

## Bead 1701

Date : Mon Oct 17 13:52:28 PDT 2022

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

Frame size : 12 pixels

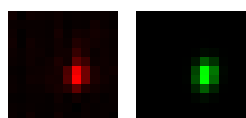
Coordinates : -80.9  $\mu\text{m}$  (x), -55.2  $\mu\text{m}$  (y), 32.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

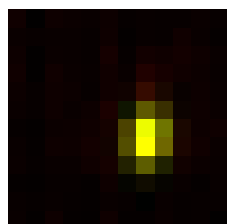
FWHM	Non corrected	Corrected	Theoretical
min	356 nm	371 nm	270 nm
max	517 nm	538 nm	270 nm
z	2.22 $\mu\text{m}$	2.23 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.689		
Theta	82.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 491.950 (brightness)

B = 119.868 (background)

a = 1.049 px

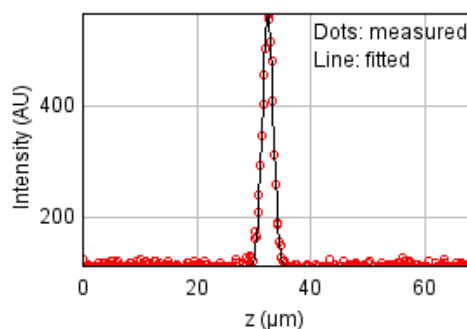
b = 0.069 px

c = 0.511 px

xc = 7.100 px

yc = 6.500 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18797.1810

Standard deviation: 7.82487

$R^2$ : 0.98747

Parameters:

a = 113.62894

b = 566.69181

c = 32.52860

d = 0.94250

## Bead 1702

Date : Mon Oct 17 13:52:28 PDT 2022

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

Frame size : 12 pixels

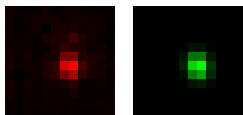
Coordinates : -89.0  $\mu\text{m}$  (x), -66.6  $\mu\text{m}$  (y), 32.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

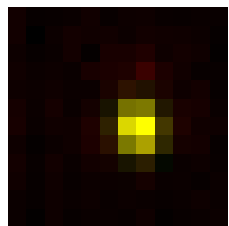
FWHM	Non corrected	Corrected	Theoretical
min	394 nm	411 nm	270 nm
max	476 nm	496 nm	270 nm
z	2.03 $\mu\text{m}$	2.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.828		
Theta	-77.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 490.679$  (brightness)

$B = 122.623$  (background)

$a = 0.852$  px

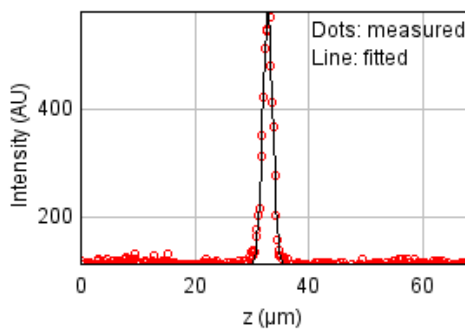
$b = -0.056$  px

$c = 0.604$  px

$x_c = 6.607$  px

$y_c = 6.081$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20024.5915

Standard deviation: 8.07630

$R^2 = 0.98647$

Parameters:

$a = 113.62622$

$b = 582.72267$

$c = 32.86430$

$d = 0.86273$

## Bead 1703

Date : Mon Oct 17 13:52:29 PDT 2022

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

Frame size : 12 pixels

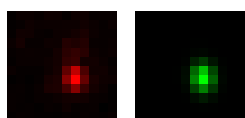
Coordinates : 81.8  $\mu\text{m}$  (x), -68.7  $\mu\text{m}$  (y), 32.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

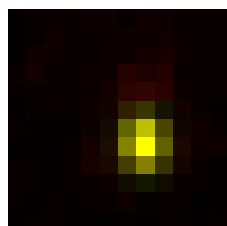
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	418 nm	270 nm
max	523 nm	544 nm	270 nm
z	1.97 $\mu\text{m}$	1.98 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.769		
Theta	-86.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 511.719 (brightness)

B = 121.251 (background)

a = 0.830 px

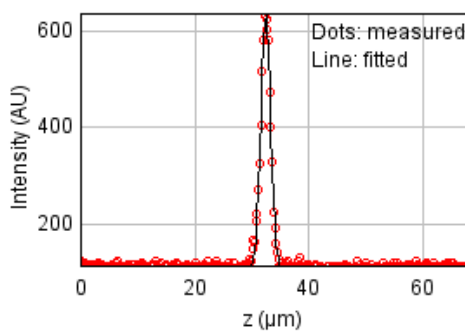
b = -0.023 px

c = 0.493 px

xc = 6.904 px

yc = 6.786 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16902.8485

Standard deviation: 7.42012

$R^2$ : 0.99060

Parameters:

a = 112.11903

b = 637.39804

c = 32.52122

d = 0.83850

## Bead 1704

Date : Mon Oct 17 13:52:29 PDT 2022

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

Frame size : 12 pixels

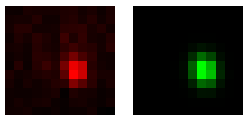
Coordinates : -127  $\mu\text{m}$  (x), 81.2  $\mu\text{m}$  (y), 32.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

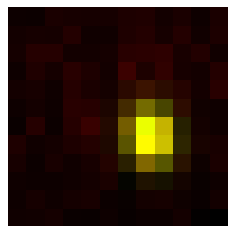
FWHM	Non corrected	Corrected	Theoretical
min	439 nm	457 nm	270 nm
max	556 nm	580 nm	270 nm
z	2.37 $\mu\text{m}$	2.38 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.788		
Theta	-80.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 230.669 (brightness)

B = 119.408 (background)

a = 0.690 px

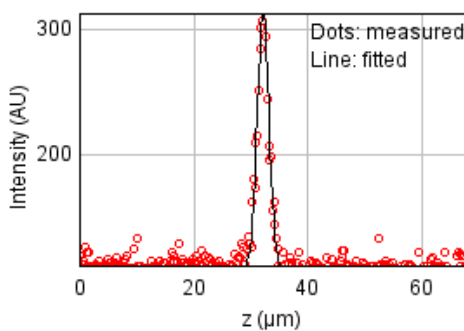
b = -0.044 px

c = 0.441 px

$x_c = 7.274$  px

$y_c = 6.511$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16854.9815

Standard deviation: 7.40960

$R^2$ : 0.94851

Parameters:

a = 111.90481

b = 312.81525

c = 32.23598

d = 1.00795

## Bead 1705 (Rejected)

Date : Mon Oct 17 13:52:29 PDT 2022

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

Frame size : 12 pixels

Coordinates : -43.0  $\mu\text{m}$  (x), 68.4  $\mu\text{m}$  (y), 33.8  $\mu\text{m}$  (z)

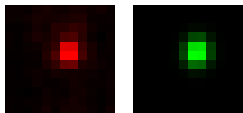
Corresponding bead : Not found

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

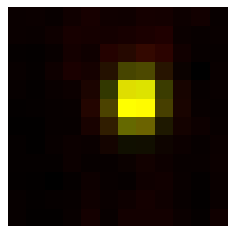
FWHM	Non corrected	Corrected	Theoretical
min	443 nm	462 nm	270 nm
max	511 nm	532 nm	270 nm
z	3.55 $\mu\text{m}$	3.57 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.868		
Theta	82.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 732.080 (brightness)

B = 133.348 (background)

a = 0.680 px

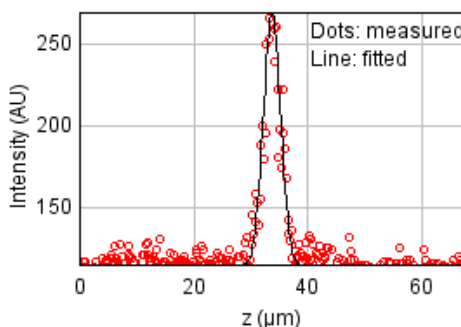
b = 0.021 px

c = 0.517 px

xc = 6.498 px

yc = 4.616 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27648.3969

Standard deviation: 9.48999

$R^2$ : 0.90536

Parameters:

a = 115.29634

b = 269.02676

c = 33.78079

d = 1.50821

## Bead 1706 (Rejected)

Date : Mon Oct 17 13:52:29 PDT 2022

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

Frame size : 12 pixels

Coordinates : 154 um (x), 63.8 um (y), 32.8 um (z)

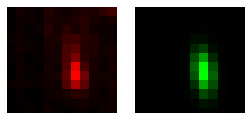
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

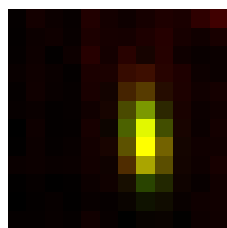
FWHM	Non corrected	Corrected	Theoretical
min	357 nm	372 nm	270 nm
max	784 nm	816 nm	270 nm
z	2.1 um	2.11 um	1.3 um
Asymmetry	0.455		
Theta	-83.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 299.001 (brightness)

B = 116.226 (background)

a = 1.042 px

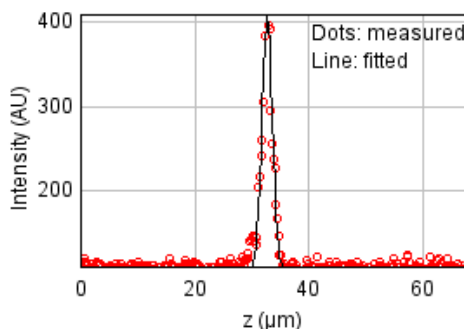
b = -0.101 px

c = 0.231 px

xc = 7.000 px

yc = 6.558 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23319.7531

Standard deviation: 8.71551

$R^2$ : 0.96286

Parameters:

a = 110.84824

b = 407.99065

c = 32.76321

d = 0.89135

## Bead 1707

Date : Mon Oct 17 13:52:29 PDT 2022

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

Frame size : 12 pixels

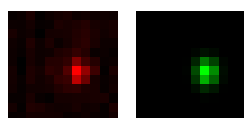
Coordinates : -163  $\mu\text{m}$  (x), 55.5  $\mu\text{m}$  (y), 32.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

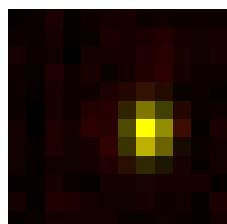
FWHM	Non corrected	Corrected	Theoretical
min	383 nm	399 nm	270 nm
max	487 nm	507 nm	270 nm
z	2.36 $\mu\text{m}$	2.37 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.786		
Theta	-88.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.904$



Parameters:

A = 182.958 (brightness)

B = 113.861 (background)

a = 0.915 px

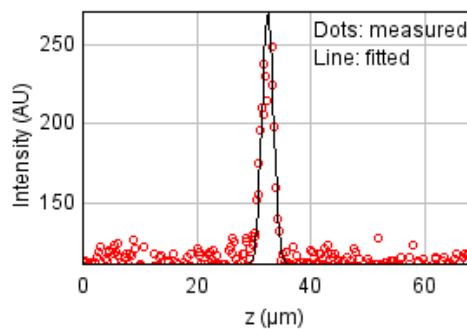
b = -0.009 px

c = 0.566 px

xc = 7.172 px

yc = 6.178 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20707.1072

Standard deviation: 8.21279

$R^2$ : 0.90328

Parameters:

a = 111.37558

b = 270.43980

c = 32.52625

d = 1.00109

## Bead 1708

Date : Mon Oct 17 13:52:29 PDT 2022

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

Frame size : 12 pixels

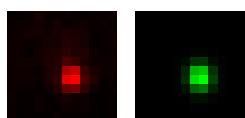
Coordinates : 11.8  $\mu\text{m}$  (x), 44.4  $\mu\text{m}$  (y), 33.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

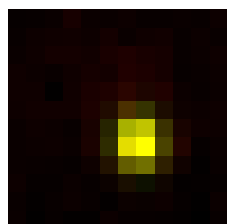
FWHM	Non corrected	Corrected	Theoretical
min	425 nm	443 nm	270 nm
max	499 nm	520 nm	270 nm
z	2.14 $\mu\text{m}$	2.15 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.853		
Theta	-83.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 508.851$  (brightness)

$B = 123.959$  (background)

$a = 0.739$  px

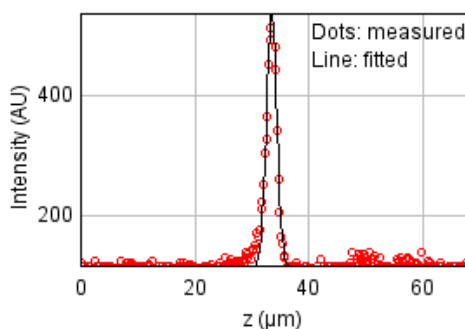
$b = -0.022$  px

$c = 0.542$  px

$x_c = 6.589$  px

$y_c = 6.727$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40916.1559

Standard deviation: 11.54458

$R^2: 0.96813$

Parameters:

$a = 117.18410$

$b = 539.68863$

$c = 33.55008$

$d = 0.90743$



## Bead 1709

Date : Mon Oct 17 13:52:30 PDT 2022

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

Frame size : 12 pixels

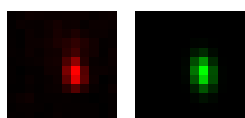
Coordinates : 25.1  $\mu\text{m}$  (x), 23.8  $\mu\text{m}$  (y), 33.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

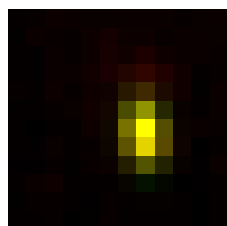
FWHM	Non corrected	Corrected	Theoretical
min	366 nm	381 nm	270 nm
max	611 nm	637 nm	270 nm
z	2.08 $\mu\text{m}$	2.08 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.599		
Theta	-83.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 635.857$  (brightness)

$B = 121.753$  (background)

$a = 0.994$  px

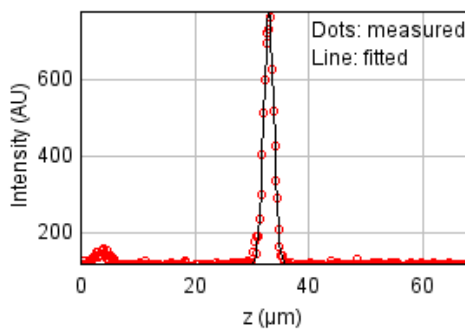
$b = -0.068$  px

$c = 0.366$  px

$x_c = 6.919$  px

$y_c = 6.228$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 41985.6615

Standard deviation: 11.69449

$R^2: 0.98601$

Parameters:

$a = 116.13871$

$b = 777.00845$

$c = 33.04474$

$d = 0.88173$

## Bead 1710

Date : Mon Oct 17 13:52:30 PDT 2022

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

Frame size : 12 pixels

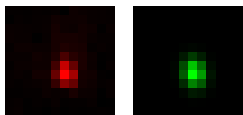
Coordinates : -154  $\mu\text{m}$  (x), 6.97  $\mu\text{m}$  (y), 33.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

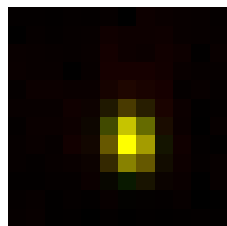
FWHM	Non corrected	Corrected	Theoretical
min	412 nm	430 nm	270 nm
max	538 nm	560 nm	270 nm
z	2.16 $\mu\text{m}$	2.17 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.767		
Theta	-80.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 579.784$  (brightness)

$B = 119.518$  (background)

$a = 0.780$  px

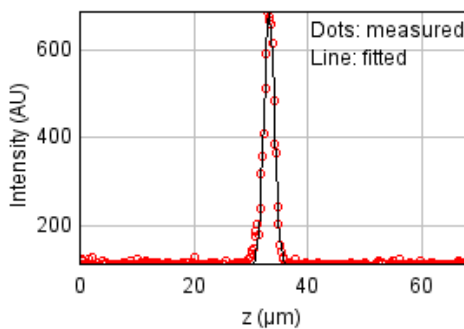
$b = -0.052$  px

$c = 0.472$  px

$x_c = 6.172$  px

$y_c = 6.802$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28864.5261

Standard deviation: 9.69646

$R^2: 0.98787$

Parameters:

$a = 111.16668$

$b = 689.53763$

$c = 33.28711$

$d = 0.91606$

## Bead 1711

Date : Mon Oct 17 13:52:30 PDT 2022

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

Frame size : 12 pixels

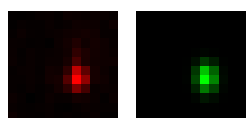
Coordinates : -153  $\mu\text{m}$  (x), -7.98  $\mu\text{m}$  (y), 33.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

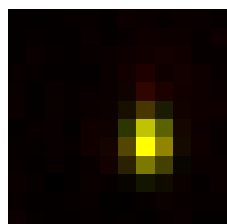
FWHM	Non corrected	Corrected	Theoretical
min	370 nm	385 nm	270 nm
max	514 nm	535 nm	270 nm
z	2.18 $\mu\text{m}$	2.19 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.72		
Theta	-88.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 647.941 (brightness)

B = 123.166 (background)

a = 0.981 px

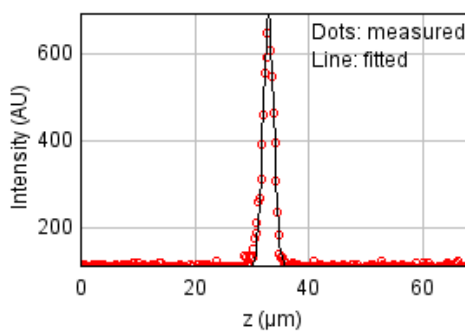
b = -0.012 px

c = 0.509 px

xc = 7.160 px

yc = 6.770 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31836.4845

Standard deviation: 10.18341

$R^2$ : 0.98680

Parameters:

a = 111.56380

b = 690.70774

c = 32.98194

d = 0.92525

## Bead 1712 (Rejected)

Date : Mon Oct 17 13:52:30 PDT 2022

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

Frame size : 12 pixels

Coordinates : 160  $\mu\text{m}$  (x), -31.6  $\mu\text{m}$  (y), 29.5  $\mu\text{m}$  (z)

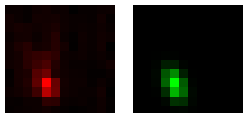
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

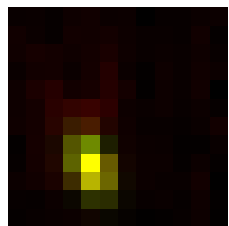
FWHM	Non corrected	Corrected	Theoretical
min	352 nm	366 nm	270 nm
max	586 nm	610 nm	270 nm
z	2.24 $\mu\text{m}$	2.25 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.6		
Theta	-68.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 323.561 (brightness)

B = 116.884 (background)

a = 0.992 px

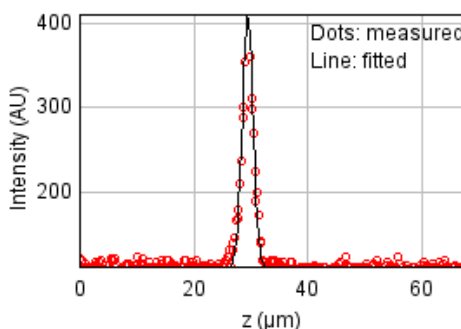
b = -0.236 px

c = 0.483 px

xc = 4.012 px

yc = 8.146 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25207.4893

Standard deviation: 9.06141

$R^2$ : 0.96329

Parameters:

a = 109.62717

b = 411.22919

c = 29.51877

d = 0.94979

## Bead 1713

Date : Mon Oct 17 13:52:30 PDT 2022

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

Frame size : 12 pixels

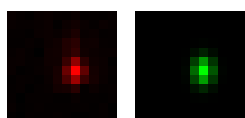
Coordinates : 82.9  $\mu\text{m}$  (x), -88.3  $\mu\text{m}$  (y), 33.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

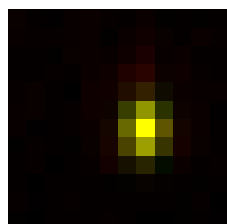
FWHM	Non corrected	Corrected	Theoretical
min	367 nm	383 nm	270 nm
max	517 nm	538 nm	270 nm
z	1.86 $\mu\text{m}$	1.86 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.711		
Theta	88.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 681.873 (brightness)

B = 121.002 (background)

a = 0.993 px

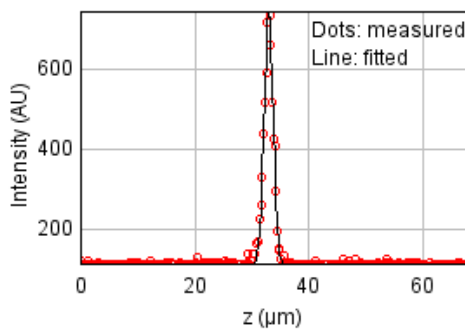
b = 0.011 px

c = 0.503 px

xc = 6.946 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: 31922.3033

Standard deviation: 10.19713

$R^2$ : 0.98705

Parameters:

a = 113.65623

b = 745.87811

c = 33.02804

d = 0.78822

## Bead 1714

Date : Mon Oct 17 13:52:30 PDT 2022

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

Frame size : 12 pixels

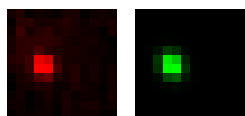
Coordinates : -115  $\mu\text{m}$  (x), 90.8  $\mu\text{m}$  (y), 4.31  $\mu\text{m}$  (z)

Corresponding bead : Not found

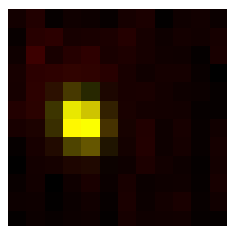
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	408 nm	270 nm
max	462 nm	481 nm	270 nm
z	2.51 $\mu\text{m}$	2.52 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.848		
Theta	-63.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 300.882$  (brightness)

$B = 120.135$  (background)

$a = 0.827$  px

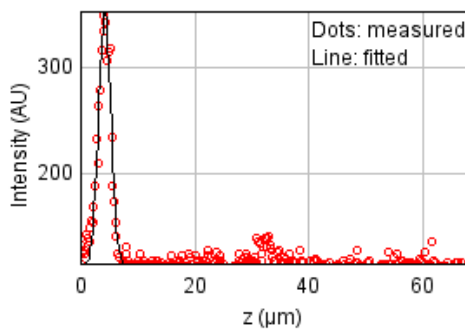
$b = -0.098$  px

$c = 0.678$  px

$x_c = 3.471$  px

$y_c = 5.617$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27426.0604

Standard deviation: 9.45176

$R^2: 0.94462$

Parameters:

$a = 114.14037$

$b = 354.50688$

$c = 4.30777$

$d = 1.06431$

## Bead 1715

Date : Mon Oct 17 13:52:31 PDT 2022

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

Frame size : 12 pixels

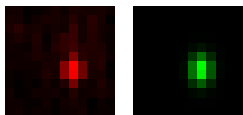
Coordinates : -106  $\mu\text{m}$  (x), 82.1  $\mu\text{m}$  (y), 32.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

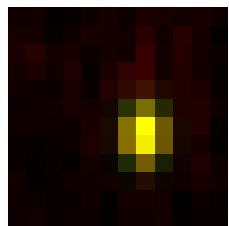
FWHM	Non corrected	Corrected	Theoretical
min	383 nm	399 nm	270 nm
max	544 nm	566 nm	270 nm
z	2.14 $\mu\text{m}$	2.15 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.705		
Theta	89.4°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.907$



Parameters:

$A = 289.557$  (brightness)

$B = 119.253$  (background)

$a = 0.914$  px

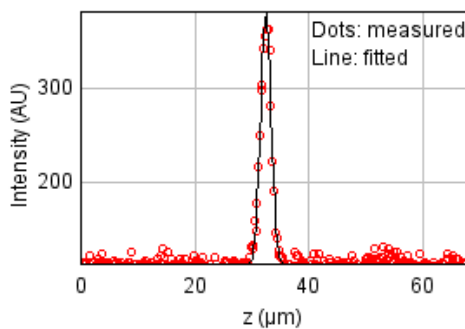
$b = 0.005$  px

$c = 0.454$  px

$xc = 6.932$  px

$yc = 6.433$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18511.8327

Standard deviation: 7.76525

$R^2: 0.96471$

Parameters:

$a = 113.37666$

$b = 382.56026$

$c = 32.54225$

$d = 0.91033$

## Bead 1716

Date : Mon Oct 17 13:52:31 PDT 2022

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

Frame size : 12 pixels

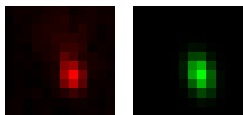
Coordinates : 103 um (x), 82.0 um (y), 33.3 um (z)

Corresponding bead : Not found

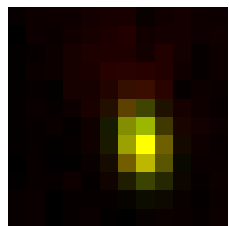
FWHM	Non corrected	Corrected	Theoretical
min	424 nm	441 nm	270 nm
max	663 nm	691 nm	270 nm
z	1.96 um	1.97 um	1.3 um
Asymmetry	0.639		
Theta	-76.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 392.556 (brightness)

B = 122.882 (background)

a = 0.721 px

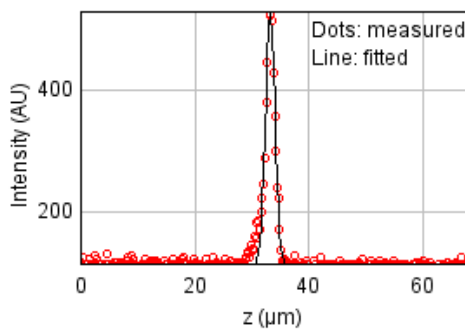
b = -0.104 px

c = 0.331 px

xc = 6.813 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: 30647.7811

Standard deviation: 9.99149

$R^2$ : 0.97317

Parameters:

a = 114.19603

b = 530.02234

c = 33.29641

d = 0.83427



## Bead 1717

Date : Mon Oct 17 13:52:31 PDT 2022

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

Frame size : 12 pixels

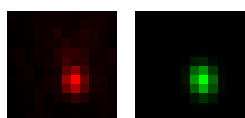
Coordinates : 62.7 um (x), 73.1 um (y), 33.2 um (z)

Corresponding bead : Not found

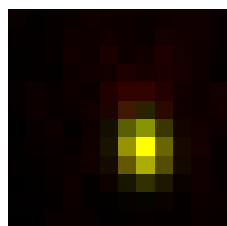
FWHM	Non corrected	Corrected	Theoretical
min	424 nm	441 nm	270 nm
max	543 nm	565 nm	270 nm
z	2.17 um	2.18 um	1.3 um
Asymmetry	0.78		
Theta	-78.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 445.904 (brightness)

B = 123.535 (background)

a = 0.737 px

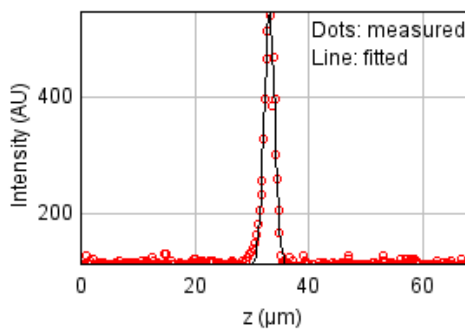
b = -0.056 px

c = 0.467 px

xc = 6.881 px

yc = 7.067 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 33078.8198

Standard deviation: 10.38020

$R^2$ : 0.97578

Parameters:

a = 113.54809

b = 547.38912

c = 33.15200

d = 0.92335

## Bead 1718 (Rejected)

Date : Mon Oct 17 13:52:31 PDT 2022

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

Frame size : 12 pixels

Coordinates : 139  $\mu\text{m}$  (x), 62.1  $\mu\text{m}$  (y), 32.7  $\mu\text{m}$  (z)

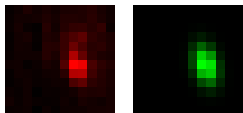
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	420 nm	437 nm	270 nm
max	728 nm	758 nm	270 nm
z	2.45 $\mu\text{m}$	2.46 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.576		
Theta	-76.6°		

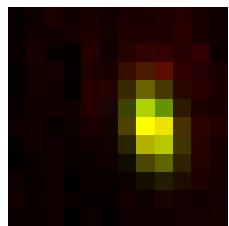
### XY profile & fitting parameters :

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



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

$R^2 = 0.889$



Parameters:

A = 267.830 (brightness)

B = 119.049 (background)

a = 0.735 px

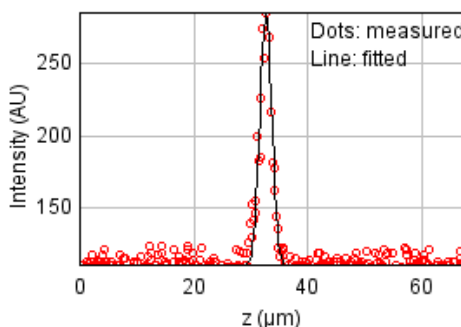
b = -0.115 px

c = 0.280 px

xc = 7.429 px

yc = 6.027 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15373.6483

Standard deviation: 7.07651

$R^2$ : 0.94008

Parameters:

a = 110.59333

b = 285.01555

c = 32.71895

d = 1.04072

## Bead 1719

Date : Mon Oct 17 13:52:31 PDT 2022

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

Frame size : 12 pixels

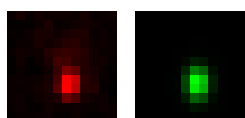
Coordinates : 111 um (x), 54.6 um (y), 33.4 um (z)

Corresponding bead : Not found

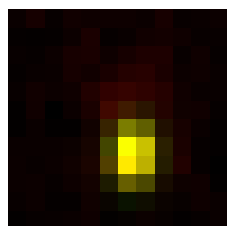
FWHM	Non corrected	Corrected	Theoretical
min	413 nm	430 nm	270 nm
max	577 nm	601 nm	270 nm
z	2.13 um	2.14 um	1.3 um
Asymmetry	0.715		
Theta	-90.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 440.992 (brightness)

B = 119.444 (background)

a = 0.787 px

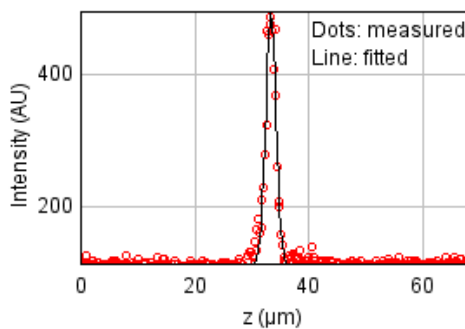
b = -0.000 px

c = 0.403 px

xc = 6.321 px

yc = 7.388 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 33101.3441

Standard deviation: 10.38374

$R^2$ : 0.96814

Parameters:

a = 113.25189

b = 494.16190

c = 33.41248

d = 0.90309

## Bead 1720 (Rejected)

Date : Mon Oct 17 13:52:31 PDT 2022

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

Frame size : 12 pixels

Coordinates : 118 um (x), 45.7 um (y), 31.3 um (z)

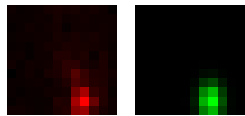
Corresponding bead : Not found

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

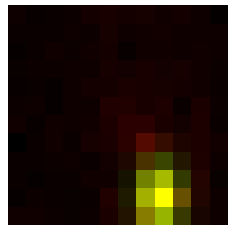
FWHM	Non corrected	Corrected	Theoretical
min	420 nm	437 nm	270 nm
max	640 nm	667 nm	270 nm
z	2.31 um	2.32 um	1.3 um
Asymmetry	0.655		
Theta	-89.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.912$



Parameters:

A = 298.910 (brightness)

B = 118.557 (background)

a = 0.762 px

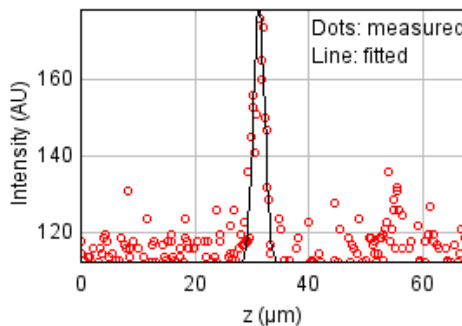
b = -0.004 px

c = 0.327 px

xc = 7.743 px

yc = 9.976 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 14746.5965

Standard deviation: 6.93069

$R^2$ : 0.69002

Parameters:

a = 112.28434

b = 178.46179

c = 31.33518

d = 0.98066

## Bead 1721

Date : Mon Oct 17 13:52:32 PDT 2022

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

Frame size : 12 pixels

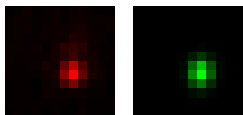
Coordinates : -95.3  $\mu\text{m}$  (x), 42.8  $\mu\text{m}$  (y), 33.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

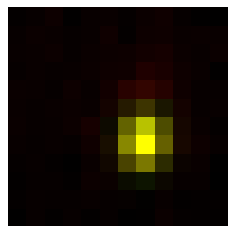
FWHM	Non corrected	Corrected	Theoretical
min	408 nm	424 nm	270 nm
max	510 nm	531 nm	270 nm
z	2.13 $\mu\text{m}$	2.14 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.799		
Theta	85.5°		

### 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 = 612.568 (brightness)

B = 123.091 (background)

a = 0.806 px

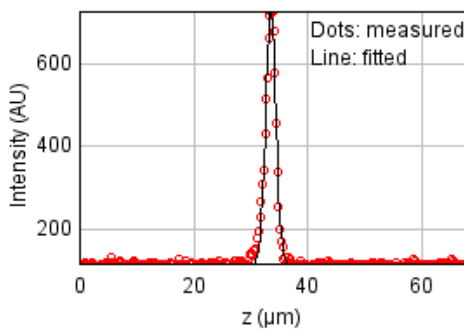
b = 0.023 px

c = 0.517 px

xc = 6.898 px

yc = 6.769 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37177.5904

Standard deviation: 11.00453

$R^2$ : 0.98614

Parameters:

a = 113.27835

b = 730.36978

c = 33.57296

d = 0.90503

## Bead 1722 (Rejected)

Date : Mon Oct 17 13:52:32 PDT 2022

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

Frame size : 12 pixels

Coordinates : 77.6  $\mu\text{m}$  (x), -13.3  $\mu\text{m}$  (y), 29.9  $\mu\text{m}$  (z)

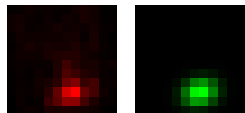
Corresponding bead : Not found

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

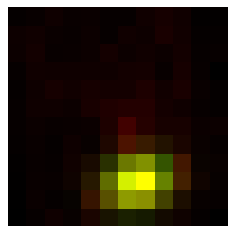
FWHM	Non corrected	Corrected	Theoretical
min	478 nm	498 nm	270 nm
max	622 nm	648 nm	270 nm
z	3.67 $\mu\text{m}$	3.68 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.769		
Theta	16.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.909$



Parameters:

A = 396.560 (brightness)

B = 124.219 (background)

a = 0.366 px

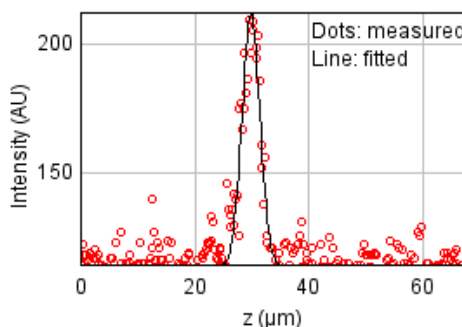
b = 0.065 px

c = 0.567 px

xc = 6.572 px

yc = 9.046 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16448.9850

Standard deviation: 7.31982

$R^2$ : 0.87142

Parameters:

a = 113.82826

b = 212.19640

c = 29.92670

d = 1.55685

## Bead 1723

Date : Mon Oct 17 13:52:32 PDT 2022

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

Frame size : 12 pixels

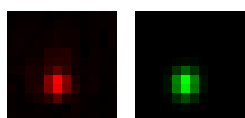
Coordinates : -38.7  $\mu\text{m}$  (x), -20.4  $\mu\text{m}$  (y), 29.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

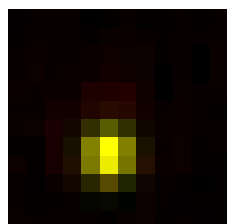
FWHM	Non corrected	Corrected	Theoretical
min	442 nm	461 nm	270 nm
max	496 nm	517 nm	270 nm
z	2.03 $\mu\text{m}$	2.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.891		
Theta	87.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 583.602 (brightness)

B = 123.809 (background)

a = 0.686 px

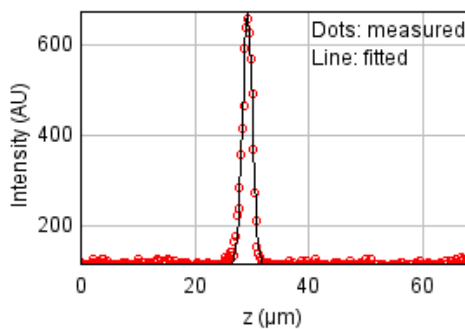
b = 0.006 px

c = 0.545 px

xc = 4.993 px

yc = 7.428 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25543.6181

Standard deviation: 9.12162

$R^2$ : 0.98783

Parameters:

a = 114.26758

b = 673.08195

c = 29.30065

d = 0.86298

## Bead 1724

Date : Mon Oct 17 13:52:32 PDT 2022

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

Frame size : 12 pixels

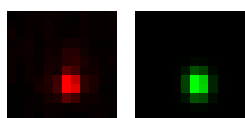
Coordinates : -62.8  $\mu\text{m}$  (x), -32.6  $\mu\text{m}$  (y), 33.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

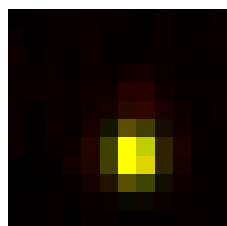
FWHM	Non corrected	Corrected	Theoretical
min	411 nm	428 nm	270 nm
max	482 nm	502 nm	270 nm
z	2.07 $\mu\text{m}$	2.08 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.852		
Theta	-85.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 754.839$  (brightness)

$B = 124.798$  (background)

$a = 0.794$  px

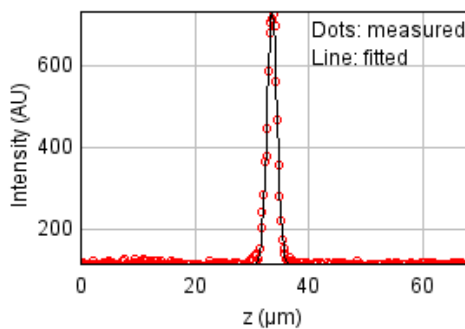
$b = -0.015$  px

$c = 0.578$  px

$x_c = 6.374$  px

$y_c = 7.512$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25826.6114

Standard deviation: 9.17201

$R^2: 0.99011$

Parameters:

$a = 113.44336$

$b = 731.75982$

$c = 33.62090$

$d = 0.88027$



## Bead 1725

Date : Mon Oct 17 13:52:32 PDT 2022

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

Frame size : 12 pixels

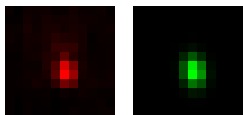
Coordinates : 159  $\mu\text{m}$  (x), -50.2  $\mu\text{m}$  (y), 33.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

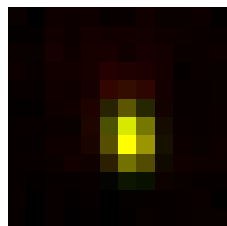
FWHM	Non corrected	Corrected	Theoretical
min	393 nm	409 nm	270 nm
max	551 nm	574 nm	270 nm
z	2.57 $\mu\text{m}$	2.58 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.713		
Theta	-81.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 467.246$  (brightness)

$B = 117.751$  (background)

$a = 0.859$  px

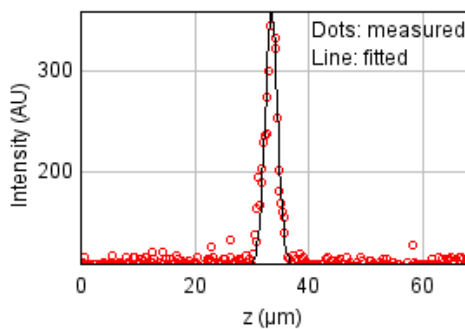
$b = -0.063$  px

$c = 0.451$  px

$x_c = 6.158$  px

$y_c = 6.627$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26027.4088

Standard deviation: 9.20760

$R^2: 0.95202$

Parameters:

$a = 109.70667$

$b = 359.48770$

$c = 33.50670$

$d = 1.08939$

## Bead 1726 (Rejected)

Date : Mon Oct 17 13:52:32 PDT 2022

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

Frame size : 12 pixels

Coordinates : -29.8  $\mu\text{m}$  (x), -54.5  $\mu\text{m}$  (y), 30.1  $\mu\text{m}$  (z)

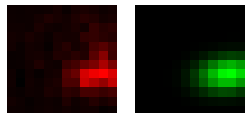
Corresponding bead : Not found

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

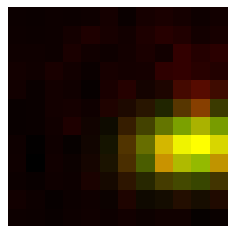
FWHM	Non corrected	Corrected	Theoretical
min	630 nm	656 nm	270 nm
max	1.09 $\mu\text{m}$	1.14 $\mu\text{m}$	270 nm
z	2.68 $\mu\text{m}$	2.69 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.577		
Theta	6.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.909$



Parameters:

A = 236.984 (brightness)

B = 118.711 (background)

a = 0.115 px

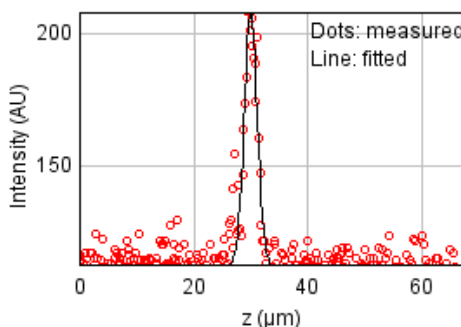
b = 0.024 px

c = 0.336 px

xc = 9.708 px

yc = 7.056 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 13678.2328

Standard deviation: 6.67492

$R^2$ : 0.85131

Parameters:

a = 112.81310

b = 208.12397

c = 30.06548

d = 1.13777

## Bead 1727

Date : Mon Oct 17 13:52:33 PDT 2022

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

Frame size : 12 pixels

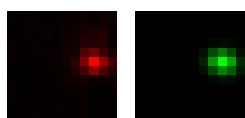
Coordinates : -20.9  $\mu\text{m}$  (x), -70.7  $\mu\text{m}$  (y), 41.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

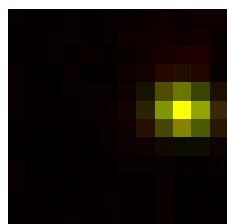
FWHM	Non corrected	Corrected	Theoretical
min	429 nm	446 nm	270 nm
max	528 nm	550 nm	270 nm
z	2.08 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.811		
Theta	-9.4°		

### 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 = 648.750 (brightness)

B = 121.979 (background)

a = 0.487 px

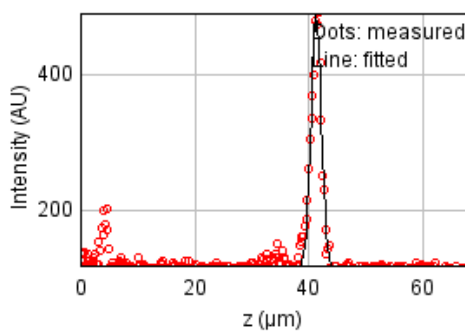
b = -0.040 px

c = 0.724 px

$x_c = 9.042$  px

$y_c = 5.036$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 64683.5452

Standard deviation: 14.51536

$R^2$ : 0.93607

Parameters:

a = 117.62350

b = 490.74323

c = 41.34368

d = 0.88538

## Bead 1728

Date : Mon Oct 17 13:52:33 PDT 2022

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

Frame size : 12 pixels

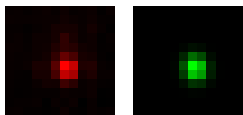
Coordinates : -139  $\mu\text{m}$  (x), -81.6  $\mu\text{m}$  (y), 33.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

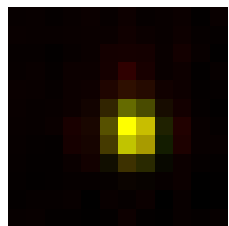
FWHM	Non corrected	Corrected	Theoretical
min	429 nm	447 nm	270 nm
max	490 nm	510 nm	270 nm
z	2.01 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.876		
Theta	-79.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 621.033$  (brightness)

$B = 121.672$  (background)

$a = 0.724$  px

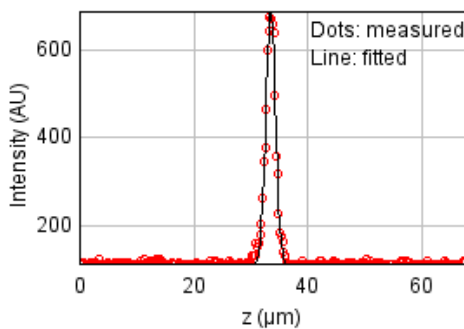
$b = -0.029$  px

$c = 0.565$  px

$x_c = 6.307$  px

$y_c = 6.283$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25387.6825

Standard deviation: 9.09374

$R^2 = 0.98863$

Parameters:

$a = 111.74077$

$b = 691.84274$

$c = 33.54835$

$d = 0.85238$

## Bead 1729

Date : Mon Oct 17 13:52:33 PDT 2022

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

Frame size : 12 pixels

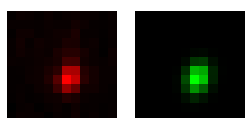
Coordinates : 72.9  $\mu\text{m}$  (x), -92.9  $\mu\text{m}$  (y), 33.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

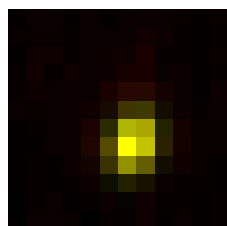
FWHM	Non corrected	Corrected	Theoretical
min	415 nm	433 nm	270 nm
max	560 nm	583 nm	270 nm
z	2.0 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.742		
Theta	74.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 726.207$  (brightness)

$B = 121.801$  (background)

$a = 0.752$  px

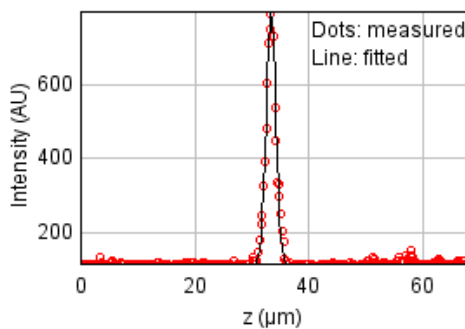
$b = 0.091$  px

$c = 0.453$  px

$x_c = 6.343$  px

$y_c = 6.805$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 61291.3592

Standard deviation: 14.12962

$R^2: 0.98028$

Parameters:

$a = 114.94535$

$b = 798.12607$

$c = 33.43730$

$d = 0.84774$

## Bead 1730

Date : Mon Oct 17 13:52:33 PDT 2022

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

Frame size : 12 pixels

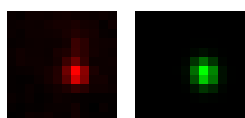
Coordinates : -105  $\mu\text{m}$  (x), 69.6  $\mu\text{m}$  (y), 33.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

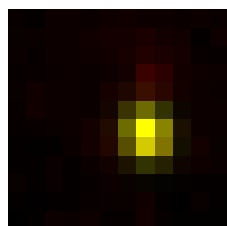
FWHM	Non corrected	Corrected	Theoretical
min	417 nm	434 nm	270 nm
max	496 nm	517 nm	270 nm
z	1.89 $\mu\text{m}$	1.89 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.84		
Theta	-77.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 478.259 (brightness)

B = 125.176 (background)

a = 0.761 px

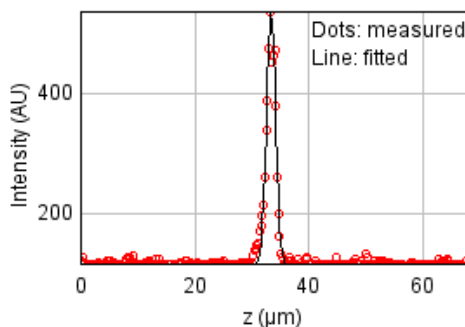
b = -0.049 px

c = 0.556 px

xc = 7.086 px

yc = 6.296 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29354.6898

Standard deviation: 9.77844

$R^2$ : 0.97440

Parameters:

a = 113.74574

b = 538.72437

c = 33.44411

d = 0.80137

## Bead 1731 (Rejected)

Date : Mon Oct 17 13:52:33 PDT 2022

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

Frame size : 12 pixels

Coordinates : 164  $\mu\text{m}$  (x), 45.3  $\mu\text{m}$  (y), 33.5  $\mu\text{m}$  (z)

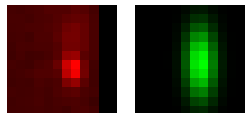
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

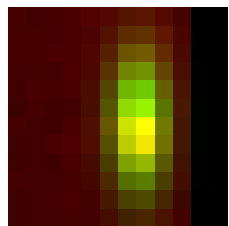
FWHM	Non corrected	Corrected	Theoretical
min	566 nm	589 nm	270 nm
max	1.38 $\mu\text{m}$	1.44 $\mu\text{m}$	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.41		
Theta	-89.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.575$



Parameters:

A = 235.303 (brightness)

B = 82.676 (background)

a = 0.419 px

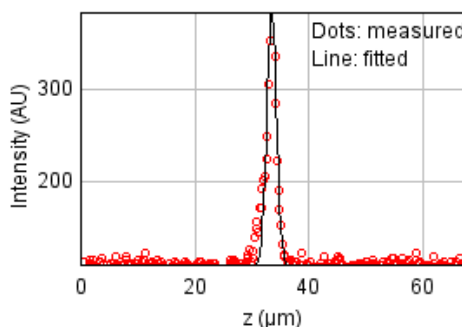
b = -0.003 px

c = 0.071 px

xc = 6.632 px

yc = 5.810 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26577.1328

Standard deviation: 9.30433

$R^2$ : 0.94838

Parameters:

a = 111.03759

b = 384.11333

c = 33.54947

d = 0.85057

## Bead 1732

Date : Mon Oct 17 13:52:33 PDT 2022

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

Frame size : 12 pixels

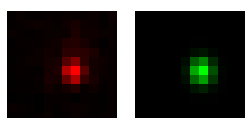
Coordinates : -116  $\mu\text{m}$  (x), 7.35  $\mu\text{m}$  (y), 33.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

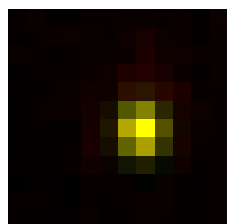
FWHM	Non corrected	Corrected	Theoretical
min	408 nm	425 nm	270 nm
max	483 nm	503 nm	270 nm
z	2.1 $\mu\text{m}$	2.11 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.846		
Theta	-85.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 575.967 (brightness)

B = 121.162 (background)

a = 0.804 px

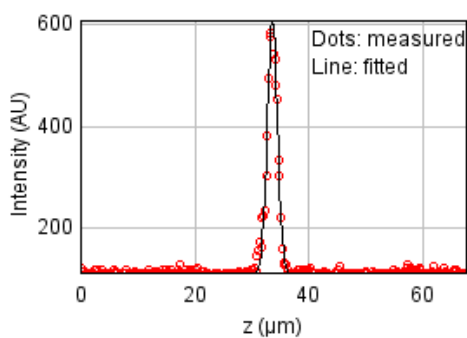
b = -0.018 px

c = 0.578 px

xc = 6.768 px

yc = 6.079 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 36251.3991

Standard deviation: 10.86659

$R^2$ : 0.97876

Parameters:

a = 112.87521

b = 606.58913

c = 33.67603

d = 0.89230



## Bead 1733

Date : Mon Oct 17 13:52:33 PDT 2022

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

Frame size : 12 pixels

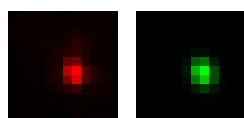
Coordinates : -3.8  $\mu\text{m}$  (x), 6.88  $\mu\text{m}$  (y), 34.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

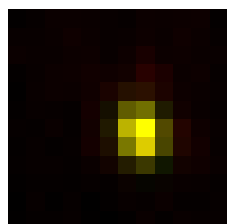
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	419 nm	270 nm
max	514 nm	535 nm	270 nm
z	1.89 $\mu\text{m}$	1.9 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.782		
Theta	-74.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 858.175 (brightness)

B = 127.889 (background)

a = 0.806 px

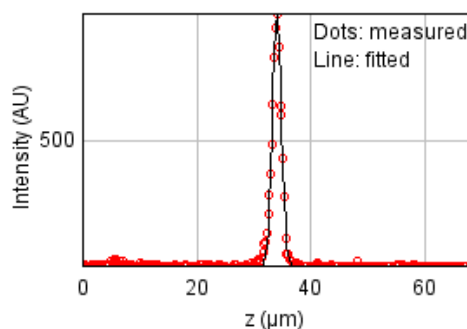
b = -0.085 px

c = 0.532 px

xc = 6.747 px

yc = 6.246 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 48126.2192

Standard deviation: 12.52050

$R^2$ : 0.98722

Parameters:

a = 116.64576

b = 891.12672

c = 34.12231

d = 0.80314

## Bead 1734

Date : Mon Oct 17 13:52:34 PDT 2022

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

Frame size : 12 pixels

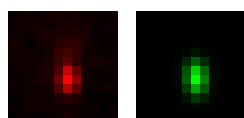
Coordinates : 149 um (x), 1.69 um (y), 33.1 um (z)

Corresponding bead : Not found

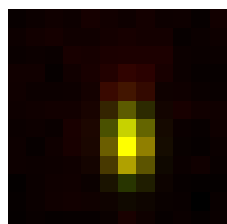
FWHM	Non corrected	Corrected	Theoretical
min	398 nm	415 nm	270 nm
max	643 nm	669 nm	270 nm
z	2.13 um	2.14 um	1.3 um
Asymmetry	0.619		
Theta	-87.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 364.589 (brightness)

B = 119.255 (background)

a = 0.846 px

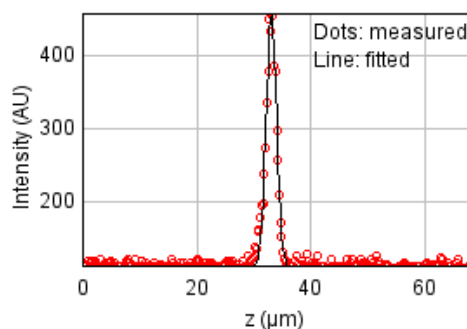
b = -0.020 px

c = 0.326 px

xc = 6.084 px

yc = 6.802 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20099.5659

Standard deviation: 8.09141

$R^2$ : 0.97672

Parameters:

a = 111.09153

b = 459.28218

c = 33.13963

d = 0.90613

## Bead 1735

Date : Mon Oct 17 13:52:34 PDT 2022

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

Frame size : 12 pixels

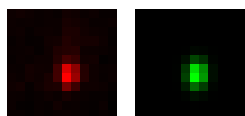
Coordinates : -127  $\mu\text{m}$  (x), -8.61  $\mu\text{m}$  (y), 33.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

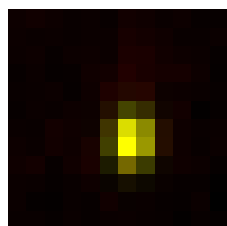
FWHM	Non corrected	Corrected	Theoretical
min	375 nm	391 nm	270 nm
max	509 nm	531 nm	270 nm
z	2.21 $\mu\text{m}$	2.22 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.736		
Theta	86.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 475.368 (brightness)

B = 118.783 (background)

a = 0.952 px

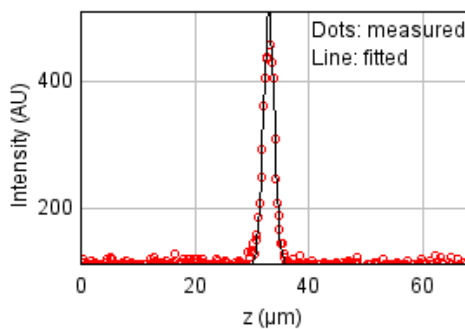
b = 0.025 px

c = 0.519 px

xc = 6.237 px

yc = 6.627 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22597.1695

Standard deviation: 8.57942

$R^2$ : 0.98047

Parameters:

a = 112.62393

b = 509.57000

c = 33.05437

d = 0.94011

## Bead 1736

Date : Mon Oct 17 13:52:34 PDT 2022

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

Frame size : 12 pixels

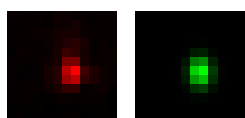
Coordinates : 32.9  $\mu\text{m}$  (x), -13.1  $\mu\text{m}$  (y), 33.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

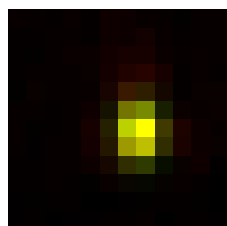
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	417 nm	270 nm
max	545 nm	567 nm	270 nm
z	1.75 $\mu\text{m}$	1.76 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.734		
Theta	-88.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 661.191 (brightness)

B = 120.907 (background)

a = 0.838 px

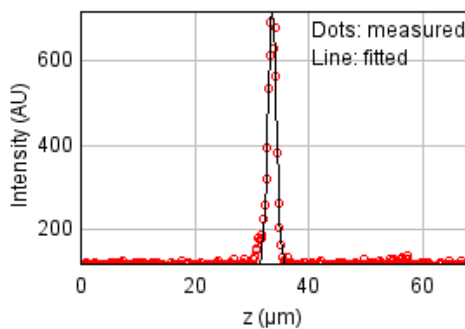
b = -0.013 px

c = 0.453 px

xc = 6.622 px

yc = 6.169 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 41301.1137

Standard deviation: 11.59876

$R^2$ : 0.98048

Parameters:

a = 116.57541

b = 716.90621

c = 33.63795

d = 0.74353

## Bead 1737

Date : Mon Oct 17 13:52:34 PDT 2022

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

Frame size : 12 pixels

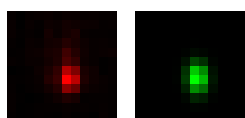
Coordinates : 88.3  $\mu\text{m}$  (x), -40.8  $\mu\text{m}$  (y), 33.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

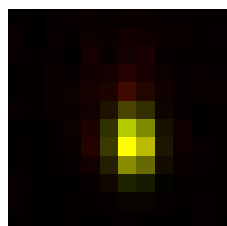
FWHM	Non corrected	Corrected	Theoretical
min	385 nm	401 nm	270 nm
max	566 nm	589 nm	270 nm
z	2.08 $\mu\text{m}$	2.08 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.68		
Theta	-87.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 675.492$  (brightness)

$B = 125.447$  (background)

$a = 0.905$  px

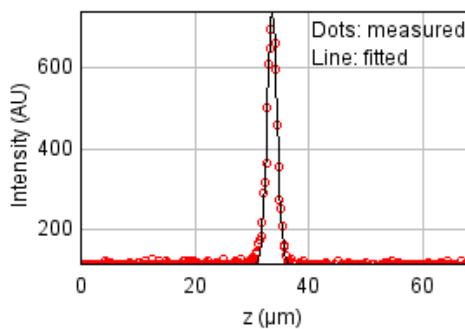
$b = -0.020$  px

$c = 0.420$  px

$x_c = 6.316$  px

$y_c = 6.804$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25134.2906

Standard deviation: 9.04824

$R^2: 0.99064$

Parameters:

$a = 113.12565$

$b = 739.92183$

$c = 33.63105$

$d = 0.88122$

## Bead 1738

Date : Mon Oct 17 13:52:34 PDT 2022

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

Frame size : 12 pixels

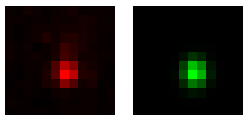
Coordinates : -72.3  $\mu\text{m}$  (x), -55.1  $\mu\text{m}$  (y), 33.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

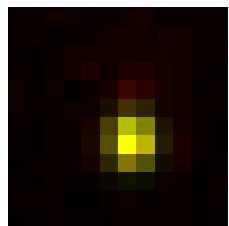
FWHM	Non corrected	Corrected	Theoretical
min	424 nm	442 nm	270 nm
max	503 nm	523 nm	270 nm
z	2.26 $\mu\text{m}$	2.27 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.844		
Theta	-89.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 502.569 (brightness)

B = 121.060 (background)

a = 0.747 px

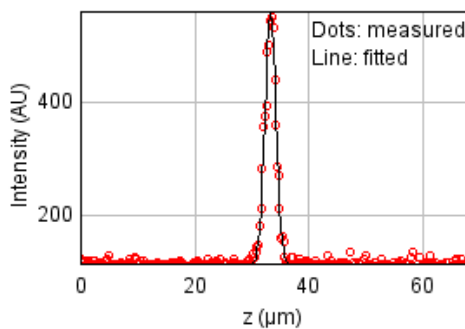
b = -0.003 px

c = 0.531 px

xc = 6.256 px

yc = 6.779 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 21941.1628

Standard deviation: 8.45397

$R^2$ : 0.98553

Parameters:

a = 113.71765

b = 564.30394

c = 33.33560

d = 0.96184

## Bead 1739

Date : Mon Oct 17 13:52:34 PDT 2022

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

Frame size : 12 pixels

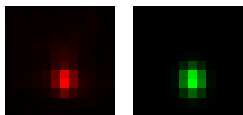
Coordinates : -18.5  $\mu\text{m}$  (x), -59.0  $\mu\text{m}$  (y), 33.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

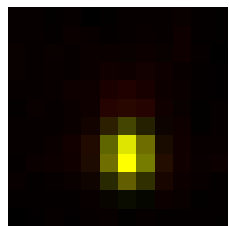
FWHM	Non corrected	Corrected	Theoretical
min	415 nm	432 nm	270 nm
max	495 nm	515 nm	270 nm
z	2.06 $\mu\text{m}$	2.07 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.839		
Theta	-87.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 761.331$  (brightness)

$B = 128.271$  (background)

$a = 0.779$  px

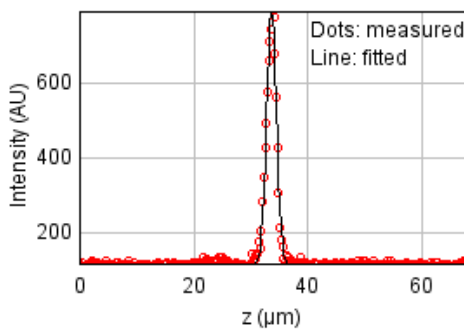
$b = -0.009$  px

$c = 0.549$  px

$x_c = 6.030$  px

$y_c = 7.599$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 42965.2435

Standard deviation: 11.83013

$R^2: 0.98626$

Parameters:

$a = 114.68353$

$b = 792.15751$

$c = 33.70509$

$d = 0.87427$

## Bead 1740

Date : Mon Oct 17 13:52:34 PDT 2022

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

Frame size : 12 pixels

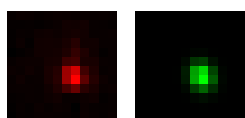
Coordinates : -44.9  $\mu\text{m}$  (x), -64.9  $\mu\text{m}$  (y), 33.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

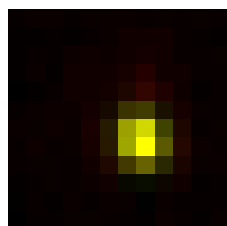
FWHM	Non corrected	Corrected	Theoretical
min	421 nm	438 nm	270 nm
max	500 nm	520 nm	270 nm
z	2.15 $\mu\text{m}$	2.16 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.842		
Theta	-72.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 592.544$  (brightness)

$B = 121.433$  (background)

$a = 0.738$  px

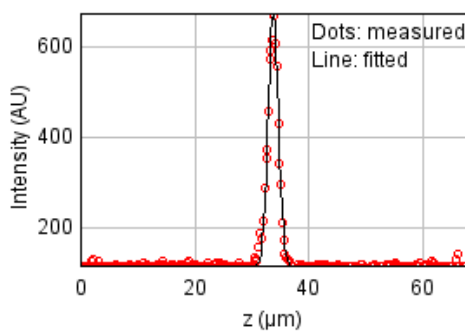
$b = -0.064$  px

$c = 0.558$  px

$x_c = 6.758$  px

$y_c = 6.622$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30872.6235

Standard deviation: 10.02808

$R^2: 0.98621$

Parameters:

$a = 113.42916$

$b = 674.93022$

$c = 33.83318$

$d = 0.91266$



## Bead 1741

Date : Mon Oct 17 13:52:35 PDT 2022

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

Frame size : 12 pixels

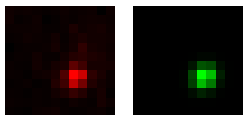
Coordinates : -161  $\mu\text{m}$  (x), -72.5  $\mu\text{m}$  (y), 33.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

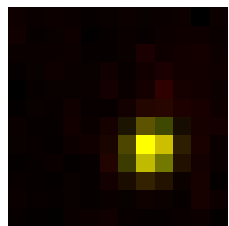
FWHM	Non corrected	Corrected	Theoretical
min	401 nm	417 nm	270 nm
max	448 nm	466 nm	270 nm
z	2.09 $\mu\text{m}$	2.1 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.894		
Theta	57.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 407.298$  (brightness)

$B = 119.237$  (background)

$a = 0.789$  px

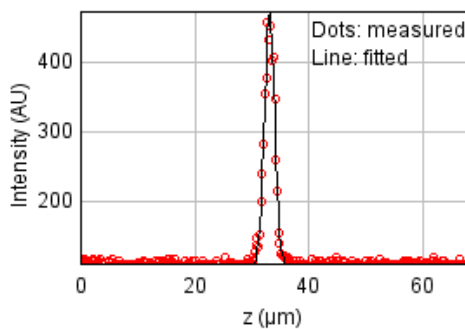
$b = 0.075$  px

$c = 0.716$  px

$x_c = 7.293$  px

$y_c = 7.254$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 14156.0447

Standard deviation: 6.79050

$R^2: 0.98440$

Parameters:

$a = 109.73096$

$b = 471.99688$

$c = 33.18013$

$d = 0.88620$

## Bead 1742

Date : Mon Oct 17 13:52:35 PDT 2022

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

Frame size : 12 pixels

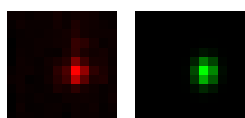
Coordinates : -147  $\mu\text{m}$  (x), -86.2  $\mu\text{m}$  (y), 33.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

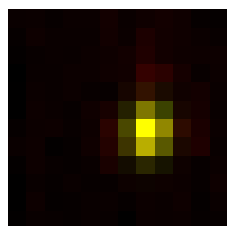
FWHM	Non corrected	Corrected	Theoretical
min	375 nm	391 nm	270 nm
max	485 nm	505 nm	270 nm
z	2.11 $\mu\text{m}$	2.12 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.773		
Theta	86.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 443.087$  (brightness)

$B = 117.115$  (background)

$a = 0.951$  px

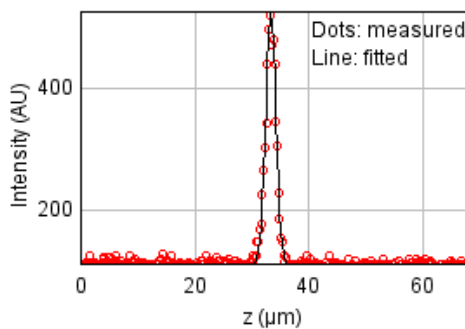
$b = 0.024$  px

$c = 0.571$  px

$x_c = 7.160$  px

$y_c = 6.159$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17682.4301

Standard deviation: 7.58930

$R^2: 0.98530$

Parameters:

$a = 111.65204$

$b = 526.38784$

$c = 33.39933$

$d = 0.89710$

## Bead 1743

Date : Mon Oct 17 13:52:35 PDT 2022

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

Frame size : 12 pixels

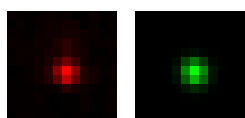
Coordinates : 47.7  $\mu\text{m}$  (x), -87.1  $\mu\text{m}$  (y), 33.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

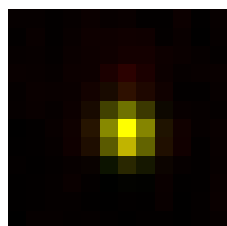
FWHM	Non corrected	Corrected	Theoretical
min	453 nm	472 nm	270 nm
max	486 nm	506 nm	270 nm
z	2.01 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.932		
Theta	-67.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 585.249 (brightness)

B = 120.943 (background)

a = 0.641 px

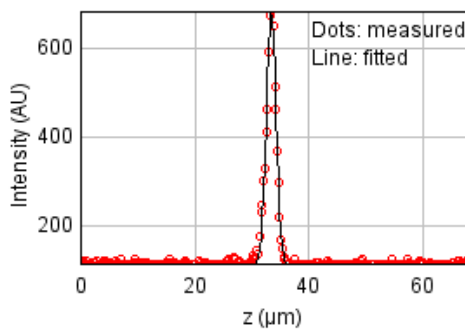
b = -0.031 px

c = 0.581 px

$x_c = 5.998$  px

$y_c = 6.195$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26340.0331

Standard deviation: 9.26273

$R^2$ : 0.98783

Parameters:

a = 113.66880

b = 683.37095

c = 33.47268

d = 0.85564

## Bead 1744 (Rejected)

Date : Mon Oct 17 13:52:35 PDT 2022

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

Frame size : 12 pixels

Coordinates : 100  $\mu\text{m}$  (x), 90.6  $\mu\text{m}$  (y), 33.6  $\mu\text{m}$  (z)

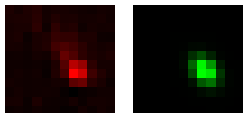
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

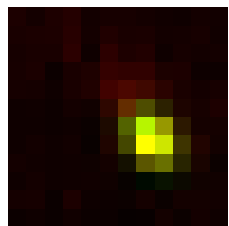
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	419 nm	270 nm
max	557 nm	580 nm	270 nm
z	1.65 $\mu\text{m}$	1.66 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.722		
Theta	-54.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.875$



Parameters:

A = 338.123 (brightness)

B = 121.493 (background)

a = 0.695 px

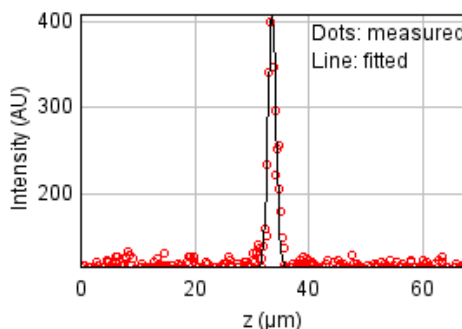
b = -0.187 px

c = 0.565 px

xc = 7.327 px

yc = 6.642 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 42205.6869

Standard deviation: 11.72509

$R^2$ : 0.91869

Parameters:

a = 113.67497

b = 409.80537

c = 33.60314

d = 0.70068

## Bead 1745 (Rejected)

Date : Mon Oct 17 13:52:35 PDT 2022

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

Frame size : 12 pixels

Coordinates : 139  $\mu\text{m}$  (x), 62.1  $\mu\text{m}$  (y), 32.7  $\mu\text{m}$  (z)

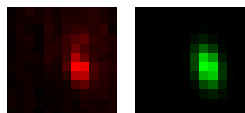
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

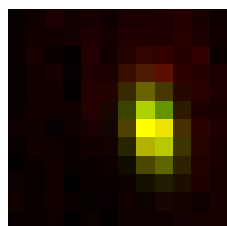
FWHM	Non corrected	Corrected	Theoretical
min	420 nm	437 nm	270 nm
max	728 nm	758 nm	270 nm
z	2.45 $\mu\text{m}$	2.46 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.576		
Theta	-76.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.889$



Parameters:

A = 267.830 (brightness)

B = 119.049 (background)

a = 0.735 px

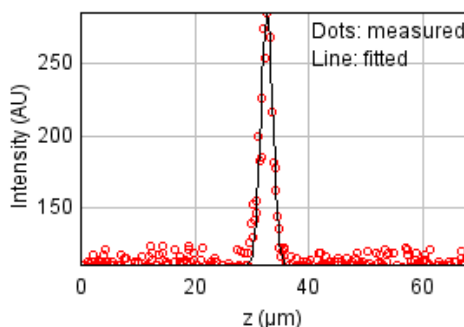
b = -0.115 px

c = 0.280 px

xc = 7.429 px

yc = 6.027 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15373.6483

Standard deviation: 7.07651

$R^2$ : 0.94008

Parameters:

a = 110.59333

b = 285.01555

c = 32.71895

d = 1.04072

## Bead 1746 (Rejected)

Date : Mon Oct 17 13:52:36 PDT 2022

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

Frame size : 12 pixels

Coordinates : 141 um (x), 60.8 um (y), 33.5 um (z)

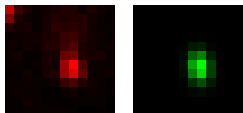
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

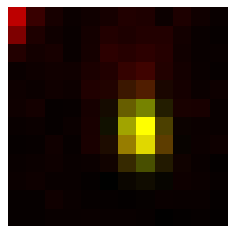
FWHM	Non corrected	Corrected	Theoretical
min	383 nm	399 nm	270 nm
max	570 nm	594 nm	270 nm
z	2.02 um	2.03 um	1.3 um
Asymmetry	0.672		
Theta	-83.9°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.720$



Parameters:

A = 359.618 (brightness)

B = 126.000 (background)

a = 0.907 px

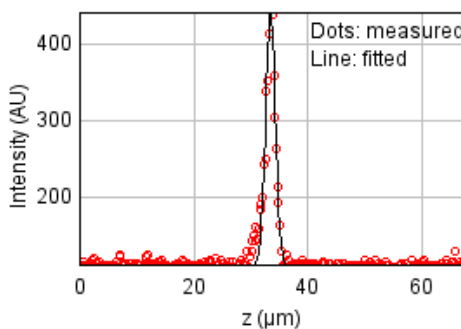
b = -0.053 px

c = 0.418 px

xc = 6.758 px

yc = 6.267 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25209.6313

Standard deviation: 9.06179

$R^2$ : 0.96614

Parameters:

a = 111.62836

b = 441.96473

c = 33.51495

d = 0.85644

## Bead 1747 (Rejected)

Date : Mon Oct 17 13:52:36 PDT 2022

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

Frame size : 12 pixels

Coordinates : 10.1  $\mu\text{m}$  (x), 27.5  $\mu\text{m}$  (y), 34.4  $\mu\text{m}$  (z)

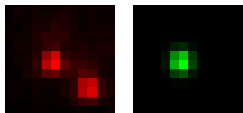
Corresponding bead : Not found

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

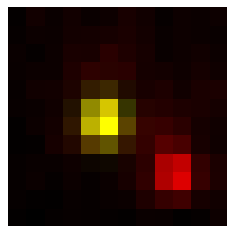
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	413 nm	270 nm
max	443 nm	462 nm	270 nm
z	3.71 $\mu\text{m}$	3.72 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.894		
Theta	-89.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.552$



Parameters:

A = 628.212 (brightness)

B = 157.040 (background)

a = 0.853 px

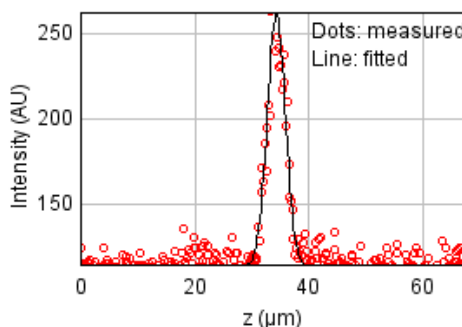
b = -0.003 px

c = 0.683 px

xc = 4.716 px

yc = 5.685 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19724.3882

Standard deviation: 8.01554

$R^2$ : 0.92757

Parameters:

a = 114.67189

b = 261.96249

c = 34.37049

d = 1.57494

## Bead 1748 (Rejected)

Date : Mon Oct 17 13:52:36 PDT 2022

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

Frame size : 12 pixels

Coordinates : -88.6  $\mu\text{m}$  (x), 24.7  $\mu\text{m}$  (y), 29.7  $\mu\text{m}$  (z)

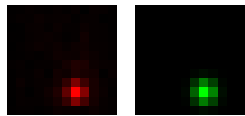
Corresponding bead : Not found

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

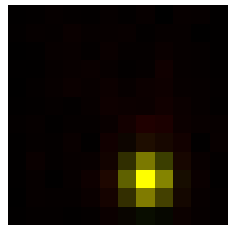
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	422 nm	270 nm
max	426 nm	444 nm	270 nm
z	3.81 $\mu\text{m}$	3.83 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.952		
Theta	-87.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 825.853$  (brightness)

$B = 128.858$  (background)

$a = 0.816$  px

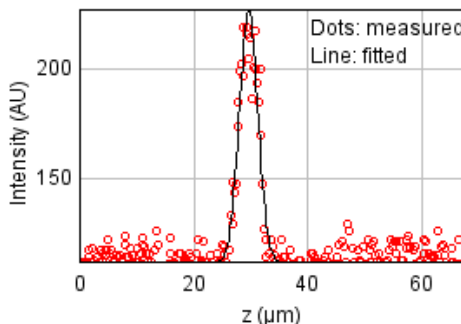
$b = -0.003$  px

$c = 0.739$  px

$xc = 7.094$  px

$yc = 9.006$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16360.0410

Standard deviation: 7.30000

$R^2: 0.90436$

Parameters:

$a = 112.48966$

$b = 226.30796$

$c = 29.68449$

$d = 1.61949$



## Bead 1749

Date : Mon Oct 17 13:52:36 PDT 2022

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

Frame size : 12 pixels

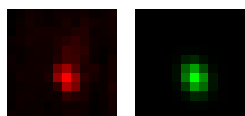
Coordinates : -124  $\mu\text{m}$  (x), 16.6  $\mu\text{m}$  (y), 33.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

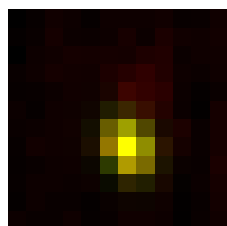
FWHM	Non corrected	Corrected	Theoretical
min	430 nm	447 nm	270 nm
max	556 nm	579 nm	270 nm
z	2.38 $\mu\text{m}$	2.39 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.772		
Theta	-66.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 285.102 (brightness)

B = 115.265 (background)

a = 0.680 px

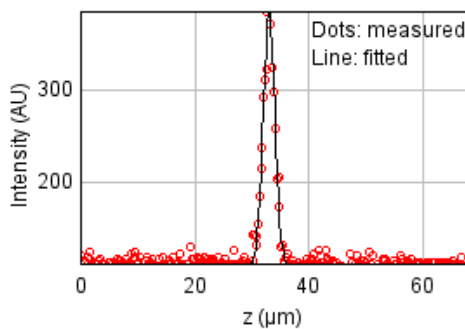
b = -0.108 px

c = 0.481 px

xc = 6.060 px

yc = 6.997 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16865.3839

Standard deviation: 7.41189

$R^2$ : 0.97167

Parameters:

a = 111.84778

b = 385.91504

c = 33.09616

d = 1.00904

## Bead 1750 (Rejected)

Date : Mon Oct 17 13:52:36 PDT 2022

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

Frame size : 12 pixels

Coordinates : 159  $\mu\text{m}$  (x), 9.63  $\mu\text{m}$  (y), 25.6  $\mu\text{m}$  (z)

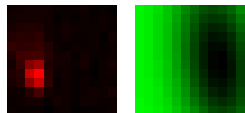
Corresponding bead : Not found

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

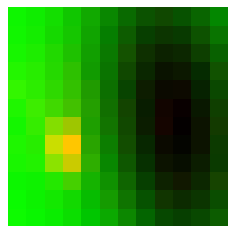
FWHM	Non corrected	Corrected	Theoretical
min	1.68 $\mu\text{m}$	1.75 $\mu\text{m}$	270 nm
max	3.58 $\mu\text{m}$	3.73 $\mu\text{m}$	270 nm
z	2.05 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.469		
Theta	-82.9°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.175$



Parameters:

A = -52.770 (brightness)

B = 166.438 (background)

a = 0.047 px

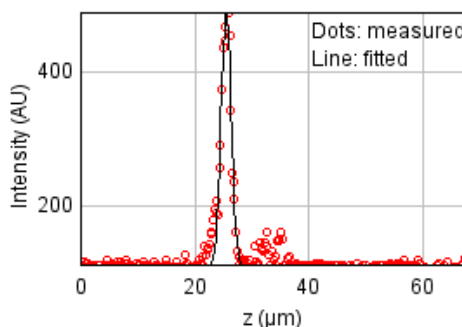
b = -0.007 px

c = -0.010 px

xc = 8.622 px

yc = 5.719 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 1751

Date : Mon Oct 17 13:52:36 PDT 2022

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

Frame size : 12 pixels

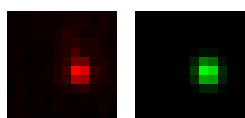
Coordinates : 64.8  $\mu\text{m}$  (x), -2.35  $\mu\text{m}$  (y), 33.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

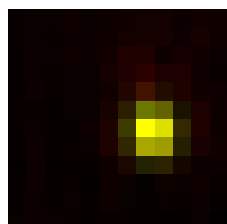
FWHM	Non corrected	Corrected	Theoretical
min	412 nm	429 nm	270 nm
max	479 nm	499 nm	270 nm
z	2.1 $\mu\text{m}$	2.11 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.86		
Theta	-81.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 585.628$  (brightness)

$B = 121.827$  (background)

$a = 0.786$  px

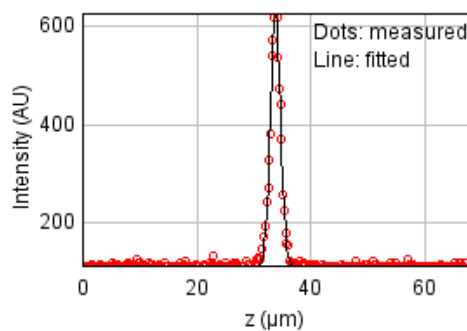
$b = -0.030$  px

$c = 0.589$  px

$x_c = 7.421$  px

$y_c = 6.168$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20556.4735

Standard deviation: 8.18286

$R^2: 0.98877$

Parameters:

$a = 112.76396$

$b = 626.18143$

$c = 33.87318$

$d = 0.89383$

## Bead 1752

Date : Mon Oct 17 13:52:36 PDT 2022

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

Frame size : 12 pixels

Coordinates : 20.0  $\mu\text{m}$  (x), -27.9  $\mu\text{m}$  (y), 34.1  $\mu\text{m}$  (z)

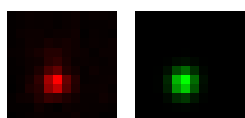
Corresponding bead : Not found



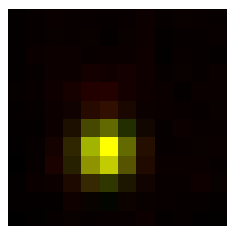
FWHM	Non corrected	Corrected	Theoretical
min	468 nm	488 nm	270 nm
max	493 nm	513 nm	270 nm
z	1.82 $\mu\text{m}$	1.83 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.951		
Theta	77.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 632.009$  (brightness)

$B = 129.119$  (background)

$a = 0.609$  px

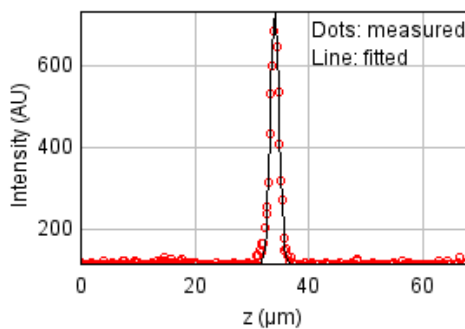
$b = 0.013$  px

$c = 0.556$  px

$x_c = 4.783$  px

$y_c = 7.303$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28547.4108

Standard deviation: 9.64304

$R^2: 0.98763$

Parameters:

$a = 115.74704$

$b = 733.72863$

$c = 34.10498$

$d = 0.77216$

## Bead 1753

Date : Mon Oct 17 13:52:37 PDT 2022

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

Frame size : 12 pixels

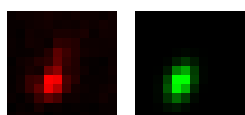
Coordinates : 99.8  $\mu\text{m}$  (x), -33.2  $\mu\text{m}$  (y), 29.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

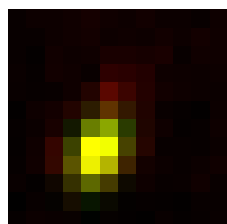
FWHM	Non corrected	Corrected	Theoretical
min	429 nm	447 nm	270 nm
max	642 nm	669 nm	270 nm
z	2.05 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.667		
Theta	67.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 469.210 (brightness)

B = 124.684 (background)

a = 0.670 px

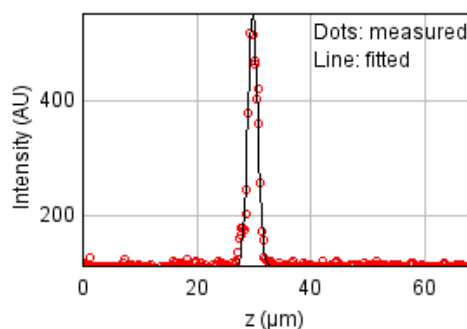
b = 0.144 px

c = 0.385 px

xc = 4.446 px

yc = 7.252 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 46688.2557

Standard deviation: 12.33203

$R^2$ : 0.96481

Parameters:

a = 112.99424

b = 549.87547

c = 29.89469

d = 0.87224

## Bead 1754

Date : Mon Oct 17 13:52:37 PDT 2022

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

Frame size : 12 pixels

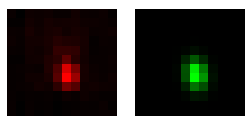
Coordinates : 159  $\mu\text{m}$  (x), -50.2  $\mu\text{m}$  (y), 33.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

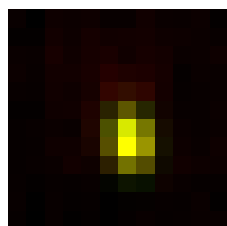
FWHM	Non corrected	Corrected	Theoretical
min	393 nm	409 nm	270 nm
max	551 nm	574 nm	270 nm
z	2.57 $\mu\text{m}$	2.58 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.713		
Theta	-81.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 467.246$  (brightness)

$B = 117.751$  (background)

$a = 0.859$  px

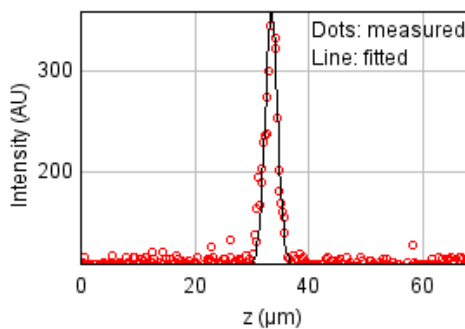
$b = -0.063$  px

$c = 0.451$  px

$x_c = 6.158$  px

$y_c = 6.627$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26027.4088

Standard deviation: 9.20760

$R^2: 0.95202$

Parameters:

$a = 109.70667$

$b = 359.48770$

$c = 33.50670$

$d = 1.08939$

## Bead 1755

Date : Mon Oct 17 13:52:37 PDT 2022

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

Frame size : 12 pixels

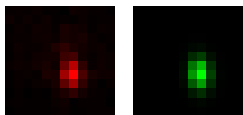
Coordinates : 132  $\mu\text{m}$  (x), -50.5  $\mu\text{m}$  (y), 33.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

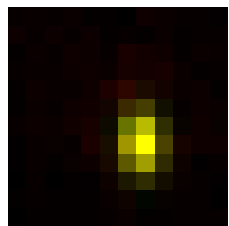
FWHM	Non corrected	Corrected	Theoretical
min	376 nm	391 nm	270 nm
max	584 nm	608 nm	270 nm
z	1.95 $\mu\text{m}$	1.96 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.644		
Theta	-87.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 424.176$  (brightness)

$B = 119.089$  (background)

$a = 0.949$  px

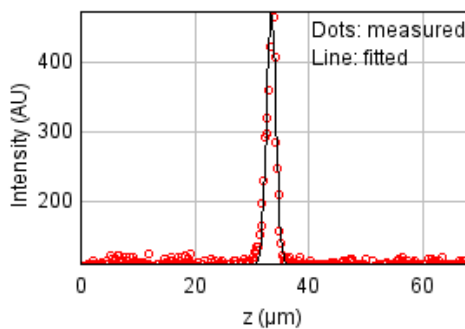
$b = -0.025$  px

$c = 0.395$  px

$x_c = 6.776$  px

$y_c = 6.879$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30958.6054

Standard deviation: 10.04203

$R^2 = 0.96426$

Parameters:

$a = 110.95180$

$b = 472.68934$

$c = 33.47136$

$d = 0.82805$

## Bead 1756 (Rejected)

Date : Mon Oct 17 13:52:37 PDT 2022

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

Frame size : 12 pixels

Coordinates : -93.1  $\mu\text{m}$  (x), -56.0  $\mu\text{m}$  (y), 33.8  $\mu\text{m}$  (z)

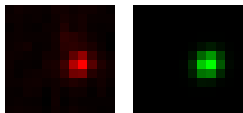
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	433 nm	451 nm	270 nm
max	489 nm	509 nm	270 nm
z	1.8 $\mu\text{m}$	1.81 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.887		
Theta	50.9°		

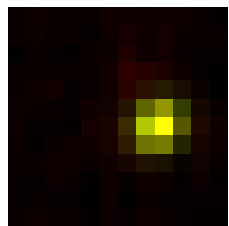
### XY profile & fitting parameters :

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



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

$R^2 = 0.949$



Parameters:

A = 424.564 (brightness)

B = 121.239 (background)

a = 0.654 px

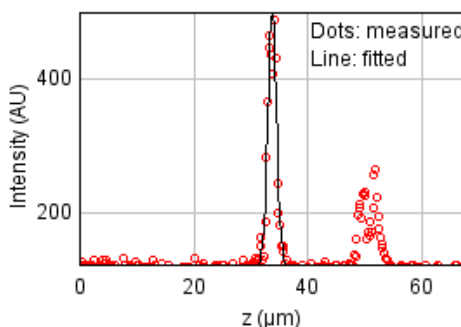
b = 0.075 px

c = 0.623 px

xc = 7.689 px

yc = 5.959 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 212948.798

Standard deviation: 26.33713

$R^2$ : 0.80200

Parameters:

a = 119.97932

b = 501.76639

c = 33.82561

d = 0.76514



## Bead 1757

Date : Mon Oct 17 13:52:37 PDT 2022

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

Frame size : 12 pixels

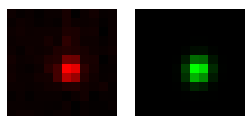
Coordinates : -161  $\mu\text{m}$  (x), -78.2  $\mu\text{m}$  (y), 33.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

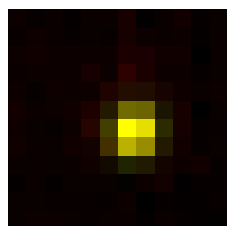
FWHM	Non corrected	Corrected	Theoretical
min	416 nm	433 nm	270 nm
max	468 nm	487 nm	270 nm
z	2.29 $\mu\text{m}$	2.3 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.889		
Theta	74.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 404.984$  (brightness)

$B = 115.272$  (background)

$a = 0.764$  px

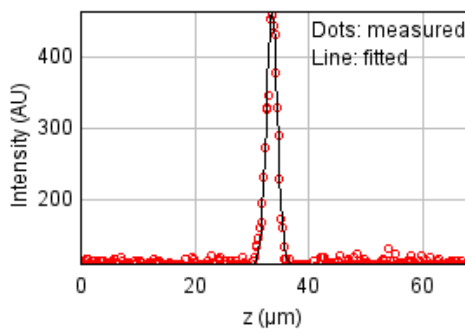
$b = 0.042$  px

$c = 0.625$  px

$x_c = 6.399$  px

$y_c = 6.179$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19887.7769

Standard deviation: 8.04867

$R^2: 0.97899$

Parameters:

$a = 110.97756$

$b = 464.20833$

$c = 33.58463$

$d = 0.97100$

## Bead 1758

Date : Mon Oct 17 13:52:37 PDT 2022

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

Frame size : 12 pixels

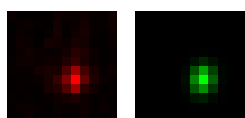
Coordinates : 75.0  $\mu\text{m}$  (x), -85.7  $\mu\text{m}$  (y), 33.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

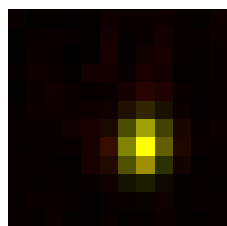
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	419 nm	270 nm
max	510 nm	532 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.788		
Theta	81.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 427.464$  (brightness)

$B = 120.067$  (background)

$a = 0.823$  px

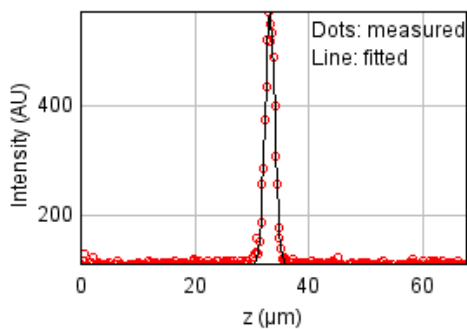
$b = 0.044$  px

$c = 0.521$  px

$x_c = 6.902$  px

$y_c = 6.952$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15119.7924

Standard deviation: 7.01784

$R^2: 0.98913$

Parameters:

$a = 112.67167$

$b = 571.12636$

$c = 33.24525$

$d = 0.85002$

## Bead 1759

Date : Mon Oct 17 13:52:37 PDT 2022

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

Frame size : 12 pixels

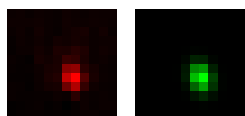
Coordinates : -52.4  $\mu\text{m}$  (x), 91.4  $\mu\text{m}$  (y), 34.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

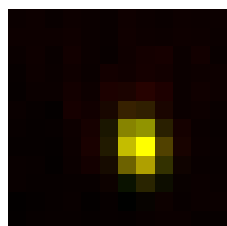
FWHM	Non corrected	Corrected	Theoretical
min	394 nm	411 nm	270 nm
max	528 nm	550 nm	270 nm
z	1.93 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.747		
Theta	-75.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 681.558 (brightness)

B = 125.188 (background)

a = 0.838 px

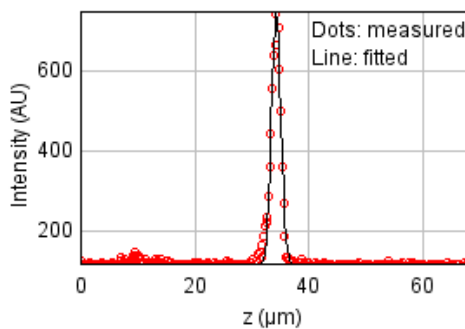
b = -0.095 px

c = 0.507 px

xc = 6.679 px

yc = 6.979 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 41934.6754

Standard deviation: 11.68739

$R^2$ : 0.98373

Parameters:

a = 115.57307

b = 748.92049

c = 34.34391

d = 0.81975

## Bead 1760

Date : Mon Oct 17 13:52:37 PDT 2022

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

Frame size : 12 pixels

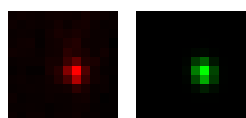
Coordinates : -124  $\mu\text{m}$  (x), 50.7  $\mu\text{m}$  (y), 34.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

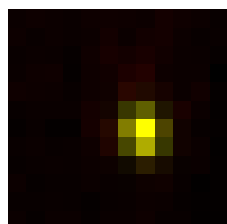
FWHM	Non corrected	Corrected	Theoretical
min	359 nm	374 nm	270 nm
max	446 nm	465 nm	270 nm
z	1.84 $\mu\text{m}$	1.85 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.805		
Theta	-76.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 467.325 (brightness)

B = 119.155 (background)

a = 1.018 px

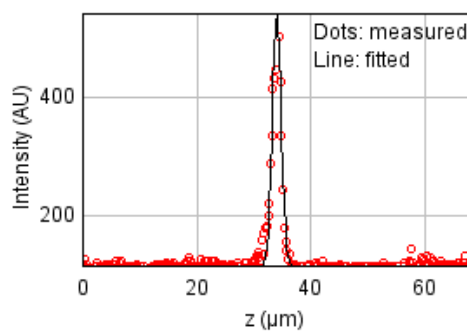
b = -0.085 px

c = 0.694 px

xc = 6.869 px

yc = 6.198 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 41634.1523

Standard deviation: 11.64543

$R^2$ : 0.96372

Parameters:

a = 114.35587

b = 541.77391

c = 34.10629

d = 0.78346

## Bead 1761

Date : Mon Oct 17 13:52:37 PDT 2022

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

Frame size : 12 pixels

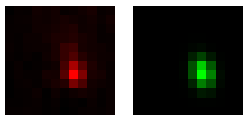
Coordinates : 103  $\mu\text{m}$  (x), 47.7  $\mu\text{m}$  (y), 34.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

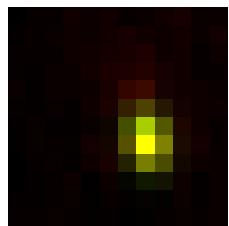
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	396 nm	270 nm
max	550 nm	573 nm	270 nm
z	2.07 $\mu\text{m}$	2.08 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.692		
Theta	-78.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 462.245 (brightness)

B = 125.201 (background)

a = 0.908 px

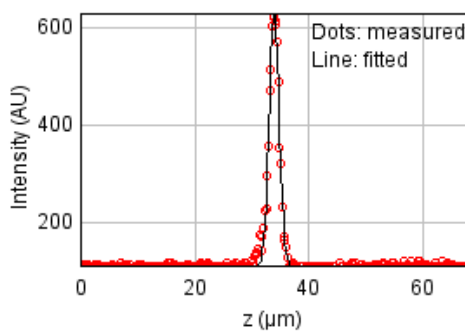
b = -0.092 px

c = 0.462 px

$x_c = 7.104$  px

$y_c = 6.752$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23745.8522

Standard deviation: 8.79477

$R^2$ : 0.98717

Parameters:

a = 112.22796

b = 632.49451

c = 34.00083

d = 0.87803

## Bead 1762

Date : Mon Oct 17 13:52:37 PDT 2022

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

Frame size : 12 pixels

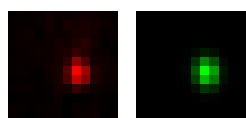
Coordinates : -33.0  $\mu\text{m}$  (x), 41.0  $\mu\text{m}$  (y), 34.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

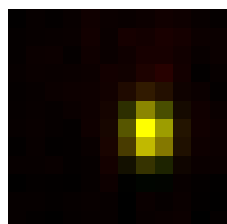
FWHM	Non corrected	Corrected	Theoretical
min	412 nm	429 nm	270 nm
max	527 nm	549 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.782		
Theta	-85.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 585.245 (brightness)

B = 122.000 (background)

a = 0.788 px

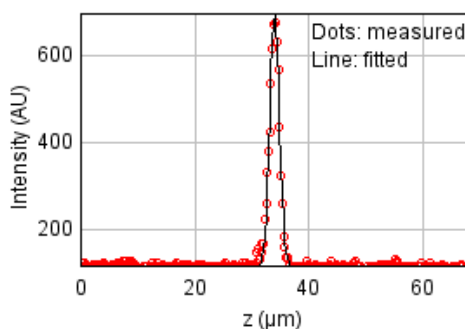
b = -0.025 px

c = 0.485 px

$x_c = 7.196$  px

$y_c = 6.179$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28605.5321

Standard deviation: 9.65286

$R^2 = 0.98742$

Parameters:

a = 113.38684

b = 699.33261

c = 34.06784

d = 0.84927

## Bead 1763

Date : Mon Oct 17 13:52:37 PDT 2022

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

Frame size : 12 pixels

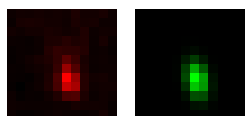
Coordinates : 155 um (x), 26.5 um (y), 33.7 um (z)

Corresponding bead : Not found

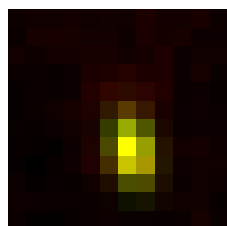
FWHM	Non corrected	Corrected	Theoretical
min	389 nm	405 nm	270 nm
max	657 nm	684 nm	270 nm
z	1.81 um	1.82 um	1.3 um
Asymmetry	0.593		
Theta	-79.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 403.429 (brightness)

B = 120.616 (background)

a = 0.865 px

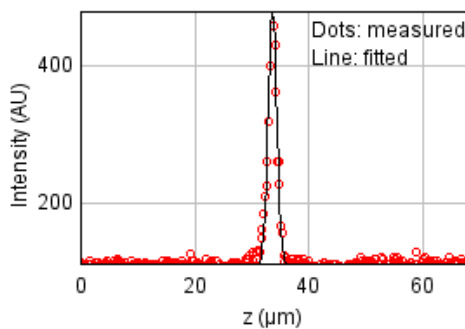
b = -0.106 px

c = 0.332 px

xc = 6.252 px

yc = 7.189 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23024.7196

Standard deviation: 8.66020

$R^2$ : 0.97201

Parameters:

a = 111.69393

b = 478.50645

c = 33.69225

d = 0.76836

## Bead 1764

Date : Mon Oct 17 13:52:37 PDT 2022

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

Frame size : 12 pixels

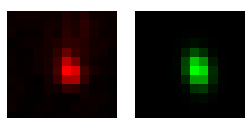
Coordinates : 92.9  $\mu\text{m}$  (x), 22.8  $\mu\text{m}$  (y), 34.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

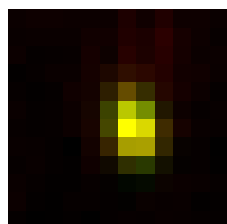
FWHM	Non corrected	Corrected	Theoretical
min	424 nm	442 nm	270 nm
max	628 nm	654 nm	270 nm
z	2.15 $\mu\text{m}$	2.16 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.676		
Theta	-76.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 470.779$  (brightness)

$B = 121.717$  (background)

$a = 0.724$  px

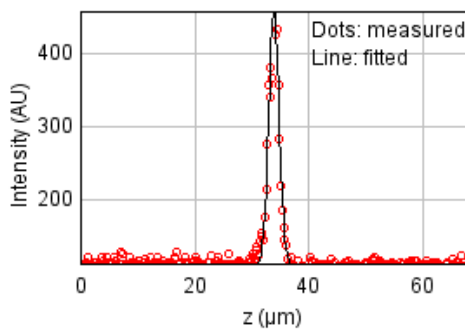
$b = -0.091$  px

$c = 0.362$  px

$x_c = 6.375$  px

$y_c = 5.929$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30471.2145

Standard deviation: 9.96267

$R^2 = 0.96509$

Parameters:

$a = 112.42831$

$b = 459.47296$

$c = 33.95403$

$d = 0.91147$



## Bead 1765 (Rejected)

Date : Mon Oct 17 13:52:37 PDT 2022

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

Frame size : 12 pixels

Coordinates : 23.9  $\mu\text{m}$  (x), -11.0  $\mu\text{m}$  (y), 30.8  $\mu\text{m}$  (z)

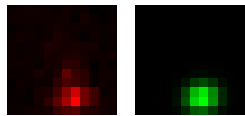
Corresponding bead : Not found

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

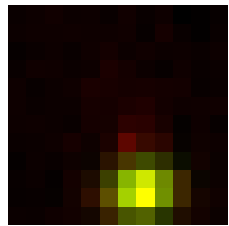
FWHM	Non corrected	Corrected	Theoretical
min	502 nm	523 nm	270 nm
max	592 nm	616 nm	270 nm
z	3.26 $\mu\text{m}$	3.27 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.848		
Theta	10.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 361.342 (brightness)

B = 124.452 (background)

a = 0.388 px

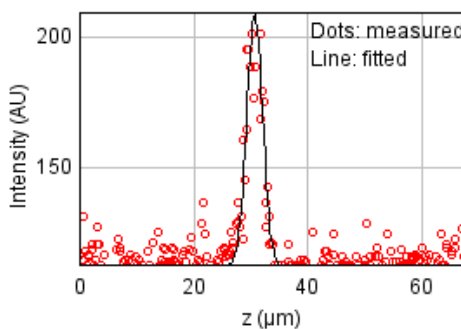
b = 0.026 px

c = 0.528 px

xc = 6.785 px

yc = 9.601 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16015.0153

Standard deviation: 7.22262

$R^2$ : 0.85875

Parameters:

a = 112.64567

b = 209.71742

c = 30.75246

d = 1.38257

## Bead 1766 (Rejected)

Date : Mon Oct 17 13:52:37 PDT 2022

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

Frame size : 12 pixels

Coordinates : -93.4  $\mu\text{m}$  (x), -12.1  $\mu\text{m}$  (y), 30.6  $\mu\text{m}$  (z)

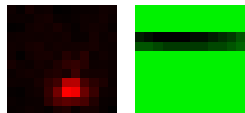
Corresponding bead : Not found

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

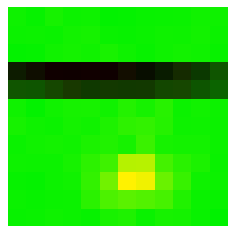
FWHM	Non corrected	Corrected	Theoretical
min	138 nm	144 nm	270 nm
max	4.24 $\mu\text{m}$	4.41 $\mu\text{m}$	270 nm
z	3.74 $\mu\text{m}$	3.76 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.033		
Theta	-0.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.056$



Parameters:

A = -89.252 (brightness)

B = 140.410 (background)

a = -0.007 px

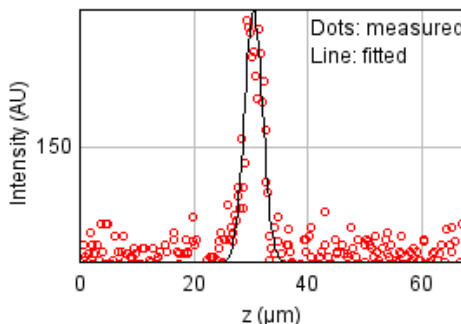
b = -0.011 px

c = 7.058 px

xc = 4.514 px

yc = 3.482 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17527.4161

Standard deviation: 7.55596

$R^2$ : 0.82275

Parameters:

a = 112.03038

b = 195.26711

c = 30.55456

d = 1.58970

## Bead 1767 (Rejected)

Date : Mon Oct 17 13:52:37 PDT 2022

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

Frame size : 12 pixels

Coordinates : 110  $\mu\text{m}$  (x), -57.8  $\mu\text{m}$  (y), 30.2  $\mu\text{m}$  (z)

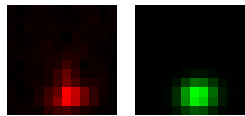
Corresponding bead : Not found

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

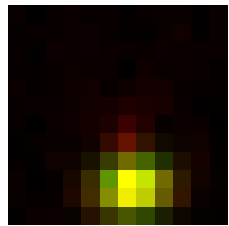
FWHM	Non corrected	Corrected	Theoretical
min	531 nm	553 nm	270 nm
max	640 nm	666 nm	270 nm
z	3.67 $\mu\text{m}$	3.68 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.83		
Theta	7.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 465.935 (brightness)

B = 123.222 (background)

a = 0.330 px

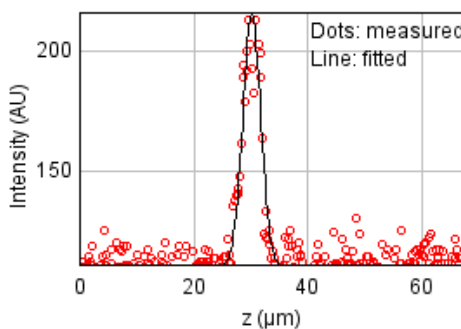
b = 0.018 px

c = 0.474 px

xc = 6.310 px

yc = 9.409 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15293.0015

Standard deviation: 7.05793

$R^2$ : 0.89210

Parameters:

a = 110.99195

b = 215.73921

c = 30.24577

d = 1.55721

## Bead 1768

Date : Mon Oct 17 13:52:38 PDT 2022

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

Frame size : 12 pixels

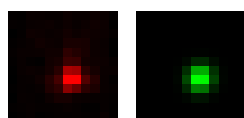
Coordinates : 11.5  $\mu\text{m}$  (x), -66.3  $\mu\text{m}$  (y), 34.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

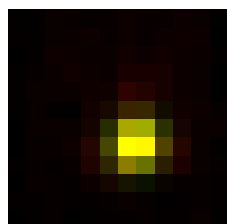
FWHM	Non corrected	Corrected	Theoretical
min	452 nm	471 nm	270 nm
max	491 nm	511 nm	270 nm
z	2.1 $\mu\text{m}$	2.11 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.921		
Theta	71.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 766.784$  (brightness)

$B = 128.169$  (background)

$a = 0.648$  px

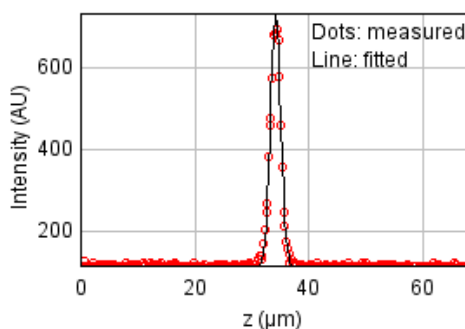
$b = 0.030$  px

$c = 0.567$  px

$x_c = 6.482$  px

$y_c = 6.846$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29251.3155

Standard deviation: 9.76121

$R^2: 0.98902$

Parameters:

$a = 114.61277$

$b = 734.39036$

$c = 34.24338$

$d = 0.89318$

## Bead 1769

Date : Mon Oct 17 13:52:38 PDT 2022

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

Frame size : 12 pixels

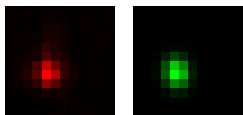
Coordinates : 268 nm (x), -68.0 um (y), 21.6 um (z)

Corresponding bead : Not found

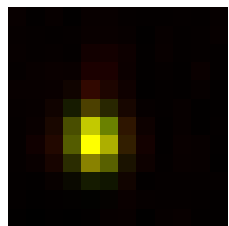
FWHM	Non corrected	Corrected	Theoretical
min	437 nm	455 nm	270 nm
max	545 nm	567 nm	270 nm
z	2.02 um	2.03 um	1.3 um
Asymmetry	0.802		
Theta	-82.2°		

### 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 = 695.281 (brightness)

B = 127.194 (background)

a = 0.698 px

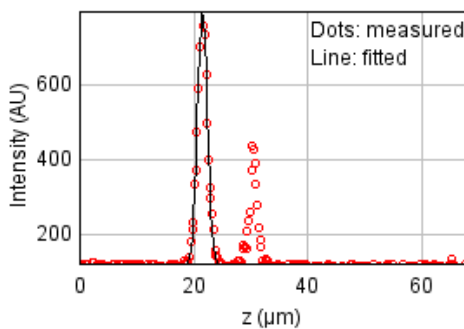
b = -0.034 px

c = 0.457 px

xc = 4.219 px

yc = 6.777 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 518998.535

Standard deviation: 41.11629

$R^2$ : 0.85122

Parameters:

a = 122.53361

b = 793.19013

c = 21.59323

d = 0.85792

## Bead 1770 (Rejected)

Date : Mon Oct 17 13:52:38 PDT 2022

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

Frame size : 12 pixels

Coordinates : 109  $\mu\text{m}$  (x), -90.2  $\mu\text{m}$  (y), 30.8  $\mu\text{m}$  (z)

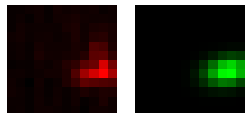
Corresponding bead : Not found

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

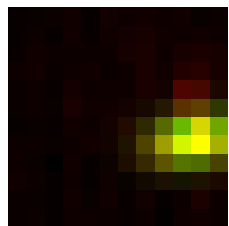
FWHM	Non corrected	Corrected	Theoretical
min	506 nm	527 nm	270 nm
max	834 nm	869 nm	270 nm
z	2.69 $\mu\text{m}$	2.7 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.607		
Theta	9.8°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.910$



Parameters:

A = 316.335 (brightness)

B = 117.811 (background)

a = 0.202 px

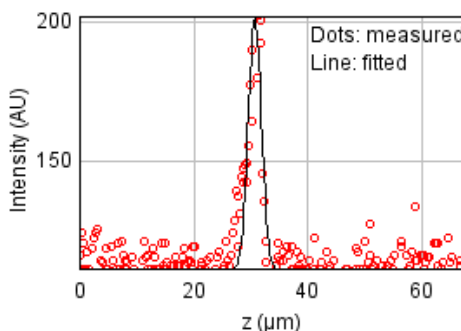
b = 0.055 px

c = 0.514 px

xc = 9.677 px

yc = 6.704 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17620.4481

Standard deviation: 7.57599

$R^2$ : 0.80016

Parameters:

a = 111.44897

b = 201.77772

c = 30.77488

d = 1.14141

## Bead 1771

Date : Mon Oct 17 13:52:38 PDT 2022

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

Frame size : 12 pixels

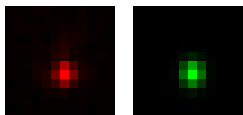
Coordinates : -13.2  $\mu\text{m}$  (x), -95.6  $\mu\text{m}$  (y), 34.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

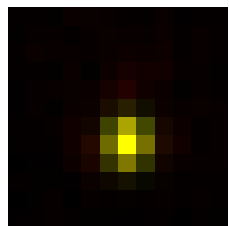
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	413 nm	270 nm
max	471 nm	491 nm	270 nm
z	2.04 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.842		
Theta	88.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 890.693 (brightness)

B = 126.808 (background)

a = 0.854 px

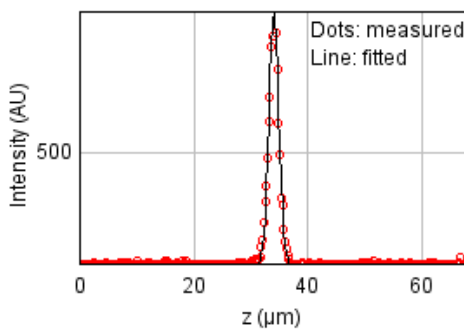
b = 0.009 px

c = 0.605 px

xc = 6.011 px

yc = 6.867 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37250.5235

Standard deviation: 11.01532

$R^2$ : 0.99269

Parameters:

a = 113.65357

b = 985.07579

c = 34.12352

d = 0.86664

## Bead 1772 (Rejected)

Date : Mon Oct 17 13:52:38 PDT 2022

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

Frame size : 12 pixels

Coordinates : -25.1 um (x), -96.0 um (y), 33.1 um (z)

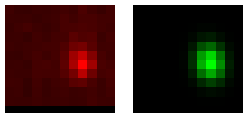
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

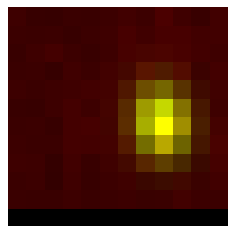
FWHM	Non corrected	Corrected	Theoretical
min	524 nm	546 nm	270 nm
max	683 nm	711 nm	270 nm
z	2.53 um	2.54 um	1.3 um
Asymmetry	0.768		
Theta	-82.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.743$



Parameters:

A = 355.647 (brightness)

B = 108.013 (background)

a = 0.485 px

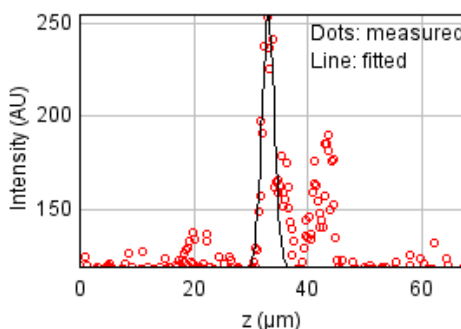
b = -0.027 px

c = 0.292 px

xc = 7.882 px

yc = 5.777 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 82581.7354

Standard deviation: 16.40109

$R^2$ : 0.64725

Parameters:

a = 118.83399

b = 255.02672

c = 33.12880

d = 1.07436



## Bead 1773 (Rejected)

Date : Mon Oct 17 13:52:38 PDT 2022

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

Frame size : 12 pixels

Coordinates : -57.9  $\mu\text{m}$  (x), 85.0  $\mu\text{m}$  (y), 2.79  $\mu\text{m}$  (z)

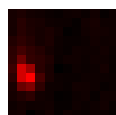
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	270 nm
max	0	0	270 nm
z	1.99 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

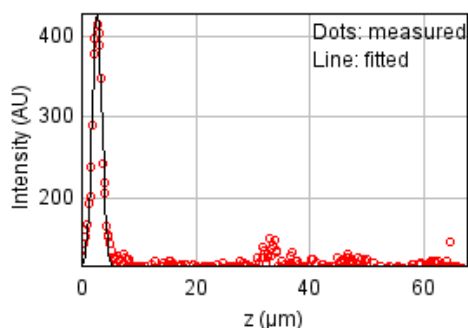
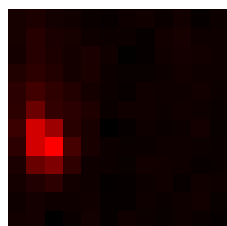
### XY profile & fitting parameters :

(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: 29852.0838

Standard deviation: 9.86094

R<sup>2</sup>: 0.95552

Parameters:

a = 115.33254

b = 429.09540

c = 2.79250

d = 0.84602

## Bead 1774 (Rejected)

Date : Mon Oct 17 13:52:38 PDT 2022

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

Frame size : 12 pixels

Coordinates : 50.7 um (x), 73.8 um (y), 34.4 um (z)

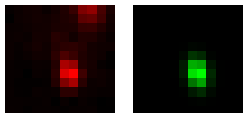
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

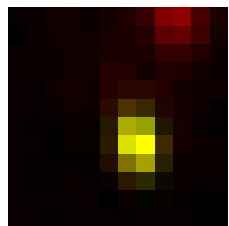
FWHM	Non corrected	Corrected	Theoretical
min	364 nm	379 nm	270 nm
max	549 nm	572 nm	270 nm
z	2.12 um	2.13 um	1.3 um
Asymmetry	0.663		
Theta	-79.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.729$



Parameters:

A = 590.264 (brightness)

B = 140.830 (background)

a = 0.994 px

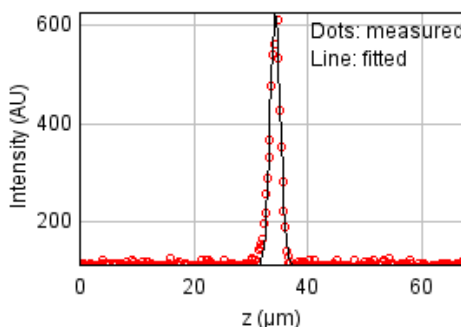
b = -0.101 px

c = 0.463 px

xc = 6.555 px

yc = 6.904 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30191.8584

Standard deviation: 9.91690

$R^2$ : 0.98360

Parameters:

a = 113.23659

b = 625.52175

c = 34.36286

d = 0.89879

## Bead 1775

Date : Mon Oct 17 13:52:38 PDT 2022

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

Frame size : 12 pixels

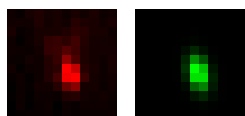
Coordinates : 143  $\mu\text{m}$  (x), 47.3  $\mu\text{m}$  (y), 34.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

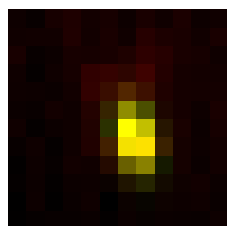
FWHM	Non corrected	Corrected	Theoretical
min	366 nm	381 nm	270 nm
max	639 nm	666 nm	270 nm
z	2.32 $\mu\text{m}$	2.33 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.572		
Theta	-77.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 390.226 (brightness)

B = 120.221 (background)

a = 0.971 px

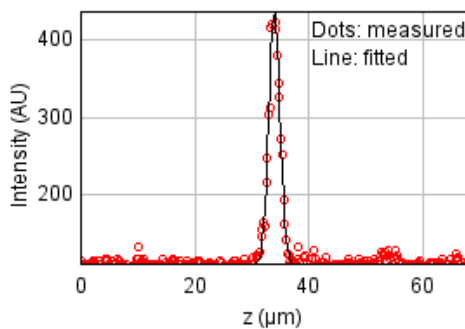
b = -0.145 px

c = 0.361 px

xc = 6.425 px

yc = 6.495 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17439.0190

Standard deviation: 7.53688

$R^2$ : 0.97863

Parameters:

a = 111.20255

b = 436.93755

c = 34.02764

d = 0.98498

## Bead 1776 (Rejected)

Date : Mon Oct 17 13:52:38 PDT 2022

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

Frame size : 12 pixels

Coordinates : 109  $\mu\text{m}$  (x), 43.3  $\mu\text{m}$  (y), 30.5  $\mu\text{m}$  (z)

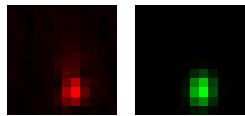
Corresponding bead : Not found

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

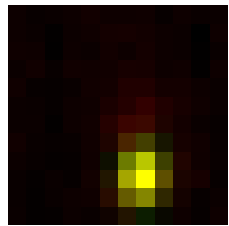
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	426 nm	270 nm
max	548 nm	571 nm	270 nm
z	3.28 $\mu\text{m}$	3.3 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.746		
Theta	86.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 428.503 (brightness)

B = 121.745 (background)

a = 0.802 px

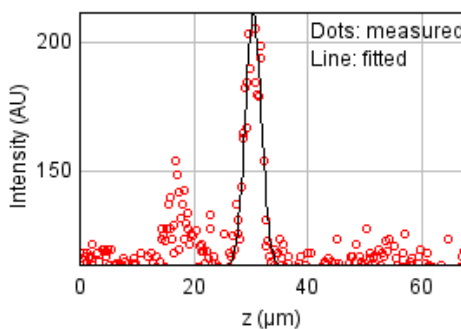
b = 0.022 px

c = 0.448 px

xc = 6.774 px

yc = 8.792 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28414.2321

Standard deviation: 9.62053

$R^2$ : 0.78033

Parameters:

a = 113.22112

b = 211.67923

c = 30.50505

d = 1.39408

## Bead 1777

Date : Mon Oct 17 13:52:38 PDT 2022

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

Frame size : 12 pixels

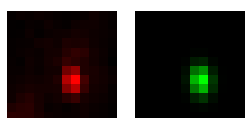
Coordinates : -4.25  $\mu\text{m}$  (x), 39.9  $\mu\text{m}$  (y), 34.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

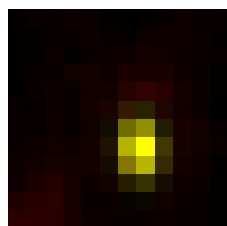
FWHM	Non corrected	Corrected	Theoretical
min	374 nm	389 nm	270 nm
max	540 nm	562 nm	270 nm
z	2.08 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.692		
Theta	-85.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 632.357 (brightness)

B = 137.331 (background)

a = 0.958 px

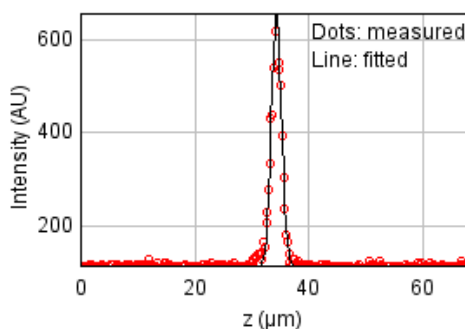
b = -0.040 px

c = 0.463 px

xc = 6.689 px

yc = 7.098 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 32391.5292

Standard deviation: 10.27180

$R^2$ : 0.98405

Parameters:

a = 114.59039

b = 657.09642

c = 34.39439

d = 0.88351

## Bead 1778

Date : Mon Oct 17 13:52:39 PDT 2022

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

Frame size : 12 pixels

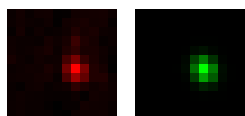
Coordinates : -132  $\mu\text{m}$  (x), 22.3  $\mu\text{m}$  (y), 34.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

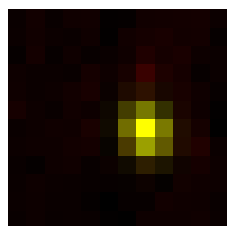
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	418 nm	270 nm
max	481 nm	501 nm	270 nm
z	1.97 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.835		
Theta	-69.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 351.442$  (brightness)

$B = 116.323$  (background)

$a = 0.801$  px

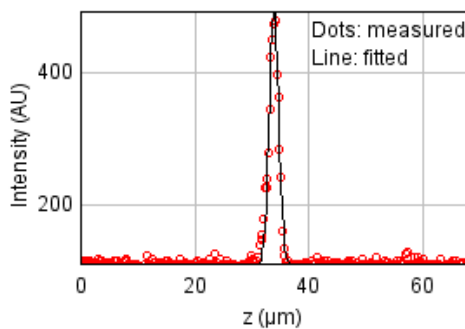
$b = -0.083$  px

$c = 0.611$  px

$x_c = 7.045$  px

$y_c = 6.123$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25832.6079

Standard deviation: 9.17307

$R^2: 0.97325$

Parameters:

$a = 111.55703$

$b = 493.74665$

$c = 33.96125$

$d = 0.83508$

## Bead 1779

Date : Mon Oct 17 13:52:39 PDT 2022

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

Frame size : 12 pixels

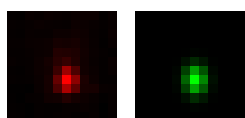
Coordinates : 23.3  $\mu\text{m}$  (x), 15.1  $\mu\text{m}$  (y), 34.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

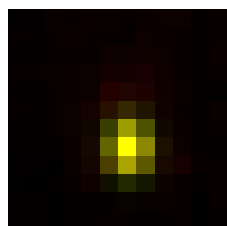
FWHM	Non corrected	Corrected	Theoretical
min	412 nm	429 nm	270 nm
max	538 nm	560 nm	270 nm
z	2.04 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.766		
Theta	-88.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 761.663 (brightness)

B = 125.645 (background)

a = 0.789 px

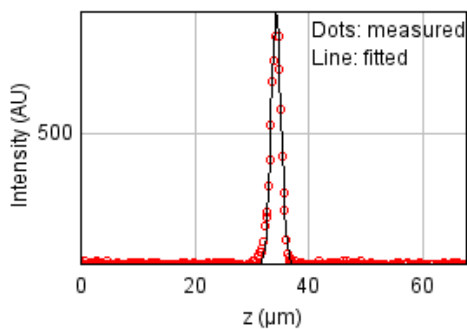
b = -0.010 px

c = 0.464 px

xc = 6.094 px

yc = 7.018 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34345.1014

Standard deviation: 10.57702

$R^2$ : 0.99081

Parameters:

a = 113.82229

b = 859.49312

c = 34.34261

d = 0.86591

## Bead 1780

Date : Mon Oct 17 13:52:39 PDT 2022

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

Frame size : 12 pixels

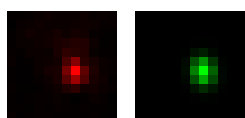
Coordinates : 29.7  $\mu\text{m}$  (x), -8.49  $\mu\text{m}$  (y), 34.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

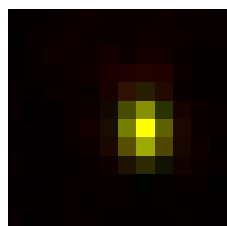
FWHM	Non corrected	Corrected	Theoretical
min	401 nm	417 nm	270 nm
max	521 nm	542 nm	270 nm
z	1.91 $\mu\text{m}$	1.91 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.769		
Theta	-83.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 604.096 (brightness)

B = 122.001 (background)

a = 0.832 px

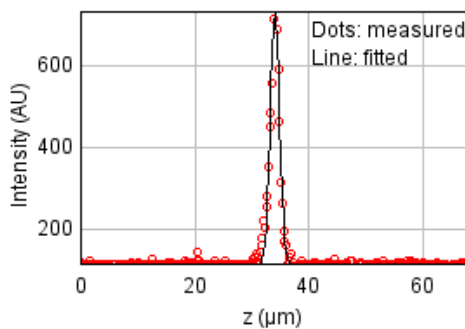
b = -0.039 px

c = 0.500 px

xc = 6.924 px

yc = 6.080 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47046.1961

Standard deviation: 12.37921

$R^2$ : 0.98055

Parameters:

a = 114.93944

b = 731.43870

c = 34.13074

d = 0.80901



## Bead 1781

Date : Mon Oct 17 13:52:39 PDT 2022

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

Frame size : 12 pixels

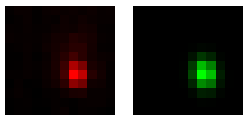
Coordinates : -5.87  $\mu\text{m}$  (x), -12.0  $\mu\text{m}$  (y), 34.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

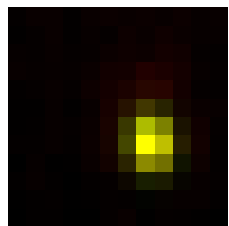
FWHM	Non corrected	Corrected	Theoretical
min	411 nm	428 nm	270 nm
max	543 nm	565 nm	270 nm
z	2.05 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.757		
Theta	-82.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 886.767$  (brightness)

$B = 132.709$  (background)

$a = 0.790$  px

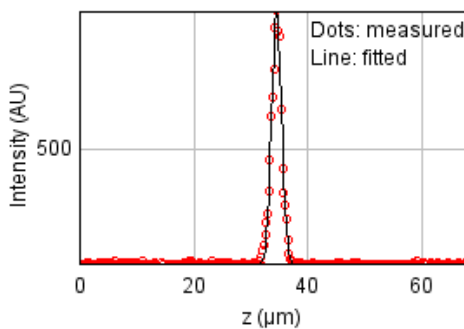
$b = -0.042$  px

$c = 0.461$  px

$x_c = 7.308$  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: 49509.6845

Standard deviation: 12.69919

$R^2 = 0.98990$

Parameters:

$a = 113.84245$

$b = 964.75851$

$c = 34.59501$

$d = 0.87142$

## Bead 1782 (Rejected)

Date : Mon Oct 17 13:52:39 PDT 2022

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

Frame size : 12 pixels

Coordinates : -83.0  $\mu\text{m}$  (x), -20.0  $\mu\text{m}$  (y), 30.4  $\mu\text{m}$  (z)

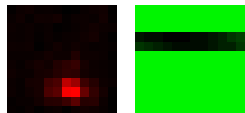
Corresponding bead : Not found

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

FWHM	Non corrected	Corrected	Theoretical
min	136 nm	141 nm	270 nm
max	4.6 $\mu\text{m}$	4.79 $\mu\text{m}$	270 nm
z	4.31 $\mu\text{m}$	4.32 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.029		
Theta	-0.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.110$

Parameters:

$A = -137.370$  (brightness)

$B = 146.766$  (background)

$a = -0.006$  px

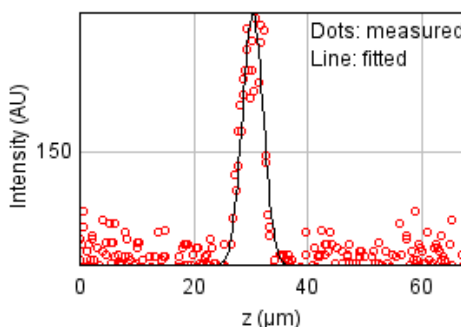
$b = -0.011$  px

$c = 7.308$  px

$xc = 4.906$  px

$yc = 3.497$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18466.0822

Standard deviation: 7.75565

$R^2: 0.83100$

Parameters:

$a = 113.09400$

$b = 195.64627$

$c = 30.42629$

$d = 1.82871$

## Bead 1783

Date : Mon Oct 17 13:52:39 PDT 2022

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

Frame size : 12 pixels

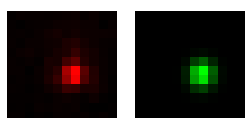
Coordinates : -81.9  $\mu\text{m}$  (x), -40.5  $\mu\text{m}$  (y), 34.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

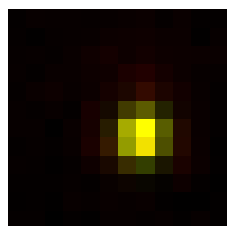
FWHM	Non corrected	Corrected	Theoretical
min	434 nm	453 nm	270 nm
max	482 nm	502 nm	270 nm
z	1.92 $\mu\text{m}$	1.92 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.901		
Theta	82.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 678.151 (brightness)

B = 124.069 (background)

a = 0.708 px

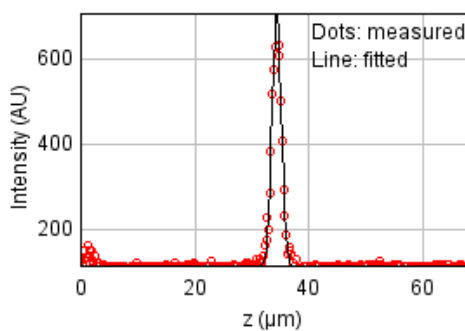
b = 0.018 px

c = 0.580 px

xc = 6.774 px

yc = 6.396 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 33045.5501

Standard deviation: 10.37498

$R^2$ : 0.98529

Parameters:

a = 115.02990

b = 708.70135

c = 34.44157

d = 0.81411

## Bead 1784 (Rejected)

Date : Mon Oct 17 13:52:40 PDT 2022

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

Frame size : 12 pixels

Coordinates : -76.4  $\mu\text{m}$  (x), -44.2  $\mu\text{m}$  (y), 24.6  $\mu\text{m}$  (z)

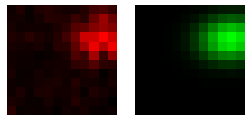
Corresponding bead : Not found

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

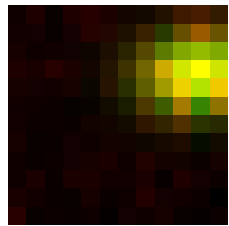
FWHM	Non corrected	Corrected	Theoretical
min	793 nm	826 nm	270 nm
max	1.14 $\mu\text{m}$	1.19 $\mu\text{m}$	270 nm
z	2.66 $\mu\text{m}$	2.67 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.695		
Theta	3.2°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.909$



Parameters:

A = 164.162 (brightness)

B = 111.933 (background)

a = 0.103 px

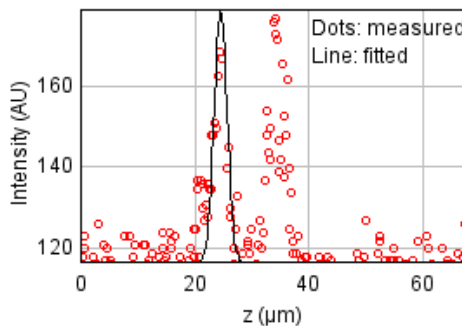
b = 0.006 px

c = 0.213 px

xc = 9.952 px

yc = 3.222 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 51516.3602

Standard deviation: 12.95399

$R^2$ : 0.39363

Parameters:

a = 116.51376

b = 178.97614

c = 24.61027

d = 1.13079

## Bead 1785

Date : Mon Oct 17 13:52:40 PDT 2022

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

Frame size : 12 pixels

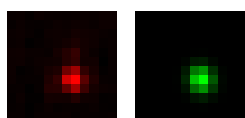
Coordinates : -120  $\mu\text{m}$  (x), -64.1  $\mu\text{m}$  (y), 34.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

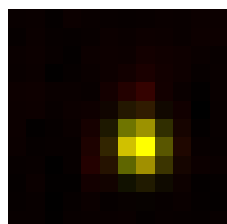
FWHM	Non corrected	Corrected	Theoretical
min	441 nm	459 nm	270 nm
max	489 nm	510 nm	270 nm
z	2.07 $\mu\text{m}$	2.08 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.901		
Theta	-76.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 662.266 (brightness)

B = 119.932 (background)

a = 0.682 px

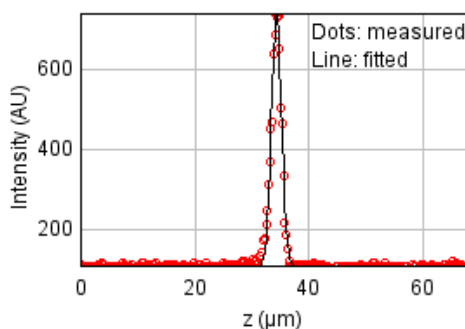
b = -0.030 px

c = 0.568 px

xc = 6.704 px

yc = 6.977 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 33513.2885

Standard deviation: 10.44815

$R^2$ : 0.98758

Parameters:

a = 111.60780

b = 738.88540

c = 34.40683

d = 0.88103

## Bead 1786 (Rejected)

Date : Mon Oct 17 13:52:40 PDT 2022

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

Frame size : 12 pixels

Coordinates : 520 nm (x), -68.0  $\mu\text{m}$  (y), 23.1  $\mu\text{m}$  (z)

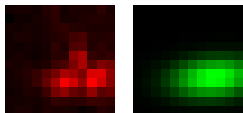
Corresponding bead : Not found

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

FWHM	Non corrected	Corrected	Theoretical
min	722 nm	752 nm	270 nm
max	1.55 $\mu\text{m}$	1.62 $\mu\text{m}$	270 nm
z	4.45 $\mu\text{m}$	4.47 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.465		
Theta	4.5°		

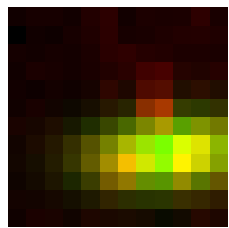
### XY profile & fitting parameters :

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



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

$R^2 = 0.842$



Parameters:

$A = 195.384$  (brightness)

$B = 118.206$  (background)

$a = 0.057$  px

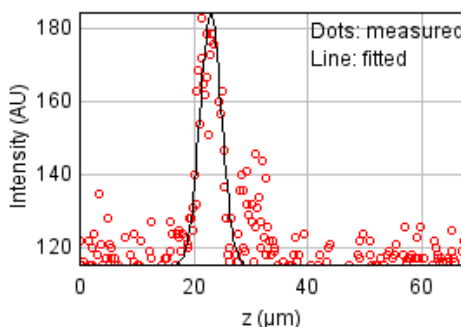
$b = 0.016$  px

$c = 0.256$  px

$xc = 8.362$  px

$yc = 7.450$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 21665.2140

Standard deviation: 8.40064

$R^2: 0.75307$

Parameters:

$a = 115.00349$

$b = 184.37476$

$c = 23.06813$

$d = 1.89135$

## Bead 1787

Date : Mon Oct 17 13:52:40 PDT 2022

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

Frame size : 12 pixels

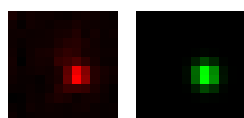
Coordinates : 89.3  $\mu\text{m}$  (x), -71.3  $\mu\text{m}$  (y), 33.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

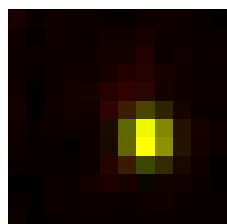
FWHM	Non corrected	Corrected	Theoretical
min	424 nm	441 nm	270 nm
max	457 nm	476 nm	270 nm
z	1.5 $\mu\text{m}$	1.5 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.926		
Theta	-77.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 491.258$  (brightness)

$B = 120.737$  (background)

$a = 0.742$  px

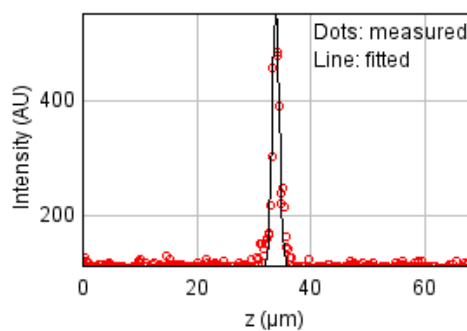
$b = -0.023$  px

$c = 0.646$  px

$x_c = 7.105$  px

$y_c = 6.519$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 52528.9064

Standard deviation: 13.08067

$R^2: 0.94804$

Parameters:

$a = 113.82590$

$b = 553.58301$

$c = 33.93074$

$d = 0.63639$

## Bead 1788

Date : Mon Oct 17 13:52:40 PDT 2022

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

Frame size : 12 pixels

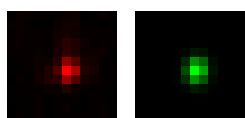
Coordinates : -94.1  $\mu\text{m}$  (x), -82.2  $\mu\text{m}$  (y), 34.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

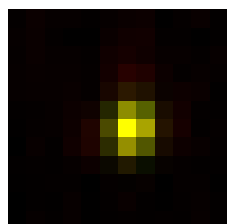
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	415 nm	270 nm
max	480 nm	500 nm	270 nm
z	2.16 $\mu\text{m}$	2.17 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.831		
Theta	82.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 689.785 (brightness)

B = 121.931 (background)

a = 0.840 px

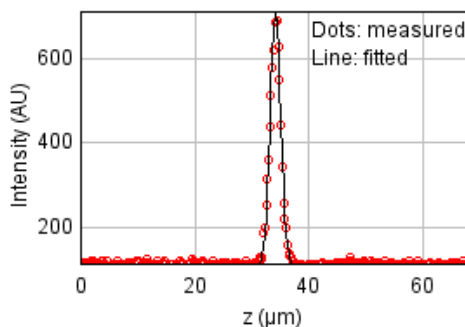
b = 0.032 px

c = 0.587 px

xc = 6.235 px

yc = 5.993 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25866.8962

Standard deviation: 9.17916

$R^2$ : 0.98985

Parameters:

a = 113.49268

b = 712.35298

c = 34.22478

d = 0.91705



## Bead 1789 (Rejected)

Date : Mon Oct 17 13:52:40 PDT 2022

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

Frame size : 12 pixels

Coordinates : 10.5  $\mu\text{m}$  (x), 17.1  $\mu\text{m}$  (y), 30.4  $\mu\text{m}$  (z)

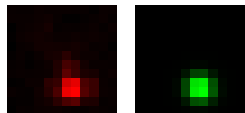
Corresponding bead : Not found

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

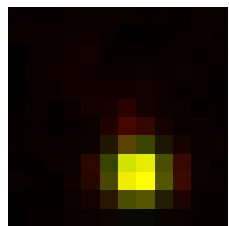
FWHM	Non corrected	Corrected	Theoretical
min	475 nm	495 nm	270 nm
max	487 nm	508 nm	270 nm
z	3.98 $\mu\text{m}$	4.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.975		
Theta	-37.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 619.794 (brightness)

B = 129.469 (background)

a = 0.575 px

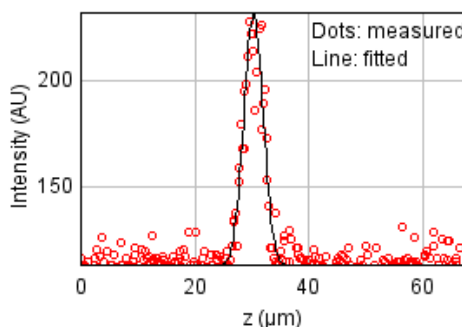
b = -0.014 px

c = 0.583 px

xc = 6.556 px

yc = 8.558 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18607.4901

Standard deviation: 7.78529

$R^2$ : 0.90443

Parameters:

a = 113.25827

b = 232.36683

c = 30.37093

d = 1.68997

## Bead 1790 (Rejected)

Date : Mon Oct 17 13:52:40 PDT 2022

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

Frame size : 12 pixels

Coordinates : 141 um (x), 10.7 um (y), 33.2 um (z)

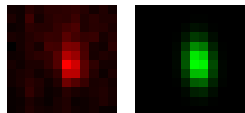
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

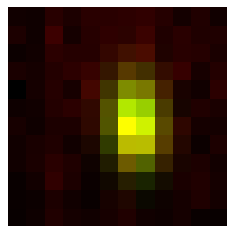
FWHM	Non corrected	Corrected	Theoretical
min	486 nm	507 nm	270 nm
max	825 nm	859 nm	270 nm
z	2.18 um	2.19 um	1.3 um
Asymmetry	0.59		
Theta	-85.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.877$



Parameters:

A = 142.114 (brightness)

B = 113.669 (background)

a = 0.565 px

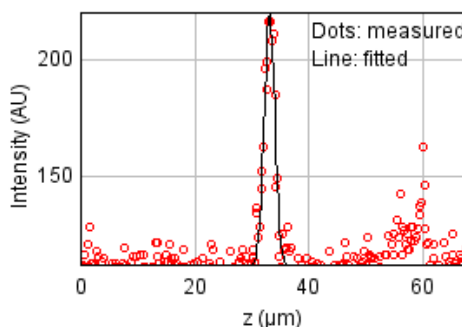
b = -0.029 px

c = 0.199 px

xc = 6.443 px

yc = 5.800 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23354.8133

Standard deviation: 8.72206

$R^2$ : 0.78200

Parameters:

a = 111.98178

b = 220.66473

c = 33.17866

d = 0.92514

## Bead 1791

Date : Mon Oct 17 13:52:40 PDT 2022

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

Frame size : 12 pixels

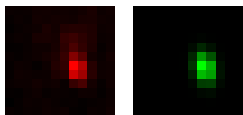
Coordinates : 155 um (x), -20.2 um (y), 34.3 um (z)

Corresponding bead : Not found

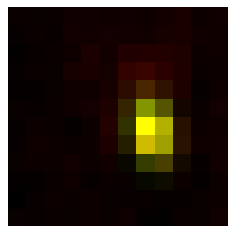
FWHM	Non corrected	Corrected	Theoretical
min	362 nm	377 nm	270 nm
max	580 nm	604 nm	270 nm
z	2.01 um	2.02 um	1.3 um
Asymmetry	0.624		
Theta	-79.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 405.854 (brightness)

B = 119.559 (background)

a = 1.005 px

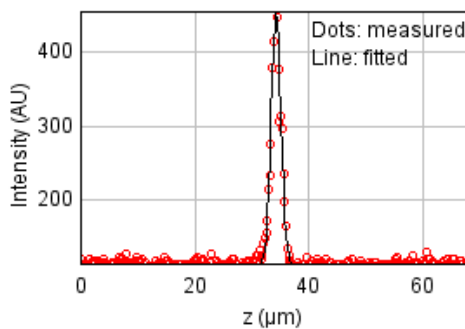
b = -0.108 px

c = 0.418 px

xc = 7.338 px

yc = 6.216 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22531.3671

Standard deviation: 8.56692

$R^2$ : 0.97188

Parameters:

a = 111.50993

b = 455.78395

c = 34.32651

d = 0.85376

## Bead 1792

Date : Mon Oct 17 13:52:41 PDT 2022

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

Frame size : 12 pixels

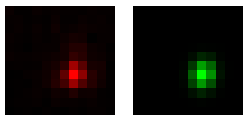
Coordinates : -39.1  $\mu\text{m}$  (x), -56.4  $\mu\text{m}$  (y), 34.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

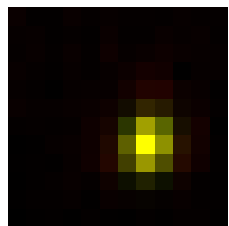
FWHM	Non corrected	Corrected	Theoretical
min	415 nm	432 nm	270 nm
max	524 nm	546 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.791		
Theta	80.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 734.749$  (brightness)

$B = 124.453$  (background)

$a = 0.772$  px

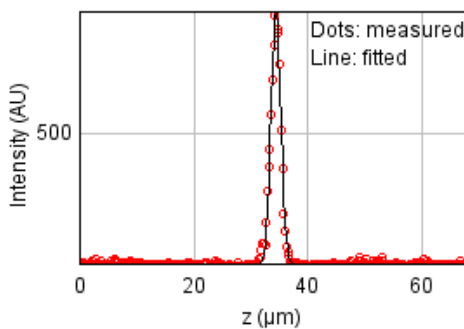
$b = 0.049$  px

$c = 0.497$  px

$x_c = 7.137$  px

$y_c = 6.959$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 39710.3849

Standard deviation: 11.37320

$R^2: 0.98932$

Parameters:

$a = 115.33645$

$b = 861.39600$

$c = 34.48478$

$d = 0.85894$

## Bead 1793

Date : Mon Oct 17 13:52:41 PDT 2022

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

Frame size : 12 pixels

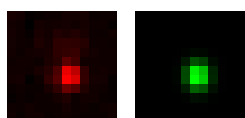
Coordinates : 142  $\mu\text{m}$  (x), -73.3  $\mu\text{m}$  (y), 34.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

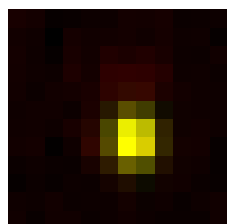
FWHM	Non corrected	Corrected	Theoretical
min	430 nm	447 nm	270 nm
max	506 nm	527 nm	270 nm
z	2.26 $\mu\text{m}$	2.27 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.848		
Theta	-86.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 463.969 (brightness)

B = 115.872 (background)

a = 0.727 px

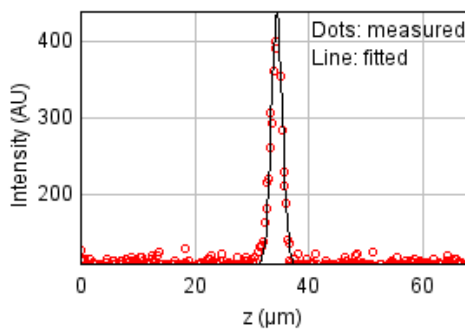
b = -0.011 px

c = 0.524 px

xc = 6.344 px

yc = 6.574 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30603.4153

Standard deviation: 9.98426

$R^2$ : 0.96255

Parameters:

a = 111.13240

b = 438.33622

c = 34.46550

d = 0.96007

## Bead 1794

Date : Mon Oct 17 13:52:41 PDT 2022

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

Frame size : 12 pixels

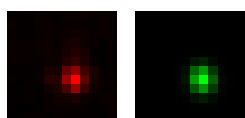
Coordinates : -6.2  $\mu\text{m}$  (x), -80.6  $\mu\text{m}$  (y), 34.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

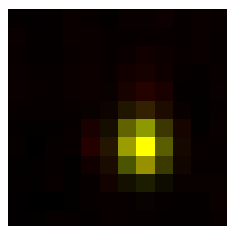
FWHM	Non corrected	Corrected	Theoretical
min	423 nm	440 nm	270 nm
max	501 nm	522 nm	270 nm
z	1.94 $\mu\text{m}$	1.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.844		
Theta	-82.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 650.912 (brightness)

B = 124.414 (background)

a = 0.747 px

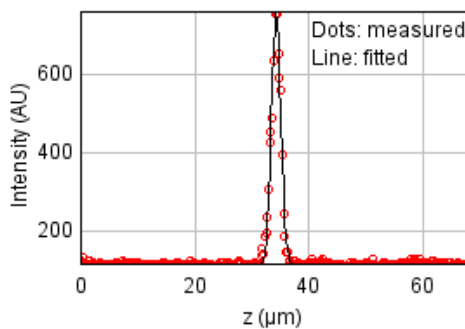
b = -0.026 px

c = 0.538 px

xc = 6.831 px

yc = 6.964 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40171.2170

Standard deviation: 11.43901

$R^2$ : 0.98514

Parameters:

a = 113.47352

b = 761.07905

c = 34.34086

d = 0.82348

## Bead 1795

Date : Mon Oct 17 13:52:41 PDT 2022

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

Frame size : 12 pixels

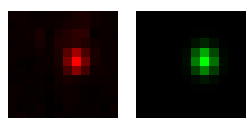
Coordinates : 124  $\mu\text{m}$  (x), -83.9  $\mu\text{m}$  (y), 24.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

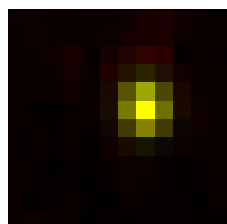
FWHM	Non corrected	Corrected	Theoretical
min	414 nm	431 nm	270 nm
max	492 nm	513 nm	270 nm
z	2.17 $\mu\text{m}$	2.18 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.84		
Theta	-85.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 502.752$  (brightness)

$B = 119.882$  (background)

$a = 0.783$  px

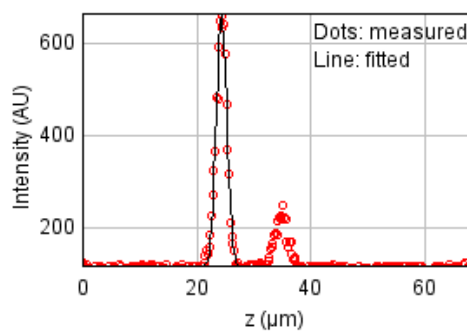
$b = -0.017$  px

$c = 0.555$  px

$x_c = 6.969$  px

$y_c = 4.881$  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 1796 (Rejected)

Date : Mon Oct 17 13:52:41 PDT 2022

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

Frame size : 12 pixels

Coordinates : -25.1 um (x), -96.0 um (y), 33.1 um (z)

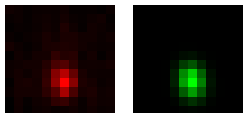
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

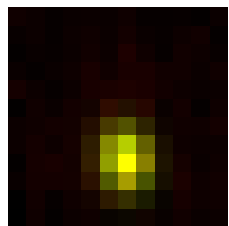
FWHM	Non corrected	Corrected	Theoretical
min	477 nm	497 nm	270 nm
max	622 nm	648 nm	270 nm
z	2.53 um	2.54 um	1.3 um
Asymmetry	0.766		
Theta	-81.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 362.045 (brightness)

B = 121.597 (background)

a = 0.585 px

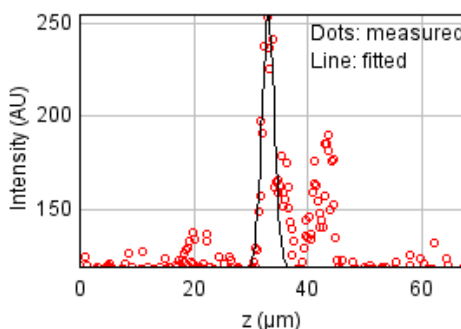
b = -0.035 px

c = 0.351 px

xc = 5.892 px

yc = 7.797 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 82581.7354

Standard deviation: 16.40109

$R^2$ : 0.64725

Parameters:

a = 118.83399

b = 255.02672

c = 33.12880

d = 1.07436



## Bead 1797

Date : Mon Oct 17 13:52:41 PDT 2022

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

Frame size : 12 pixels

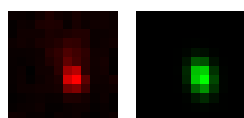
Coordinates : 78.2  $\mu\text{m}$  (x), 89.5  $\mu\text{m}$  (y), 34.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

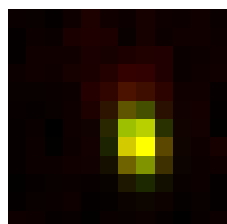
FWHM	Non corrected	Corrected	Theoretical
min	415 nm	432 nm	270 nm
max	608 nm	633 nm	270 nm
z	1.93 $\mu\text{m}$	1.93 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.683		
Theta	-78.8°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.904$



Parameters:

$A = 404.053$  (brightness)

$B = 123.225$  (background)

$a = 0.763$  px

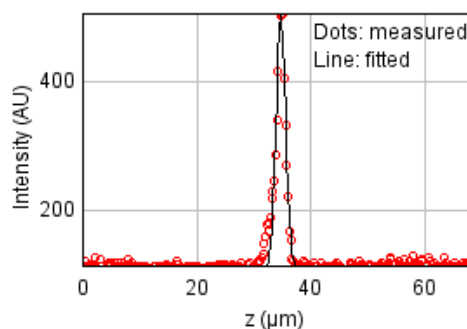
$b = -0.079$  px

$c = 0.378$  px

$x_c = 6.624$  px

$y_c = 6.699$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35507.7113

Standard deviation: 10.75455

$R^2: 0.96485$

Parameters:

$a = 113.54727$

$b = 506.57494$

$c = 34.80736$

$d = 0.81809$

## Bead 1798 (Rejected)

Date : Mon Oct 17 13:52:41 PDT 2022

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

Frame size : 12 pixels

Coordinates : -129  $\mu\text{m}$  (x), 45.7  $\mu\text{m}$  (y), 35.8  $\mu\text{m}$  (z)

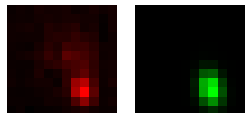
Corresponding bead : Not found

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

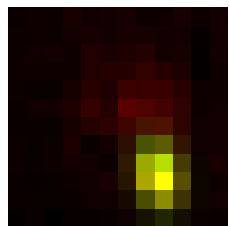
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	421 nm	270 nm
max	617 nm	642 nm	270 nm
z	4.6 $\mu\text{m}$	4.62 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.655		
Theta	-79.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.810$



Parameters:

A = 407.954 (brightness)

B = 132.394 (background)

a = 0.807 px

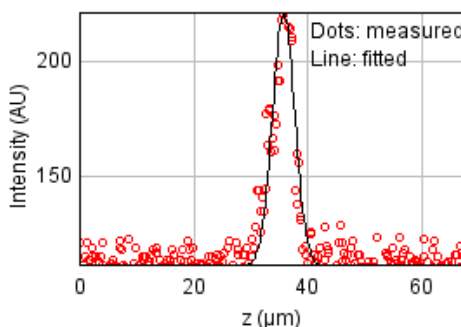
b = -0.083 px

c = 0.368 px

xc = 7.730 px

yc = 8.632 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24264.9060

Standard deviation: 8.89038

$R^2$ : 0.87635

Parameters:

a = 111.10733

b = 221.44421

c = 35.83215

d = 1.95278

## Bead 1799 (Rejected)

Date : Mon Oct 17 13:52:41 PDT 2022

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

Frame size : 12 pixels

Coordinates : -5.45  $\mu\text{m}$  (x), 38.6  $\mu\text{m}$  (y), 34.9  $\mu\text{m}$  (z)

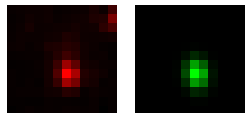
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

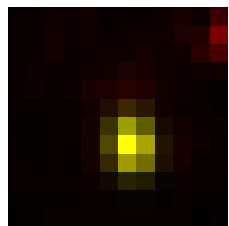
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	413 nm	270 nm
max	529 nm	551 nm	270 nm
z	2.14 $\mu\text{m}$	2.15 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.749		
Theta	-83.0°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.857$



Parameters:

A = 746.268 (brightness)

B = 133.517 (background)

a = 0.849 px

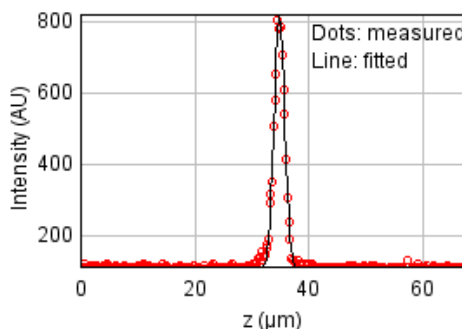
b = -0.046 px

c = 0.485 px

xc = 6.239 px

yc = 6.999 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30523.2465

Standard deviation: 9.97117

$R^2$ : 0.99137

Parameters:

a = 113.77526

b = 822.40220

c = 34.89568

d = 0.90999

## Bead 1800

Date : Mon Oct 17 13:52:41 PDT 2022

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

Frame size : 12 pixels

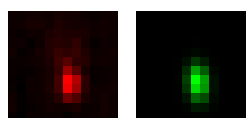
Coordinates : 130  $\mu\text{m}$  (x), 27.5  $\mu\text{m}$  (y), 34.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

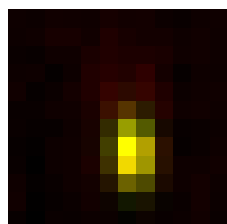
FWHM	Non corrected	Corrected	Theoretical
min	379 nm	395 nm	270 nm
max	653 nm	680 nm	270 nm
z	1.94 $\mu\text{m}$	1.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.581		
Theta	-85.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 428.922$  (brightness)

$B = 118.813$  (background)

$a = 0.928$  px

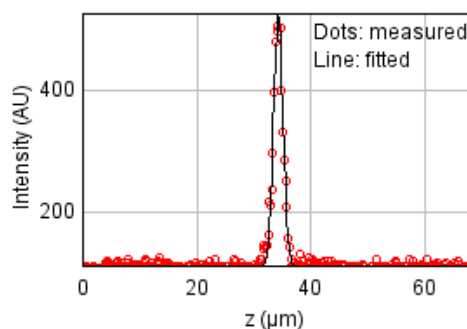
$b = -0.050$  px

$c = 0.319$  px

$x_c = 6.263$  px

$y_c = 7.286$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23145.8191

Standard deviation: 8.68295

$R^2: 0.97915$

Parameters:

$a = 112.19790$

$b = 525.76445$

$c = 34.37031$

$d = 0.82449$