

a = 113.81643

b = 703.13678

c = 48.03475

d = 0.83498

## Bead 2476

Date : Mon Oct 17 13:53:27 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

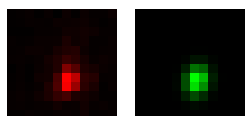
Coordinates : -108  $\mu\text{m}$  (x), -82.9  $\mu\text{m}$  (y), 47.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

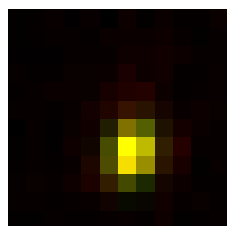
FWHM	Non corrected	Corrected	Theoretical
min	415 nm	432 nm	270 nm
max	540 nm	562 nm	270 nm
z	2.22 $\mu\text{m}$	2.23 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.769		
Theta	77.1°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.958$



Parameters:

A = 596.259 (brightness)

B = 123.049 (background)

a = 0.764 px

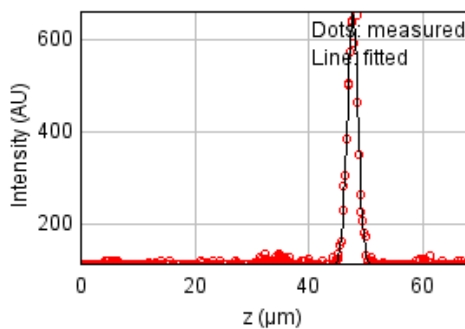
b = 0.069 px

c = 0.477 px

xc = 6.265 px

yc = 7.316 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 45220.4418

Standard deviation: 12.13663

$R^2$ : 0.97958

Parameters:

a = 113.37183

b = 661.03370

c = 47.74811

d = 0.94416

## Bead 2477

Date : Mon Oct 17 13:53:27 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

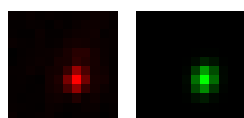
Coordinates : 2.42  $\mu\text{m}$  (x), -85.2  $\mu\text{m}$  (y), 47.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

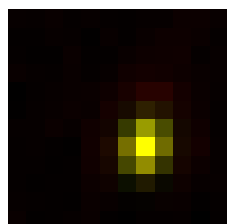
FWHM	Non corrected	Corrected	Theoretical
min	393 nm	409 nm	270 nm
max	502 nm	523 nm	270 nm
z	1.94 $\mu\text{m}$	1.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.782		
Theta	77.0°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.961$



Parameters:

A = 801.857 (brightness)

B = 128.227 (background)

a = 0.851 px

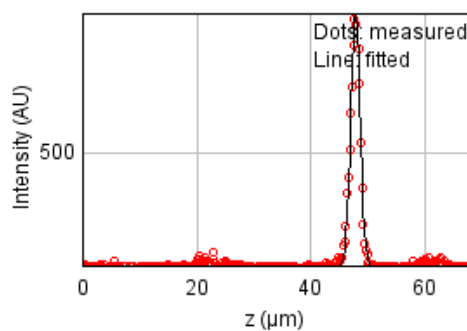
b = 0.074 px

c = 0.549 px

xc = 6.994 px

yc = 6.950 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 68359.6047

Standard deviation: 14.92212

$R^2$ : 0.98551

Parameters:

a = 119.31394

b = 974.17388

c = 47.88124

d = 0.82538

## Bead 2478 (Rejected)

Date : Mon Oct 17 13:53:27 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : 102 um (x), 91.8 um (y), 43.8 um (z)

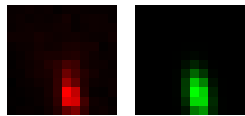
Corresponding bead : Not found

Reason of rejection : The fitted bead is likely to be a different bead from the center bead.

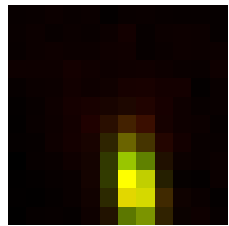
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	412 nm	270 nm
max	828 nm	863 nm	270 nm
z	3.47 um	3.49 um	1.3 um
Asymmetry	0.478		
Theta	-80.5°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.956$



Parameters:

A = 549.135 (brightness)

B = 127.065 (background)

a = 0.838 px

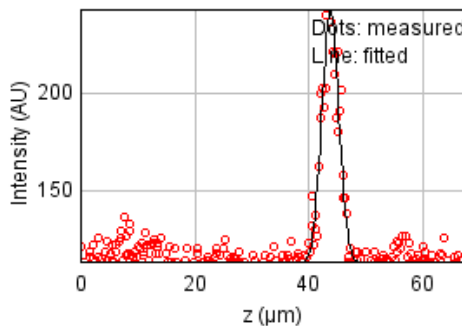
b = -0.108 px

c = 0.214 px

xc = 6.413 px

yc = 9.310 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 19933.5634

Standard deviation: 8.05793

$R^2$ : 0.90100

Parameters:

a = 113.82408

b = 242.46032

c = 43.82174

d = 1.47456

## Bead 2479

Date : Mon Oct 17 13:53:27 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

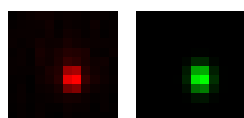
Coordinates : -35.5  $\mu\text{m}$  (x), 83.7  $\mu\text{m}$  (y), 47.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

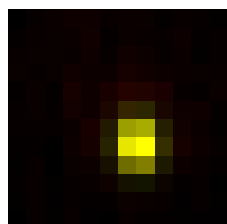
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	404 nm	270 nm
max	492 nm	512 nm	270 nm
z	2.07 $\mu\text{m}$	2.08 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.788		
Theta	-86.1°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.973$



Parameters:

$A = 877.246$  (brightness)

$B = 128.535$  (background)

$a = 0.892$  px

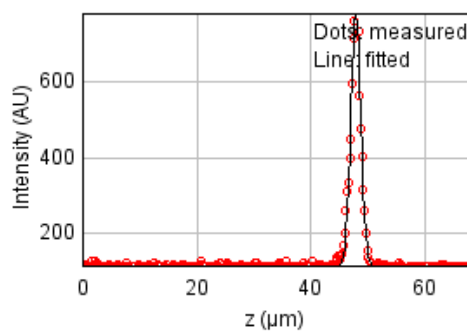
$b = -0.023$  px

$c = 0.556$  px

$x_c = 6.556$  px

$y_c = 6.845$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 36018.0524

Standard deviation: 10.83156

$R^2: 0.98817$

Parameters:

$a = 113.59275$

$b = 780.98768$

$c = 47.94476$

$d = 0.87853$

## Bead 2480

Date : Mon Oct 17 13:53:27 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

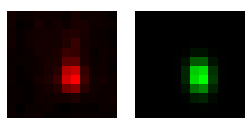
Coordinates : 148 um (x), -22.3 um (y), 47.7 um (z)

Corresponding bead : Not found

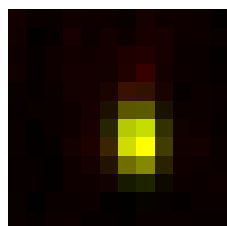
FWHM	Non corrected	Corrected	Theoretical
min	408 nm	425 nm	270 nm
max	594 nm	619 nm	270 nm
z	1.95 um	1.96 um	1.3 um
Asymmetry	0.687		
Theta	-86.0°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.953$



Parameters:

A = 531.231 (brightness)

B = 120.507 (background)

a = 0.803 px

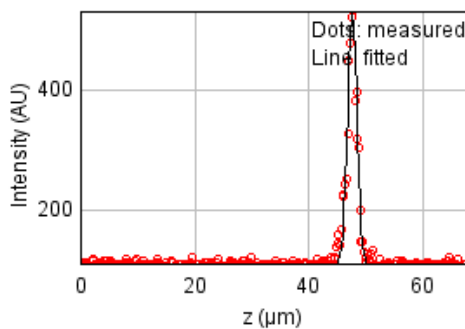
b = -0.030 px

c = 0.382 px

xc = 6.582 px

yc = 6.651 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 38818.2556

Standard deviation: 11.24472

$R^2$ : 0.96689

Parameters:

a = 110.55072

b = 531.53495

c = 47.66760

d = 0.82983



## Bead 2481 (Rejected)

Date : Mon Oct 17 13:53:27 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : -135  $\mu\text{m}$  (x), -27.7  $\mu\text{m}$  (y), 45.0  $\mu\text{m}$  (z)

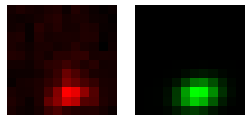
Corresponding bead : Not found

Reason of rejection : The fitted bead is likely to be a different bead from the center bead.

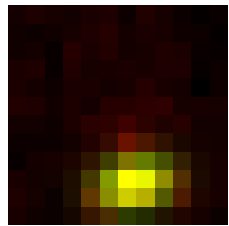
FWHM	Non corrected	Corrected	Theoretical
min	503 nm	524 nm	270 nm
max	730 nm	761 nm	270 nm
z	3.17 $\mu\text{m}$	3.18 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.689		
Theta	12.6°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.900$



Parameters:

A = 230.221 (brightness)

B = 118.445 (background)

a = 0.265 px

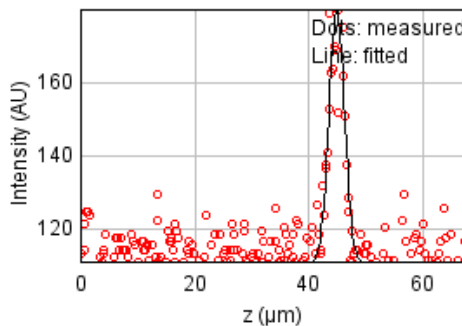
b = 0.059 px

c = 0.517 px

xc = 6.377 px

yc = 9.240 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 13258.0293

Standard deviation: 6.57159

$R^2$ : 0.78046

Parameters:

a = 111.26436

b = 179.64614

c = 44.95215

d = 1.34584

## Bead 2482

Date : Mon Oct 17 13:53:27 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

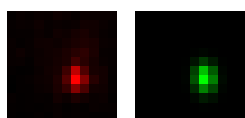
Coordinates : 35.4  $\mu\text{m}$  (x), -30.9  $\mu\text{m}$  (y), 48.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

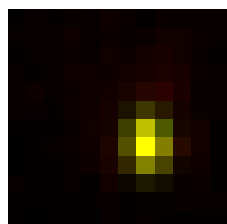
FWHM	Non corrected	Corrected	Theoretical
min	380 nm	396 nm	270 nm
max	529 nm	551 nm	270 nm
z	2.09 $\mu\text{m}$	2.1 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.718		
Theta	-86.8°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.947$



Parameters:

A = 691.351 (brightness)

B = 126.525 (background)

a = 0.929 px

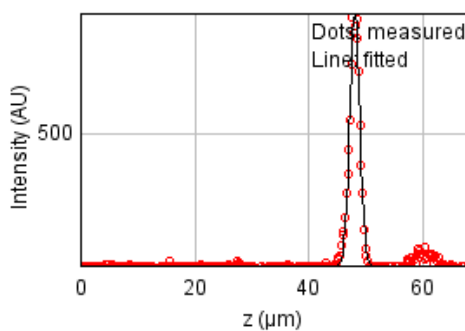
b = -0.025 px

c = 0.481 px

$x_c = 7.114$  px

$y_c = 6.804$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 63236.5007

Standard deviation: 14.35208

$R^2$ : 0.98302

Parameters:

a = 116.53270

b = 849.08748

c = 48.11711

d = 0.88802

## Bead 2483

Date : Mon Oct 17 13:53:27 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

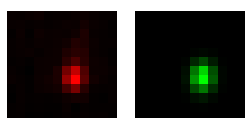
Coordinates : 47.0  $\mu\text{m}$  (x), -60.1  $\mu\text{m}$  (y), 48.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

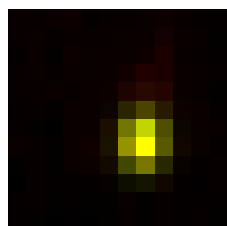
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	426 nm	270 nm
max	532 nm	554 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.769		
Theta	86.5°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.968$



Parameters:

$A = 673.610$  (brightness)

$B = 123.198$  (background)

$a = 0.800$  px

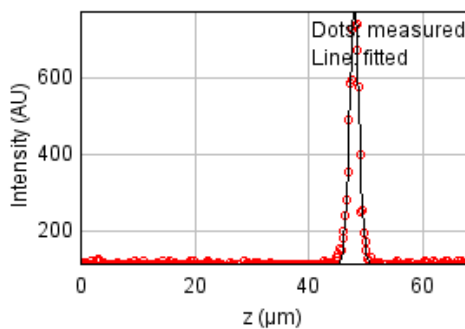
$b = 0.020$  px

$c = 0.475$  px

$x_c = 6.849$  px

$y_c = 6.699$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 36722.1793

Standard deviation: 10.93692

$R^2: 0.98730$

Parameters:

$a = 112.74207$

$b = 773.52571$

$c = 48.02942$

$d = 0.84893$

## Bead 2484

Date : Mon Oct 17 13:53:28 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

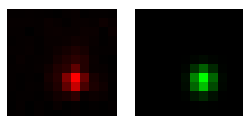
Coordinates : 21.8  $\mu\text{m}$  (x), -86.6  $\mu\text{m}$  (y), 48.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

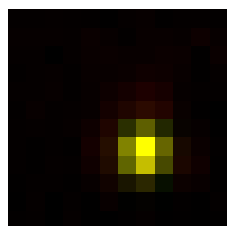
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	426 nm	270 nm
max	456 nm	475 nm	270 nm
z	1.96 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.896		
Theta	84.1°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.956$



Parameters:

$A = 947.961$  (brightness)

$B = 130.498$  (background)

$a = 0.800$  px

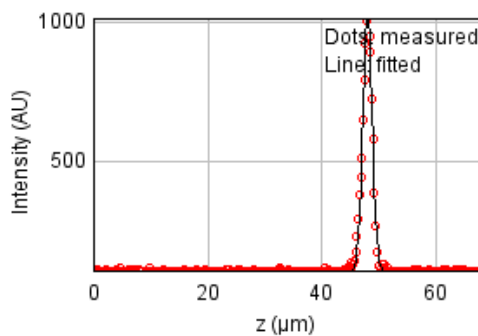
$b = 0.016$  px

$c = 0.646$  px

$x_c = 6.912$  px

$y_c = 7.272$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 47432.8963

Standard deviation: 12.42999

$R^2: 0.99102$

Parameters:

$a = 113.64611$

$b = 1017.14085$

$c = 48.07462$

$d = 0.83241$

## Bead 2485

Date : Mon Oct 17 13:53:28 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

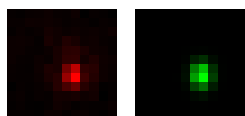
Coordinates : -131  $\mu\text{m}$  (x), -88.1  $\mu\text{m}$  (y), 47.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

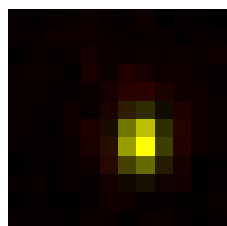
FWHM	Non corrected	Corrected	Theoretical
min	376 nm	391 nm	270 nm
max	479 nm	499 nm	270 nm
z	1.94 $\mu\text{m}$	1.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.783		
Theta	-89.0°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.942$



Parameters:

A = 506.652 (brightness)

B = 121.211 (background)

a = 0.951 px

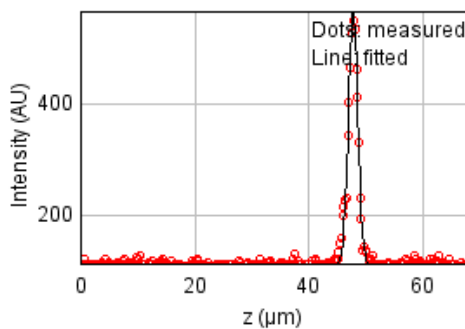
b = -0.007 px

c = 0.584 px

xc = 6.755 px

yc = 6.744 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 23909.8275

Standard deviation: 8.82509

$R^2$ : 0.98204

Parameters:

a = 112.05925

b = 565.61681

c = 47.81928

d = 0.82449

## Bead 2486

Date : Mon Oct 17 13:53:28 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

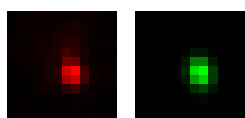
Coordinates : 74.1  $\mu\text{m}$  (x), 75.5  $\mu\text{m}$  (y), 48.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

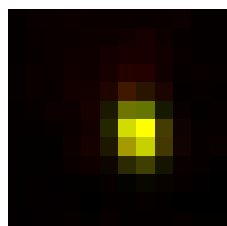
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	422 nm	270 nm
max	534 nm	556 nm	270 nm
z	1.87 $\mu\text{m}$	1.88 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.76		
Theta	-77.2°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.960$



Parameters:

$A = 837.393$  (brightness)

$B = 128.702$  (background)

$a = 0.799$  px

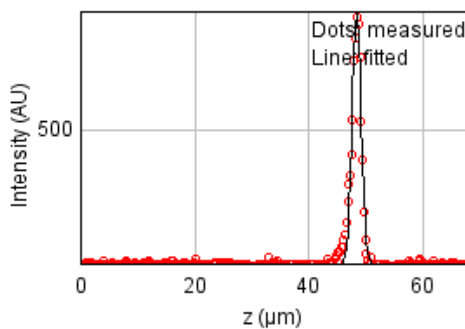
$b = -0.074$  px

$c = 0.488$  px

$x_c = 6.617$  px

$y_c = 6.235$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 68204.4226

Standard deviation: 14.90518

$R^2: 0.97946$

Parameters:

$a = 114.03039$

$b = 841.73649$

$c = 48.45374$

$d = 0.79549$

## Bead 2487

Date : Mon Oct 17 13:53:28 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

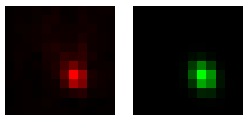
Coordinates : 44.0  $\mu\text{m}$  (x), 68.5  $\mu\text{m}$  (y), 48.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

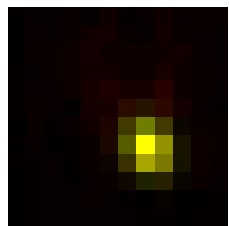
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	417 nm	270 nm
max	505 nm	526 nm	270 nm
z	1.89 $\mu\text{m}$	1.9 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.792		
Theta	-66.1°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.951$



Parameters:

$A = 586.134$  (brightness)

$B = 126.337$  (background)

$a = 0.787$  px

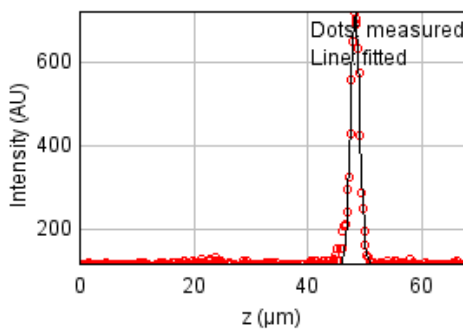
$b = -0.116$  px

$c = 0.577$  px

$x_c = 7.172$  px

$y_c = 7.159$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 34016.1708

Standard deviation: 10.52625

$R^2: 0.98533$

Parameters:

$a = 114.59581$

$b = 721.23753$

$c = 48.36451$

$d = 0.80448$

## Bead 2488 (Rejected)

Date : Mon Oct 17 13:53:28 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : 135 um (x), 58.1 um (y), 45.0 um (z)

Corresponding bead : Not found

Reason of rejection : The fitted bead is likely to be a different bead from the center bead.

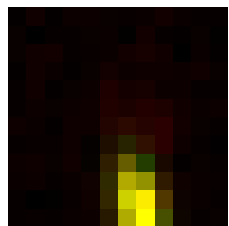
FWHM	Non corrected	Corrected	Theoretical
min	407 nm	424 nm	270 nm
max	890 nm	927 nm	270 nm
z	3.23 um	3.24 um	1.3 um
Asymmetry	0.458		
Theta	-77.1°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.958$



Parameters:

A = 376.763 (brightness)

B = 119.728 (background)

a = 0.777 px

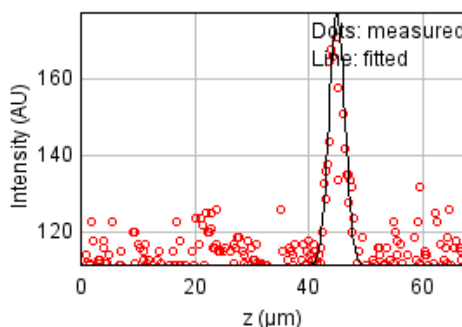
b = -0.139 px

c = 0.201 px

xc = 6.660 px

yc = 10.462 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 14794.9494

Standard deviation: 6.94205

$R^2$ : 0.75278

Parameters:

a = 111.25343

b = 177.56484

c = 44.98237

d = 1.36981



## Bead 2489 (Rejected)

Date : Mon Oct 17 13:53:28 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : 158 um (x), 54.4 um (y), 47.5 um (z)

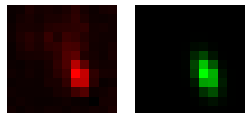
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

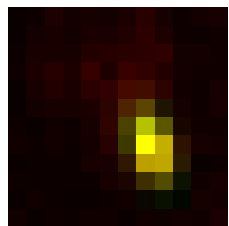
FWHM	Non corrected	Corrected	Theoretical
min	364 nm	379 nm	270 nm
max	666 nm	693 nm	270 nm
z	1.61 um	1.62 um	1.3 um
Asymmetry	0.547		
Theta	-71.5°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.908$



Parameters:

A = 423.284 (brightness)

B = 124.147 (background)

a = 0.941 px

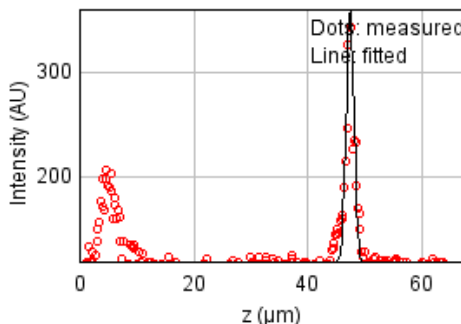
b = -0.214 px

c = 0.375 px

xc = 7.309 px

yc = 7.048 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 113086.635

Standard deviation: 19.19272

$R^2$ : 0.73919

Parameters:

a = 116.70044

b = 362.28198

c = 47.45270

d = 0.68413

## Bead 2490 (Rejected)

Date : Mon Oct 17 13:53:28 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : 161  $\mu\text{m}$  (x), 46.9  $\mu\text{m}$  (y), 49.0  $\mu\text{m}$  (z)

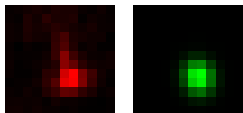
Corresponding bead : Not found

Reason of rejection : The fitted bead is likely to be a different bead from the center bead.

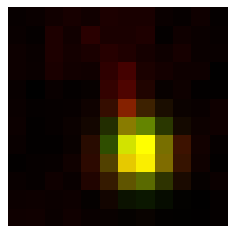
FWHM	Non corrected	Corrected	Theoretical
min	527 nm	549 nm	270 nm
max	612 nm	637 nm	270 nm
z	4.14 $\mu\text{m}$	4.15 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.861		
Theta	-77.4°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.882$



Parameters:

A = 405.401 (brightness)

B = 126.211 (background)

a = 0.478 px

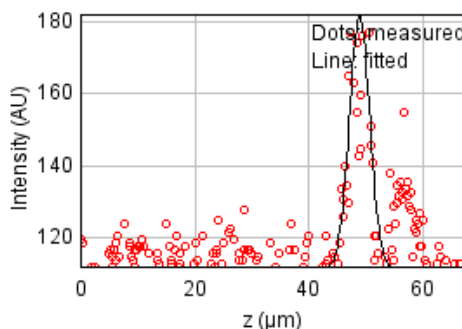
b = -0.026 px

c = 0.365 px

xc = 6.644 px

yc = 7.375 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 29856.2558

Standard deviation: 9.86162

$R^2$ : 0.67751

Parameters:

a = 111.96668

b = 181.82525

c = 48.95166

d = 1.75672

## Bead 2491

Date : Mon Oct 17 13:53:29 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

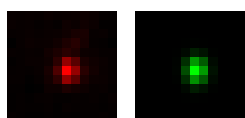
Coordinates : -60.7  $\mu\text{m}$  (x), 37.3  $\mu\text{m}$  (y), 47.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

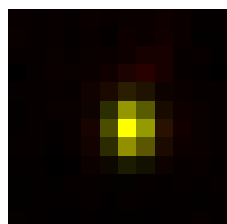
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	413 nm	270 nm
max	493 nm	514 nm	270 nm
z	1.96 $\mu\text{m}$	1.96 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.804		
Theta	-89.2°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.967$



Parameters:

A = 679.172 (brightness)

B = 124.344 (background)

a = 0.854 px

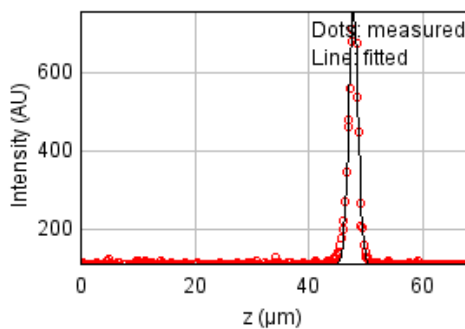
b = -0.004 px

c = 0.552 px

xc = 6.204 px

yc = 5.978 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 42635.3879

Standard deviation: 11.78463

$R^2$ : 0.98417

Parameters:

a = 113.30418

b = 756.94250

c = 47.86820

d = 0.83048

## Bead 2492

Date : Mon Oct 17 13:53:29 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

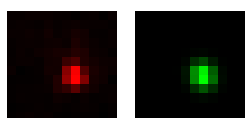
Coordinates : -41.4  $\mu\text{m}$  (x), 36.1  $\mu\text{m}$  (y), 48.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

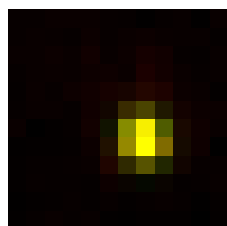
FWHM	Non corrected	Corrected	Theoretical
min	421 nm	438 nm	270 nm
max	478 nm	498 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.881		
Theta	-75.3°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.972$



Parameters:

$A = 701.944$  (brightness)

$B = 125.372$  (background)

$a = 0.746$  px

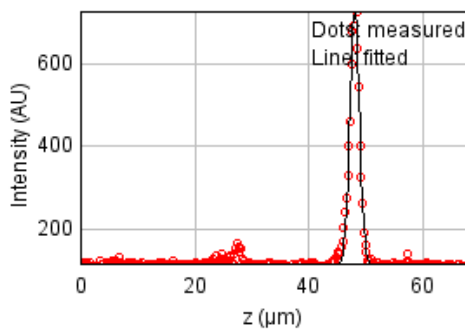
$b = -0.042$  px

$c = 0.598$  px

$x_c = 6.890$  px

$y_c = 6.549$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 41426.1001

Standard deviation: 11.61630

$R^2: 0.98339$

Parameters:

$a = 115.77920$

$b = 728.32739$

$c = 48.09318$

$d = 0.84923$

## Bead 2493

Date : Mon Oct 17 13:53:29 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

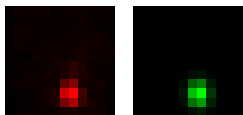
Coordinates : -44.3  $\mu\text{m}$  (x), 31.8  $\mu\text{m}$  (y), 51.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

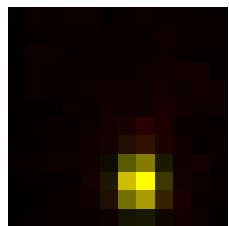
FWHM	Non corrected	Corrected	Theoretical
min	382 nm	398 nm	270 nm
max	465 nm	484 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.821		
Theta	-88.5°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.966$



Parameters:

$A = 748.343$  (brightness)

$B = 128.277$  (background)

$a = 0.919$  px

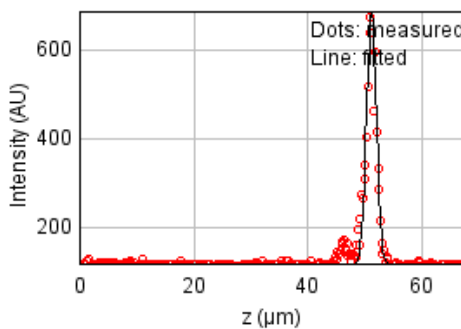
$b = -0.008$  px

$c = 0.621$  px

$x_c = 6.664$  px

$y_c = 9.089$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 91684.2320

Standard deviation: 17.28137

$R^2: 0.95911$

Parameters:

$a = 115.69686$

$b = 685.98601$

$c = 51.21521$

$d = 0.85943$

## Bead 2494

Date : Mon Oct 17 13:53:29 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

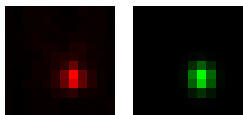
Coordinates : 13.0  $\mu\text{m}$  (x), 28.2  $\mu\text{m}$  (y), 48.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

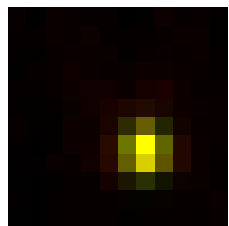
FWHM	Non corrected	Corrected	Theoretical
min	398 nm	415 nm	270 nm
max	465 nm	485 nm	270 nm
z	1.88 $\mu\text{m}$	1.88 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.856		
Theta	-87.6°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.958$



Parameters:

A = 797.291 (brightness)

B = 126.484 (background)

a = 0.846 px

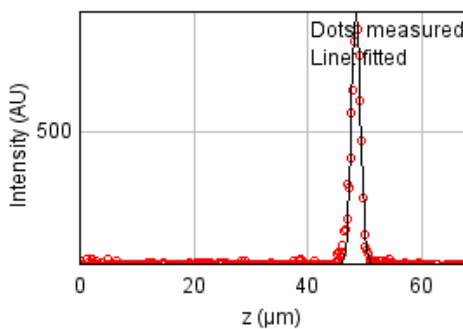
b = -0.010 px

c = 0.620 px

xc = 6.960 px

yc = 7.327 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 57756.7926

Standard deviation: 13.71615

$R^2$ : 0.98318

Parameters:

a = 116.51758

b = 857.29270

c = 48.51240

d = 0.79685

## Bead 2495

Date : Mon Oct 17 13:53:29 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

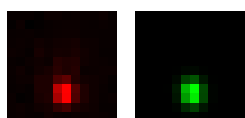
Coordinates : -71.3  $\mu\text{m}$  (x), -8.56  $\mu\text{m}$  (y), 44.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

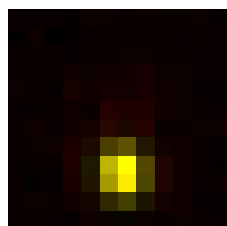
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	423 nm	270 nm
max	471 nm	491 nm	270 nm
z	1.93 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.861		
Theta	-80.7°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.968$



Parameters:

$A = 740.645$  (brightness)

$B = 123.118$  (background)

$a = 0.810$  px

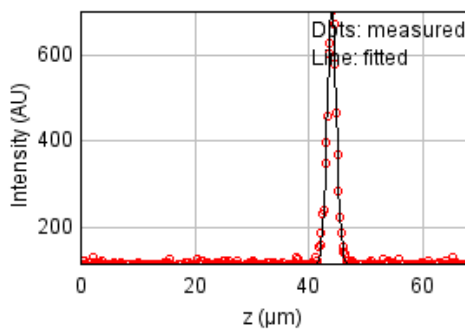
$b = -0.034$  px

$c = 0.609$  px

$x_c = 5.730$  px

$y_c = 8.412$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 21303.3836

Standard deviation: 8.33019

$R^2 = 0.99046$

Parameters:

$a = 113.44418$

$b = 704.86178$

$c = 44.08111$

$d = 0.81980$

## Bead 2496 (Rejected)

Date : Mon Oct 17 13:53:29 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

Coordinates : 429 nm (x), -30.0 um (y), 48.7 um (z)

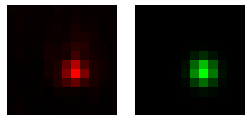
Corresponding bead : Not found

Reason of rejection : The fitted bead is likely to be a different bead from the center bead.

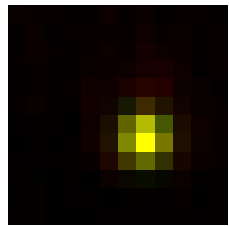
FWHM	Non corrected	Corrected	Theoretical
min	439 nm	457 nm	270 nm
max	474 nm	494 nm	270 nm
z	3.37 um	3.38 um	1.3 um
Asymmetry	0.925		
Theta	-87.3°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.957$



Parameters:

A = 805.766 (brightness)

B = 129.011 (background)

a = 0.696 px

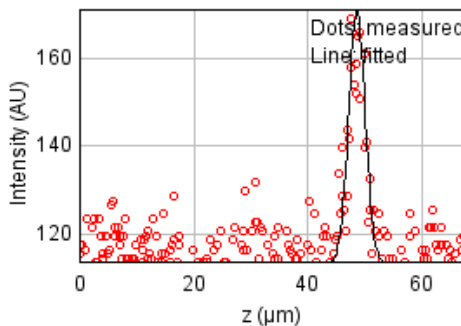
b = -0.005 px

c = 0.597 px

xc = 6.949 px

yc = 6.756 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 15332.0415

Standard deviation: 7.06693

$R^2$ : 0.69270

Parameters:

a = 113.88945

b = 170.81680

c = 48.65944

d = 1.43081



## Bead 2497

Date : Mon Oct 17 13:53:29 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

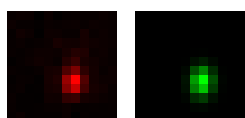
Coordinates : 11.6  $\mu\text{m}$  (x), -32.5  $\mu\text{m}$  (y), 48.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

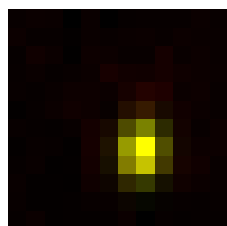
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	416 nm	270 nm
max	533 nm	555 nm	270 nm
z	1.98 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.749		
Theta	86.0°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.970$



Parameters:

$A = 577.107$  (brightness)

$B = 125.970$  (background)

$a = 0.839$  px

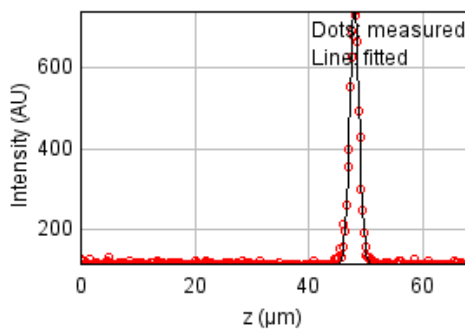
$b = 0.026$  px

$c = 0.474$  px

$x_c = 6.789$  px

$y_c = 7.224$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 27820.7923

Standard deviation: 9.51953

$R^2: 0.98927$

Parameters:

$a = 114.57197$

$b = 744.12230$

$c = 48.06254$

$d = 0.84008$

## Bead 2498

Date : Mon Oct 17 13:53:30 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

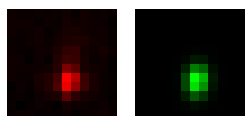
Coordinates : 134  $\mu\text{m}$  (x), -48.4  $\mu\text{m}$  (y), 48.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

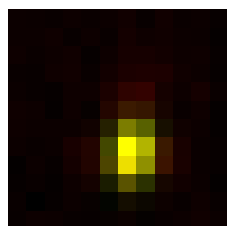
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	423 nm	270 nm
max	564 nm	587 nm	270 nm
z	1.92 $\mu\text{m}$	1.93 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.72		
Theta	83.3°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.945$



Parameters:

A = 549.675 (brightness)

B = 120.232 (background)

a = 0.809 px

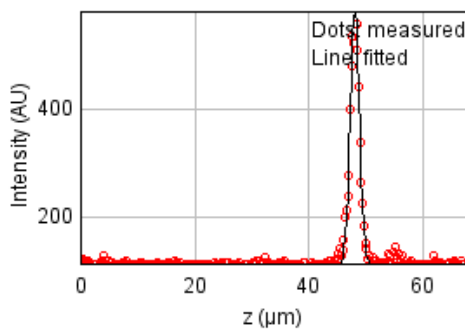
b = 0.046 px

c = 0.428 px

xc = 6.268 px

yc = 7.311 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 23231.4795

Standard deviation: 8.69900

$R^2$ : 0.98363

Parameters:

a = 111.62304

b = 582.28121

c = 48.12739

d = 0.81717

## Bead 2499

Date : Mon Oct 17 13:53:30 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

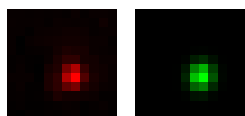
Coordinates : -76.8  $\mu\text{m}$  (x), -78.8  $\mu\text{m}$  (y), 48.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

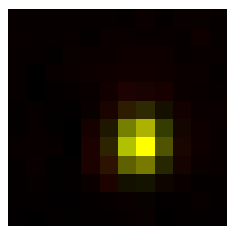
FWHM	Non corrected	Corrected	Theoretical
min	434 nm	452 nm	270 nm
max	496 nm	516 nm	270 nm
z	1.89 $\mu\text{m}$	1.9 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.876		
Theta	80.8°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.968$



Parameters:

A = 808.533 (brightness)

B = 126.712 (background)

a = 0.708 px

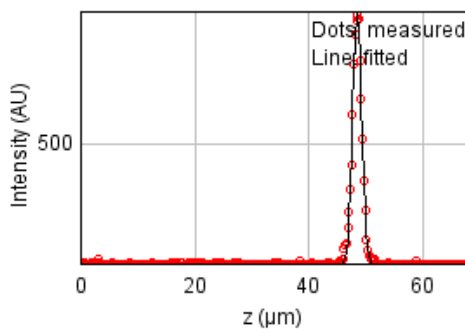
b = 0.026 px

c = 0.550 px

$x_c = 6.708$  px

$y_c = 6.845$  px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 18701.3573

Standard deviation: 7.80490

$R^2$ : 0.99546

Parameters:

a = 112.87382

b = 925.55684

c = 48.54035

d = 0.80370

## Bead 2500

Date : Mon Oct 17 13:53:30 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x0.95 air )

Frame size : 12 pixels

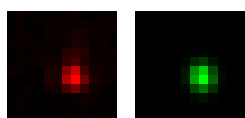
Coordinates : 34.7  $\mu\text{m}$  (x), -83.4  $\mu\text{m}$  (y), 48.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

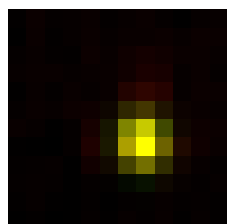
FWHM	Non corrected	Corrected	Theoretical
min	432 nm	450 nm	270 nm
max	503 nm	523 nm	270 nm
z	2.09 $\mu\text{m}$	2.1 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.86		
Theta	-81.2°		

### XY profile & fitting parameters :

(red : the original data, green : the fit, yellow : the two merged)



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.960$



Parameters:

A = 706.776 (brightness)

B = 126.680 (background)

a = 0.713 px

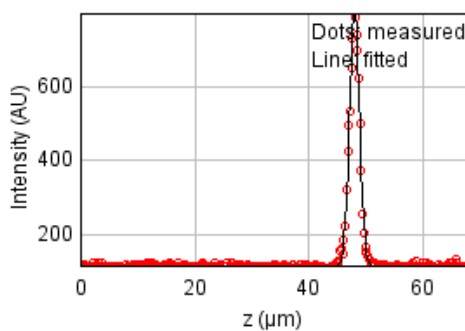
b = -0.028 px

c = 0.536 px

xc = 6.819 px

yc = 6.713 px

### Z profile & fitting parameters:



Fitted on  $y = a + (b-a)*\exp(-(x-c)^2/(2*d^2))$

Sum of residuals squared: 27333.4884

Standard deviation: 9.43579

$R^2$ : 0.99165

Parameters:

a = 112.94879

b = 803.21951

c = 48.07219

d = 0.88722