

## Bead 1201

Date : Mon Oct 17 13:51:57 PDT 2022

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

Frame size : 12 pixels

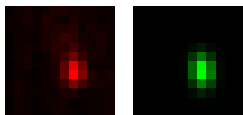
Coordinates : 84.9  $\mu\text{m}$  (x), 24.4  $\mu\text{m}$  (y), 23.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

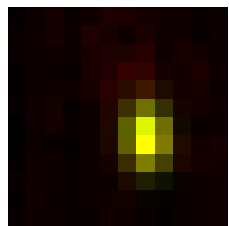
FWHM	Non corrected	Corrected	Theoretical
min	393 nm	409 nm	270 nm
max	605 nm	630 nm	270 nm
z	2.19 $\mu\text{m}$	2.2 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.65		
Theta	-86.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 355.276 (brightness)

B = 119.970 (background)

a = 0.867 px

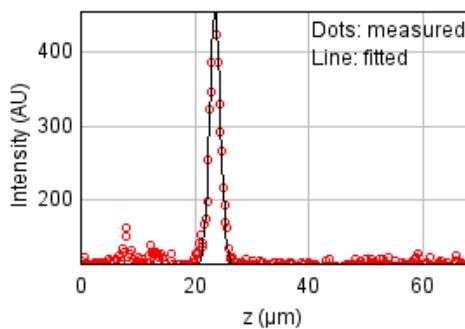
b = -0.033 px

c = 0.369 px

xc = 7.056 px

yc = 6.555 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25932.9568

Standard deviation: 9.19087

$R^2$ : 0.96971

Parameters:

a = 114.50328

b = 455.42424

c = 23.63660

d = 0.93194

## Bead 1202

Date : Mon Oct 17 13:51:57 PDT 2022

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

Frame size : 12 pixels

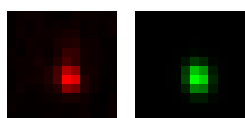
Coordinates : -28.3  $\mu\text{m}$  (x), -19.7  $\mu\text{m}$  (y), 24.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

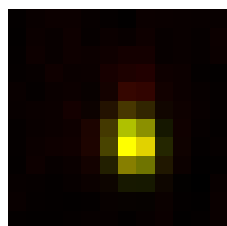
FWHM	Non corrected	Corrected	Theoretical
min	418 nm	435 nm	270 nm
max	529 nm	551 nm	270 nm
z	2.14 $\mu\text{m}$	2.15 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.789		
Theta	-79.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 569.391 (brightness)

B = 123.241 (background)

a = 0.761 px

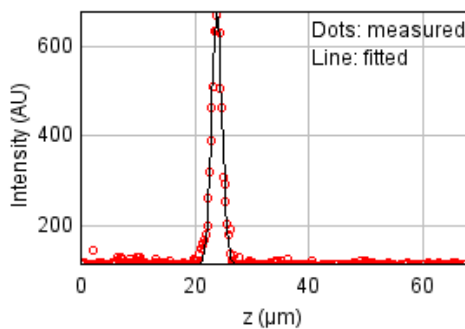
b = -0.051 px

c = 0.488 px

$x_c = 6.359$  px

$y_c = 6.824$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37976.8186

Standard deviation: 11.12218

$R^2$ : 0.98304

Parameters:

a = 114.72474

b = 675.87097

c = 23.95839

d = 0.91088

## Bead 1203

Date : Mon Oct 17 13:51:57 PDT 2022

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

Frame size : 12 pixels

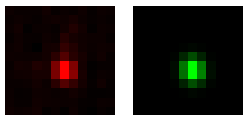
Coordinates : -144  $\mu\text{m}$  (x), -26.0  $\mu\text{m}$  (y), 23.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

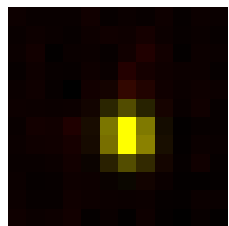
FWHM	Non corrected	Corrected	Theoretical
min	420 nm	438 nm	270 nm
max	475 nm	495 nm	270 nm
z	2.39 $\mu\text{m}$	2.4 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.884		
Theta	-79.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 431.273 (brightness)

B = 119.516 (background)

a = 0.754 px

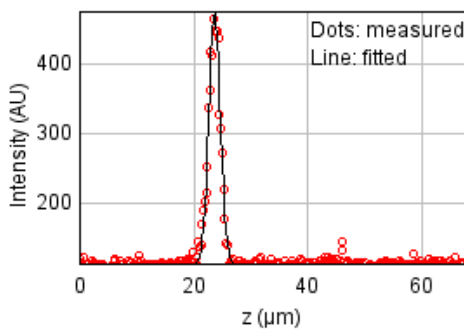
b = -0.030 px

c = 0.600 px

xc = 6.030 px

yc = 6.503 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17847.7952

Standard deviation: 7.62471

$R^2$ : 0.98276

Parameters:

a = 111.73054

b = 474.18803

c = 23.73073

d = 1.01507

## Bead 1204

Date : Mon Oct 17 13:51:57 PDT 2022

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

Frame size : 12 pixels

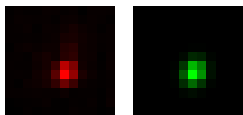
Coordinates : -82.5  $\mu\text{m}$  (x), -27.6  $\mu\text{m}$  (y), 24.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

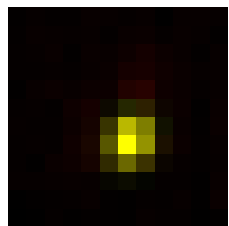
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	413 nm	270 nm
max	481 nm	501 nm	270 nm
z	2.19 $\mu\text{m}$	2.2 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.826		
Theta	69.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 751.463 (brightness)

B = 124.877 (background)

a = 0.817 px

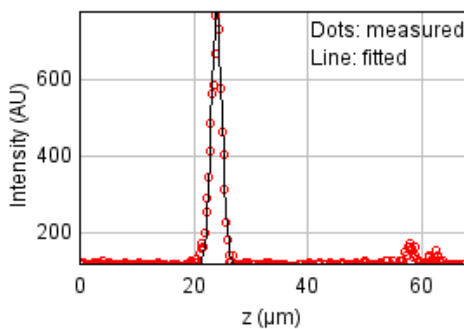
b = 0.091 px

c = 0.616 px

xc = 6.188 px

yc = 6.739 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 71549.1231

Standard deviation: 15.26627

$R^2$ : 0.97771

Parameters:

a = 116.23602

b = 779.24741

c = 24.10357

d = 0.93144

## Bead 1205

Date : Mon Oct 17 13:51:57 PDT 2022

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

Frame size : 12 pixels

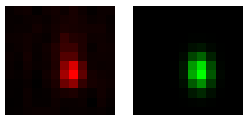
Coordinates : 117  $\mu\text{m}$  (x), -27.3  $\mu\text{m}$  (y), 24.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

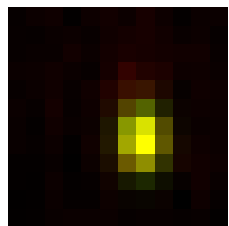
FWHM	Non corrected	Corrected	Theoretical
min	422 nm	440 nm	270 nm
max	617 nm	642 nm	270 nm
z	2.13 $\mu\text{m}$	2.14 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.685		
Theta	-87.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 454.005 (brightness)

B = 119.851 (background)

a = 0.753 px

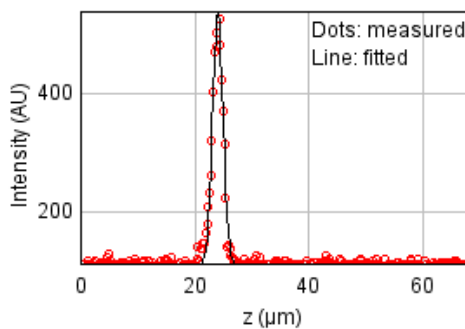
b = -0.014 px

c = 0.354 px

$x_c = 6.777$  px

$y_c = 6.662$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22791.8626

Standard deviation: 8.61630

$R^2$ : 0.98226

Parameters:

a = 112.65839

b = 538.55125

c = 24.12238

d = 0.90638

## Bead 1206

Date : Mon Oct 17 13:51:57 PDT 2022

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

Frame size : 12 pixels

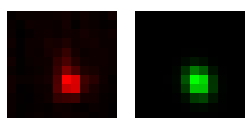
Coordinates : 98.9  $\mu\text{m}$  (x), -29.7  $\mu\text{m}$  (y), 24.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

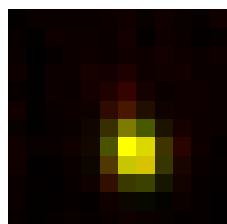
FWHM	Non corrected	Corrected	Theoretical
min	445 nm	464 nm	270 nm
max	539 nm	561 nm	270 nm
z	2.0 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.827		
Theta	-66.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 514.586$  (brightness)

$B = 120.242$  (background)

$a = 0.644$  px

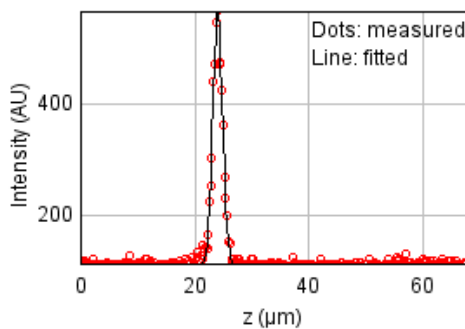
$b = -0.078$  px

$c = 0.496$  px

$x_c = 6.407$  px

$y_c = 7.307$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22686.1622

Standard deviation: 8.59630

$R^2: 0.98344$

Parameters:

$a = 113.10631$

$b = 567.39848$

$c = 24.10008$

$d = 0.84760$

## Bead 1207

Date : Mon Oct 17 13:51:57 PDT 2022

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

Frame size : 12 pixels

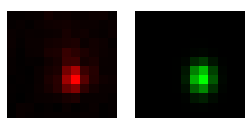
Coordinates : 60.4  $\mu\text{m}$  (x), -45.0  $\mu\text{m}$  (y), 24.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

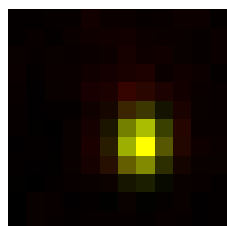
FWHM	Non corrected	Corrected	Theoretical
min	429 nm	446 nm	270 nm
max	540 nm	562 nm	270 nm
z	2.01 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.794		
Theta	89.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 511.384$  (brightness)

$B = 123.124$  (background)

$a = 0.730$  px

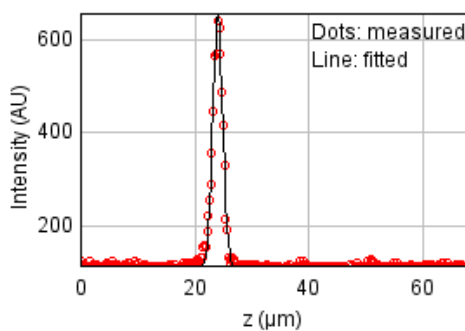
$b = 0.002$  px

$c = 0.461$  px

$x_c = 6.761$  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: 25094.8134

Standard deviation: 9.04113

$R^2: 0.98736$

Parameters:

$a = 112.71185$

$b = 658.89349$

$c = 24.11444$

$d = 0.85340$

## Bead 1208

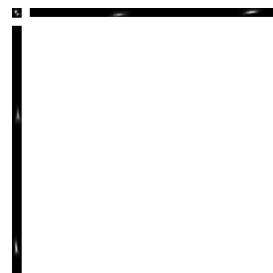
Date : Mon Oct 17 13:51:57 PDT 2022

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

Frame size : 12 pixels

Coordinates : -17.1  $\mu\text{m}$  (x), -53.0  $\mu\text{m}$  (y), 24.0  $\mu\text{m}$  (z)

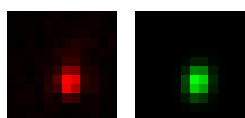
Corresponding bead : Not found



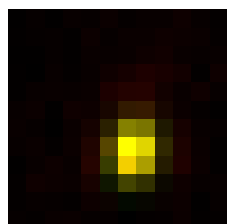
FWHM	Non corrected	Corrected	Theoretical
min	423 nm	441 nm	270 nm
max	550 nm	573 nm	270 nm
z	2.2 $\mu\text{m}$	2.21 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.77		
Theta	82.2°		

### 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:

$A = 583.188$  (brightness)

$B = 123.394$  (background)

$a = 0.743$  px

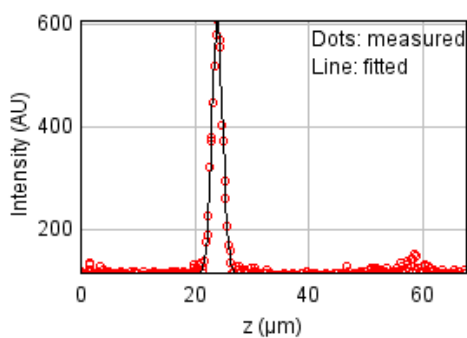
$b = 0.041$  px

$c = 0.449$  px

$x_c = 6.363$  px

$y_c = 7.231$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31903.4973

Standard deviation: 10.19413

$R^2: 0.98195$

Parameters:

$a = 115.49829$

$b = 607.36502$

$c = 24.03595$

$d = 0.93635$



## Bead 1209

Date : Mon Oct 17 13:51:58 PDT 2022

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

Frame size : 12 pixels

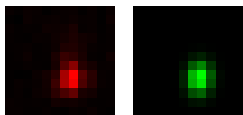
Coordinates : 24.1  $\mu\text{m}$  (x), -55.9  $\mu\text{m}$  (y), 24.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

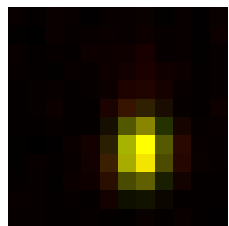
FWHM	Non corrected	Corrected	Theoretical
min	436 nm	454 nm	270 nm
max	595 nm	619 nm	270 nm
z	1.8 $\mu\text{m}$	1.81 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.734		
Theta	84.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 601.025 (brightness)

B = 124.838 (background)

a = 0.702 px

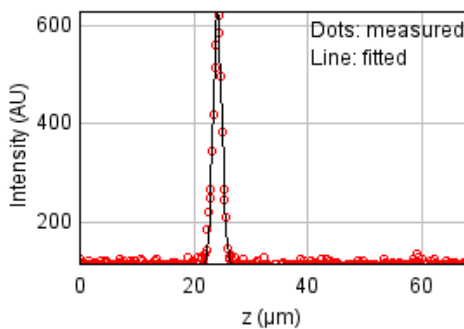
b = 0.030 px

c = 0.382 px

xc = 6.737 px

yc = 7.379 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26393.0087

Standard deviation: 9.27204

$R^2$ : 0.98357

Parameters:

a = 113.46081

b = 630.66751

c = 24.25263

d = 0.76347

## Bead 1210

Date : Mon Oct 17 13:51:58 PDT 2022

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

Frame size : 12 pixels

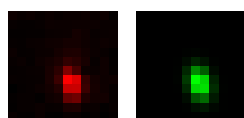
Coordinates : 71.6  $\mu\text{m}$  (x), -73.5  $\mu\text{m}$  (y), 24.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

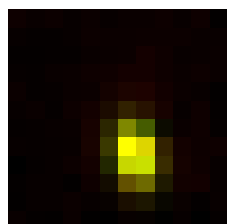
FWHM	Non corrected	Corrected	Theoretical
min	394 nm	410 nm	270 nm
max	600 nm	625 nm	270 nm
z	1.88 $\mu\text{m}$	1.89 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.657		
Theta	-76.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 608.285 (brightness)

B = 122.880 (background)

a = 0.838 px

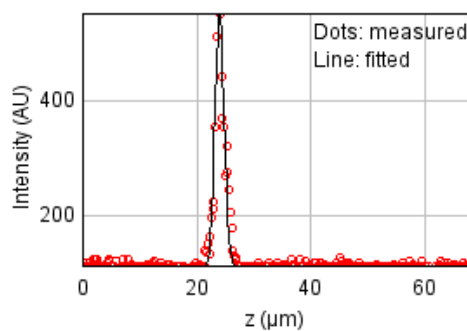
b = -0.111 px

c = 0.399 px

$x_c = 6.446$  px

$y_c = 7.407$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 90098.0047

Standard deviation: 17.13122

$R^2$ : 0.92981

Parameters:

a = 114.07665

b = 554.06744

c = 24.08271

d = 0.79858

## Bead 1211

Date : Mon Oct 17 13:51:58 PDT 2022

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

Frame size : 12 pixels

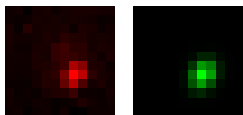
Coordinates : 127 µm (x), -93.8 µm (y), 23.8 µm (z)

Corresponding bead : Not found

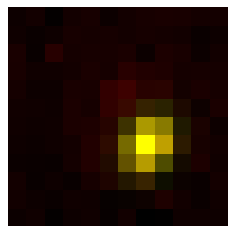
FWHM	Non corrected	Corrected	Theoretical
min	427 nm	445 nm	270 nm
max	551 nm	574 nm	270 nm
z	1.99 µm	2.0 µm	1.3 µm
Asymmetry	0.775		
Theta	62.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 323.383 (brightness)

B = 118.890 (background)

a = 0.674 px

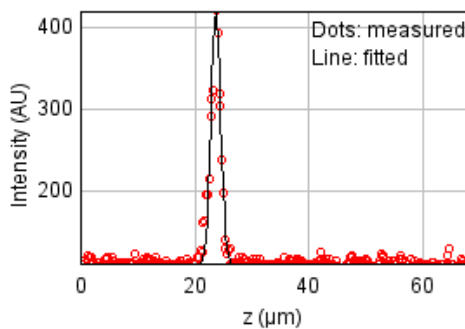
b = 0.120 px

c = 0.503 px

xc = 7.158 px

yc = 6.969 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27250.6154

Standard deviation: 9.42148

$R^2$ : 0.95773

Parameters:

a = 111.48284

b = 419.28386

c = 23.77720

d = 0.84639

## Bead 1212 (Rejected)

Date : Mon Oct 17 13:51:58 PDT 2022

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

Frame size : 12 pixels

Coordinates : 62.0  $\mu\text{m}$  (x), 64.5  $\mu\text{m}$  (y), 21.6  $\mu\text{m}$  (z)

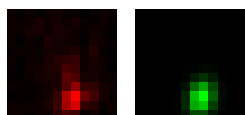
Corresponding bead : Not found

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

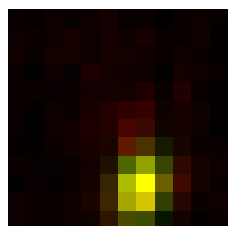
FWHM	Non corrected	Corrected	Theoretical
min	446 nm	465 nm	270 nm
max	627 nm	653 nm	270 nm
z	3.95 $\mu\text{m}$	3.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.712		
Theta	76.8°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.887$



Parameters:

A = 282.010 (brightness)

B = 122.270 (background)

a = 0.656 px

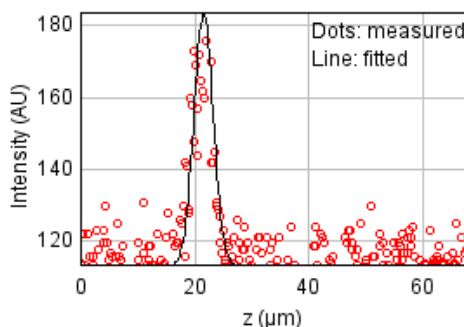
b = 0.074 px

c = 0.359 px

xc = 6.716 px

yc = 9.200 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19681.5540

Standard deviation: 8.00683

$R^2$ : 0.75632

Parameters:

a = 113.22179

b = 183.59613

c = 21.62968

d = 1.67827

## Bead 1213

Date : Mon Oct 17 13:51:58 PDT 2022

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

Frame size : 12 pixels

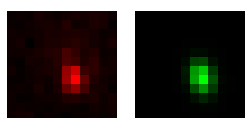
Coordinates : 56.5  $\mu\text{m}$  (x), 49.2  $\mu\text{m}$  (y), 23.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

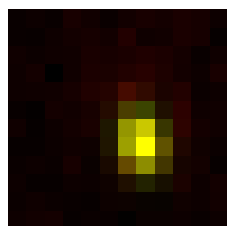
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	421 nm	270 nm
max	580 nm	604 nm	270 nm
z	2.08 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.698		
Theta	-77.4°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.930$



Parameters:

$A = 315.496$  (brightness)

$B = 122.458$  (background)

$a = 0.800$  px

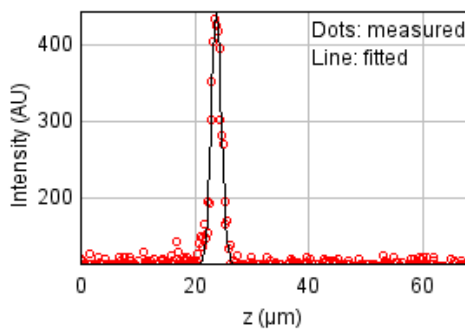
$b = -0.089$  px

$c = 0.419$  px

$x_c = 6.763$  px

$y_c = 6.739$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22613.0408

Standard deviation: 8.58243

$R^2: 0.97079$

Parameters:

$a = 113.82641$

$b = 446.76981$

$c = 23.86521$

$d = 0.88216$

## Bead 1214

Date : Mon Oct 17 13:51:59 PDT 2022

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

Frame size : 12 pixels

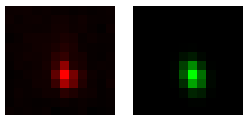
Coordinates : 14.8  $\mu\text{m}$  (x), 24.3  $\mu\text{m}$  (y), 24.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

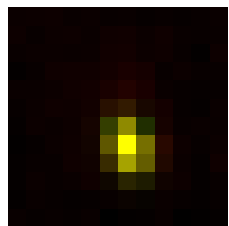
FWHM	Non corrected	Corrected	Theoretical
min	367 nm	382 nm	270 nm
max	523 nm	544 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.702		
Theta	-73.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 581.531 (brightness)

B = 125.428 (background)

a = 0.955 px

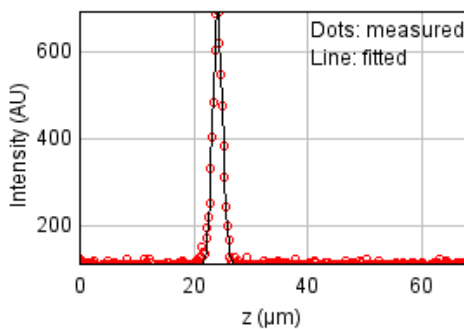
b = -0.137 px

c = 0.531 px

$x_c = 6.079$  px

$y_c = 7.099$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17848.1219

Standard deviation: 7.62478

$R^2$ : 0.99195

Parameters:

a = 113.62746

b = 693.35437

c = 24.26496

d = 0.85004

## Bead 1215

Date : Mon Oct 17 13:51:59 PDT 2022

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

Frame size : 12 pixels

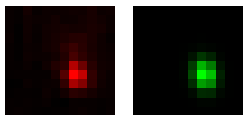
Coordinates : 122 µm (x), 21.0 µm (y), 24.4 µm (z)

Corresponding bead : Not found

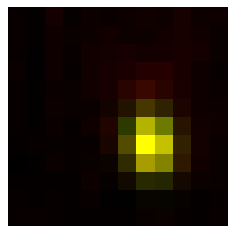
FWHM	Non corrected	Corrected	Theoretical
min	420 nm	438 nm	270 nm
max	568 nm	592 nm	270 nm
z	2.28 µm	2.29 µm	1.3 µm
Asymmetry	0.74		
Theta	-82.0°		

### 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 = 516.602 (brightness)

B = 123.108 (background)

a = 0.753 px

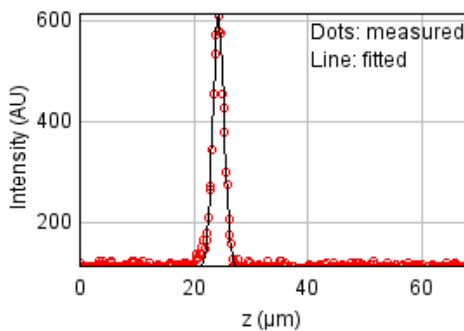
b = -0.048 px

c = 0.422 px

xc = 7.313 px

yc = 6.956 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26175.2011

Standard deviation: 9.23370

$R^2$ : 0.98618

Parameters:

a = 111.75719

b = 614.19895

c = 24.39889

d = 0.96717

## Bead 1216

Date : Mon Oct 17 13:51:59 PDT 2022

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

Frame size : 12 pixels

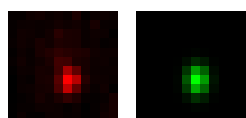
Coordinates : 140  $\mu\text{m}$  (x), 321 nm (y), 24.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

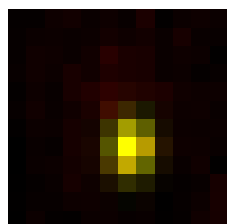
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	427 nm	270 nm
max	546 nm	569 nm	270 nm
z	2.06 $\mu\text{m}$	2.07 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.75		
Theta	89.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 390.796$  (brightness)

$B = 119.754$  (background)

$a = 0.798$  px

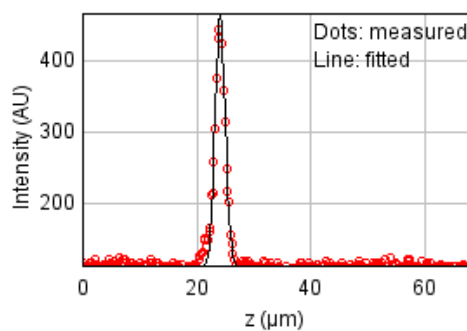
$b = 0.004$  px

$c = 0.450$  px

$xc = 6.185$  px

$yc = 7.039$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18100.8995

Standard deviation: 7.67858

$R^2: 0.97905$

Parameters:

$a = 111.82317$

$b = 466.70116$

$c = 24.18802$

$d = 0.87364$



## Bead 1217

Date : Mon Oct 17 13:51:59 PDT 2022

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

Frame size : 12 pixels

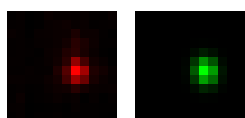
Coordinates : -18.7  $\mu\text{m}$  (x), -55.3  $\mu\text{m}$  (y), 24.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

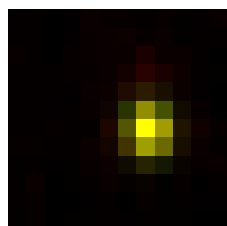
FWHM	Non corrected	Corrected	Theoretical
min	414 nm	431 nm	270 nm
max	507 nm	528 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.817		
Theta	-83.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 666.217 (brightness)

B = 121.918 (background)

a = 0.779 px

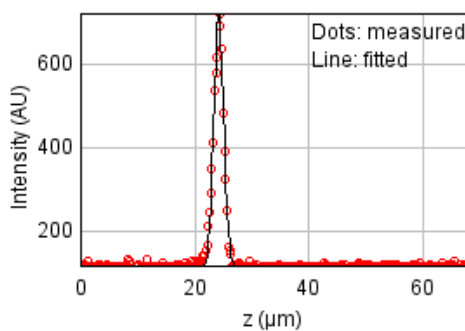
b = -0.029 px

c = 0.526 px

xc = 7.188 px

yc = 6.066 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29499.1866

Standard deviation: 9.80248

$R^2$ : 0.98807

Parameters:

a = 114.14368

b = 725.24468

c = 24.28355

d = 0.85006

## Bead 1218

Date : Mon Oct 17 13:51:59 PDT 2022

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

Frame size : 12 pixels

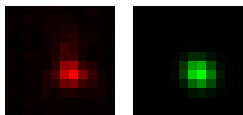
Coordinates : 30.5  $\mu\text{m}$  (x), -72.9  $\mu\text{m}$  (y), 24.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

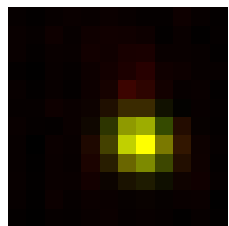
FWHM	Non corrected	Corrected	Theoretical
min	499 nm	520 nm	270 nm
max	551 nm	574 nm	270 nm
z	1.93 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.905		
Theta	-37.0°		

### 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 = 436.065 (brightness)

B = 121.702 (background)

a = 0.477 px

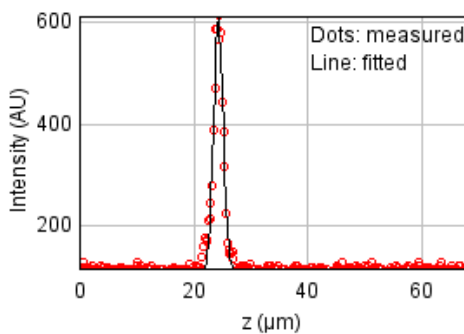
b = -0.047 px

c = 0.504 px

xc = 6.701 px

yc = 6.859 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 33586.0376

Standard deviation: 10.45948

$R^2$ : 0.97894

Parameters:

a = 114.08972

b = 611.24939

c = 24.40102

d = 0.81902

## Bead 1219

Date : Mon Oct 17 13:51:59 PDT 2022

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

Frame size : 12 pixels

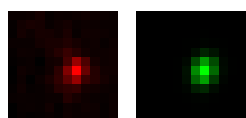
Coordinates : 143  $\mu\text{m}$  (x), -74.7  $\mu\text{m}$  (y), 24.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

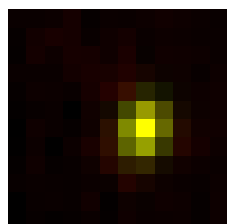
FWHM	Non corrected	Corrected	Theoretical
min	416 nm	434 nm	270 nm
max	536 nm	558 nm	270 nm
z	1.39 $\mu\text{m}$	1.39 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.777		
Theta	75.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 359.581 (brightness)

B = 118.392 (background)

a = 0.755 px

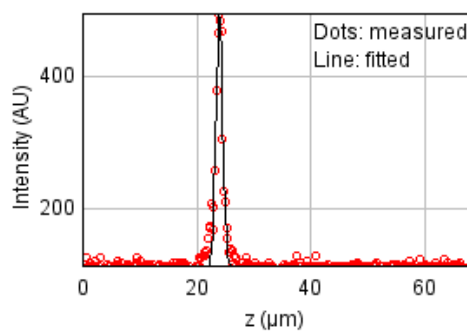
b = 0.074 px

c = 0.486 px

xc = 6.904 px

yc = 6.032 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 38889.1572

Standard deviation: 11.25499

$R^2$ : 0.94688

Parameters:

a = 111.41961

b = 499.61447

c = 24.05008

d = 0.58914

## Bead 1220 (Rejected)

Date : Mon Oct 17 13:51:59 PDT 2022

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

Frame size : 12 pixels

Coordinates : -90.7  $\mu\text{m}$  (x), -84.0  $\mu\text{m}$  (y), 24.2  $\mu\text{m}$  (z)

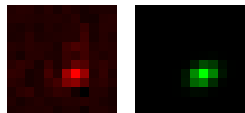
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

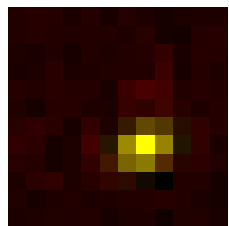
FWHM	Non corrected	Corrected	Theoretical
min	349 nm	364 nm	270 nm
max	497 nm	518 nm	270 nm
z	2.04 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.703		
Theta	24.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.880$



Parameters:

A = 212.185 (brightness)

B = 117.252 (background)

a = 0.639 px

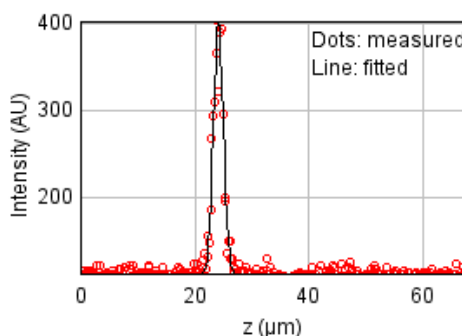
b = 0.210 px

c = 1.003 px

xc = 6.930 px

yc = 7.148 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29496.3509

Standard deviation: 9.80201

$R^2$ : 0.94988

Parameters:

a = 113.09961

b = 402.79706

c = 24.22627

d = 0.86596

## Bead 1221 (Rejected)

Date : Mon Oct 17 13:51:59 PDT 2022

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

Frame size : 12 pixels

Coordinates : 162  $\mu\text{m}$  (x), -87.0  $\mu\text{m}$  (y), 23.6  $\mu\text{m}$  (z)

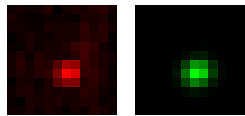
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	455 nm	474 nm	270 nm
max	520 nm	542 nm	270 nm
z	2.61 $\mu\text{m}$	2.62 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.875		
Theta	19.6°		

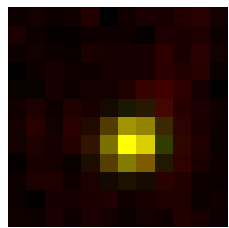
### XY profile & fitting parameters :

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



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

$R^2 = 0.894$



Parameters:

$A = 144.318$  (brightness)

$B = 112.872$  (background)

$a = 0.513$  px

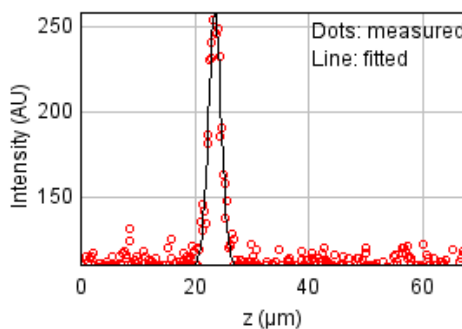
$b = 0.048$  px

$c = 0.631$  px

$xc = 6.300$  px

$yc = 6.908$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 13433.2686

Standard deviation: 6.61488

$R^2 = 0.93289$

Parameters:

$a = 109.66340$

$b = 258.72150$

$c = 23.60894$

$d = 1.10736$

## Bead 1222

Date : Mon Oct 17 13:51:59 PDT 2022

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

Frame size : 12 pixels

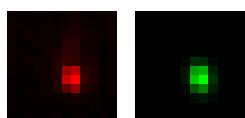
Coordinates : -108  $\mu\text{m}$  (x), 84.6  $\mu\text{m}$  (y), 24.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

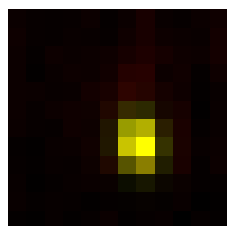
FWHM	Non corrected	Corrected	Theoretical
min	374 nm	389 nm	270 nm
max	504 nm	525 nm	270 nm
z	2.1 $\mu\text{m}$	2.1 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.741		
Theta	-80.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 560.950 (brightness)

B = 123.406 (background)

a = 0.948 px

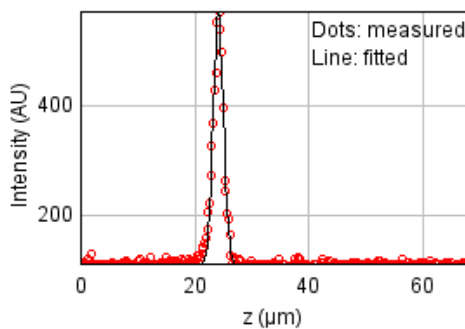
b = -0.073 px

c = 0.540 px

xc = 6.624 px

yc = 6.798 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28693.8717

Standard deviation: 9.66775

$R^2$ : 0.98050

Parameters:

a = 112.27998

b = 571.72032

c = 24.21272

d = 0.88978

## Bead 1223

Date : Mon Oct 17 13:52:00 PDT 2022

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

Frame size : 12 pixels

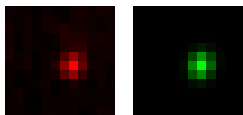
Coordinates : -128  $\mu\text{m}$  (x), 72.9  $\mu\text{m}$  (y), 24.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

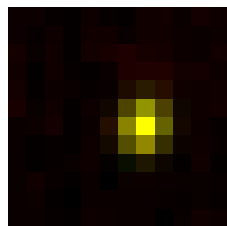
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	420 nm	270 nm
max	485 nm	506 nm	270 nm
z	2.23 $\mu\text{m}$	2.24 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.831		
Theta	75.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 362.094 (brightness)

B = 119.631 (background)

a = 0.808 px

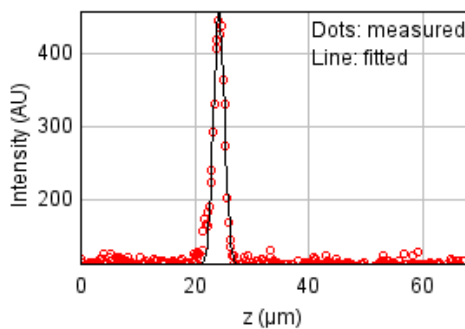
b = 0.061 px

c = 0.585 px

xc = 6.912 px

yc = 5.968 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26017.2604

Standard deviation: 9.20580

$R^2$ : 0.97116

Parameters:

a = 111.90533

b = 459.62435

c = 24.33640

d = 0.94607

## Bead 1224

Date : Mon Oct 17 13:52:00 PDT 2022

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

Frame size : 12 pixels

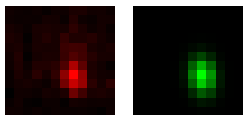
Coordinates : -83.8  $\mu\text{m}$  (x), 71.4  $\mu\text{m}$  (y), 23.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

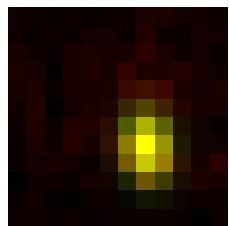
FWHM	Non corrected	Corrected	Theoretical
min	459 nm	478 nm	270 nm
max	674 nm	702 nm	270 nm
z	2.61 $\mu\text{m}$	2.62 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.681		
Theta	-83.8°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.915$



Parameters:

A = 241.621 (brightness)

B = 120.225 (background)

a = 0.632 px

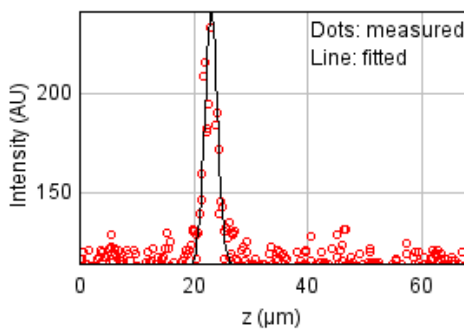
b = -0.037 px

c = 0.299 px

$x_c = 7.077$  px

$y_c = 7.113$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 21473.4836

Standard deviation: 8.36338

$R^2$ : 0.86492

Parameters:

a = 113.70586

b = 241.48199

c = 23.13633

d = 1.10973



## Bead 1225

Date : Mon Oct 17 13:52:00 PDT 2022

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

Frame size : 12 pixels

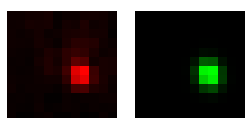
Coordinates : -44.5  $\mu\text{m}$  (x), 46.2  $\mu\text{m}$  (y), 24.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

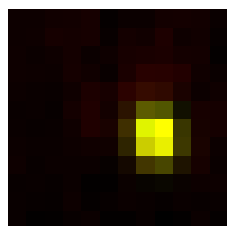
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	423 nm	270 nm
max	486 nm	506 nm	270 nm
z	2.09 $\mu\text{m}$	2.1 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.835		
Theta	-76.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 554.776 (brightness)

B = 126.092 (background)

a = 0.801 px

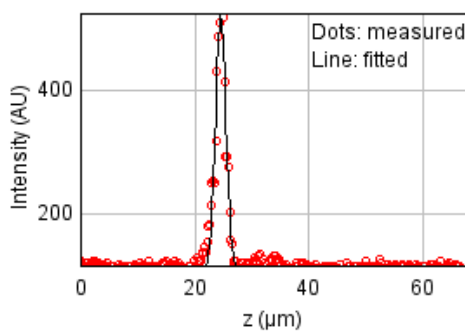
b = -0.054 px

c = 0.580 px

xc = 7.555 px

yc = 6.402 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37490.7008

Standard deviation: 11.05077

$R^2$ : 0.96812

Parameters:

a = 114.99151

b = 523.42805

c = 24.62445

d = 0.88826

## Bead 1226

Date : Mon Oct 17 13:52:00 PDT 2022

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

Frame size : 12 pixels

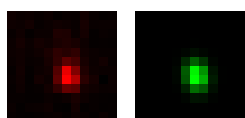
Coordinates : -9.63  $\mu\text{m}$  (x), 14.7  $\mu\text{m}$  (y), 24.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

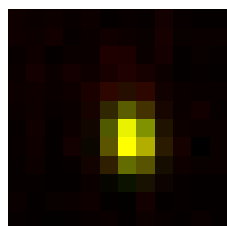
FWHM	Non corrected	Corrected	Theoretical
min	420 nm	438 nm	270 nm
max	549 nm	572 nm	270 nm
z	2.3 $\mu\text{m}$	2.31 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.765		
Theta	-78.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 446.375$  (brightness)

$B = 121.578$  (background)

$a = 0.747$  px

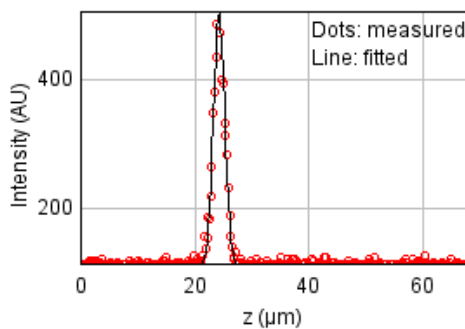
$b = -0.063$  px

$c = 0.458$  px

$x_c = 6.210$  px

$y_c = 6.584$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20177.2889

Standard deviation: 8.10704

$R^2: 0.98272$

Parameters:

$a = 113.68712$

$b = 505.94827$

$c = 24.34419$

$d = 0.97562$

## Bead 1227

Date : Mon Oct 17 13:52:00 PDT 2022

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

Frame size : 12 pixels

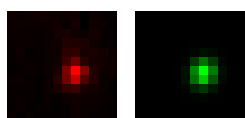
Coordinates : 62.9  $\mu\text{m}$  (x), 7.53  $\mu\text{m}$  (y), 24.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

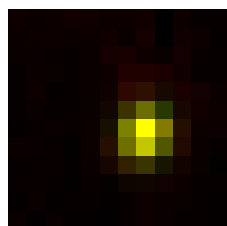
FWHM	Non corrected	Corrected	Theoretical
min	431 nm	449 nm	270 nm
max	502 nm	523 nm	270 nm
z	1.77 $\mu\text{m}$	1.78 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.859		
Theta	75.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 461.944 (brightness)

B = 118.061 (background)

a = 0.710 px

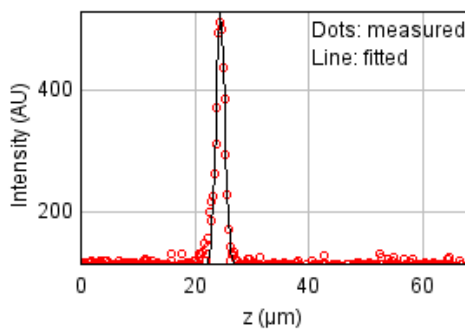
b = 0.046 px

c = 0.545 px

xc = 6.958 px

yc = 6.277 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31946.6851

Standard deviation: 10.20102

$R^2$ : 0.96966

Parameters:

a = 113.67787

b = 532.37944

c = 24.57645

d = 0.75257

## Bead 1228

Date : Mon Oct 17 13:52:00 PDT 2022

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

Frame size : 12 pixels

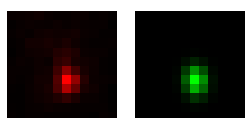
Coordinates : 52.8  $\mu\text{m}$  (x), -20.4  $\mu\text{m}$  (y), 24.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

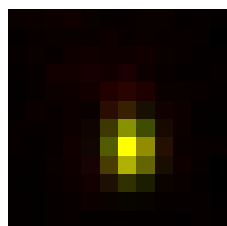
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	423 nm	270 nm
max	535 nm	557 nm	270 nm
z	2.04 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.759		
Theta	-85.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 582.807 (brightness)

B = 123.305 (background)

a = 0.811 px

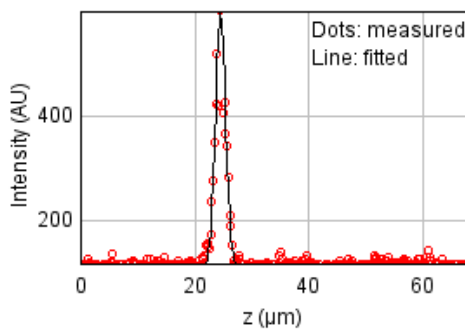
b = -0.025 px

c = 0.471 px

xc = 6.132 px

yc = 7.110 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 74212.4509

Standard deviation: 15.54781

$R^2$ : 0.95455

Parameters:

a = 116.00465

b = 599.43193

c = 24.59600

d = 0.86720

## Bead 1229 (Rejected)

Date : Mon Oct 17 13:52:01 PDT 2022

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

Frame size : 12 pixels

Coordinates : 65.3  $\mu\text{m}$  (x), -30.0  $\mu\text{m}$  (y), 7.67  $\mu\text{m}$  (z)

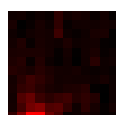
Corresponding bead : Not found

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	3.29 $\mu\text{m}$	3.3 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

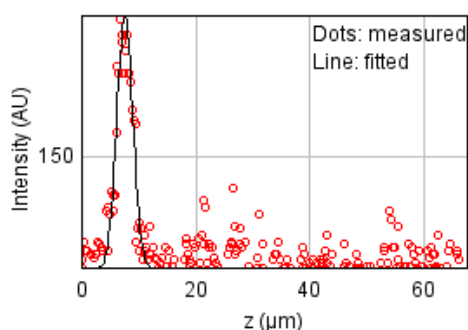
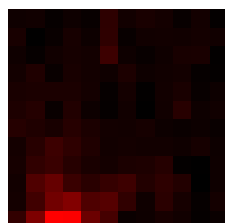
### XY profile & fitting parameters :

(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: 15192.9731

Standard deviation: 7.03481

R<sup>2</sup>: 0.81825

Parameters:

a = 114.14269

b = 195.10385

c = 7.66560

d = 1.39742

## Bead 1230

Date : Mon Oct 17 13:52:01 PDT 2022

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

Frame size : 12 pixels

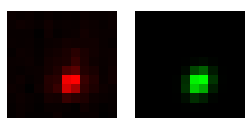
Coordinates : -66.8  $\mu\text{m}$  (x), -36.9  $\mu\text{m}$  (y), 24.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

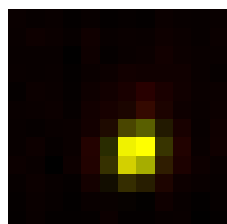
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	465 nm	484 nm	270 nm
z	2.28 $\mu\text{m}$	2.29 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.833		
Theta	58.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 650.637$  (brightness)

$B = 124.683$  (background)

$a = 0.821$  px

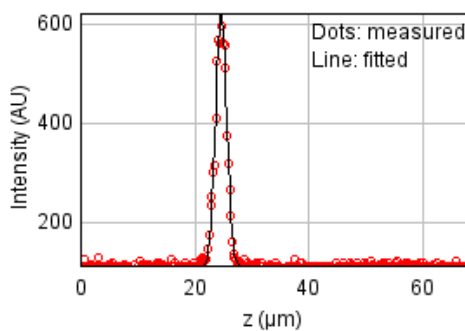
$b = 0.121$  px

$c = 0.693$  px

$xc = 6.489$  px

$yc = 7.307$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22852.2695

Standard deviation: 8.62771

$R^2: 0.98822$

Parameters:

$a = 112.54424$

$b = 621.03931$

$c = 24.69600$

$d = 0.96940$

## Bead 1231

Date : Mon Oct 17 13:52:01 PDT 2022

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

Frame size : 12 pixels

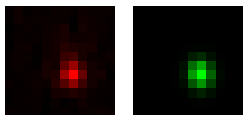
Coordinates : 5.47  $\mu\text{m}$  (x), -49.8  $\mu\text{m}$  (y), 24.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

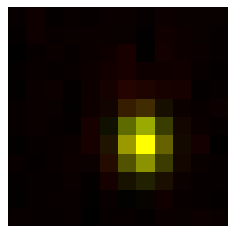
FWHM	Non corrected	Corrected	Theoretical
min	425 nm	442 nm	270 nm
max	530 nm	552 nm	270 nm
z	1.99 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.801		
Theta	-83.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 484.138$  (brightness)

$B = 122.018$  (background)

$a = 0.741$  px

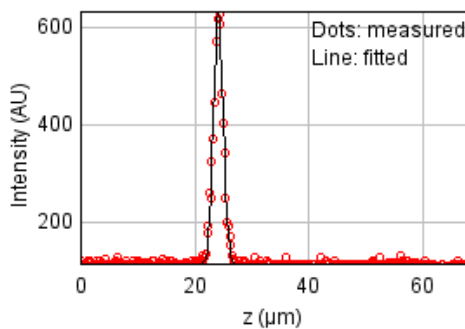
$b = -0.028$  px

$c = 0.480$  px

$x_c = 6.845$  px

$y_c = 6.914$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26947.2322

Standard deviation: 9.36888

$R^2 = 0.98472$

Parameters:

$a = 114.50421$

$b = 631.19354$

$c = 24.21308$

$d = 0.84503$

## Bead 1232

Date : Mon Oct 17 13:52:01 PDT 2022

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

Frame size : 12 pixels

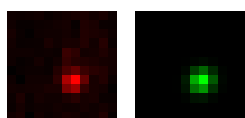
Coordinates : -145  $\mu\text{m}$  (x), -52.1  $\mu\text{m}$  (y), 24.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

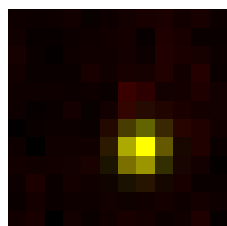
FWHM	Non corrected	Corrected	Theoretical
min	412 nm	429 nm	270 nm
max	445 nm	463 nm	270 nm
z	1.91 $\mu\text{m}$	1.92 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.927		
Theta	44.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 225.694 (brightness)

B = 116.072 (background)

a = 0.735 px

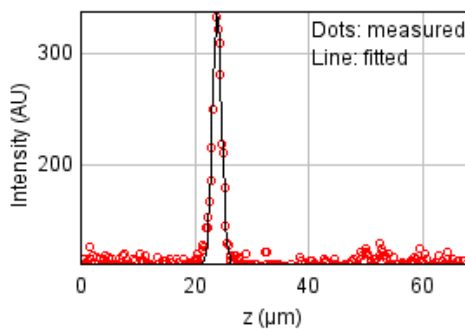
b = 0.056 px

c = 0.735 px

xc = 6.764 px

yc = 7.153 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 14833.8212

Standard deviation: 6.95116

$R^2$ : 0.95553

Parameters:

a = 111.83594

b = 337.65489

c = 23.99551

d = 0.81018



## Bead 1233

Date : Mon Oct 17 13:52:02 PDT 2022

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

Frame size : 12 pixels

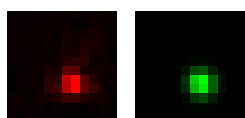
Coordinates : -48.0  $\mu\text{m}$  (x), -54.8  $\mu\text{m}$  (y), 24.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

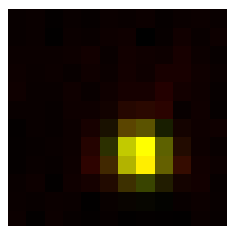
FWHM	Non corrected	Corrected	Theoretical
min	464 nm	483 nm	270 nm
max	485 nm	505 nm	270 nm
z	1.97 $\mu\text{m}$	1.98 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.955		
Theta	-46.6°		

### 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:

$A = 467.121$  (brightness)

$B = 122.591$  (background)

$a = 0.599$  px

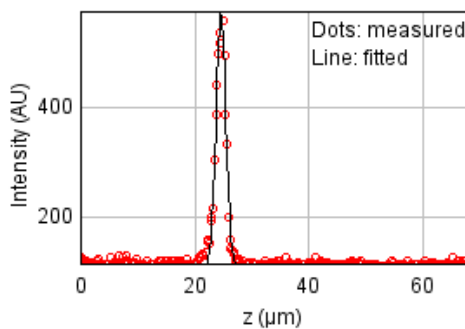
$b = -0.027$  px

$c = 0.596$  px

$x_c = 6.715$  px

$y_c = 7.430$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28671.7002

Standard deviation: 9.66401

$R^2: 0.97961$

Parameters:

$a = 112.61944$

$b = 575.25271$

$c = 24.66664$

$d = 0.83553$

## Bead 1234

Date : Mon Oct 17 13:52:02 PDT 2022

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

Frame size : 12 pixels

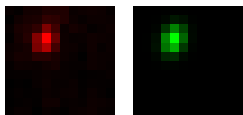
Coordinates : -111  $\mu\text{m}$  (x), -56.0  $\mu\text{m}$  (y), 4.67  $\mu\text{m}$  (z)

Corresponding bead : Not found

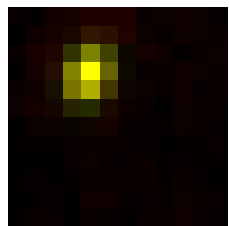
FWHM	Non corrected	Corrected	Theoretical
min	398 nm	414 nm	270 nm
max	530 nm	552 nm	270 nm
z	2.21 $\mu\text{m}$	2.22 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.75		
Theta	69.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 349.347$  (brightness)

$B = 117.127$  (background)

$a = 0.801$  px

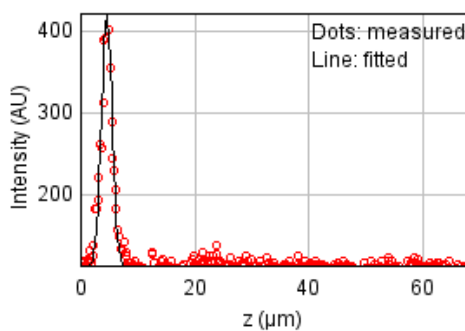
$b = 0.124$  px

$c = 0.525$  px

$x_c = 3.890$  px

$y_c = 3.169$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26597.5993

Standard deviation: 9.30791

$R^2: 0.96245$

Parameters:

$a = 113.52250$

$b = 421.35366$

$c = 4.66638$

$d = 0.93919$

## Bead 1235

Date : Mon Oct 17 13:52:02 PDT 2022

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

Frame size : 12 pixels

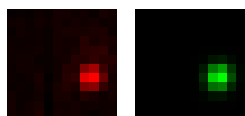
Coordinates : -133  $\mu\text{m}$  (x), -67.2  $\mu\text{m}$  (y), 20.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

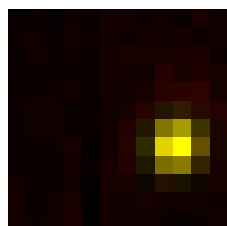
FWHM	Non corrected	Corrected	Theoretical
min	437 nm	455 nm	270 nm
max	474 nm	493 nm	270 nm
z	2.31 $\mu\text{m}$	2.32 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.922		
Theta	68.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 368.761 (brightness)

B = 117.445 (background)

a = 0.689 px

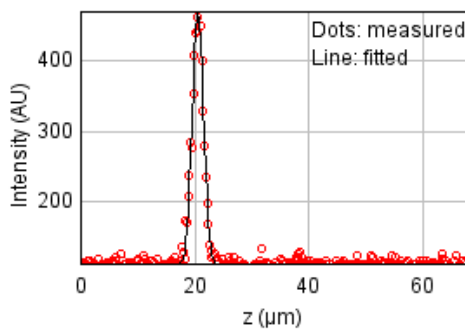
b = 0.036 px

c = 0.612 px

xc = 8.648 px

yc = 6.925 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17748.0354

Standard deviation: 7.60337

$R^2$ : 0.98202

Parameters:

a = 111.59575

b = 470.96891

c = 20.62164

d = 0.98190

## Bead 1236

Date : Mon Oct 17 13:52:02 PDT 2022

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

Frame size : 12 pixels

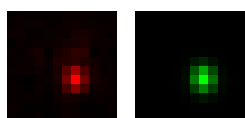
Coordinates : 124 µm (x), -83.9 µm (y), 24.4 µm (z)

Corresponding bead : Not found

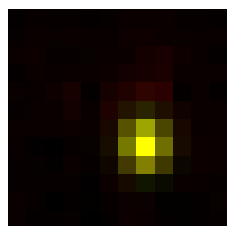
FWHM	Non corrected	Corrected	Theoretical
min	411 nm	429 nm	270 nm
max	489 nm	510 nm	270 nm
z	2.17 µm	2.18 µm	1.3 µm
Asymmetry	0.841		
Theta	-85.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 502.886 (brightness)

B = 121.260 (background)

a = 0.791 px

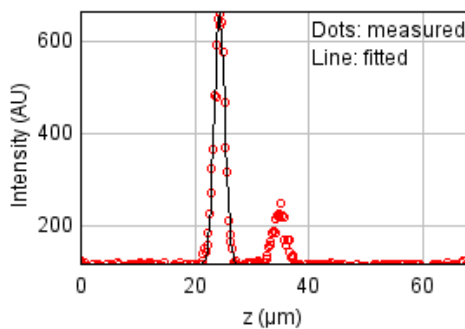
b = -0.018 px

c = 0.562 px

xc = 6.969 px

yc = 6.882 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 154307.968

Standard deviation: 22.41945

$R^2$ : 0.93205

Parameters:

a = 117.54597

b = 664.39875

c = 24.42758

d = 0.92314

## Bead 1237

Date : Mon Oct 17 13:52:02 PDT 2022

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

Frame size : 12 pixels

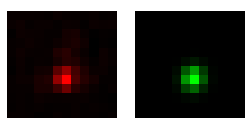
Coordinates : -51.5  $\mu\text{m}$  (x), -90.5  $\mu\text{m}$  (y), 24.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

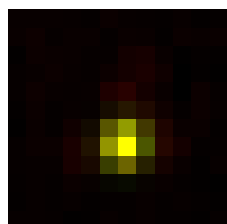
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	422 nm	270 nm
max	436 nm	454 nm	270 nm
z	1.99 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.929		
Theta	75.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 544.909 (brightness)

B = 121.253 (background)

a = 0.811 px

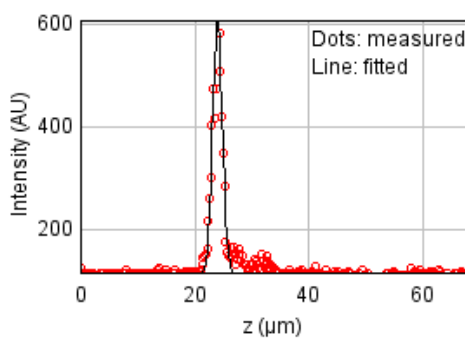
b = 0.028 px

c = 0.713 px

xc = 5.836 px

yc = 6.852 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 75303.6939

Standard deviation: 15.66170

$R^2$ : 0.95502

Parameters:

a = 115.82634

b = 611.36730

c = 24.07250

d = 0.84563

## Bead 1238

Date : Mon Oct 17 13:52:02 PDT 2022

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

Frame size : 12 pixels

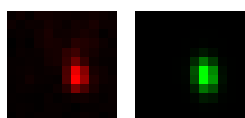
Coordinates : 32.4  $\mu\text{m}$  (x), 87.3  $\mu\text{m}$  (y), 25.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

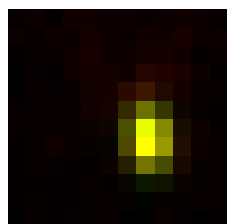
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	402 nm	270 nm
max	585 nm	610 nm	270 nm
z	2.13 $\mu\text{m}$	2.14 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.66		
Theta	-83.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 572.255 (brightness)

B = 125.463 (background)

a = 0.894 px

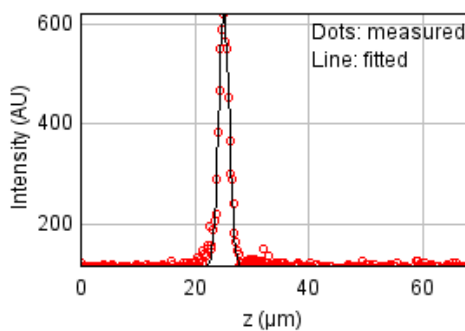
b = -0.055 px

c = 0.398 px

xc = 7.180 px

yc = 6.531 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34816.6932

Standard deviation: 10.64939

$R^2$ : 0.98098

Parameters:

a = 115.56067

b = 624.50757

c = 25.19853

d = 0.90317

## Bead 1239

Date : Mon Oct 17 13:52:02 PDT 2022

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

Frame size : 12 pixels

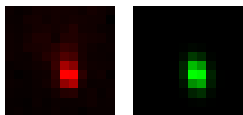
Coordinates : 104 nm (x), 83.5 um (y), 24.7 um (z)

Corresponding bead : Not found

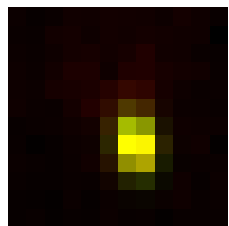
FWHM	Non corrected	Corrected	Theoretical
min	369 nm	384 nm	270 nm
max	558 nm	581 nm	270 nm
z	2.11 um	2.12 um	1.3 um
Asymmetry	0.661		
Theta	-80.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 723.234 (brightness)

B = 129.261 (background)

a = 0.971 px

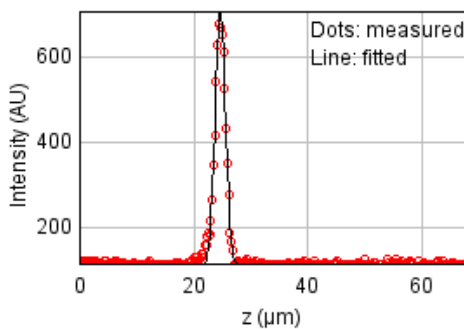
b = -0.090 px

c = 0.446 px

xc = 6.473 px

yc = 6.942 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23077.7457

Standard deviation: 8.67017

$R^2$ : 0.99062

Parameters:

a = 114.61090

b = 709.90040

c = 24.73209

d = 0.89521

## Bead 1240

Date : Mon Oct 17 13:52:03 PDT 2022

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

Frame size : 12 pixels

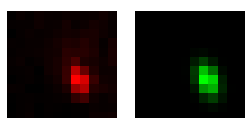
Coordinates : 58.8  $\mu\text{m}$  (x), 74.9  $\mu\text{m}$  (y), 24.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

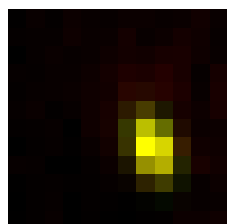
FWHM	Non corrected	Corrected	Theoretical
min	373 nm	389 nm	270 nm
max	606 nm	632 nm	270 nm
z	2.2 $\mu\text{m}$	2.21 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.616		
Theta	-70.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 596.039 (brightness)

B = 126.721 (background)

a = 0.896 px

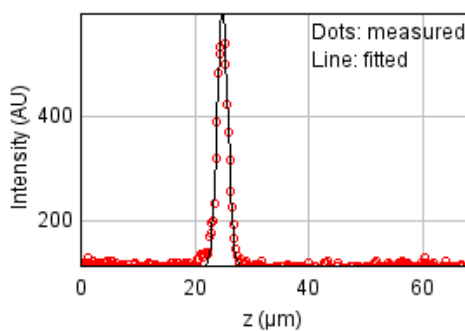
b = -0.188 px

c = 0.432 px

$x_c = 7.399$  px

$y_c = 7.011$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28517.0879

Standard deviation: 9.63792

$R^2$ : 0.98320

Parameters:

a = 113.34172

b = 596.00257

c = 24.94656

d = 0.93498



## Bead 1241 (Rejected)

Date : Mon Oct 17 13:52:03 PDT 2022

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

Frame size : 12 pixels

Coordinates : 43.3  $\mu\text{m}$  (x), 67.2  $\mu\text{m}$  (y), 21.5  $\mu\text{m}$  (z)

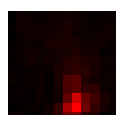
Corresponding bead : Not found

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	3.26 $\mu\text{m}$	3.28 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

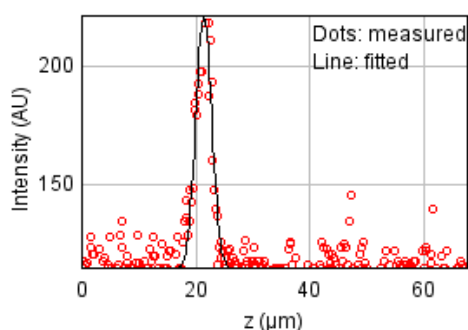
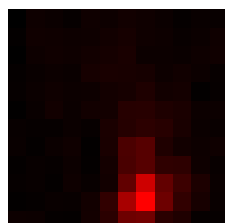
### XY profile & fitting parameters :

(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: 16530.4712

Standard deviation: 7.33793

R<sup>2</sup>: 0.87821

Parameters:

a = 114.50295

b = 221.78585

c = 21.48838

d = 1.38592

## Bead 1242

Date : Mon Oct 17 13:52:03 PDT 2022

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

Frame size : 12 pixels

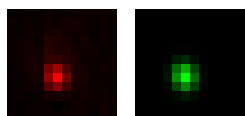
Coordinates : -41.4  $\mu\text{m}$  (x), 66.1  $\mu\text{m}$  (y), 24.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

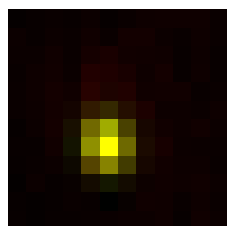
FWHM	Non corrected	Corrected	Theoretical
min	427 nm	444 nm	270 nm
max	507 nm	528 nm	270 nm
z	2.14 $\mu\text{m}$	2.14 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.842		
Theta	-78.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 622.187$  (brightness)

$B = 127.687$  (background)

$a = 0.729$  px

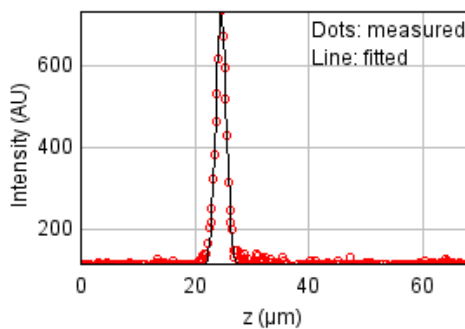
$b = -0.041$  px

$c = 0.530$  px

$x_c = 4.886$  px

$y_c = 6.864$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30692.5395

Standard deviation: 9.99878

$R^2: 0.98851$

Parameters:

$a = 114.98089$

$b = 730.80115$

$c = 24.68292$

$d = 0.90713$

## Bead 1243

Date : Mon Oct 17 13:52:03 PDT 2022

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

Frame size : 12 pixels

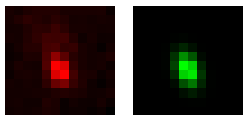
Coordinates : 61.9  $\mu\text{m}$  (x), 64.5  $\mu\text{m}$  (y), 20.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

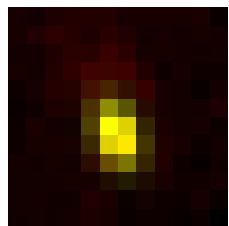
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	419 nm	270 nm
max	630 nm	656 nm	270 nm
z	2.56 $\mu\text{m}$	2.57 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.639		
Theta	-71.4°		

### 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:

$A = 375.486$  (brightness)

$B = 122.533$  (background)

$a = 0.779$  px

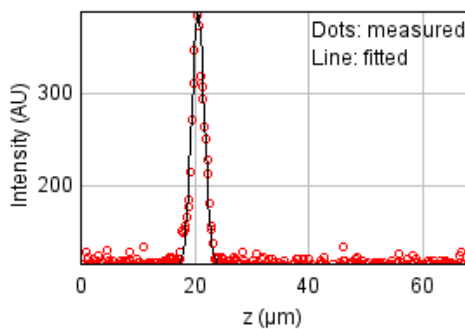
$b = -0.148$  px

$c = 0.388$  px

$x_c = 5.453$  px

$y_c = 6.424$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27092.6354

Standard deviation: 9.39413

$R^2: 0.95910$

Parameters:

$a = 113.44953$

$b = 390.61316$

$c = 20.65020$

$d = 1.08854$

## Bead 1244

Date : Mon Oct 17 13:52:03 PDT 2022

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

Frame size : 12 pixels

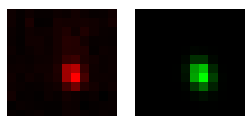
Coordinates : -123  $\mu\text{m}$  (x), 52.1  $\mu\text{m}$  (y), 24.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

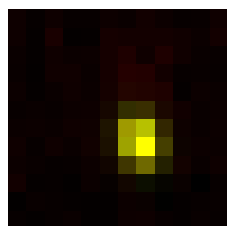
FWHM	Non corrected	Corrected	Theoretical
min	373 nm	389 nm	270 nm
max	494 nm	514 nm	270 nm
z	1.93 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.756		
Theta	-73.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 440.111$  (brightness)

$B = 118.181$  (background)

$a = 0.928$  px

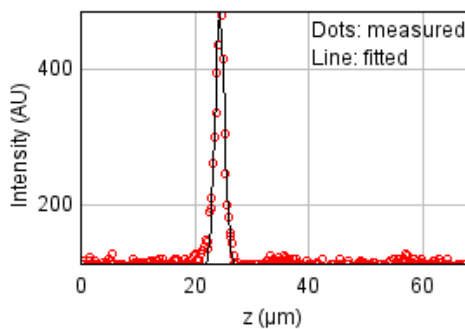
$b = -0.113$  px

$c = 0.583$  px

$x_c = 6.704$  px

$y_c = 6.680$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27543.5561

Standard deviation: 9.47198

$R^2: 0.96947$

Parameters:

$a = 113.86065$

$b = 485.70562$

$c = 24.47266$

$d = 0.82043$

## Bead 1245

Date : Mon Oct 17 13:52:03 PDT 2022

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

Frame size : 12 pixels

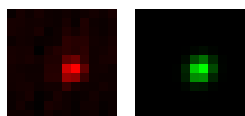
Coordinates : -78.8  $\mu\text{m}$  (x), 48.3  $\mu\text{m}$  (y), 24.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

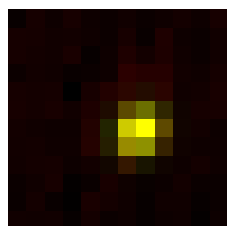
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	421 nm	270 nm
max	462 nm	481 nm	270 nm
z	2.06 $\mu\text{m}$	2.07 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.874		
Theta	51.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 319.886$  (brightness)

$B = 117.949$  (background)

$a = 0.746$  px

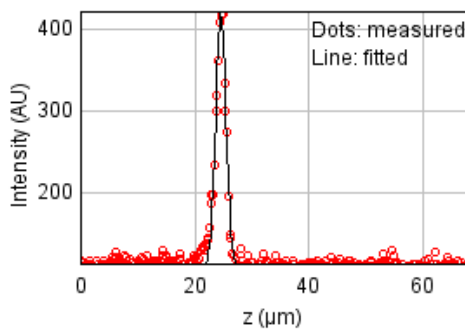
$b = 0.094$  px

$c = 0.703$  px

$x_c = 6.637$  px

$y_c = 6.145$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22507.8671

Standard deviation: 8.56245

$R^2: 0.96585$

Parameters:

$a = 113.70947$

$b = 421.04999$

$c = 24.65098$

$d = 0.87684$

## Bead 1246

Date : Mon Oct 17 13:52:03 PDT 2022

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

Frame size : 12 pixels

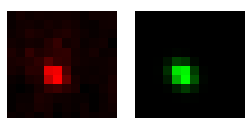
Coordinates : 108  $\mu\text{m}$  (x), 32.3  $\mu\text{m}$  (y), 4.41  $\mu\text{m}$  (z)

Corresponding bead : Not found

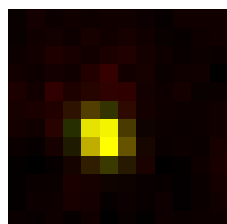
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	400 nm	270 nm
max	470 nm	490 nm	270 nm
z	2.6 $\mu\text{m}$	2.61 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.817		
Theta	-44.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 329.314$  (brightness)

$B = 118.852$  (background)

$a = 0.754$  px

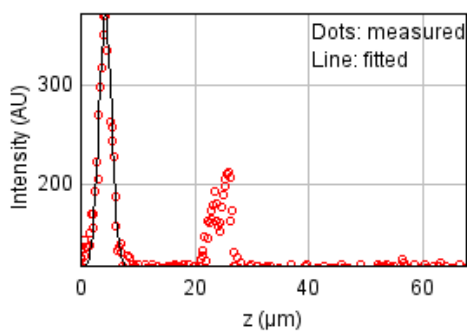
$b = -0.151$  px

$c = 0.761$  px

$x_c = 4.642$  px

$y_c = 6.457$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 116158.165

Standard deviation: 19.45162

$R^2: 0.82414$

Parameters:

$a = 117.91702$

$b = 372.71544$

$c = 4.40522$

$d = 1.10455$

## Bead 1247 (Rejected)

Date : Mon Oct 17 13:52:04 PDT 2022

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

Frame size : 12 pixels

Coordinates : 30.6  $\mu\text{m}$  (x), 27.6  $\mu\text{m}$  (y), 21.9  $\mu\text{m}$  (z)

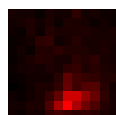
Corresponding bead : Not found

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	4.06 $\mu\text{m}$	4.07 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

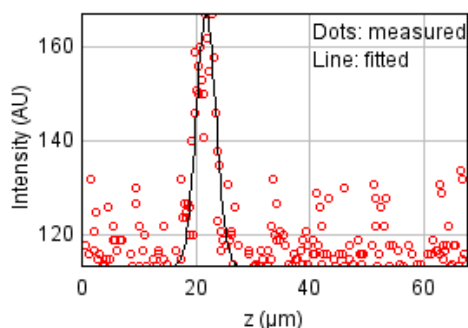
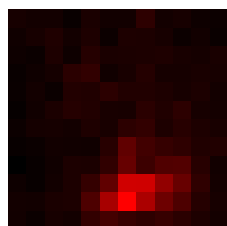
### XY profile & fitting parameters :

(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: 17638.5199

Standard deviation: 7.57987

R<sup>2</sup>: 0.67361

Parameters:

a = 113.32821

b = 167.01576

c = 21.90084

d = 1.72291

## Bead 1248

Date : Mon Oct 17 13:52:04 PDT 2022

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

Frame size : 12 pixels

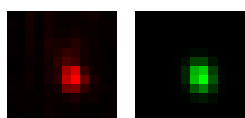
Coordinates : 12.7  $\mu\text{m}$  (x), 21.5  $\mu\text{m}$  (y), 24.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

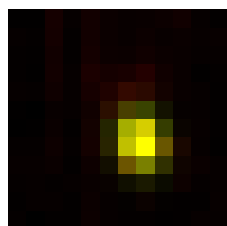
FWHM	Non corrected	Corrected	Theoretical
min	437 nm	455 nm	270 nm
max	551 nm	574 nm	270 nm
z	2.14 $\mu\text{m}$	2.15 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.792		
Theta	-76.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 588.082 (brightness)

B = 123.883 (background)

a = 0.689 px

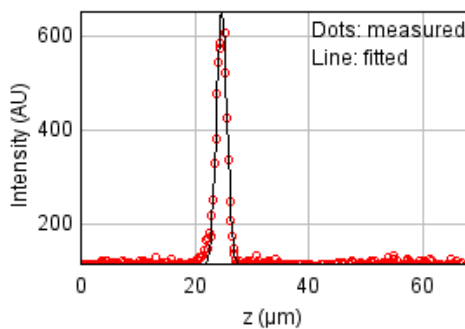
b = -0.059 px

c = 0.456 px

xc = 6.682 px

yc = 6.696 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31721.5154

Standard deviation: 10.16501

$R^2$ : 0.98451

Parameters:

a = 114.14807

b = 651.93824

c = 24.80305

d = 0.90844



## Bead 1249 (Rejected)

Date : Mon Oct 17 13:52:04 PDT 2022

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

Frame size : 12 pixels

Coordinates : -94.0  $\mu\text{m}$  (x), 16.4  $\mu\text{m}$  (y), 22.2  $\mu\text{m}$  (z)

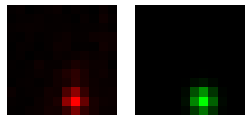
Corresponding bead : Not found

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

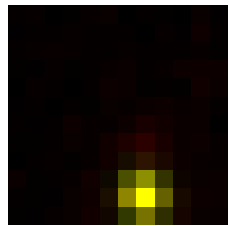
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	422 nm	270 nm
max	444 nm	462 nm	270 nm
z	3.79 $\mu\text{m}$	3.81 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.914		
Theta	-77.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 550.379 (brightness)

B = 122.087 (background)

a = 0.810 px

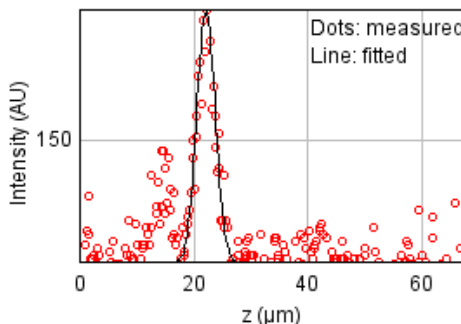
b = -0.028 px

c = 0.688 px

xc = 6.898 px

yc = 9.917 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20593.1141

Standard deviation: 8.19015

$R^2$ : 0.75537

Parameters:

a = 114.60152

b = 187.74042

c = 22.23011

d = 1.61129

## Bead 1250 (Rejected)

Date : Mon Oct 17 13:52:04 PDT 2022

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

Frame size : 12 pixels

Coordinates : 101 um (x), -7.8 um (y), 21.7 um (z)

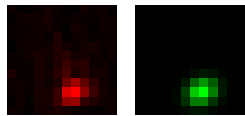
Corresponding bead : Not found

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

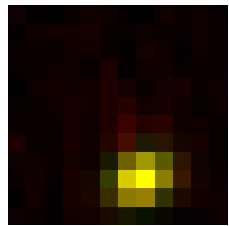
FWHM	Non corrected	Corrected	Theoretical
min	446 nm	465 nm	270 nm
max	561 nm	585 nm	270 nm
z	3.53 um	3.54 um	1.3 um
Asymmetry	0.795		
Theta	28.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 343.640 (brightness)

B = 124.102 (background)

a = 0.481 px

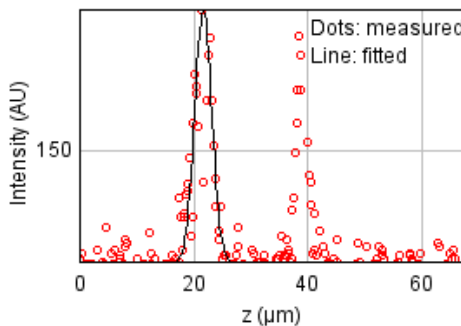
b = 0.103 px

c = 0.618 px

xc = 6.756 px

yc = 8.972 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 73439.1198

Standard deviation: 15.46659

$R^2$ : 0.47813

Parameters:

a = 115.81659

b = 193.59042

c = 21.74779

d = 1.49806

## Bead 1251

Date : Mon Oct 17 13:52:04 PDT 2022

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

Frame size : 12 pixels

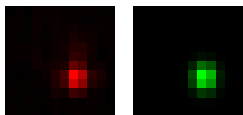
Coordinates : -32.1  $\mu\text{m}$  (x), -44.4  $\mu\text{m}$  (y), 24.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

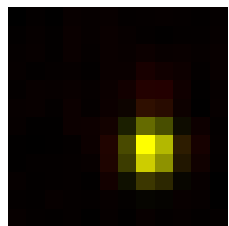
FWHM	Non corrected	Corrected	Theoretical
min	413 nm	431 nm	270 nm
max	496 nm	517 nm	270 nm
z	2.15 $\mu\text{m}$	2.16 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.833		
Theta	88.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 770.056$  (brightness)

$B = 127.822$  (background)

$a = 0.785$  px

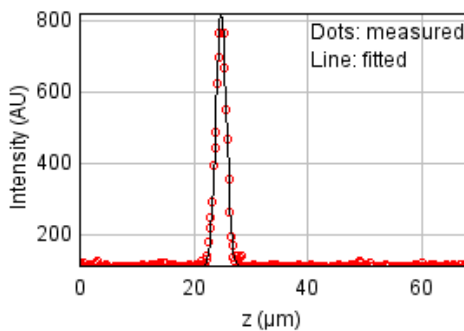
$b = 0.007$  px

$c = 0.545$  px

$x_c = 7.288$  px

$y_c = 7.296$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 32439.2176

Standard deviation: 10.27936

$R^2$ : 0.99087

Parameters:

$a = 113.32878$

$b = 821.58896$

$c = 24.88306$

$d = 0.91474$

## Bead 1252

Date : Mon Oct 17 13:52:04 PDT 2022

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

Frame size : 12 pixels

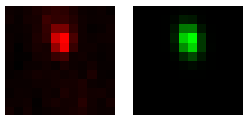
Coordinates : 147  $\mu\text{m}$  (x), -46.1  $\mu\text{m}$  (y), 21.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

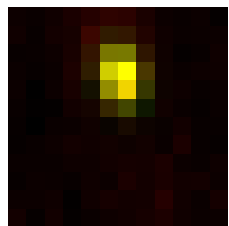
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	402 nm	270 nm
max	551 nm	574 nm	270 nm
z	2.39 $\mu\text{m}$	2.4 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.701		
Theta	-77.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 433.691 (brightness)

B = 123.369 (background)

a = 0.879 px

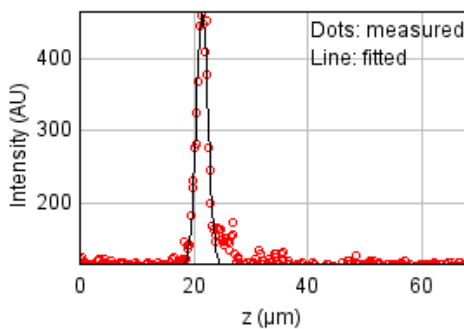
b = -0.098 px

c = 0.464 px

xc = 5.647 px

yc = 3.229 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 46329.2219

Standard deviation: 12.28452

$R^2$ : 0.95378

Parameters:

a = 114.21726

b = 465.78044

c = 21.56462

d = 1.01384

## Bead 1253

Date : Mon Oct 17 13:52:05 PDT 2022

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

Frame size : 12 pixels

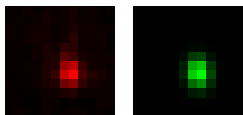
Coordinates : 91.2  $\mu\text{m}$  (x), -72.2  $\mu\text{m}$  (y), 24.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

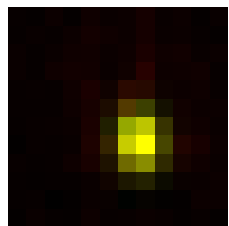
FWHM	Non corrected	Corrected	Theoretical
min	419 nm	437 nm	270 nm
max	561 nm	585 nm	270 nm
z	1.88 $\mu\text{m}$	1.89 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.747		
Theta	-84.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 516.371 (brightness)

B = 120.171 (background)

a = 0.760 px

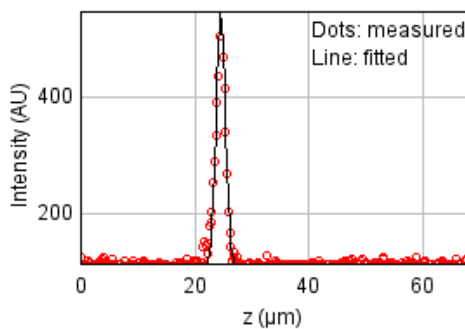
b = -0.031 px

c = 0.429 px

xc = 6.637 px

yc = 6.780 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30705.9082

Standard deviation: 10.00096

$R^2$ : 0.97419

Parameters:

a = 113.33733

b = 546.48942

c = 24.63664

d = 0.80039

## Bead 1254 (Rejected)

Date : Mon Oct 17 13:52:05 PDT 2022

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

Frame size : 12 pixels

Coordinates : 83.2  $\mu\text{m}$  (x), -76.6  $\mu\text{m}$  (y), 21.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

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

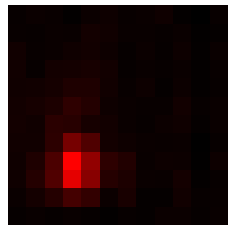
FWHM	Non corrected	Corrected	Theoretical
min	2.61 $\mu\text{m}$	2.72 $\mu\text{m}$	270 nm
max	3.41 $\mu\text{m}$	3.55 $\mu\text{m}$	270 nm
z	2.15 $\mu\text{m}$	2.16 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.765		
Theta	0.0°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.166$



Parameters:

A = -78.780 (brightness)

B = 194.106 (background)

a = 0.005 px

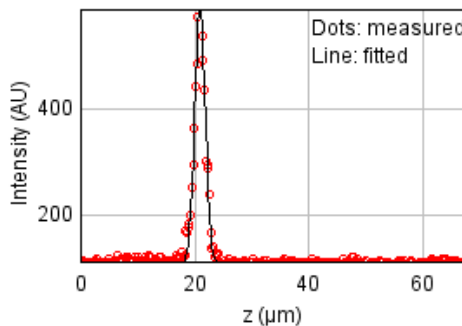
b = -0.016 px

c = 0.004 px

xc = 9.055 px

yc = 1.714 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29539.3186

Standard deviation: 9.80914

$R^2$ : 0.98165

Parameters:

a = 112.97931

b = 587.98376

c = 20.99244

d = 0.91284

## Bead 1255 (Rejected)

Date : Mon Oct 17 13:52:05 PDT 2022

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

Frame size : 12 pixels

Coordinates : -99.7  $\mu\text{m}$  (x), -92.4  $\mu\text{m}$  (y), 21.2  $\mu\text{m}$  (z)

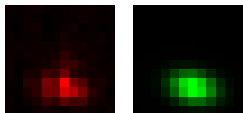
Corresponding bead : Not found

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

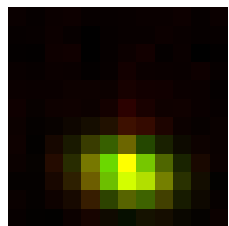
FWHM	Non corrected	Corrected	Theoretical
min	530 nm	552 nm	270 nm
max	825 nm	859 nm	270 nm
z	3.99 $\mu\text{m}$	4.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.643		
Theta	-12.3°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.896$



Parameters:

A = 388.672 (brightness)

B = 123.479 (background)

a = 0.210 px

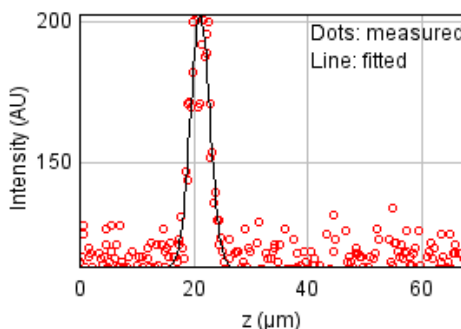
b = -0.058 px

c = 0.465 px

xc = 6.045 px

yc = 8.500 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19196.7968

Standard deviation: 7.90761

$R^2$ : 0.83868

Parameters:

a = 112.90785

b = 202.46221

c = 21.20224

d = 1.69487

## Bead 1256

Date : Mon Oct 17 13:52:05 PDT 2022

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

Frame size : 12 pixels

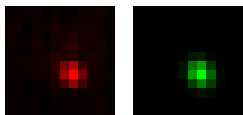
Coordinates : -72.0  $\mu\text{m}$  (x), 78.2  $\mu\text{m}$  (y), 25.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

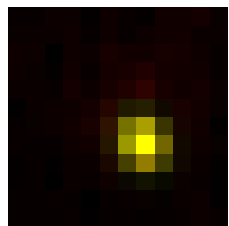
FWHM	Non corrected	Corrected	Theoretical
min	419 nm	436 nm	270 nm
max	495 nm	515 nm	270 nm
z	2.3 $\mu\text{m}$	2.31 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.847		
Theta	-61.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 505.919$  (brightness)

$B = 124.533$  (background)

$a = 0.716$  px

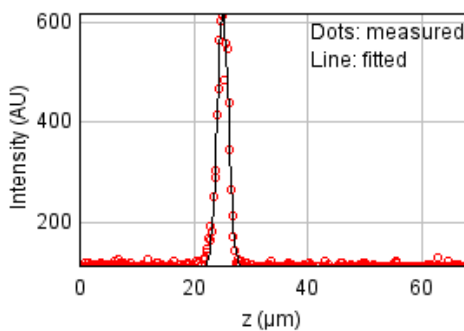
$b = -0.090$  px

$c = 0.596$  px

$x_c = 6.840$  px

$y_c = 6.877$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35626.2981

Standard deviation: 10.77249

$R^2: 0.98166$

Parameters:

$a = 113.38590$

$b = 618.80208$

$c = 25.18851$

$d = 0.97631$



## Bead 1257

Date : Mon Oct 17 13:52:05 PDT 2022

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

Frame size : 12 pixels

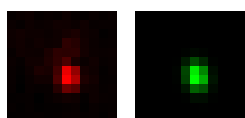
Coordinates : -43.5  $\mu\text{m}$  (x), 58.7  $\mu\text{m}$  (y), 25.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

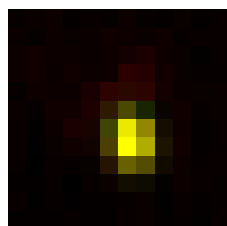
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	402 nm	270 nm
max	511 nm	532 nm	270 nm
z	2.18 $\mu\text{m}$	2.19 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.755		
Theta	-78.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 654.353 (brightness)

B = 127.166 (background)

a = 0.885 px

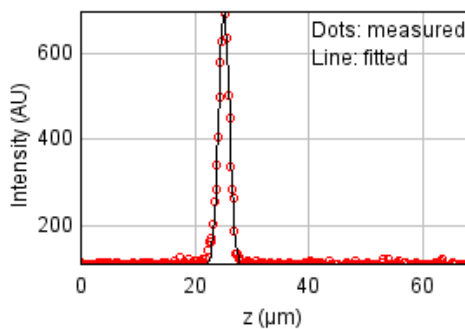
b = -0.079 px

c = 0.530 px

$x_c = 6.245$  px

$y_c = 6.624$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24220.5584

Standard deviation: 8.88225

$R^2$ : 0.99007

Parameters:

a = 113.40984

b = 696.62402

c = 25.21878

d = 0.92607

## Bead 1258

Date : Mon Oct 17 13:52:05 PDT 2022

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

Frame size : 12 pixels

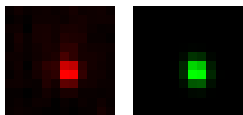
Coordinates : -71.4  $\mu\text{m}$  (x), 52.3  $\mu\text{m}$  (y), 24.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

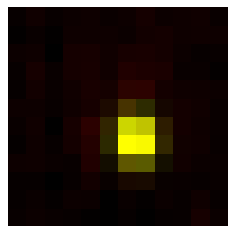
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	397 nm	270 nm
max	465 nm	484 nm	270 nm
z	2.43 $\mu\text{m}$	2.44 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.82		
Theta	-83.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 465.428$  (brightness)

$B = 121.542$  (background)

$a = 0.919$  px

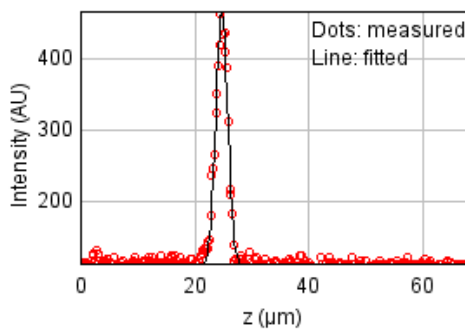
$b = -0.034$  px

$c = 0.625$  px

$x_c = 6.475$  px

$y_c = 6.668$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 21047.2075

Standard deviation: 8.27996

$R^2: 0.97862$

Parameters:

$a = 114.24708$

$b = 464.46655$

$c = 24.81435$

$d = 1.03022$

## Bead 1259

Date : Mon Oct 17 13:52:06 PDT 2022

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

Frame size : 12 pixels

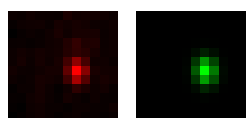
Coordinates : -122  $\mu\text{m}$  (x), 39.0  $\mu\text{m}$  (y), 24.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

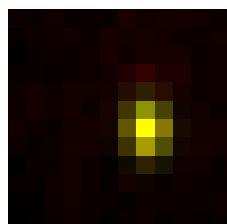
FWHM	Non corrected	Corrected	Theoretical
min	385 nm	401 nm	270 nm
max	509 nm	530 nm	270 nm
z	1.89 $\mu\text{m}$	1.9 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.756		
Theta	-86.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 394.562 (brightness)

B = 119.053 (background)

a = 0.904 px

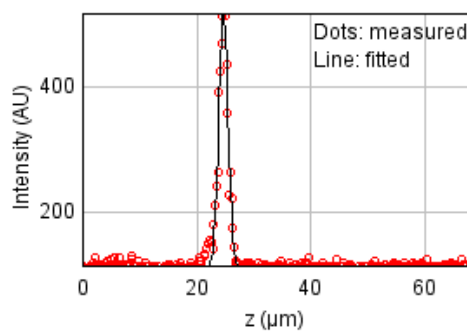
b = -0.027 px

c = 0.520 px

xc = 7.089 px

yc = 6.036 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28512.0678

Standard deviation: 9.63707

$R^2$ : 0.97312

Parameters:

a = 113.02937

b = 521.01273

c = 24.74757

d = 0.80348

## Bead 1260

Date : Mon Oct 17 13:52:06 PDT 2022

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

Frame size : 12 pixels

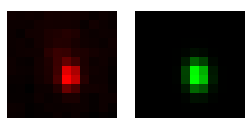
Coordinates : 119  $\mu\text{m}$  (x), 36.7  $\mu\text{m}$  (y), 24.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

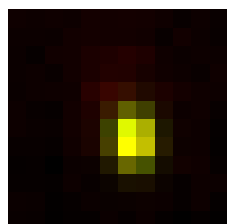
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	416 nm	270 nm
max	538 nm	560 nm	270 nm
z	2.19 $\mu\text{m}$	2.2 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.743		
Theta	-85.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 470.773$  (brightness)

$B = 120.184$  (background)

$a = 0.837$  px

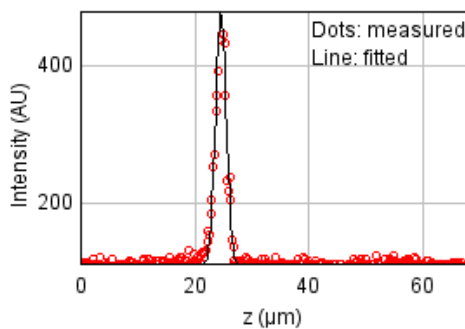
$b = -0.031$  px

$c = 0.466$  px

$x_c = 6.309$  px

$y_c = 6.548$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 32861.3667

Standard deviation: 10.34603

$R^2: 0.96649$

Parameters:

$a = 112.89148$

$b = 477.65275$

$c = 24.66177$

$d = 0.92936$

## Bead 1261

Date : Mon Oct 17 13:52:06 PDT 2022

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

Frame size : 12 pixels

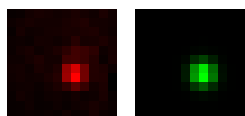
Coordinates : -107  $\mu\text{m}$  (x), 27.9  $\mu\text{m}$  (y), 24.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

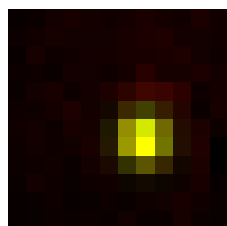
FWHM	Non corrected	Corrected	Theoretical
min	453 nm	471 nm	270 nm
max	474 nm	493 nm	270 nm
z	2.26 $\mu\text{m}$	2.27 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.955		
Theta	-78.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 299.765 (brightness)

B = 119.377 (background)

a = 0.653 px

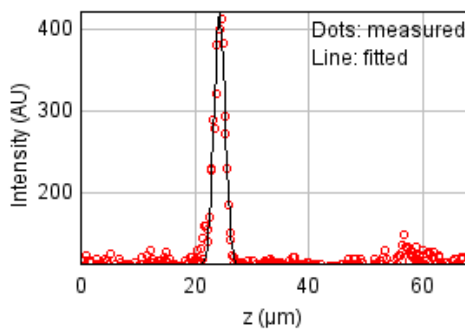
b = -0.012 px

c = 0.600 px

xc = 6.889 px

yc = 6.573 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31438.4286

Standard deviation: 10.11955

$R^2$ : 0.95619

Parameters:

a = 114.54391

b = 420.49171

c = 24.42792

d = 0.95800

## Bead 1262 (Rejected)

Date : Mon Oct 17 13:52:06 PDT 2022

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

Frame size : 12 pixels

Coordinates : 144 um (x), 4.35 um (y), 24.8 um (z)

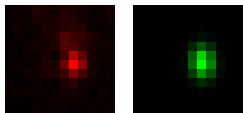
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

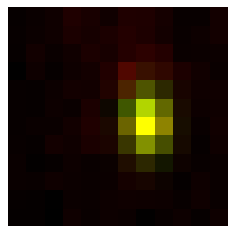
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	426 nm	270 nm
max	602 nm	627 nm	270 nm
z	1.98 um	1.99 um	1.3 um
Asymmetry	0.68		
Theta	-86.8°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.888$



Parameters:

A = 277.196 (brightness)

B = 116.629 (background)

a = 0.799 px

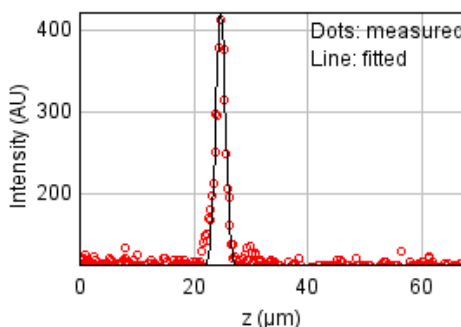
b = -0.024 px

c = 0.372 px

xc = 7.078 px

yc = 5.746 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31373.3562

Standard deviation: 10.10907

$R^2$ : 0.95217

Parameters:

a = 112.59617

b = 422.80777

c = 24.79012

d = 0.84266

## Bead 1263

Date : Mon Oct 17 13:52:06 PDT 2022

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

Frame size : 12 pixels

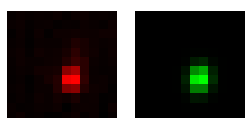
Coordinates : -84.8  $\mu\text{m}$  (x), -5.81  $\mu\text{m}$  (y), 24.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

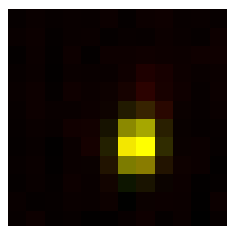
FWHM	Non corrected	Corrected	Theoretical
min	377 nm	393 nm	270 nm
max	486 nm	506 nm	270 nm
z	2.36 $\mu\text{m}$	2.37 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.776		
Theta	82.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 524.583 (brightness)

B = 120.254 (background)

a = 0.937 px

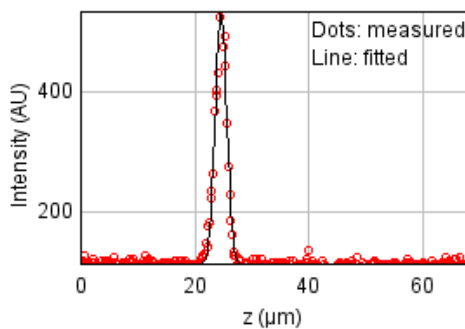
b = 0.048 px

c = 0.574 px

xc = 6.557 px

yc = 6.907 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26088.1303

Standard deviation: 9.21833

$R^2$ : 0.98124

Parameters:

a = 112.45217

b = 534.67047

c = 24.67594

d = 1.00272

## Bead 1264

Date : Mon Oct 17 13:52:06 PDT 2022

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

Frame size : 12 pixels

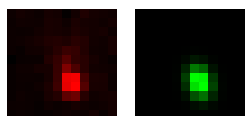
Coordinates : 99.1  $\mu\text{m}$  (x), -6.81  $\mu\text{m}$  (y), 24.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

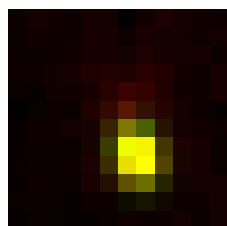
FWHM	Non corrected	Corrected	Theoretical
min	419 nm	437 nm	270 nm
max	568 nm	591 nm	270 nm
z	2.2 $\mu\text{m}$	2.2 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.739		
Theta	-74.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 503.279$  (brightness)

$B = 122.933$  (background)

$a = 0.739$  px

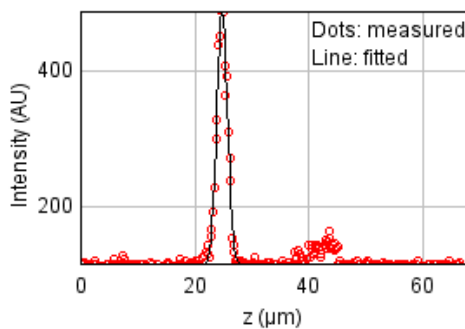
$b = -0.087$  px

$c = 0.440$  px

$x_c = 6.526$  px

$y_c = 7.456$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 45194.1019

Standard deviation: 12.13310

$R^2: 0.95660$

Parameters:

$a = 115.49925$

$b = 488.87515$

$c = 24.87748$

$d = 0.93232$



## Bead 1265

Date : Mon Oct 17 13:52:07 PDT 2022

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

Frame size : 12 pixels

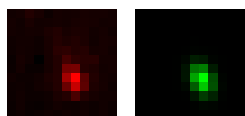
Coordinates : 119  $\mu\text{m}$  (x), -6.97  $\mu\text{m}$  (y), 24.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

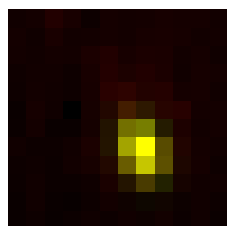
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	402 nm	270 nm
max	565 nm	589 nm	270 nm
z	1.87 $\mu\text{m}$	1.88 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.682		
Theta	-68.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 397.916 (brightness)

B = 120.372 (background)

a = 0.838 px

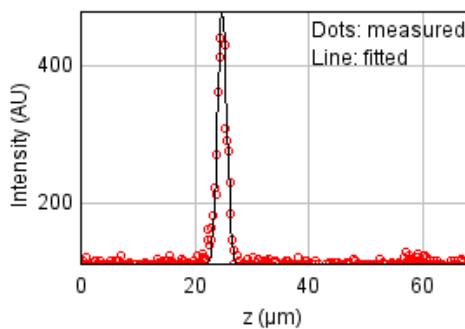
b = -0.163 px

c = 0.483 px

xc = 6.796 px

yc = 7.166 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31947.8020

Standard deviation: 10.20120

$R^2$ : 0.96282

Parameters:

a = 112.47385

b = 479.81885

c = 24.88909

d = 0.79396

## Bead 1266

Date : Mon Oct 17 13:52:07 PDT 2022

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

Frame size : 12 pixels

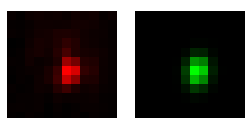
Coordinates : 82.8  $\mu\text{m}$  (x), -23.2  $\mu\text{m}$  (y), 25.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

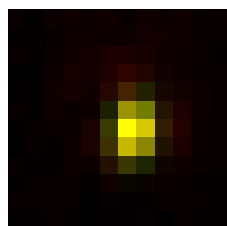
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	416 nm	270 nm
max	555 nm	578 nm	270 nm
z	2.2 $\mu\text{m}$	2.21 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.72		
Theta	84.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 655.823 (brightness)

B = 126.011 (background)

a = 0.838 px

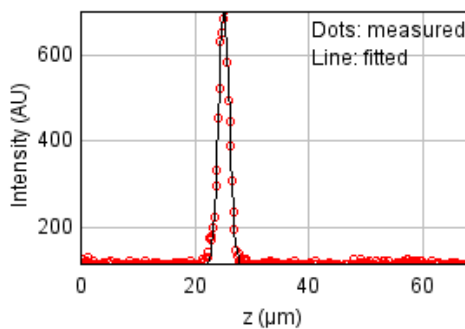
b = 0.042 px

c = 0.440 px

xc = 6.354 px

yc = 6.099 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26181.8146

Standard deviation: 9.23487

$R^2$ : 0.98963

Parameters:

a = 113.79050

b = 704.19128

c = 25.19465

d = 0.93558

## Bead 1267

Date : Mon Oct 17 13:52:07 PDT 2022

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

Frame size : 12 pixels

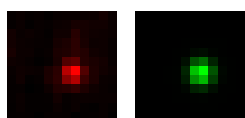
Coordinates : -152  $\mu\text{m}$  (x), -27.7  $\mu\text{m}$  (y), 25.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

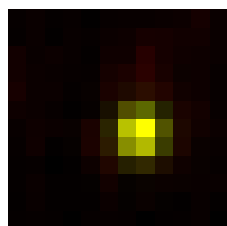
FWHM	Non corrected	Corrected	Theoretical
min	438 nm	457 nm	270 nm
max	469 nm	488 nm	270 nm
z	2.33 $\mu\text{m}$	2.34 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.935		
Theta	87.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 510.504$  (brightness)

$B = 121.479$  (background)

$a = 0.698$  px

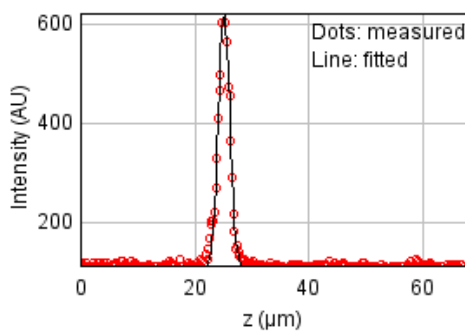
$b = 0.004$  px

$c = 0.611$  px

$x_c = 6.697$  px

$y_c = 6.239$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26069.4655

Standard deviation: 9.21503

$R^2: 0.98700$

Parameters:

$a = 112.44639$

$b = 624.31802$

$c = 25.22251$

$d = 0.98857$

## Bead 1268

Date : Mon Oct 17 13:52:07 PDT 2022

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

Frame size : 12 pixels

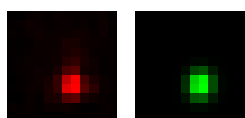
Coordinates : -14.8  $\mu\text{m}$  (x), -34.5  $\mu\text{m}$  (y), 25.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

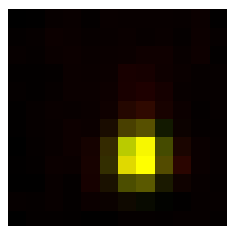
FWHM	Non corrected	Corrected	Theoretical
min	439 nm	458 nm	270 nm
max	498 nm	518 nm	270 nm
z	1.94 $\mu\text{m}$	1.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.883		
Theta	84.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 761.973 (brightness)

B = 125.640 (background)

a = 0.694 px

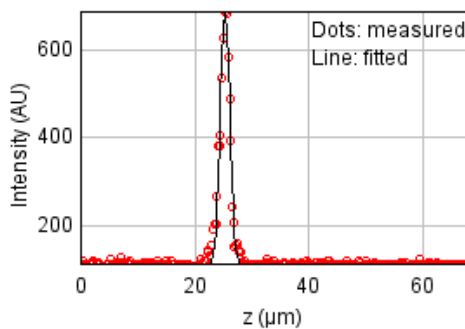
b = 0.015 px

c = 0.544 px

xc = 6.629 px

yc = 7.542 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47234.4212

Standard deviation: 12.40395

$R^2$ : 0.97814

Parameters:

a = 113.67554

b = 690.04212

c = 25.40203

d = 0.82533

## Bead 1269

Date : Mon Oct 17 13:52:07 PDT 2022

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

Frame size : 12 pixels

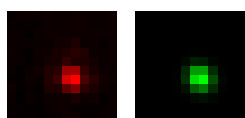
Coordinates : -38.8  $\mu\text{m}$  (x), -35.5  $\mu\text{m}$  (y), 25.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

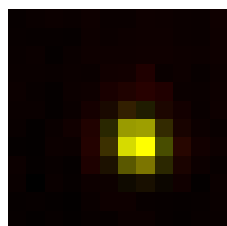
FWHM	Non corrected	Corrected	Theoretical
min	431 nm	449 nm	270 nm
max	479 nm	499 nm	270 nm
z	1.98 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.899		
Theta	-56.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 589.961 (brightness)

B = 123.883 (background)

a = 0.681 px

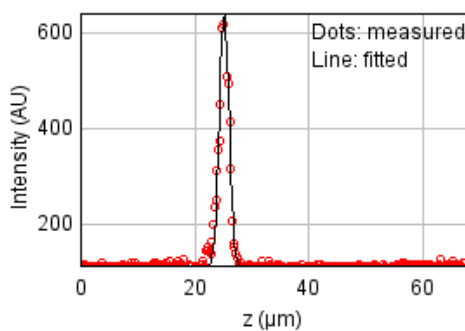
b = -0.063 px

c = 0.626 px

xc = 6.598 px

yc = 6.836 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 44538.5335

Standard deviation: 12.04478

$R^2$ : 0.97575

Parameters:

a = 113.77549

b = 639.68456

c = 25.24711

d = 0.84113

## Bead 1270

Date : Mon Oct 17 13:52:08 PDT 2022

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

Frame size : 12 pixels

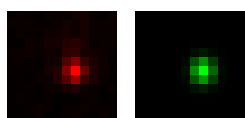
Coordinates : 108  $\mu\text{m}$  (x), -43.9  $\mu\text{m}$  (y), 24.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

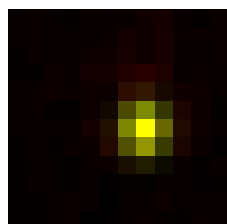
FWHM	Non corrected	Corrected	Theoretical
min	418 nm	435 nm	270 nm
max	486 nm	506 nm	270 nm
z	1.89 $\mu\text{m}$	1.89 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.86		
Theta	-89.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 465.964 (brightness)

B = 118.527 (background)

a = 0.769 px

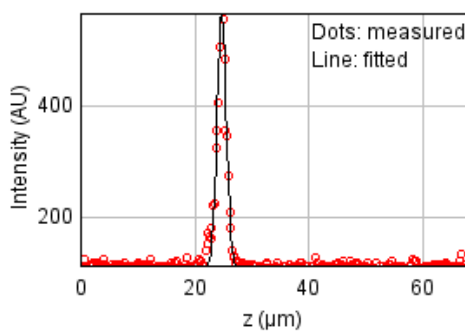
b = -0.000 px

c = 0.568 px

xc = 6.911 px

yc = 6.031 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30347.3307

Standard deviation: 9.94240

$R^2$ : 0.97696

Parameters:

a = 112.20462

b = 568.37963

c = 24.79665

d = 0.80114

## Bead 1271

Date : Mon Oct 17 13:52:08 PDT 2022

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

Frame size : 12 pixels

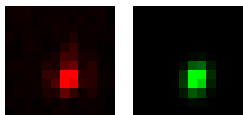
Coordinates : -70.3  $\mu\text{m}$  (x), -58.1  $\mu\text{m}$  (y), 25.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

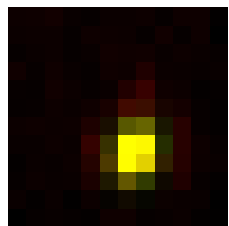
FWHM	Non corrected	Corrected	Theoretical
min	395 nm	412 nm	270 nm
max	511 nm	533 nm	270 nm
z	2.14 $\mu\text{m}$	2.15 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.773		
Theta	75.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 535.520$  (brightness)

$B = 122.834$  (background)

$a = 0.836$  px

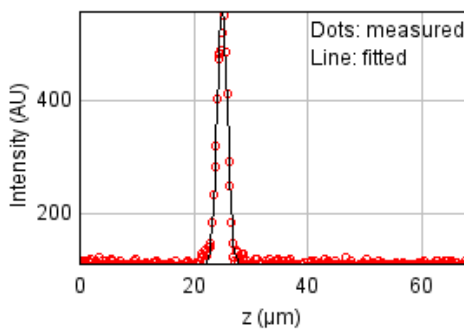
$b = 0.086$  px

$c = 0.536$  px

$x_c = 6.439$  px

$y_c = 7.425$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30225.6480

Standard deviation: 9.92244

$R^2: 0.97839$

Parameters:

$a = 112.87211$

$b = 555.36117$

$c = 25.07682$

$d = 0.91090$

## Bead 1272

Date : Mon Oct 17 13:52:08 PDT 2022

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

Frame size : 12 pixels

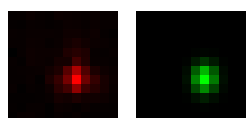
Coordinates : -26.4  $\mu\text{m}$  (x), -60.4  $\mu\text{m}$  (y), 25.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

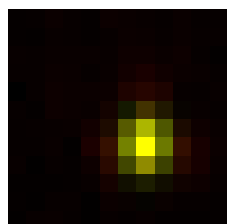
FWHM	Non corrected	Corrected	Theoretical
min	434 nm	452 nm	270 nm
max	531 nm	553 nm	270 nm
z	2.05 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.816		
Theta	88.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 575.444$  (brightness)

$B = 123.286$  (background)

$a = 0.714$  px

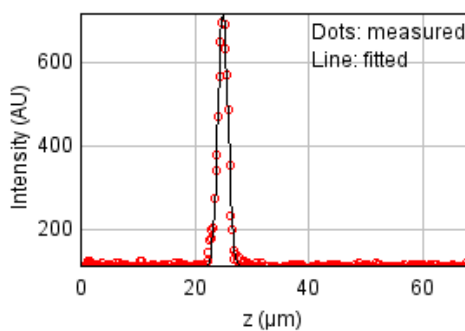
$b = 0.004$  px

$c = 0.476$  px

$x_c = 6.974$  px

$y_c = 6.860$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26653.4935

Standard deviation: 9.31768

$R^2: 0.98916$

Parameters:

$a = 113.31003$

$b = 716.44308$

$c = 25.02973$

$d = 0.86940$



## Bead 1273

Date : Mon Oct 17 13:52:08 PDT 2022

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

Frame size : 12 pixels

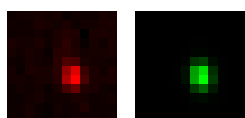
Coordinates : -133  $\mu\text{m}$  (x), 94.8  $\mu\text{m}$  (y), 24.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

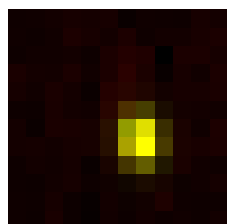
FWHM	Non corrected	Corrected	Theoretical
min	370 nm	385 nm	270 nm
max	486 nm	506 nm	270 nm
z	2.23 $\mu\text{m}$	2.24 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.761		
Theta	-82.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 337.895$  (brightness)

$B = 118.377$  (background)

$a = 0.975$  px

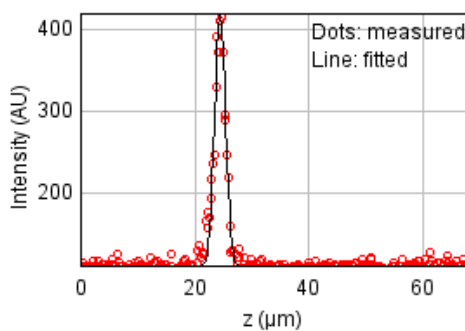
$b = -0.050$  px

$c = 0.574$  px

$x_c = 6.714$  px

$y_c = 6.593$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27181.7115

Standard deviation: 9.40956

$R^2: 0.96197$

Parameters:

$a = 111.81338$

$b = 419.67771$

$c = 24.51620$

$d = 0.94747$

## Bead 1274 (Rejected)

Date : Mon Oct 17 13:52:08 PDT 2022

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

Frame size : 12 pixels

Coordinates : -164  $\mu\text{m}$  (x), 76.3  $\mu\text{m}$  (y), 22.0  $\mu\text{m}$  (z)

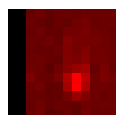
Corresponding bead : Not found

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	2.57 $\mu\text{m}$	2.58 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

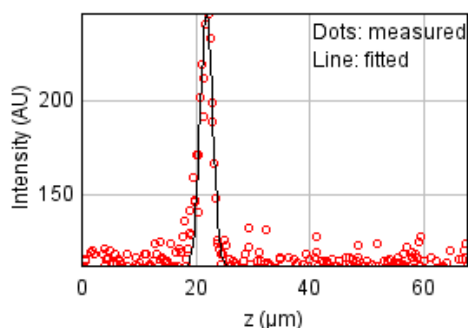
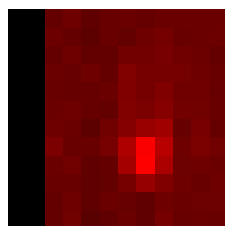
### XY profile & fitting parameters :

(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: 20673.0211

Standard deviation: 8.20602

R<sup>2</sup>: 0.87948

Parameters:

a = 111.44682

b = 246.40898

c = 21.95432

d = 1.09017

## Bead 1275

Date : Mon Oct 17 13:52:08 PDT 2022

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

Frame size : 12 pixels

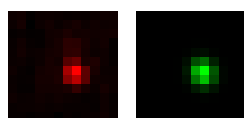
Coordinates : -141  $\mu\text{m}$  (x), 61.9  $\mu\text{m}$  (y), 25.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

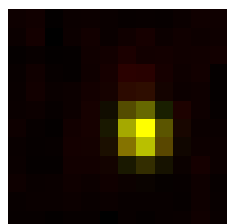
FWHM	Non corrected	Corrected	Theoretical
min	416 nm	433 nm	270 nm
max	482 nm	502 nm	270 nm
z	2.04 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.863		
Theta	-73.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 392.844 (brightness)

B = 117.921 (background)

a = 0.759 px

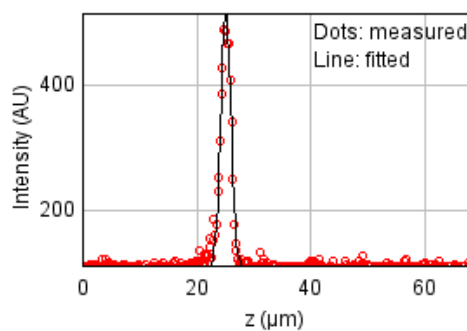
b = -0.054 px

c = 0.592 px

xc = 6.789 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: 25938.0517

Standard deviation: 9.19178

$R^2$ : 0.97711

Parameters:

a = 111.56518

b = 518.77176

c = 25.18810

d = 0.86837

## Bead 1276 (Rejected)

Date : Mon Oct 17 13:52:09 PDT 2022

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

Frame size : 12 pixels

Coordinates : 66.8  $\mu\text{m}$  (x), 56.5  $\mu\text{m}$  (y), 22.0  $\mu\text{m}$  (z)

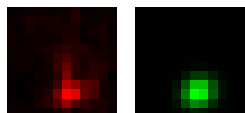
Corresponding bead : Not found

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

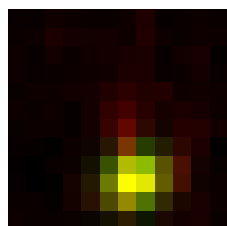
FWHM	Non corrected	Corrected	Theoretical
min	522 nm	544 nm	270 nm
max	588 nm	612 nm	270 nm
z	4.85 $\mu\text{m}$	4.87 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.888		
Theta	32.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.849$



Parameters:

A = 273.930 (brightness)

B = 122.442 (background)

a = 0.418 px

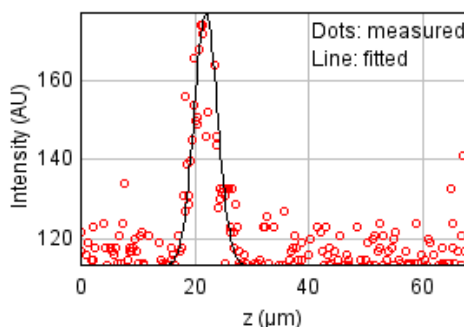
b = 0.047 px

c = 0.463 px

xc = 6.410 px

yc = 8.790 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16868.4087

Standard deviation: 7.41255

$R^2$ : 0.78119

Parameters:

a = 113.26828

b = 177.02160

c = 22.02774

d = 2.06138

## Bead 1277

Date : Mon Oct 17 13:52:09 PDT 2022

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

Frame size : 12 pixels

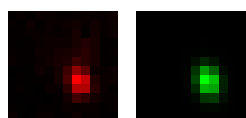
Coordinates : 10.9  $\mu\text{m}$  (x), 38.1  $\mu\text{m}$  (y), 25.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

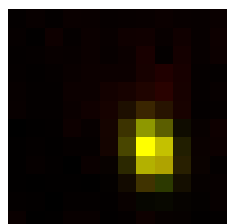
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	423 nm	270 nm
max	567 nm	591 nm	270 nm
z	2.3 $\mu\text{m}$	2.31 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.716		
Theta	-74.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 553.980$  (brightness)

$B = 124.307$  (background)

$a = 0.787$  px

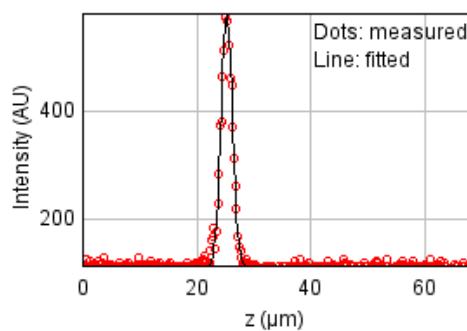
$b = -0.099$  px

$c = 0.444$  px

$x_c = 7.344$  px

$y_c = 7.163$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24208.8827

Standard deviation: 8.88011

$R^2: 0.98535$

Parameters:

$a = 114.06186$

$b = 581.24263$

$c = 25.34162$

$d = 0.97614$

## Bead 1278 (Rejected)

Date : Mon Oct 17 13:52:09 PDT 2022

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

Frame size : 12 pixels

Coordinates : 49.7 um (x), 36.8 um (y), 24.6 um (z)

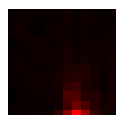
Corresponding bead : Not found

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	4.28 um	4.29 um	1.3 um
Asymmetry	0.0		
Theta	0.0°		

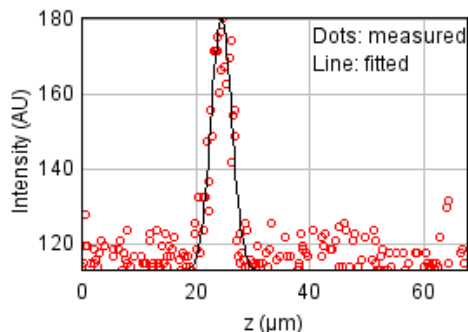
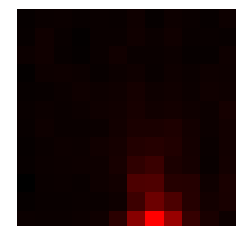
### XY profile & fitting parameters :

(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: 15013.5730

Standard deviation: 6.99315

R<sup>2</sup>: 0.80163

Parameters:

a = 113.01175

b = 180.71145

c = 24.57705

d = 1.81548

## Bead 1279

Date : Mon Oct 17 13:52:09 PDT 2022

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

Frame size : 12 pixels

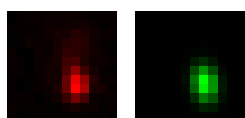
Coordinates : 28.2  $\mu\text{m}$  (x), 13.4  $\mu\text{m}$  (y), 25.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

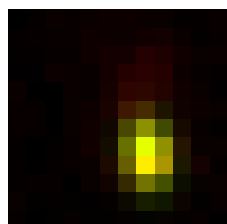
FWHM	Non corrected	Corrected	Theoretical
min	438 nm	456 nm	270 nm
max	655 nm	682 nm	270 nm
z	2.14 $\mu\text{m}$	2.15 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.669		
Theta	-82.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 517.295 (brightness)

B = 122.704 (background)

a = 0.692 px

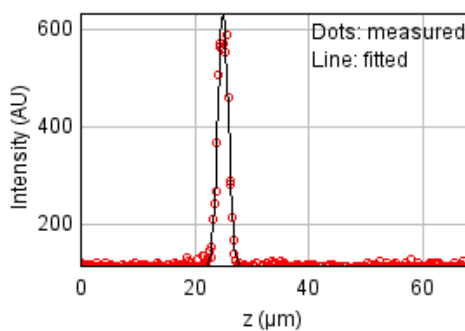
b = -0.052 px

c = 0.320 px

$x_c = 7.120$  px

$y_c = 7.401$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 42643.8203

Standard deviation: 11.78579

$R^2$ : 0.97785

Parameters:

a = 113.66614

b = 632.84302

c = 25.04655

d = 0.91014

## Bead 1280

Date : Mon Oct 17 13:52:09 PDT 2022

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

Frame size : 12 pixels

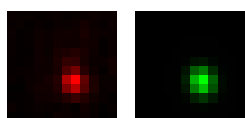
Coordinates : -12.8  $\mu\text{m}$  (x), -6.53  $\mu\text{m}$  (y), 25.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

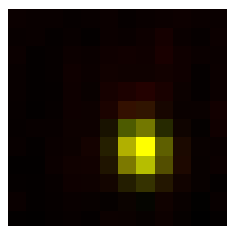
FWHM	Non corrected	Corrected	Theoretical
min	440 nm	458 nm	270 nm
max	511 nm	532 nm	270 nm
z	1.83 $\mu\text{m}$	1.83 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.861		
Theta	-75.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 465.153 (brightness)

B = 120.491 (background)

a = 0.681 px

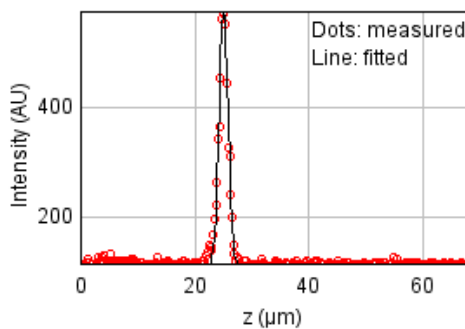
b = -0.045 px

c = 0.526 px

xc = 6.785 px

yc = 7.204 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24946.4753

Standard deviation: 9.01437

$R^2$ : 0.98113

Parameters:

a = 113.75005

b = 578.90982

c = 25.14560

d = 0.77567



## Bead 1281

Date : Mon Oct 17 13:52:09 PDT 2022

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

Frame size : 12 pixels

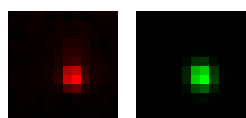
Coordinates : -155  $\mu\text{m}$  (x), -15.0  $\mu\text{m}$  (y), 25.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

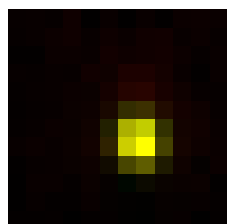
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	427 nm	270 nm
max	469 nm	489 nm	270 nm
z	2.42 $\mu\text{m}$	2.43 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.874		
Theta	-78.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 573.869$  (brightness)

$B = 121.498$  (background)

$a = 0.790$  px

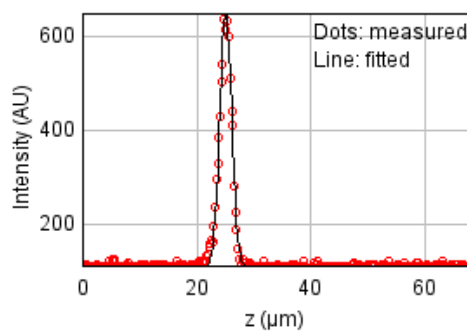
$b = -0.036$  px

$c = 0.617$  px

$x_c = 6.623$  px

$y_c = 6.659$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27591.2724

Standard deviation: 9.48018

$R^2 = 0.98803$

Parameters:

$a = 110.73033$

$b = 649.39774$

$c = 25.17111$

$d = 1.02943$

## Bead 1282

Date : Mon Oct 17 13:52:10 PDT 2022

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

Frame size : 12 pixels

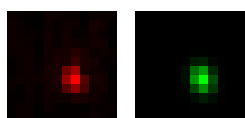
Coordinates : -136  $\mu\text{m}$  (x), -38.8  $\mu\text{m}$  (y), 24.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

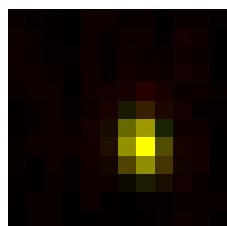
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	400 nm	270 nm
max	507 nm	528 nm	270 nm
z	2.17 $\mu\text{m}$	2.18 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.758		
Theta	-74.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 455.086 (brightness)

B = 118.611 (background)

a = 0.882 px

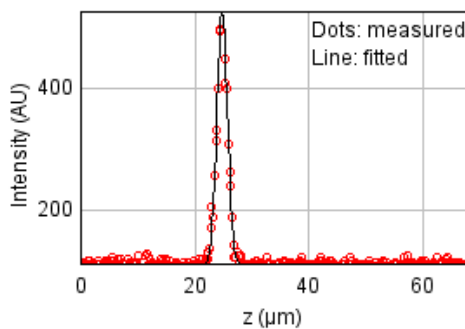
b = -0.098 px

c = 0.549 px

xc = 6.811 px

yc = 6.936 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22131.2958

Standard deviation: 8.49052

$R^2$ : 0.98207

Parameters:

a = 111.77929

b = 525.82578

c = 24.88853

d = 0.92187

## Bead 1283

Date : Mon Oct 17 13:52:10 PDT 2022

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

Frame size : 12 pixels

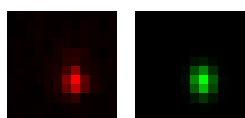
Coordinates : -16.7  $\mu\text{m}$  (x), -44.6  $\mu\text{m}$  (y), 25.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

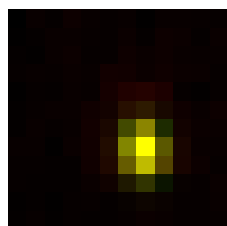
FWHM	Non corrected	Corrected	Theoretical
min	395 nm	412 nm	270 nm
max	528 nm	550 nm	270 nm
z	1.94 $\mu\text{m}$	1.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.748		
Theta	-85.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 656.328 (brightness)

B = 123.500 (background)

a = 0.857 px

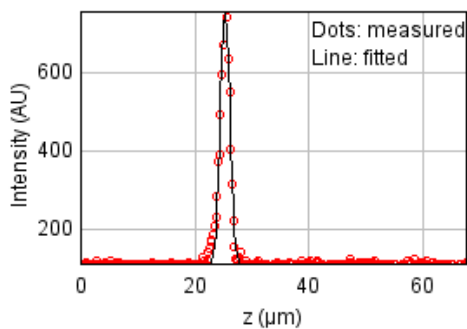
b = -0.029 px

c = 0.483 px

xc = 6.884 px

yc = 7.170 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40711.5428

Standard deviation: 11.51568

$R^2$ : 0.98477

Parameters:

a = 113.99775

b = 757.44503

c = 25.40678

d = 0.82492

## Bead 1284

Date : Mon Oct 17 13:52:10 PDT 2022

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

Frame size : 12 pixels

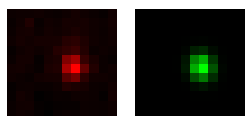
Coordinates : 142  $\mu\text{m}$  (x), -66.9  $\mu\text{m}$  (y), 25.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

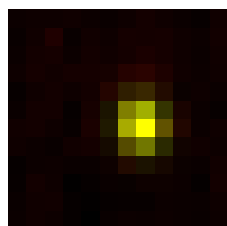
FWHM	Non corrected	Corrected	Theoretical
min	417 nm	434 nm	270 nm
max	489 nm	509 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.852		
Theta	-79.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 394.344 (brightness)

B = 119.069 (background)

a = 0.765 px

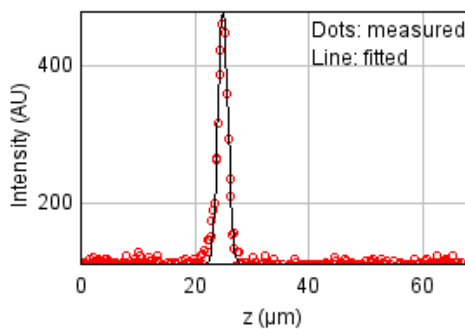
b = -0.038 px

c = 0.569 px

xc = 6.751 px

yc = 5.814 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22091.9514

Standard deviation: 8.48297

$R^2$ : 0.97580

Parameters:

a = 111.37756

b = 478.32631

c = 25.01823

d = 0.85979

## Bead 1285

Date : Mon Oct 17 13:52:10 PDT 2022

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

Frame size : 12 pixels

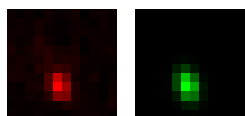
Coordinates : 130  $\mu\text{m}$  (x), -84.6  $\mu\text{m}$  (y), 21.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

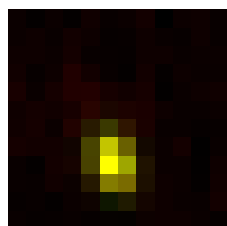
FWHM	Non corrected	Corrected	Theoretical
min	379 nm	394 nm	270 nm
max	549 nm	572 nm	270 nm
z	1.97 $\mu\text{m}$	1.98 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.69		
Theta	-72.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 357.517 (brightness)

B = 118.806 (background)

a = 0.890 px

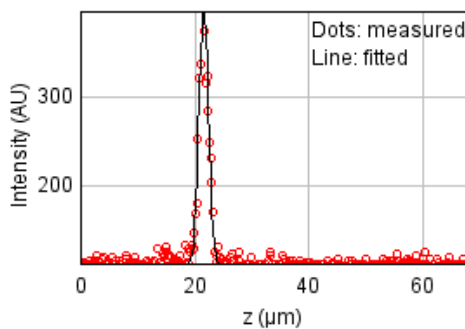
b = -0.143 px

c = 0.491 px

xc = 5.232 px

yc = 7.830 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23983.4587

Standard deviation: 8.83867

$R^2$ : 0.95657

Parameters:

a = 111.29035

b = 397.58172

c = 21.64616

d = 0.83649

## Bead 1286

Date : Mon Oct 17 13:52:10 PDT 2022

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

Frame size : 12 pixels

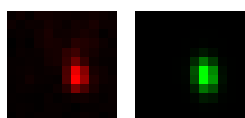
Coordinates : 32.4  $\mu\text{m}$  (x), 87.3  $\mu\text{m}$  (y), 25.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

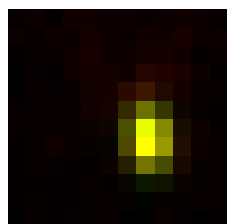
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	402 nm	270 nm
max	585 nm	610 nm	270 nm
z	2.13 $\mu\text{m}$	2.14 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.66		
Theta	-83.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 572.255 (brightness)

B = 125.463 (background)

a = 0.894 px

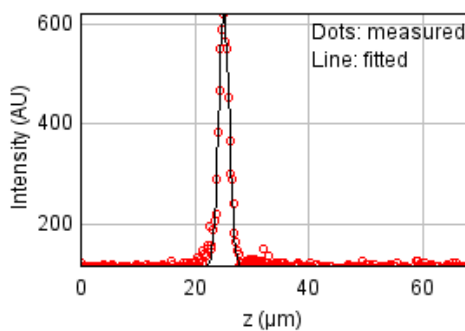
b = -0.055 px

c = 0.398 px

$x_c = 7.180$  px

$y_c = 6.531$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34816.6932

Standard deviation: 10.64939

$R^2$ : 0.98098

Parameters:

a = 115.56067

b = 624.50757

c = 25.19853

d = 0.90317

## Bead 1287

Date : Mon Oct 17 13:52:10 PDT 2022

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

Frame size : 12 pixels

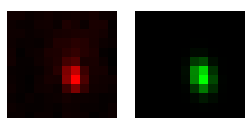
Coordinates : 119 um (x), 65.1 um (y), 25.1 um (z)

Corresponding bead : Not found

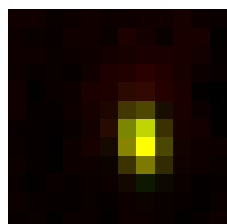
FWHM	Non corrected	Corrected	Theoretical
min	368 nm	384 nm	270 nm
max	553 nm	576 nm	270 nm
z	1.92 um	1.93 um	1.3 um
Asymmetry	0.666		
Theta	-79.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 425.189 (brightness)

B = 119.970 (background)

a = 0.969 px

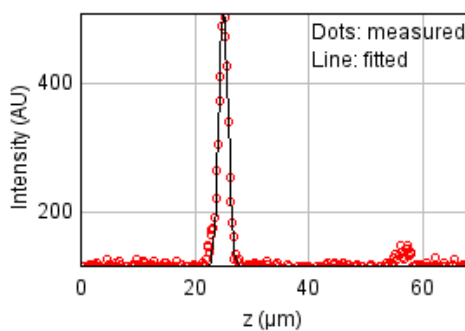
b = -0.102 px

c = 0.459 px

xc = 6.804 px

yc = 6.656 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29128.8859

Standard deviation: 9.74076

$R^2$ : 0.97101

Parameters:

a = 114.66655

b = 508.45512

c = 25.11987

d = 0.81567

## Bead 1288

Date : Mon Oct 17 13:52:11 PDT 2022

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

Frame size : 12 pixels

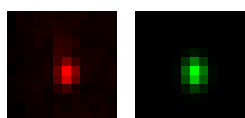
Coordinates : 107  $\mu\text{m}$  (x), 63.4  $\mu\text{m}$  (y), 25.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

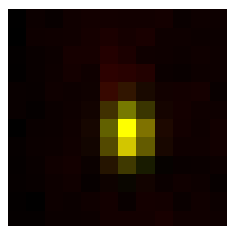
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	404 nm	270 nm
max	520 nm	542 nm	270 nm
z	2.08 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.745		
Theta	-87.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 468.786$  (brightness)

$B = 124.851$  (background)

$a = 0.892$  px

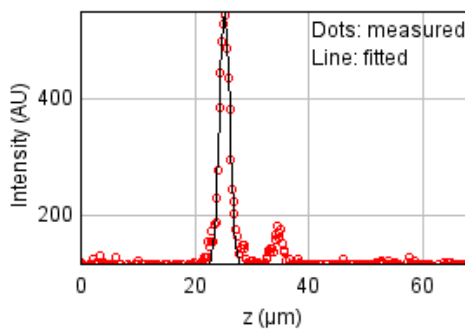
$b = -0.016$  px

$c = 0.496$  px

$x_c = 6.050$  px

$y_c = 6.244$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 51672.9954

Standard deviation: 12.97366

$R^2: 0.96091$

Parameters:

$a = 116.95834$

$b = 549.47274$

$c = 25.31656$

$d = 0.88370$



## Bead 1289 (Rejected)

Date : Mon Oct 17 13:52:11 PDT 2022

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

Frame size : 12 pixels

Coordinates : 101 um (x), 53.0 um (y), 22.0 um (z)

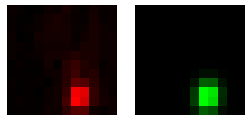
Corresponding bead : Not found

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

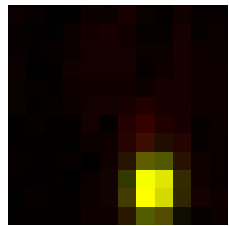
FWHM	Non corrected	Corrected	Theoretical
min	408 nm	425 nm	270 nm
max	516 nm	537 nm	270 nm
z	3.27 um	3.29 um	1.3 um
Asymmetry	0.791		
Theta	85.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 478.255 (brightness)

B = 124.276 (background)

a = 0.803 px

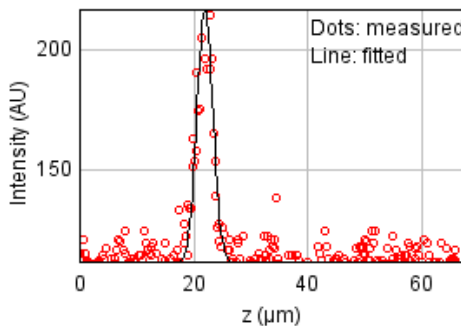
b = 0.024 px

c = 0.506 px

xc = 7.421 px

yc = 9.474 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16263.0098

Standard deviation: 7.27832

$R^2$ : 0.87617

Parameters:

a = 111.85570

b = 217.10626

c = 22.04942

d = 1.39046

## Bead 1290 (Rejected)

Date : Mon Oct 17 13:52:11 PDT 2022

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

Frame size : 12 pixels

Coordinates : -120  $\mu\text{m}$  (x), 53.9  $\mu\text{m}$  (y), 7.66  $\mu\text{m}$  (z)

Corresponding bead : Not found

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

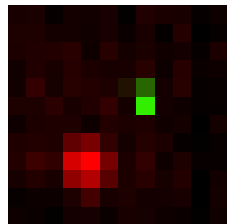
FWHM	Non corrected	Corrected	Theoretical
min	98.6 nm	103 nm	270 nm
max	167 nm	174 nm	270 nm
z	2.12 $\mu\text{m}$	2.13 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.589		
Theta	-53.8°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.003$



Parameters:

A = 121.597 (brightness)

B = 122.766 (background)

a = 10.660 px

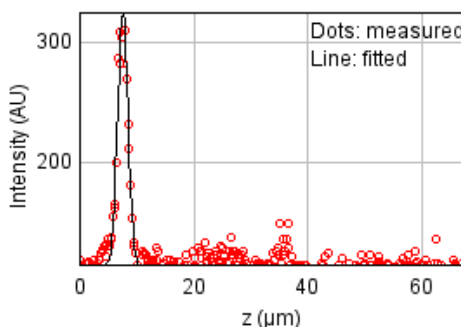
b = -4.305 px

c = 7.941 px

xc = 6.743 px

yc = 4.413 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29428.9999

Standard deviation: 9.79081

$R^2$ : 0.91120

Parameters:

a = 115.28541

b = 324.14153

c = 7.66250

d = 0.90185

## Bead 1291

Date : Mon Oct 17 13:52:11 PDT 2022

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

Frame size : 12 pixels

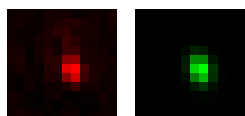
Coordinates : -103  $\mu\text{m}$  (x), 53.3  $\mu\text{m}$  (y), 25.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

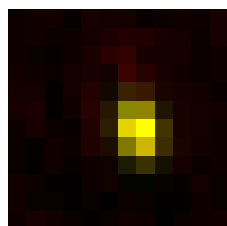
FWHM	Non corrected	Corrected	Theoretical
min	378 nm	394 nm	270 nm
max	535 nm	557 nm	270 nm
z	2.33 $\mu\text{m}$	2.34 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.706		
Theta	-75.7°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.936$



Parameters:

$A = 349.234$  (brightness)

$B = 119.470$  (background)

$a = 0.911$  px

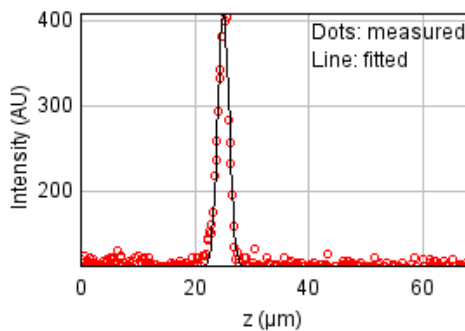
$b = -0.113$  px

$c = 0.497$  px

$x_c = 6.615$  px

$y_c = 6.079$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28319.2416

Standard deviation: 9.60443

$R^2: 0.95878$

Parameters:

$a = 112.90277$

$b = 408.23860$

$c = 25.10680$

$d = 0.98840$

## Bead 1292

Date : Mon Oct 17 13:52:11 PDT 2022

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

Frame size : 12 pixels

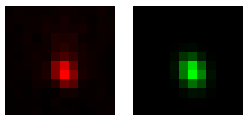
Coordinates : -102  $\mu\text{m}$  (x), 16.0  $\mu\text{m}$  (y), 25.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

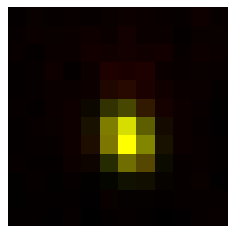
FWHM	Non corrected	Corrected	Theoretical
min	423 nm	441 nm	270 nm
max	543 nm	566 nm	270 nm
z	2.18 $\mu\text{m}$	2.19 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.78		
Theta	-68.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 638.766 (brightness)

B = 123.725 (background)

a = 0.710 px

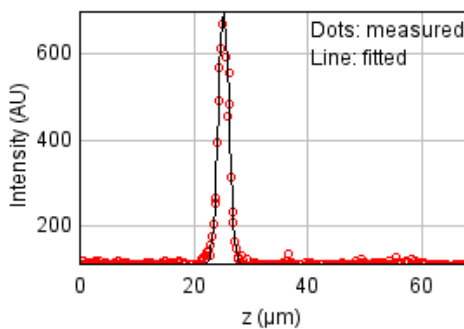
b = -0.099 px

c = 0.494 px

xc = 5.993 px

yc = 6.647 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 48870.3877

Standard deviation: 12.61693

$R^2$ : 0.98034

Parameters:

a = 112.73680

b = 699.10457

c = 25.31903

d = 0.92458

## Bead 1293

Date : Mon Oct 17 13:52:11 PDT 2022

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

Frame size : 12 pixels

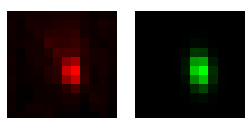
Coordinates : 158  $\mu\text{m}$  (x), 9.34  $\mu\text{m}$  (y), 25.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

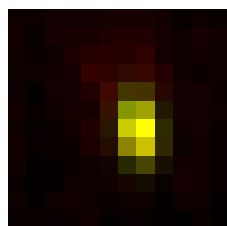
FWHM	Non corrected	Corrected	Theoretical
min	365 nm	380 nm	270 nm
max	610 nm	635 nm	270 nm
z	2.05 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.599		
Theta	-83.2°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.916$



Parameters:

$A = 392.769$  (brightness)

$B = 118.112$  (background)

$a = 0.998$  px

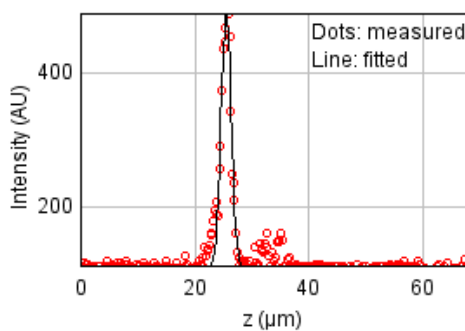
$b = -0.076$  px

$c = 0.370$  px

$x_c = 6.617$  px

$y_c = 6.038$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 55674.4847

Standard deviation: 13.46663

$R^2: 0.94407$

Parameters:

$a = 113.25572$

$b = 487.59208$

$c = 25.58865$

$d = 0.87225$

## Bead 1294 (Rejected)

Date : Mon Oct 17 13:52:12 PDT 2022

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

Frame size : 12 pixels

Coordinates : -98.0  $\mu\text{m}$  (x), -583 nm (y), 22.9  $\mu\text{m}$  (z)

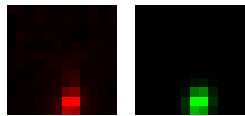
Corresponding bead : Not found

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

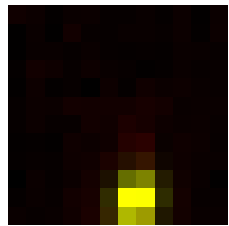
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	403 nm	270 nm
max	490 nm	510 nm	270 nm
z	3.26 $\mu\text{m}$	3.27 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.789		
Theta	74.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 528.187 (brightness)

B = 123.108 (background)

a = 0.875 px

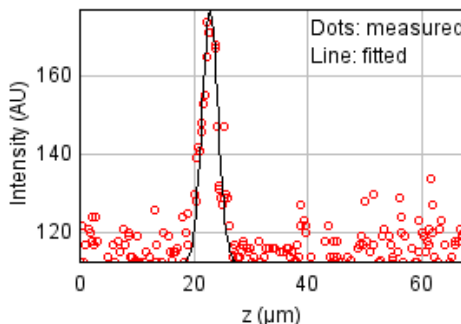
b = 0.086 px

c = 0.583 px

xc = 6.486 px

yc = 10.149 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 13658.8320

Standard deviation: 6.67018

$R^2$ : 0.75906

Parameters:

a = 112.28988

b = 176.81360

c = 22.94356

d = 1.38297

## Bead 1295

Date : Mon Oct 17 13:52:12 PDT 2022

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

Frame size : 12 pixels

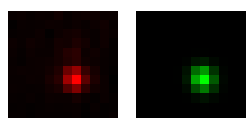
Coordinates : -39.9  $\mu\text{m}$  (x), -28.0  $\mu\text{m}$  (y), 25.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

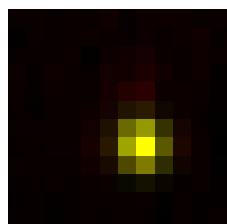
FWHM	Non corrected	Corrected	Theoretical
min	421 nm	438 nm	270 nm
max	466 nm	486 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.902		
Theta	-75.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 659.611 (brightness)

B = 125.250 (background)

a = 0.749 px

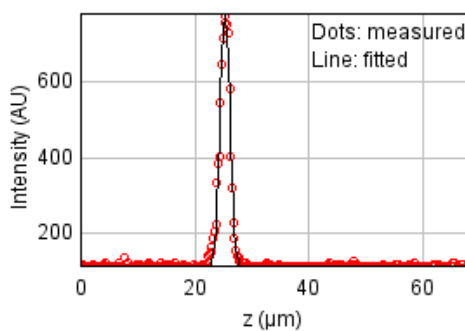
b = -0.035 px

c = 0.626 px

xc = 6.789 px

yc = 6.898 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 38908.6220

Standard deviation: 11.25781

$R^2$ : 0.98692

Parameters:

a = 113.64694

b = 783.44382

c = 25.39860

d = 0.84973

## Bead 1296

Date : Mon Oct 17 13:52:12 PDT 2022

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

Frame size : 12 pixels

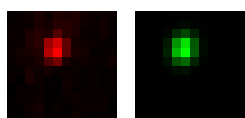
Coordinates : -87.8  $\mu\text{m}$  (x), -35.0  $\mu\text{m}$  (y), 10.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

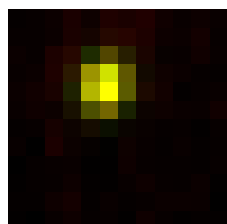
FWHM	Non corrected	Corrected	Theoretical
min	439 nm	457 nm	270 nm
max	512 nm	534 nm	270 nm
z	2.42 $\mu\text{m}$	2.43 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.857		
Theta	76.6°		

### 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 = 393.261 (brightness)

B = 119.450 (background)

a = 0.687 px

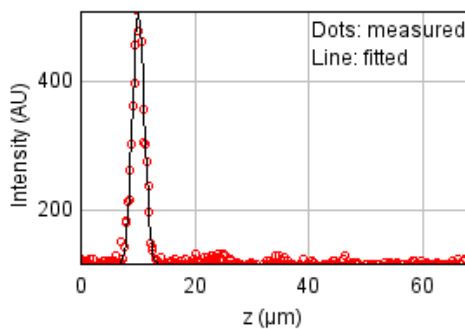
b = 0.042 px

c = 0.521 px

xc = 4.767 px

yc = 3.638 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 33535.1042

Standard deviation: 10.45155

$R^2$ : 0.97359

Parameters:

a = 114.33289

b = 511.90276

c = 10.20486

d = 1.02597



## Bead 1297

Date : Mon Oct 17 13:52:12 PDT 2022

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

Frame size : 12 pixels

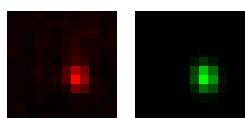
Coordinates : -123  $\mu\text{m}$  (x), 85.1  $\mu\text{m}$  (y), 25.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

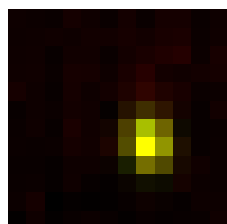
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	407 nm	270 nm
max	493 nm	513 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.794		
Theta	-79.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 353.732$  (brightness)

$B = 119.825$  (background)

$a = 0.867$  px

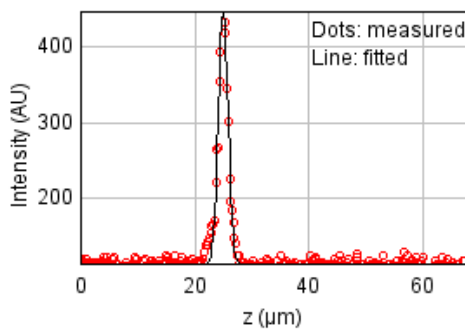
$b = -0.056$  px

$c = 0.562$  px

$x_c = 7.178$  px

$y_c = 6.776$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22050.6837

Standard deviation: 8.47504

$R^2 = 0.97055$

Parameters:

$a = 113.39398$

$b = 446.40381$

$c = 25.07098$

$d = 0.85120$

## Bead 1298

Date : Mon Oct 17 13:52:12 PDT 2022

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

Frame size : 12 pixels

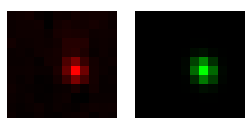
Coordinates : -66.7  $\mu\text{m}$  (x), 84.8  $\mu\text{m}$  (y), 25.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

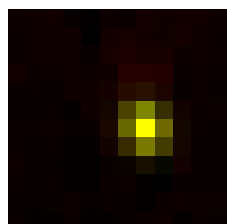
FWHM	Non corrected	Corrected	Theoretical
min	379 nm	395 nm	270 nm
max	451 nm	470 nm	270 nm
z	1.84 $\mu\text{m}$	1.85 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.84		
Theta	-67.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 359.477$  (brightness)

$B = 122.257$  (background)

$a = 0.893$  px

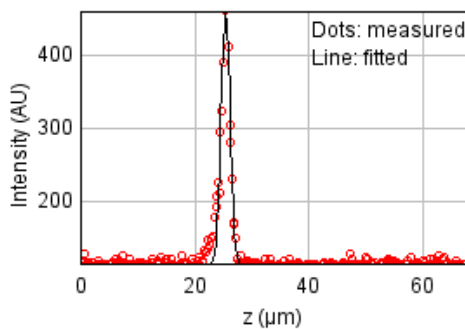
$b = -0.098$  px

$c = 0.701$  px

$x_c = 6.998$  px

$y_c = 5.964$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 32277.4078

Standard deviation: 10.25369

$R^2: 0.95750$

Parameters:

$a = 113.49449$

$b = 460.46126$

$c = 25.48798$

$d = 0.78181$

## Bead 1299

Date : Mon Oct 17 13:52:12 PDT 2022

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

Frame size : 12 pixels

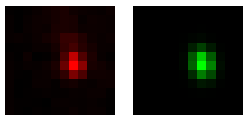
Coordinates : 136  $\mu\text{m}$  (x), 71.7  $\mu\text{m}$  (y), 25.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

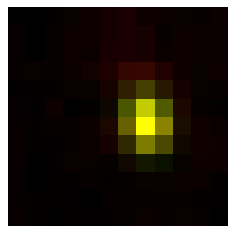
FWHM	Non corrected	Corrected	Theoretical
min	401 nm	417 nm	270 nm
max	538 nm	560 nm	270 nm
z	1.89 $\mu\text{m}$	1.89 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.745		
Theta	-80.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 444.003$  (brightness)

$B = 118.980$  (background)

$a = 0.825$  px

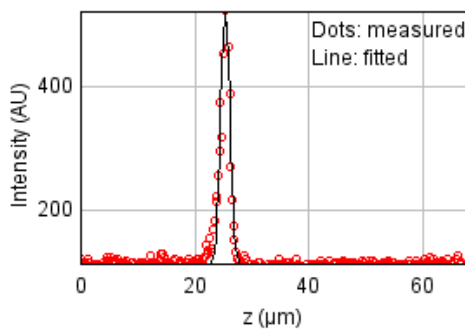
$b = -0.062$  px

$c = 0.475$  px

$x_c = 7.074$  px

$y_c = 5.751$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 46199.9784

Standard deviation: 12.26738

$R^2: 0.95739$

Parameters:

$a = 113.05087$

$b = 522.92481$

$c = 25.43712$

$d = 0.80050$

## Bead 1300

Date : Mon Oct 17 13:52:12 PDT 2022

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

Frame size : 12 pixels

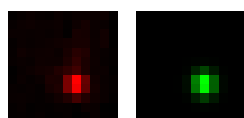
Coordinates : -66.9  $\mu\text{m}$  (x), 66.9  $\mu\text{m}$  (y), 25.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

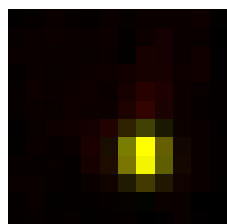
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	414 nm	270 nm
max	437 nm	456 nm	270 nm
z	1.94 $\mu\text{m}$	1.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.908		
Theta	-84.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 595.367 (brightness)

B = 124.253 (background)

a = 0.849 px

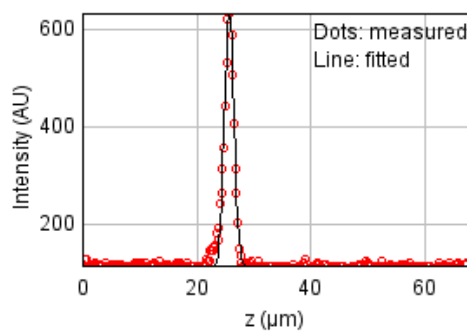
b = -0.016 px

c = 0.703 px

xc = 6.925 px

yc = 7.470 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30733.2930

Standard deviation: 10.00542

$R^2$ : 0.98235

Parameters:

a = 114.57782

b = 632.98477

c = 25.76948

d = 0.82569