

## Bead 3201

Date : Mon Oct 17 13:54:05 PDT 2022

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

Frame size : 12 pixels

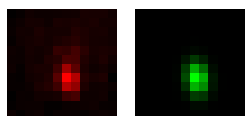
Coordinates : 126  $\mu\text{m}$  (x), 19.0  $\mu\text{m}$  (y), 58.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

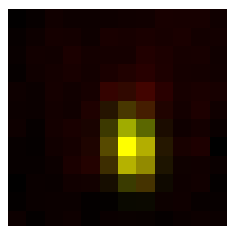
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	421 nm	270 nm
max	605 nm	630 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.668		
Theta	-81.9°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.919$



Parameters:

$A = 411.577$  (brightness)

$B = 125.703$  (background)

$a = 0.813$  px

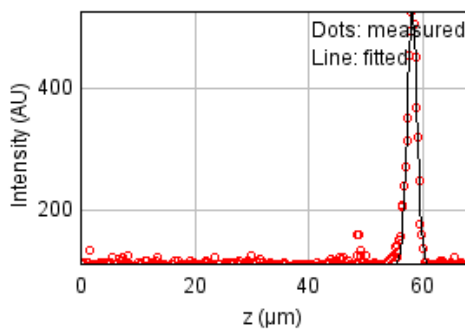
$b = -0.063$  px

$c = 0.376$  px

$x_c = 6.267$  px

$y_c = 7.065$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29968.2586

Standard deviation: 9.88011

$R^2: 0.97424$

Parameters:

$a = 112.58718$

$b = 527.00159$

$c = 58.15654$

$d = 0.85777$

## Bead 3202 (Rejected)

Date : Mon Oct 17 13:54:05 PDT 2022

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

Frame size : 12 pixels

Coordinates : 112 um (x), 16.9 um (y), 57.3 um (z)

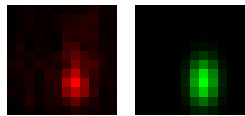
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

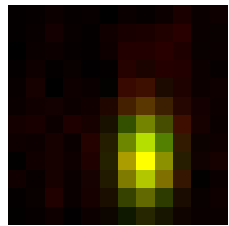
FWHM	Non corrected	Corrected	Theoretical
min	505 nm	526 nm	270 nm
max	836 nm	871 nm	270 nm
z	2.48 um	2.49 um	1.3 um
Asymmetry	0.605		
Theta	89.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 256.241 (brightness)

B = 125.845 (background)

a = 0.525 px

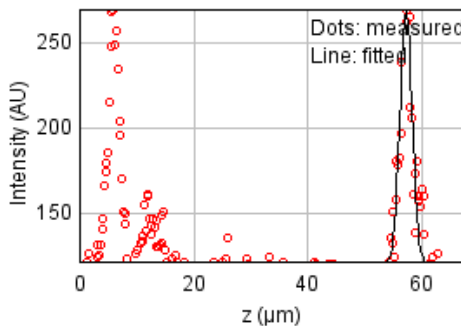
b = 0.004 px

c = 0.192 px

xc = 6.967 px

yc = 7.853 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 223280.536

Standard deviation: 26.96847

$R^2$ : 0.44010

Parameters:

a = 121.28514

b = 269.32799

c = 57.27140

d = 1.05182

## Bead 3203

Date : Mon Oct 17 13:54:06 PDT 2022

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

Frame size : 12 pixels

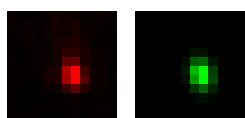
Coordinates : 134  $\mu\text{m}$  (x), 15.4  $\mu\text{m}$  (y), 58.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

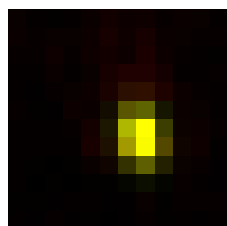
FWHM	Non corrected	Corrected	Theoretical
min	389 nm	405 nm	270 nm
max	540 nm	563 nm	270 nm
z	2.05 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.72		
Theta	-78.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 746.809$  (brightness)

$B = 123.717$  (background)

$a = 0.871$  px

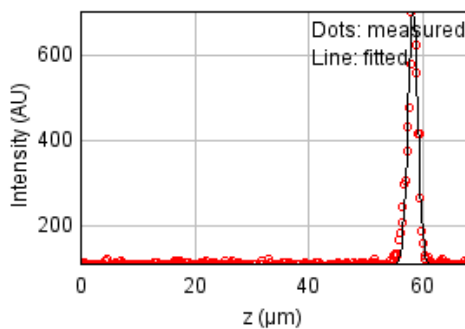
$b = -0.083$  px

$c = 0.477$  px

$x_c = 6.729$  px

$y_c = 6.433$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 51097.9004

Standard deviation: 12.90127

$R^2: 0.97881$

Parameters:

$a = 110.43223$

$b = 704.33032$

$c = 58.29065$

$d = 0.87042$

## Bead 3204

Date : Mon Oct 17 13:54:06 PDT 2022

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

Frame size : 12 pixels

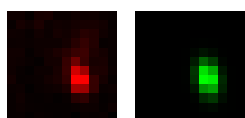
Coordinates : 146  $\mu\text{m}$  (x), 14.5  $\mu\text{m}$  (y), 57.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

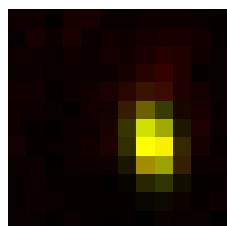
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	402 nm	270 nm
max	625 nm	651 nm	270 nm
z	2.18 $\mu\text{m}$	2.19 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.618		
Theta	-78.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 499.330 (brightness)

B = 123.310 (background)

a = 0.877 px

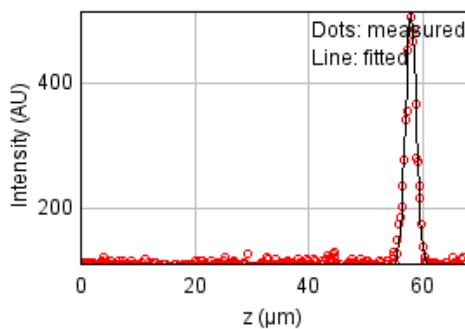
b = -0.107 px

c = 0.365 px

$x_c = 7.437$  px

$y_c = 6.805$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23666.0173

Standard deviation: 8.77998

$R^2$ : 0.98004

Parameters:

a = 110.93524

b = 515.51455

c = 57.94038

d = 0.92587

## Bead 3205

Date : Mon Oct 17 13:54:06 PDT 2022

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

Frame size : 12 pixels

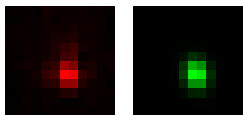
Coordinates : 89.4  $\mu\text{m}$  (x), 12.4  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

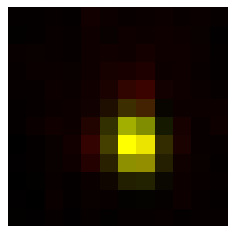
FWHM	Non corrected	Corrected	Theoretical
min	418 nm	436 nm	270 nm
max	537 nm	559 nm	270 nm
z	2.29 $\mu\text{m}$	2.3 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.779		
Theta	-80.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 714.270$  (brightness)

$B = 128.621$  (background)

$a = 0.757$  px

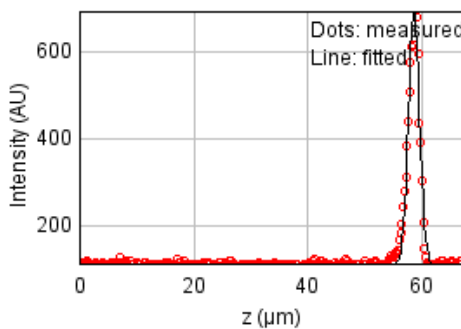
$b = -0.051$  px

$c = 0.474$  px

$x_c = 6.420$  px

$y_c = 6.941$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 51099.1897

Standard deviation: 12.90143

$R^2 = 0.98021$

Parameters:

$a = 112.29072$

$b = 695.21710$

$c = 58.65176$

$d = 0.97391$

## Bead 3206 (Rejected)

Date : Mon Oct 17 13:54:06 PDT 2022

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

Frame size : 12 pixels

Coordinates : 114 um (x), 12.0 um (y), 58.3 um (z)

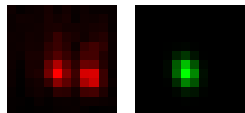
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

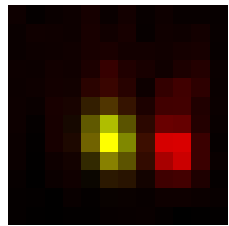
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	422 nm	270 nm
max	538 nm	560 nm	270 nm
z	2.23 um	2.24 um	1.3 um
Asymmetry	0.753		
Theta	-73.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.402$



Parameters:

A = 470.929 (brightness)

B = 157.605 (background)

a = 0.790 px

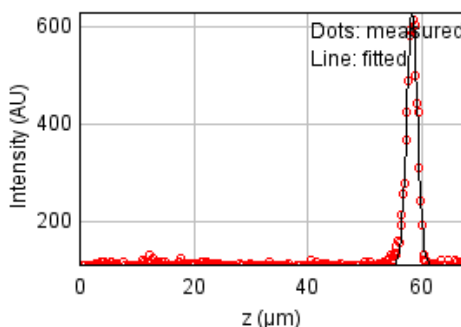
b = -0.096 px

c = 0.492 px

xc = 5.078 px

yc = 6.817 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23865.5504

Standard deviation: 8.81691

$R^2$ : 0.98784

Parameters:

a = 112.44235

b = 629.06289

c = 58.31910

d = 0.94878

## Bead 3207 (Rejected)

Date : Mon Oct 17 13:54:06 PDT 2022

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

Frame size : 12 pixels

Coordinates : 141 um (x), 10.5 um (y), 33.2 um (z)

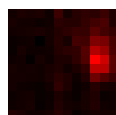
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	270 nm
max	0	0	270 nm
z	2.18 um	2.19 um	1.3 um
Asymmetry	0.0		
Theta	0.0°		

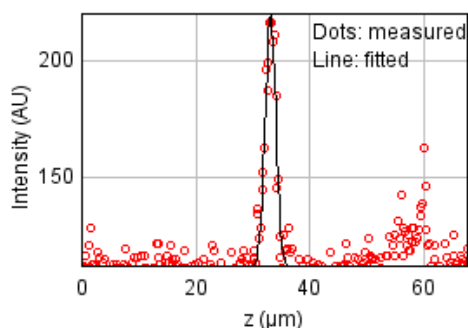
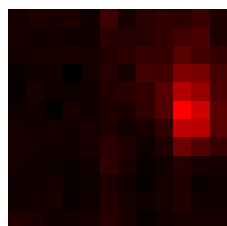
### XY profile & fitting parameters :

(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: 23354.8133

Standard deviation: 8.72206

R<sup>2</sup>: 0.78200

Parameters:

a = 111.98178

b = 220.66473

c = 33.17866

d = 0.92514

## Bead 3208 (Rejected)

Date : Mon Oct 17 13:54:07 PDT 2022

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

Frame size : 12 pixels

Coordinates : 69.9  $\mu\text{m}$  (x), 9.67  $\mu\text{m}$  (y), 59.0  $\mu\text{m}$  (z)

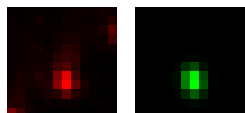
Corresponding bead : Not found

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

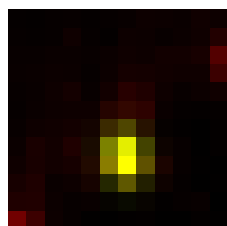
FWHM	Non corrected	Corrected	Theoretical
min	378 nm	394 nm	270 nm
max	487 nm	508 nm	270 nm
z	3.87 $\mu\text{m}$	3.89 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.775		
Theta	-81.7°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.841$



Parameters:

A = 917.408 (brightness)

B = 158.839 (background)

a = 0.932 px

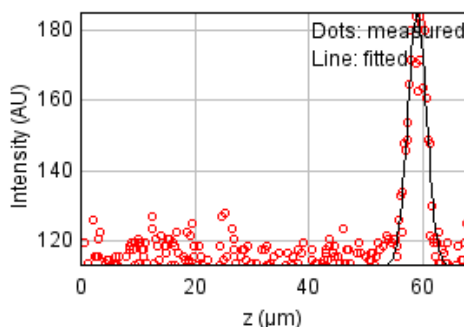
b = -0.054 px

c = 0.573 px

xc = 5.857 px

yc = 7.551 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 12053.6861

Standard deviation: 6.26601

$R^2$ : 0.83839

Parameters:

a = 113.11470

b = 184.96548

c = 59.04165

d = 1.64499



## Bead 3209

Date : Mon Oct 17 13:54:07 PDT 2022

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

Frame size : 12 pixels

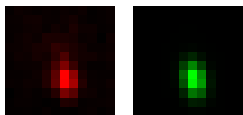
Coordinates : 158  $\mu\text{m}$  (x), -652 nm (y), 58.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

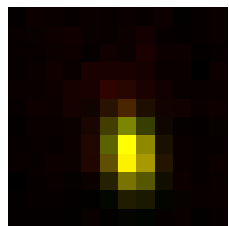
FWHM	Non corrected	Corrected	Theoretical
min	408 nm	425 nm	270 nm
max	637 nm	663 nm	270 nm
z	1.98 $\mu\text{m}$	1.98 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.641		
Theta	-79.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 532.886$  (brightness)

$B = 121.488$  (background)

$a = 0.789$  px

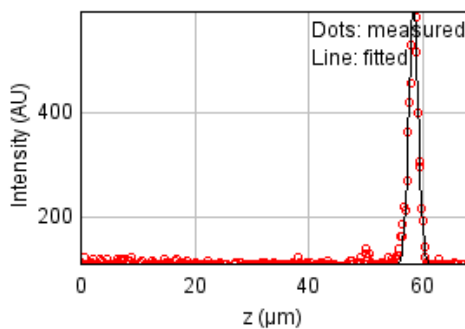
$b = -0.084$  px

$c = 0.346$  px

$x_c = 6.154$  px

$y_c = 7.463$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29534.6867

Standard deviation: 9.80837

$R^2: 0.98089$

Parameters:

$a = 110.98126$

$b = 595.35173$

$c = 58.40921$

$d = 0.83873$

## Bead 3210

Date : Mon Oct 17 13:54:07 PDT 2022

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

Frame size : 12 pixels

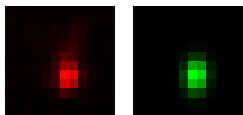
Coordinates : 135  $\mu\text{m}$  (x), -4.75  $\mu\text{m}$  (y), 58.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

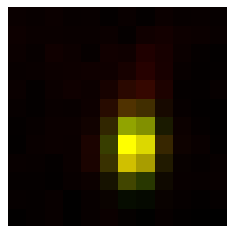
FWHM	Non corrected	Corrected	Theoretical
min	411 nm	428 nm	270 nm
max	607 nm	632 nm	270 nm
z	2.15 $\mu\text{m}$	2.16 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.678		
Theta	87.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 753.904$  (brightness)

$B = 129.136$  (background)

$a = 0.793$  px

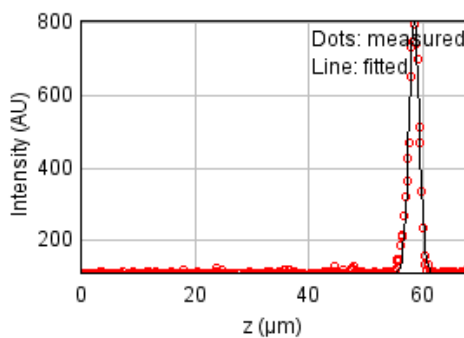
$b = 0.020$  px

$c = 0.366$  px

$x_c = 6.393$  px

$y_c = 7.090$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 49538.7012

Standard deviation: 12.70291

$R^2: 0.98565$

Parameters:

$a = 110.89152$

$b = 807.10474$

$c = 58.51119$

$d = 0.91502$

## Bead 3211 (Rejected)

Date : Mon Oct 17 13:54:07 PDT 2022

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

Frame size : 12 pixels

Coordinates : 85.4  $\mu\text{m}$  (x), -6.93  $\mu\text{m}$  (y), 56.3  $\mu\text{m}$  (z)

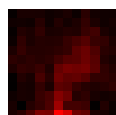
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	270 nm
max	0	0	270 nm
z	3.53 $\mu\text{m}$	3.55 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

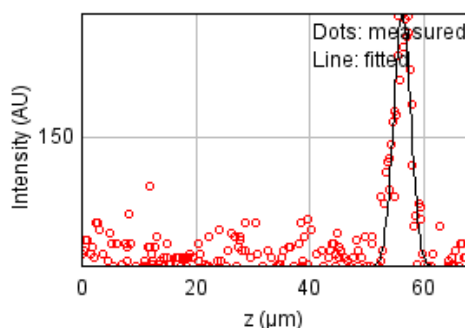
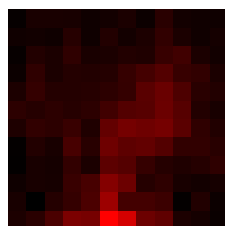
### XY profile & fitting parameters :

(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: 15019.8345

Standard deviation: 6.99461

R<sup>2</sup>: 0.80288

Parameters:

a = 112.18313

b = 186.30718

c = 56.25371

d = 1.49973

## Bead 3212

Date : Mon Oct 17 13:54:07 PDT 2022

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

Frame size : 12 pixels

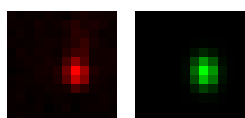
Coordinates : 140  $\mu\text{m}$  (x), -18.4  $\mu\text{m}$  (y), 58.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

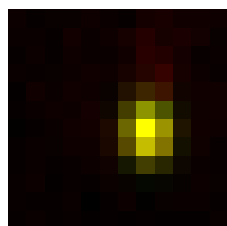
FWHM	Non corrected	Corrected	Theoretical
min	429 nm	447 nm	270 nm
max	566 nm	589 nm	270 nm
z	2.08 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.759		
Theta	-87.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 467.887$  (brightness)

$B = 120.076$  (background)

$a = 0.727$  px

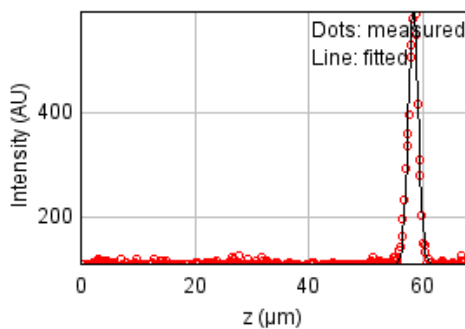
$b = -0.016$  px

$c = 0.420$  px

$x_c = 7.131$  px

$y_c = 6.155$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30815.2845

Standard deviation: 10.01876

$R^2: 0.98093$

Parameters:

$a = 110.82054$

$b = 594.29786$

$c = 58.36625$

$d = 0.88248$

## Bead 3213 (Rejected)

Date : Mon Oct 17 13:54:07 PDT 2022

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

Frame size : 12 pixels

Coordinates : 51.9  $\mu\text{m}$  (x), -55.6  $\mu\text{m}$  (y), 56.9  $\mu\text{m}$  (z)

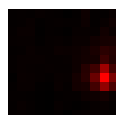
Corresponding bead : Not found

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	3.99 $\mu\text{m}$	4.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

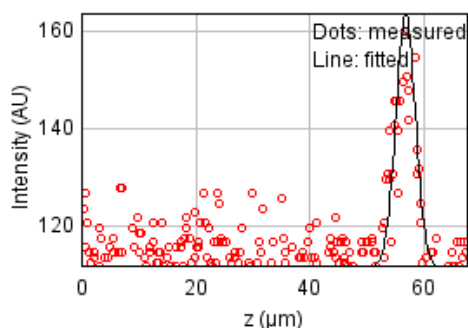
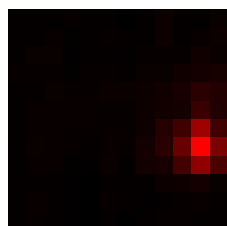
### XY profile & fitting parameters :

(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: 15210.4639

Standard deviation: 7.03886

R<sup>2</sup>: 0.68595

Parameters:

a = 111.95851

b = 163.62808

c = 56.85447

d = 1.69486

## Bead 3214

Date : Mon Oct 17 13:54:08 PDT 2022

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

Frame size : 12 pixels

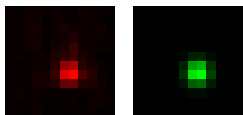
Coordinates : 158  $\mu\text{m}$  (x), -73.3  $\mu\text{m}$  (y), 58.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

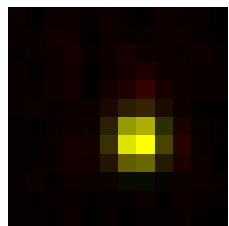
FWHM	Non corrected	Corrected	Theoretical
min	430 nm	448 nm	270 nm
max	459 nm	478 nm	270 nm
z	1.96 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.938		
Theta	85.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 429.187$  (brightness)

$B = 116.373$  (background)

$a = 0.725$  px

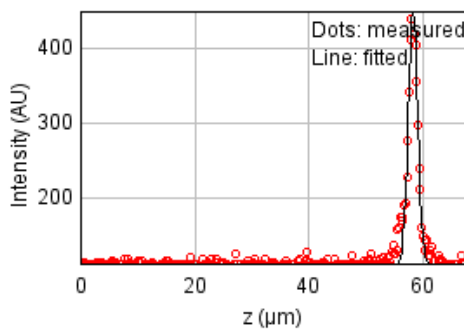
$b = 0.006$  px

$c = 0.638$  px

$x_c = 6.583$  px

$y_c = 6.795$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27910.8510

Standard deviation: 9.53493

$R^2: 0.96315$

Parameters:

$a = 111.02948$

$b = 447.91350$

$c = 58.30152$

$d = 0.83419$

## Bead 3215

Date : Mon Oct 17 13:54:08 PDT 2022

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

Frame size : 12 pixels

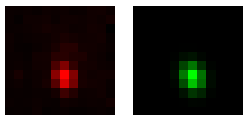
Coordinates : -108  $\mu\text{m}$  (x), 93.3  $\mu\text{m}$  (y), 58.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

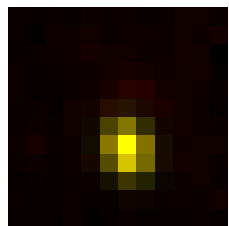
FWHM	Non corrected	Corrected	Theoretical
min	407 nm	424 nm	270 nm
max	521 nm	543 nm	270 nm
z	1.87 $\mu\text{m}$	1.88 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.781		
Theta	-72.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 597.011 (brightness)

B = 124.035 (background)

a = 0.782 px

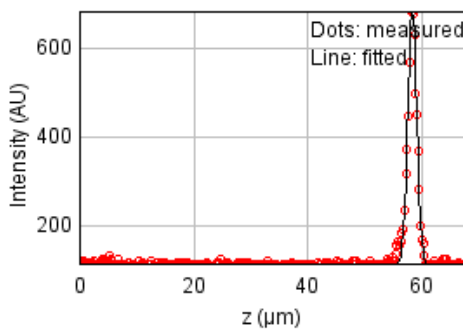
b = -0.090 px

c = 0.522 px

$x_c = 6.011$  px

$y_c = 7.241$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27538.2290

Standard deviation: 9.47106

$R^2 = 0.98633$

Parameters:

a = 114.14000

b = 683.07903

c = 58.36341

d = 0.79506

## Bead 3216

Date : Mon Oct 17 13:54:08 PDT 2022

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

Frame size : 12 pixels

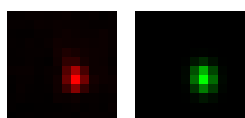
Coordinates : -68.6  $\mu\text{m}$  (x), 73.8  $\mu\text{m}$  (y), 58.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

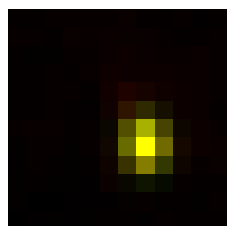
FWHM	Non corrected	Corrected	Theoretical
min	392 nm	408 nm	270 nm
max	499 nm	520 nm	270 nm
z	1.91 $\mu\text{m}$	1.92 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.785		
Theta	-83.4°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.978$



Parameters:

$A = 978.939$  (brightness)

$B = 124.287$  (background)

$a = 0.869$  px

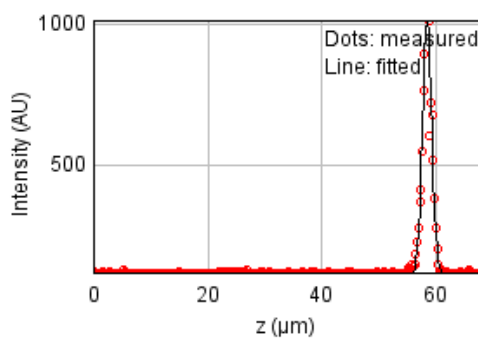
$b = -0.038$  px

$c = 0.543$  px

$x_c = 6.989$  px

$y_c = 6.839$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 131327.409

Standard deviation: 20.68276

$R^2: 0.97467$

Parameters:

$a = 114.33627$

$b = 1012.90526$

$c = 58.50727$

$d = 0.81133$



## Bead 3217

Date : Mon Oct 17 13:54:08 PDT 2022

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

Frame size : 12 pixels

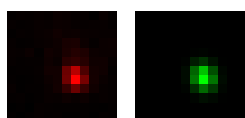
Coordinates : -120  $\mu\text{m}$  (x), 73.2  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

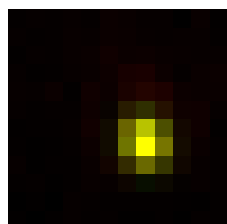
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	427 nm	270 nm
max	489 nm	509 nm	270 nm
z	1.92 $\mu\text{m}$	1.92 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.839		
Theta	-74.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 753.181 (brightness)

B = 123.818 (background)

a = 0.780 px

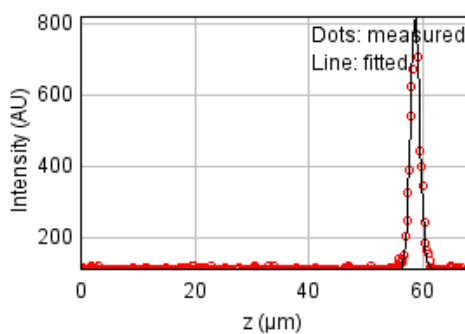
b = -0.062 px

c = 0.578 px

xc = 6.978 px

yc = 6.732 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 57396.9707

Standard deviation: 13.67336

$R^2$ : 0.98206

Parameters:

a = 113.13056

b = 820.67368

c = 58.68949

d = 0.81383

## Bead 3218

Date : Mon Oct 17 13:54:08 PDT 2022

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

Frame size : 12 pixels

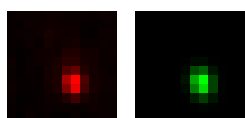
Coordinates : -61.9  $\mu\text{m}$  (x), 70.2  $\mu\text{m}$  (y), 58.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

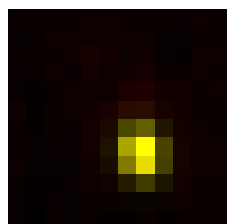
FWHM	Non corrected	Corrected	Theoretical
min	382 nm	398 nm	270 nm
max	493 nm	513 nm	270 nm
z	1.81 $\mu\text{m}$	1.81 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.775		
Theta	-77.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.975$



Parameters:

$A = 801.958$  (brightness)

$B = 124.147$  (background)

$a = 0.902$  px

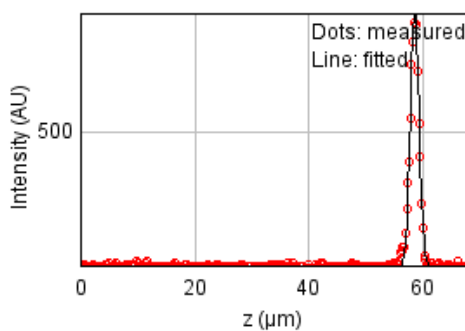
$b = -0.077$  px

$c = 0.570$  px

$x_c = 6.772$  px

$y_c = 7.336$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25772.4577

Standard deviation: 9.16239

$R^2 = 0.99208$

Parameters:

$a = 113.35637$

$b = 851.13023$

$c = 58.61226$

$d = 0.76734$

## Bead 3219

Date : Mon Oct 17 13:54:08 PDT 2022

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

Frame size : 12 pixels

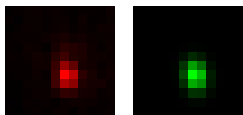
Coordinates : -97.8  $\mu\text{m}$  (x), 67.4  $\mu\text{m}$  (y), 58.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

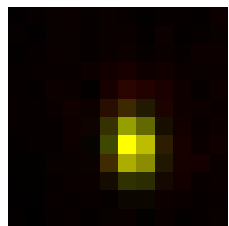
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	427 nm	270 nm
max	560 nm	583 nm	270 nm
z	2.04 $\mu\text{m}$	2.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.732		
Theta	-81.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 743.122 (brightness)

B = 127.833 (background)

a = 0.791 px

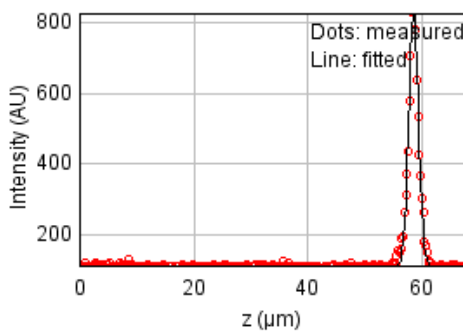
b = -0.052 px

c = 0.435 px

$x_c = 6.310$  px

$y_c = 7.083$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34450.7380

Standard deviation: 10.59327

$R^2$ : 0.98992

Parameters:

a = 113.38291

b = 826.51383

c = 58.59731

d = 0.86447

## Bead 3220 (Rejected)

Date : Mon Oct 17 13:54:08 PDT 2022

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

Frame size : 12 pixels

Coordinates : -112  $\mu\text{m}$  (x), 66.5  $\mu\text{m}$  (y), 59.0  $\mu\text{m}$  (z)

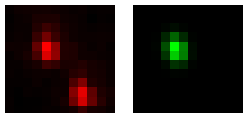
Corresponding bead : Not found

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

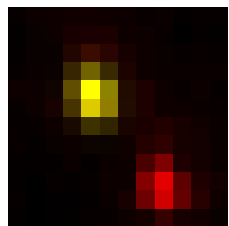
FWHM	Non corrected	Corrected	Theoretical
min	375 nm	391 nm	270 nm
max	487 nm	507 nm	270 nm
z	1.91 $\mu\text{m}$	1.91 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.771		
Theta	-74.9°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.491$



Parameters:

A = 757.194 (brightness)

B = 166.190 (background)

a = 0.926 px

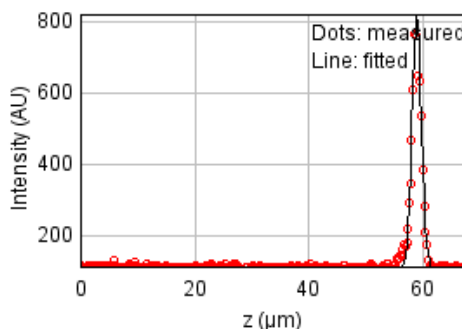
b = -0.097 px

c = 0.592 px

xc = 4.172 px

yc = 4.333 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 69252.3853

Standard deviation: 15.01925

$R^2$ : 0.97827

Parameters:

a = 113.35424

b = 819.73598

c = 58.97186

d = 0.80984

## Bead 3221

Date : Mon Oct 17 13:54:08 PDT 2022

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

Frame size : 12 pixels

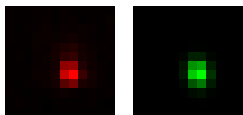
Coordinates : -62.8  $\mu\text{m}$  (x), 64.8  $\mu\text{m}$  (y), 58.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

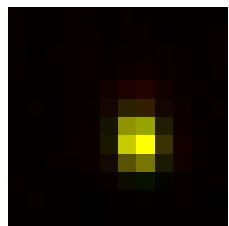
FWHM	Non corrected	Corrected	Theoretical
min	376 nm	392 nm	270 nm
max	475 nm	495 nm	270 nm
z	1.69 $\mu\text{m}$	1.69 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.791		
Theta	-79.8°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.979$



Parameters:

$A = 1228.705$  (brightness)

$B = 128.283$  (background)

$a = 0.937$  px

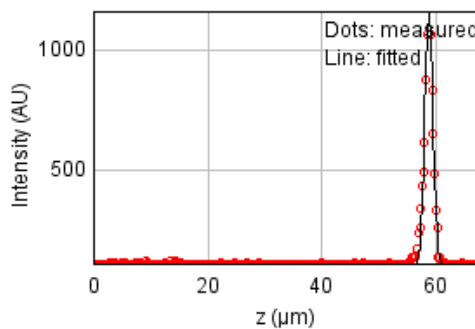
$b = -0.062$  px

$c = 0.605$  px

$x_c = 6.614$  px

$y_c = 6.830$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 65517.5475

Standard deviation: 14.60863

$R^2: 0.98940$

Parameters:

$a = 114.51969$

$b = 1164.28616$

$c = 58.82486$

$d = 0.71583$

## Bead 3222

Date : Mon Oct 17 13:54:08 PDT 2022

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

Frame size : 12 pixels

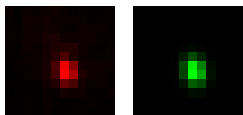
Coordinates : -44.0  $\mu\text{m}$  (x), 64.9  $\mu\text{m}$  (y), 58.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

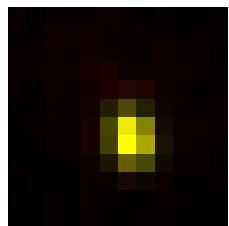
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	397 nm	270 nm
max	507 nm	528 nm	270 nm
z	2.04 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.751		
Theta	-77.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.976$



Parameters:

$A = 794.512$  (brightness)

$B = 123.771$  (background)

$a = 0.905$  px

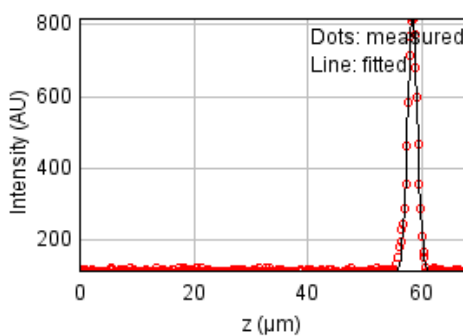
$b = -0.088$  px

$c = 0.542$  px

$x_c = 6.223$  px

$y_c = 6.608$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 21482.1472

Standard deviation: 8.36507

$R^2: 0.99360$

Parameters:

$a = 113.11269$

$b = 820.66366$

$c = 58.39704$

$d = 0.86586$

## Bead 3223

Date : Mon Oct 17 13:54:08 PDT 2022

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

Frame size : 12 pixels

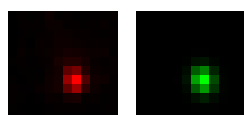
Coordinates : -62.3  $\mu\text{m}$  (x), 61.3  $\mu\text{m}$  (y), 58.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

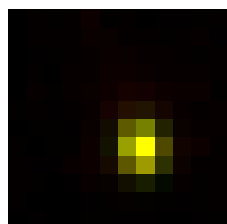
FWHM	Non corrected	Corrected	Theoretical
min	393 nm	409 nm	270 nm
max	480 nm	500 nm	270 nm
z	1.68 $\mu\text{m}$	1.69 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.819		
Theta	-79.9°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.980$



Parameters:

$A = 1072.507$  (brightness)

$B = 127.337$  (background)

$a = 0.860$  px

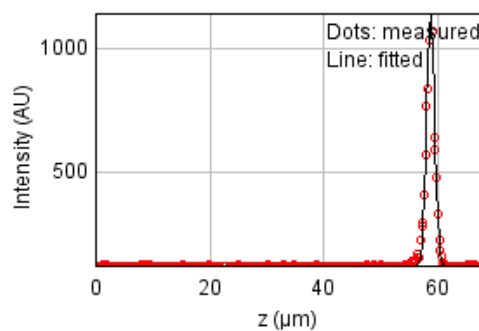
$b = -0.049$  px

$c = 0.592$  px

$x_c = 6.774$  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: 90102.2619

Standard deviation: 17.13163

$R^2: 0.98491$

Parameters:

$a = 113.25168$

$b = 1144.67252$

$c = 58.77270$

$d = 0.71287$

## Bead 3224 (Rejected)

Date : Mon Oct 17 13:54:08 PDT 2022

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

Frame size : 12 pixels

Coordinates : -39.8  $\mu\text{m}$  (x), 60.8  $\mu\text{m}$  (y), 58.5  $\mu\text{m}$  (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	1.84 $\mu\text{m}$	1.84 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

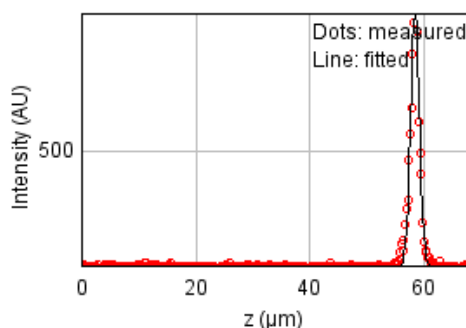
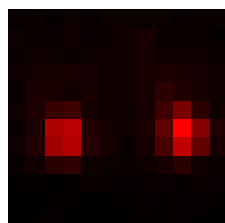
### XY profile & fitting parameters :

(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: 65173.2974

Standard deviation: 14.57020

R<sup>2</sup>: 0.98499

Parameters:

a = 114.79683

b = 957.24870

c = 58.48459

d = 0.77964



## Bead 3225

Date : Mon Oct 17 13:54:08 PDT 2022

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

Frame size : 12 pixels

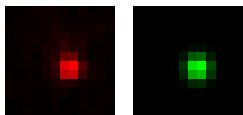
Coordinates : -10.7  $\mu\text{m}$  (x), 56.6  $\mu\text{m}$  (y), 58.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

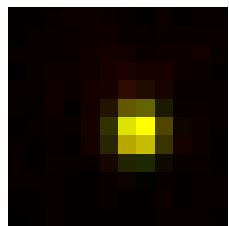
FWHM	Non corrected	Corrected	Theoretical
min	434 nm	452 nm	270 nm
max	462 nm	482 nm	270 nm
z	1.97 $\mu\text{m}$	1.98 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.938		
Theta	-88.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 819.455 (brightness)

B = 127.287 (background)

a = 0.713 px

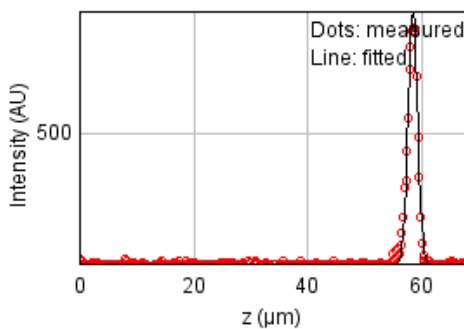
b = -0.003 px

c = 0.628 px

xc = 6.583 px

yc = 6.257 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 54446.9072

Standard deviation: 13.31734

$R^2$ : 0.98523

Parameters:

a = 114.58582

b = 865.21574

c = 58.45591

d = 0.83690

## Bead 3226

Date : Mon Oct 17 13:54:08 PDT 2022

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

Frame size : 12 pixels

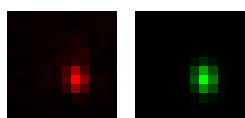
Coordinates : 45.6  $\mu\text{m}$  (x), 53.1  $\mu\text{m}$  (y), 58.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

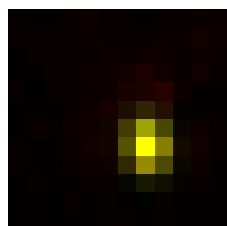
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	396 nm	270 nm
max	505 nm	526 nm	270 nm
z	1.99 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.753		
Theta	-82.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 659.888$  (brightness)

$B = 124.395$  (background)

$a = 0.920$  px

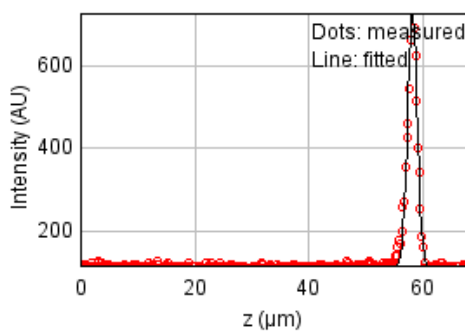
$b = -0.050$  px

$c = 0.531$  px

$x_c = 7.106$  px

$y_c = 6.928$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35229.0196

Standard deviation: 10.71226

$R^2: 0.98602$

Parameters:

$a = 114.13211$

$b = 731.53167$

$c = 58.19712$

$d = 0.84644$

## Bead 3227

Date : Mon Oct 17 13:54:08 PDT 2022

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

Frame size : 12 pixels

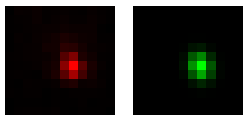
Coordinates : -30.8  $\mu\text{m}$  (x), 52.2  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

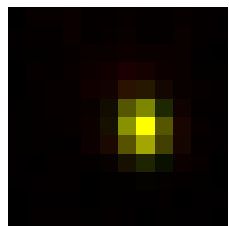
FWHM	Non corrected	Corrected	Theoretical
min	398 nm	414 nm	270 nm
max	506 nm	527 nm	270 nm
z	1.77 $\mu\text{m}$	1.78 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.787		
Theta	-77.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 953.935 (brightness)

B = 128.787 (background)

a = 0.831 px

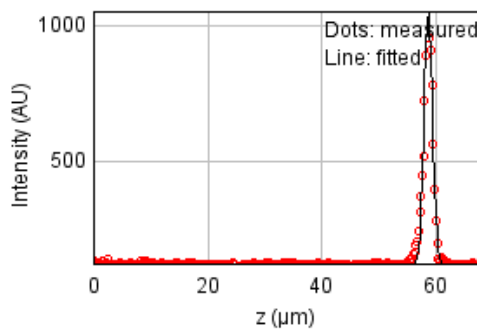
b = -0.070 px

c = 0.541 px

xc = 6.847 px

yc = 6.078 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 58390.7367

Standard deviation: 13.79122

$R^2$ : 0.98872

Parameters:

a = 115.20464

b = 1053.66884

c = 58.71978

d = 0.75079

## Bead 3228 (Rejected)

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

Coordinates : -16.8  $\mu\text{m}$  (x), 51.5  $\mu\text{m}$  (y), 57.7  $\mu\text{m}$  (z)

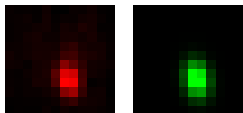
Corresponding bead : Not found

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

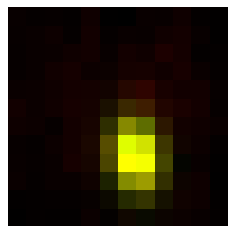
FWHM	Non corrected	Corrected	Theoretical
min	450 nm	468 nm	270 nm
max	674 nm	701 nm	270 nm
z	2.96 $\mu\text{m}$	2.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.668		
Theta	-81.1°		

### 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 = 523.419 (brightness)

B = 128.149 (background)

a = 0.654 px

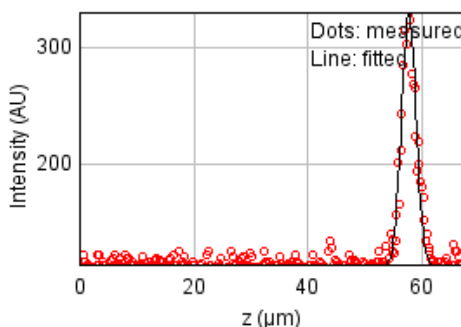
b = -0.056 px

c = 0.305 px

xc = 6.462 px

yc = 7.596 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24457.5167

Standard deviation: 8.92559

$R^2$ : 0.94790

Parameters:

a = 113.76381

b = 330.71587

c = 57.74362

d = 1.25602

## Bead 3229

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

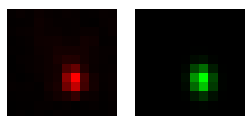
Coordinates : -10.8  $\mu\text{m}$  (x), 51.5  $\mu\text{m}$  (y), 58.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

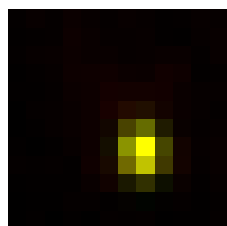
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	397 nm	270 nm
max	487 nm	507 nm	270 nm
z	1.83 $\mu\text{m}$	1.84 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.783		
Theta	-84.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 984.256$  (brightness)

$B = 129.976$  (background)

$a = 0.920$  px

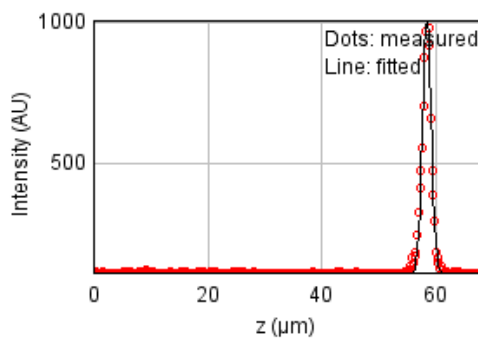
$b = -0.035$  px

$c = 0.570$  px

$x_c = 6.807$  px

$y_c = 7.249$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 58309.4280

Standard deviation: 13.78162

$R^2: 0.98803$

Parameters:

$a = 114.36517$

$b = 1008.90139$

$c = 58.46465$

$d = 0.77840$

## Bead 3230

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

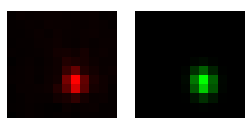
Coordinates : -54.4  $\mu\text{m}$  (x), 51.1  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

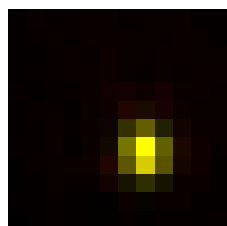
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	404 nm	270 nm
max	469 nm	488 nm	270 nm
z	1.83 $\mu\text{m}$	1.84 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.827		
Theta	-81.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.980$



Parameters:

$A = 1054.348$  (brightness)

$B = 127.510$  (background)

$a = 0.887$  px

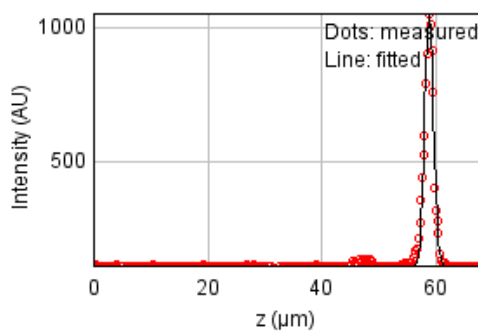
$b = -0.041$  px

$c = 0.617$  px

$x_c = 6.954$  px

$y_c = 7.312$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 89560.2682

Standard deviation: 17.08003

$R^2: 0.98349$

Parameters:

$a = 115.59312$

$b = 1058.36142$

$c = 58.86128$

$d = 0.77654$

## Bead 3231 (Rejected)

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

Coordinates : -12.4  $\mu\text{m}$  (x), 47.8  $\mu\text{m}$  (y), 15.7  $\mu\text{m}$  (z)

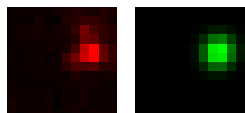
Corresponding bead : Not found

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

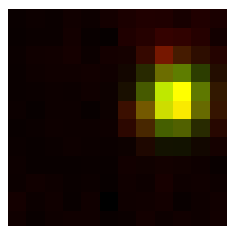
FWHM	Non corrected	Corrected	Theoretical
min	556 nm	579 nm	270 nm
max	587 nm	611 nm	270 nm
z	3.94 $\mu\text{m}$	3.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.948		
Theta	62.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 392.634 (brightness)

B = 118.612 (background)

a = 0.425 px

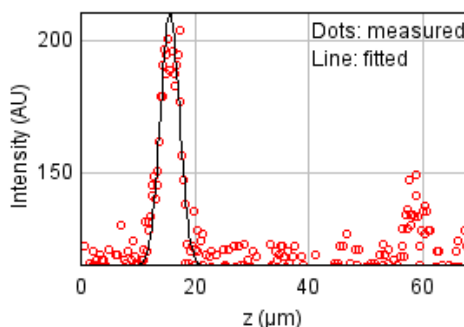
b = 0.018 px

c = 0.400 px

xc = 8.596 px

yc = 4.415 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23436.7023

Standard deviation: 8.73734

$R^2$ : 0.82437

Parameters:

a = 115.70867

b = 210.32839

c = 15.73691

d = 1.67125

## Bead 3232

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

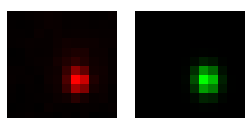
Coordinates : -63.3  $\mu\text{m}$  (x), 42.6  $\mu\text{m}$  (y), 59.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

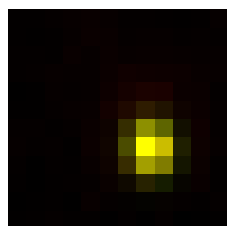
FWHM	Non corrected	Corrected	Theoretical
min	419 nm	436 nm	270 nm
max	506 nm	527 nm	270 nm
z	1.9 $\mu\text{m}$	1.91 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.828		
Theta	-83.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.979$



Parameters:

$A = 1106.957$  (brightness)

$B = 128.408$  (background)

$a = 0.762$  px

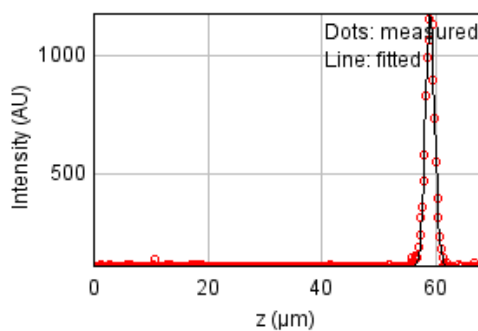
$b = -0.027$  px

$c = 0.528$  px

$x_c = 7.303$  px

$y_c = 7.062$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 39448.7381

Standard deviation: 11.33567

$R^2: 0.99443$

Parameters:

$a = 113.92752$

$b = 1177.38315$

$c = 59.02881$

$d = 0.80635$



## Bead 3233

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

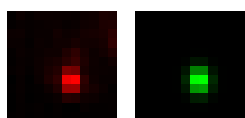
Coordinates : 35.3  $\mu\text{m}$  (x), 41.2  $\mu\text{m}$  (y), 58.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

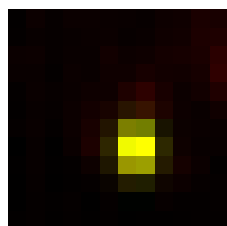
FWHM	Non corrected	Corrected	Theoretical
min	379 nm	394 nm	270 nm
max	476 nm	496 nm	270 nm
z	2.19 $\mu\text{m}$	2.2 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.795		
Theta	-87.4°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.937$



Parameters:

$A = 845.931$  (brightness)

$B = 136.370$  (background)

$a = 0.935$  px

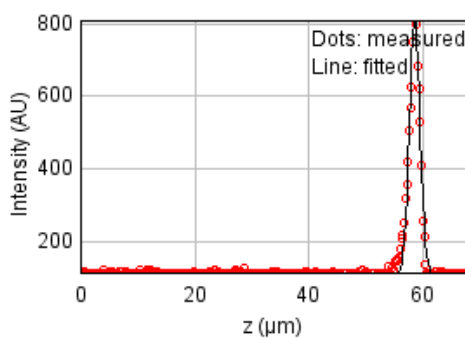
$b = -0.016$  px

$c = 0.593$  px

$x_c = 6.512$  px

$y_c = 7.085$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 60577.4761

Standard deviation: 14.04709

$R^2: 0.98285$

Parameters:

$a = 113.81089$

$b = 811.47936$

$c = 58.61050$

$d = 0.93071$

## Bead 3234 (Rejected)

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

Coordinates : 1.56  $\mu\text{m}$  (x), 37.9  $\mu\text{m}$  (y), 3.75  $\mu\text{m}$  (z)

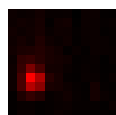
Corresponding bead : Not found

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	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

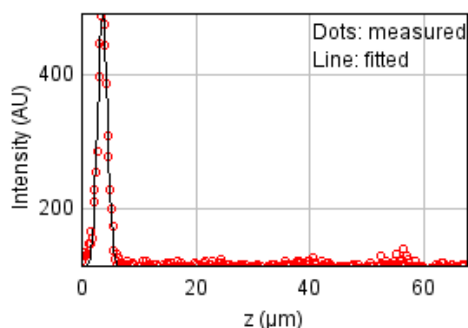
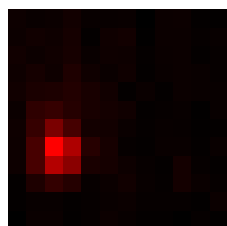
### XY profile & fitting parameters :

(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: 20465.5235

Standard deviation: 8.16474

R<sup>2</sup>: 0.97857

Parameters:

a = 113.81762

b = 491.56603

c = 3.74770

d = 0.85088

## Bead 3235

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

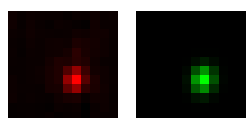
Coordinates : 41.1  $\mu\text{m}$  (x), 33.3  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

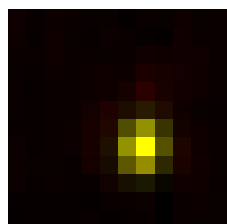
FWHM	Non corrected	Corrected	Theoretical
min	395 nm	412 nm	270 nm
max	484 nm	504 nm	270 nm
z	1.88 $\mu\text{m}$	1.89 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.817		
Theta	81.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 783.959 (brightness)

B = 126.721 (background)

a = 0.852 px

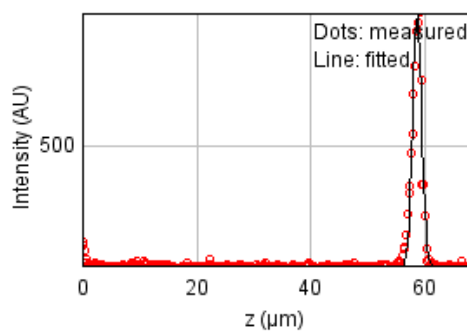
b = 0.044 px

c = 0.581 px

xc = 6.827 px

yc = 6.994 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 129196.381

Standard deviation: 20.51427

$R^2$ : 0.96919

Parameters:

a = 116.30658

b = 927.50119

c = 58.69160

d = 0.79995

## Bead 3236

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

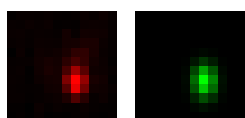
Coordinates : 48.9  $\mu\text{m}$  (x), 31.8  $\mu\text{m}$  (y), 58.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

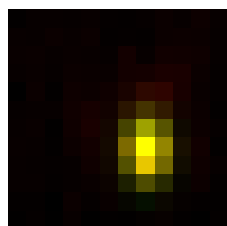
FWHM	Non corrected	Corrected	Theoretical
min	418 nm	436 nm	270 nm
max	617 nm	643 nm	270 nm
z	3.01 $\mu\text{m}$	3.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.678		
Theta	-89.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 657.599 (brightness)

B = 127.787 (background)

a = 0.766 px

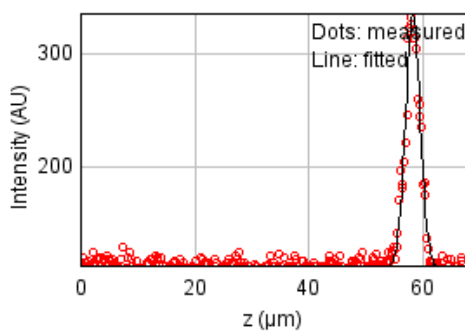
b = -0.004 px

c = 0.352 px

$x_c = 7.076$  px

$y_c = 7.144$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20076.2578

Standard deviation: 8.08672

$R^2$ : 0.95951

Parameters:

a = 112.68944

b = 335.19368

c = 58.28529

d = 1.27828

## Bead 3237

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

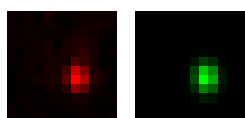
Coordinates : 83.7  $\mu\text{m}$  (x), 31.4  $\mu\text{m}$  (y), 58.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

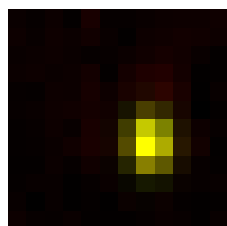
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	423 nm	270 nm
max	536 nm	558 nm	270 nm
z	2.12 $\mu\text{m}$	2.13 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.758		
Theta	-87.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 465.321 (brightness)

B = 120.714 (background)

a = 0.814 px

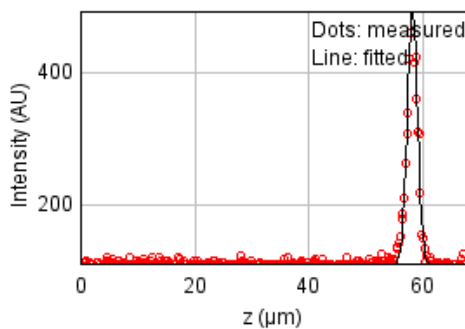
b = -0.017 px

c = 0.468 px

$x_c = 7.249$  px

$y_c = 6.764$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31536.2865

Standard deviation: 10.13529

$R^2$ : 0.96966

Parameters:

a = 112.41469

b = 493.94979

c = 58.19796

d = 0.90181

## Bead 3238

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

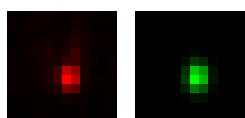
Coordinates : 45.6  $\mu\text{m}$  (x), 28.5  $\mu\text{m}$  (y), 58.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

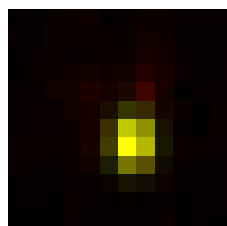
FWHM	Non corrected	Corrected	Theoretical
min	389 nm	405 nm	270 nm
max	510 nm	532 nm	270 nm
z	1.98 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.762		
Theta	88.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 757.276$  (brightness)

$B = 127.356$  (background)

$a = 0.886$  px

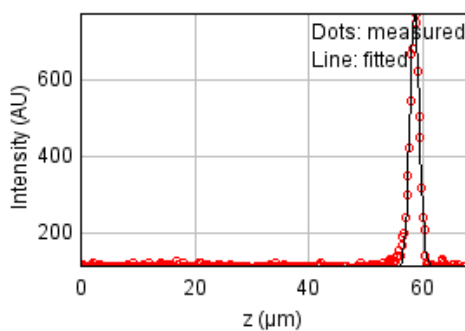
$b = 0.011$  px

$c = 0.515$  px

$x_c = 6.311$  px

$y_c = 6.735$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30383.5537

Standard deviation: 9.94833

$R^2: 0.98944$

Parameters:

$a = 113.61425$

$b = 776.44022$

$c = 58.59787$

$d = 0.84094$

## Bead 3239

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

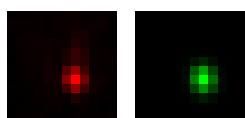
Coordinates : 65.1  $\mu\text{m}$  (x), 24.8  $\mu\text{m}$  (y), 58.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

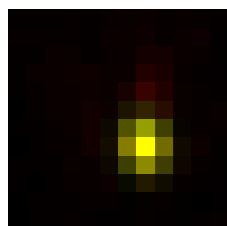
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	427 nm	270 nm
max	500 nm	520 nm	270 nm
z	2.01 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.82		
Theta	-82.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 798.792$  (brightness)

$B = 129.240$  (background)

$a = 0.795$  px

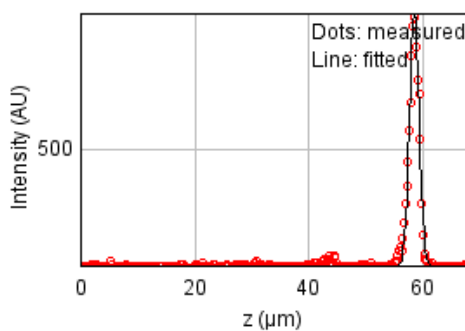
$b = -0.033$  px

$c = 0.542$  px

$x_c = 6.952$  px

$y_c = 6.932$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 63718.9080

Standard deviation: 14.40672

$R^2: 0.98612$

Parameters:

$a = 115.01499$

$b = 945.51200$

$c = 58.54418$

$d = 0.85299$

## Bead 3240

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

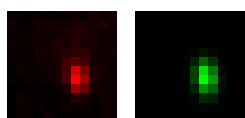
Coordinates : 138  $\mu\text{m}$  (x), 23.3  $\mu\text{m}$  (y), 57.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

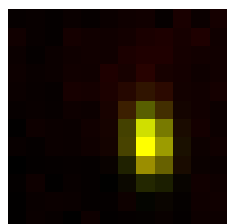
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	396 nm	270 nm
max	615 nm	641 nm	270 nm
z	2.18 $\mu\text{m}$	2.19 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.619		
Theta	-84.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 334.501 (brightness)

B = 121.302 (background)

a = 0.921 px

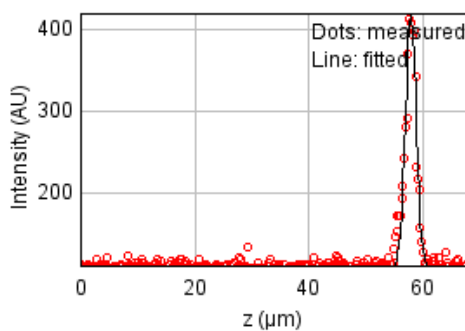
b = -0.056 px

c = 0.360 px

$x_c = 7.215$  px

$y_c = 6.721$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24232.8192

Standard deviation: 8.88450

$R^2$ : 0.96545

Parameters:

a = 110.79884

b = 419.54753

c = 57.92909

d = 0.92670



## Bead 3241

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

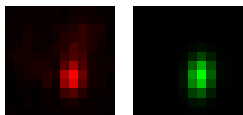
Coordinates : 82.2  $\mu\text{m}$  (x), 21.9  $\mu\text{m}$  (y), 57.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

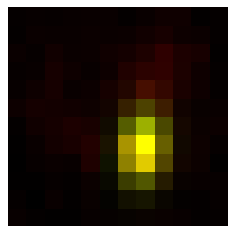
FWHM	Non corrected	Corrected	Theoretical
min	418 nm	435 nm	270 nm
max	669 nm	697 nm	270 nm
z	3.52 $\mu\text{m}$	3.54 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.625		
Theta	84.4°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.928$



Parameters:

$A = 513.889$  (brightness)

$B = 129.383$  (background)

$a = 0.765$  px

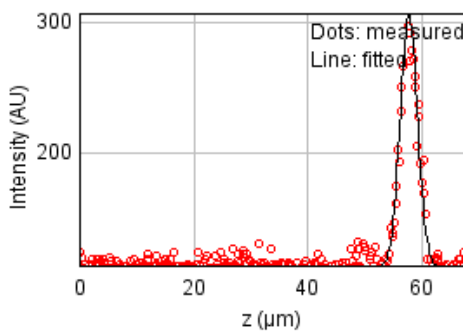
$b = 0.046$  px

$c = 0.305$  px

$x_c = 6.848$  px

$y_c = 7.140$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23015.5196

Standard deviation: 8.65847

$R^2: 0.94839$

Parameters:

$a = 112.45455$

$b = 307.55456$

$c = 57.76346$

$d = 1.49623$

## Bead 3242

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

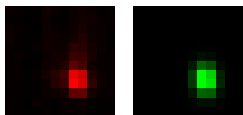
Coordinates : 88.5  $\mu\text{m}$  (x), 21.1  $\mu\text{m}$  (y), 58.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

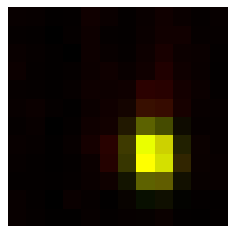
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	415 nm	270 nm
max	532 nm	554 nm	270 nm
z	1.99 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.75		
Theta	-84.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 679.386 (brightness)

B = 123.432 (background)

a = 0.841 px

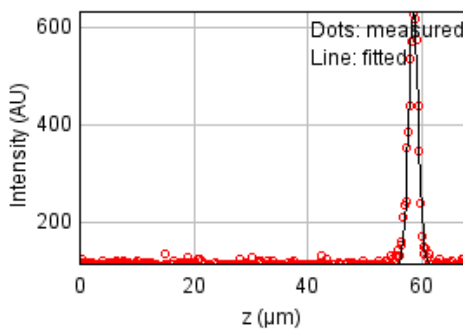
b = -0.034 px

c = 0.478 px

$x_c = 7.404$  px

$y_c = 7.532$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 33714.9372

Standard deviation: 10.47953

$R^2$ : 0.98109

Parameters:

a = 112.73897

b = 631.74571

c = 58.57493

d = 0.84340

## Bead 3243

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

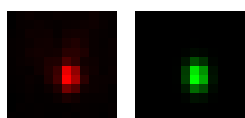
Coordinates : 47.1  $\mu\text{m}$  (x), 20.7  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

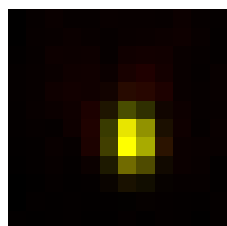
FWHM	Non corrected	Corrected	Theoretical
min	385 nm	401 nm	270 nm
max	524 nm	546 nm	270 nm
z	2.08 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.734		
Theta	-86.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 956.163$  (brightness)

$B = 131.159$  (background)

$a = 0.904$  px

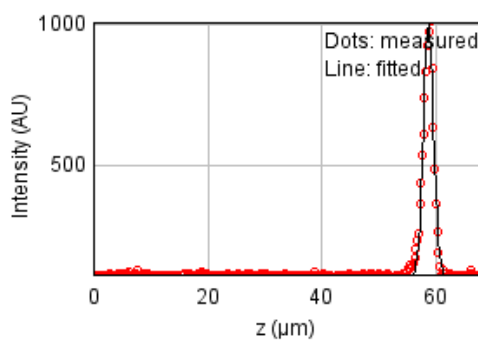
$b = -0.024$  px

$c = 0.489$  px

$x_c = 6.267$  px

$y_c = 6.626$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 71008.7440

Standard deviation: 15.20851

$R^2: 0.98698$

Parameters:

$a = 113.47474$

$b = 1003.63071$

$c = 58.74722$

$d = 0.88381$

## Bead 3244

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

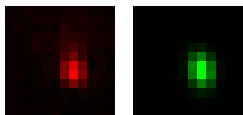
Coordinates : 150  $\mu\text{m}$  (x), 19.1  $\mu\text{m}$  (y), 57.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

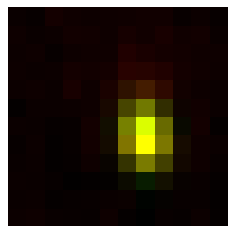
FWHM	Non corrected	Corrected	Theoretical
min	414 nm	431 nm	270 nm
max	611 nm	636 nm	270 nm
z	2.12 $\mu\text{m}$	2.13 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.678		
Theta	-82.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 414.841 (brightness)

B = 119.888 (background)

a = 0.775 px

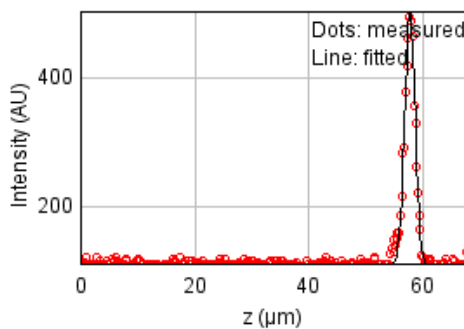
b = -0.054 px

c = 0.367 px

$x_c = 6.969$  px

$y_c = 6.505$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18014.0405

Standard deviation: 7.66013

$R^2$ : 0.98367

Parameters:

a = 109.52879

b = 505.59268

c = 57.76813

d = 0.90083

## Bead 3245 (Rejected)

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

Coordinates : 155 um (x), 18.6 um (y), 21.6 um (z)

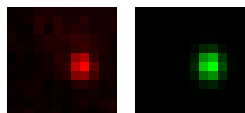
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

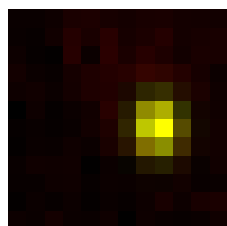
FWHM	Non corrected	Corrected	Theoretical
min	427 nm	445 nm	270 nm
max	529 nm	551 nm	270 nm
z	2.13 um	2.14 um	1.3 um
Asymmetry	0.808		
Theta	-88.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 249.621 (brightness)

B = 115.130 (background)

a = 0.734 px

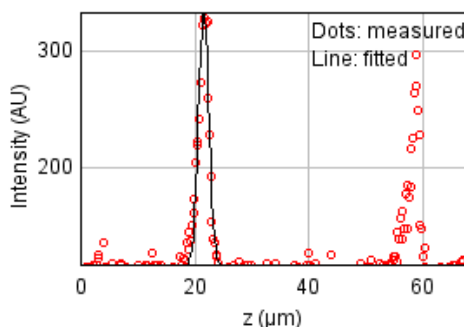
b = -0.008 px

c = 0.480 px

xc = 7.664 px

yc = 5.890 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 187431.014

Standard deviation: 24.70879

$R^2$ : 0.63827

Parameters:

a = 116.22400

b = 334.33811

c = 21.64126

d = 0.90579

## Bead 3246 (Rejected)

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

Coordinates : 36.0  $\mu\text{m}$  (x), 16.9  $\mu\text{m}$  (y), 58.8  $\mu\text{m}$  (z)

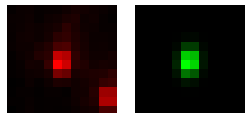
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

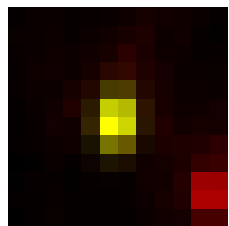
FWHM	Non corrected	Corrected	Theoretical
min	355 nm	369 nm	270 nm
max	517 nm	539 nm	270 nm
z	2.17 $\mu\text{m}$	2.18 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.686		
Theta	85.7°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.602$



Parameters:

A = 893.163 (brightness)

B = 160.687 (background)

a = 1.063 px

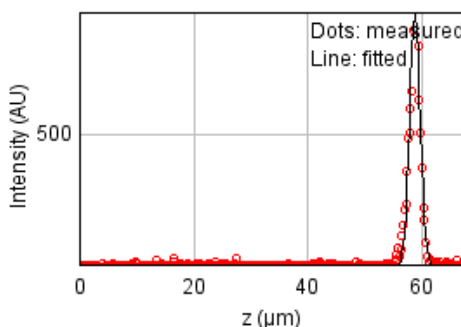
b = 0.042 px

c = 0.505 px

xc = 5.425 px

yc = 5.679 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 67925.2579

Standard deviation: 14.87464

$R^2$ : 0.98300

Parameters:

a = 114.22949

b = 859.50367

c = 58.82882

d = 0.92202

## Bead 3247

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

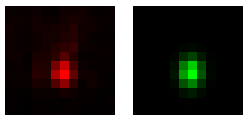
Coordinates : 84.2  $\mu\text{m}$  (x), 16.2  $\mu\text{m}$  (y), 58.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

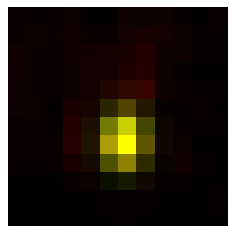
FWHM	Non corrected	Corrected	Theoretical
min	412 nm	429 nm	270 nm
max	544 nm	567 nm	270 nm
z	2.07 $\mu\text{m}$	2.08 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.757		
Theta	88.0°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.937$



Parameters:

A = 642.287 (brightness)

B = 129.736 (background)

a = 0.792 px

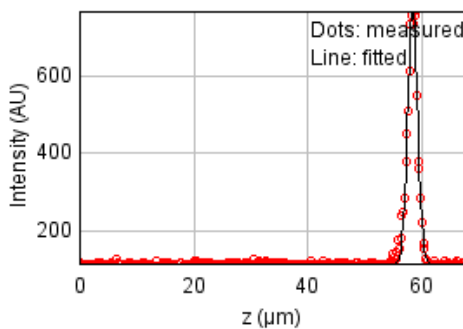
b = 0.012 px

c = 0.454 px

xc = 5.812 px

yc = 6.744 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 48642.4467

Standard deviation: 12.58747

$R^2$ : 0.98366

Parameters:

a = 113.44885

b = 771.81119

c = 58.41861

d = 0.87916

## Bead 3248

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

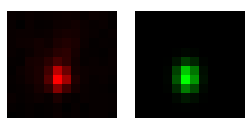
Coordinates : 57.7  $\mu\text{m}$  (x), 15.1  $\mu\text{m}$  (y), 52.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

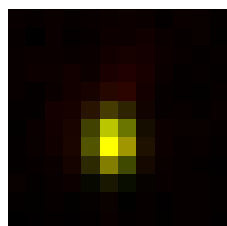
FWHM	Non corrected	Corrected	Theoretical
min	403 nm	419 nm	270 nm
max	527 nm	549 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.764		
Theta	89.8°		

### 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 = 826.058 (brightness)

B = 129.020 (background)

a = 0.828 px

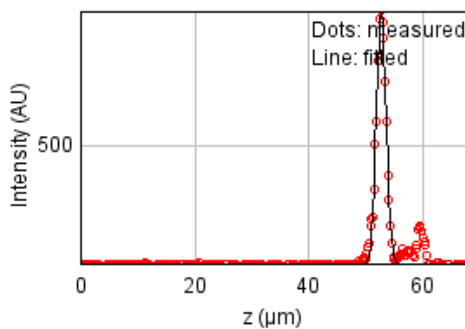
b = 0.001 px

c = 0.483 px

$x_c = 5.176$  px

$y_c = 6.759$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 140166.258

Standard deviation: 21.36744

$R^2$ : 0.96841

Parameters:

a = 118.42815

b = 929.33128

c = 52.75893

d = 0.84879



## Bead 3249

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

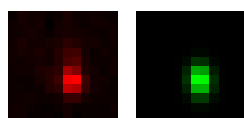
Coordinates : 120  $\mu\text{m}$  (x), 11.5  $\mu\text{m}$  (y), 58.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

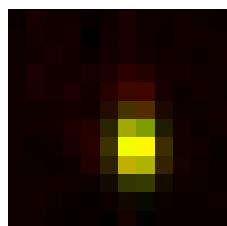
FWHM	Non corrected	Corrected	Theoretical
min	401 nm	418 nm	270 nm
max	582 nm	606 nm	270 nm
z	2.22 $\mu\text{m}$	2.23 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.689		
Theta	-86.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 482.436$  (brightness)

$B = 123.004$  (background)

$a = 0.833$  px

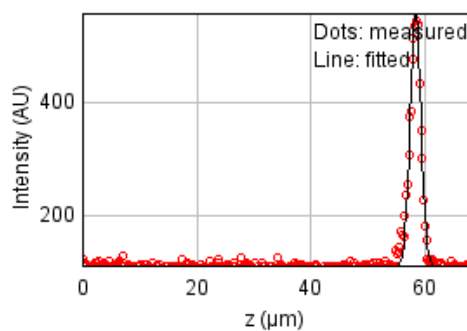
$b = -0.026$  px

$c = 0.398$  px

$x_c = 6.480$  px

$y_c = 7.054$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29623.9862

Standard deviation: 9.82319

$R^2: 0.97978$

Parameters:

$a = 112.22611$

$b = 558.02794$

$c = 58.40966$

$d = 0.94310$

## Bead 3250

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

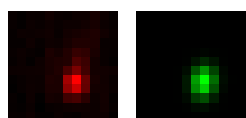
Coordinates : 96.5  $\mu\text{m}$  (x), 10.4  $\mu\text{m}$  (y), 58.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

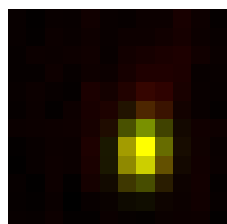
FWHM	Non corrected	Corrected	Theoretical
min	442 nm	460 nm	270 nm
max	592 nm	617 nm	270 nm
z	2.13 $\mu\text{m}$	2.14 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.747		
Theta	82.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 435.654 (brightness)

B = 121.076 (background)

a = 0.681 px

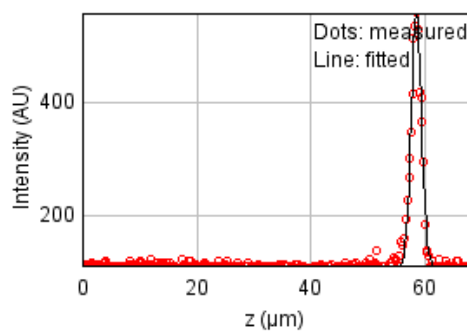
b = 0.040 px

c = 0.388 px

$x_c = 6.850$  px

$y_c = 7.245$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31202.8332

Standard deviation: 10.08156

$R^2$ : 0.97763

Parameters:

a = 111.98654

b = 554.97228

c = 58.55354

d = 0.90547

## Bead 3251

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

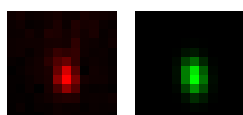
Coordinates : 143 um (x), 8.99 um (y), 58.1 um (z)

Corresponding bead : Not found

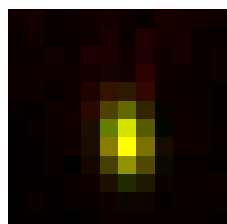
FWHM	Non corrected	Corrected	Theoretical
min	417 nm	434 nm	270 nm
max	642 nm	669 nm	270 nm
z	2.07 um	2.08 um	1.3 um
Asymmetry	0.649		
Theta	-82.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 404.677 (brightness)

B = 119.541 (background)

a = 0.765 px

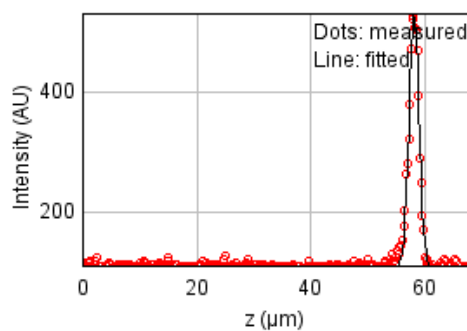
b = -0.059 px

c = 0.333 px

xc = 5.944 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: 18414.3244

Standard deviation: 7.74477

$R^2$ : 0.98471

Parameters:

a = 111.81885

b = 531.06339

c = 58.13145

d = 0.87796

## Bead 3252

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

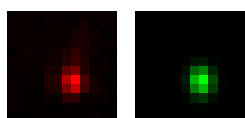
Coordinates : 70.1  $\mu\text{m}$  (x), 3.59  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

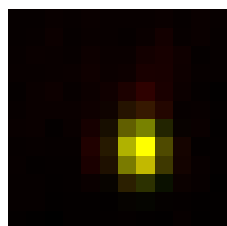
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	427 nm	270 nm
max	519 nm	541 nm	270 nm
z	2.21 $\mu\text{m}$	2.22 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.789		
Theta	-85.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 951.488$  (brightness)

$B = 133.606$  (background)

$a = 0.797$  px

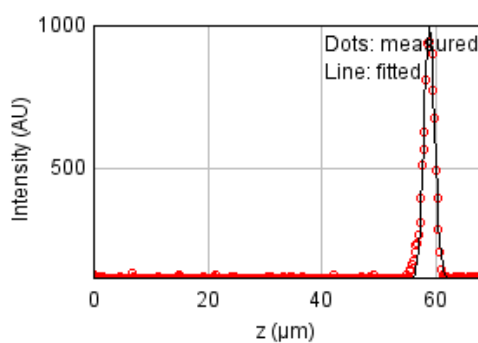
$b = -0.024$  px

$c = 0.499$  px

$x_c = 6.730$  px

$y_c = 7.162$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 64108.1824

Standard deviation: 14.45066

$R^2: 0.98888$

Parameters:

$a = 114.01871$

$b = 1004.84977$

$c = 58.89547$

$d = 0.93776$

## Bead 3253

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

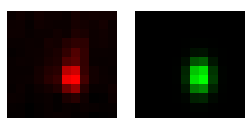
Coordinates : 75.6  $\mu\text{m}$  (x), 3.04  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

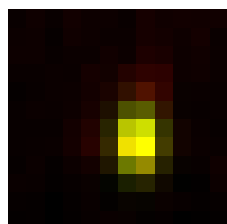
FWHM	Non corrected	Corrected	Theoretical
min	413 nm	430 nm	270 nm
max	597 nm	622 nm	270 nm
z	2.38 $\mu\text{m}$	2.39 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.691		
Theta	-89.7°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.938$



Parameters:

A = 556.369 (brightness)

B = 124.202 (background)

a = 0.789 px

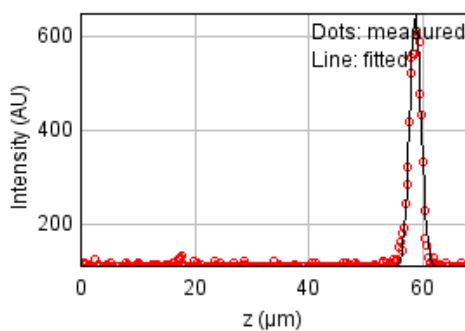
b = -0.002 px

c = 0.377 px

xc = 6.581 px

yc = 6.679 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47880.8396

Standard deviation: 12.48854

$R^2$ : 0.97874

Parameters:

a = 112.60919

b = 647.24437

c = 58.73384

d = 1.01065

## Bead 3254

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

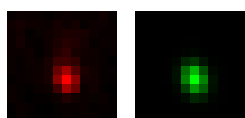
Coordinates : 140  $\mu\text{m}$  (x), 2.77  $\mu\text{m}$  (y), 58.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

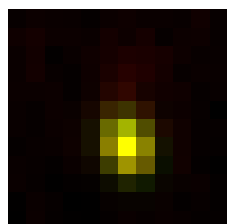
FWHM	Non corrected	Corrected	Theoretical
min	433 nm	451 nm	270 nm
max	564 nm	588 nm	270 nm
z	2.05 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.767		
Theta	-71.7°		

### 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:

$A = 490.414$  (brightness)

$B = 120.097$  (background)

$a = 0.687$  px

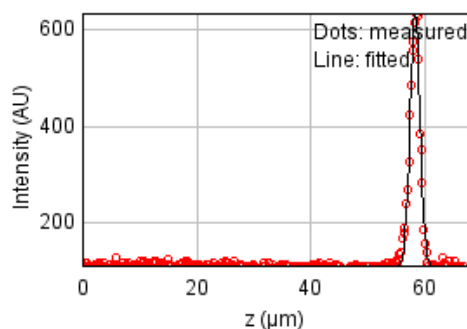
$b = -0.088$  px

$c = 0.450$  px

$x_c = 5.997$  px

$y_c = 6.892$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27134.2373

Standard deviation: 9.40134

$R^2: 0.98527$

Parameters:

$a = 111.21898$

$b = 631.66711$

$c = 58.31365$

$d = 0.87111$

## Bead 3255

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

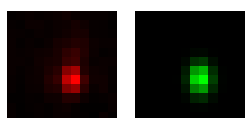
Coordinates : 120  $\mu\text{m}$  (x), 1.45  $\mu\text{m}$  (y), 58.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

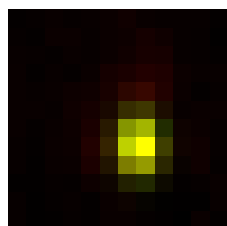
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	426 nm	270 nm
max	563 nm	586 nm	270 nm
z	2.15 $\mu\text{m}$	2.16 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.727		
Theta	-89.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 631.864 (brightness)

B = 126.558 (background)

a = 0.801 px

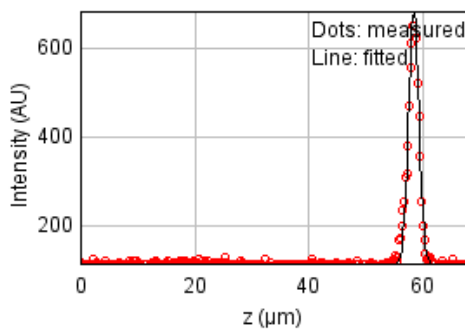
b = -0.005 px

c = 0.424 px

$x_c = 6.624$  px

$y_c = 6.903$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34977.0706

Standard deviation: 10.67389

$R^2$ : 0.98497

Parameters:

a = 112.69374

b = 684.49445

c = 58.44624

d = 0.91395

## Bead 3256

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

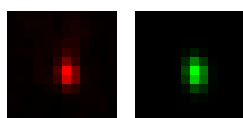
Coordinates : 143  $\mu\text{m}$  (x), 50.5 nm (y), 58.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

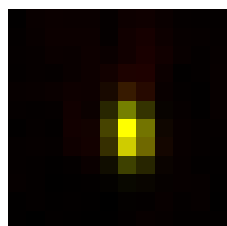
FWHM	Non corrected	Corrected	Theoretical
min	354 nm	369 nm	270 nm
max	544 nm	566 nm	270 nm
z	1.84 $\mu\text{m}$	1.84 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.651		
Theta	-84.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 804.325 (brightness)

B = 125.327 (background)

a = 1.064 px

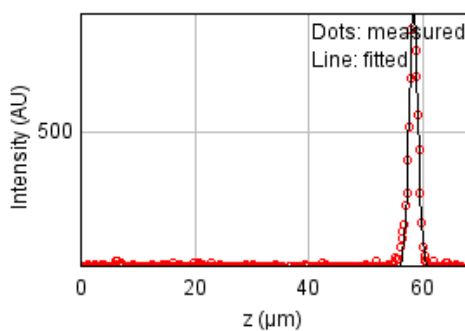
b = -0.060 px

c = 0.460 px

xc = 6.142 px

yc = 6.270 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 38894.8418

Standard deviation: 11.25581

$R^2$ : 0.98827

Parameters:

a = 112.40167

b = 849.95651

c = 58.39907

d = 0.77959



## Bead 3257

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

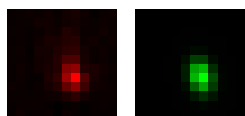
Coordinates : 161  $\mu\text{m}$  (x), -75.8 nm (y), 58.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

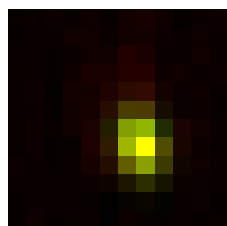
FWHM	Non corrected	Corrected	Theoretical
min	411 nm	428 nm	270 nm
max	595 nm	620 nm	270 nm
z	1.92 $\mu\text{m}$	1.93 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.69		
Theta	-76.4°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.938$



Parameters:

A = 500.319 (brightness)

B = 123.496 (background)

a = 0.773 px

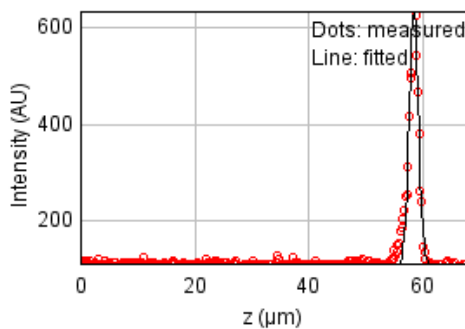
b = -0.095 px

c = 0.402 px

xc = 6.700 px

yc = 6.844 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 46285.7229

Standard deviation: 12.27876

$R^2$ : 0.97395

Parameters:

a = 111.38175

b = 635.92147

c = 58.45408

d = 0.81543

## Bead 3258

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

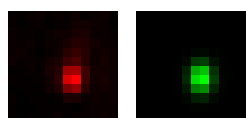
Coordinates : 77.4  $\mu\text{m}$  (x), -1.61  $\mu\text{m}$  (y), 58.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

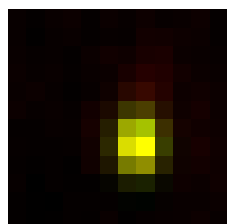
FWHM	Non corrected	Corrected	Theoretical
min	414 nm	431 nm	270 nm
max	557 nm	580 nm	270 nm
z	2.21 $\mu\text{m}$	2.22 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.743		
Theta	89.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 684.180 (brightness)

B = 133.894 (background)

a = 0.784 px

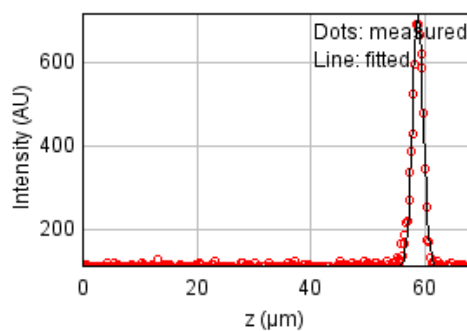
b = 0.001 px

c = 0.433 px

xc = 6.594 px

yc = 6.818 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37966.9561

Standard deviation: 11.12074

$R^2$ : 0.98583

Parameters:

a = 113.53735

b = 719.68137

c = 58.81793

d = 0.93835

## Bead 3259 (Rejected)

Date : Mon Oct 17 13:54:09 PDT 2022

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

Frame size : 12 pixels

Coordinates : 79.2  $\mu\text{m}$  (x), -2.52  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

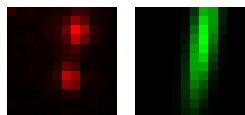
Corresponding bead : Not found

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

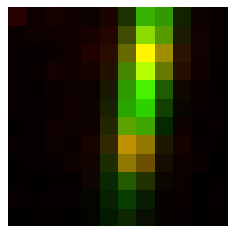
FWHM	Non corrected	Corrected	Theoretical
min	430 nm	448 nm	270 nm
max	2.19 $\mu\text{m}$	2.28 $\mu\text{m}$	270 nm
z	2.49 $\mu\text{m}$	2.5 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.197		
Theta	81.2°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.674$



Parameters:

A = 338.755 (brightness)

B = 126.197 (background)

a = 0.710 px

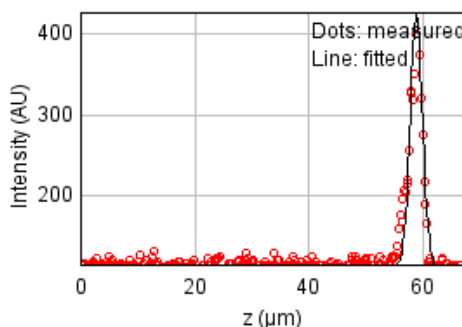
b = 0.105 px

c = 0.044 px

xc = 6.969 px

yc = 2.957 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47265.1589

Standard deviation: 12.40799

$R^2$ : 0.94313

Parameters:

a = 114.14302

b = 426.29384

c = 58.89584

d = 1.05690

## Bead 3260

Date : Mon Oct 17 13:54:10 PDT 2022

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

Frame size : 12 pixels

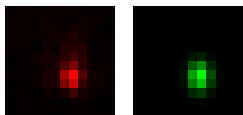
Coordinates : 142  $\mu\text{m}$  (x), -5.43  $\mu\text{m}$  (y), 58.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

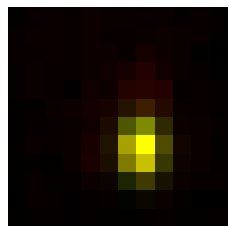
FWHM	Non corrected	Corrected	Theoretical
min	398 nm	415 nm	270 nm
max	544 nm	567 nm	270 nm
z	2.05 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.732		
Theta	89.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 610.000 (brightness)

B = 124.012 (background)

a = 0.847 px

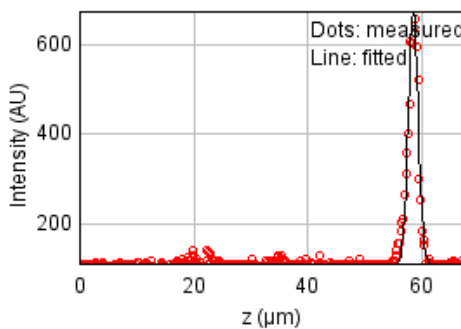
b = 0.003 px

c = 0.453 px

$x_c = 6.773$  px

$y_c = 7.183$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 57677.1620

Standard deviation: 13.70670

$R^2$ : 0.97317

Parameters:

a = 113.06055

b = 671.47568

c = 58.53896

d = 0.87267

## Bead 3261

Date : Mon Oct 17 13:54:10 PDT 2022

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

Frame size : 12 pixels

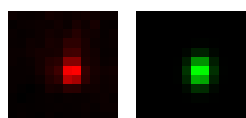
Coordinates : 89.0  $\mu\text{m}$  (x), -6.73  $\mu\text{m}$  (y), 59.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

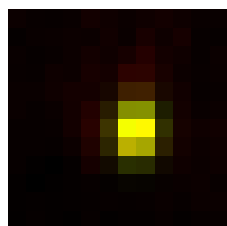
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	423 nm	270 nm
max	531 nm	553 nm	270 nm
z	2.23 $\mu\text{m}$	2.24 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.764		
Theta	86.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 749.488$  (brightness)

$B = 131.293$  (background)

$a = 0.812$  px

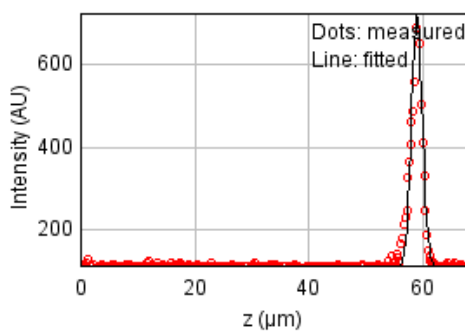
$b = 0.018$  px

$c = 0.476$  px

$x_c = 6.484$  px

$y_c = 6.092$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 65004.4479

Standard deviation: 14.55132

$R^2: 0.97633$

Parameters:

$a = 113.31910$

$b = 721.87196$

$c = 58.99695$

$d = 0.94563$

## Bead 3262

Date : Mon Oct 17 13:54:10 PDT 2022

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

Frame size : 12 pixels

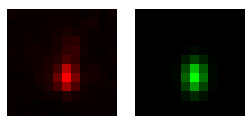
Coordinates : 115 um (x), -7.78 um (y), 58.7 um (z)

Corresponding bead : Not found

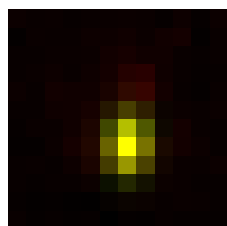
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	407 nm	270 nm
max	571 nm	595 nm	270 nm
z	2.07 um	2.07 um	1.3 um
Asymmetry	0.684		
Theta	88.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 714.455 (brightness)

B = 127.205 (background)

a = 0.879 px

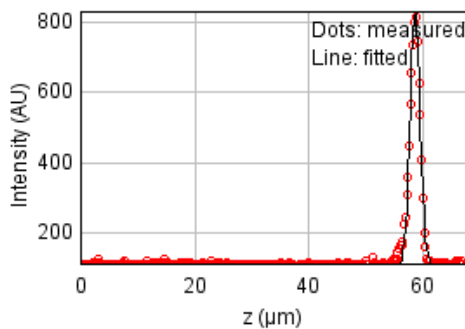
b = 0.014 px

c = 0.412 px

xc = 6.044 px

yc = 6.855 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31829.2647

Standard deviation: 10.18226

$R^2$ : 0.99098

Parameters:

a = 111.33945

b = 831.57360

c = 58.68169

d = 0.87732

## Bead 3263

Date : Mon Oct 17 13:54:10 PDT 2022

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

Frame size : 12 pixels

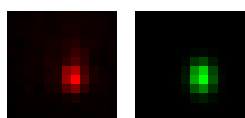
Coordinates : 92.6  $\mu\text{m}$  (x), -10.2  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

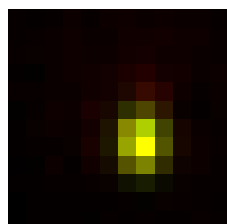
FWHM	Non corrected	Corrected	Theoretical
min	417 nm	434 nm	270 nm
max	553 nm	576 nm	270 nm
z	2.2 $\mu\text{m}$	2.21 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.754		
Theta	-88.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 739.220$  (brightness)

$B = 128.795$  (background)

$a = 0.771$  px

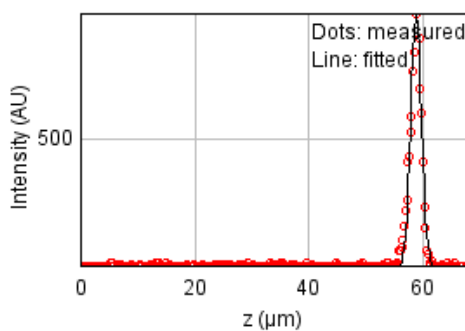
$b = -0.010$  px

$c = 0.439$  px

$x_c = 6.779$  px

$y_c = 6.730$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 75354.4973

Standard deviation: 15.66698

$R^2: 0.98247$

Parameters:

$a = 113.21693$

$b = 881.53978$

$c = 58.85490$

$d = 0.93353$

## Bead 3264 (Rejected)

Date : Mon Oct 17 13:54:10 PDT 2022

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

Frame size : 12 pixels

Coordinates : 132  $\mu\text{m}$  (x), -12.3  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

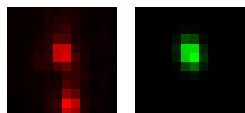
Corresponding bead : Not found

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

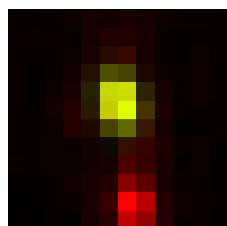
FWHM	Non corrected	Corrected	Theoretical
min	377 nm	393 nm	270 nm
max	520 nm	542 nm	270 nm
z	2.11 $\mu\text{m}$	2.12 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.725		
Theta	-76.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.458$



Parameters:

A = 575.418 (brightness)

B = 151.571 (background)

a = 0.920 px

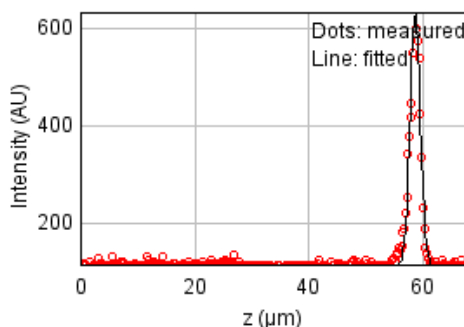
b = -0.102 px

c = 0.521 px

xc = 5.572 px

yc = 4.562 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37447.9867

Standard deviation: 11.04447

$R^2$ : 0.98035

Parameters:

a = 113.03529

b = 634.45957

c = 58.69966

d = 0.89465



## Bead 3265

Date : Mon Oct 17 13:54:10 PDT 2022

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

Frame size : 12 pixels

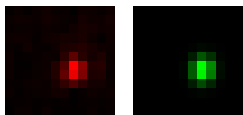
Coordinates : -114  $\mu\text{m}$  (x), -30.6  $\mu\text{m}$  (y), 58.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

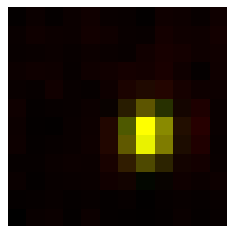
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	417 nm	270 nm
max	484 nm	504 nm	270 nm
z	1.92 $\mu\text{m}$	1.92 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.826		
Theta	84.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 571.637$  (brightness)

$B = 123.729$  (background)

$a = 0.835$  px

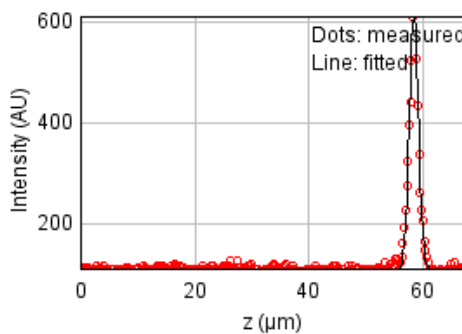
$b = 0.027$  px

$c = 0.575$  px

$x_c = 7.116$  px

$y_c = 6.449$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25027.2581

Standard deviation: 9.02895

$R^2: 0.98435$

Parameters:

$a = 111.76440$

$b = 612.57105$

$c = 58.46946$

$d = 0.81379$

## Bead 3266

Date : Mon Oct 17 13:54:11 PDT 2022

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

Frame size : 12 pixels

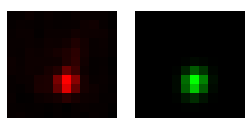
Coordinates : 68.9  $\mu\text{m}$  (x), -73.9  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

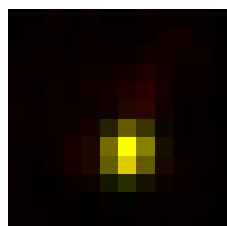
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	427 nm	270 nm
max	463 nm	482 nm	270 nm
z	2.01 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.886		
Theta	71.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 816.253$  (brightness)

$B = 128.224$  (background)

$a = 0.779$  px

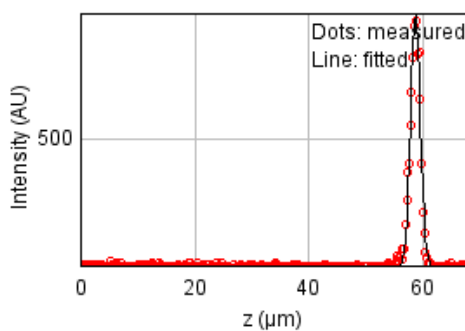
$b = 0.053$  px

$c = 0.644$  px

$x_c = 6.039$  px

$y_c = 7.312$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 49287.8908

Standard deviation: 12.67071

$R^2: 0.98759$

Parameters:

$a = 113.23621$

$b = 886.18246$

$c = 58.74498$

$d = 0.85267$

## Bead 3267

Date : Mon Oct 17 13:54:11 PDT 2022

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

Frame size : 12 pixels

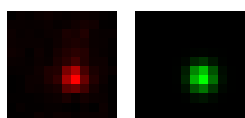
Coordinates : 116  $\mu\text{m}$  (x), -84.3  $\mu\text{m}$  (y), 58.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

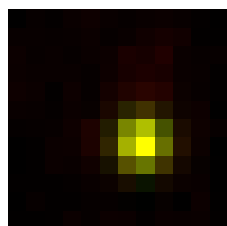
FWHM	Non corrected	Corrected	Theoretical
min	473 nm	493 nm	270 nm
max	501 nm	522 nm	270 nm
z	2.04 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.944		
Theta	-86.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 434.613$  (brightness)

$B = 121.179$  (background)

$a = 0.599$  px

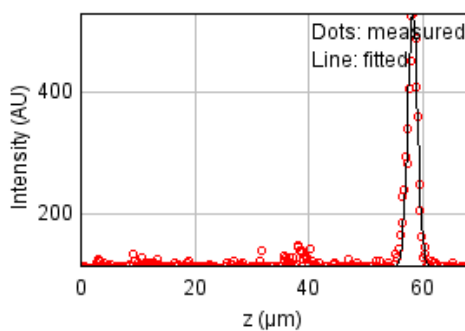
$b = -0.004$  px

$c = 0.535$  px

$x_c = 6.801$  px

$y_c = 6.771$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40264.1749

Standard deviation: 11.45223

$R^2: 0.96625$

Parameters:

$a = 114.26690$

$b = 530.49425$

$c = 58.24082$

$d = 0.86513$

## Bead 3268 (Rejected)

Date : Mon Oct 17 13:54:11 PDT 2022

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

Frame size : 12 pixels

Coordinates : -144  $\mu\text{m}$  (x), -90.7  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

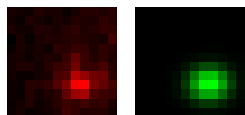
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

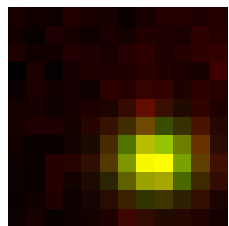
FWHM	Non corrected	Corrected	Theoretical
min	622 nm	648 nm	270 nm
max	750 nm	781 nm	270 nm
z	6.34 $\mu\text{m}$	6.37 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.83		
Theta	1.3°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.885$



Parameters:

A = 139.408 (brightness)

B = 119.069 (background)

a = 0.239 px

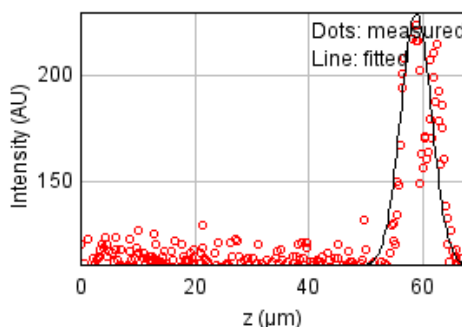
b = 0.002 px

c = 0.346 px

xc = 7.552 px

yc = 7.875 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 84961.5383

Standard deviation: 16.63574

$R^2$ : 0.75458

Parameters:

a = 111.17862

b = 229.53045

c = 58.85623

d = 2.69414

## Bead 3269

Date : Mon Oct 17 13:54:11 PDT 2022

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

Frame size : 12 pixels

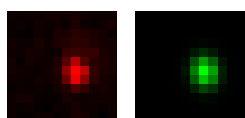
Coordinates : -123  $\mu\text{m}$  (x), 95.8  $\mu\text{m}$  (y), 58.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

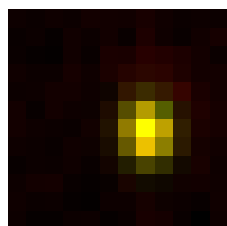
FWHM	Non corrected	Corrected	Theoretical
min	473 nm	492 nm	270 nm
max	589 nm	613 nm	270 nm
z	1.98 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.803		
Theta	-84.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 362.181 (brightness)

B = 118.839 (background)

a = 0.598 px

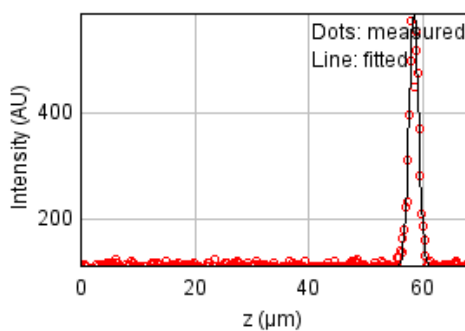
b = -0.020 px

c = 0.389 px

$x_c = 7.116$  px

$y_c = 6.146$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 49069.4585

Standard deviation: 12.64260

$R^2$ : 0.96738

Parameters:

a = 112.37751

b = 586.29495

c = 58.45164

d = 0.84129

## Bead 3270 (Rejected)

Date : Mon Oct 17 13:54:12 PDT 2022

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

Frame size : 12 pixels

Coordinates : -106  $\mu\text{m}$  (x), 95.0  $\mu\text{m}$  (y), 58.6  $\mu\text{m}$  (z)

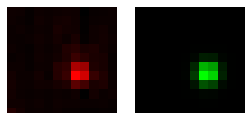
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

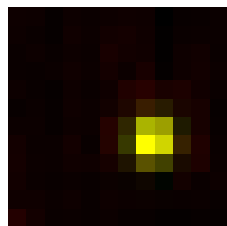
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	413 nm	270 nm
max	427 nm	445 nm	270 nm
z	1.68 $\mu\text{m}$	1.68 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.929		
Theta	75.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 591.340 (brightness)

B = 125.432 (background)

a = 0.844 px

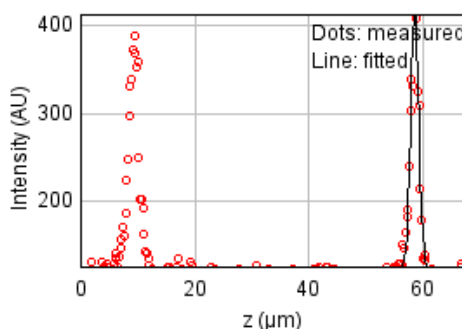
b = 0.028 px

c = 0.742 px

xc = 7.402 px

yc = 6.722 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 534354.203

Standard deviation: 41.72011

$R^2$ : 0.46428

Parameters:

a = 125.25419

b = 414.88475

c = 58.62280

d = 0.71173

## Bead 3271

Date : Mon Oct 17 13:54:12 PDT 2022

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

Frame size : 12 pixels

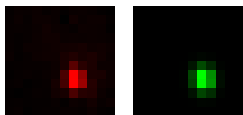
Coordinates : -74.1  $\mu\text{m}$  (x), 84.0  $\mu\text{m}$  (y), 58.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

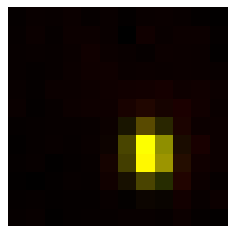
FWHM	Non corrected	Corrected	Theoretical
min	375 nm	390 nm	270 nm
max	461 nm	480 nm	270 nm
z	1.78 $\mu\text{m}$	1.78 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.813		
Theta	-83.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.975$



Parameters:

$A = 696.005$  (brightness)

$B = 121.361$  (background)

$a = 0.951$  px

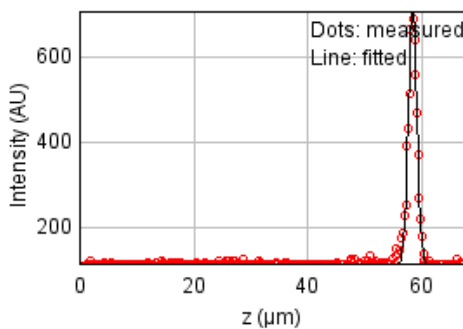
$b = -0.036$  px

$c = 0.636$  px

$x_c = 7.212$  px

$y_c = 7.488$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31288.8171

Standard deviation: 10.09544

$R^2 = 0.98516$

Parameters:

$a = 114.01207$

$b = 710.37880$

$c = 58.41288$

$d = 0.75473$

## Bead 3272

Date : Mon Oct 17 13:54:12 PDT 2022

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

Frame size : 12 pixels

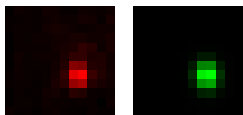
Coordinates : -120  $\mu\text{m}$  (x), 82.8  $\mu\text{m}$  (y), 58.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

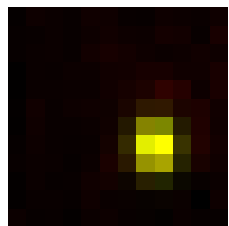
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	415 nm	270 nm
max	498 nm	519 nm	270 nm
z	2.17 $\mu\text{m}$	2.18 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.801		
Theta	-86.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 550.602 (brightness)

B = 122.410 (background)

a = 0.843 px

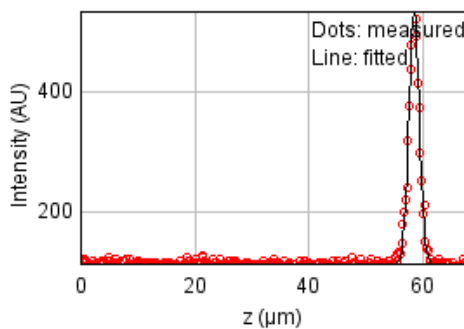
b = -0.019 px

c = 0.542 px

$x_c = 7.543$  px

$y_c = 7.072$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17554.6825

Standard deviation: 7.56184

$R^2$ : 0.98624

Parameters:

a = 111.97346

b = 533.91630

c = 58.50351

d = 0.92172



## Bead 3273

Date : Mon Oct 17 13:54:12 PDT 2022

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

Frame size : 12 pixels

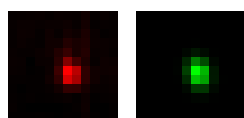
Coordinates : -88.4  $\mu\text{m}$  (x), 81.2  $\mu\text{m}$  (y), 58.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

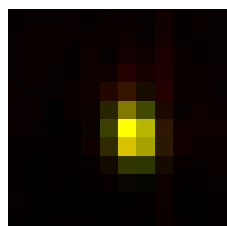
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	407 nm	270 nm
max	523 nm	545 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.746		
Theta	-77.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 789.763$  (brightness)

$B = 124.805$  (background)

$a = 0.862$  px

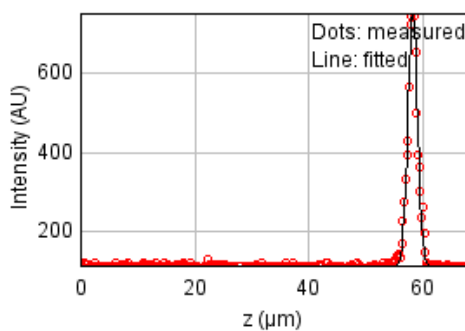
$b = -0.081$  px

$c = 0.507$  px

$x_c = 6.329$  px

$y_c = 6.281$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 51268.4945

Standard deviation: 12.92278

$R^2: 0.98110$

Parameters:

$a = 113.98558$

$b = 751.55331$

$c = 58.24871$

$d = 0.85038$

## Bead 3274

Date : Mon Oct 17 13:54:12 PDT 2022

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

Frame size : 12 pixels

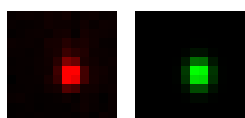
Coordinates : -91.2  $\mu\text{m}$  (x), 75.9  $\mu\text{m}$  (y), 58.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

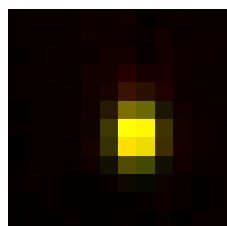
FWHM	Non corrected	Corrected	Theoretical
min	420 nm	437 nm	270 nm
max	525 nm	547 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.799		
Theta	-88.7°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.976$



Parameters:

A = 768.724 (brightness)

B = 121.876 (background)

a = 0.762 px

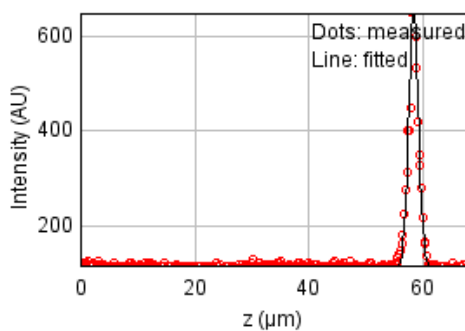
b = -0.006 px

c = 0.486 px

$x_c = 6.480$  px

$y_c = 6.371$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47430.2907

Standard deviation: 12.42964

$R^2: 0.97592$

Parameters:

a = 113.41372

b = 652.92013

c = 58.41216

d = 0.85807

## Bead 3275

Date : Mon Oct 17 13:54:12 PDT 2022

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

Frame size : 12 pixels

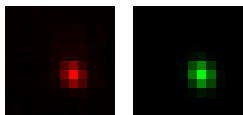
Coordinates : -60.5  $\mu\text{m}$  (x), 74.2  $\mu\text{m}$  (y), 58.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

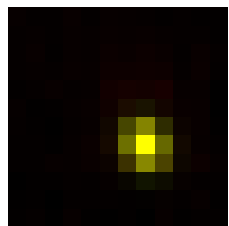
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	402 nm	270 nm
max	469 nm	489 nm	270 nm
z	1.72 $\mu\text{m}$	1.73 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.822		
Theta	-68.9°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.981$



Parameters:

$A = 977.390$  (brightness)

$B = 124.039$  (background)

$a = 0.863$  px

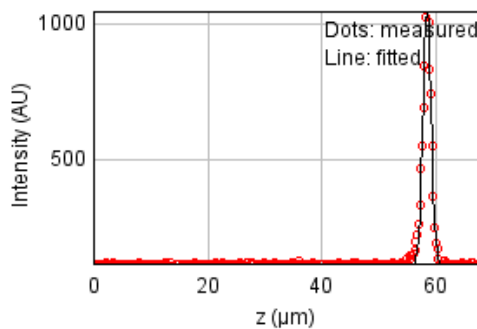
$b = -0.098$  px

$c = 0.647$  px

$x_c = 6.980$  px

$y_c = 7.008$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 46649.2758

Standard deviation: 12.32688

$R^2: 0.99054$

Parameters:

$a = 114.32577$

$b = 1042.72744$

$c = 58.49537$

$d = 0.73130$

## Bead 3276

Date : Mon Oct 17 13:54:12 PDT 2022

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

Frame size : 12 pixels

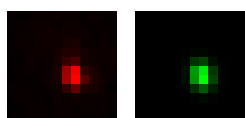
Coordinates : -71.8  $\mu\text{m}$  (x), 68.4  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

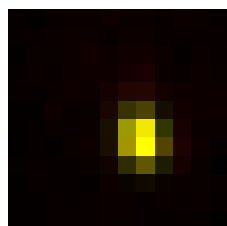
FWHM	Non corrected	Corrected	Theoretical
min	378 nm	393 nm	270 nm
max	484 nm	504 nm	270 nm
z	1.79 $\mu\text{m}$	1.79 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.78		
Theta	-79.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.978$



Parameters:

A = 878.400 (brightness)

B = 124.269 (background)

a = 0.929 px

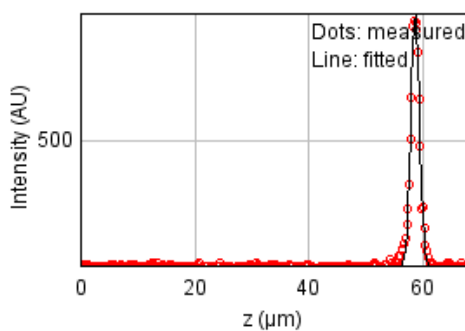
b = -0.066 px

c = 0.585 px

$x_c = 6.757$  px

$y_c = 6.554$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 39498.0524

Standard deviation: 11.34276

$R^2$ : 0.98894

Parameters:

a = 113.91457

b = 889.62290

c = 58.70645

d = 0.75890

## Bead 3277 (Rejected)

Date : Mon Oct 17 13:54:12 PDT 2022

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

Frame size : 12 pixels

Coordinates : -111  $\mu\text{m}$  (x), 60.9  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

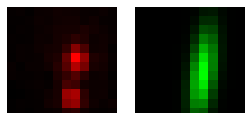
Corresponding bead : Not found

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

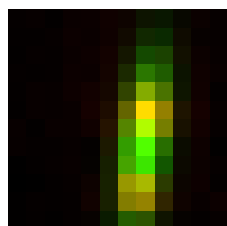
FWHM	Non corrected	Corrected	Theoretical
min	447 nm	465 nm	270 nm
max	1.63 $\mu\text{m}$	1.7 $\mu\text{m}$	270 nm
z	2.08 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.273		
Theta	83.2°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.728$



Parameters:

A = 501.075 (brightness)

B = 132.157 (background)

a = 0.664 px

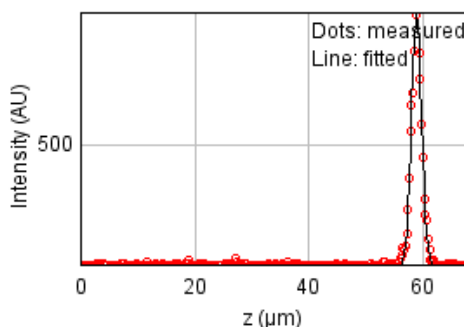
b = 0.073 px

c = 0.059 px

xc = 6.894 px

yc = 6.754 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34029.8400

Standard deviation: 10.52836

$R^2$ : 0.99246

Parameters:

a = 112.99510

b = 925.67636

c = 58.93090

d = 0.88272

## Bead 3278

Date : Mon Oct 17 13:54:13 PDT 2022

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

Frame size : 12 pixels

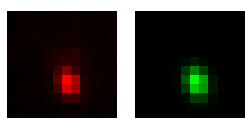
Coordinates : -56.0  $\mu\text{m}$  (x), 56.1  $\mu\text{m}$  (y), 58.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

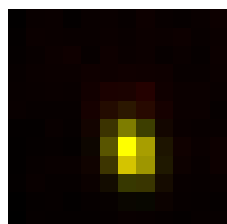
FWHM	Non corrected	Corrected	Theoretical
min	403 nm	420 nm	270 nm
max	541 nm	564 nm	270 nm
z	1.9 $\mu\text{m}$	1.91 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.745		
Theta	-72.3°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.976$



Parameters:

A = 912.673 (brightness)

B = 126.052 (background)

a = 0.791 px

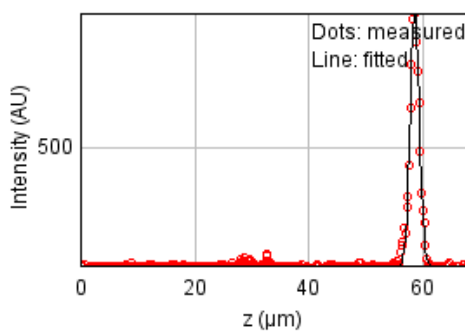
b = -0.106 px

c = 0.492 px

xc = 6.235 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: 45520.9122

Standard deviation: 12.17689

$R^2$ : 0.98942

Parameters:

a = 115.56461

b = 942.28678

c = 58.62563

d = 0.80738

## Bead 3279 (Rejected)

Date : Mon Oct 17 13:54:13 PDT 2022

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

Frame size : 12 pixels

Coordinates : 66.7  $\mu\text{m}$  (x), 54.0  $\mu\text{m}$  (y), 55.0  $\mu\text{m}$  (z)

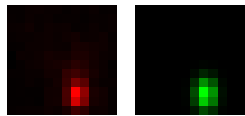
Corresponding bead : Not found

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

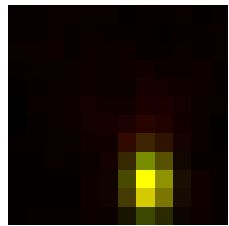
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	572 nm	596 nm	270 nm
z	3.38 $\mu\text{m}$	3.39 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.677		
Theta	89.9°		

### 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 = 546.948 (brightness)

B = 123.496 (background)

a = 0.895 px

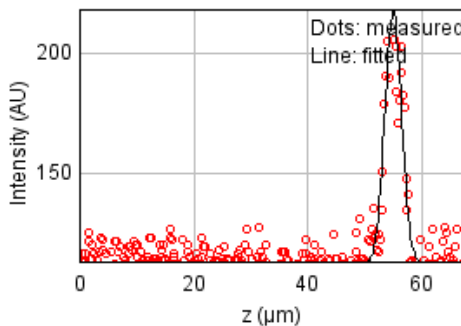
b = 0.001 px

c = 0.410 px

xc = 7.192 px

yc = 9.217 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18943.4741

Standard deviation: 7.85526

$R^2$ : 0.86071

Parameters:

a = 113.24856

b = 217.88999

c = 55.03013

d = 1.43462

## Bead 3280

Date : Mon Oct 17 13:54:13 PDT 2022

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

Frame size : 12 pixels

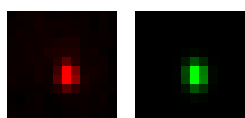
Coordinates : -50.8  $\mu\text{m}$  (x), 52.4  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

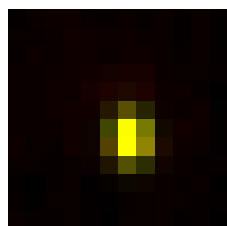
FWHM	Non corrected	Corrected	Theoretical
min	364 nm	380 nm	270 nm
max	483 nm	503 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.754		
Theta	-85.3°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.976$



Parameters:

$A = 719.443$  (brightness)

$B = 125.208$  (background)

$a = 1.007$  px

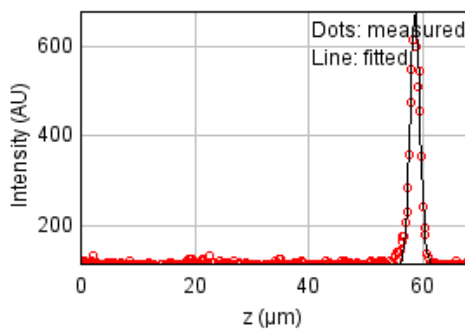
$b = -0.036$  px

$c = 0.578$  px

$x_c = 6.155$  px

$y_c = 6.516$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35778.5052

Standard deviation: 10.79548

$R^2 = 0.98322$

Parameters:

$a = 113.84611$

$b = 677.07542$

$c = 58.67845$

$d = 0.85868$



## Bead 3281

Date : Mon Oct 17 13:54:13 PDT 2022

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

Frame size : 12 pixels

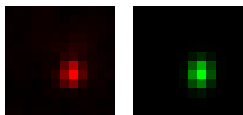
Coordinates : -17.2  $\mu\text{m}$  (x), 41.7  $\mu\text{m}$  (y), 58.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

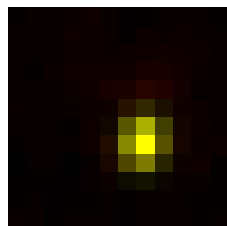
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	407 nm	270 nm
max	493 nm	514 nm	270 nm
z	1.91 $\mu\text{m}$	1.91 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.792		
Theta	82.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 646.645 (brightness)

B = 124.778 (background)

a = 0.874 px

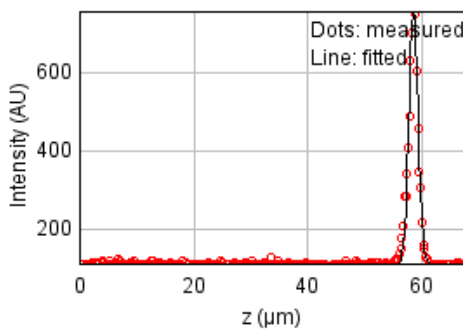
b = 0.040 px

c = 0.557 px

xc = 6.861 px

yc = 6.846 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35792.9943

Standard deviation: 10.79766

$R^2$ : 0.98620

Parameters:

a = 113.64740

b = 753.55333

c = 58.57680

d = 0.80985

## Bead 3282

Date : Mon Oct 17 13:54:14 PDT 2022

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

Frame size : 12 pixels

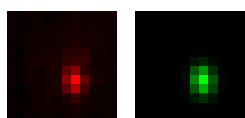
Coordinates : 54.5  $\mu\text{m}$  (x), 36.4  $\mu\text{m}$  (y), 58.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

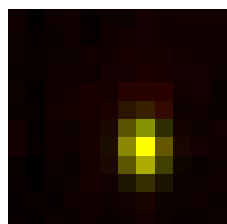
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	412 nm	270 nm
max	534 nm	556 nm	270 nm
z	1.97 $\mu\text{m}$	1.98 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.741		
Theta	-84.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 466.043 (brightness)

B = 122.993 (background)

a = 0.854 px

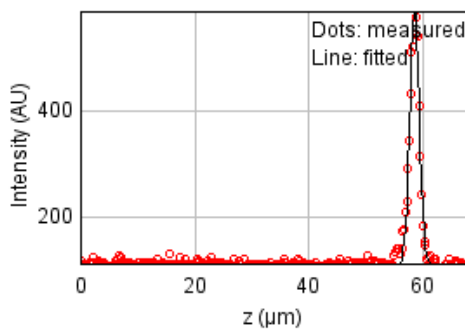
b = -0.035 px

c = 0.474 px

xc = 6.871 px

yc = 7.077 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28384.0026

Standard deviation: 9.61541

$R^2$ : 0.98075

Parameters:

a = 113.40217

b = 586.93557

c = 58.59150

d = 0.83704

## Bead 3283

Date : Mon Oct 17 13:54:14 PDT 2022

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

Frame size : 12 pixels

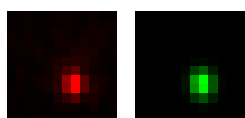
Coordinates : 27.2 um (x), 35.0 um (y), 58.7 um (z)

Corresponding bead : Not found

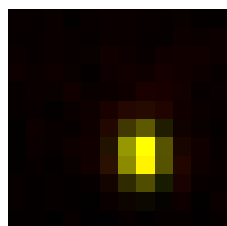
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	422 nm	270 nm
max	494 nm	515 nm	270 nm
z	2.0 um	2.01 um	1.3 um
Asymmetry	0.819		
Theta	-85.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 731.674 (brightness)

B = 126.986 (background)

a = 0.817 px

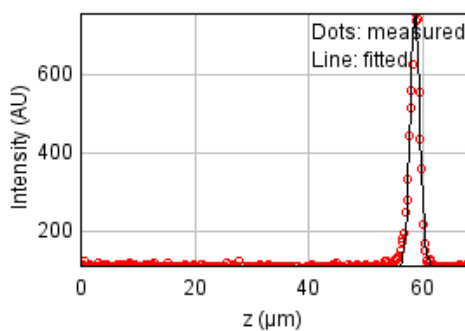
b = -0.022 px

c = 0.551 px

xc = 6.828 px

yc = 7.448 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 46275.8741

Standard deviation: 12.27745

$R^2$ : 0.98322

Parameters:

a = 112.85822

b = 756.28146

c = 58.66866

d = 0.85100

## Bead 3284 (Rejected)

Date : Mon Oct 17 13:54:14 PDT 2022

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

Frame size : 12 pixels

Coordinates : 17.9  $\mu\text{m}$  (x), 32.6  $\mu\text{m}$  (y), 2.5  $\mu\text{m}$  (z)

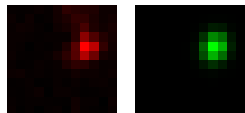
Corresponding bead : Not found

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

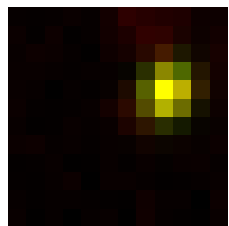
FWHM	Non corrected	Corrected	Theoretical
min	441 nm	460 nm	270 nm
max	526 nm	548 nm	270 nm
z	3.07 $\mu\text{m}$	3.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.839		
Theta	73.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 397.550 (brightness)

B = 118.344 (background)

a = 0.673 px

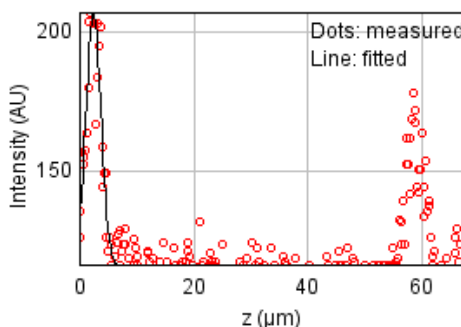
b = 0.056 px

c = 0.502 px

xc = 8.208 px

yc = 4.109 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 46847.0072

Standard deviation: 12.35298

$R^2$ : 0.63051

Parameters:

a = 116.46517

b = 206.74382

c = 2.50402

d = 1.30559

## Bead 3285

Date : Mon Oct 17 13:54:14 PDT 2022

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

Frame size : 12 pixels

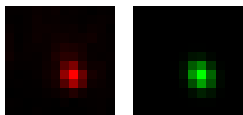
Coordinates : -61.6  $\mu\text{m}$  (x), 25.4  $\mu\text{m}$  (y), 59.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

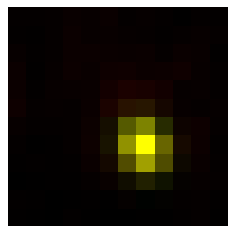
FWHM	Non corrected	Corrected	Theoretical
min	414 nm	431 nm	270 nm
max	503 nm	524 nm	270 nm
z	1.81 $\mu\text{m}$	1.82 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.823		
Theta	-67.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1200.237$  (brightness)

$B = 137.440$  (background)

$a = 0.746$  px

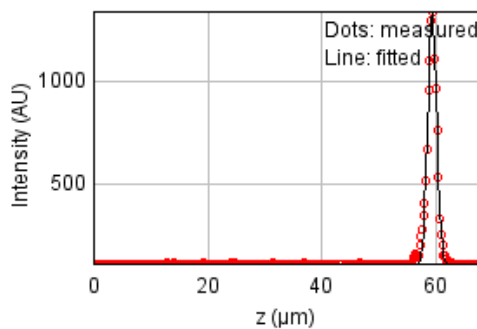
$b = -0.091$  px

$c = 0.569$  px

$x_c = 6.884$  px

$y_c = 7.069$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 67048.8975

Standard deviation: 14.77837

$R^2: 0.99255$

Parameters:

$a = 114.76700$

$b = 1339.68855$

$c = 59.40266$

$d = 0.77009$

## Bead 3286

Date : Mon Oct 17 13:54:14 PDT 2022

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

Frame size : 12 pixels

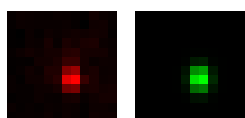
Coordinates : 36.9  $\mu\text{m}$  (x), 25.2  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

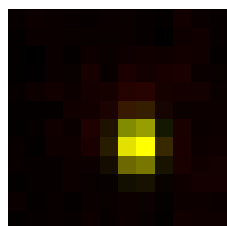
FWHM	Non corrected	Corrected	Theoretical
min	367 nm	382 nm	270 nm
max	466 nm	485 nm	270 nm
z	2.01 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.788		
Theta	-89.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 578.114$  (brightness)

$B = 130.371$  (background)

$a = 0.996$  px

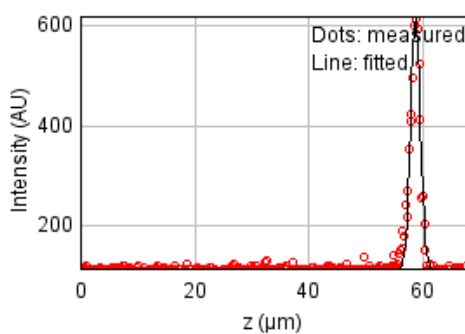
$b = -0.004$  px

$c = 0.619$  px

$x_c = 6.564$  px

$y_c = 6.886$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 45887.1309

Standard deviation: 12.22577

$R^2: 0.97327$

Parameters:

$a = 113.74398$

$b = 617.94439$

$c = 58.74473$

$d = 0.85380$

## Bead 3287 (Rejected)

Date : Mon Oct 17 13:54:14 PDT 2022

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

Frame size : 12 pixels

Coordinates : 38.8  $\mu\text{m}$  (x), 23.8  $\mu\text{m}$  (y), 57.6  $\mu\text{m}$  (z)

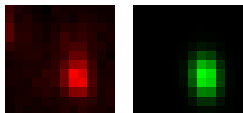
Corresponding bead : Not found

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

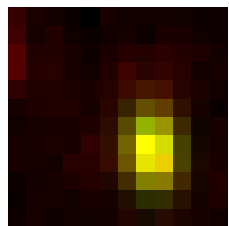
FWHM	Non corrected	Corrected	Theoretical
min	497 nm	518 nm	270 nm
max	761 nm	792 nm	270 nm
z	2.42 $\mu\text{m}$	2.43 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.654		
Theta	-85.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 310.844 (brightness)

B = 135.075 (background)

a = 0.540 px

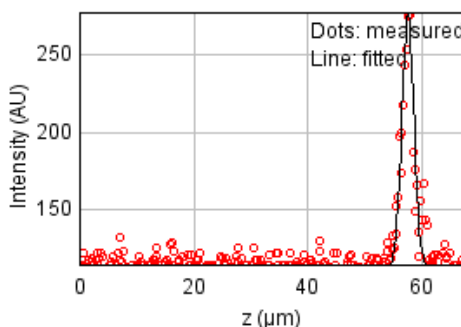
b = -0.026 px

c = 0.234 px

xc = 7.379 px

yc = 7.299 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27417.5053

Standard deviation: 9.45028

$R^2$ : 0.88444

Parameters:

a = 113.97812

b = 277.75689

c = 57.59157

d = 1.02609

## Bead 3288

Date : Mon Oct 17 13:54:15 PDT 2022

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

Frame size : 12 pixels

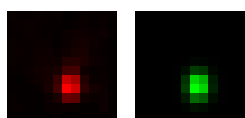
Coordinates : 40.8  $\mu\text{m}$  (x), 21.7  $\mu\text{m}$  (y), 58.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

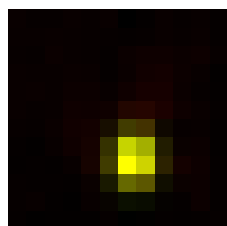
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	422 nm	270 nm
max	500 nm	520 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.811		
Theta	89.7°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.975$



Parameters:

$A = 1115.287$  (brightness)

$B = 133.477$  (background)

$a = 0.818$  px

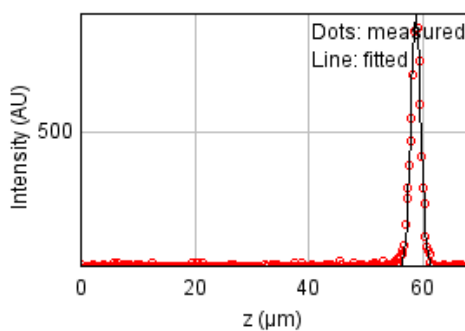
$b = 0.001$  px

$c = 0.538$  px

$x_c = 6.383$  px

$y_c = 7.674$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 42105.0438

Standard deviation: 11.71110

$R^2 = 0.98830$

Parameters:

$a = 113.52341$

$b = 847.32415$

$c = 58.82195$

$d = 0.85827$



## Bead 3289

Date : Mon Oct 17 13:54:15 PDT 2022

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

Frame size : 12 pixels

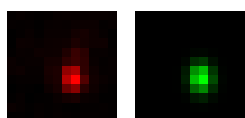
Coordinates : 58.9  $\mu\text{m}$  (x), 19.7  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

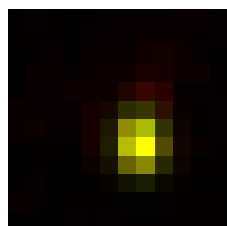
FWHM	Non corrected	Corrected	Theoretical
min	416 nm	434 nm	270 nm
max	536 nm	559 nm	270 nm
z	2.05 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.776		
Theta	-87.1°		

### 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:

$A = 770.499$  (brightness)

$B = 129.240$  (background)

$a = 0.773$  px

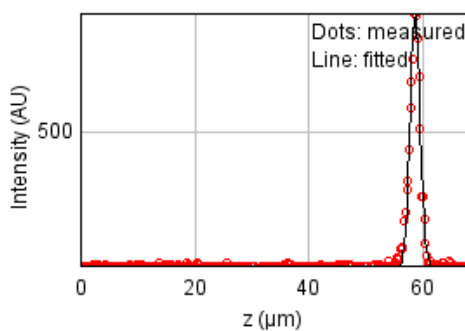
$b = -0.016$  px

$c = 0.467$  px

$x_c = 6.692$  px

$y_c = 6.819$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 45069.4141

Standard deviation: 12.11635

$R^2: 0.98745$

Parameters:

$a = 112.40953$

$b = 839.84260$

$c = 58.67952$

$d = 0.87170$

## Bead 3290

Date : Mon Oct 17 13:54:15 PDT 2022

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

Frame size : 12 pixels

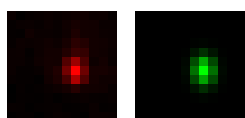
Coordinates : 81.6  $\mu\text{m}$  (x), 17.3  $\mu\text{m}$  (y), 58.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

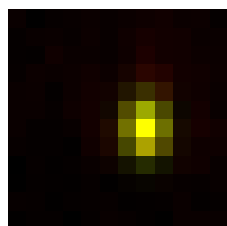
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	421 nm	270 nm
max	556 nm	579 nm	270 nm
z	2.06 $\mu\text{m}$	2.07 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.727		
Theta	-88.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 492.607$  (brightness)

$B = 122.762$  (background)

$a = 0.821$  px

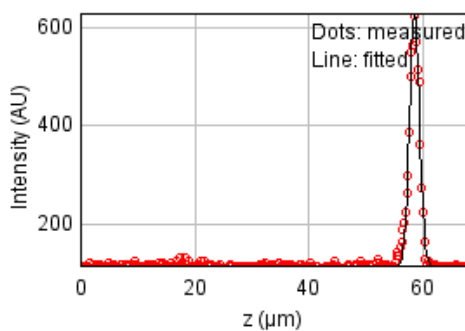
$b = -0.008$  px

$c = 0.435$  px

$x_c = 6.994$  px

$y_c = 5.974$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25710.4001

Standard deviation: 9.15135

$R^2: 0.98587$

Parameters:

$a = 112.90202$

$b = 629.55877$

$c = 58.57651$

$d = 0.87438$

## Bead 3291 (Rejected)

Date : Mon Oct 17 13:54:15 PDT 2022

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

Frame size : 12 pixels

Coordinates : -2.34  $\mu\text{m}$  (x), 16.9  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

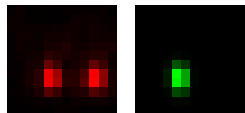
Corresponding bead : Not found

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

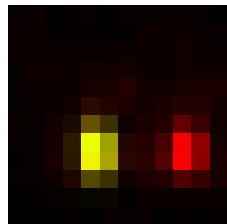
FWHM	Non corrected	Corrected	Theoretical
min	313 nm	326 nm	270 nm
max	475 nm	495 nm	270 nm
z	2.1 $\mu\text{m}$	2.11 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.659		
Theta	-87.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.449$



Parameters:

A = 844.182 (brightness)

B = 171.076 (background)

a = 1.368 px

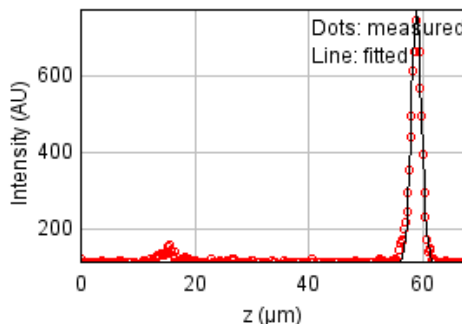
b = -0.032 px

c = 0.596 px

xc = 4.342 px

yc = 7.478 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 53394.6628

Standard deviation: 13.18802

$R^2$ : 0.98235

Parameters:

a = 115.74677

b = 774.03938

c = 58.90844

d = 0.89301

## Bead 3292

Date : Mon Oct 17 13:54:15 PDT 2022

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

Frame size : 12 pixels

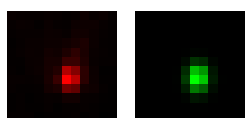
Coordinates : 50.2  $\mu\text{m}$  (x), 16.4  $\mu\text{m}$  (y), 58.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

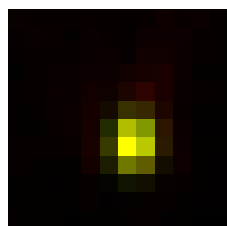
FWHM	Non corrected	Corrected	Theoretical
min	393 nm	410 nm	270 nm
max	504 nm	525 nm	270 nm
z	2.24 $\mu\text{m}$	2.25 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.781		
Theta	88.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1007.207$  (brightness)

$B = 130.658$  (background)

$a = 0.867$  px

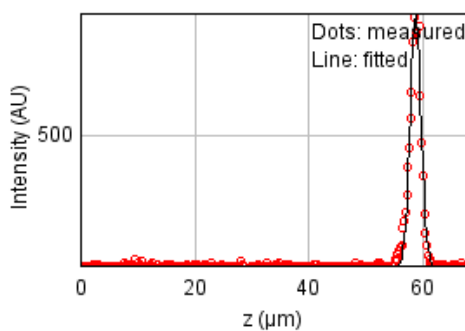
$b = 0.010$  px

$c = 0.529$  px

$x_c = 6.360$  px

$y_c = 6.778$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 63351.8046

Standard deviation: 14.36515

$R^2: 0.98448$

Parameters:

$a = 113.71600$

$b = 856.52494$

$c = 58.76886$

$d = 0.95145$

## Bead 3293

Date : Mon Oct 17 13:54:15 PDT 2022

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

Frame size : 12 pixels

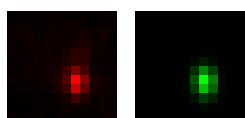
Coordinates : 67.8  $\mu\text{m}$  (x), 12.4  $\mu\text{m}$  (y), 58.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

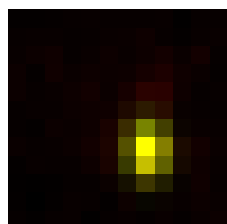
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	397 nm	270 nm
max	531 nm	553 nm	270 nm
z	2.13 $\mu\text{m}$	2.14 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.718		
Theta	-87.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 712.965$  (brightness)

$B = 128.551$  (background)

$a = 0.923$  px

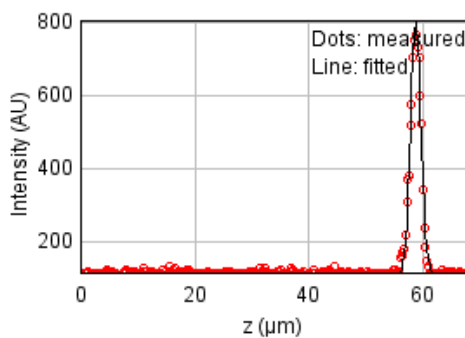
$b = -0.018$  px

$c = 0.477$  px

$x_c = 7.122$  px

$y_c = 7.197$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 39140.8967

Standard deviation: 11.29136

$R^2: 0.98841$

Parameters:

$a = 113.00678$

$b = 806.51328$

$c = 58.79360$

$d = 0.90448$

## Bead 3294 (Rejected)

Date : Mon Oct 17 13:54:15 PDT 2022

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

Frame size : 12 pixels

Coordinates : 21.2 um (x), 11.1 um (y), 58.7 um (z)

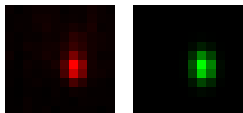
Corresponding bead : Not found

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

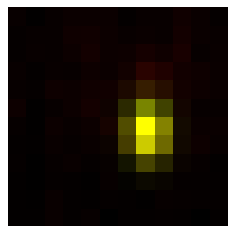
FWHM	Non corrected	Corrected	Theoretical
min	379 nm	395 nm	270 nm
max	552 nm	575 nm	270 nm
z	3.88 um	3.89 um	1.3 um
Asymmetry	0.686		
Theta	-89.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 696.876 (brightness)

B = 127.030 (background)

a = 0.935 px

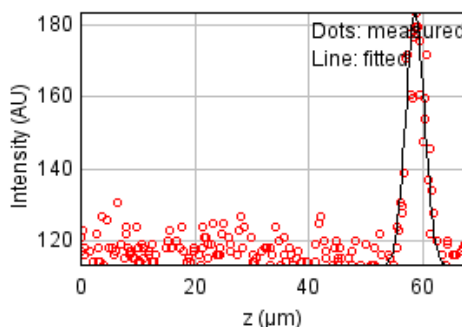
b = -0.008 px

c = 0.440 px

xc = 7.140 px

yc = 6.244 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16729.8306

Standard deviation: 7.38204

$R^2$ : 0.78311

Parameters:

a = 113.00887

b = 183.59597

c = 58.68405

d = 1.64658

## Bead 3295

Date : Mon Oct 17 13:54:15 PDT 2022

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

Frame size : 12 pixels

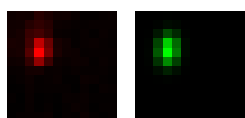
Coordinates : 68.0  $\mu\text{m}$  (x), 9.63  $\mu\text{m}$  (y), 42.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

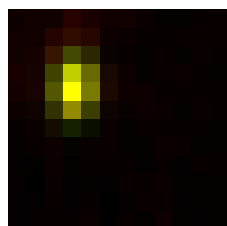
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	400 nm	270 nm
max	572 nm	596 nm	270 nm
z	1.98 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.672		
Theta	86.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 485.002 (brightness)

B = 117.559 (background)

a = 0.907 px

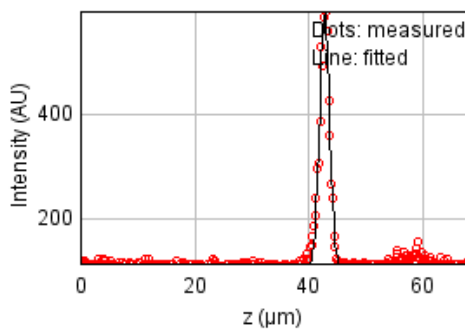
b = 0.028 px

c = 0.412 px

xc = 3.103 px

yc = 3.745 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 38108.5396

Standard deviation: 11.14146

$R^2$ : 0.97526

Parameters:

a = 114.99425

b = 596.40503

c = 42.82803

d = 0.84170

## Bead 3296

Date : Mon Oct 17 13:54:16 PDT 2022

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

Frame size : 12 pixels

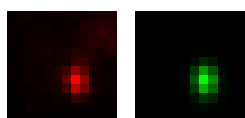
Coordinates : 68.7  $\mu\text{m}$  (x), 8.67  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

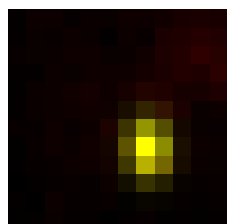
FWHM	Non corrected	Corrected	Theoretical
min	394 nm	410 nm	270 nm
max	546 nm	569 nm	270 nm
z	2.67 $\mu\text{m}$	2.68 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.72		
Theta	-86.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 621.456 (brightness)

B = 134.349 (background)

a = 0.865 px

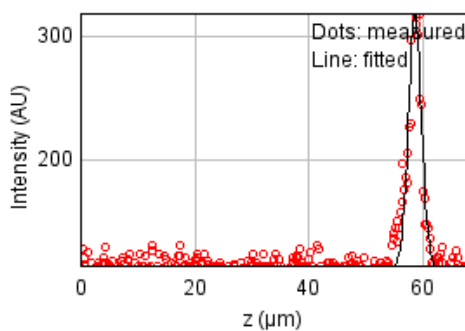
b = -0.025 px

c = 0.451 px

$x_c = 7.154$  px

$y_c = 7.101$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28575.4133

Standard deviation: 9.64777

$R^2$ : 0.92701

Parameters:

a = 113.81395

b = 319.36439

c = 58.65605

d = 1.13335



## Bead 3297

Date : Mon Oct 17 13:54:16 PDT 2022

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

Frame size : 12 pixels

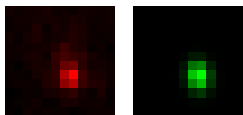
Coordinates : 152  $\mu\text{m}$  (x), 8.44  $\mu\text{m}$  (y), 58.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

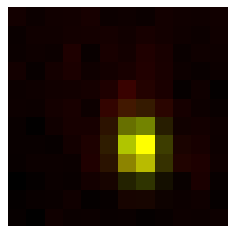
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	416 nm	270 nm
max	530 nm	552 nm	270 nm
z	1.85 $\mu\text{m}$	1.86 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.754		
Theta	-83.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 320.544$  (brightness)

$B = 116.881$  (background)

$a = 0.836$  px

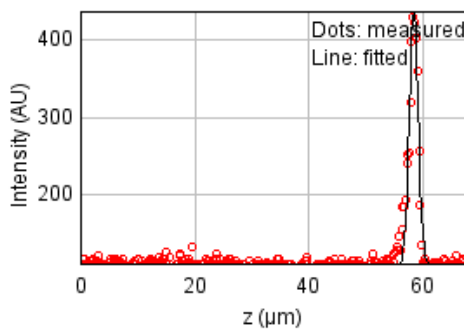
$b = -0.042$  px

$c = 0.483$  px

$x_c = 6.660$  px

$y_c = 7.147$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34289.2601

Standard deviation: 10.56842

$R^2: 0.94954$

Parameters:

$a = 111.05904$

$b = 436.97093$

$c = 58.44820$

$d = 0.78630$

## Bead 3298

Date : Mon Oct 17 13:54:16 PDT 2022

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

Frame size : 12 pixels

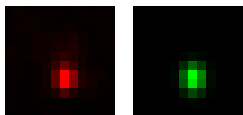
Coordinates : -10.8  $\mu\text{m}$  (x), 7.95  $\mu\text{m}$  (y), 59.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

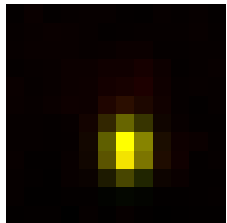
FWHM	Non corrected	Corrected	Theoretical
min	403 nm	420 nm	270 nm
max	505 nm	526 nm	270 nm
z	1.93 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.799		
Theta	-89.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1044.333$  (brightness)

$B = 130.963$  (background)

$a = 0.824$  px

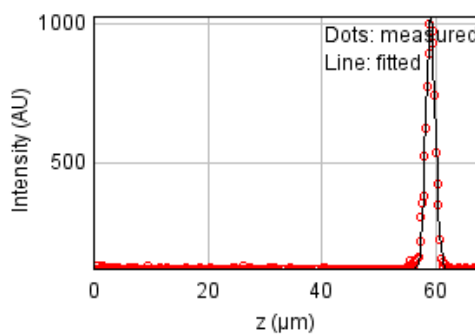
$b = -0.003$  px

$c = 0.526$  px

$x_c = 6.100$  px

$y_c = 7.386$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 45780.0041

Standard deviation: 12.21149

$R^2: 0.99141$

Parameters:

$a = 113.50553$

$b = 1027.68677$

$c = 59.11966$

$d = 0.82021$

## Bead 3299

Date : Mon Oct 17 13:54:16 PDT 2022

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

Frame size : 12 pixels

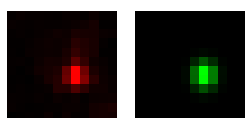
Coordinates : 75.5  $\mu\text{m}$  (x), 7.04  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

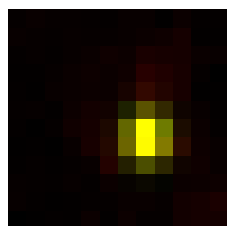
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	422 nm	270 nm
max	483 nm	503 nm	270 nm
z	1.99 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.839		
Theta	-89.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 728.195 (brightness)

B = 134.726 (background)

a = 0.817 px

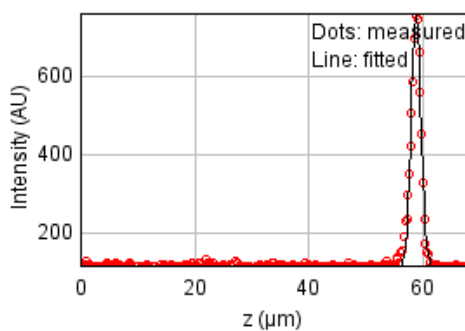
b = -0.002 px

c = 0.575 px

xc = 7.056 px

yc = 6.485 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 32769.8910

Standard deviation: 10.33162

$R^2$ : 0.98815

Parameters:

a = 114.40447

b = 762.61261

c = 58.86068

d = 0.84482

## Bead 3300

Date : Mon Oct 17 13:54:16 PDT 2022

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

Frame size : 12 pixels

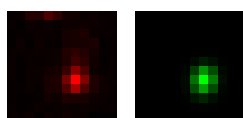
Coordinates : 76.1  $\mu\text{m}$  (x), 5.16  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

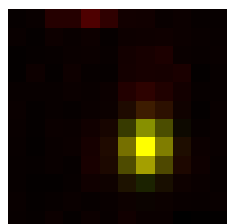
FWHM	Non corrected	Corrected	Theoretical
min	416 nm	434 nm	270 nm
max	509 nm	530 nm	270 nm
z	2.09 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.819		
Theta	80.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 612.307$  (brightness)

$B = 136.612$  (background)

$a = 0.767$  px

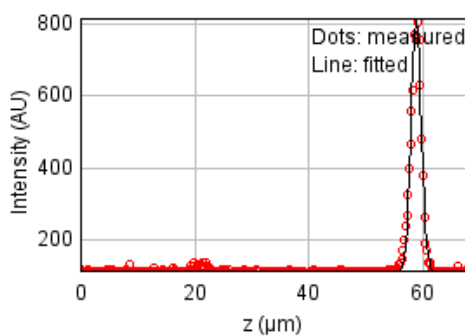
$b = 0.040$  px

$c = 0.525$  px

$x_c = 7.035$  px

$y_c = 7.044$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 45482.2187

Standard deviation: 12.17171

$R^2: 0.98671$

Parameters:

$a = 114.41086$

$b = 818.99246$

$c = 58.86120$

$d = 0.88560$