

## Bead 2501

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

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

Frame size : 12 pixels

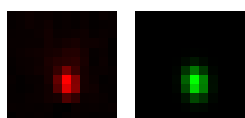
Coordinates : 37.0  $\mu\text{m}$  (x), 92.7  $\mu\text{m}$  (y), 48.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

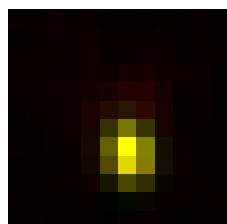
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	417 nm	270 nm
max	539 nm	562 nm	270 nm
z	1.86 $\mu\text{m}$	1.87 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.742		
Theta	-80.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 754.706$  (brightness)

$B = 127.391$  (background)

$a = 0.828$  px

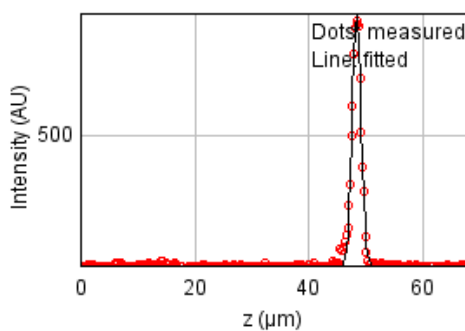
$b = -0.058$  px

$c = 0.471$  px

$x_c = 6.115$  px

$y_c = 7.335$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 33635.1496

Standard deviation: 10.46713

$R^2: 0.99027$

Parameters:

$a = 114.55604$

$b = 862.81765$

$c = 48.43852$

$d = 0.79159$

## Bead 2502

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

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

Frame size : 12 pixels

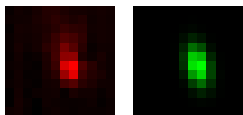
Coordinates : 131 um (x), 86.1 um (y), 48.2 um (z)

Corresponding bead : Not found

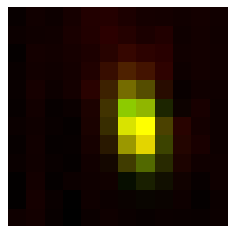
FWHM	Non corrected	Corrected	Theoretical
min	418 nm	436 nm	270 nm
max	756 nm	787 nm	270 nm
z	1.99 um	2.0 um	1.3 um
Asymmetry	0.553		
Theta	-77.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.903$



Parameters:

A = 365.822 (brightness)

B = 119.621 (background)

a = 0.743 px

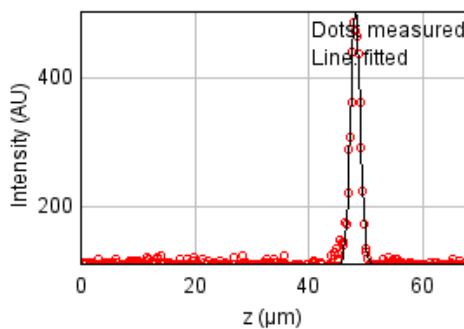
b = -0.112 px

c = 0.260 px

xc = 6.573 px

yc = 5.965 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18565.9638

Standard deviation: 7.77660

$R^2$ : 0.98174

Parameters:

a = 111.91296

b = 503.37072

c = 48.23030

d = 0.84611

## Bead 2503

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

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

Frame size : 12 pixels

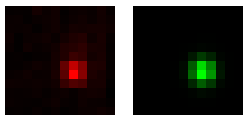
Coordinates : -130  $\mu\text{m}$  (x), 77.6  $\mu\text{m}$  (y), 48.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

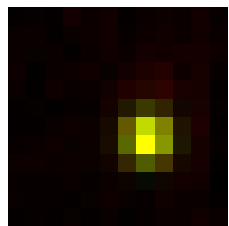
FWHM	Non corrected	Corrected	Theoretical
min	434 nm	452 nm	270 nm
max	476 nm	496 nm	270 nm
z	1.97 $\mu\text{m}$	1.98 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.911		
Theta	-89.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 475.706$  (brightness)

$B = 117.393$  (background)

$a = 0.713$  px

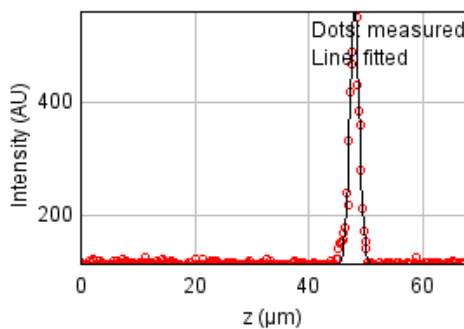
$b = -0.001$  px

$c = 0.592$  px

$x_c = 7.129$  px

$y_c = 6.631$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22742.3181

Standard deviation: 8.60693

$R^2: 0.98319$

Parameters:

$a = 111.82046$

$b = 566.33362$

$c = 48.07472$

$d = 0.83580$

## Bead 2504 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : -114  $\mu\text{m}$  (x), 66.8  $\mu\text{m}$  (y), 44.5  $\mu\text{m}$  (z)

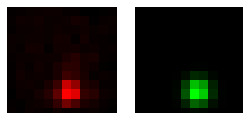
Corresponding bead : Not found

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

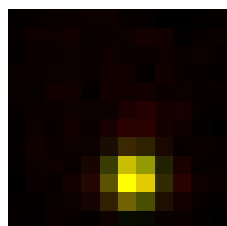
FWHM	Non corrected	Corrected	Theoretical
min	444 nm	463 nm	270 nm
max	464 nm	483 nm	270 nm
z	3.57 $\mu\text{m}$	3.58 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.958		
Theta	81.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 576.617 (brightness)

B = 123.972 (background)

a = 0.679 px

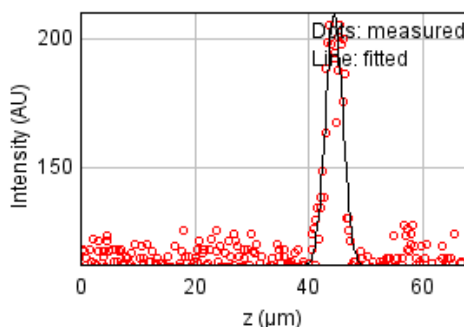
b = 0.008 px

c = 0.625 px

xc = 6.332 px

yc = 8.734 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17696.2661

Standard deviation: 7.59227

$R^2$ : 0.85899

Parameters:

a = 112.25829

b = 210.20477

c = 44.50929

d = 1.51476

## Bead 2505

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

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

Frame size : 12 pixels

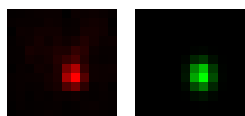
Coordinates : 36.9  $\mu\text{m}$  (x), 67.0  $\mu\text{m}$  (y), 48.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

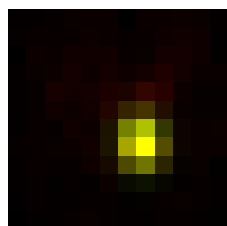
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	421 nm	270 nm
max	504 nm	525 nm	270 nm
z	2.05 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.802		
Theta	-86.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 781.992 (brightness)

B = 129.564 (background)

a = 0.820 px

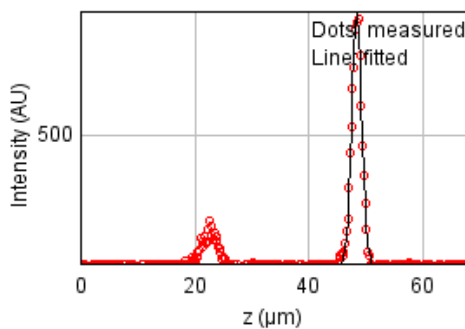
b = -0.016 px

c = 0.529 px

$x_c = 6.759$  px

$y_c = 6.752$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 148688.505

Standard deviation: 22.00744

$R^2$ : 0.96209

Parameters:

a = 119.78560

b = 870.14240

c = 48.46778

d = 0.87153

## Bead 2506

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

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

Frame size : 12 pixels

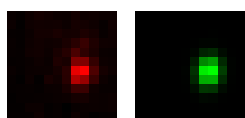
Coordinates : 55.6  $\mu\text{m}$  (x), 65.9  $\mu\text{m}$  (y), 48.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

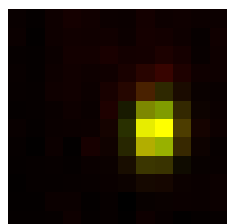
FWHM	Non corrected	Corrected	Theoretical
min	421 nm	438 nm	270 nm
max	560 nm	583 nm	270 nm
z	2.02 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.752		
Theta	84.6°		

### 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 = 476.029 (brightness)

B = 121.238 (background)

a = 0.754 px

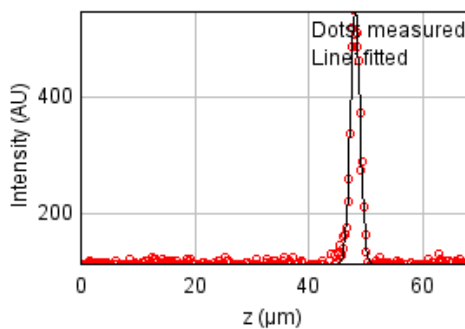
b = 0.031 px

c = 0.431 px

$x_c = 7.547$  px

$y_c = 6.105$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28750.0801

Standard deviation: 9.67721

$R^2$ : 0.97738

Parameters:

a = 113.55371

b = 547.79429

c = 48.19805

d = 0.85585

## Bead 2507

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

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

Frame size : 12 pixels

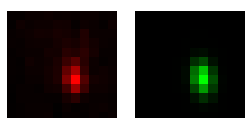
Coordinates : 94.1  $\mu\text{m}$  (x), 64.8  $\mu\text{m}$  (y), 48.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

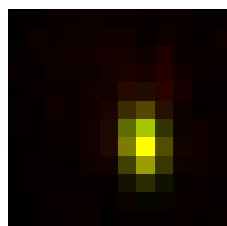
FWHM	Non corrected	Corrected	Theoretical
min	372 nm	387 nm	270 nm
max	601 nm	626 nm	270 nm
z	1.96 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.619		
Theta	-83.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 495.638 (brightness)

B = 123.444 (background)

a = 0.963 px

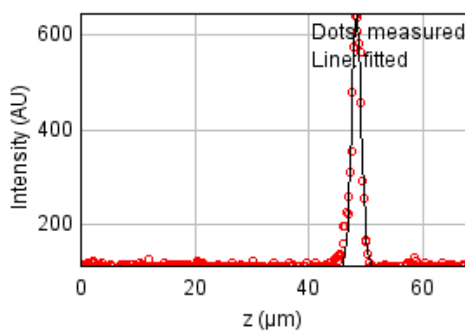
b = -0.068 px

c = 0.379 px

$x_c = 6.867$  px

$y_c = 6.823$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 39706.7925

Standard deviation: 11.37269

$R^2$ : 0.97863

Parameters:

a = 112.58379

b = 645.15039

c = 48.42226

d = 0.83211

## Bead 2508

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

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

Frame size : 12 pixels

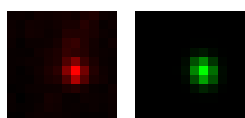
Coordinates : 81.8  $\mu\text{m}$  (x), 19.2  $\mu\text{m}$  (y), 48.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

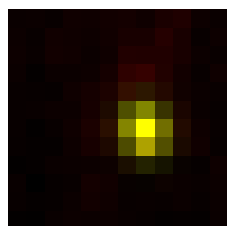
FWHM	Non corrected	Corrected	Theoretical
min	419 nm	436 nm	270 nm
max	502 nm	523 nm	270 nm
z	1.98 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.834		
Theta	-74.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 452.198 (brightness)

B = 120.882 (background)

a = 0.750 px

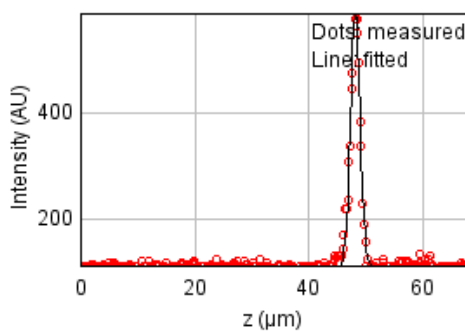
b = -0.059 px

c = 0.548 px

xc = 6.942 px

yc = 6.081 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26998.7824

Standard deviation: 9.37784

$R^2$ : 0.98189

Parameters:

a = 112.79233

b = 588.20474

c = 48.21226

d = 0.84109



## Bead 2509

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

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

Frame size : 12 pixels

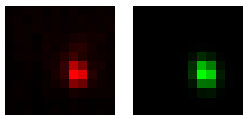
Coordinates : -68.3  $\mu\text{m}$  (x), 13.3  $\mu\text{m}$  (y), 48.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

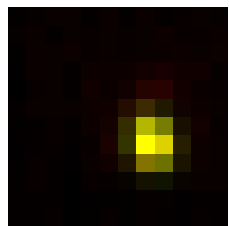
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	400 nm	270 nm
max	498 nm	518 nm	270 nm
z	2.04 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.771		
Theta	-75.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 791.590 (brightness)

B = 125.480 (background)

a = 0.888 px

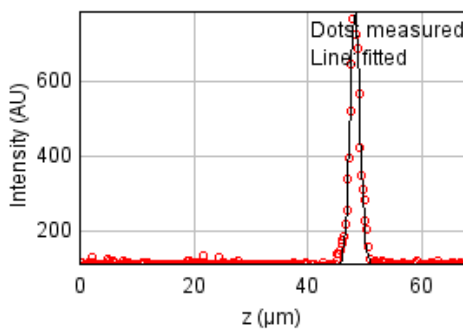
b = -0.088 px

c = 0.564 px

$x_c = 7.372$  px

$y_c = 6.857$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37881.7022

Standard deviation: 11.10825

$R^2$ : 0.98762

Parameters:

a = 113.85820

b = 787.24941

c = 48.32983

d = 0.86669

## Bead 2510

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

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

Frame size : 12 pixels

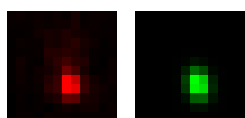
Coordinates : 111  $\mu\text{m}$  (x), 3.3  $\mu\text{m}$  (y), 48.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

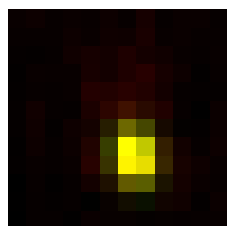
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	415 nm	270 nm
max	541 nm	563 nm	270 nm
z	1.94 $\mu\text{m}$	1.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.738		
Theta	-79.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.944$



Parameters:

A = 585.581 (brightness)

B = 123.399 (background)

a = 0.829 px

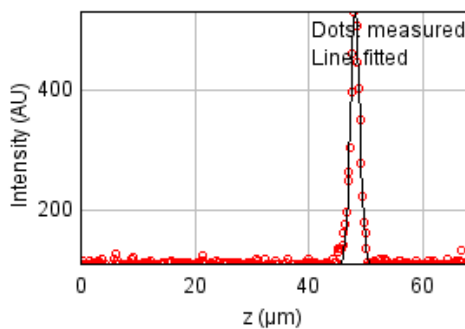
b = -0.072 px

c = 0.473 px

$x_c = 6.397$  px

$y_c = 7.509$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23820.8167

Standard deviation: 8.80865

$R^2$ : 0.97895

Parameters:

a = 111.77109

b = 529.69032

c = 48.18058

d = 0.82272

## Bead 2511

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

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

Frame size : 12 pixels

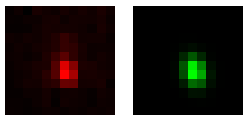
Coordinates : -139  $\mu\text{m}$  (x), 3.06  $\mu\text{m}$  (y), 48.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

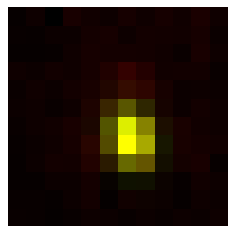
FWHM	Non corrected	Corrected	Theoretical
min	398 nm	415 nm	270 nm
max	545 nm	567 nm	270 nm
z	2.23 $\mu\text{m}$	2.24 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.732		
Theta	-75.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 360.795 (brightness)

B = 118.195 (background)

a = 0.820 px

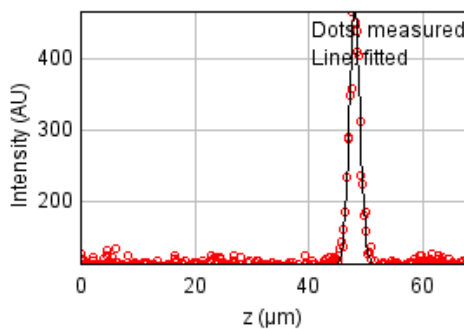
b = -0.097 px

c = 0.478 px

xc = 6.202 px

yc = 6.612 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22394.3388

Standard deviation: 8.54083

$R^2$ : 0.97570

Parameters:

a = 113.45690

b = 465.81368

c = 48.09026

d = 0.94585

## Bead 2512 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 127 um (x), 2.09 um (y), 44.7 um (z)

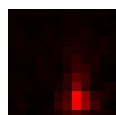
Corresponding bead : Not found

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	2.95 um	2.96 um	1.3 um
Asymmetry	0.0		
Theta	0.0°		

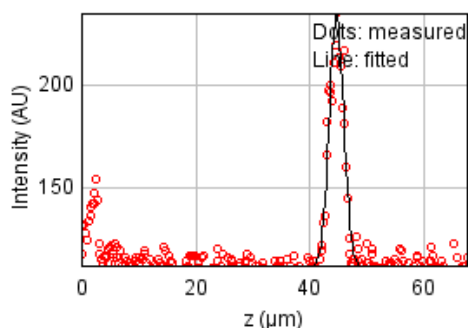
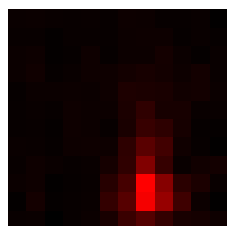
### XY profile & fitting parameters :

(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: 23457.2758

Standard deviation: 8.74117

R<sup>2</sup>: 0.85733

Parameters:

a = 112.31275

b = 234.64231

c = 44.72842

d = 1.25103

## Bead 2513

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

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

Frame size : 12 pixels

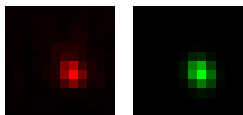
Coordinates : -11.5  $\mu\text{m}$  (x), -2.49  $\mu\text{m}$  (y), 48.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

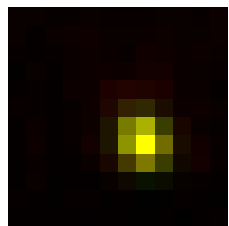
FWHM	Non corrected	Corrected	Theoretical
min	423 nm	440 nm	270 nm
max	509 nm	530 nm	270 nm
z	2.01 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.831		
Theta	-64.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 761.697$  (brightness)

$B = 128.241$  (background)

$a = 0.708$  px

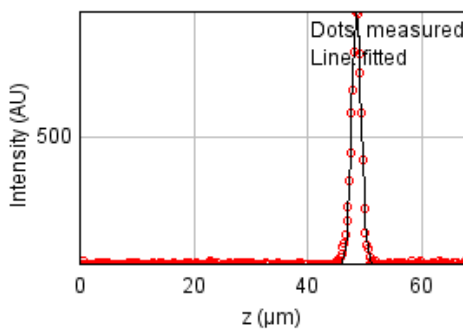
$b = -0.090$  px

$c = 0.561$  px

$x_c = 6.861$  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: 29718.5942

Standard deviation: 9.83886

$R^2: 0.99240$

Parameters:

$a = 114.43542$

$b = 883.74110$

$c = 48.59404$

$d = 0.85164$

## Bead 2514

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

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

Frame size : 12 pixels

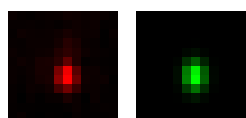
Coordinates : 76.8  $\mu\text{m}$  (x), -17.8  $\mu\text{m}$  (y), 48.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

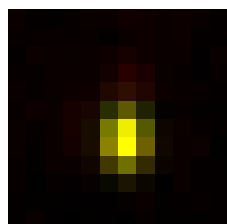
FWHM	Non corrected	Corrected	Theoretical
min	403 nm	419 nm	270 nm
max	545 nm	568 nm	270 nm
z	2.1 $\mu\text{m}$	2.11 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.738		
Theta	-89.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 695.258$  (brightness)

$B = 124.624$  (background)

$a = 0.827$  px

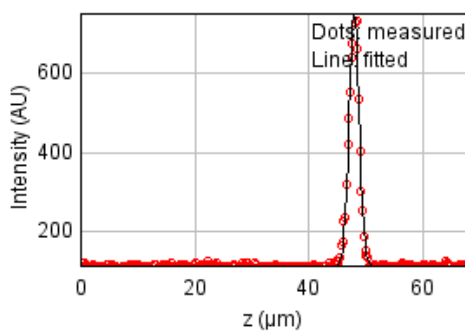
$b = -0.003$  px

$c = 0.451$  px

$x_c = 5.907$  px

$y_c = 6.580$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23066.3626

Standard deviation: 8.66803

$R^2: 0.99178$

Parameters:

$a = 113.10996$

$b = 750.85410$

$c = 48.00509$

$d = 0.89070$

## Bead 2515

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

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

Frame size : 12 pixels

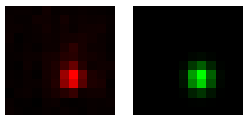
Coordinates : 2.38  $\mu\text{m}$  (x), -53.9  $\mu\text{m}$  (y), 48.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

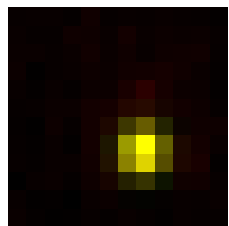
FWHM	Non corrected	Corrected	Theoretical
min	426 nm	443 nm	270 nm
max	471 nm	491 nm	270 nm
z	1.93 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.903		
Theta	86.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 571.121 (brightness)

B = 127.697 (background)

a = 0.740 px

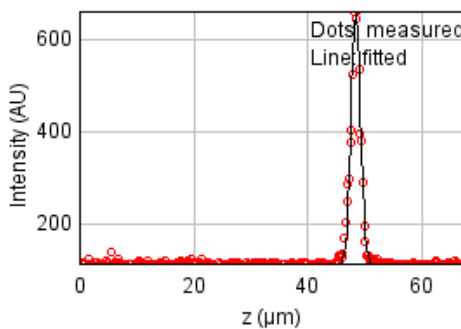
b = 0.009 px

c = 0.605 px

xc = 6.832 px

yc = 7.343 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 38012.4956

Standard deviation: 11.12741

$R^2$ : 0.98034

Parameters:

a = 113.58557

b = 661.04494

c = 48.47946

d = 0.81997

## Bead 2516 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 156  $\mu\text{m}$  (x), -73.7  $\mu\text{m}$  (y), 47.9  $\mu\text{m}$  (z)

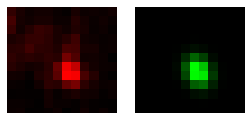
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

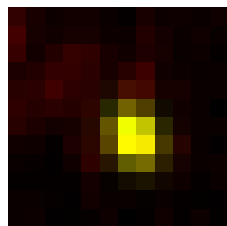
FWHM	Non corrected	Corrected	Theoretical
min	434 nm	452 nm	270 nm
max	552 nm	575 nm	270 nm
z	2.43 $\mu\text{m}$	2.44 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.785		
Theta	-67.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.865$



Parameters:

A = 330.549 (brightness)

B = 123.673 (background)

a = 0.674 px

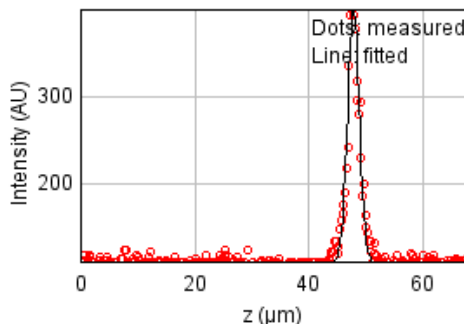
b = -0.096 px

c = 0.480 px

xc = 6.386 px

yc = 6.560 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28394.8175

Standard deviation: 9.61724

$R^2$ : 0.95872

Parameters:

a = 111.11004

b = 400.61522

c = 47.87770

d = 1.03230



## Bead 2517

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

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

Frame size : 12 pixels

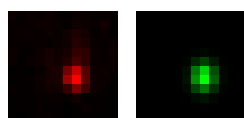
Coordinates : 16.0  $\mu\text{m}$  (x), -81.0  $\mu\text{m}$  (y), 48.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

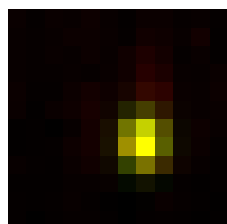
FWHM	Non corrected	Corrected	Theoretical
min	415 nm	432 nm	270 nm
max	516 nm	538 nm	270 nm
z	2.04 $\mu\text{m}$	2.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.803		
Theta	89.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 578.894$  (brightness)

$B = 122.758$  (background)

$a = 0.780$  px

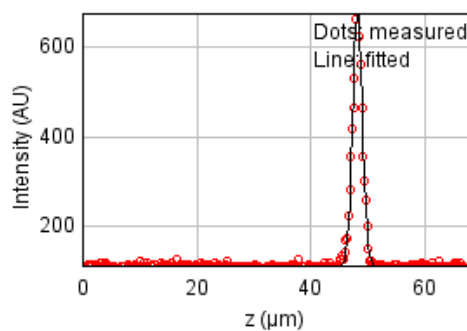
$b = 0.004$  px

$c = 0.504$  px

$x_c = 6.869$  px

$y_c = 6.700$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20269.5649

Standard deviation: 8.12555

$R^2: 0.99044$

Parameters:

$a = 112.92248$

$b = 674.87834$

$c = 48.25131$

$d = 0.86429$

## Bead 2518

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

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

Frame size : 12 pixels

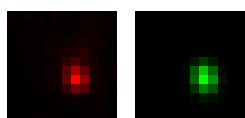
Coordinates : 27.5  $\mu\text{m}$  (x), 83.3  $\mu\text{m}$  (y), 48.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

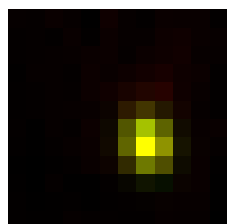
FWHM	Non corrected	Corrected	Theoretical
min	421 nm	438 nm	270 nm
max	518 nm	540 nm	270 nm
z	2.02 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.813		
Theta	-76.7°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.964$



Parameters:

$A = 843.367$  (brightness)

$B = 128.877$  (background)

$a = 0.743$  px

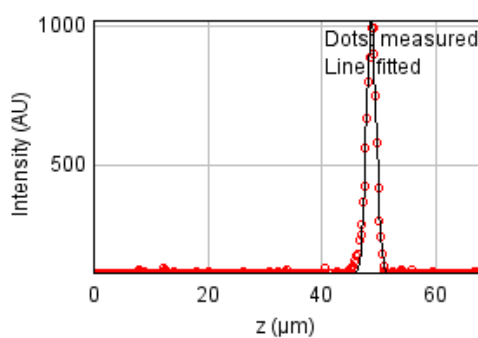
$b = -0.058$  px

$c = 0.514$  px

$x_c = 7.108$  px

$y_c = 6.782$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 54053.2508

Standard deviation: 13.26911

$R^2: 0.99020$

Parameters:

$a = 113.11309$

$b = 1023.82749$

$c = 48.74584$

$d = 0.85609$

## Bead 2519

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

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

Frame size : 12 pixels

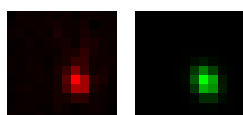
Coordinates : -122  $\mu\text{m}$  (x), 75.7  $\mu\text{m}$  (y), 48.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

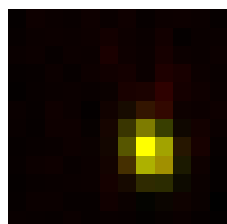
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	421 nm	270 nm
max	523 nm	545 nm	270 nm
z	1.84 $\mu\text{m}$	1.85 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.772		
Theta	-66.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 532.607$  (brightness)

$B = 118.377$  (background)

$a = 0.771$  px

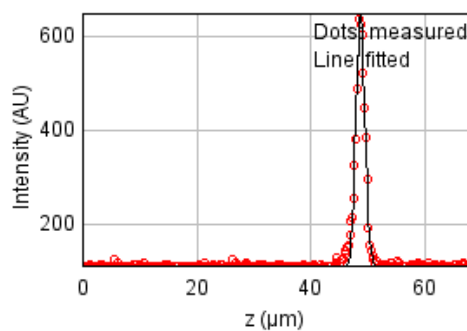
$b = -0.120$  px

$c = 0.542$  px

$x_c = 7.243$  px

$y_c = 7.217$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26859.0908

Standard deviation: 9.35355

$R^2: 0.98479$

Parameters:

$a = 112.67239$

$b = 649.46016$

$c = 48.75791$

$d = 0.78121$

## Bead 2520 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : -138  $\mu\text{m}$  (x), 58.2  $\mu\text{m}$  (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.

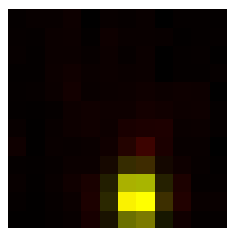
FWHM	Non corrected	Corrected	Theoretical
min	392 nm	408 nm	270 nm
max	498 nm	519 nm	270 nm
z	3.25 $\mu\text{m}$	3.26 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.787		
Theta	-87.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 651.669 (brightness)

B = 124.863 (background)

a = 0.873 px

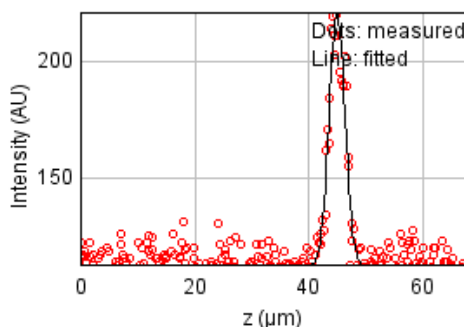
b = -0.017 px

c = 0.542 px

xc = 6.526 px

yc = 9.806 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15227.4664

Standard deviation: 7.04279

$R^2$ : 0.89091

Parameters:

a = 111.86838

b = 221.65915

c = 45.00298

d = 1.38020

## Bead 2521

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

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

Frame size : 12 pixels

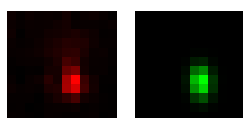
Coordinates : 123 um (x), 29.5 um (y), 48.6 um (z)

Corresponding bead : Not found

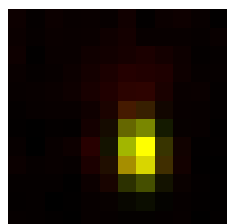
FWHM	Non corrected	Corrected	Theoretical
min	373 nm	389 nm	270 nm
max	575 nm	599 nm	270 nm
z	1.96 um	1.97 um	1.3 um
Asymmetry	0.649		
Theta	-86.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.927$



Parameters:

A = 575.122 (brightness)

B = 123.530 (background)

a = 0.962 px

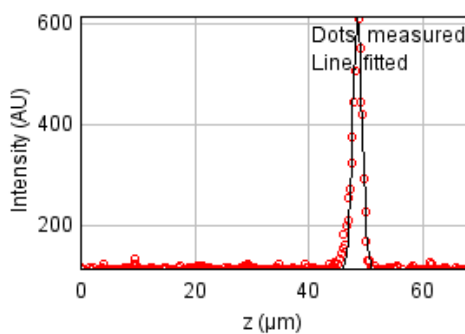
b = -0.034 px

c = 0.408 px

xc = 6.684 px

yc = 7.255 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37268.2996

Standard deviation: 11.01795

$R^2$ : 0.97753

Parameters:

a = 112.31500

b = 615.24105

c = 48.59061

d = 0.83173

## Bead 2522

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

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

Frame size : 12 pixels

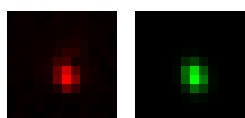
Coordinates : -73.0  $\mu\text{m}$  (x), 16.0  $\mu\text{m}$  (y), 48.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

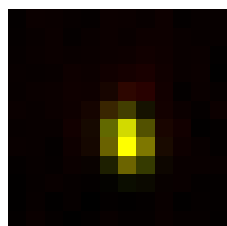
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	511 nm	532 nm	270 nm
z	2.08 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.757		
Theta	-72.2°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.964$



Parameters:

A = 663.598 (brightness)

B = 124.065 (background)

a = 0.862 px

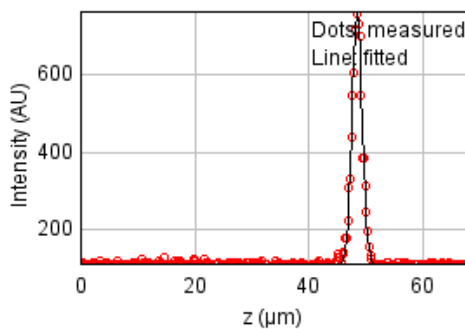
b = -0.111 px

c = 0.550 px

xc = 6.009 px

yc = 6.647 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27520.1494

Standard deviation: 9.46796

$R^2$ : 0.99053

Parameters:

a = 112.92392

b = 763.33171

c = 48.52880

d = 0.88514

## Bead 2523

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

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

Frame size : 12 pixels

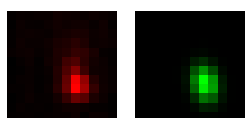
Coordinates : 142 um (x), 5.74 um (y), 48.6 um (z)

Corresponding bead : Not found

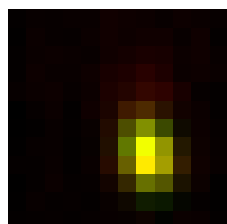
FWHM	Non corrected	Corrected	Theoretical
min	451 nm	469 nm	270 nm
max	654 nm	681 nm	270 nm
z	1.93 um	1.93 um	1.3 um
Asymmetry	0.689		
Theta	-78.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.934$



Parameters:

A = 500.408 (brightness)

B = 121.638 (background)

a = 0.646 px

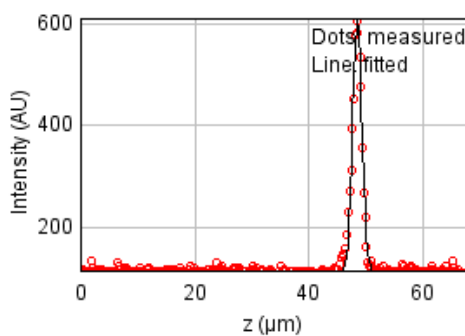
b = -0.070 px

c = 0.329 px

xc = 7.127 px

yc = 7.397 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29584.6836

Standard deviation: 9.81667

$R^2$ : 0.98164

Parameters:

a = 112.32383

b = 613.17752

c = 48.55758

d = 0.81769

## Bead 2524 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : -151  $\mu\text{m}$  (x), -11.5  $\mu\text{m}$  (y), 45.1  $\mu\text{m}$  (z)

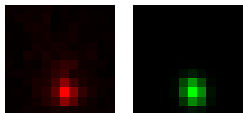
Corresponding bead : Not found

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

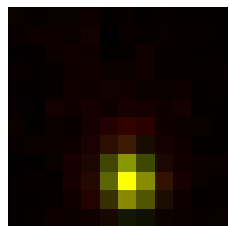
FWHM	Non corrected	Corrected	Theoretical
min	414 nm	432 nm	270 nm
max	489 nm	510 nm	270 nm
z	3.39 $\mu\text{m}$	3.4 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.847		
Theta	-71.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.926$



Parameters:

A = 463.840 (brightness)

B = 122.807 (background)

a = 0.758 px

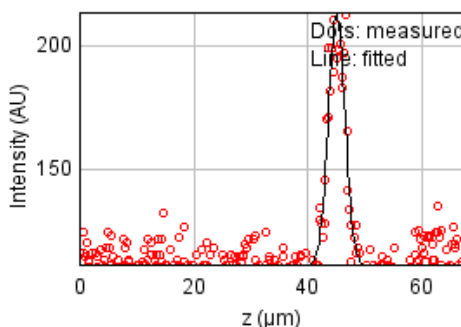
b = -0.068 px

c = 0.584 px

xc = 6.099 px

yc = 8.969 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18506.6920

Standard deviation: 7.76417

$R^2$ : 0.85826

Parameters:

a = 111.38340

b = 213.64320

c = 45.11374

d = 1.43840



## Bead 2525

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

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

Frame size : 12 pixels

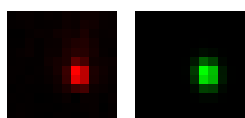
Coordinates : 49.8  $\mu\text{m}$  (x), -20.9  $\mu\text{m}$  (y), 48.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

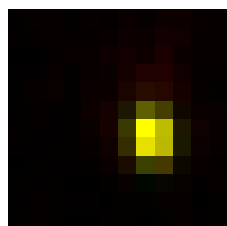
FWHM	Non corrected	Corrected	Theoretical
min	382 nm	398 nm	270 nm
max	492 nm	512 nm	270 nm
z	1.9 $\mu\text{m}$	1.9 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.776		
Theta	-82.1°		

### 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:

$A = 1045.937$  (brightness)

$B = 132.068$  (background)

$a = 0.913$  px

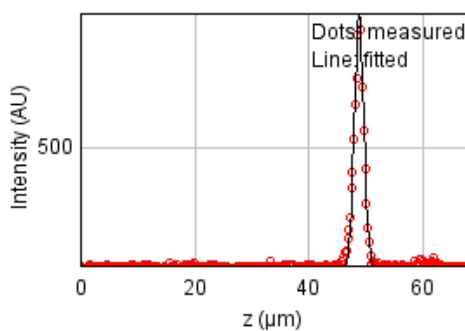
$b = -0.050$  px

$c = 0.561$  px

$x_c = 7.357$  px

$y_c = 6.414$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 50609.2990

Standard deviation: 12.83944

$R^2: 0.98805$

Parameters:

$a = 115.90088$

$b = 936.80579$

$c = 48.87183$

$d = 0.80492$

## Bead 2526

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

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

Frame size : 12 pixels

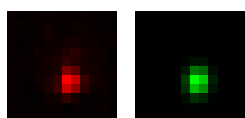
Coordinates : -44.1  $\mu\text{m}$  (x), -29.0  $\mu\text{m}$  (y), 48.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

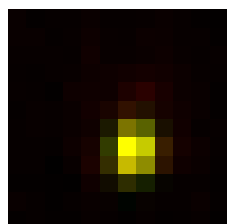
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	415 nm	270 nm
max	494 nm	514 nm	270 nm
z	2.11 $\mu\text{m}$	2.12 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.807		
Theta	84.2°		

### 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 = 825.673 (brightness)

B = 125.635 (background)

a = 0.841 px

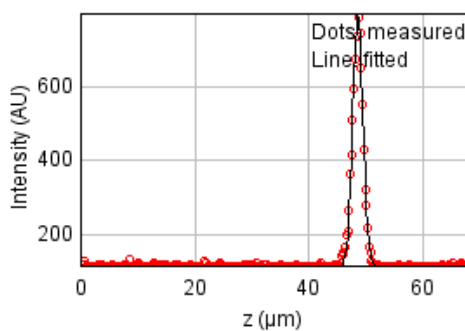
b = 0.030 px

c = 0.553 px

$x_c = 6.357$  px

$y_c = 7.195$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24419.2237

Standard deviation: 8.91860

$R^2$ : 0.99252

Parameters:

a = 112.53281

b = 799.43450

c = 48.64955

d = 0.89478

## Bead 2527

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

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

Frame size : 12 pixels

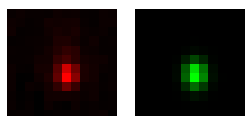
Coordinates : -128  $\mu\text{m}$  (x), -44.7  $\mu\text{m}$  (y), 48.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

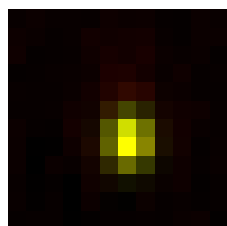
FWHM	Non corrected	Corrected	Theoretical
min	408 nm	425 nm	270 nm
max	512 nm	533 nm	270 nm
z	2.21 $\mu\text{m}$	2.22 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.797		
Theta	-88.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 510.850 (brightness)

B = 119.991 (background)

a = 0.806 px

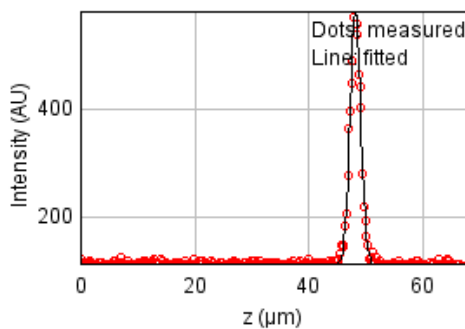
b = -0.009 px

c = 0.512 px

$x_c = 6.089$  px

$y_c = 6.641$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19173.6996

Standard deviation: 7.90285

$R^2$ : 0.98803

Parameters:

a = 111.70045

b = 580.91240

c = 48.22587

d = 0.93830

## Bead 2528

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

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

Frame size : 12 pixels

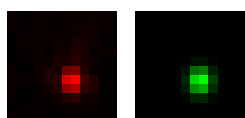
Coordinates : 36.0  $\mu\text{m}$  (x), -86.6  $\mu\text{m}$  (y), 48.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

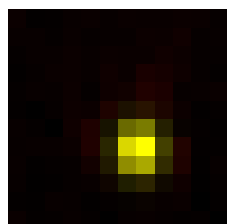
FWHM	Non corrected	Corrected	Theoretical
min	416 nm	433 nm	270 nm
max	486 nm	506 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.855		
Theta	-88.3°		

### 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:

$A = 664.884$  (brightness)

$B = 125.031$  (background)

$a = 0.777$  px

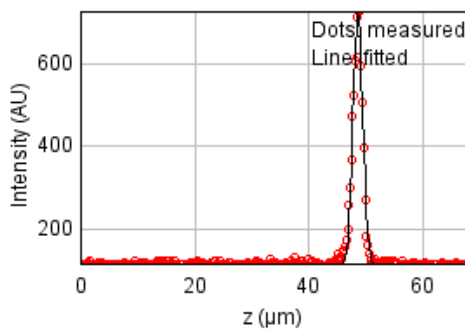
$b = -0.006$  px

$c = 0.568$  px

$x_c = 6.611$  px

$y_c = 7.132$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 39443.0205

Standard deviation: 11.33485

$R^2: 0.98419$

Parameters:

$a = 113.71057$

$b = 725.84651$

$c = 48.66457$

$d = 0.85097$

## Bead 2529

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

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

Frame size : 12 pixels

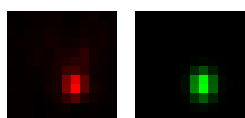
Coordinates : 6.8  $\mu\text{m}$  (x), 80.7  $\mu\text{m}$  (y), 49.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

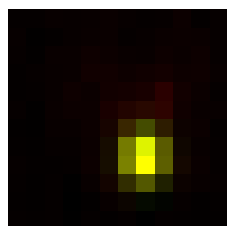
FWHM	Non corrected	Corrected	Theoretical
min	401 nm	418 nm	270 nm
max	491 nm	511 nm	270 nm
z	1.94 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.818		
Theta	89.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 867.172 (brightness)

B = 130.972 (background)

a = 0.833 px

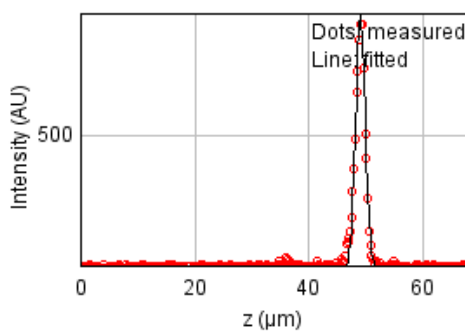
b = 0.004 px

c = 0.557 px

xc = 6.906 px

yc = 7.546 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 44794.7101

Standard deviation: 12.07937

$R^2$ : 0.98751

Parameters:

a = 114.43535

b = 861.88179

c = 49.10134

d = 0.82254

## Bead 2530 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 147  $\mu\text{m}$  (x), 78.9  $\mu\text{m}$  (y), 45.8  $\mu\text{m}$  (z)

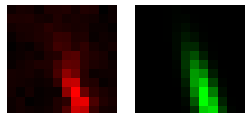
Corresponding bead : Not found

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

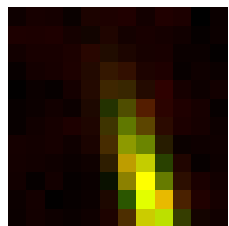
FWHM	Non corrected	Corrected	Theoretical
min	419 nm	436 nm	270 nm
max	1.73 $\mu\text{m}$	1.8 $\mu\text{m}$	270 nm
z	2.56 $\mu\text{m}$	2.57 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.242		
Theta	-72.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 209.322 (brightness)

B = 115.079 (background)

a = 0.702 px

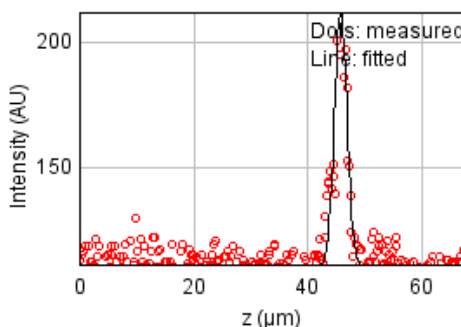
b = -0.206 px

c = 0.109 px

xc = 7.283 px

yc = 10.024 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 13771.2264

Standard deviation: 6.69757

$R^2$ : 0.85790

Parameters:

a = 111.29227

b = 211.66941

c = 45.82746

d = 1.08596

## Bead 2531

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

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

Frame size : 12 pixels

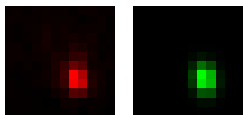
Coordinates : -34.5  $\mu\text{m}$  (x), 63.2  $\mu\text{m}$  (y), 48.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

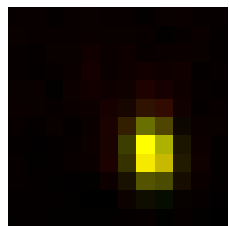
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	402 nm	270 nm
max	544 nm	567 nm	270 nm
z	1.99 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.709		
Theta	-81.8°		

### 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:

$A = 762.436$  (brightness)

$B = 126.371$  (background)

$a = 0.892$  px

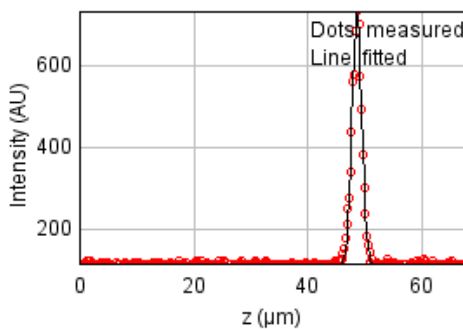
$b = -0.063$  px

$c = 0.463$  px

$x_c = 7.330$  px

$y_c = 7.446$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22364.6943

Standard deviation: 8.53517

$R^2: 0.99120$

Parameters:

$a = 114.04799$

$b = 735.93090$

$c = 48.67157$

$d = 0.84611$

## Bead 2532

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

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

Frame size : 12 pixels

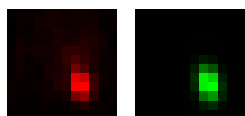
Coordinates : 126  $\mu\text{m}$  (x), 54.1  $\mu\text{m}$  (y), 48.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

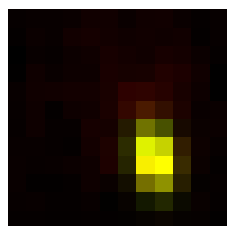
FWHM	Non corrected	Corrected	Theoretical
min	377 nm	393 nm	270 nm
max	611 nm	637 nm	270 nm
z	1.95 $\mu\text{m}$	1.96 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.617		
Theta	-79.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.943$



Parameters:

$A = 571.143$  (brightness)

$B = 127.466$  (background)

$a = 0.923$  px

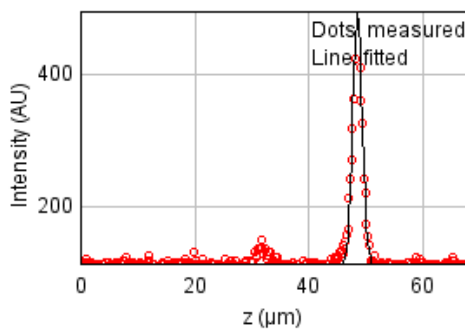
$b = -0.105$  px

$c = 0.379$  px

$x_c = 7.492$  px

$y_c = 7.620$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28696.0002

Standard deviation: 9.66811

$R^2: 0.97029$

Parameters:

$a = 113.20521$

$b = 495.93515$

$c = 48.58986$

$d = 0.83009$



## Bead 2533 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : -114  $\mu\text{m}$  (x), 50.9  $\mu\text{m}$  (y), 45.4  $\mu\text{m}$  (z)

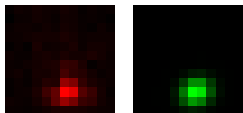
Corresponding bead : Not found

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

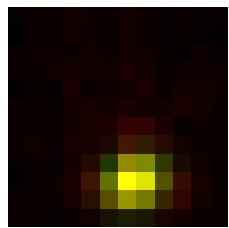
FWHM	Non corrected	Corrected	Theoretical
min	475 nm	495 nm	270 nm
max	555 nm	578 nm	270 nm
z	3.81 $\mu\text{m}$	3.82 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.857		
Theta	24.0°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.934$



Parameters:

A = 395.368 (brightness)

B = 121.458 (background)

a = 0.463 px

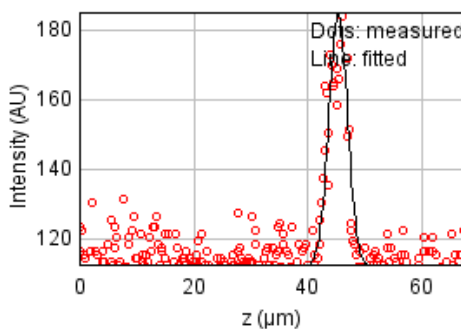
b = 0.059 px

c = 0.569 px

xc = 6.375 px

yc = 9.001 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17666.2585

Standard deviation: 7.58583

$R^2$ : 0.77883

Parameters:

a = 112.70597

b = 184.93819

c = 45.38196

d = 1.61673

## Bead 2534

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

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

Frame size : 12 pixels

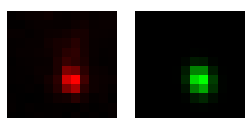
Coordinates : 97.6  $\mu\text{m}$  (x), 42.1  $\mu\text{m}$  (y), 48.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

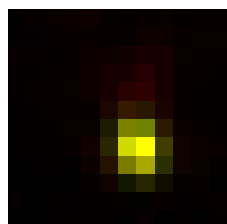
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	422 nm	270 nm
max	508 nm	529 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.799		
Theta	-74.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 739.794$  (brightness)

$B = 128.016$  (background)

$a = 0.795$  px

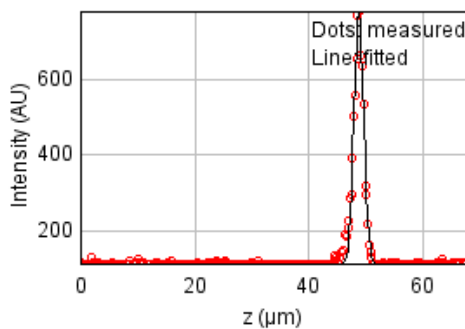
$b = -0.076$  px

$c = 0.542$  px

$x_c = 6.608$  px

$y_c = 7.059$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 45576.0414

Standard deviation: 12.18426

$R^2: 0.98440$

Parameters:

$a = 113.29185$

$b = 776.69500$

$c = 48.82951$

$d = 0.84871$

## Bead 2535

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

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

Frame size : 12 pixels

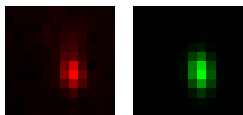
Coordinates : 136  $\mu\text{m}$  (x), 24.4  $\mu\text{m}$  (y), 48.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

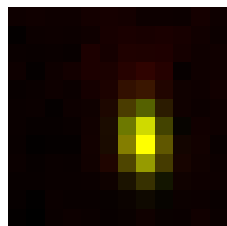
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	645 nm	672 nm	270 nm
z	1.98 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.6		
Theta	-84.4°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.943$



Parameters:

A = 434.664 (brightness)

B = 121.440 (background)

a = 0.889 px

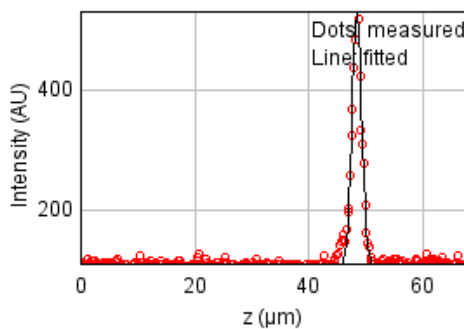
b = -0.055 px

c = 0.328 px

$x_c = 6.877$  px

$y_c = 6.717$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27246.6802

Standard deviation: 9.42080

$R^2$ : 0.97689

Parameters:

a = 111.52295

b = 533.11931

c = 48.49172

d = 0.84123

## Bead 2536

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

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

Frame size : 12 pixels

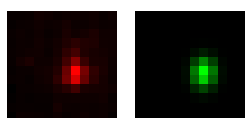
Coordinates : -106  $\mu\text{m}$  (x), -3.68  $\mu\text{m}$  (y), 49.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

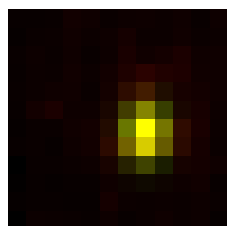
FWHM	Non corrected	Corrected	Theoretical
min	417 nm	434 nm	270 nm
max	552 nm	574 nm	270 nm
z	1.83 $\mu\text{m}$	1.84 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.756		
Theta	87.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 550.992 (brightness)

B = 123.515 (background)

a = 0.771 px

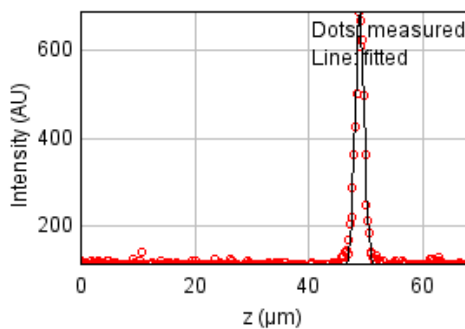
b = 0.015 px

c = 0.442 px

xc = 6.991 px

yc = 6.247 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 33540.5902

Standard deviation: 10.45240

$R^2$ : 0.98369

Parameters:

a = 113.40302

b = 693.21607

c = 48.96924

d = 0.77879

## Bead 2537

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

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

Frame size : 12 pixels

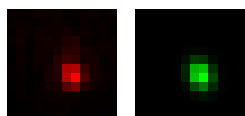
Coordinates : -40.3  $\mu\text{m}$  (x), -4.88  $\mu\text{m}$  (y), 49.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

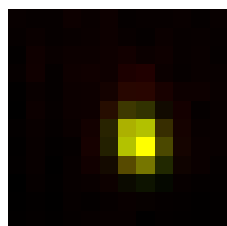
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	426 nm	270 nm
max	520 nm	542 nm	270 nm
z	2.07 $\mu\text{m}$	2.08 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.786		
Theta	-71.0°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.964$



Parameters:

A = 752.700 (brightness)

B = 124.576 (background)

a = 0.769 px

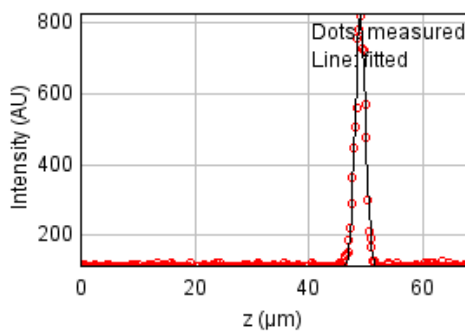
b = -0.094 px

c = 0.528 px

$x_c = 6.643$  px

$y_c = 6.703$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34219.6590

Standard deviation: 10.55768

$R^2$ : 0.99009

Parameters:

a = 113.31052

b = 824.45021

c = 49.08418

d = 0.87927

## Bead 2538 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : -71.7  $\mu\text{m}$  (x), -33.6  $\mu\text{m}$  (y), 45.6  $\mu\text{m}$  (z)

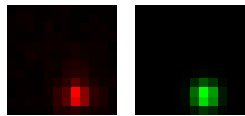
Corresponding bead : Not found

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

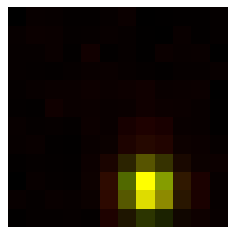
FWHM	Non corrected	Corrected	Theoretical
min	440 nm	458 nm	270 nm
max	461 nm	480 nm	270 nm
z	2.99 $\mu\text{m}$	3.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.954		
Theta	-78.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 507.506 (brightness)

B = 124.264 (background)

a = 0.691 px

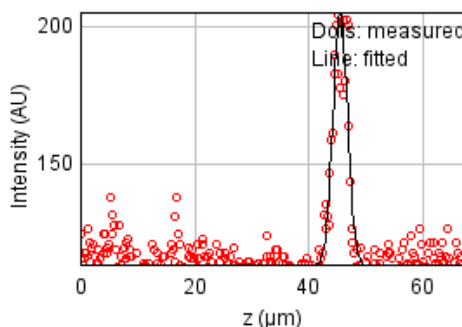
b = -0.012 px

c = 0.633 px

xc = 7.153 px

yc = 9.384 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17494.1512

Standard deviation: 7.54879

$R^2$ : 0.82195

Parameters:

a = 113.21467

b = 205.20495

c = 45.56858

d = 1.26883

## Bead 2539

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

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

Frame size : 12 pixels

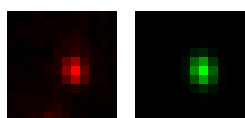
Coordinates : 25.7  $\mu\text{m}$  (x), -37.1  $\mu\text{m}$  (y), 48.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

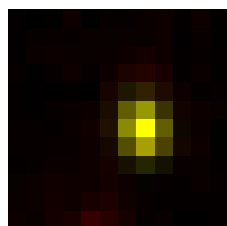
FWHM	Non corrected	Corrected	Theoretical
min	408 nm	425 nm	270 nm
max	528 nm	550 nm	270 nm
z	2.06 $\mu\text{m}$	2.07 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.772		
Theta	-79.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 533.540 (brightness)

B = 132.790 (background)

a = 0.797 px

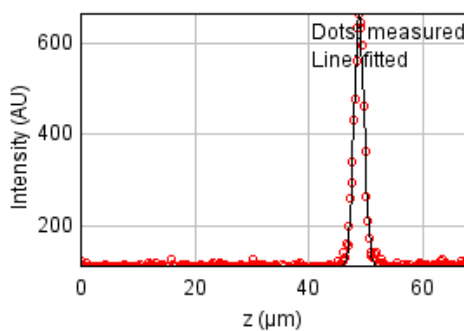
b = -0.056 px

c = 0.491 px

xc = 6.881 px

yc = 6.009 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24959.9087

Standard deviation: 9.01680

$R^2$ : 0.98798

Parameters:

a = 112.49793

b = 664.24732

c = 48.87882

d = 0.87674

## Bead 2540

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

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

Frame size : 12 pixels

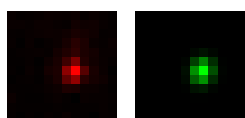
Coordinates : 4.36  $\mu\text{m}$  (x), -38.4  $\mu\text{m}$  (y), 48.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

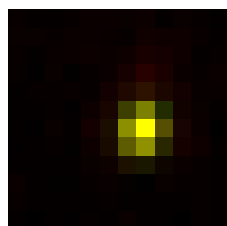
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	467 nm	487 nm	270 nm
z	1.95 $\mu\text{m}$	1.96 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.828		
Theta	77.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 695.939 (brightness)

B = 124.530 (background)

a = 0.884 px

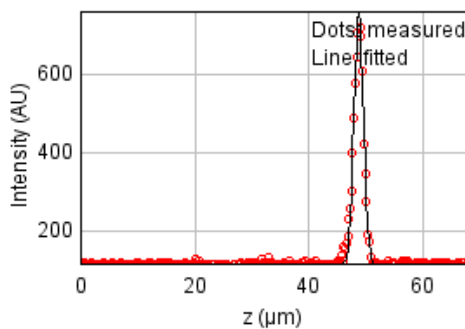
b = 0.061 px

c = 0.629 px

xc = 6.824 px

yc = 6.068 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30746.6751

Standard deviation: 10.00760

$R^2$ : 0.98861

Parameters:

a = 113.24936

b = 760.00520

c = 48.80759

d = 0.82809



## Bead 2541

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

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

Frame size : 12 pixels

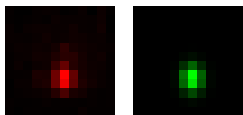
Coordinates : -43.6  $\mu\text{m}$  (x), -45.3  $\mu\text{m}$  (y), 48.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

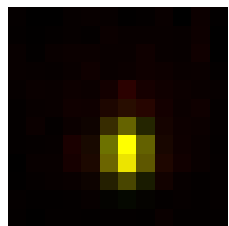
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	405 nm	270 nm
max	503 nm	523 nm	270 nm
z	1.89 $\mu\text{m}$	1.9 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.773		
Theta	-89.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 659.834 (brightness)

B = 124.402 (background)

a = 0.890 px

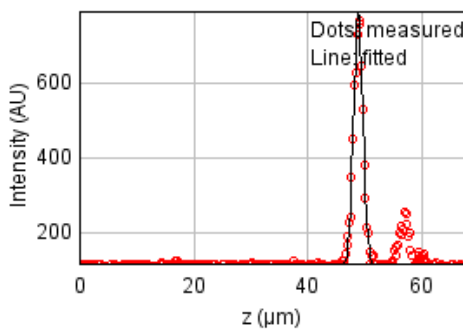
b = -0.002 px

c = 0.531 px

$x_c = 5.958$  px

$y_c = 7.393$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 146625.755

Standard deviation: 21.85425

$R^2$ : 0.95024

Parameters:

a = 118.60111

b = 790.62662

c = 48.89928

d = 0.80331

## Bead 2542

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

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

Frame size : 12 pixels

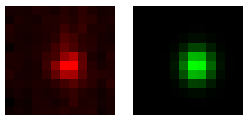
Coordinates : 140  $\mu\text{m}$  (x), -52.7  $\mu\text{m}$  (y), 48.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

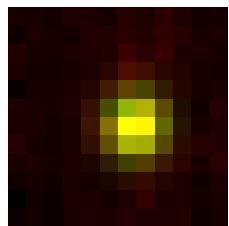
FWHM	Non corrected	Corrected	Theoretical
min	561 nm	585 nm	270 nm
max	629 nm	656 nm	270 nm
z	2.21 $\mu\text{m}$	2.22 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.892		
Theta	88.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.927$



Parameters:

A = 268.529 (brightness)

B = 120.866 (background)

a = 0.426 px

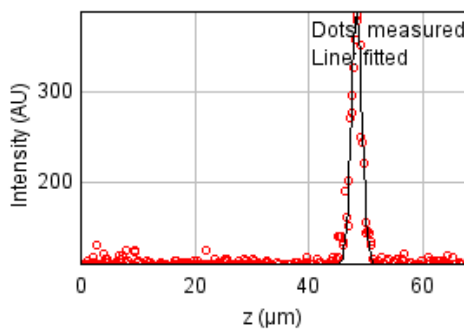
b = 0.002 px

c = 0.339 px

xc = 6.464 px

yc = 5.984 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34028.8314

Standard deviation: 10.52820

$R^2$ : 0.94261

Parameters:

a = 110.52484

b = 389.42061

c = 48.44777

d = 0.93790

## Bead 2543

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

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

Frame size : 12 pixels

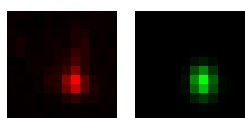
Coordinates : 121  $\mu\text{m}$  (x), -70.8  $\mu\text{m}$  (y), 48.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

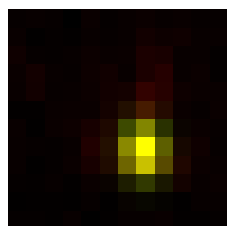
FWHM	Non corrected	Corrected	Theoretical
min	408 nm	425 nm	270 nm
max	537 nm	559 nm	270 nm
z	2.06 $\mu\text{m}$	2.07 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.76		
Theta	-87.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 595.653$  (brightness)

$B = 122.794$  (background)

$a = 0.804$  px

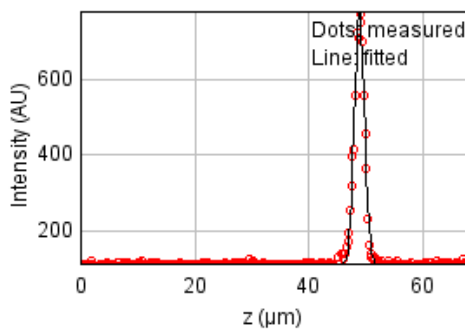
$b = -0.014$  px

$c = 0.466$  px

$x_c = 6.889$  px

$y_c = 7.193$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37431.0574

Standard deviation: 11.04198

$R^2: 0.98771$

Parameters:

$a = 111.21786$

$b = 780.46819$

$c = 48.92507$

$d = 0.87379$

## Bead 2544

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

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

Frame size : 12 pixels

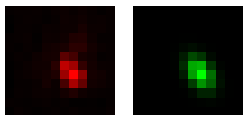
Coordinates : 39.8  $\mu\text{m}$  (x), -73.8  $\mu\text{m}$  (y), 48.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

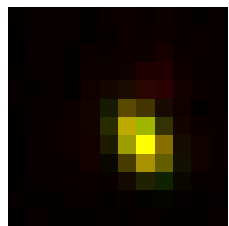
FWHM	Non corrected	Corrected	Theoretical
min	412 nm	429 nm	270 nm
max	641 nm	668 nm	270 nm
z	2.15 $\mu\text{m}$	2.16 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.643		
Theta	-58.6°		

### 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:

$A = 780.639$  (brightness)

$B = 124.879$  (background)

$a = 0.664$  px

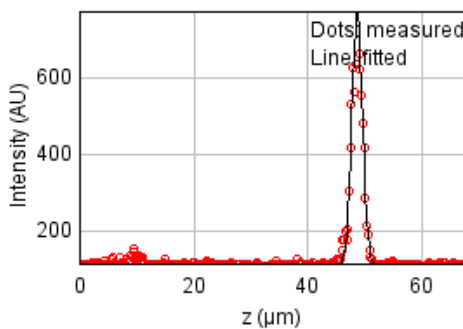
$b = -0.206$  px

$c = 0.453$  px

$x_c = 6.796$  px

$y_c = 6.786$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 82241.2264

Standard deviation: 16.36725

$R^2: 0.97365$

Parameters:

$a = 115.98501$

$b = 774.24911$

$c = 48.71123$

$d = 0.91434$

## Bead 2545 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : -121  $\mu\text{m}$  (x), -80.1  $\mu\text{m}$  (y), 45.8  $\mu\text{m}$  (z)

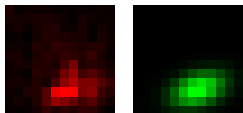
Corresponding bead : Not found

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

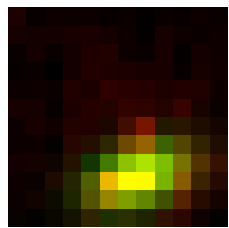
FWHM	Non corrected	Corrected	Theoretical
min	584 nm	608 nm	270 nm
max	989 nm	1.03 $\mu\text{m}$	270 nm
z	2.56 $\mu\text{m}$	2.58 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.59		
Theta	19.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.845$



Parameters:

A = 168.446 (brightness)

B = 119.315 (background)

a = 0.166 px

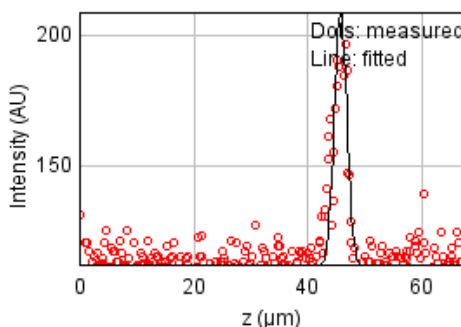
b = 0.081 px

c = 0.365 px

xc = 6.610 px

yc = 8.721 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20667.8985

Standard deviation: 8.20501

$R^2$ : 0.78754

Parameters:

a = 112.28239

b = 208.50652

c = 45.79945

d = 1.08908

## Bead 2546

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

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

Frame size : 12 pixels

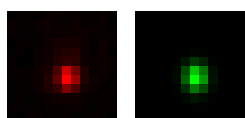
Coordinates : -38.7  $\mu\text{m}$  (x), -91.8  $\mu\text{m}$  (y), 49.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

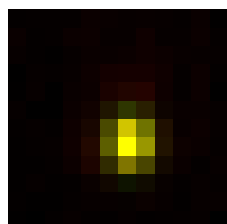
FWHM	Non corrected	Corrected	Theoretical
min	421 nm	438 nm	270 nm
max	507 nm	528 nm	270 nm
z	2.13 $\mu\text{m}$	2.13 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.83		
Theta	-88.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 732.790$  (brightness)

$B = 125.046$  (background)

$a = 0.757$  px

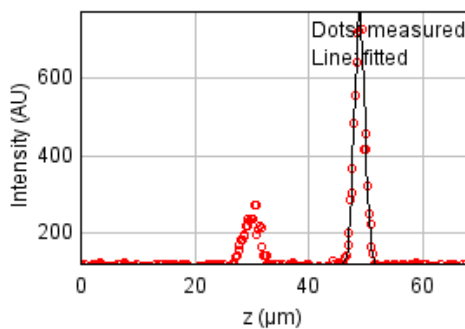
$b = -0.005$  px

$c = 0.521$  px

$x_c = 6.149$  px

$y_c = 6.750$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 270979.599

Standard deviation: 29.70976

$R^2: 0.91586$

Parameters:

$a = 121.49657$

$b = 773.96071$

$c = 48.95558$

$d = 0.90261$

## Bead 2547 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 26.0  $\mu\text{m}$  (x), 77.5  $\mu\text{m}$  (y), 45.3  $\mu\text{m}$  (z)

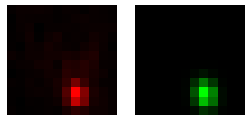
Corresponding bead : Not found

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

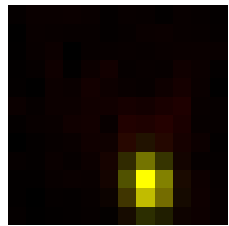
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	397 nm	270 nm
max	500 nm	521 nm	270 nm
z	3.75 $\mu\text{m}$	3.77 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.763		
Theta	-80.3°		

### 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 = 517.330 (brightness)

B = 124.038 (background)

a = 0.912 px

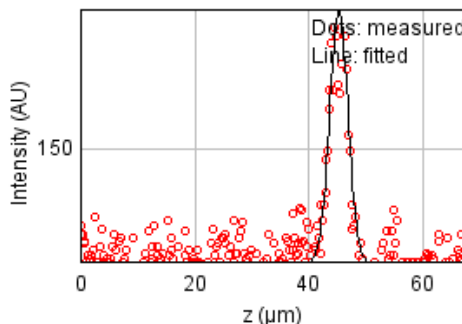
b = -0.064 px

c = 0.548 px

xc = 7.143 px

yc = 9.236 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18584.4297

Standard deviation: 7.78046

$R^2$ : 0.81731

Parameters:

a = 112.54073

b = 196.57677

c = 45.31659

d = 1.59423

## Bead 2548

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

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

Frame size : 12 pixels

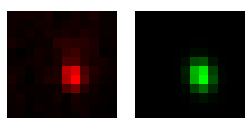
Coordinates : -157  $\mu\text{m}$  (x), 30.8  $\mu\text{m}$  (y), 48.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

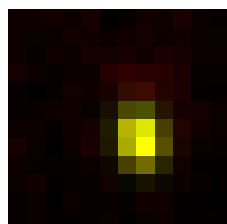
FWHM	Non corrected	Corrected	Theoretical
min	407 nm	424 nm	270 nm
max	535 nm	557 nm	270 nm
z	2.17 $\mu\text{m}$	2.18 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.761		
Theta	-78.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.940$



Parameters:

$A = 361.581$  (brightness)

$B = 117.062$  (background)

$a = 0.795$  px

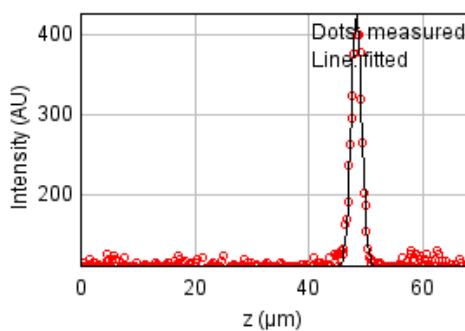
$b = -0.069$  px

$c = 0.483$  px

$x_c = 6.715$  px

$y_c = 6.560$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17435.3143

Standard deviation: 7.53608

$R^2: 0.97546$

Parameters:

$a = 111.86410$

$b = 424.92745$

$c = 48.41120$

$d = 0.92231$



## Bead 2549

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

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

Frame size : 12 pixels

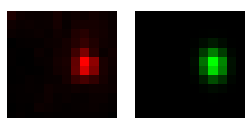
Coordinates : -7.9  $\mu\text{m}$  (x), -1.72  $\mu\text{m}$  (y), 50.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

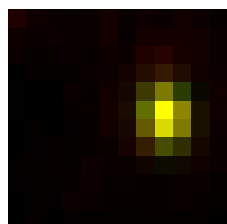
FWHM	Non corrected	Corrected	Theoretical
min	425 nm	442 nm	270 nm
max	552 nm	575 nm	270 nm
z	2.03 $\mu\text{m}$	2.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.769		
Theta	-83.8°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.955$



Parameters:

$A = 711.626$  (brightness)

$B = 137.975$  (background)

$a = 0.741$  px

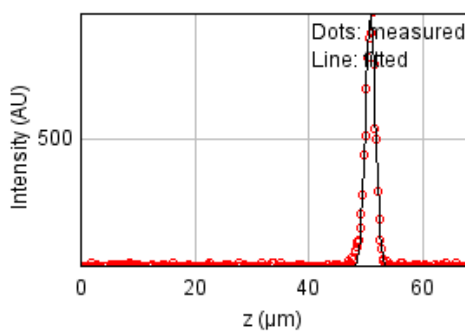
$b = -0.033$  px

$c = 0.443$  px

$x_c = 8.078$  px

$y_c = 5.327$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 46863.0637

Standard deviation: 12.35510

$R^2 = 0.98824$

Parameters:

$a = 114.76173$

$b = 884.94330$

$c = 50.86857$

$d = 0.86281$

## Bead 2550

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

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

Frame size : 12 pixels

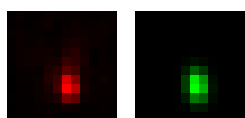
Coordinates : 76.2  $\mu\text{m}$  (x), -4.21  $\mu\text{m}$  (y), 49.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

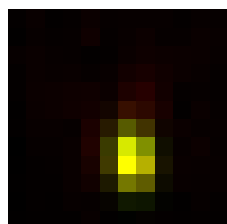
FWHM	Non corrected	Corrected	Theoretical
min	380 nm	396 nm	270 nm
max	567 nm	591 nm	270 nm
z	1.98 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.669		
Theta	-84.1°		

### 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:

$A = 932.764$  (brightness)

$B = 131.820$  (background)

$a = 0.925$  px

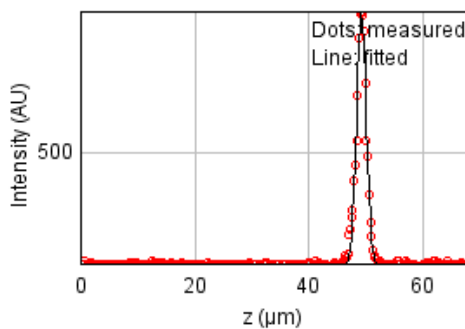
$b = -0.053$  px

$c = 0.422$  px

$x_c = 6.277$  px

$y_c = 7.643$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 50776.9724

Standard deviation: 12.86069

$R^2: 0.98973$

Parameters:

$a = 114.40471$

$b = 983.61703$

$c = 49.27429$

$d = 0.84054$

## Bead 2551 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 25.1  $\mu\text{m}$  (x), -38.8  $\mu\text{m}$  (y), 49.0  $\mu\text{m}$  (z)

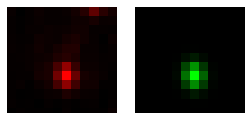
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

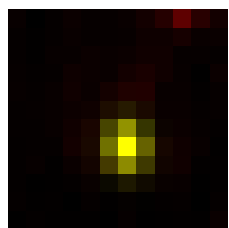
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	404 nm	270 nm
max	481 nm	501 nm	270 nm
z	1.97 $\mu\text{m}$	1.98 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.807		
Theta	-84.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.898$



Parameters:

A = 798.754 (brightness)

B = 133.775 (background)

a = 0.887 px

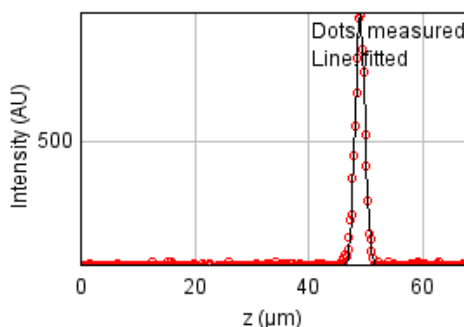
b = -0.029 px

c = 0.582 px

xc = 5.959 px

yc = 6.976 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29883.0806

Standard deviation: 9.86605

$R^2$ : 0.99270

Parameters:

a = 113.70209

b = 908.29555

c = 49.04094

d = 0.83557

## Bead 2552

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

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

Frame size : 12 pixels

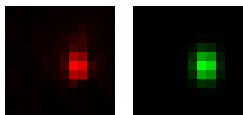
Coordinates : -44.4  $\mu\text{m}$  (x), -71.6  $\mu\text{m}$  (y), 48.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

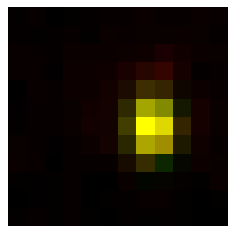
FWHM	Non corrected	Corrected	Theoretical
min	411 nm	428 nm	270 nm
max	555 nm	578 nm	270 nm
z	2.03 $\mu\text{m}$	2.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.74		
Theta	-88.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 657.743$  (brightness)

$B = 120.207$  (background)

$a = 0.795$  px

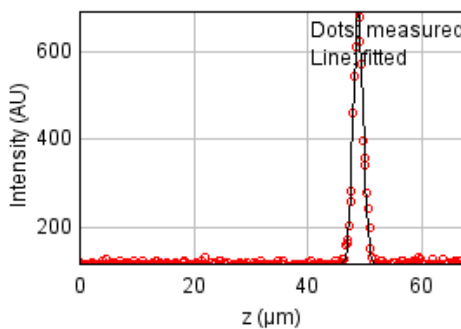
$b = -0.009$  px

$c = 0.435$  px

$x_c = 7.396$  px

$y_c = 6.003$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40118.0546

Standard deviation: 11.43143

$R^2: 0.98238$

Parameters:

$a = 114.08226$

$b = 694.63655$

$c = 48.89079$

$d = 0.86257$

## Bead 2553

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

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

Frame size : 12 pixels

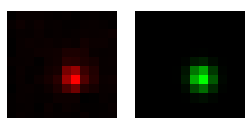
Coordinates : -71.1  $\mu\text{m}$  (x), -74.4  $\mu\text{m}$  (y), 49.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

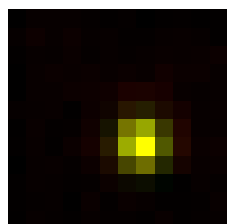
FWHM	Non corrected	Corrected	Theoretical
min	427 nm	445 nm	270 nm
max	460 nm	479 nm	270 nm
z	1.83 $\mu\text{m}$	1.84 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.928		
Theta	-76.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 645.994 (brightness)

B = 122.965 (background)

a = 0.730 px

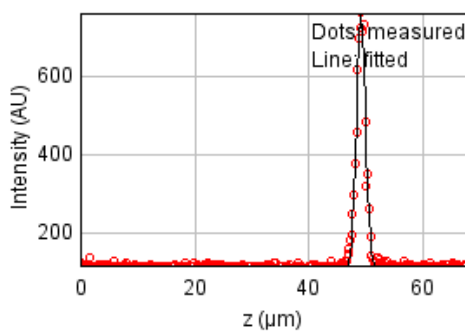
b = -0.023 px

c = 0.639 px

xc = 6.766 px

yc = 6.826 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 41213.9759

Standard deviation: 11.58652

$R^2$ : 0.98394

Parameters:

a = 113.45700

b = 761.57120

c = 49.19975

d = 0.77761

## Bead 2554

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), -80.6  $\mu\text{m}$  (y), 48.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

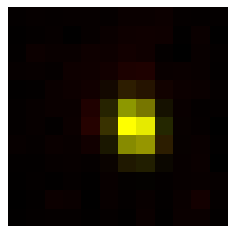
FWHM	Non corrected	Corrected	Theoretical
min	392 nm	408 nm	270 nm
max	497 nm	518 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.789		
Theta	-75.3°		

### 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 = 657.326 (brightness)

B = 123.560 (background)

a = 0.851 px

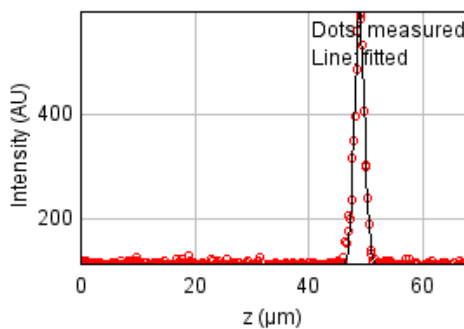
b = -0.081 px

c = 0.565 px

xc = 6.452 px

yc = 6.024 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26713.9684

Standard deviation: 9.32825

$R^2$ : 0.98317

Parameters:

a = 112.46313

b = 598.87641

c = 48.93674

d = 0.85714

## Bead 2555 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : -3.26  $\mu\text{m}$  (x), -84.6  $\mu\text{m}$  (y), 48.3  $\mu\text{m}$  (z)

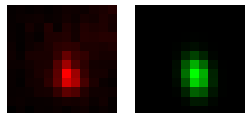
Corresponding bead : Not found

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

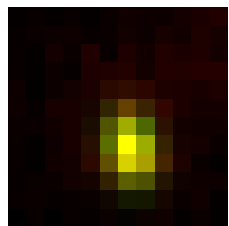
FWHM	Non corrected	Corrected	Theoretical
min	464 nm	483 nm	270 nm
max	689 nm	717 nm	270 nm
z	6.03 $\mu\text{m}$	6.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.673		
Theta	-79.9°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.917$



Parameters:

A = 339.852 (brightness)

B = 128.644 (background)

a = 0.614 px

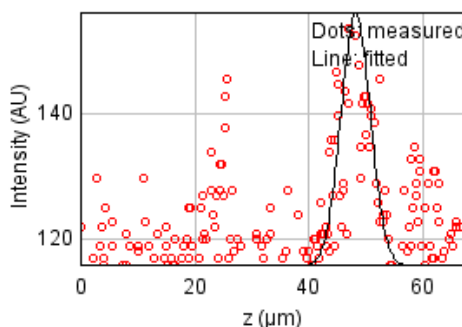
b = -0.059 px

c = 0.293 px

xc = 6.202 px

yc = 7.198 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25410.0460

Standard deviation: 9.09774

$R^2$ : 0.53792

Parameters:

a = 115.73546

b = 156.41630

c = 48.27612

d = 2.56194

## Bead 2556 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : -27.6  $\mu\text{m}$  (x), -92.9  $\mu\text{m}$  (y), 45.9  $\mu\text{m}$  (z)

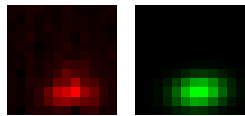
Corresponding bead : Not found

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

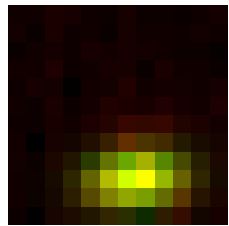
FWHM	Non corrected	Corrected	Theoretical
min	562 nm	585 nm	270 nm
max	928 nm	966 nm	270 nm
z	2.97 $\mu\text{m}$	2.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.606		
Theta	5.9°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.922$



Parameters:

A = 221.061 (brightness)

B = 119.883 (background)

a = 0.159 px

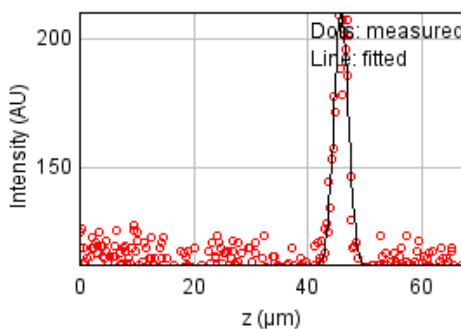
b = 0.028 px

c = 0.422 px

xc = 6.486 px

yc = 8.968 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15548.3387

Standard deviation: 7.11660

$R^2$ : 0.85486

Parameters:

a = 112.15148

b = 210.33291

c = 45.89973

d = 1.26254



## Bead 2557 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 162  $\mu\text{m}$  (x), 95.9  $\mu\text{m}$  (y), 49.0  $\mu\text{m}$  (z)

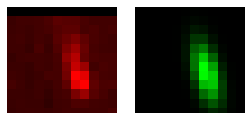
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

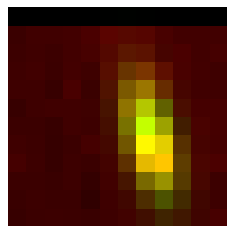
FWHM	Non corrected	Corrected	Theoretical
min	450 nm	468 nm	270 nm
max	1.14 $\mu\text{m}$	1.18 $\mu\text{m}$	270 nm
z	2.24 $\mu\text{m}$	2.25 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.395		
Theta	-76.0°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.757$



Parameters:

A = 359.597 (brightness)

B = 102.645 (background)

a = 0.631 px

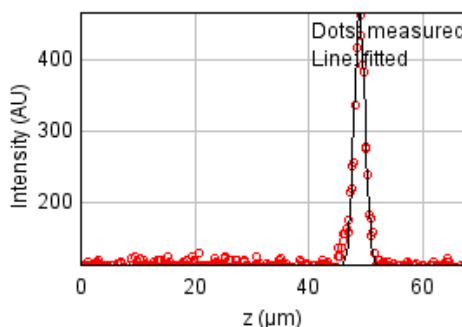
b = -0.132 px

c = 0.137 px

xc = 7.282 px

yc = 6.680 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31267.0939

Standard deviation: 10.09194

$R^2$ : 0.96710

Parameters:

a = 111.56697

b = 466.81485

c = 48.95625

d = 0.95127

## Bead 2558

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

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

Frame size : 12 pixels

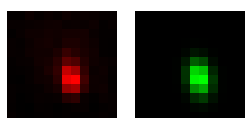
Coordinates : 64.8  $\mu\text{m}$  (x), 90.6  $\mu\text{m}$  (y), 49.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

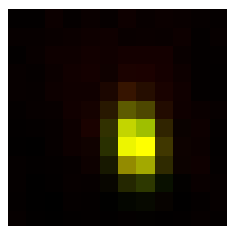
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	426 nm	270 nm
max	629 nm	655 nm	270 nm
z	2.01 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.65		
Theta	-80.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 759.187$  (brightness)

$B = 125.310$  (background)

$a = 0.789$  px

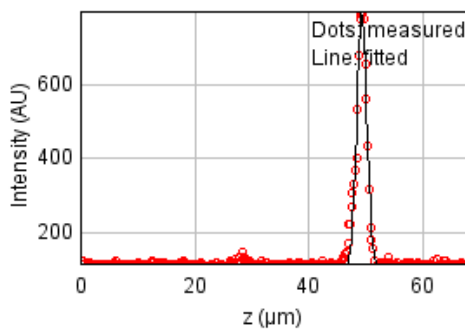
$b = -0.075$  px

$c = 0.352$  px

$x_c = 6.510$  px

$y_c = 6.808$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 68282.1578

Standard deviation: 14.91367

$R^2: 0.97826$

Parameters:

$a = 115.13010$

$b = 798.20440$

$c = 49.34211$

$d = 0.85547$

## Bead 2559

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

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

Frame size : 12 pixels

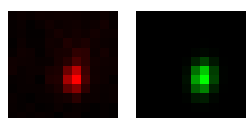
Coordinates : -155  $\mu\text{m}$  (x), 89.5  $\mu\text{m}$  (y), 48.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

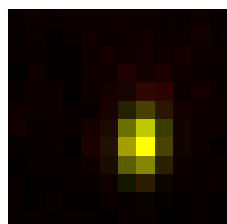
FWHM	Non corrected	Corrected	Theoretical
min	385 nm	401 nm	270 nm
max	552 nm	575 nm	270 nm
z	2.09 $\mu\text{m}$	2.1 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.697		
Theta	82.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 435.671 (brightness)

B = 118.974 (background)

a = 0.897 px

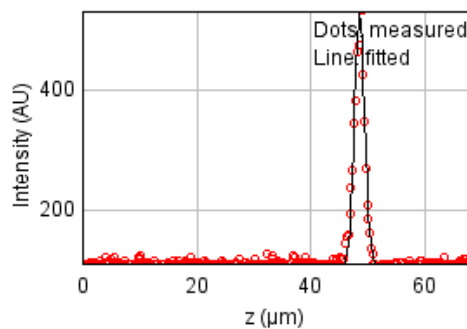
b = 0.058 px

c = 0.447 px

$x_c = 6.775$  px

$y_c = 6.800$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29977.2840

Standard deviation: 9.88159

$R^2$ : 0.97553

Parameters:

a = 110.79584

b = 529.62437

c = 48.59819

d = 0.88681

## Bead 2560

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

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

Frame size : 12 pixels

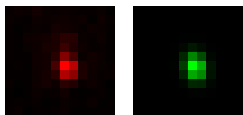
Coordinates : -122  $\mu\text{m}$  (x), 78.8  $\mu\text{m}$  (y), 49.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

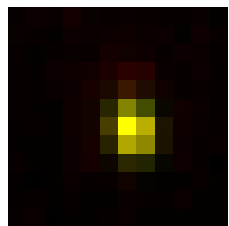
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	397 nm	270 nm
max	509 nm	530 nm	270 nm
z	1.96 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.749		
Theta	-77.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 649.794 (brightness)

B = 123.494 (background)

a = 0.904 px

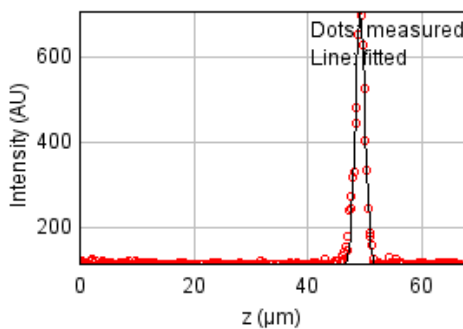
b = -0.088 px

c = 0.539 px

xc = 6.302 px

yc = 6.158 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 44744.3099

Standard deviation: 12.07257

$R^2$ : 0.98079

Parameters:

a = 112.52883

b = 708.85334

c = 49.23007

d = 0.83394

## Bead 2561

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

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

Frame size : 12 pixels

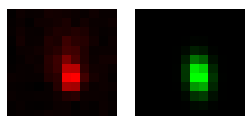
Coordinates : 101 um (x), 73.2 um (y), 49.0 um (z)

Corresponding bead : Not found

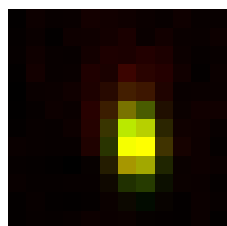
FWHM	Non corrected	Corrected	Theoretical
min	408 nm	425 nm	270 nm
max	665 nm	693 nm	270 nm
z	2.17 um	2.18 um	1.3 um
Asymmetry	0.614		
Theta	-83.7°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.927$



Parameters:

A = 436.527 (brightness)

B = 121.909 (background)

a = 0.800 px

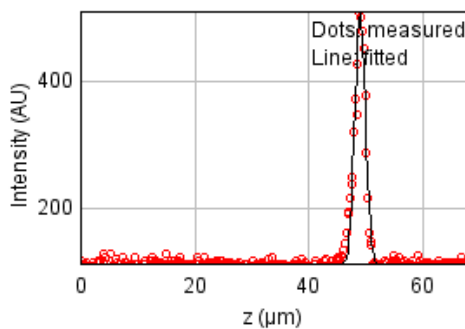
b = -0.054 px

c = 0.309 px

xc = 6.479 px

yc = 6.733 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 38311.3627

Standard deviation: 11.17107

$R^2$ : 0.96682

Parameters:

a = 112.84876

b = 510.03727

c = 49.04390

d = 0.92291

## Bead 2562 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 162  $\mu\text{m}$  (x), 54.9  $\mu\text{m}$  (y), 45.7  $\mu\text{m}$  (z)

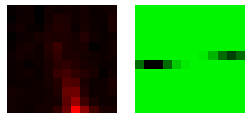
Corresponding bead : Not found

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

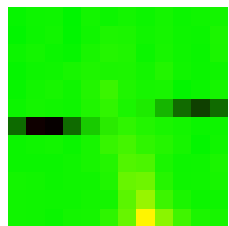
FWHM	Non corrected	Corrected	Theoretical
min	80.0 nm	83.3 nm	270 nm
max	4.63 $\mu\text{m}$	4.83 $\mu\text{m}$	270 nm
z	4.03 $\mu\text{m}$	4.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.017		
Theta	6.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.128$



Parameters:

A = -24.690 (brightness)

B = 133.138 (background)

a = 0.279 px

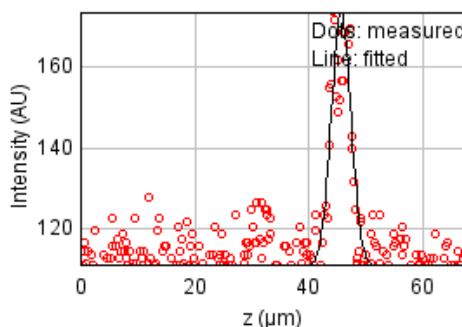
b = 2.377 px

c = 20.684 px

xc = 2.649 px

yc = 5.864 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16622.2775

Standard deviation: 7.35828

$R^2$ : 0.74523

Parameters:

a = 111.19806

b = 173.45527

c = 45.71575

d = 1.71003

## Bead 2563

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

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

Frame size : 12 pixels

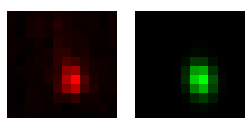
Coordinates : 128  $\mu\text{m}$  (x), 45.2  $\mu\text{m}$  (y), 49.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

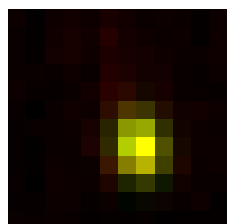
FWHM	Non corrected	Corrected	Theoretical
min	439 nm	457 nm	270 nm
max	599 nm	624 nm	270 nm
z	1.65 $\mu\text{m}$	1.66 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.733		
Theta	-78.9°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.943$



Parameters:

$A = 456.812$  (brightness)

$B = 121.735$  (background)

$a = 0.684$  px

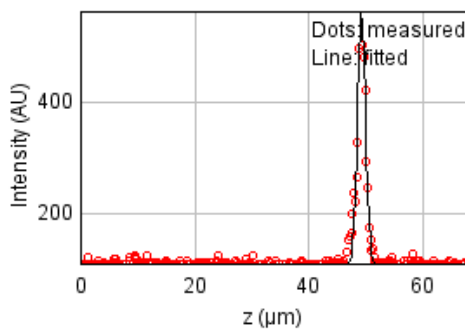
$b = -0.061$  px

$c = 0.386$  px

$x_c = 6.661$  px

$y_c = 6.984$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37987.9552

Standard deviation: 11.12382

$R^2: 0.96640$

Parameters:

$a = 111.72920$

$b = 559.91718$

$c = 49.28734$

$d = 0.70075$

## Bead 2564

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

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

Frame size : 12 pixels

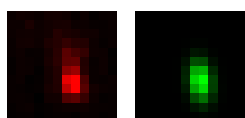
Coordinates : 136  $\mu\text{m}$  (x), 41.0  $\mu\text{m}$  (y), 49.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

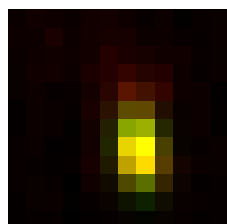
FWHM	Non corrected	Corrected	Theoretical
min	412 nm	429 nm	270 nm
max	725 nm	755 nm	270 nm
z	2.1 $\mu\text{m}$	2.1 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.568		
Theta	-83.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.920$



Parameters:

$A = 679.975$  (brightness)

$B = 127.133$  (background)

$a = 0.784$  px

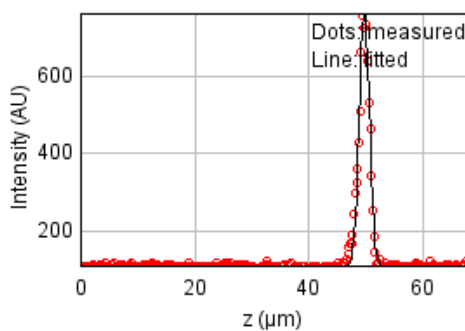
$b = -0.060$  px

$c = 0.262$  px

$x_c = 6.627$  px

$y_c = 7.122$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 41691.1432

Standard deviation: 11.65340

$R^2: 0.98573$

Parameters:

$a = 111.78655$

$b = 760.74461$

$c = 49.79374$

$d = 0.89000$



## Bead 2565

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

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

Frame size : 12 pixels

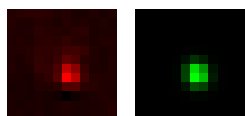
Coordinates : 55.5  $\mu\text{m}$  (x), 26.8  $\mu\text{m}$  (y), 49.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

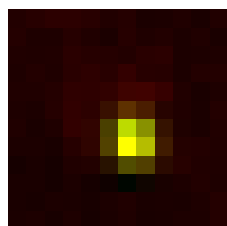
FWHM	Non corrected	Corrected	Theoretical
min	398 nm	415 nm	270 nm
max	452 nm	471 nm	270 nm
z	1.75 $\mu\text{m}$	1.75 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.881		
Theta	-71.2°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.906$



Parameters:

$A = 497.593$  (brightness)

$B = 128.164$  (background)

$a = 0.827$  px

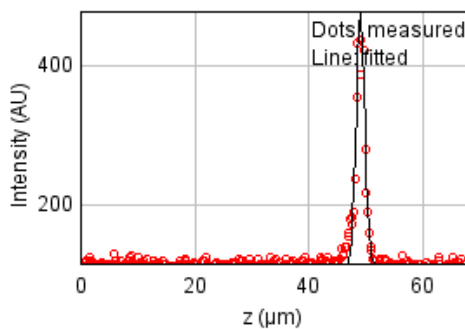
$b = -0.058$  px

$c = 0.677$  px

$x_c = 6.292$  px

$y_c = 6.636$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 41372.0299

Standard deviation: 11.60872

$R^2: 0.94831$

Parameters:

$a = 113.70481$

$b = 477.32537$

$c = 49.10514$

$d = 0.74123$

## Bead 2566

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

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

Frame size : 12 pixels

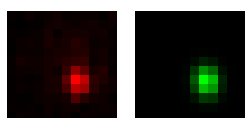
Coordinates : -119  $\mu\text{m}$  (x), 730 nm (y), 49.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

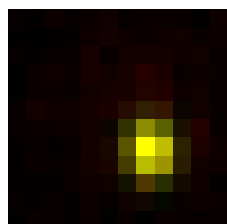
FWHM	Non corrected	Corrected	Theoretical
min	436 nm	455 nm	270 nm
max	549 nm	572 nm	270 nm
z	2.22 $\mu\text{m}$	2.22 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.795		
Theta	-83.8°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.955$



Parameters:

A = 387.144 (brightness)

B = 119.785 (background)

a = 0.702 px

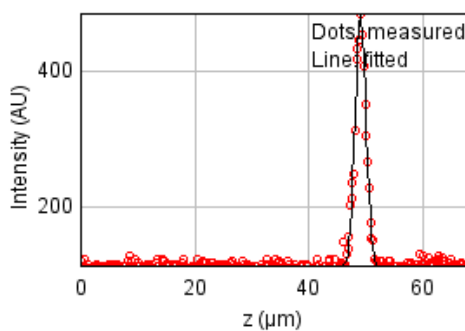
b = -0.028 px

c = 0.448 px

$x_c = 7.289$  px

$y_c = 7.184$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19707.2165

Standard deviation: 8.01205

$R^2$ : 0.98057

Parameters:

a = 113.26146

b = 484.79209

c = 49.12085

d = 0.94079

## Bead 2567

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

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

Frame size : 12 pixels

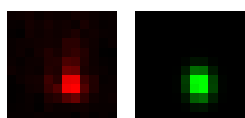
Coordinates : 111 um (x), -1.32 um (y), 49.4 um (z)

Corresponding bead : Not found

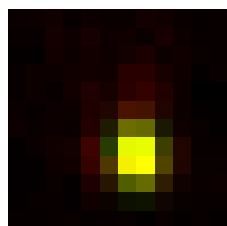
FWHM	Non corrected	Corrected	Theoretical
min	437 nm	455 nm	270 nm
max	555 nm	578 nm	270 nm
z	2.29 um	2.3 um	1.3 um
Asymmetry	0.788		
Theta	-84.5°		

### 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 = 533.974 (brightness)

B = 124.591 (background)

a = 0.700 px

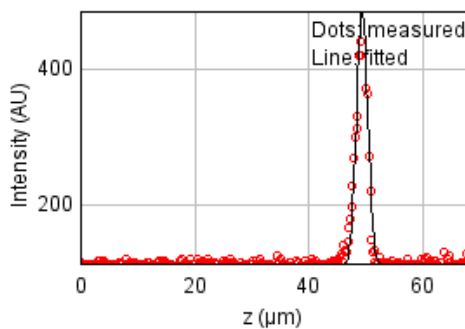
b = -0.025 px

c = 0.439 px

xc = 6.530 px

yc = 7.481 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40618.3662

Standard deviation: 11.50249

$R^2$ : 0.96283

Parameters:

a = 112.16121

b = 488.30690

c = 49.40272

d = 0.97238

## Bead 2568

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

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

Frame size : 12 pixels

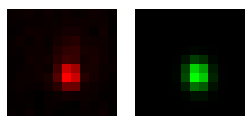
Coordinates : -49.4  $\mu\text{m}$  (x), -16.5  $\mu\text{m}$  (y), 49.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

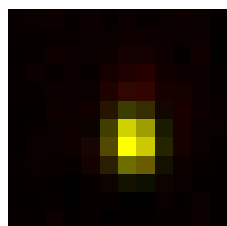
FWHM	Non corrected	Corrected	Theoretical
min	422 nm	439 nm	270 nm
max	509 nm	530 nm	270 nm
z	2.35 $\mu\text{m}$	2.36 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.829		
Theta	-84.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 648.598 (brightness)

B = 124.466 (background)

a = 0.752 px

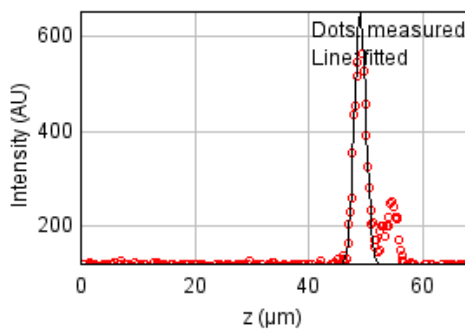
b = -0.025 px

c = 0.521 px

$x_c = 6.330$  px

$y_c = 6.705$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 193719.993

Standard deviation: 25.11991

$R^2$ : 0.91740

Parameters:

a = 119.62264

b = 651.07795

c = 49.06012

d = 0.99751

## Bead 2569

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

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

Frame size : 12 pixels

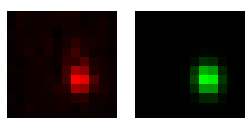
Coordinates : -142  $\mu\text{m}$  (x), -24.1  $\mu\text{m}$  (y), 48.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

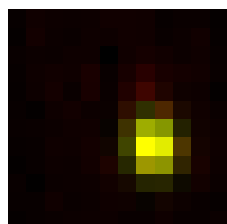
FWHM	Non corrected	Corrected	Theoretical
min	440 nm	458 nm	270 nm
max	544 nm	567 nm	270 nm
z	2.49 $\mu\text{m}$	2.5 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.808		
Theta	-83.0°		

### 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 = 451.498 (brightness)

B = 117.880 (background)

a = 0.691 px

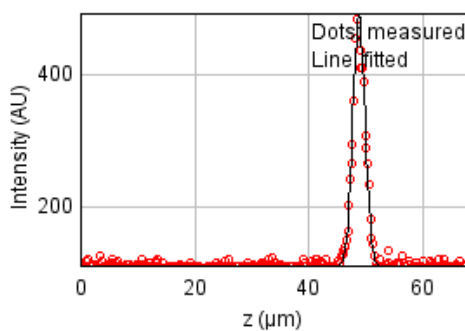
b = -0.029 px

c = 0.457 px

$x_c = 7.440$  px

$y_c = 6.953$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25492.1545

Standard deviation: 9.11243

$R^2$ : 0.97887

Parameters:

a = 110.13484

b = 493.50371

c = 48.83991

d = 1.05574

## Bead 2570

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

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

Frame size : 12 pixels

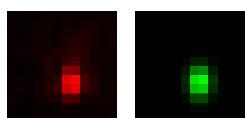
Coordinates : 107  $\mu\text{m}$  (x), -50.5  $\mu\text{m}$  (y), 49.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

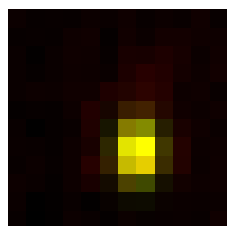
FWHM	Non corrected	Corrected	Theoretical
min	403 nm	420 nm	270 nm
max	571 nm	595 nm	270 nm
z	2.12 $\mu\text{m}$	2.13 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.706		
Theta	89.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 591.412 (brightness)

B = 127.518 (background)

a = 0.826 px

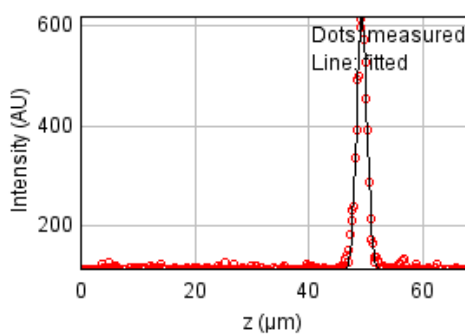
b = 0.005 px

c = 0.412 px

xc = 6.568 px

yc = 7.246 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20798.5646

Standard deviation: 8.23090

$R^2$ : 0.98846

Parameters:

a = 112.15803

b = 620.15555

c = 49.34490

d = 0.89916

## Bead 2571

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

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

Frame size : 12 pixels

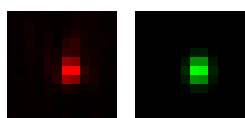
Coordinates : -6.94  $\mu\text{m}$  (x), -53.6  $\mu\text{m}$  (y), 49.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

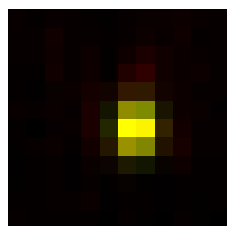
FWHM	Non corrected	Corrected	Theoretical
min	374 nm	389 nm	270 nm
max	480 nm	500 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.779		
Theta	87.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 737.519$  (brightness)

$B = 124.770$  (background)

$a = 0.961$  px

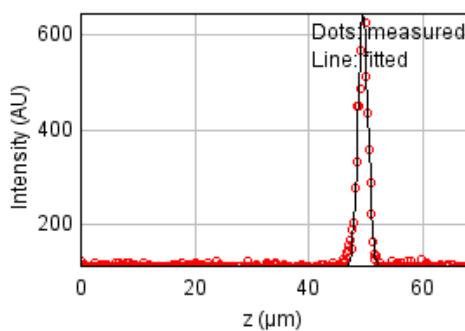
$b = 0.020$  px

$c = 0.584$  px

$x_c = 6.475$  px

$y_c = 5.998$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34182.9626

Standard deviation: 10.55202

$R^2: 0.98213$

Parameters:

$a = 113.46796$

$b = 646.86934$

$c = 49.55810$

$d = 0.85790$

## Bead 2572

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

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

Frame size : 12 pixels

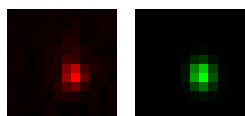
Coordinates : -124  $\mu\text{m}$  (x), -62.5  $\mu\text{m}$  (y), 49.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

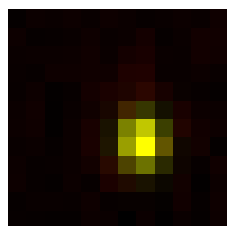
FWHM	Non corrected	Corrected	Theoretical
min	412 nm	429 nm	270 nm
max	506 nm	527 nm	270 nm
z	1.9 $\mu\text{m}$	1.91 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.814		
Theta	-84.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 382.159$  (brightness)

$B = 117.401$  (background)

$a = 0.787$  px

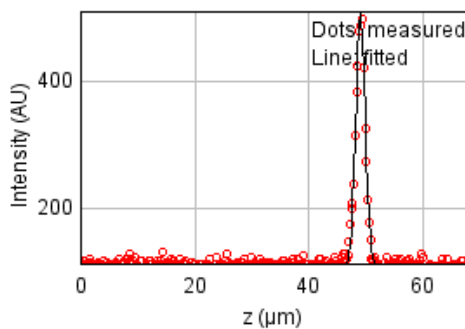
$b = -0.027$  px

$c = 0.527$  px

$x_c = 6.794$  px

$y_c = 6.728$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18257.7389

Standard deviation: 7.71177

$R^2: 0.98186$

Parameters:

$a = 112.40643$

$b = 510.59126$

$c = 49.11018$

$d = 0.80757$



## Bead 2573

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

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

Frame size : 12 pixels

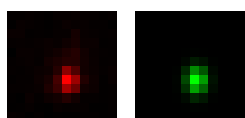
Coordinates : 44.7  $\mu\text{m}$  (x), -69.4  $\mu\text{m}$  (y), 49.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

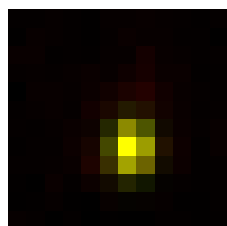
FWHM	Non corrected	Corrected	Theoretical
min	392 nm	408 nm	270 nm
max	501 nm	522 nm	270 nm
z	1.95 $\mu\text{m}$	1.96 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.781		
Theta	89.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 730.106 (brightness)

B = 125.287 (background)

a = 0.875 px

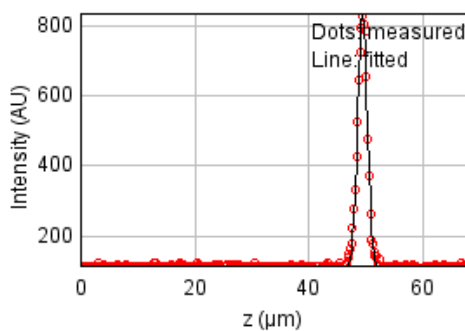
b = 0.004 px

c = 0.534 px

xc = 6.222 px

yc = 7.078 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23957.8855

Standard deviation: 8.83395

$R^2$ : 0.99286

Parameters:

a = 113.10121

b = 836.04432

c = 49.46348

d = 0.82722

## Bead 2574

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

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

Frame size : 12 pixels

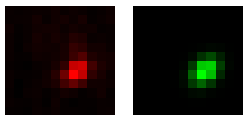
Coordinates : -96.3  $\mu\text{m}$  (x), -80.8  $\mu\text{m}$  (y), 48.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

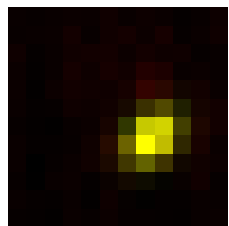
FWHM	Non corrected	Corrected	Theoretical
min	413 nm	430 nm	270 nm
max	558 nm	582 nm	270 nm
z	2.4 $\mu\text{m}$	2.41 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.739		
Theta	47.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 509.897$  (brightness)

$B = 120.007$  (background)

$a = 0.625$  px

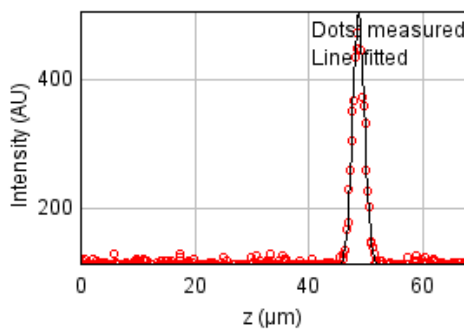
$b = 0.178$  px

$c = 0.593$  px

$x_c = 7.371$  px

$y_c = 6.592$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22568.7481

Standard deviation: 8.57402

$R^2: 0.98141$

Parameters:

$a = 112.99056$

$b = 504.60871$

$c = 48.77622$

$d = 1.01858$

## Bead 2575

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

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

Frame size : 12 pixels

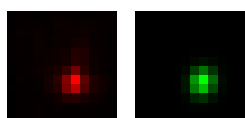
Coordinates : 27.9  $\mu\text{m}$  (x), -87.1  $\mu\text{m}$  (y), 49.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

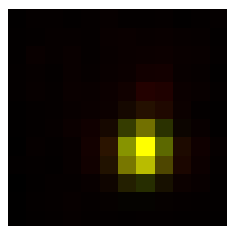
FWHM	Non corrected	Corrected	Theoretical
min	427 nm	445 nm	270 nm
max	491 nm	512 nm	270 nm
z	1.96 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.87		
Theta	76.3°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.964$



Parameters:

A = 995.537 (brightness)

B = 132.452 (background)

a = 0.725 px

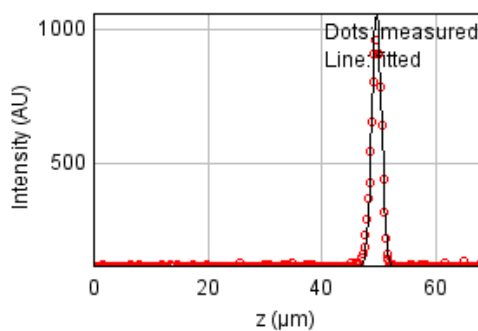
b = 0.041 px

c = 0.566 px

xc = 6.862 px

yc = 7.240 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 57386.3818

Standard deviation: 13.67210

$R^2$ : 0.99014

Parameters:

a = 113.67088

b = 1060.50322

c = 49.67019

d = 0.83383

## Bead 2576

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

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

Frame size : 12 pixels

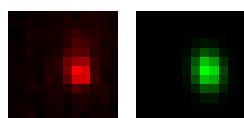
Coordinates : -109  $\mu\text{m}$  (x), 76.4  $\mu\text{m}$  (y), 48.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

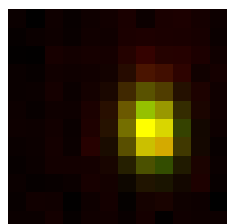
FWHM	Non corrected	Corrected	Theoretical
min	515 nm	536 nm	270 nm
max	691 nm	720 nm	270 nm
z	2.16 $\mu\text{m}$	2.17 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.745		
Theta	-82.4°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.929$



Parameters:

A = 326.800 (brightness)

B = 122.126 (background)

a = 0.502 px

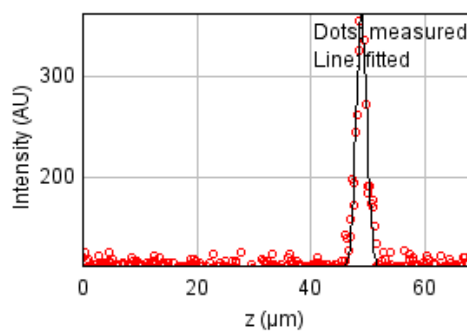
b = -0.030 px

c = 0.285 px

xc = 7.327 px

yc = 6.031 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25750.1194

Standard deviation: 9.15842

$R^2$ : 0.94454

Parameters:

a = 113.27513

b = 363.11527

c = 48.93875

d = 0.91591

## Bead 2577

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

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

Frame size : 12 pixels

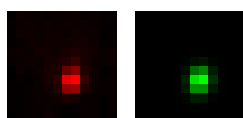
Coordinates : 5.4  $\mu\text{m}$  (x), 53.3  $\mu\text{m}$  (y), 49.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

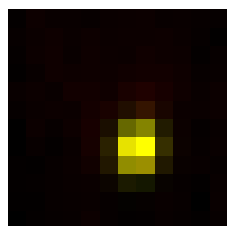
FWHM	Non corrected	Corrected	Theoretical
min	382 nm	398 nm	270 nm
max	469 nm	488 nm	270 nm
z	1.95 $\mu\text{m}$	1.96 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.816		
Theta	79.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 781.678 (brightness)

B = 126.196 (background)

a = 0.908 px

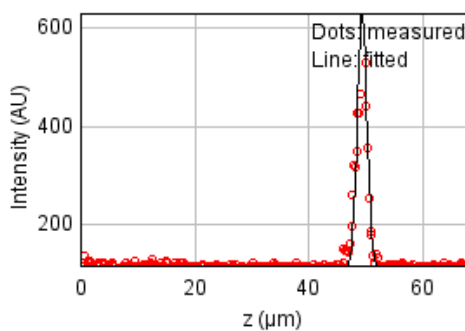
b = 0.054 px

c = 0.621 px

xc = 6.564 px

yc = 7.072 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 81506.5198

Standard deviation: 16.29397

$R^2$ : 0.95470

Parameters:

a = 114.83755

b = 633.53820

c = 49.40387

d = 0.82844

## Bead 2578 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : -53.8  $\mu\text{m}$  (x), 33.7  $\mu\text{m}$  (y), 46.2  $\mu\text{m}$  (z)

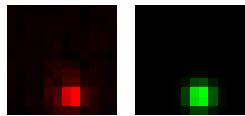
Corresponding bead : Not found

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

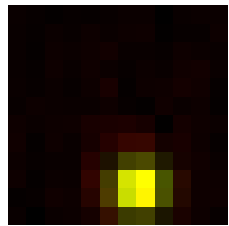
FWHM	Non corrected	Corrected	Theoretical
min	456 nm	475 nm	270 nm
max	472 nm	492 nm	270 nm
z	3.38 $\mu\text{m}$	3.39 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.965		
Theta	7.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 450.557 (brightness)

B = 120.647 (background)

a = 0.602 px

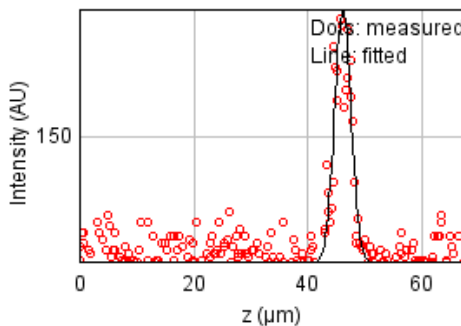
b = 0.006 px

c = 0.645 px

xc = 6.590 px

yc = 9.473 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 14179.9241

Standard deviation: 6.79623

$R^2$ : 0.80723

Parameters:

a = 113.05957

b = 187.56287

c = 46.19154

d = 1.43561

## Bead 2579

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

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

Frame size : 12 pixels

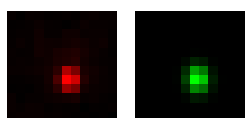
Coordinates : -63.7  $\mu\text{m}$  (x), 30.9  $\mu\text{m}$  (y), 49.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

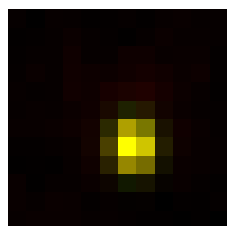
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	421 nm	270 nm
max	493 nm	513 nm	270 nm
z	2.11 $\mu\text{m}$	2.12 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.82		
Theta	-86.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 839.495 (brightness)

B = 130.502 (background)

a = 0.821 px

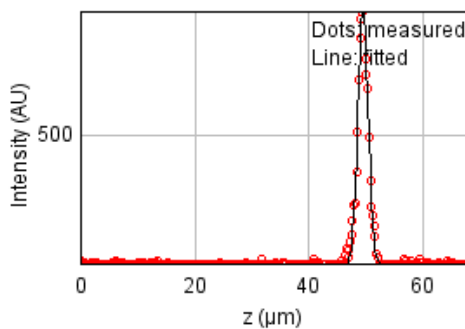
b = -0.016 px

c = 0.554 px

xc = 6.340 px

yc = 6.934 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 44083.3353

Standard deviation: 11.98307

$R^2$ : 0.98880

Parameters:

a = 115.17241

b = 867.63874

c = 49.55970

d = 0.89531

## Bead 2580 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : -122  $\mu\text{m}$  (x), 26.2  $\mu\text{m}$  (y), 46.0  $\mu\text{m}$  (z)

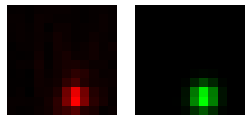
Corresponding bead : Not found

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

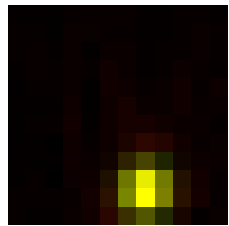
FWHM	Non corrected	Corrected	Theoretical
min	446 nm	465 nm	270 nm
max	481 nm	501 nm	270 nm
z	3.22 $\mu\text{m}$	3.23 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.927		
Theta	78.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 619.021 (brightness)

B = 122.150 (background)

a = 0.670 px

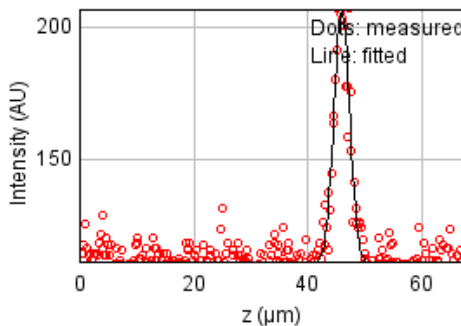
b = 0.019 px

c = 0.583 px

xc = 6.993 px

yc = 9.569 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 13945.9537

Standard deviation: 6.73992

$R^2$ : 0.87006

Parameters:

a = 111.18676

b = 206.79631

c = 46.01013

d = 1.36547



## Bead 2581

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

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

Frame size : 12 pixels

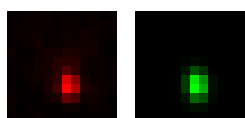
Coordinates : 35.0  $\mu\text{m}$  (x), 26.8  $\mu\text{m}$  (y), 49.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

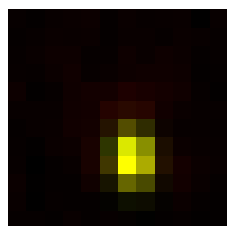
FWHM	Non corrected	Corrected	Theoretical
min	371 nm	386 nm	270 nm
max	516 nm	538 nm	270 nm
z	1.96 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.718		
Theta	-85.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 772.936$  (brightness)

$B = 127.230$  (background)

$a = 0.972$  px

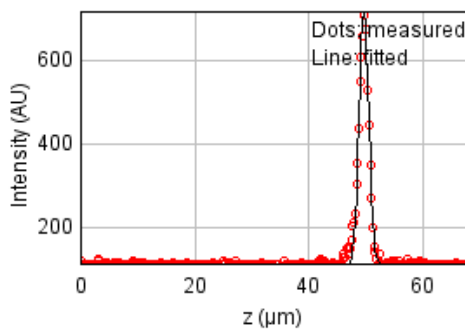
$b = -0.040$  px

$c = 0.507$  px

$x_c = 6.277$  px

$y_c = 7.617$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 32860.2260

Standard deviation: 10.34585

$R^2: 0.98614$

Parameters:

$a = 114.30894$

$b = 717.29065$

$c = 49.71769$

$d = 0.83430$

## Bead 2582

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

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

Frame size : 12 pixels

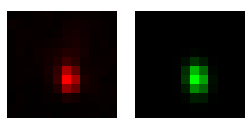
Coordinates : 57.9  $\mu\text{m}$  (x), 22.6  $\mu\text{m}$  (y), 49.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

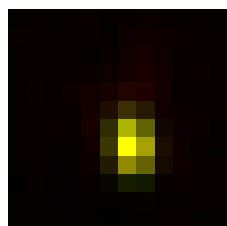
FWHM	Non corrected	Corrected	Theoretical
min	366 nm	381 nm	270 nm
max	531 nm	553 nm	270 nm
z	1.99 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.689		
Theta	-83.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 923.441 (brightness)

B = 129.852 (background)

a = 0.994 px

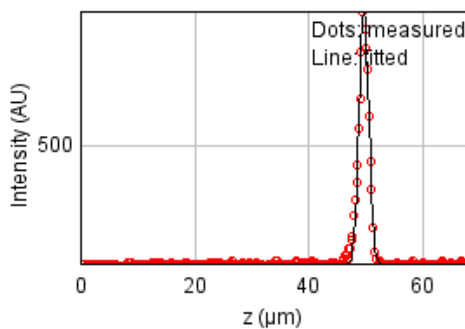
b = -0.063 px

c = 0.483 px

$x_c = 6.261$  px

$y_c = 6.894$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 49324.5472

Standard deviation: 12.67542

$R^2$ : 0.98880

Parameters:

a = 113.78598

b = 931.45461

c = 49.71645

d = 0.84603

## Bead 2583

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

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

Frame size : 12 pixels

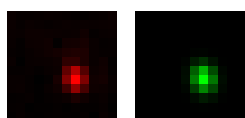
Coordinates : -19.8  $\mu\text{m}$  (x), 13.8  $\mu\text{m}$  (y), 49.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

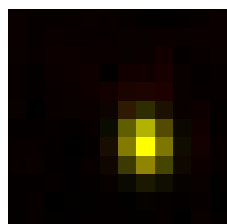
FWHM	Non corrected	Corrected	Theoretical
min	419 nm	437 nm	270 nm
max	520 nm	542 nm	270 nm
z	2.03 $\mu\text{m}$	2.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.806		
Theta	-79.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 733.178 (brightness)

B = 124.294 (background)

a = 0.755 px

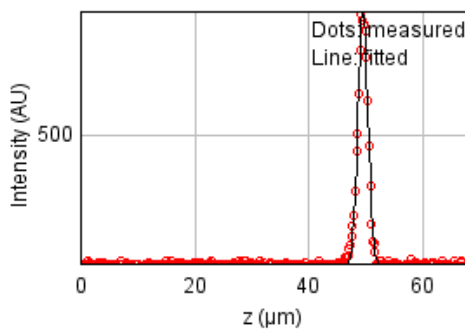
b = -0.048 px

c = 0.505 px

$x_c = 6.977$  px

$y_c = 6.853$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28670.8192

Standard deviation: 9.66387

$R^2$ : 0.99257

Parameters:

a = 114.42884

b = 873.64337

c = 49.54215

d = 0.86331

## Bead 2584

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

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

Frame size : 12 pixels

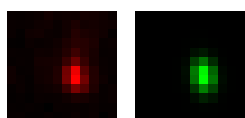
Coordinates : 122  $\mu\text{m}$  (x), 11.4  $\mu\text{m}$  (y), 49.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

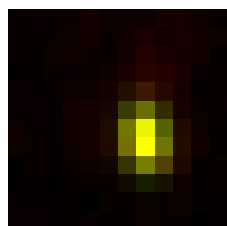
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	423 nm	270 nm
max	606 nm	631 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.669		
Theta	-83.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 490.543$  (brightness)

$B = 119.414$  (background)

$a = 0.809$  px

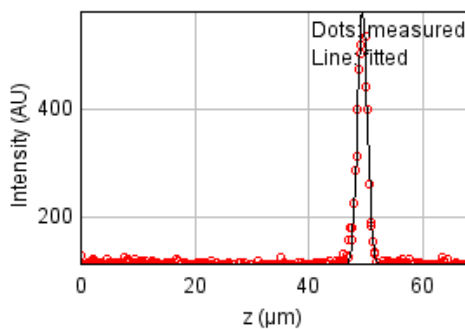
$b = -0.053$  px

$c = 0.372$  px

$x_c = 6.979$  px

$y_c = 6.558$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28496.9976

Standard deviation: 9.63453

$R^2: 0.98067$

Parameters:

$a = 112.73068$

$b = 583.13918$

$c = 49.45245$

$d = 0.84873$

## Bead 2585

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

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

Frame size : 12 pixels

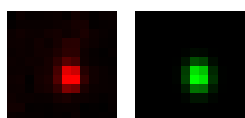
Coordinates : 7.57  $\mu\text{m}$  (x), -3.34  $\mu\text{m}$  (y), 49.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

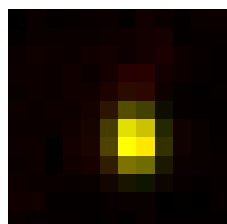
FWHM	Non corrected	Corrected	Theoretical
min	429 nm	447 nm	270 nm
max	536 nm	558 nm	270 nm
z	2.32 $\mu\text{m}$	2.33 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.8		
Theta	-85.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 679.152 (brightness)

B = 128.727 (background)

a = 0.728 px

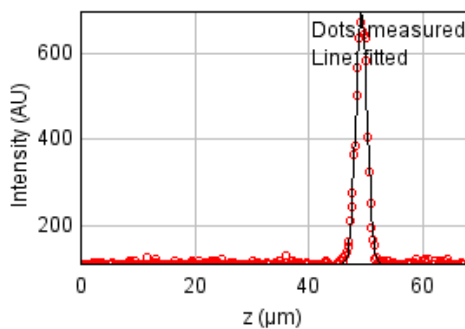
b = -0.022 px

c = 0.469 px

xc = 6.421 px

yc = 6.659 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27321.7928

Standard deviation: 9.43377

$R^2$ : 0.98939

Parameters:

a = 112.90500

b = 694.43105

c = 49.29141

d = 0.98619

## Bead 2586

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

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

Frame size : 12 pixels

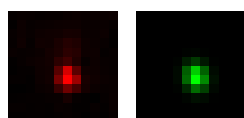
Coordinates : 5.73  $\mu\text{m}$  (x), -4.89  $\mu\text{m}$  (y), 49.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

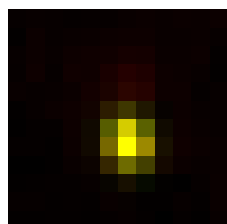
FWHM	Non corrected	Corrected	Theoretical
min	416 nm	433 nm	270 nm
max	502 nm	522 nm	270 nm
z	2.09 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.829		
Theta	-75.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 720.163$  (brightness)

$B = 128.675$  (background)

$a = 0.761$  px

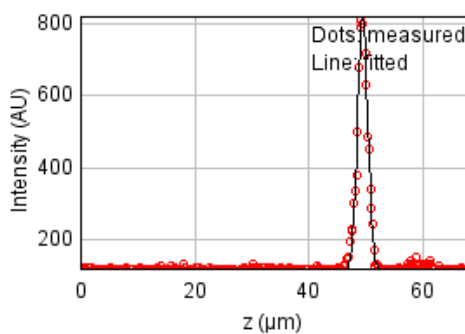
$b = -0.058$  px

$c = 0.548$  px

$x_c = 6.067$  px

$y_c = 6.712$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40778.8471

Standard deviation: 11.52520

$R^2: 0.98808$

Parameters:

$a = 115.89511$

$b = 820.44701$

$c = 49.48522$

$d = 0.88599$

## Bead 2587

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

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

Frame size : 12 pixels

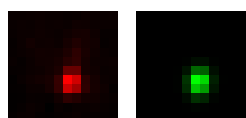
Coordinates : -6.51  $\mu\text{m}$  (x), -27.9  $\mu\text{m}$  (y), 50.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

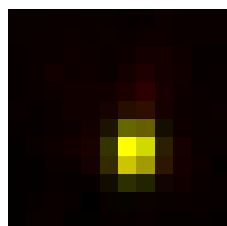
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	481 nm	501 nm	270 nm
z	2.16 $\mu\text{m}$	2.17 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.805		
Theta	83.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 961.393 (brightness)

B = 131.813 (background)

a = 0.890 px

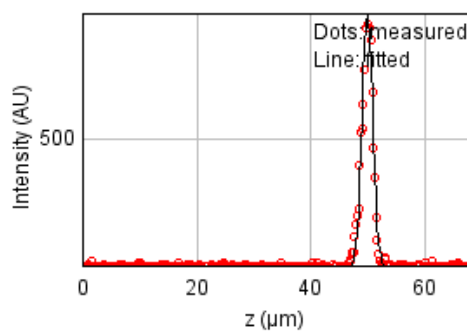
b = 0.036 px

c = 0.584 px

xc = 6.398 px

yc = 7.252 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 61400.2536

Standard deviation: 14.14216

$R^2$ : 0.98563

Parameters:

a = 112.94205

b = 886.63934

c = 49.97965

d = 0.91714

## Bead 2588

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

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

Frame size : 12 pixels

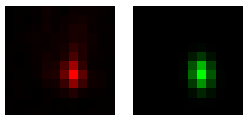
Coordinates : 108  $\mu\text{m}$  (x), -39.5  $\mu\text{m}$  (y), 49.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

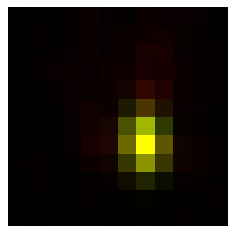
FWHM	Non corrected	Corrected	Theoretical
min	369 nm	384 nm	270 nm
max	552 nm	574 nm	270 nm
z	2.04 $\mu\text{m}$	2.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.669		
Theta	-86.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 701.452 (brightness)

B = 125.556 (background)

a = 0.984 px

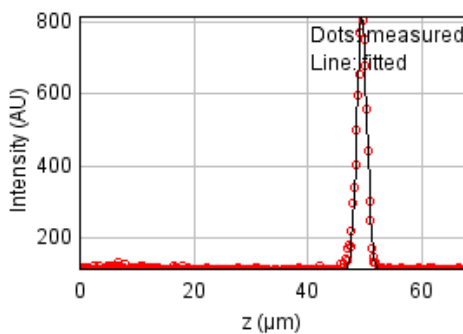
b = -0.036 px

c = 0.443 px

$x_c = 6.947$  px

$y_c = 6.874$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31779.8665

Standard deviation: 10.17435

$R^2$ : 0.99047

Parameters:

a = 111.95451

b = 816.50400

c = 49.53456

d = 0.86466



## Bead 2589

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

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

Frame size : 12 pixels

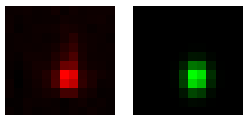
Coordinates : 22.7  $\mu\text{m}$  (x), -47.5  $\mu\text{m}$  (y), 49.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

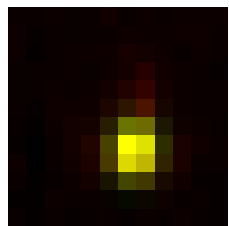
FWHM	Non corrected	Corrected	Theoretical
min	426 nm	443 nm	270 nm
max	532 nm	554 nm	270 nm
z	1.99 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.8		
Theta	84.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 780.742$  (brightness)

$B = 127.961$  (background)

$a = 0.738$  px

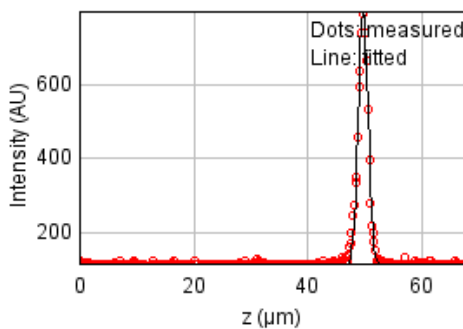
$b = 0.024$  px

$c = 0.476$  px

$x_c = 6.407$  px

$y_c = 7.301$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40842.3696

Standard deviation: 11.53417

$R^2: 0.98675$

Parameters:

$a = 114.92224$

$b = 798.44181$

$c = 49.76609$

$d = 0.84541$

## Bead 2590

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

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

Frame size : 12 pixels

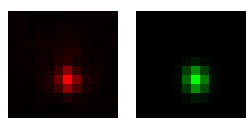
Coordinates : -25.9  $\mu\text{m}$  (x), -54.7  $\mu\text{m}$  (y), 49.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

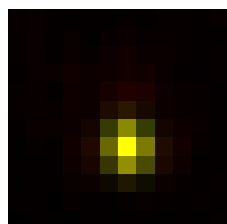
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	419 nm	270 nm
max	476 nm	496 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.844		
Theta	-80.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 726.447$  (brightness)

$B = 129.038$  (background)

$a = 0.824$  px

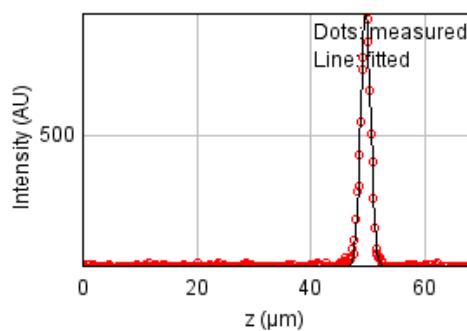
$b = -0.039$  px

$c = 0.598$  px

$x_c = 6.051$  px

$y_c = 7.020$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28322.3874

Standard deviation: 9.60496

$R^2: 0.99237$

Parameters:

$a = 113.42356$

$b = 860.11977$

$c = 49.67215$

$d = 0.85905$

## Bead 2591 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : -164  $\mu\text{m}$  (x), -80.3  $\mu\text{m}$  (y), 47.9  $\mu\text{m}$  (z)

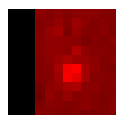
Corresponding bead : Not found

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	2.64 $\mu\text{m}$	2.65 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

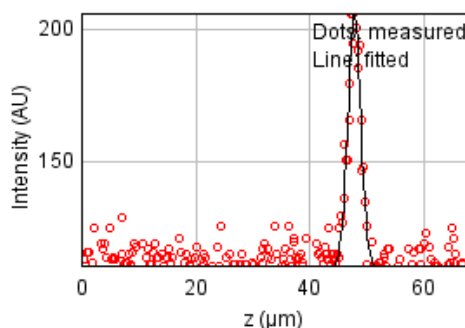
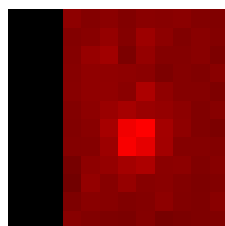
### XY profile & fitting parameters :

(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: 10858.0226

Standard deviation: 5.94711

R<sup>2</sup>: 0.87794

Parameters:

a = 110.32713

b = 206.09979

c = 47.86469

d = 1.12283

## Bead 2592 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 67.4  $\mu\text{m}$  (x), -85.9  $\mu\text{m}$  (y), 50.9  $\mu\text{m}$  (z)

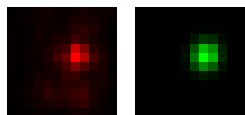
Corresponding bead : Not found

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

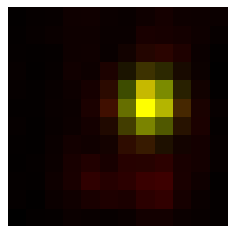
FWHM	Non corrected	Corrected	Theoretical
min	474 nm	494 nm	270 nm
max	527 nm	549 nm	270 nm
z	3.93 $\mu\text{m}$	3.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.9		
Theta	74.9°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.902$



Parameters:

A = 755.633 (brightness)

B = 155.026 (background)

a = 0.589 px

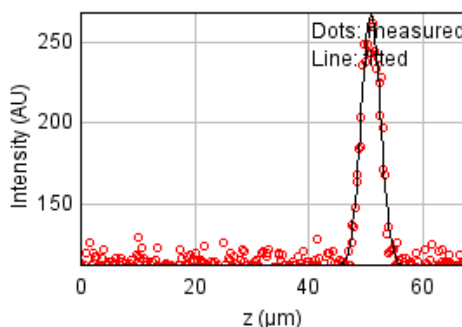
b = 0.029 px

c = 0.491 px

xc = 7.214 px

yc = 4.815 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18901.1050

Standard deviation: 7.84647

$R^2$ : 0.94084

Parameters:

a = 111.92786

b = 268.51379

c = 50.93748

d = 1.66707

## Bead 2593 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : -27.6  $\mu\text{m}$  (x), -92.9  $\mu\text{m}$  (y), 45.9  $\mu\text{m}$  (z)

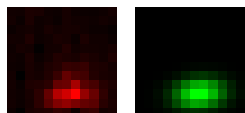
Corresponding bead : Not found

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

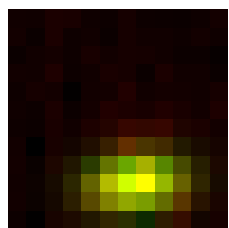
FWHM	Non corrected	Corrected	Theoretical
min	562 nm	585 nm	270 nm
max	928 nm	966 nm	270 nm
z	2.97 $\mu\text{m}$	2.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.606		
Theta	5.9°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.922$



Parameters:

A = 221.061 (brightness)

B = 119.883 (background)

a = 0.159 px

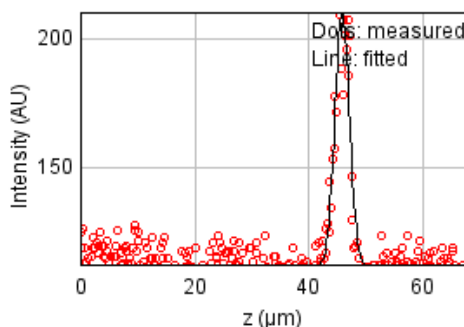
b = 0.028 px

c = 0.422 px

xc = 6.486 px

yc = 8.968 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15548.3387

Standard deviation: 7.11660

$R^2$ : 0.85486

Parameters:

a = 112.15148

b = 210.33291

c = 45.89973

d = 1.26254

## Bead 2594

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

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

Frame size : 12 pixels

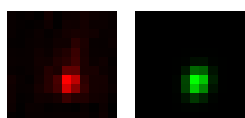
Coordinates : 114 µm (x), -94.5 µm (y), 49.3 µm (z)

Corresponding bead : Not found

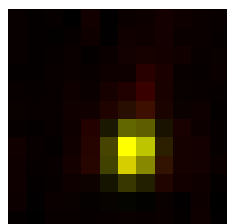
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	422 nm	270 nm
max	501 nm	522 nm	270 nm
z	2.02 µm	2.03 µm	1.3 µm
Asymmetry	0.809		
Theta	72.4°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.929$



Parameters:

A = 455.577 (brightness)

B = 120.359 (background)

a = 0.792 px

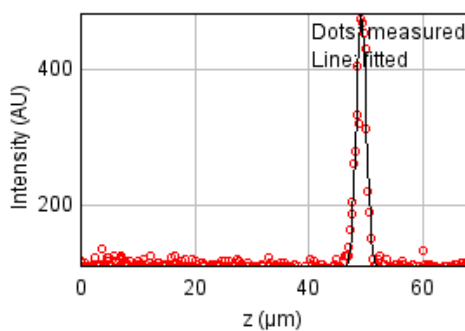
b = 0.081 px

c = 0.561 px

xc = 6.308 px

yc = 7.266 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40254.9317

Standard deviation: 11.45092

$R^2$ : 0.95696

Parameters:

a = 112.30883

b = 480.75407

c = 49.25028

d = 0.85681

## Bead 2595

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

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

Frame size : 12 pixels

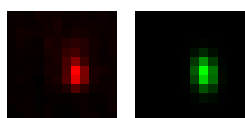
Coordinates : 81.0  $\mu\text{m}$  (x), 82.3  $\mu\text{m}$  (y), 49.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

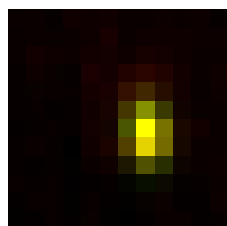
FWHM	Non corrected	Corrected	Theoretical
min	375 nm	391 nm	270 nm
max	599 nm	624 nm	270 nm
z	1.86 $\mu\text{m}$	1.87 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.626		
Theta	-84.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 601.321$  (brightness)

$B = 125.079$  (background)

$a = 0.947$  px

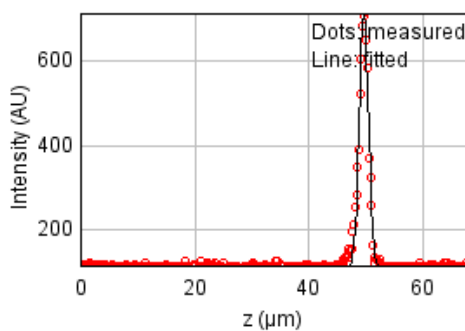
$b = -0.057$  px

$c = 0.379$  px

$x_c = 7.088$  px

$y_c = 6.262$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37766.2709

Standard deviation: 11.09131

$R^2: 0.98303$

Parameters:

$a = 113.43211$

$b = 711.74531$

$c = 49.71169$

$d = 0.79109$

## Bead 2596

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

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

Frame size : 12 pixels

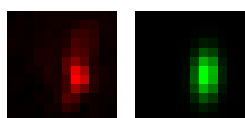
Coordinates : 73.8  $\mu\text{m}$  (x), 66.4  $\mu\text{m}$  (y), 49.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

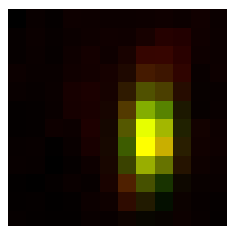
FWHM	Non corrected	Corrected	Theoretical
min	438 nm	456 nm	270 nm
max	841 nm	876 nm	270 nm
z	1.66 $\mu\text{m}$	1.67 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.521		
Theta	87.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.905$



Parameters:

A = 523.806 (brightness)

B = 130.975 (background)

a = 0.698 px

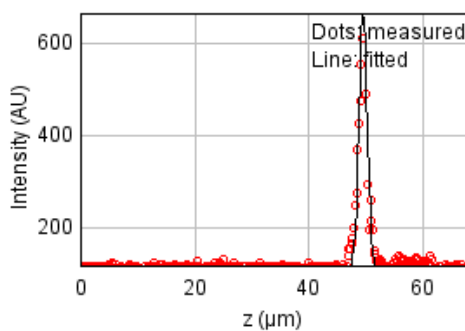
b = 0.022 px

c = 0.191 px

xc = 7.248 px

yc = 6.473 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 108293.204

Standard deviation: 18.78155

$R^2$ : 0.93920

Parameters:

a = 115.12421

b = 668.15600

c = 49.57231

d = 0.70491



## Bead 2597

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

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

Frame size : 12 pixels

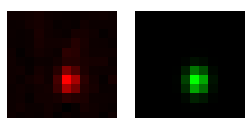
Coordinates : -143  $\mu\text{m}$  (x), 65.4  $\mu\text{m}$  (y), 49.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

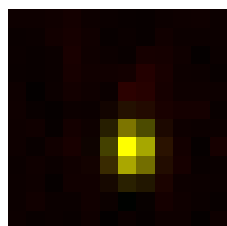
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	472 nm	492 nm	270 nm
z	2.1 $\mu\text{m}$	2.11 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.819		
Theta	-88.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 434.123$  (brightness)

$B = 119.933$  (background)

$a = 0.897$  px

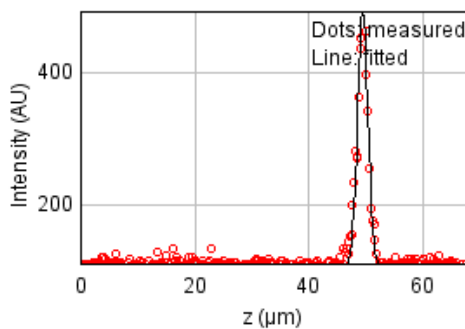
$b = -0.007$  px

$c = 0.602$  px

$x_c = 6.263$  px

$y_c = 7.148$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 36136.1030

Standard deviation: 10.84929

$R^2: 0.96438$

Parameters:

$a = 112.24342$

$b = 490.02655$

$c = 49.51189$

$d = 0.89259$

## Bead 2598

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

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

Frame size : 12 pixels

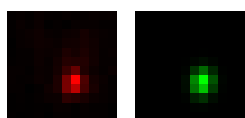
Coordinates : 22.8  $\mu\text{m}$  (x), 32.2  $\mu\text{m}$  (y), 49.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

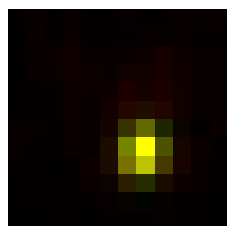
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	402 nm	270 nm
max	482 nm	502 nm	270 nm
z	1.85 $\mu\text{m}$	1.86 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.8		
Theta	81.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 746.848 (brightness)

B = 126.412 (background)

a = 0.893 px

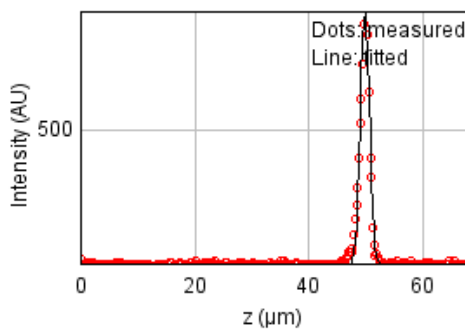
b = 0.050 px

c = 0.585 px

xc = 6.848 px

yc = 7.282 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 50767.9769

Standard deviation: 12.85955

$R^2$ : 0.98442

Parameters:

a = 114.36633

b = 840.73527

c = 49.89434

d = 0.78699

## Bead 2599

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

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

Frame size : 12 pixels

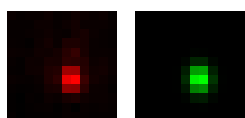
Coordinates : 61.1  $\mu\text{m}$  (x), -11.1  $\mu\text{m}$  (y), 50.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

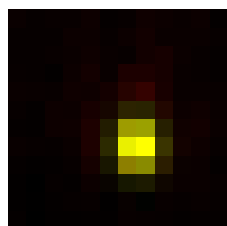
FWHM	Non corrected	Corrected	Theoretical
min	401 nm	417 nm	270 nm
max	502 nm	523 nm	270 nm
z	2.09 $\mu\text{m}$	2.1 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.798		
Theta	-87.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 773.781$  (brightness)

$B = 126.732$  (background)

$a = 0.835$  px

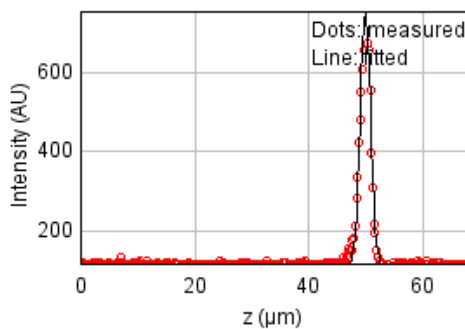
$b = -0.014$  px

$c = 0.532$  px

$x_c = 6.537$  px

$y_c = 6.920$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 41584.4377

Standard deviation: 11.63848

$R^2: 0.98538$

Parameters:

$a = 114.19949$

$b = 755.61390$

$c = 49.97795$

$d = 0.88690$

## Bead 2600

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

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

Frame size : 12 pixels

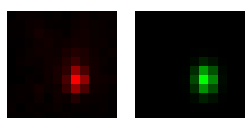
Coordinates : 21.4  $\mu\text{m}$  (x), -30.2  $\mu\text{m}$  (y), 49.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

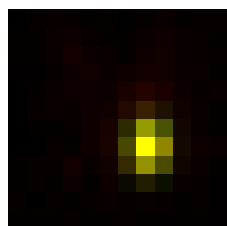
FWHM	Non corrected	Corrected	Theoretical
min	373 nm	389 nm	270 nm
max	502 nm	523 nm	270 nm
z	2.01 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.744		
Theta	89.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 615.473 (brightness)

B = 123.402 (background)

a = 0.962 px

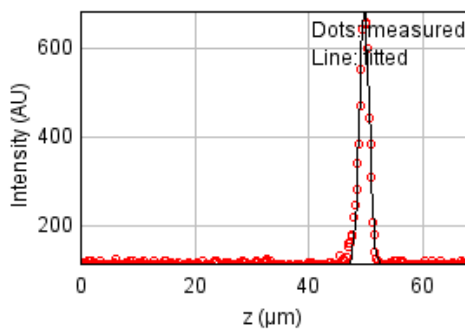
b = 0.005 px

c = 0.532 px

xc = 7.162 px

yc = 6.970 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35739.6910

Standard deviation: 10.78962

$R^2$ : 0.98355

Parameters:

a = 114.79046

b = 685.51526

c = 49.79076

d = 0.85234