

## Bead 2101

Date : Mon Oct 17 13:52:55 PDT 2022

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

Frame size : 12 pixels

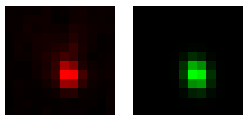
Coordinates : 6.92  $\mu\text{m}$  (x), 62.6  $\mu\text{m}$  (y), 40.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

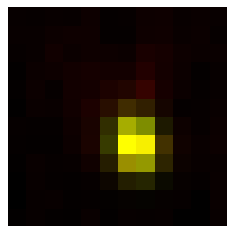
FWHM	Non corrected	Corrected	Theoretical
min	415 nm	432 nm	270 nm
max	533 nm	555 nm	270 nm
z	2.16 $\mu\text{m}$	2.17 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.779		
Theta	-76.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 861.862 (brightness)

B = 132.444 (background)

a = 0.762 px

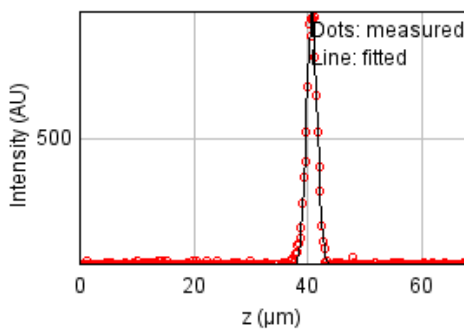
b = -0.068 px

c = 0.488 px

$x_c = 6.453$  px

$y_c = 6.967$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30342.0053

Standard deviation: 9.94152

$R^2 = 0.99304$

Parameters:

a = 114.05280

b = 897.81854

c = 40.76957

d = 0.91833

## Bead 2102 (Rejected)

Date : Mon Oct 17 13:52:55 PDT 2022

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

Frame size : 12 pixels

Coordinates : 13.1  $\mu\text{m}$  (x), 48.2  $\mu\text{m}$  (y), 37.0  $\mu\text{m}$  (z)

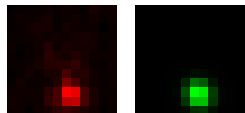
Corresponding bead : Not found

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

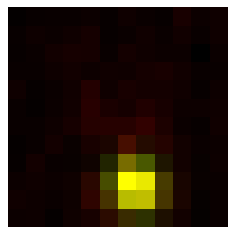
FWHM	Non corrected	Corrected	Theoretical
min	446 nm	464 nm	270 nm
max	491 nm	512 nm	270 nm
z	4.1 $\mu\text{m}$	4.12 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.908		
Theta	-59.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 451.470 (brightness)

B = 125.482 (background)

a = 0.644 px

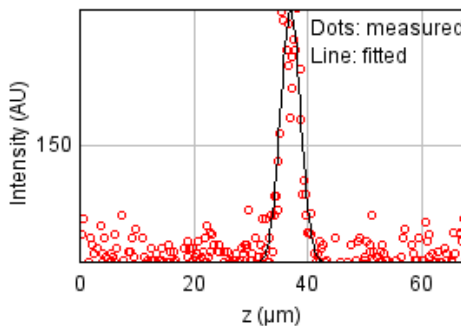
b = -0.052 px

c = 0.587 px

xc = 6.451 px

yc = 9.278 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16943.8004

Standard deviation: 7.42910

$R^2$ : 0.82496

Parameters:

a = 113.22223

b = 192.33799

c = 37.03973

d = 1.74230

## Bead 2103

Date : Mon Oct 17 13:52:56 PDT 2022

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

Frame size : 12 pixels

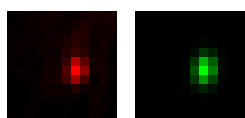
Coordinates : -138  $\mu\text{m}$  (x), 43.0  $\mu\text{m}$  (y), 41.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

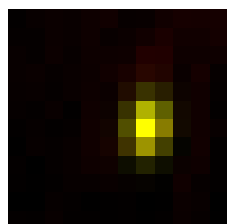
FWHM	Non corrected	Corrected	Theoretical
min	376 nm	391 nm	270 nm
max	546 nm	569 nm	270 nm
z	2.04 $\mu\text{m}$	2.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.688		
Theta	83.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 594.473 (brightness)

B = 123.133 (background)

a = 0.946 px

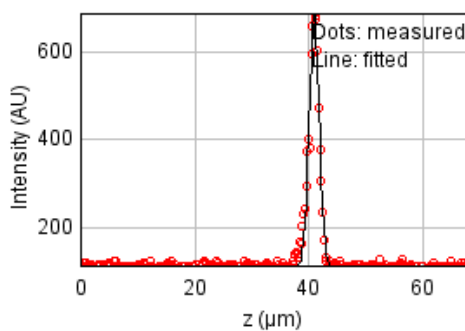
b = 0.055 px

c = 0.456 px

$x_c = 7.126$  px

$y_c = 5.883$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 50455.9019

Standard deviation: 12.81996

$R^2$ : 0.97775

Parameters:

a = 112.02022

b = 689.32170

c = 41.00007

d = 0.86487

## Bead 2104

Date : Mon Oct 17 13:52:56 PDT 2022

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

Frame size : 12 pixels

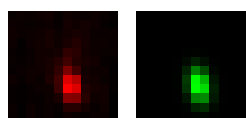
Coordinates : 9.1  $\mu\text{m}$  (x), 27.9  $\mu\text{m}$  (y), 40.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

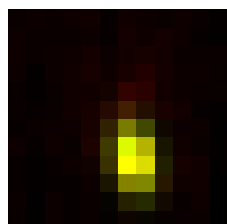
FWHM	Non corrected	Corrected	Theoretical
min	382 nm	398 nm	270 nm
max	638 nm	665 nm	270 nm
z	2.3 $\mu\text{m}$	2.3 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.599		
Theta	-80.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 537.842 (brightness)

B = 125.918 (background)

a = 0.902 px

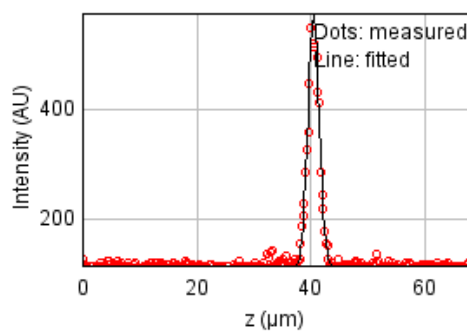
b = -0.093 px

c = 0.345 px

xc = 6.378 px

yc = 7.628 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 33638.1810

Standard deviation: 10.46760

$R^2$ : 0.97908

Parameters:

a = 114.26007

b = 573.86087

c = 40.55791

d = 0.97466

## Bead 2105 (Rejected)

Date : Mon Oct 17 13:52:56 PDT 2022

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

Frame size : 12 pixels

Coordinates : 66.2  $\mu\text{m}$  (x), 21.0  $\mu\text{m}$  (y), 36.8  $\mu\text{m}$  (z)

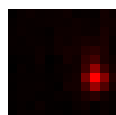
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	270 nm
max	0	0	270 nm
z	4.0 $\mu\text{m}$	4.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

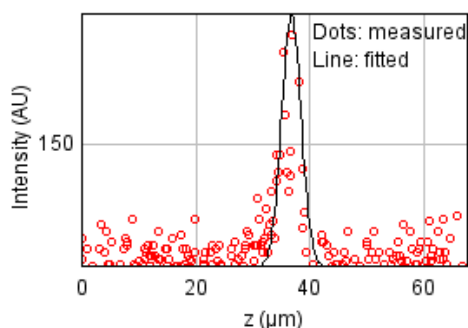
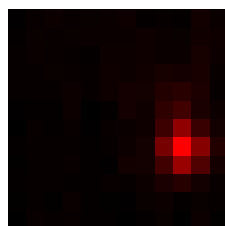
### XY profile & fitting parameters :

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



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

### Z profile & fitting parameters:



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

Sum of residuals squared: 34853.8306

Standard deviation: 10.65506

R<sup>2</sup>: 0.67196

Parameters:

a = 113.42586

b = 189.12237

c = 36.84213

d = 1.69726

## Bead 2106 (Rejected)

Date : Mon Oct 17 13:52:56 PDT 2022

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

Frame size : 12 pixels

Coordinates : -101  $\mu\text{m}$  (x), 14.6  $\mu\text{m}$  (y), 37.2  $\mu\text{m}$  (z)

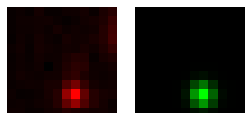
Corresponding bead : Not found

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

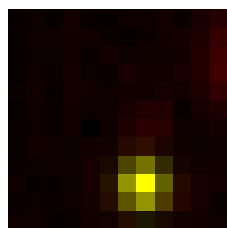
FWHM	Non corrected	Corrected	Theoretical
min	421 nm	438 nm	270 nm
max	448 nm	467 nm	270 nm
z	3.24 $\mu\text{m}$	3.25 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.939		
Theta	-79.0°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.895$



Parameters:

A = 455.763 (brightness)

B = 129.424 (background)

a = 0.755 px

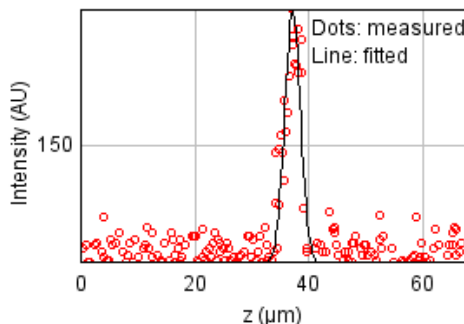
b = -0.017 px

c = 0.672 px

xc = 6.862 px

yc = 9.093 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18413.9607

Standard deviation: 7.74470

$R^2$ : 0.78887

Parameters:

a = 112.28470

b = 194.10649

c = 37.23462

d = 1.37442

## Bead 2107

Date : Mon Oct 17 13:52:56 PDT 2022

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

Frame size : 12 pixels

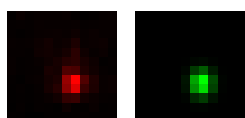
Coordinates : 12.0  $\mu\text{m}$  (x), 3.11  $\mu\text{m}$  (y), 41.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

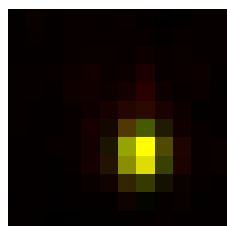
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	417 nm	270 nm
max	475 nm	494 nm	270 nm
z	1.79 $\mu\text{m}$	1.79 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.843		
Theta	89.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 806.350 (brightness)

B = 129.610 (background)

a = 0.839 px

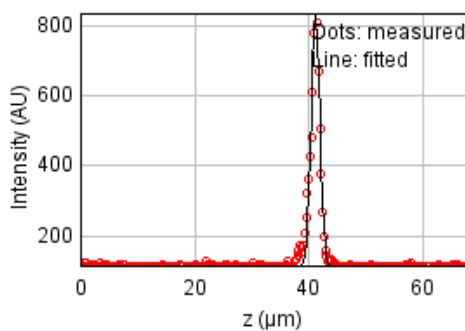
b = 0.001 px

c = 0.596 px

$x_c = 6.765$  px

$y_c = 7.377$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 58235.2111

Standard deviation: 13.77284

$R^2$ : 0.98136

Parameters:

a = 114.86850

b = 837.30165

c = 41.22206

d = 0.75912

## Bead 2108 (Rejected)

Date : Mon Oct 17 13:52:56 PDT 2022

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

Frame size : 12 pixels

Coordinates : 101 um (x), -6.71 um (y), 40.9 um (z)

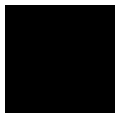
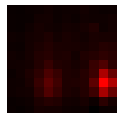
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	270 nm
max	0	0	270 nm
z	1.99 um	2.0 um	1.3 um
Asymmetry	0.0		
Theta	0.0°		

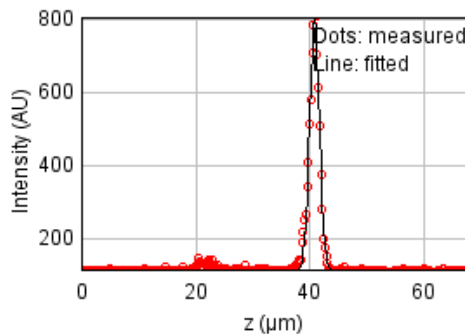
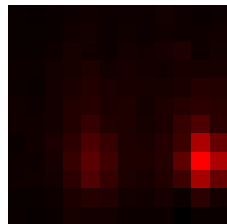
### XY profile & fitting parameters :

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



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

### Z profile & fitting parameters:



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

Sum of residuals squared: 36489.4787

Standard deviation: 10.90221

R<sup>2</sup>: 0.98842

Parameters:

a = 114.67651

b = 806.39467

c = 40.89107

d = 0.84563



## Bead 2109

Date : Mon Oct 17 13:52:56 PDT 2022

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

Frame size : 12 pixels

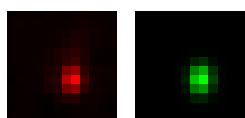
Coordinates : 20.6  $\mu\text{m}$  (x), -19.0  $\mu\text{m}$  (y), 41.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

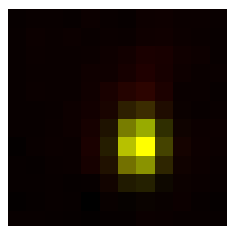
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	423 nm	270 nm
max	529 nm	550 nm	270 nm
z	1.93 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.768		
Theta	87.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1064.483$  (brightness)

$B = 131.409$  (background)

$a = 0.815$  px

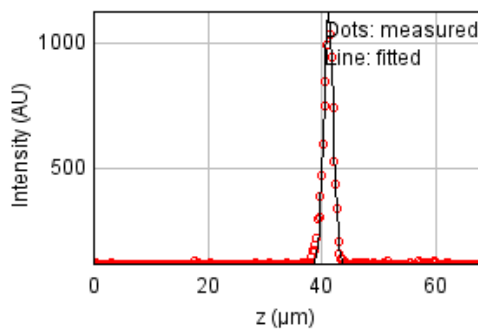
$b = 0.014$  px

$c = 0.481$  px

$x_c = 6.676$  px

$y_c = 6.929$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 73917.7966

Standard deviation: 15.51691

$R^2: 0.98875$

Parameters:

$a = 114.89067$

$b = 1128.67453$

$c = 41.23292$

$d = 0.82009$

## Bead 2110

Date : Mon Oct 17 13:52:57 PDT 2022

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

Frame size : 12 pixels

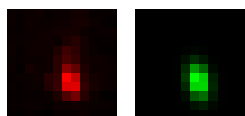
Coordinates : 115 um (x), -24.6 um (y), 40.8 um (z)

Corresponding bead : Not found

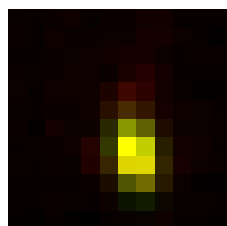
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	404 nm	270 nm
max	632 nm	659 nm	270 nm
z	2.0 um	2.01 um	1.3 um
Asymmetry	0.613		
Theta	-78.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 643.089 (brightness)

B = 126.282 (background)

a = 0.868 px

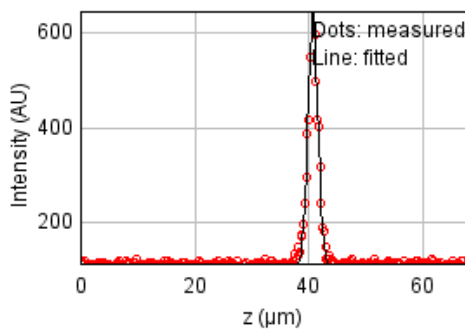
b = -0.113 px

c = 0.360 px

xc = 6.425 px

yc = 7.370 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25529.4561

Standard deviation: 9.11909

$R^2$ : 0.98662

Parameters:

a = 112.08954

b = 648.85499

c = 40.79387

d = 0.84869

## Bead 2111

Date : Mon Oct 17 13:52:57 PDT 2022

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

Frame size : 12 pixels

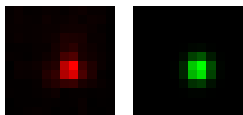
Coordinates : -37.5  $\mu\text{m}$  (x), -28.6  $\mu\text{m}$  (y), 41.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

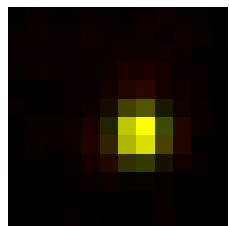
FWHM	Non corrected	Corrected	Theoretical
min	428 nm	446 nm	270 nm
max	466 nm	486 nm	270 nm
z	1.79 $\mu\text{m}$	1.8 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.919		
Theta	81.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 742.302 (brightness)

B = 125.932 (background)

a = 0.729 px

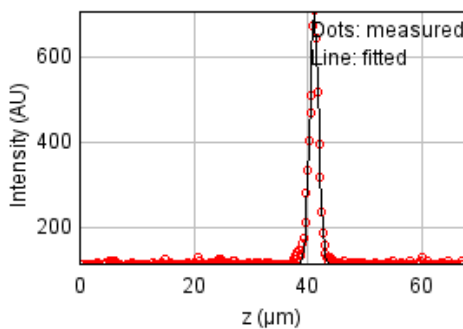
b = 0.016 px

c = 0.619 px

xc = 6.660 px

yc = 6.403 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 38274.7892

Standard deviation: 11.16573

$R^2$ : 0.98178

Parameters:

a = 115.49441

b = 707.83844

c = 41.16801

d = 0.75992

## Bead 2112

Date : Mon Oct 17 13:52:57 PDT 2022

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

Frame size : 12 pixels

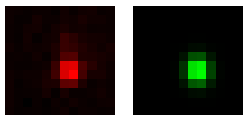
Coordinates : -130  $\mu\text{m}$  (x), -55.0  $\mu\text{m}$  (y), 40.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

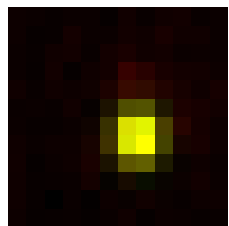
FWHM	Non corrected	Corrected	Theoretical
min	432 nm	450 nm	270 nm
max	511 nm	533 nm	270 nm
z	2.11 $\mu\text{m}$	2.12 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.844		
Theta	-87.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 463.942$  (brightness)

$B = 117.337$  (background)

$a = 0.719$  px

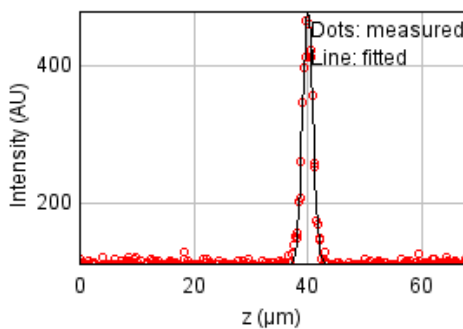
$b = -0.008$  px

$c = 0.513$  px

$x_c = 6.563$  px

$y_c = 6.537$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15793.6628

Standard deviation: 7.17253

$R^2: 0.98345$

Parameters:

$a = 110.92746$

$b = 480.14165$

$c = 40.06051$

$d = 0.89674$

## Bead 2113

Date : Mon Oct 17 13:52:57 PDT 2022

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

Frame size : 12 pixels

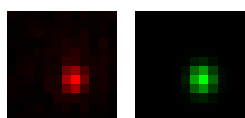
Coordinates : -133  $\mu\text{m}$  (x), -66.1  $\mu\text{m}$  (y), 40.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

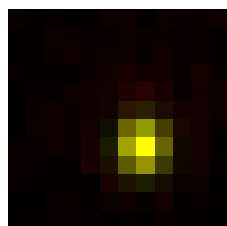
FWHM	Non corrected	Corrected	Theoretical
min	438 nm	456 nm	270 nm
max	503 nm	523 nm	270 nm
z	2.09 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.872		
Theta	-87.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 445.861$  (brightness)

$B = 121.338$  (background)

$a = 0.699$  px

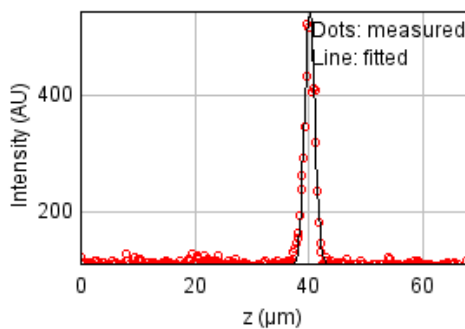
$b = -0.006$  px

$c = 0.532$  px

$x_c = 6.826$  px

$y_c = 6.966$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 32842.4366

Standard deviation: 10.34305

$R^2: 0.97467$

Parameters:

$a = 112.11664$

$b = 542.96803$

$c = 40.23018$

$d = 0.88594$

## Bead 2114

Date : Mon Oct 17 13:52:57 PDT 2022

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

Frame size : 12 pixels

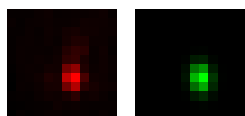
Coordinates : 26.6  $\mu\text{m}$  (x), -80.0  $\mu\text{m}$  (y), 40.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

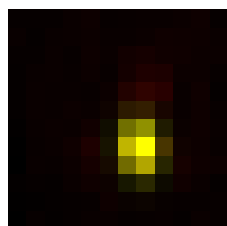
FWHM	Non corrected	Corrected	Theoretical
min	373 nm	388 nm	270 nm
max	521 nm	542 nm	270 nm
z	2.04 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.716		
Theta	-84.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 782.673 (brightness)

B = 126.169 (background)

a = 0.962 px

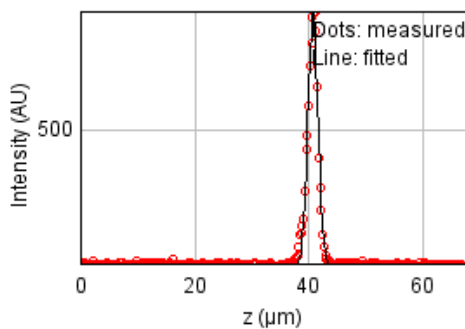
b = -0.044 px

c = 0.499 px

xc = 6.682 px

yc = 7.038 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 46726.6922

Standard deviation: 12.33711

$R^2$ : 0.98705

Parameters:

a = 113.78379

b = 844.90622

c = 40.79728

d = 0.86595

## Bead 2115 (Rejected)

Date : Mon Oct 17 13:52:57 PDT 2022

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

Frame size : 12 pixels

Coordinates : 39.8  $\mu\text{m}$  (x), -82.9  $\mu\text{m}$  (y), 40.4  $\mu\text{m}$  (z)

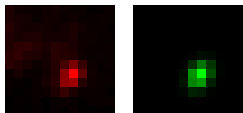
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

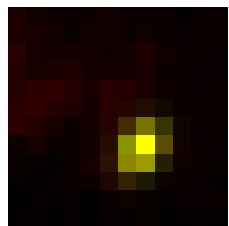
FWHM	Non corrected	Corrected	Theoretical
min	366 nm	381 nm	270 nm
max	502 nm	523 nm	270 nm
z	2.19 $\mu\text{m}$	2.2 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.729		
Theta	59.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 568.851 (brightness)

B = 137.551 (background)

a = 0.883 px

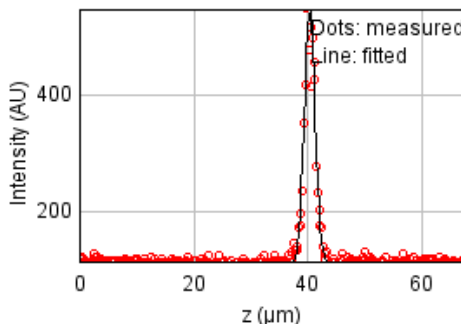
b = 0.205 px

c = 0.653 px

xc = 6.770 px

yc = 7.183 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 67814.6733

Standard deviation: 14.86253

$R^2$ : 0.95190

Parameters:

a = 113.85239

b = 547.82170

c = 40.39900

d = 0.92981

## Bead 2116

Date : Mon Oct 17 13:52:58 PDT 2022

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

Frame size : 12 pixels

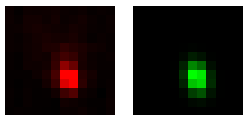
Coordinates : 52.5  $\mu\text{m}$  (x), 87.4  $\mu\text{m}$  (y), 41.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

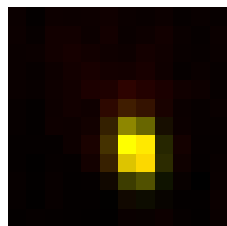
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	407 nm	270 nm
max	559 nm	582 nm	270 nm
z	1.91 $\mu\text{m}$	1.92 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.699		
Theta	-77.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 720.267$  (brightness)

$B = 123.949$  (background)

$a = 0.859$  px

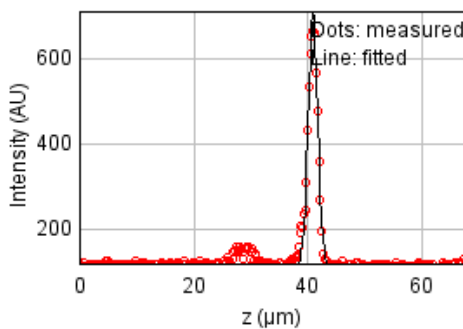
$b = -0.094$  px

$c = 0.450$  px

$x_c = 6.481$  px

$y_c = 7.307$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 56949.3316

Standard deviation: 13.61994

$R^2: 0.97472$

Parameters:

$a = 116.51934$

$b = 709.06687$

$c = 40.95812$

$d = 0.81066$



## Bead 2117 (Rejected)

Date : Mon Oct 17 13:52:58 PDT 2022

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

Frame size : 12 pixels

Coordinates : 99.4  $\mu\text{m}$  (x), 61.3  $\mu\text{m}$  (y), 39.6  $\mu\text{m}$  (z)

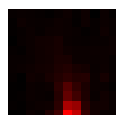
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	270 nm
max	0	0	270 nm
z	3.64 $\mu\text{m}$	3.66 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

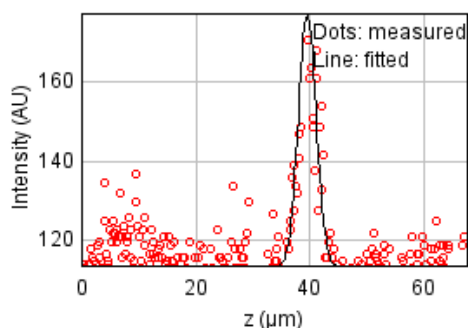
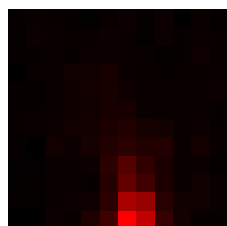
### XY profile & fitting parameters :

(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: 17226.9557

Standard deviation: 7.49092

$R^2$ : 0.72943

Parameters:

$a = 113.52419$

$b = 177.18745$

$c = 39.61122$

$d = 1.54757$

## Bead 2118 (Rejected)

Date : Mon Oct 17 13:52:58 PDT 2022

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

Frame size : 12 pixels

Coordinates : 151 um (x), 53.3 um (y), 40.1 um (z)

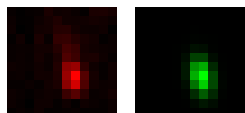
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

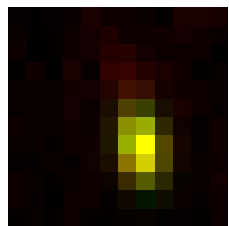
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	415 nm	270 nm
max	687 nm	716 nm	270 nm
z	1.85 um	1.86 um	1.3 um
Asymmetry	0.58		
Theta	-79.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 269.579 (brightness)

B = 114.394 (background)

a = 0.826 px

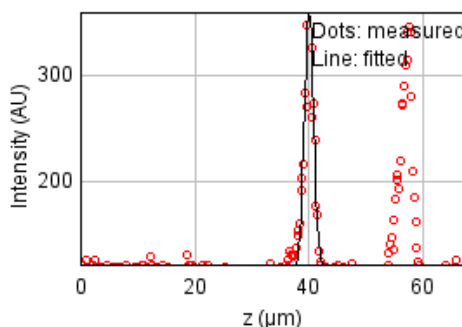
b = -0.098 px

c = 0.302 px

xc = 6.740 px

yc = 7.065 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 419174.232

Standard deviation: 36.95116

$R^2$ : 0.45417

Parameters:

a = 121.02835

b = 360.60038

c = 40.10792

d = 0.78665

## Bead 2119

Date : Mon Oct 17 13:52:58 PDT 2022

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

Frame size : 12 pixels

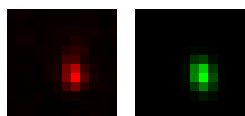
Coordinates : 18.7  $\mu\text{m}$  (x), 47.3  $\mu\text{m}$  (y), 41.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

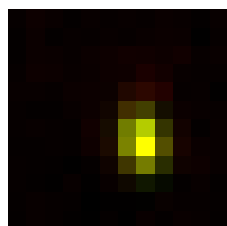
FWHM	Non corrected	Corrected	Theoretical
min	378 nm	393 nm	270 nm
max	541 nm	564 nm	270 nm
z	1.97 $\mu\text{m}$	1.98 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.698		
Theta	-79.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 620.849 (brightness)

B = 122.574 (background)

a = 0.925 px

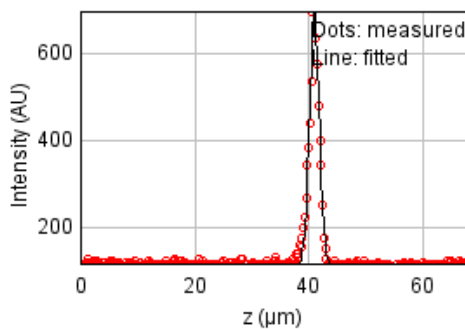
b = -0.086 px

c = 0.474 px

$x_c = 6.831$  px

$y_c = 6.705$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31452.1133

Standard deviation: 10.12175

$R^2$ : 0.98616

Parameters:

a = 114.37191

b = 703.75466

c = 41.03002

d = 0.83741

## Bead 2120

Date : Mon Oct 17 13:52:58 PDT 2022

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

Frame size : 12 pixels

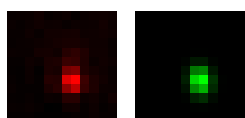
Coordinates : 4.53  $\mu\text{m}$  (x), 38.1  $\mu\text{m}$  (y), 41.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

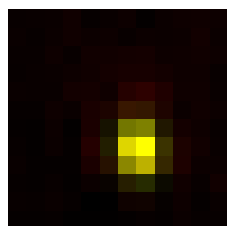
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	509 nm	530 nm	270 nm
z	1.93 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.76		
Theta	-83.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 695.724$  (brightness)

$B = 128.577$  (background)

$a = 0.890$  px

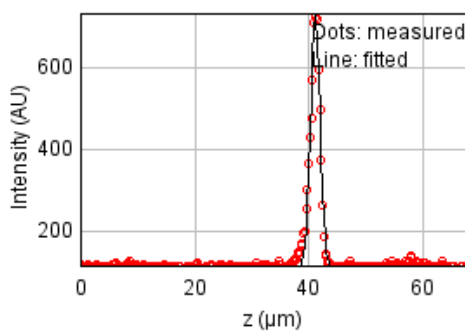
$b = -0.046$  px

$c = 0.523$  px

$x_c = 6.606$  px

$y_c = 7.116$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 46397.1855

Standard deviation: 12.29353

$R^2: 0.98131$

Parameters:

$a = 114.97167$

$b = 735.34813$

$c = 41.19128$

$d = 0.82079$

## Bead 2121

Date : Mon Oct 17 13:52:58 PDT 2022

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

Frame size : 12 pixels

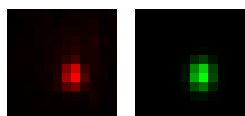
Coordinates : -91.6  $\mu\text{m}$  (x), 36.3  $\mu\text{m}$  (y), 41.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

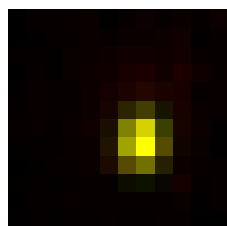
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	417 nm	270 nm
max	511 nm	533 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.783		
Theta	86.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 760.598$  (brightness)

$B = 124.862$  (background)

$a = 0.836$  px

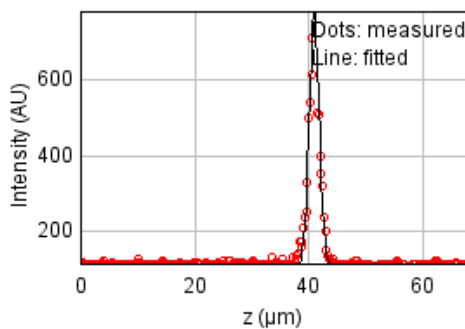
$b = 0.018$  px

$c = 0.514$  px

$x_c = 6.773$  px

$y_c = 6.702$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 76933.6634

Standard deviation: 15.83030

$R^2: 0.97440$

Parameters:

$a = 113.87432$

$b = 782.82965$

$c = 41.00803$

$d = 0.85001$

## Bead 2122

Date : Mon Oct 17 13:52:58 PDT 2022

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

Frame size : 12 pixels

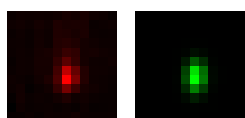
Coordinates : 113  $\mu\text{m}$  (x), -20.3  $\mu\text{m}$  (y), 40.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

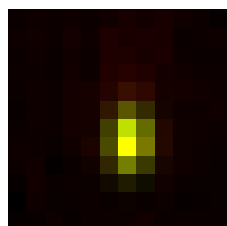
FWHM	Non corrected	Corrected	Theoretical
min	368 nm	383 nm	270 nm
max	566 nm	589 nm	270 nm
z	1.95 $\mu\text{m}$	1.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.65		
Theta	88.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 439.137 (brightness)

B = 118.400 (background)

a = 0.990 px

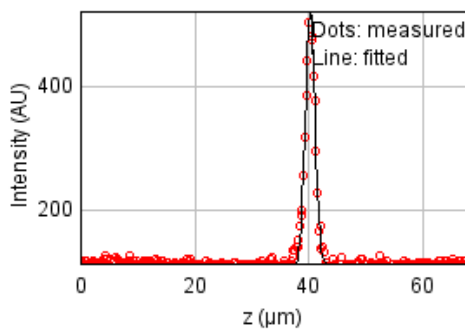
b = 0.013 px

c = 0.419 px

$x_c = 6.124$  px

$y_c = 6.651$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18952.5761

Standard deviation: 7.85715

$R^2$ : 0.98273

Parameters:

a = 111.65471

b = 523.21206

c = 40.31178

d = 0.82602

## Bead 2123

Date : Mon Oct 17 13:52:58 PDT 2022

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

Frame size : 12 pixels

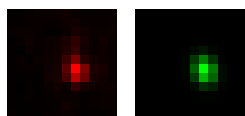
Coordinates : -141  $\mu\text{m}$  (x), -25.5  $\mu\text{m}$  (y), 40.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

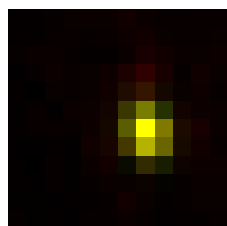
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	510 nm	532 nm	270 nm
z	1.99 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.758		
Theta	-76.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 608.567$  (brightness)

$B = 122.253$  (background)

$a = 0.874$  px

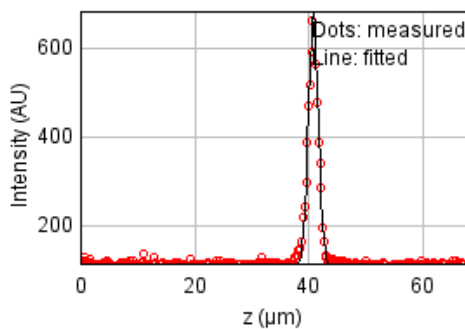
$b = -0.090$  px

$c = 0.538$  px

$x_c = 7.090$  px

$y_c = 6.184$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28516.9605

Standard deviation: 9.63790

$R^2: 0.98683$

Parameters:

$a = 111.71242$

$b = 684.27208$

$c = 40.85805$

$d = 0.84655$

## Bead 2124 (Rejected)

Date : Mon Oct 17 13:52:58 PDT 2022

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

Frame size : 12 pixels

Coordinates : -89.4  $\mu\text{m}$  (x), -28.3  $\mu\text{m}$  (y), 37.5  $\mu\text{m}$  (z)

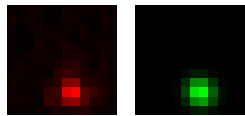
Corresponding bead : Not found

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

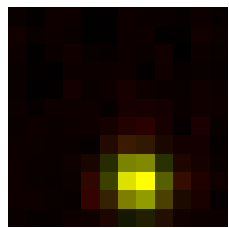
FWHM	Non corrected	Corrected	Theoretical
min	474 nm	494 nm	270 nm
max	514 nm	535 nm	270 nm
z	3.86 $\mu\text{m}$	3.88 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.923		
Theta	-43.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 405.716 (brightness)

B = 125.333 (background)

a = 0.550 px

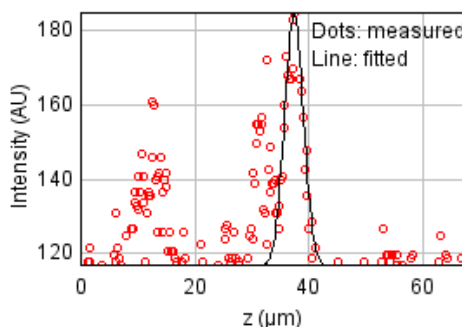
b = -0.044 px

c = 0.555 px

xc = 6.614 px

yc = 9.027 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47089.4287

Standard deviation: 12.38490

$R^2$ : 0.54014

Parameters:

a = 116.96567

b = 184.62822

c = 37.46781

d = 1.64032



## Bead 2125

Date : Mon Oct 17 13:52:58 PDT 2022

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

Frame size : 12 pixels

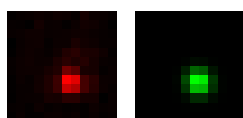
Coordinates : -27.0  $\mu\text{m}$  (x), -45.7  $\mu\text{m}$  (y), 40.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

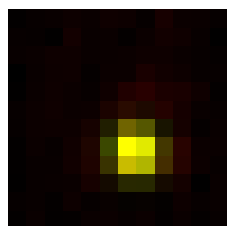
FWHM	Non corrected	Corrected	Theoretical
min	442 nm	461 nm	270 nm
max	469 nm	488 nm	270 nm
z	2.22 $\mu\text{m}$	2.23 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.944		
Theta	-68.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 522.310$  (brightness)

$B = 122.697$  (background)

$a = 0.675$  px

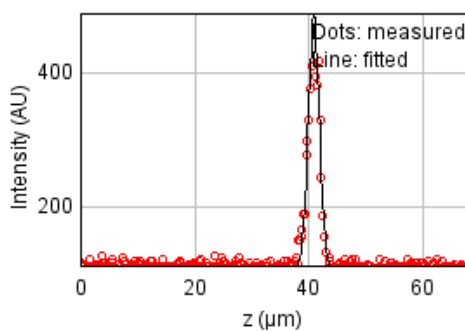
$b = -0.025$  px

$c = 0.620$  px

$x_c = 6.445$  px

$y_c = 7.271$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29917.2777

Standard deviation: 9.87170

$R^2: 0.97114$

Parameters:

$a = 113.07058$

$b = 486.80539$

$c = 40.93688$

$d = 0.94106$

## Bead 2126

Date : Mon Oct 17 13:52:58 PDT 2022

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

Frame size : 12 pixels

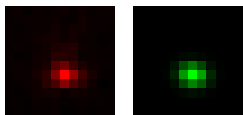
Coordinates : -20.9  $\mu\text{m}$  (x), -70.7  $\mu\text{m}$  (y), 41.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

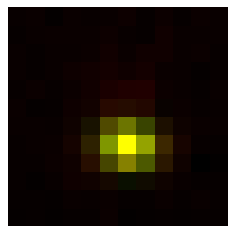
FWHM	Non corrected	Corrected	Theoretical
min	425 nm	443 nm	270 nm
max	526 nm	548 nm	270 nm
z	2.08 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.808		
Theta	-9.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 647.819$  (brightness)

$B = 124.457$  (background)

$a = 0.491$  px

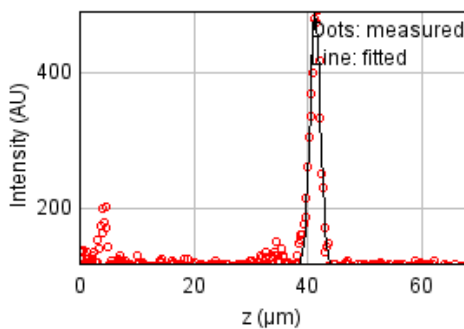
$b = -0.041$  px

$c = 0.736$  px

$x_c = 6.044$  px

$y_c = 7.037$  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 2127

Date : Mon Oct 17 13:52:58 PDT 2022

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

Frame size : 12 pixels

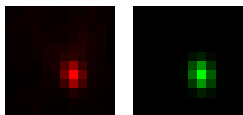
Coordinates : 12.5  $\mu\text{m}$  (x), 84.2  $\mu\text{m}$  (y), 41.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

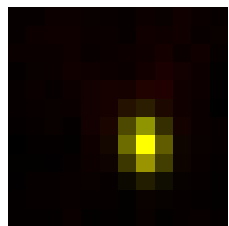
FWHM	Non corrected	Corrected	Theoretical
min	374 nm	390 nm	270 nm
max	505 nm	526 nm	270 nm
z	1.89 $\mu\text{m}$	1.9 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.741		
Theta	-79.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 764.099 (brightness)

B = 128.803 (background)

a = 0.944 px

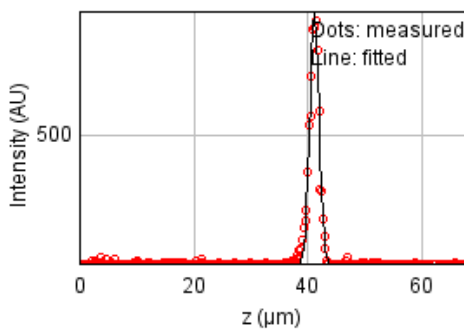
b = -0.074 px

c = 0.539 px

xc = 6.957 px

yc = 6.991 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 54556.1114

Standard deviation: 13.33069

$R^2$ : 0.98497

Parameters:

a = 114.20645

b = 873.32985

c = 41.20925

d = 0.80381

## Bead 2128

Date : Mon Oct 17 13:52:58 PDT 2022

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

Frame size : 12 pixels

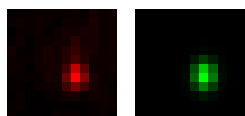
Coordinates : -144  $\mu\text{m}$  (x), 36.7  $\mu\text{m}$  (y), 40.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

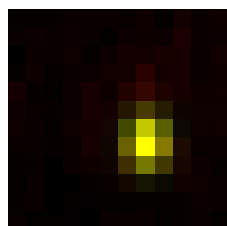
FWHM	Non corrected	Corrected	Theoretical
min	394 nm	410 nm	270 nm
max	518 nm	540 nm	270 nm
z	2.05 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.76		
Theta	89.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 375.263$  (brightness)

$B = 117.262$  (background)

$a = 0.864$  px

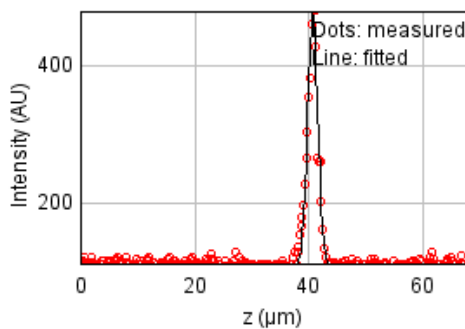
$b = 0.002$  px

$c = 0.499$  px

$x_c = 7.064$  px

$y_c = 6.745$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28130.3182

Standard deviation: 9.57234

$R^2: 0.96967$

Parameters:

$a = 111.82547$

$b = 478.16347$

$c = 40.74879$

$d = 0.87153$

## Bead 2129

Date : Mon Oct 17 13:52:58 PDT 2022

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

Frame size : 12 pixels

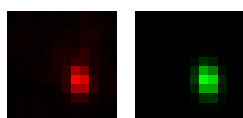
Coordinates : 16.1  $\mu\text{m}$  (x), 27.8  $\mu\text{m}$  (y), 41.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

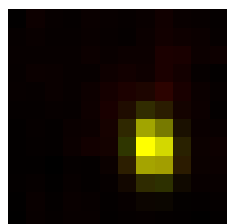
FWHM	Non corrected	Corrected	Theoretical
min	393 nm	409 nm	270 nm
max	557 nm	580 nm	270 nm
z	2.11 $\mu\text{m}$	2.11 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.705		
Theta	-81.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 677.986$  (brightness)

$B = 125.849$  (background)

$a = 0.861$  px

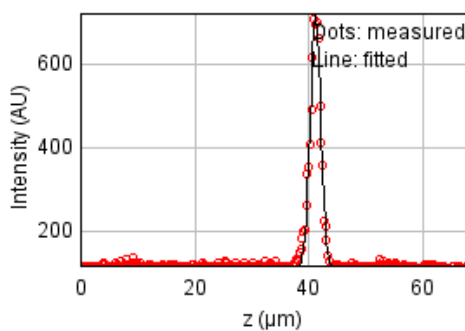
$b = -0.066$  px

$c = 0.443$  px

$x_c = 7.408$  px

$y_c = 7.057$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35156.2762

Standard deviation: 10.70119

$R^2 = 0.98623$

Parameters:

$a = 115.95592$

$b = 721.47045$

$c = 41.22423$

$d = 0.89397$

## Bead 2130

Date : Mon Oct 17 13:52:59 PDT 2022

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

Frame size : 12 pixels

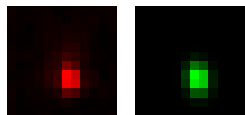
Coordinates : 79.9  $\mu\text{m}$  (x), -25.3  $\mu\text{m}$  (y), 41.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

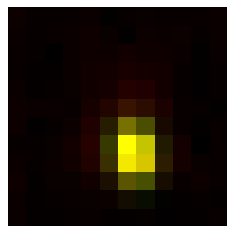
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	407 nm	270 nm
max	544 nm	567 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.718		
Theta	-83.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 722.497$  (brightness)

$B = 125.609$  (background)

$a = 0.874$  px

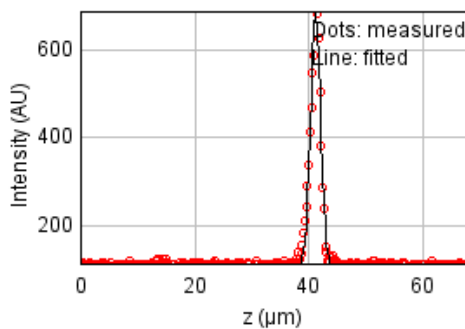
$b = -0.050$  px

$c = 0.459$  px

$x_c = 6.374$  px

$y_c = 7.434$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34226.0316

Standard deviation: 10.55867

$R^2 = 0.98461$

Parameters:

$a = 113.25943$

$b = 688.82637$

$c = 41.23797$

$d = 0.85929$

## Bead 2131 (Rejected)

Date : Mon Oct 17 13:52:59 PDT 2022

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

Frame size : 12 pixels

Coordinates : 161 um (x), -64.7 um (y), 41.4 um (z)

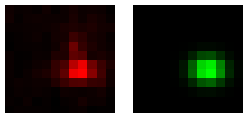
Corresponding bead : Not found

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

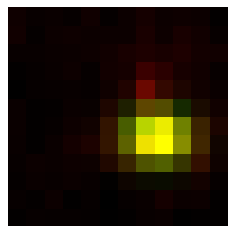
FWHM	Non corrected	Corrected	Theoretical
min	505 nm	526 nm	270 nm
max	615 nm	640 nm	270 nm
z	3.74 um	3.75 um	1.3 um
Asymmetry	0.821		
Theta	-2.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 382.886 (brightness)

B = 117.595 (background)

a = 0.355 px

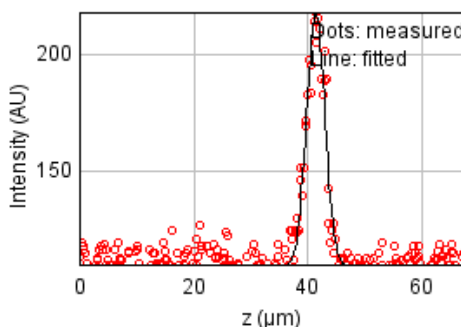
b = -0.006 px

c = 0.527 px

xc = 7.664 px

yc = 6.567 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 13361.4430

Standard deviation: 6.59717

$R^2$ : 0.91172

Parameters:

a = 109.73296

b = 218.19610

c = 41.44829

d = 1.58783

## Bead 2132

Date : Mon Oct 17 13:52:59 PDT 2022

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

Frame size : 12 pixels

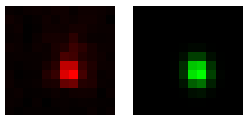
Coordinates : 4.3  $\mu\text{m}$  (x), -72.0  $\mu\text{m}$  (y), 41.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

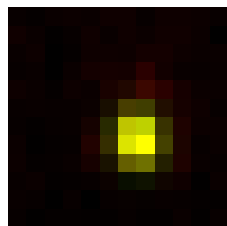
FWHM	Non corrected	Corrected	Theoretical
min	425 nm	443 nm	270 nm
max	516 nm	538 nm	270 nm
z	1.97 $\mu\text{m}$	1.98 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.823		
Theta	-83.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 514.970 (brightness)

B = 122.834 (background)

a = 0.740 px

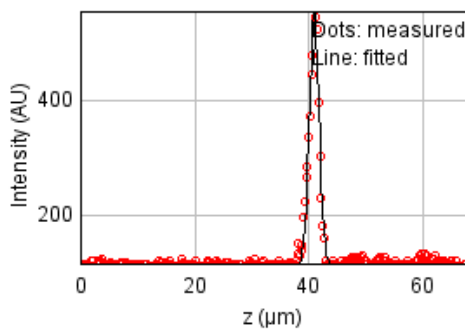
b = -0.029 px

c = 0.507 px

xc = 6.565 px

yc = 6.672 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34600.5238

Standard deviation: 10.61627

$R^2$ : 0.97333

Parameters:

a = 115.90429

b = 558.22952

c = 41.00910

d = 0.83784



## Bead 2133

Date : Mon Oct 17 13:52:59 PDT 2022

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

Frame size : 12 pixels

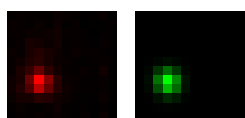
Coordinates : 6.62  $\mu\text{m}$  (x), -78.3  $\mu\text{m}$  (y), 36.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

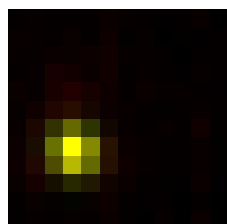
FWHM	Non corrected	Corrected	Theoretical
min	429 nm	447 nm	270 nm
max	473 nm	492 nm	270 nm
z	1.93 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.908		
Theta	-72.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 636.494 (brightness)

B = 124.049 (background)

a = 0.717 px

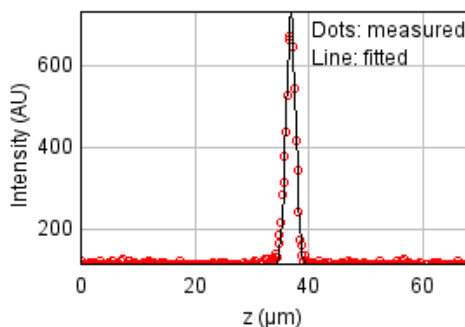
b = -0.037 px

c = 0.612 px

xc = 3.076 px

yc = 7.236 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 32660.0619

Standard deviation: 10.31429

$R^2$ : 0.98682

Parameters:

a = 113.38917

b = 735.65551

c = 36.92128

d = 0.81921

## Bead 2134

Date : Mon Oct 17 13:52:59 PDT 2022

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

Frame size : 12 pixels

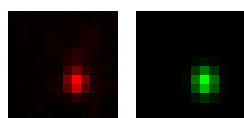
Coordinates : -117  $\mu\text{m}$  (x), 81.7  $\mu\text{m}$  (y), 41.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

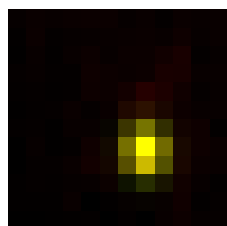
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	414 nm	270 nm
max	494 nm	514 nm	270 nm
z	1.85 $\mu\text{m}$	1.86 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.804		
Theta	-85.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 581.043 (brightness)

B = 120.524 (background)

a = 0.849 px

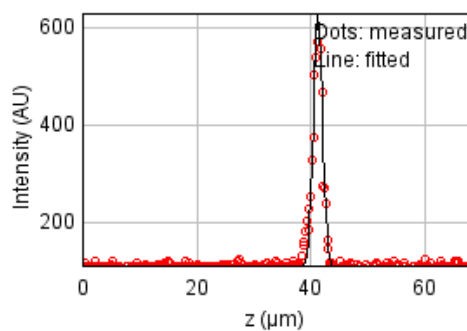
b = -0.022 px

c = 0.552 px

$x_c = 6.988$  px

$y_c = 7.213$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 42594.2520

Standard deviation: 11.77894

$R^2$ : 0.97435

Parameters:

a = 112.99616

b = 628.77014

c = 41.29734

d = 0.78739

## Bead 2135

Date : Mon Oct 17 13:52:59 PDT 2022

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

Frame size : 12 pixels

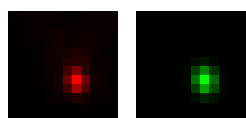
Coordinates : 3.96  $\mu\text{m}$  (x), 61.0  $\mu\text{m}$  (y), 41.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

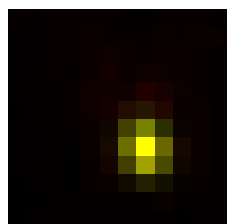
FWHM	Non corrected	Corrected	Theoretical
min	390 nm	406 nm	270 nm
max	491 nm	512 nm	270 nm
z	1.86 $\mu\text{m}$	1.87 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.794		
Theta	-78.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1085.990$  (brightness)

$B = 132.348$  (background)

$a = 0.869$  px

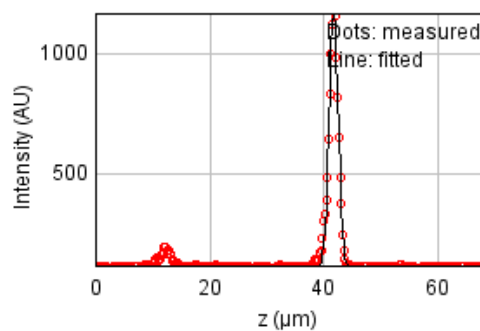
$b = -0.063$  px

$c = 0.569$  px

$x_c = 6.985$  px

$y_c = 7.090$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 105649.372

Standard deviation: 18.55087

$R^2: 0.98451$

Parameters:

$a = 119.14525$

$b = 1169.10899$

$c = 41.78440$

$d = 0.78878$

## Bead 2136

Date : Mon Oct 17 13:52:59 PDT 2022

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

Frame size : 12 pixels

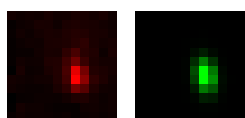
Coordinates : 102  $\mu\text{m}$  (x), 10.6  $\mu\text{m}$  (y), 40.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

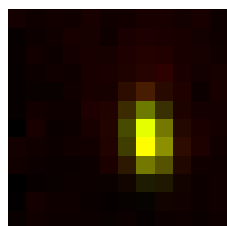
FWHM	Non corrected	Corrected	Theoretical
min	365 nm	380 nm	270 nm
max	613 nm	638 nm	270 nm
z	2.19 $\mu\text{m}$	2.2 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.595		
Theta	-81.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 457.641$  (brightness)

$B = 122.336$  (background)

$a = 0.995$  px

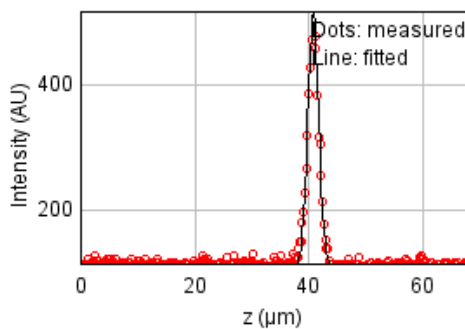
$b = -0.093$  px

$c = 0.371$  px

$x_c = 7.170$  px

$y_c = 6.538$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19784.2895

Standard deviation: 8.02770

$R^2: 0.98346$

Parameters:

$a = 113.58481$

$b = 519.93639$

$c = 40.84132$

$d = 0.92959$

## Bead 2137

Date : Mon Oct 17 13:52:59 PDT 2022

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

Frame size : 12 pixels

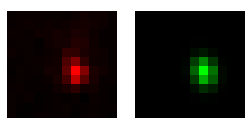
Coordinates : -9.89  $\mu\text{m}$  (x), -9.38  $\mu\text{m}$  (y), 41.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

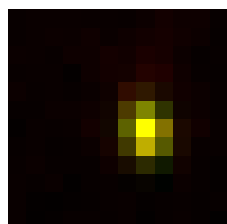
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	402 nm	270 nm
max	515 nm	536 nm	270 nm
z	1.93 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.749		
Theta	-79.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 644.410 (brightness)

B = 121.859 (background)

a = 0.888 px

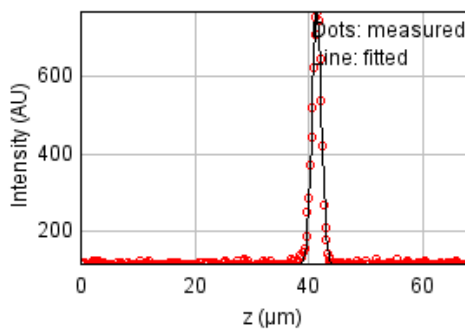
b = -0.074 px

c = 0.521 px

xc = 7.051 px

yc = 6.136 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24208.3451

Standard deviation: 8.88001

$R^2$ : 0.99125

Parameters:

a = 113.87601

b = 772.01614

c = 41.43728

d = 0.82150

## Bead 2138

Date : Mon Oct 17 13:52:59 PDT 2022

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

Frame size : 12 pixels

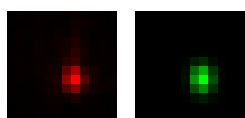
Coordinates : -55.3  $\mu\text{m}$  (x), -12.4  $\mu\text{m}$  (y), 41.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

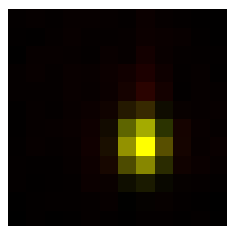
FWHM	Non corrected	Corrected	Theoretical
min	393 nm	409 nm	270 nm
max	509 nm	530 nm	270 nm
z	1.91 $\mu\text{m}$	1.92 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.772		
Theta	-87.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 849.746 (brightness)

B = 125.401 (background)

a = 0.868 px

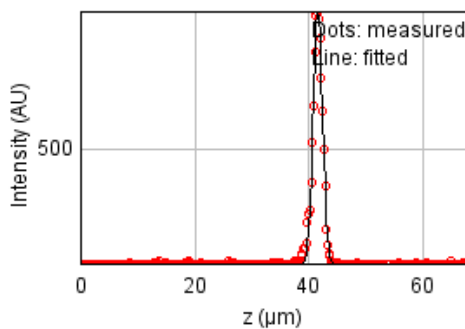
b = -0.016 px

c = 0.519 px

xc = 6.821 px

yc = 6.881 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 33268.4103

Standard deviation: 10.40991

$R^2$ : 0.99268

Parameters:

a = 113.80006

b = 963.08901

c = 41.63724

d = 0.81109

## Bead 2139 (Rejected)

Date : Mon Oct 17 13:52:59 PDT 2022

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

Frame size : 12 pixels

Coordinates : -13.3  $\mu\text{m}$  (x), -25.3  $\mu\text{m}$  (y), 37.6  $\mu\text{m}$  (z)

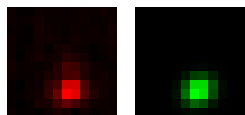
Corresponding bead : Not found

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

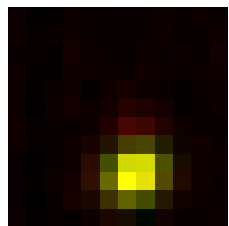
FWHM	Non corrected	Corrected	Theoretical
min	472 nm	492 nm	270 nm
max	543 nm	565 nm	270 nm
z	3.57 $\mu\text{m}$	3.58 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.87		
Theta	33.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 483.952 (brightness)

B = 123.624 (background)

a = 0.500 px

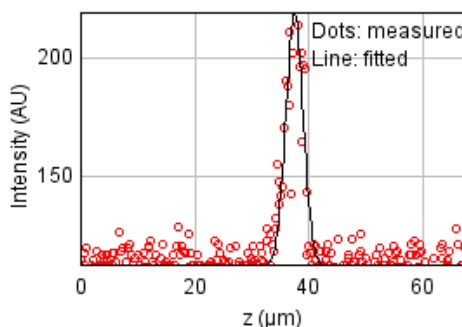
b = 0.067 px

c = 0.558 px

xc = 6.428 px

yc = 8.598 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23469.0956

Standard deviation: 8.74337

$R^2$ : 0.84593

Parameters:

a = 112.47014

b = 219.55947

c = 37.56178

d = 1.51473

## Bead 2140

Date : Mon Oct 17 13:52:59 PDT 2022

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

Frame size : 12 pixels

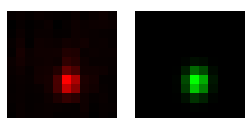
Coordinates : -69.7  $\mu\text{m}$  (x), -27.2  $\mu\text{m}$  (y), 41.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

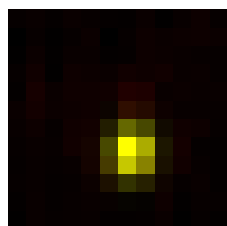
FWHM	Non corrected	Corrected	Theoretical
min	403 nm	420 nm	270 nm
max	486 nm	506 nm	270 nm
z	1.94 $\mu\text{m}$	1.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.831		
Theta	86.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 581.506 (brightness)

B = 124.022 (background)

a = 0.823 px

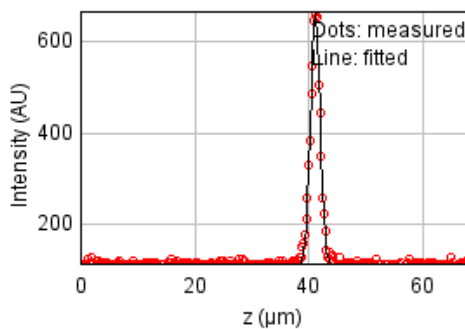
b = 0.016 px

c = 0.570 px

xc = 6.252 px

yc = 7.278 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19022.4848

Standard deviation: 7.87163

$R^2$ : 0.99037

Parameters:

a = 112.63809

b = 667.07335

c = 41.19080

d = 0.82593



## Bead 2141

Date : Mon Oct 17 13:52:59 PDT 2022

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

Frame size : 12 pixels

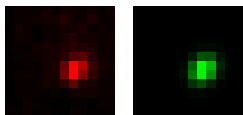
Coordinates : 136  $\mu\text{m}$  (x), -71.7  $\mu\text{m}$  (y), 41.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

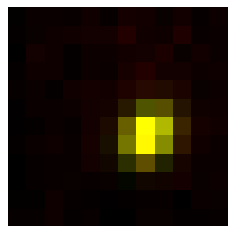
FWHM	Non corrected	Corrected	Theoretical
min	425 nm	443 nm	270 nm
max	527 nm	549 nm	270 nm
z	2.14 $\mu\text{m}$	2.15 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.806		
Theta	54.8°		

### 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 = 444.679 (brightness)

B = 117.720 (background)

a = 0.656 px

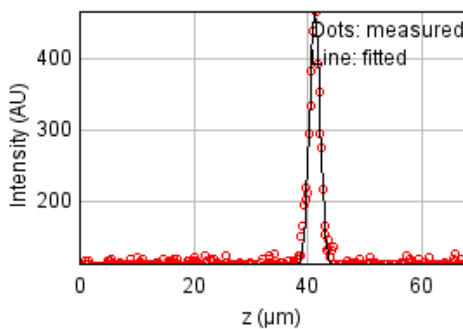
b = 0.122 px

c = 0.569 px

$x_c = 7.170$  px

$y_c = 6.436$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 21693.6364

Standard deviation: 8.40615

$R^2$ : 0.97601

Parameters:

a = 111.56277

b = 467.33921

c = 41.27406

d = 0.90849

## Bead 2142 (Rejected)

Date : Mon Oct 17 13:52:59 PDT 2022

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

Frame size : 12 pixels

Coordinates : 6.71  $\mu\text{m}$  (x), -78.2  $\mu\text{m}$  (y), 38.8  $\mu\text{m}$  (z)

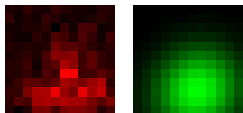
Corresponding bead : Not found

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

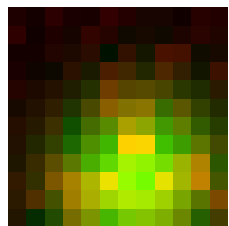
FWHM	Non corrected	Corrected	Theoretical
min	1.53 $\mu\text{m}$	1.59 $\mu\text{m}$	270 nm
max	1.65 $\mu\text{m}$	1.72 $\mu\text{m}$	270 nm
z	1.31 $\mu\text{m}$	1.31 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.924		
Theta	46.3°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.676$



Parameters:

A = 59.208 (brightness)

B = 112.615 (background)

a = 0.054 px

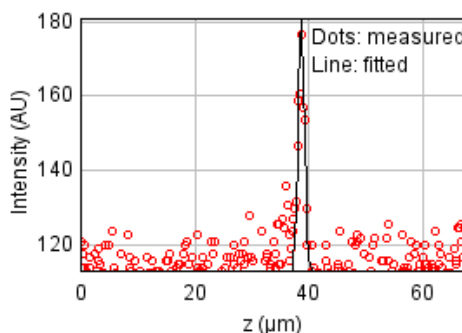
b = 0.004 px

c = 0.053 px

xc = 6.504 px

yc = 8.854 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 12377.7642

Standard deviation: 6.34968

$R^2$ : 0.61926

Parameters:

a = 112.90891

b = 180.93728

c = 38.75181

d = 0.55613

## Bead 2143

Date : Mon Oct 17 13:52:59 PDT 2022

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

Frame size : 12 pixels

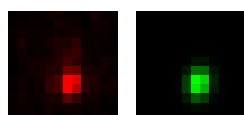
Coordinates : 90.7  $\mu\text{m}$  (x), -85.3  $\mu\text{m}$  (y), 41.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

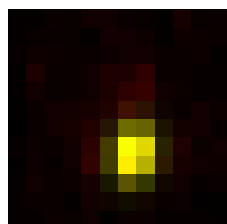
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	416 nm	270 nm
max	535 nm	557 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.746		
Theta	80.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 471.941 (brightness)

B = 119.493 (background)

a = 0.832 px

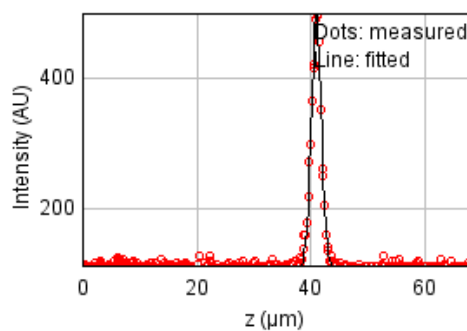
b = 0.060 px

c = 0.479 px

xc = 6.369 px

yc = 7.371 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20795.2378

Standard deviation: 8.23024

$R^2$ : 0.97950

Parameters:

a = 112.77843

b = 502.55703

c = 41.02746

d = 0.84963

## Bead 2144 (Rejected)

Date : Mon Oct 17 13:52:59 PDT 2022

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

Frame size : 12 pixels

Coordinates : 72.3  $\mu\text{m}$  (x), 88.1  $\mu\text{m}$  (y), 40.9  $\mu\text{m}$  (z)

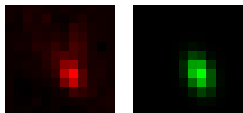
Corresponding bead : Not found

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

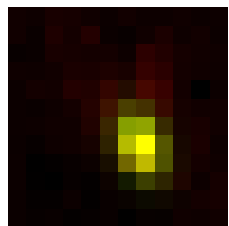
FWHM	Non corrected	Corrected	Theoretical
min	422 nm	440 nm	270 nm
max	637 nm	663 nm	270 nm
z	3.62 $\mu\text{m}$	3.63 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.663		
Theta	-69.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.899$



Parameters:

A = 348.212 (brightness)

B = 127.124 (background)

a = 0.702 px

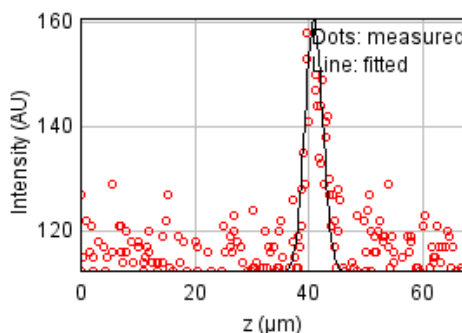
b = -0.138 px

c = 0.382 px

xc = 6.717 px

yc = 6.975 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 14226.4181

Standard deviation: 6.80736

$R^2$ : 0.65179

Parameters:

a = 112.19612

b = 160.56735

c = 40.94004

d = 1.53611

## Bead 2145 (Rejected)

Date : Mon Oct 17 13:53:00 PDT 2022

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

Frame size : 12 pixels

Coordinates : -2.64  $\mu\text{m}$  (x), 76.7  $\mu\text{m}$  (y), 37.7  $\mu\text{m}$  (z)

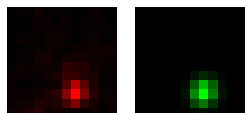
Corresponding bead : Not found

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

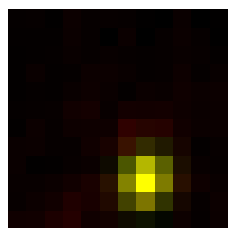
FWHM	Non corrected	Corrected	Theoretical
min	434 nm	452 nm	270 nm
max	495 nm	516 nm	270 nm
z	3.6 $\mu\text{m}$	3.62 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.876		
Theta	73.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 573.223 (brightness)

B = 133.471 (background)

a = 0.699 px

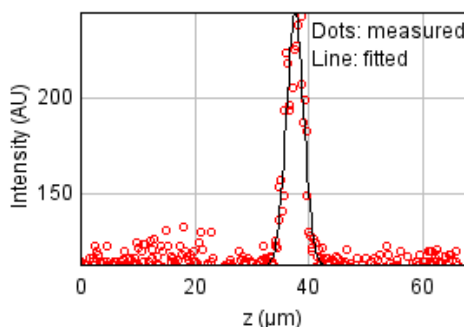
b = 0.045 px

c = 0.560 px

xc = 6.990 px

yc = 8.801 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19585.4445

Standard deviation: 7.98725

$R^2$ : 0.91007

Parameters:

a = 112.65350

b = 244.85498

c = 37.66299

d = 1.53008

## Bead 2146

Date : Mon Oct 17 13:53:00 PDT 2022

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

Frame size : 12 pixels

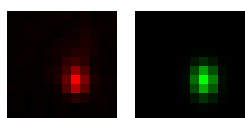
Coordinates : 92.0  $\mu\text{m}$  (x), -19.7  $\mu\text{m}$  (y), 41.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

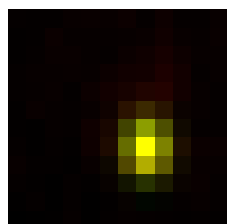
FWHM	Non corrected	Corrected	Theoretical
min	418 nm	436 nm	270 nm
max	555 nm	578 nm	270 nm
z	2.01 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.753		
Theta	-88.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 745.730$  (brightness)

$B = 125.667$  (background)

$a = 0.767$  px

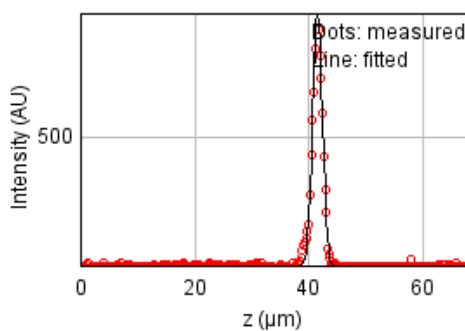
$b = -0.007$  px

$c = 0.435$  px

$x_c = 7.060$  px

$y_c = 7.052$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26856.3245

Standard deviation: 9.35307

$R^2 = 0.99287$

Parameters:

$a = 113.33911$

$b = 867.43607$

$c = 41.57929$

$d = 0.85400$

## Bead 2147 (Rejected)

Date : Mon Oct 17 13:53:00 PDT 2022

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

Frame size : 12 pixels

Coordinates : 146  $\mu\text{m}$  (x), -75.4  $\mu\text{m}$  (y), 40.2  $\mu\text{m}$  (z)

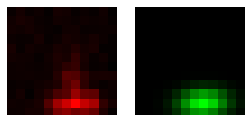
Corresponding bead : Not found

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

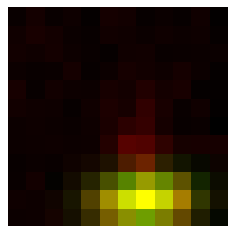
FWHM	Non corrected	Corrected	Theoretical
min	523 nm	545 nm	270 nm
max	913 nm	951 nm	270 nm
z	2.93 $\mu\text{m}$	2.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.573		
Theta	3.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 243.110 (brightness)

B = 116.515 (background)

a = 0.162 px

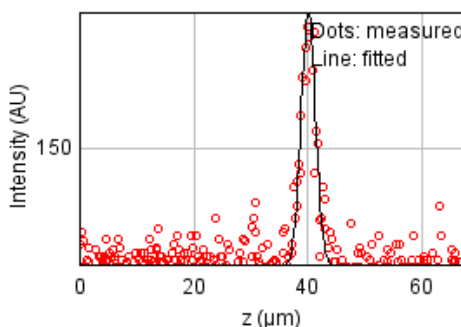
b = 0.018 px

c = 0.489 px

xc = 6.903 px

yc = 10.013 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 14050.6647

Standard deviation: 6.76518

$R^2$ : 0.82707

Parameters:

a = 110.69989

b = 195.44237

c = 40.15560

d = 1.24225

## Bead 2148

Date : Mon Oct 17 13:53:00 PDT 2022

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

Frame size : 12 pixels

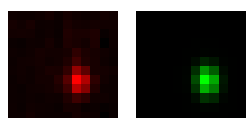
Coordinates : 146  $\mu\text{m}$  (x), -85.9  $\mu\text{m}$  (y), 41.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

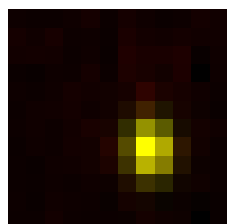
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	422 nm	270 nm
max	540 nm	562 nm	270 nm
z	2.05 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.75		
Theta	-85.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 494.179 (brightness)

B = 116.470 (background)

a = 0.817 px

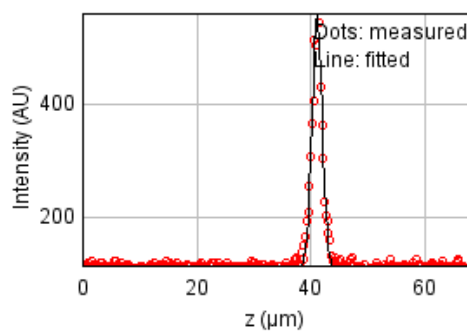
b = -0.027 px

c = 0.462 px

$x_c = 7.250$  px

$y_c = 7.124$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22886.8019

Standard deviation: 8.63423

$R^2$ : 0.98357

Parameters:

a = 111.27524

b = 563.81893

c = 41.15812

d = 0.87026



## Bead 2149

Date : Mon Oct 17 13:53:00 PDT 2022

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

Frame size : 12 pixels

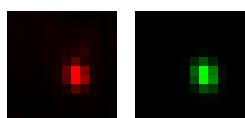
Coordinates : -71.9  $\mu\text{m}$  (x), 88.2  $\mu\text{m}$  (y), 42.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

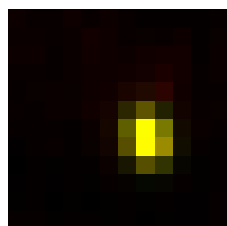
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	496 nm	517 nm	270 nm
z	1.89 $\mu\text{m}$	1.9 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.78		
Theta	-75.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 825.314 (brightness)

B = 125.639 (background)

a = 0.875 px

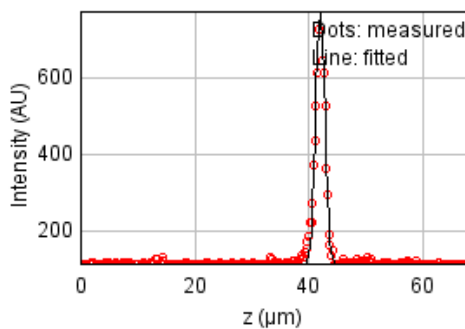
b = -0.083 px

c = 0.566 px

$x_c = 7.117$  px

$y_c = 6.500$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40763.0861

Standard deviation: 11.52297

$R^2$ : 0.98501

Parameters:

a = 115.30125

b = 773.06995

c = 42.06203

d = 0.80222

## Bead 2150 (Rejected)

Date : Mon Oct 17 13:53:00 PDT 2022

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

Frame size : 12 pixels

Coordinates : 134 um (x), 79.1 um (y), 41.4 um (z)

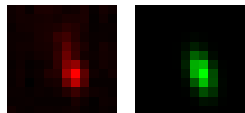
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

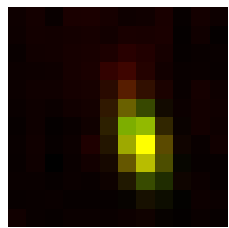
FWHM	Non corrected	Corrected	Theoretical
min	390 nm	407 nm	270 nm
max	725 nm	755 nm	270 nm
z	1.96 um	1.97 um	1.3 um
Asymmetry	0.538		
Theta	-72.7°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.899$



Parameters:

A = 343.463 (brightness)

B = 117.718 (background)

a = 0.825 px

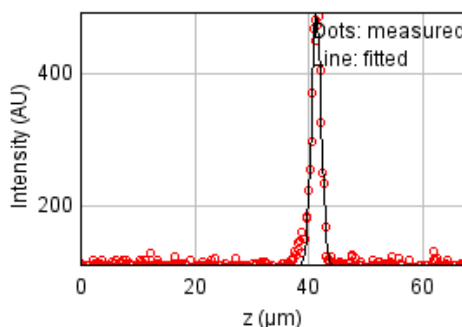
b = -0.177 px

c = 0.310 px

xc = 6.722 px

yc = 6.857 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26705.2460

Standard deviation: 9.32672

$R^2$ : 0.97204

Parameters:

a = 111.83046

b = 492.06558

c = 41.37451

d = 0.83332

## Bead 2151

Date : Mon Oct 17 13:53:00 PDT 2022

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

Frame size : 12 pixels

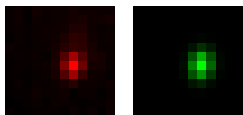
Coordinates : -153  $\mu\text{m}$  (x), 65.7  $\mu\text{m}$  (y), 41.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

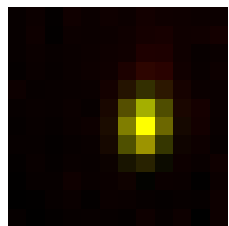
FWHM	Non corrected	Corrected	Theoretical
min	407 nm	424 nm	270 nm
max	543 nm	565 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.749		
Theta	82.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 515.734$  (brightness)

$B = 118.577$  (background)

$a = 0.805$  px

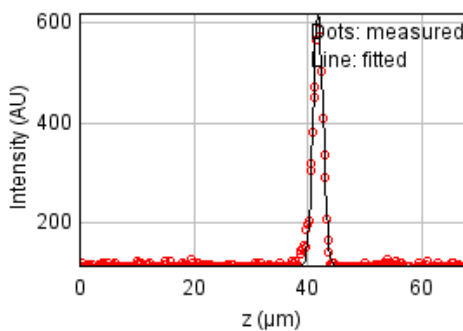
$b = 0.047$  px

$c = 0.462$  px

$x_c = 6.942$  px

$y_c = 5.916$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 33473.3470

Standard deviation: 10.44192

$R^2 = 0.98076$

Parameters:

$a = 111.70124$

$b = 619.88241$

$c = 41.85348$

$d = 0.85888$

## Bead 2152

Date : Mon Oct 17 13:53:00 PDT 2022

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

Frame size : 12 pixels

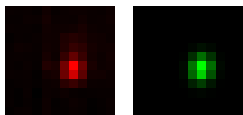
Coordinates : -114  $\mu\text{m}$  (x), 62.3  $\mu\text{m}$  (y), 41.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

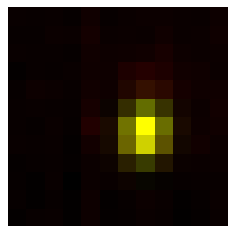
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	419 nm	270 nm
max	506 nm	527 nm	270 nm
z	1.96 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.794		
Theta	82.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 584.419 (brightness)

B = 119.713 (background)

a = 0.825 px

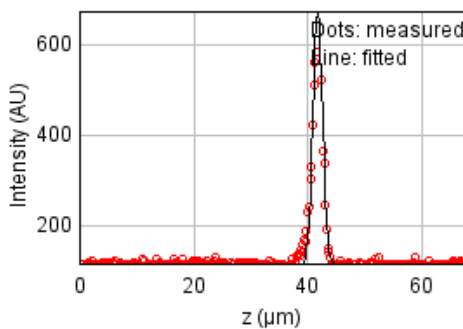
b = 0.041 px

c = 0.530 px

$x_c = 6.970$  px

$y_c = 6.309$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 49775.1717

Standard deviation: 12.73319

$R^2$ : 0.97581

Parameters:

a = 114.49661

b = 674.05945

c = 41.79415

d = 0.83225

## Bead 2153

Date : Mon Oct 17 13:53:00 PDT 2022

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

Frame size : 12 pixels

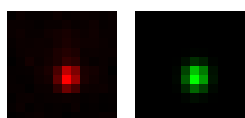
Coordinates : -74.8  $\mu\text{m}$  (x), 61.8  $\mu\text{m}$  (y), 41.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

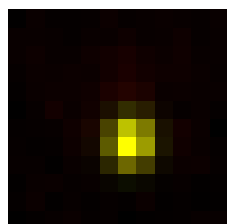
FWHM	Non corrected	Corrected	Theoretical
min	419 nm	436 nm	270 nm
max	477 nm	497 nm	270 nm
z	2.04 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.877		
Theta	85.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 547.455 (brightness)

B = 120.925 (background)

a = 0.764 px

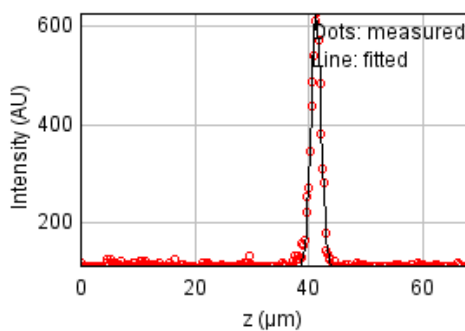
b = 0.014 px

c = 0.590 px

xc = 6.181 px

yc = 6.728 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22628.4422

Standard deviation: 8.58535

$R^2$ : 0.98731

Parameters:

a = 112.60652

b = 626.68231

c = 41.31747

d = 0.86597

## Bead 2154

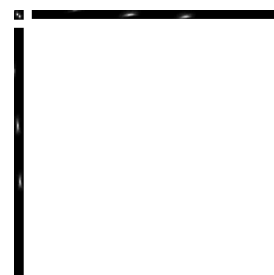
Date : Mon Oct 17 13:53:00 PDT 2022

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

Frame size : 12 pixels

Coordinates : 76.5  $\mu\text{m}$  (x), 46.6  $\mu\text{m}$  (y), 26.5  $\mu\text{m}$  (z)

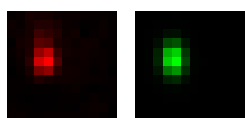
Corresponding bead : Not found



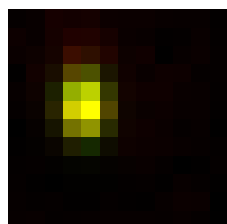
FWHM	Non corrected	Corrected	Theoretical
min	419 nm	436 nm	270 nm
max	598 nm	623 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.7		
Theta	-87.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 500.076$  (brightness)

$B = 120.412$  (background)

$a = 0.764$  px

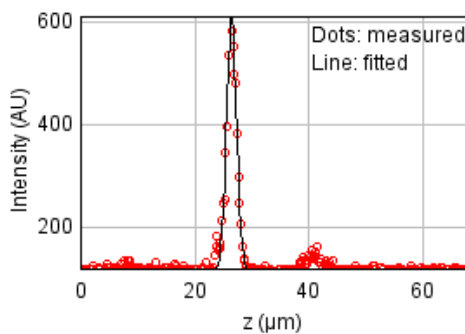
$b = -0.018$  px

$c = 0.376$  px

$x_c = 3.637$  px

$y_c = 4.750$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 46891.7727

Standard deviation: 12.35888

$R^2: 0.97219$

Parameters:

$a = 116.41239$

$b = 614.80796$

$c = 26.52383$

$d = 0.85760$

## Bead 2155

Date : Mon Oct 17 13:53:00 PDT 2022

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

Frame size : 12 pixels

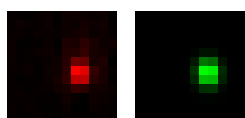
Coordinates : -114  $\mu\text{m}$  (x), 34.4  $\mu\text{m}$  (y), 41.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

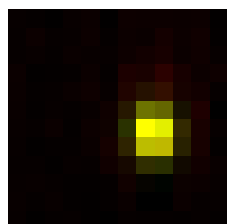
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	413 nm	270 nm
max	493 nm	514 nm	270 nm
z	2.01 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.804		
Theta	-85.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 643.865 (brightness)

B = 117.374 (background)

a = 0.851 px

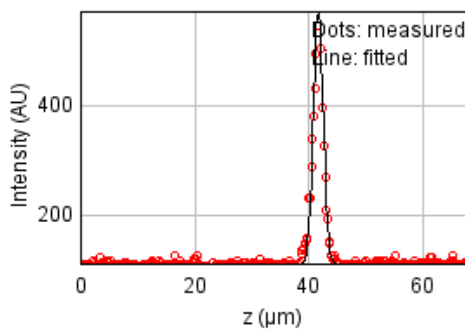
b = -0.022 px

c = 0.553 px

$x_c = 7.466$  px

$y_c = 6.244$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 32343.6675

Standard deviation: 10.26421

$R^2$ : 0.97731

Parameters:

a = 113.11123

b = 573.22898

c = 41.71755

d = 0.85489

## Bead 2156 (Rejected)

Date : Mon Oct 17 13:53:00 PDT 2022

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

Frame size : 12 pixels

Coordinates : -135  $\mu\text{m}$  (x), -8.64  $\mu\text{m}$  (y), 38.7  $\mu\text{m}$  (z)

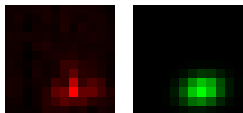
Corresponding bead : Not found

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

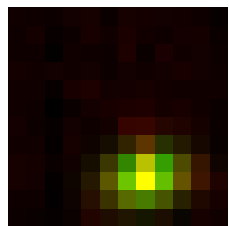
FWHM	Non corrected	Corrected	Theoretical
min	511 nm	532 nm	270 nm
max	714 nm	743 nm	270 nm
z	2.95 $\mu\text{m}$	2.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.716		
Theta	11.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.780$



Parameters:

$A = 197.738$  (brightness)

$B = 118.150$  (background)

$a = 0.273$  px

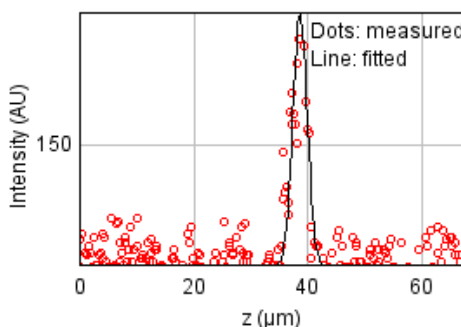
$b = 0.047$  px

$c = 0.504$  px

$x_c = 7.009$  px

$y_c = 8.780$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17347.5497

Standard deviation: 7.51709

$R^2: 0.77874$

Parameters:

$a = 111.65567$

$b = 192.07647$

$c = 38.69648$

$d = 1.25402$



## Bead 2157

Date : Mon Oct 17 13:53:01 PDT 2022

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

Frame size : 12 pixels

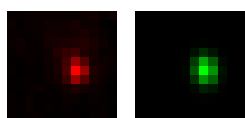
Coordinates : 11.0  $\mu\text{m}$  (x), 95.2  $\mu\text{m}$  (y), 41.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

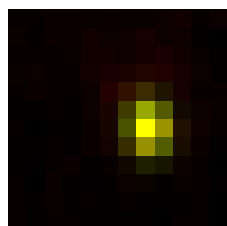
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	417 nm	270 nm
max	526 nm	547 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.761		
Theta	-82.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 564.858 (brightness)

B = 122.240 (background)

a = 0.832 px

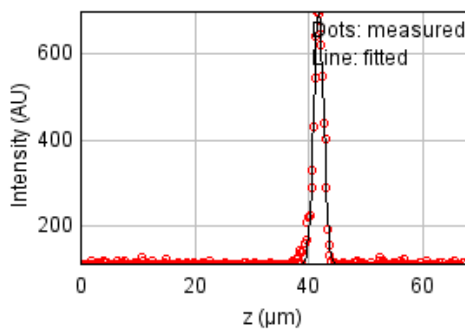
b = -0.044 px

c = 0.491 px

$x_c = 7.169$  px

$y_c = 5.938$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28813.7333

Standard deviation: 9.68792

$R^2$ : 0.98734

Parameters:

a = 113.19492

b = 696.90676

c = 41.79213

d = 0.85675

## Bead 2158

Date : Mon Oct 17 13:53:01 PDT 2022

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

Frame size : 12 pixels

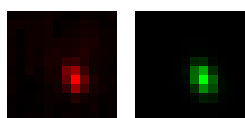
Coordinates : -25.3  $\mu\text{m}$  (x), 94.7  $\mu\text{m}$  (y), 41.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

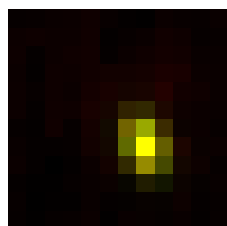
FWHM	Non corrected	Corrected	Theoretical
min	366 nm	381 nm	270 nm
max	548 nm	571 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.667		
Theta	-70.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 486.061 (brightness)

B = 121.425 (background)

a = 0.939 px

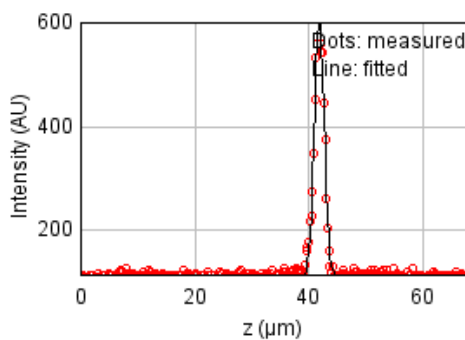
b = -0.178 px

c = 0.511 px

$x_c = 6.945$  px

$y_c = 6.887$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23019.5323

Standard deviation: 8.65923

$R^2$ : 0.98555

Parameters:

a = 113.74582

b = 603.52580

c = 41.88650

d = 0.85034

## Bead 2159

Date : Mon Oct 17 13:53:01 PDT 2022

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

Frame size : 12 pixels

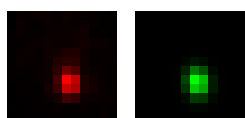
Coordinates : -84.0  $\mu\text{m}$  (x), 75.7  $\mu\text{m}$  (y), 42.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

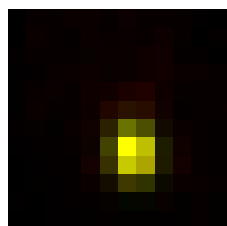
FWHM	Non corrected	Corrected	Theoretical
min	403 nm	420 nm	270 nm
max	514 nm	535 nm	270 nm
z	1.92 $\mu\text{m}$	1.93 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.784		
Theta	-81.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 811.446$  (brightness)

$B = 126.843$  (background)

$a = 0.820$  px

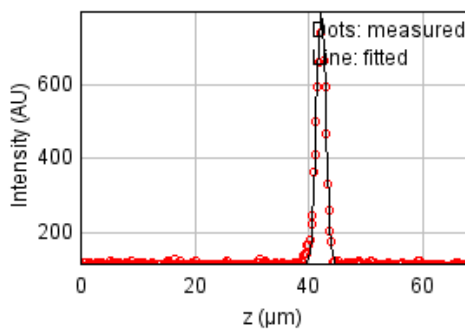
$b = -0.045$  px

$c = 0.515$  px

$x_c = 6.337$  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: 38916.4731

Standard deviation: 11.25894

$R^2: 0.98696$

Parameters:

$a = 113.15639$

$b = 797.43994$

$c = 42.19796$

$d = 0.81585$

## Bead 2160 (Rejected)

Date : Mon Oct 17 13:53:01 PDT 2022

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

Frame size : 12 pixels

Coordinates : -118  $\mu\text{m}$  (x), 70.1  $\mu\text{m}$  (y), 39.4  $\mu\text{m}$  (z)

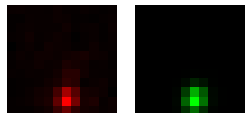
Corresponding bead : Not found

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

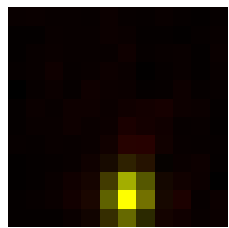
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	402 nm	270 nm
max	464 nm	483 nm	270 nm
z	3.14 $\mu\text{m}$	3.15 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.832		
Theta	77.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 498.278 (brightness)

B = 120.332 (background)

a = 0.888 px

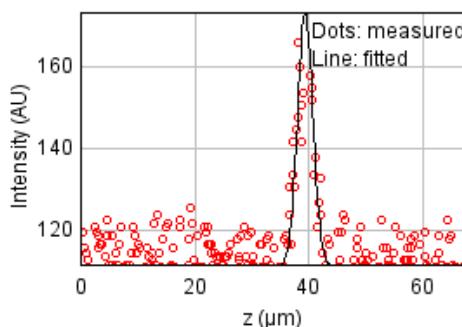
b = 0.060 px

c = 0.638 px

xc = 6.054 px

yc = 9.797 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 14176.1498

Standard deviation: 6.79532

$R^2$ : 0.72787

Parameters:

a = 111.61332

b = 173.19590

c = 39.43188

d = 1.33412

## Bead 2161 (Rejected)

Date : Mon Oct 17 13:53:01 PDT 2022

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

Frame size : 12 pixels

Coordinates : 13.9 nm (x), 55.9 um (y), 41.3 um (z)

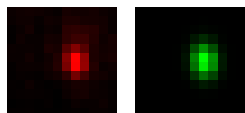
Corresponding bead : Not found

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

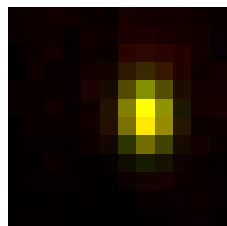
FWHM	Non corrected	Corrected	Theoretical
min	462 nm	481 nm	270 nm
max	632 nm	659 nm	270 nm
z	2.26 um	2.27 um	1.3 um
Asymmetry	0.731		
Theta	-86.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 493.898 (brightness)

B = 126.751 (background)

a = 0.627 px

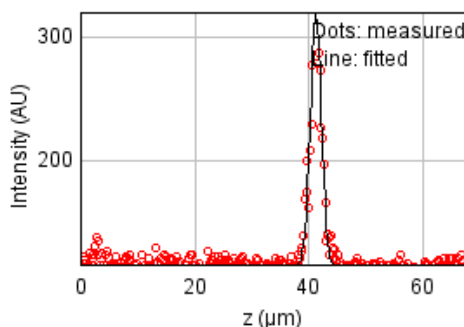
b = -0.018 px

c = 0.337 px

xc = 7.063 px

yc = 5.362 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20444.1274

Standard deviation: 8.16047

$R^2$ : 0.93780

Parameters:

a = 115.18685

b = 320.19559

c = 41.29409

d = 0.95831

## Bead 2162

Date : Mon Oct 17 13:53:01 PDT 2022

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

Frame size : 12 pixels

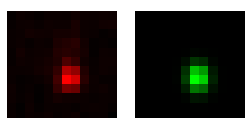
Coordinates : 23.2  $\mu\text{m}$  (x), -49.1  $\mu\text{m}$  (y), 41.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

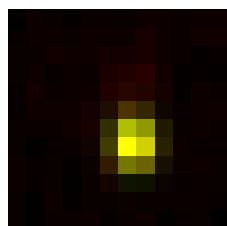
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	422 nm	270 nm
max	506 nm	527 nm	270 nm
z	2.06 $\mu\text{m}$	2.07 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.8		
Theta	-87.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 509.613$  (brightness)

$B = 121.873$  (background)

$a = 0.818$  px

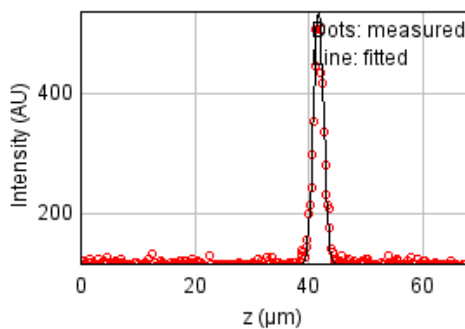
$b = -0.013$  px

$c = 0.524$  px

$x_c = 6.373$  px

$y_c = 6.781$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22330.2812

Standard deviation: 8.52860

$R^2: 0.98198$

Parameters:

$a = 113.87201$

$b = 539.02987$

$c = 41.75401$

$d = 0.87578$

## Bead 2163 (Rejected)

Date : Mon Oct 17 13:53:01 PDT 2022

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

Frame size : 12 pixels

Coordinates : -159 um (x), -49.5 um (y), 38.9 um (z)

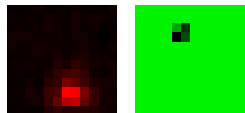
Corresponding bead : Not found

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

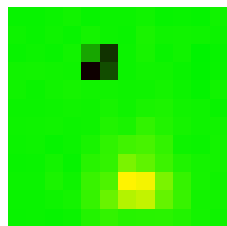
FWHM	Non corrected	Corrected	Theoretical
min	138 nm	144 nm	270 nm
max	156 nm	162 nm	270 nm
z	3.49 um	3.5 um	1.3 um
Asymmetry	0.885		
Theta	27.0°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.015$



Parameters:

A = -300.412 (brightness)

B = 135.493 (background)

a = 5.847 px

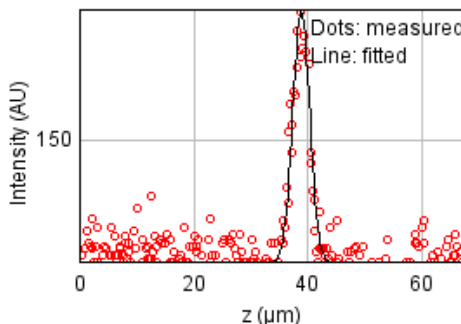
b = 0.619 px

c = 6.748 px

xc = 4.518 px

yc = 2.534 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 13529.4698

Standard deviation: 6.63852

$R^2$ : 0.84477

Parameters:

a = 110.44193

b = 192.24025

c = 38.90842

d = 1.48058

## Bead 2164

Date : Mon Oct 17 13:53:01 PDT 2022

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

Frame size : 12 pixels

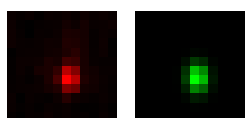
Coordinates : 82.6  $\mu\text{m}$  (x), -86.1  $\mu\text{m}$  (y), 41.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

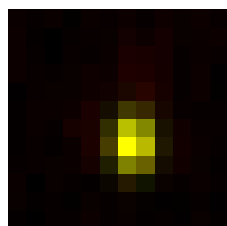
FWHM	Non corrected	Corrected	Theoretical
min	392 nm	408 nm	270 nm
max	529 nm	551 nm	270 nm
z	1.98 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.74		
Theta	-88.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 617.847$  (brightness)

$B = 120.800$  (background)

$a = 0.875$  px

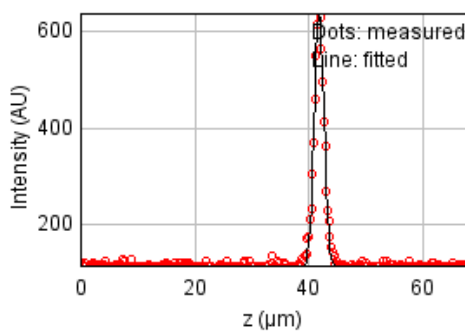
$b = -0.009$  px

$c = 0.480$  px

$x_c = 6.314$  px

$y_c = 6.801$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 21194.7714

Standard deviation: 8.30893

$R^2 = 0.98826$

Parameters:

$a = 113.08497$

$b = 638.32918$

$c = 41.85766$

$d = 0.83964$



## Bead 2165

Date : Mon Oct 17 13:53:01 PDT 2022

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

Frame size : 12 pixels

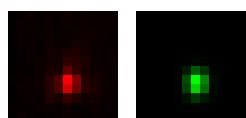
Coordinates : -848 nm (x), -91.3 um (y), 42.2 um (z)

Corresponding bead : Not found

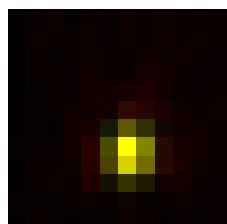
FWHM	Non corrected	Corrected	Theoretical
min	380 nm	396 nm	270 nm
max	462 nm	481 nm	270 nm
z	1.96 um	1.96 um	1.3 um
Asymmetry	0.823		
Theta	87.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 754.685 (brightness)

B = 126.782 (background)

a = 0.926 px

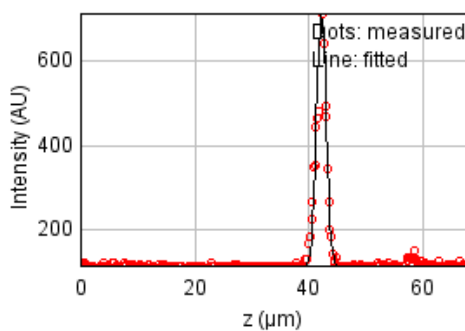
b = 0.015 px

c = 0.629 px

xc = 6.144 px

yc = 7.345 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 80696.0323

Standard deviation: 16.21276

$R^2$ : 0.96591

Parameters:

a = 115.45275

b = 713.16604

c = 42.24368

d = 0.83045

## Bead 2166

Date : Mon Oct 17 13:53:01 PDT 2022

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

Frame size : 12 pixels

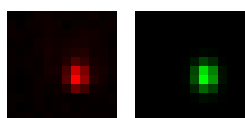
Coordinates : -81.8  $\mu\text{m}$  (x), 90.4  $\mu\text{m}$  (y), 42.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

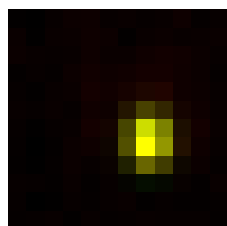
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	416 nm	270 nm
max	501 nm	522 nm	270 nm
z	2.15 $\mu\text{m}$	2.16 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.798		
Theta	-89.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 670.136 (brightness)

B = 123.607 (background)

a = 0.841 px

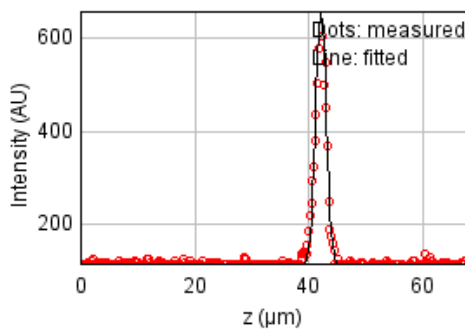
b = -0.003 px

c = 0.535 px

$x_c = 7.188$  px

$y_c = 6.638$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 49142.9529

Standard deviation: 12.65207

$R^2$ : 0.97695

Parameters:

a = 113.53327

b = 658.87007

c = 42.16806

d = 0.91282

## Bead 2167 (Rejected)

Date : Mon Oct 17 13:53:01 PDT 2022

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

Frame size : 12 pixels

Coordinates : 34.2  $\mu\text{m}$  (x), 53.8  $\mu\text{m}$  (y), 38.3  $\mu\text{m}$  (z)

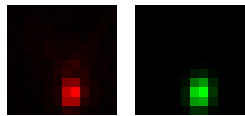
Corresponding bead : Not found

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

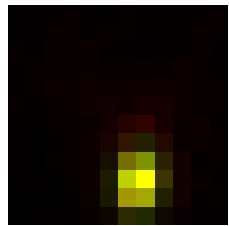
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	404 nm	270 nm
max	530 nm	552 nm	270 nm
z	3.51 $\mu\text{m}$	3.53 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.732		
Theta	83.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 678.052 (brightness)

B = 128.461 (background)

a = 0.886 px

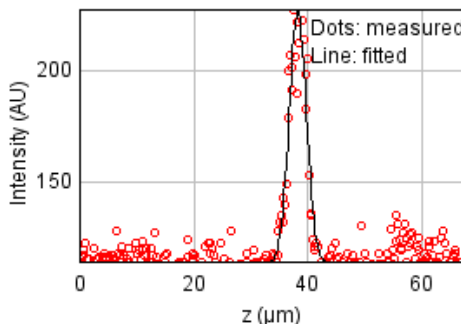
b = 0.049 px

c = 0.483 px

xc = 6.607 px

yc = 9.111 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17037.7494

Standard deviation: 7.44967

$R^2$ : 0.89538

Parameters:

a = 113.27047

b = 227.98920

c = 38.31217

d = 1.49164

## Bead 2168

Date : Mon Oct 17 13:53:01 PDT 2022

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

Frame size : 12 pixels

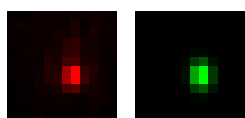
Coordinates : -104  $\mu\text{m}$  (x), 39.6  $\mu\text{m}$  (y), 42.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

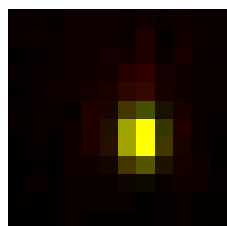
FWHM	Non corrected	Corrected	Theoretical
min	370 nm	385 nm	270 nm
max	488 nm	509 nm	270 nm
z	2.03 $\mu\text{m}$	2.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.757		
Theta	-87.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 560.477$  (brightness)

$B = 122.506$  (background)

$a = 0.981$  px

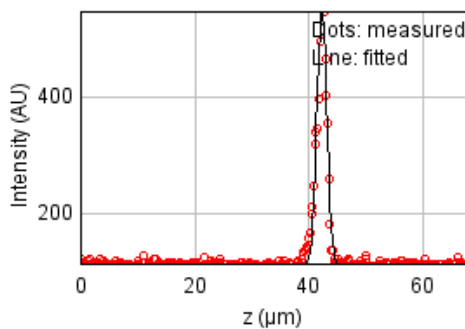
$b = -0.015$  px

$c = 0.563$  px

$x_c = 6.724$  px

$y_c = 6.509$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 36636.2980

Standard deviation: 10.92412

$R^2: 0.97182$

Parameters:

$a = 113.12953$

$b = 549.65098$

$c = 42.34440$

$d = 0.86197$

## Bead 2169

Date : Mon Oct 17 13:53:01 PDT 2022

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

Frame size : 12 pixels

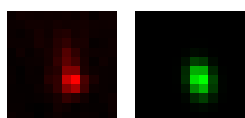
Coordinates : 145 um (x), 14.2 um (y), 42.2 um (z)

Corresponding bead : Not found

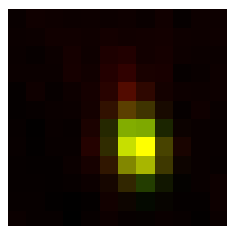
FWHM	Non corrected	Corrected	Theoretical
min	421 nm	439 nm	270 nm
max	611 nm	636 nm	270 nm
z	1.87 um	1.88 um	1.3 um
Asymmetry	0.69		
Theta	-77.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 466.283 (brightness)

B = 120.658 (background)

a = 0.738 px

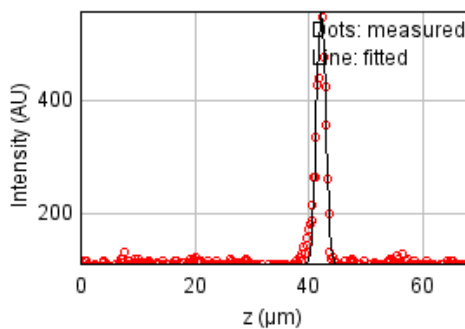
b = -0.081 px

c = 0.377 px

xc = 6.590 px

yc = 6.961 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35959.2651

Standard deviation: 10.82271

$R^2$ : 0.97107

Parameters:

a = 112.23682

b = 555.38192

c = 42.20841

d = 0.79600

## Bead 2170

Date : Mon Oct 17 13:53:01 PDT 2022

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

Frame size : 12 pixels

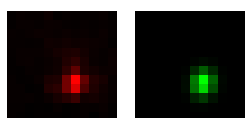
Coordinates : -103  $\mu\text{m}$  (x), -36.5  $\mu\text{m}$  (y), 42.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

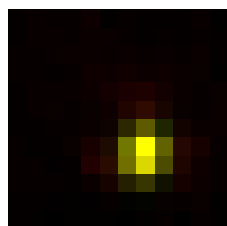
FWHM	Non corrected	Corrected	Theoretical
min	393 nm	410 nm	270 nm
max	474 nm	493 nm	270 nm
z	1.91 $\mu\text{m}$	1.92 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.83		
Theta	79.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 737.484$  (brightness)

$B = 127.307$  (background)

$a = 0.859$  px

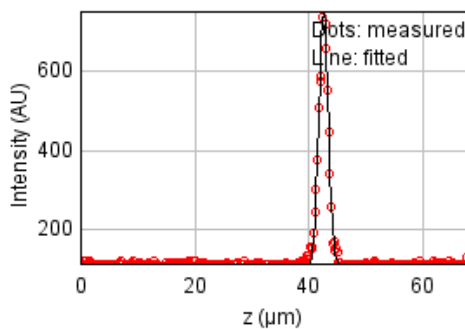
$b = 0.047$  px

$c = 0.606$  px

$x_c = 6.918$  px

$y_c = 7.364$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29343.1298

Standard deviation: 9.77651

$R^2: 0.98862$

Parameters:

$a = 113.05618$

$b = 750.61469$

$c = 42.64354$

$d = 0.81271$

## Bead 2171 (Rejected)

Date : Mon Oct 17 13:53:01 PDT 2022

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

Frame size : 12 pixels

Coordinates : 30.3  $\mu\text{m}$  (x), -48.9  $\mu\text{m}$  (y), 38.5  $\mu\text{m}$  (z)

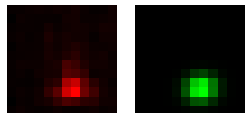
Corresponding bead : Not found

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

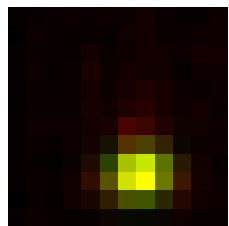
FWHM	Non corrected	Corrected	Theoretical
min	474 nm	493 nm	270 nm
max	554 nm	577 nm	270 nm
z	3.69 $\mu\text{m}$	3.71 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.856		
Theta	10.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 491.802 (brightness)

B = 124.024 (background)

a = 0.443 px

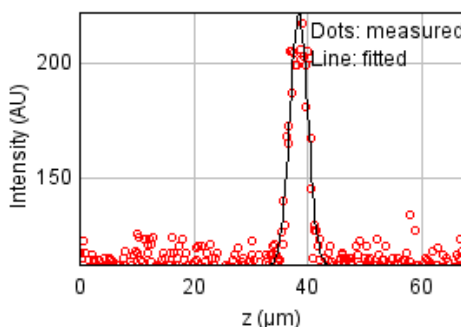
b = 0.029 px

c = 0.592 px

xc = 6.667 px

yc = 8.597 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15959.1328

Standard deviation: 7.21000

$R^2$ : 0.89798

Parameters:

a = 112.24327

b = 222.31705

c = 38.49638

d = 1.56765

## Bead 2172 (Rejected)

Date : Mon Oct 17 13:53:02 PDT 2022

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

Frame size : 12 pixels

Coordinates : -11.8  $\mu\text{m}$  (x), -69.8  $\mu\text{m}$  (y), 38.8  $\mu\text{m}$  (z)

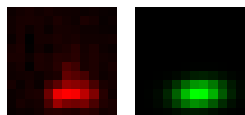
Corresponding bead : Not found

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

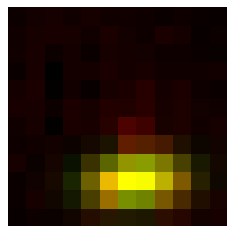
FWHM	Non corrected	Corrected	Theoretical
min	490 nm	510 nm	270 nm
max	901 nm	939 nm	270 nm
z	3.36 $\mu\text{m}$	3.38 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.543		
Theta	4.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 265.861 (brightness)

B = 121.907 (background)

a = 0.168 px

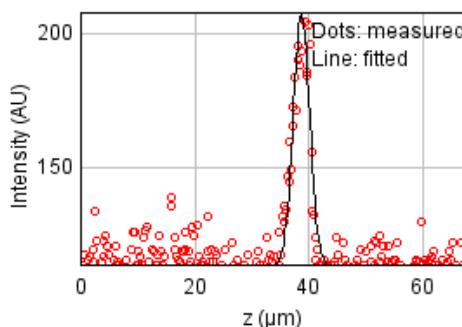
b = 0.033 px

c = 0.557 px

xc = 6.464 px

yc = 8.953 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16819.1865

Standard deviation: 7.40173

$R^2$ : 0.84999

Parameters:

a = 113.51575

b = 208.15075

c = 38.76916

d = 1.42745



## Bead 2173

Date : Mon Oct 17 13:53:02 PDT 2022

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

Frame size : 12 pixels

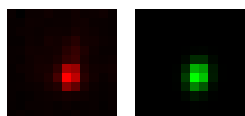
Coordinates : 23.8  $\mu\text{m}$  (x), -81.9  $\mu\text{m}$  (y), 42.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

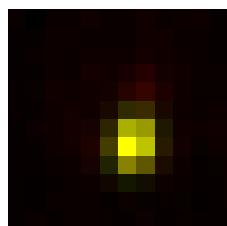
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	407 nm	270 nm
max	512 nm	533 nm	270 nm
z	2.08 $\mu\text{m}$	2.08 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.764		
Theta	79.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 754.443$  (brightness)

$B = 126.157$  (background)

$a = 0.864$  px

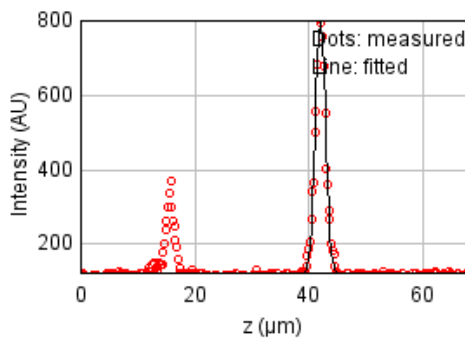
$b = 0.068$  px

$c = 0.526$  px

$x_c = 6.358$  px

$y_c = 6.810$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 321506.427

Standard deviation: 32.36128

$R^2: 0.90743$

Parameters:

$a = 121.69396$

$b = 803.74954$

$c = 42.09065$

$d = 0.88150$

## Bead 2174

Date : Mon Oct 17 13:53:02 PDT 2022

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

Frame size : 12 pixels

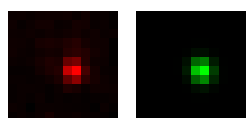
Coordinates : -90.9  $\mu\text{m}$  (x), 90.1  $\mu\text{m}$  (y), 42.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

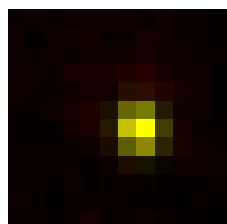
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	408 nm	270 nm
max	446 nm	464 nm	270 nm
z	1.98 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.878		
Theta	-75.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 467.000 (brightness)

B = 123.024 (background)

a = 0.864 px

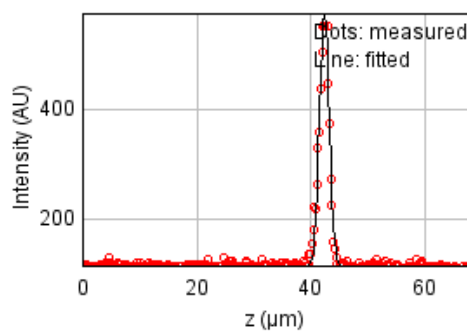
b = -0.048 px

c = 0.688 px

xc = 6.662 px

yc = 6.013 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24631.6075

Standard deviation: 8.95730

$R^2$ : 0.98238

Parameters:

a = 113.99074

b = 574.00652

c = 42.42985

d = 0.84251

## Bead 2175

Date : Mon Oct 17 13:53:02 PDT 2022

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

Frame size : 12 pixels

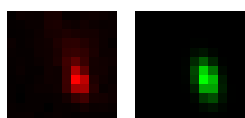
Coordinates : 110  $\mu\text{m}$  (x), 86.4  $\mu\text{m}$  (y), 42.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

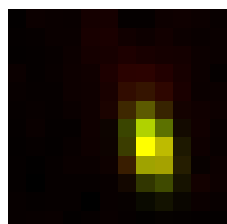
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	400 nm	270 nm
max	688 nm	716 nm	270 nm
z	1.99 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.558		
Theta	-75.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 586.188 (brightness)

B = 125.291 (background)

a = 0.870 px

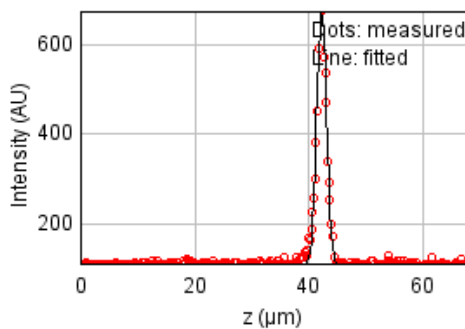
b = -0.155 px

c = 0.325 px

$x_c = 7.311$  px

$y_c = 6.955$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30297.3859

Standard deviation: 9.93421

$R^2$ : 0.98537

Parameters:

a = 112.46524

b = 673.02274

c = 42.30004

d = 0.84309

## Bead 2176 (Rejected)

Date : Mon Oct 17 13:53:02 PDT 2022

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

Frame size : 12 pixels

Coordinates : 27.0  $\mu\text{m}$  (x), 79.4  $\mu\text{m}$  (y), 39.3  $\mu\text{m}$  (z)

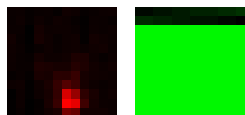
Corresponding bead : Not found

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

FWHM	Non corrected	Corrected	Theoretical
min	140 nm	145 nm	270 nm
max	81.9 $\mu\text{m}$	85.3 $\mu\text{m}$	270 nm
z	3.45 $\mu\text{m}$	3.46 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.002		
Theta	-0.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.041$



Parameters:

A = -148.902 (brightness)

B = 144.650 (background)

a = 0.000 px

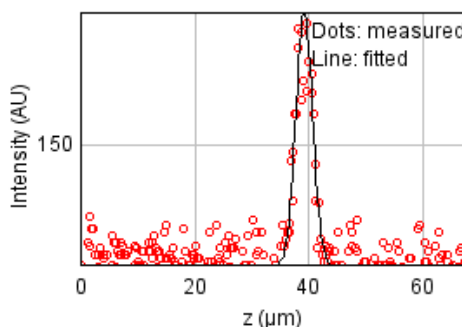
b = -0.016 px

c = 6.888 px

xc = 3.668 px

yc = 0.498 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 13916.3914

Standard deviation: 6.73278

$R^2$ : 0.82753

Parameters:

a = 112.57538

b = 190.88552

c = 39.25248

d = 1.46348

## Bead 2177 (Rejected)

Date : Mon Oct 17 13:53:02 PDT 2022

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

Frame size : 12 pixels

Coordinates : 13.8 nm (x), 55.9 um (y), 41.3 um (z)

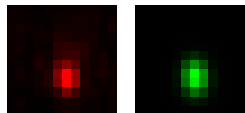
Corresponding bead : Not found

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

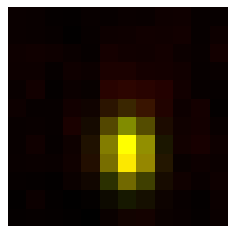
FWHM	Non corrected	Corrected	Theoretical
min	456 nm	475 nm	270 nm
max	621 nm	647 nm	270 nm
z	2.26 um	2.27 um	1.3 um
Asymmetry	0.733		
Theta	-86.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 494.871 (brightness)

B = 130.173 (background)

a = 0.645 px

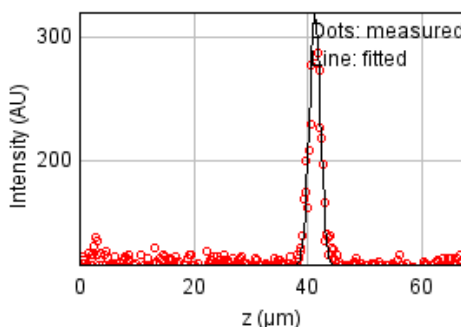
b = -0.019 px

c = 0.349 px

xc = 6.063 px

yc = 7.366 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20444.1274

Standard deviation: 8.16047

$R^2$ : 0.93780

Parameters:

a = 115.18685

b = 320.19559

c = 41.29409

d = 0.95831

## Bead 2178

Date : Mon Oct 17 13:53:02 PDT 2022

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

Frame size : 12 pixels

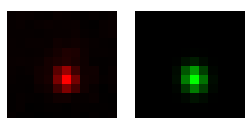
Coordinates : -76.1  $\mu\text{m}$  (x), 27.4  $\mu\text{m}$  (y), 42.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

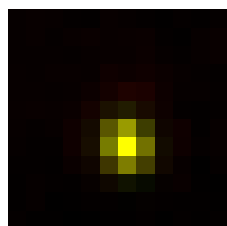
FWHM	Non corrected	Corrected	Theoretical
min	412 nm	429 nm	270 nm
max	478 nm	498 nm	270 nm
z	1.97 $\mu\text{m}$	1.98 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.862		
Theta	-71.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 931.792 (brightness)

B = 126.287 (background)

a = 0.769 px

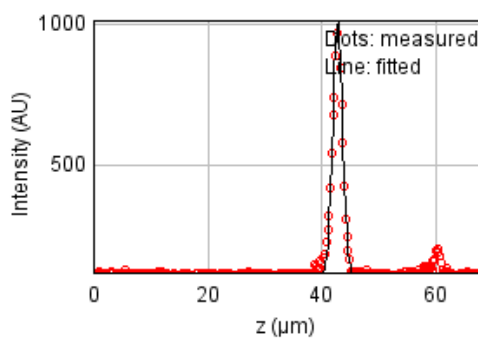
b = -0.062 px

c = 0.609 px

xc = 5.962 px

yc = 6.905 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 92913.2007

Standard deviation: 17.39681

$R^2$ : 0.98255

Parameters:

a = 117.20409

b = 1018.06078

c = 42.83206

d = 0.83661

## Bead 2179 (Rejected)

Date : Mon Oct 17 13:53:02 PDT 2022

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

Frame size : 12 pixels

Coordinates : -158  $\mu\text{m}$  (x), 11.8  $\mu\text{m}$  (y), 6.43  $\mu\text{m}$  (z)

Corresponding bead : Not found

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

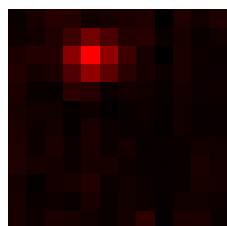
FWHM	Non corrected	Corrected	Theoretical
min	1.9 $\mu\text{m}$	1.98 $\mu\text{m}$	270 nm
max	5.73 $\mu\text{m}$	5.97 $\mu\text{m}$	270 nm
z	2.73 $\mu\text{m}$	2.74 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.331		
Theta	0.0°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.159$



Parameters:

A = -27.607 (brightness)

B = 138.550 (background)

a = 0.005 px

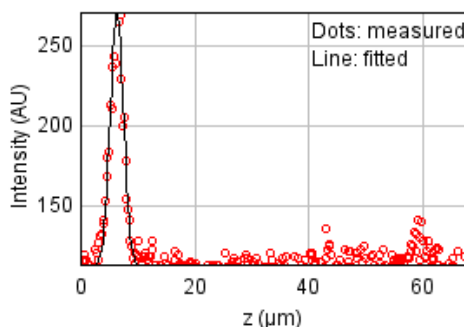
b = 0.017 px

c = 0.028 px

xc = 3.608 px

yc = 9.665 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19827.2341

Standard deviation: 8.03641

$R^2$ : 0.91634

Parameters:

a = 113.24511

b = 270.48848

c = 6.42835

d = 1.16070

## Bead 2180

Date : Mon Oct 17 13:53:02 PDT 2022

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

Frame size : 12 pixels

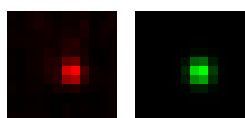
Coordinates : 23.0  $\mu\text{m}$  (x), 4.69  $\mu\text{m}$  (y), 42.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

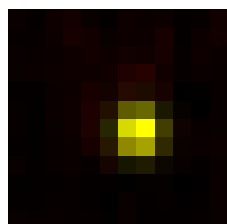
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	427 nm	270 nm
max	447 nm	466 nm	270 nm
z	1.93 $\mu\text{m}$	1.93 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.916		
Theta	-84.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 563.973 (brightness)

B = 122.156 (background)

a = 0.797 px

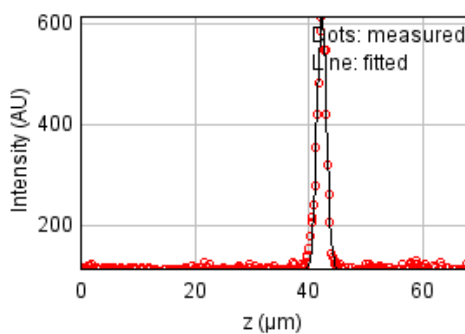
b = -0.013 px

c = 0.671 px

xc = 6.601 px

yc = 6.160 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28370.6553

Standard deviation: 9.61315

$R^2$ : 0.98250

Parameters:

a = 113.50647

b = 615.90337

c = 42.32329

d = 0.81828



## Bead 2181

Date : Mon Oct 17 13:53:02 PDT 2022

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

Frame size : 12 pixels

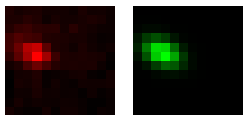
Coordinates : 135  $\mu\text{m}$  (x), 201 nm (y), 5.16  $\mu\text{m}$  (z)

Corresponding bead : Not found

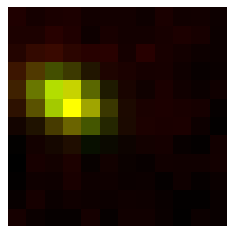
FWHM	Non corrected	Corrected	Theoretical
min	461 nm	480 nm	270 nm
max	708 nm	738 nm	270 nm
z	3.03 $\mu\text{m}$	3.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.651		
Theta	-25.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 211.847$  (brightness)

$B = 117.398$  (background)

$a = 0.334$  px

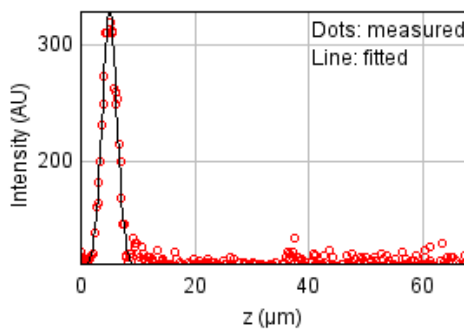
$b = -0.141$  px

$c = 0.565$  px

$x_c = 2.676$  px

$y_c = 4.588$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16459.9047

Standard deviation: 7.32225

$R^2: 0.96505$

Parameters:

$a = 111.61723$

$b = 328.50000$

$c = 5.15794$

$d = 1.28564$

## Bead 2182

Date : Mon Oct 17 13:53:02 PDT 2022

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

Frame size : 12 pixels

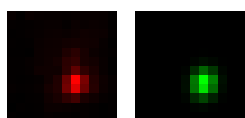
Coordinates : 45.3  $\mu\text{m}$  (x), -11.4  $\mu\text{m}$  (y), 42.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

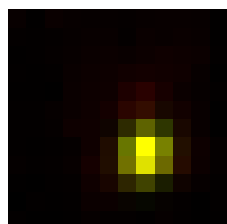
FWHM	Non corrected	Corrected	Theoretical
min	427 nm	444 nm	270 nm
max	503 nm	524 nm	270 nm
z	1.88 $\mu\text{m}$	1.89 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.849		
Theta	78.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 886.557$  (brightness)

$B = 128.676$  (background)

$a = 0.729$  px

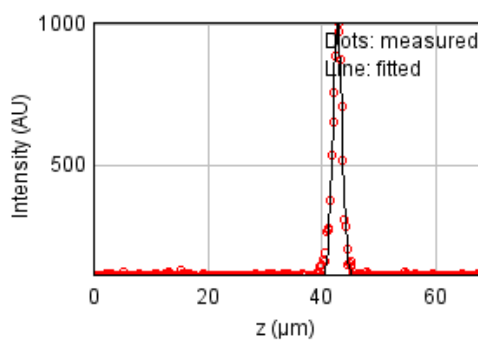
$b = 0.041$  px

$c = 0.539$  px

$x_c = 7.010$  px

$y_c = 7.382$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 61658.8704

Standard deviation: 14.17192

$R^2: 0.98772$

Parameters:

$a = 115.66952$

$b = 1012.85607$

$c = 42.80578$

$d = 0.79804$

## Bead 2183

Date : Mon Oct 17 13:53:02 PDT 2022

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

Frame size : 12 pixels

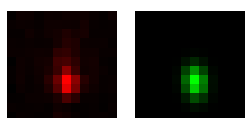
Coordinates : 118  $\mu\text{m}$  (x), -29.6  $\mu\text{m}$  (y), 42.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

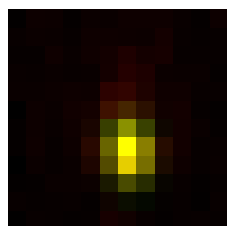
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	420 nm	270 nm
max	588 nm	612 nm	270 nm
z	2.04 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.687		
Theta	-84.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 540.030 (brightness)

B = 124.106 (background)

a = 0.820 px

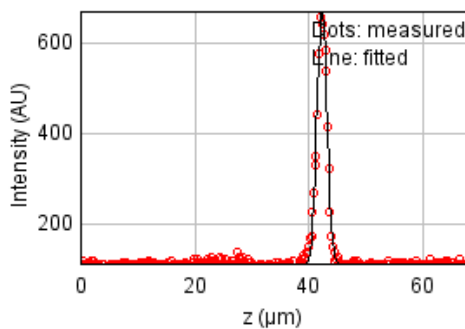
b = -0.042 px

c = 0.393 px

xc = 6.078 px

yc = 7.231 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30217.3931

Standard deviation: 9.92109

$R^2$ : 0.98576

Parameters:

a = 111.97215

b = 672.60067

c = 42.36258

d = 0.86551

## Bead 2184

Date : Mon Oct 17 13:53:02 PDT 2022

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

Frame size : 12 pixels

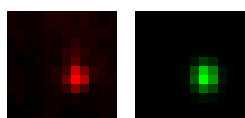
Coordinates : -145  $\mu\text{m}$  (x), -30.0  $\mu\text{m}$  (y), 42.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

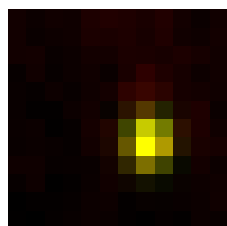
FWHM	Non corrected	Corrected	Theoretical
min	411 nm	428 nm	270 nm
max	503 nm	524 nm	270 nm
z	2.16 $\mu\text{m}$	2.16 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.817		
Theta	89.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 353.943$  (brightness)

$B = 119.945$  (background)

$a = 0.794$  px

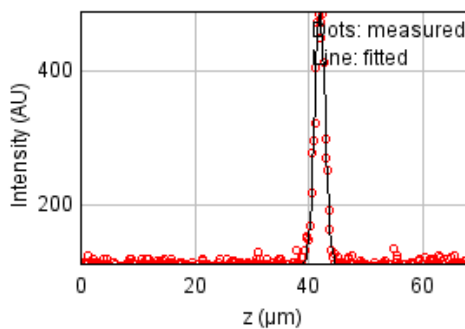
$b = 0.002$  px

$c = 0.530$  px

$x_c = 7.181$  px

$y_c = 6.716$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22621.4460

Standard deviation: 8.58403

$R^2: 0.97796$

Parameters:

$a = 111.93947$

$b = 490.06277$

$c = 41.98040$

$d = 0.91537$

## Bead 2185

Date : Mon Oct 17 13:53:02 PDT 2022

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

Frame size : 12 pixels

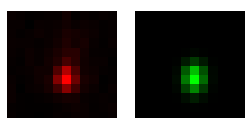
Coordinates : 102  $\mu\text{m}$  (x), -79.0  $\mu\text{m}$  (y), 42.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

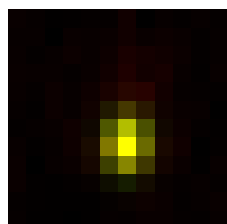
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	422 nm	270 nm
max	536 nm	558 nm	270 nm
z	1.97 $\mu\text{m}$	1.98 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.755		
Theta	88.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 627.153 (brightness)

B = 120.518 (background)

a = 0.818 px

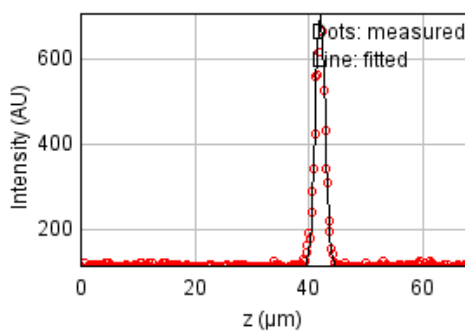
b = 0.010 px

c = 0.467 px

xc = 5.965 px

yc = 6.815 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35614.5120

Standard deviation: 10.77071

$R^2$ : 0.98468

Parameters:

a = 112.57490

b = 708.35742

c = 42.04662

d = 0.83718

## Bead 2186

Date : Mon Oct 17 13:53:02 PDT 2022

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

Frame size : 12 pixels

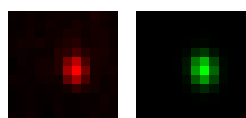
Coordinates : -68.2  $\mu\text{m}$  (x), -83.2  $\mu\text{m}$  (y), 41.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

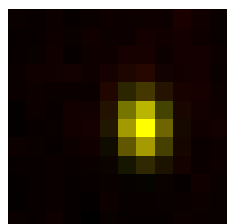
FWHM	Non corrected	Corrected	Theoretical
min	430 nm	448 nm	270 nm
max	566 nm	589 nm	270 nm
z	2.18 $\mu\text{m}$	2.19 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.76		
Theta	-83.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 490.553 (brightness)

B = 120.795 (background)

a = 0.722 px

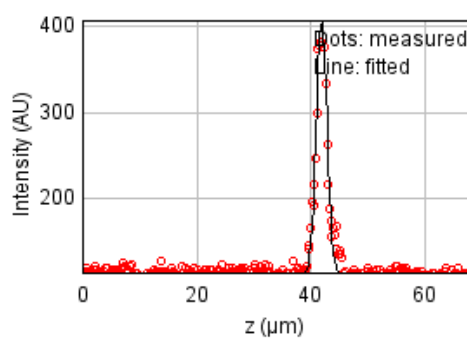
b = -0.033 px

c = 0.423 px

xc = 6.847 px

yc = 5.890 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 21837.2971

Standard deviation: 8.43394

$R^2$ : 0.96554

Parameters:

a = 113.59322

b = 406.90173

c = 41.94922

d = 0.92771

## Bead 2187 (Rejected)

Date : Mon Oct 17 13:53:02 PDT 2022

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

Frame size : 12 pixels

Coordinates : 129  $\mu\text{m}$  (x), -94.5  $\mu\text{m}$  (y), 39.3  $\mu\text{m}$  (z)

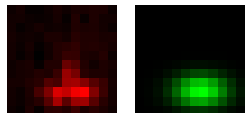
Corresponding bead : Not found

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

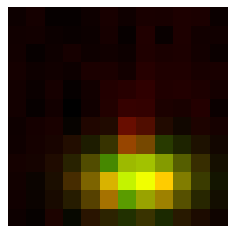
FWHM	Non corrected	Corrected	Theoretical
min	610 nm	636 nm	270 nm
max	1.0 $\mu\text{m}$	1.04 $\mu\text{m}$	270 nm
z	3.64 $\mu\text{m}$	3.65 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.609		
Theta	-0.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.853$



Parameters:

A = 184.251 (brightness)

B = 116.171 (background)

a = 0.133 px

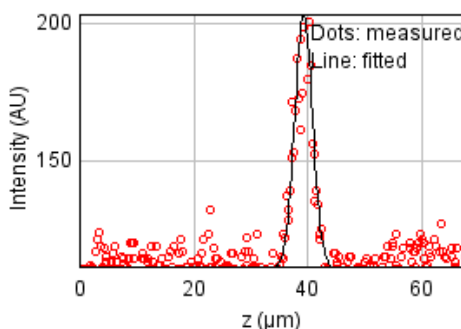
b = -0.000 px

c = 0.360 px

xc = 6.662 px

yc = 8.879 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17009.8252

Standard deviation: 7.44356

$R^2$ : 0.84896

Parameters:

a = 111.83413

b = 203.25423

c = 39.33237

d = 1.54479

## Bead 2188 (Rejected)

Date : Mon Oct 17 13:53:02 PDT 2022

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

Frame size : 12 pixels

Coordinates : -25.9  $\mu\text{m}$  (x), -95.7  $\mu\text{m}$  (y), 33.1  $\mu\text{m}$  (z)

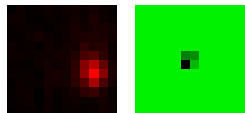
Corresponding bead : Not found

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

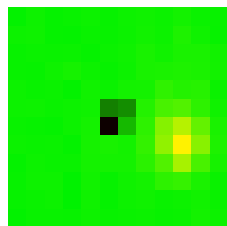
FWHM	Non corrected	Corrected	Theoretical
min	126 nm	132 nm	270 nm
max	166 nm	173 nm	270 nm
z	2.53 $\mu\text{m}$	2.54 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.763		
Theta	79.7°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.078$



Parameters:

A = -235.852 (brightness)

B = 137.436 (background)

a = 8.291 px

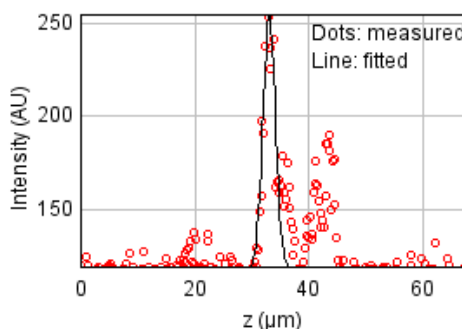
b = 0.621 px

c = 5.002 px

xc = 5.454 px

yc = 5.516 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 2189 (Rejected)

Date : Mon Oct 17 13:53:02 PDT 2022

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

Frame size : 12 pixels

Coordinates : 72.4  $\mu\text{m}$  (x), 89.2  $\mu\text{m}$  (y), 40.9  $\mu\text{m}$  (z)

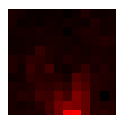
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	270 nm
max	0	0	270 nm
z	3.62 $\mu\text{m}$	3.63 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

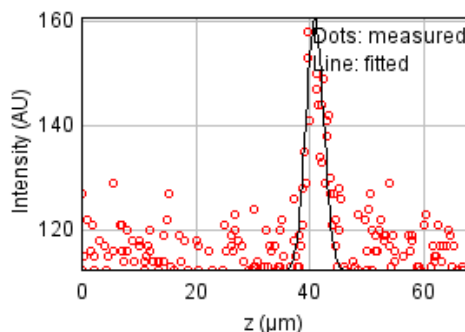
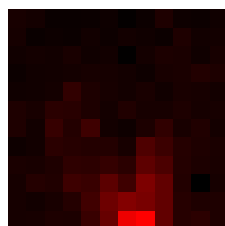
### XY profile & fitting parameters :

(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: 14226.4181

Standard deviation: 6.80736

R<sup>2</sup>: 0.65179

Parameters:

a = 112.19612

b = 160.56735

c = 40.94004

d = 1.53611

## Bead 2190

Date : Mon Oct 17 13:53:03 PDT 2022

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

Frame size : 12 pixels

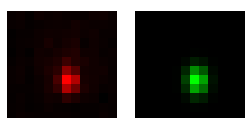
Coordinates : -57.6  $\mu\text{m}$  (x), 47.6  $\mu\text{m}$  (y), 42.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

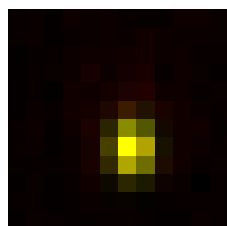
FWHM	Non corrected	Corrected	Theoretical
min	383 nm	399 nm	270 nm
max	511 nm	532 nm	270 nm
z	2.16 $\mu\text{m}$	2.17 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.75		
Theta	-87.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 688.686 (brightness)

B = 124.871 (background)

a = 0.914 px

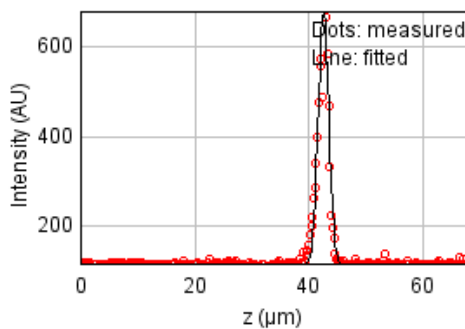
b = -0.015 px

c = 0.515 px

xc = 6.257 px

yc = 7.088 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 91548.5175

Standard deviation: 17.26857

$R^2$ : 0.96075

Parameters:

a = 114.33442

b = 678.59268

c = 42.64041

d = 0.91771

## Bead 2191

Date : Mon Oct 17 13:53:03 PDT 2022

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

Frame size : 12 pixels

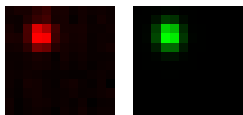
Coordinates : -137  $\mu\text{m}$  (x), 45.5  $\mu\text{m}$  (y), 25.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

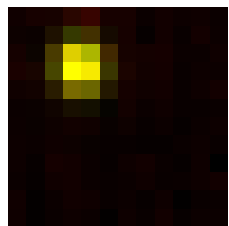
FWHM	Non corrected	Corrected	Theoretical
min	439 nm	457 nm	270 nm
max	499 nm	519 nm	270 nm
z	2.29 $\mu\text{m}$	2.3 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.88		
Theta	-82.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 413.195 (brightness)

B = 114.488 (background)

a = 0.695 px

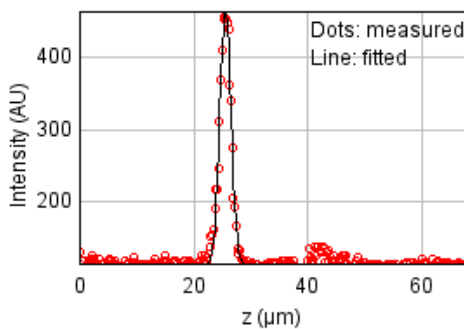
b = -0.021 px

c = 0.543 px

$x_c = 3.428$  px

$y_c = 2.709$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23412.3857

Standard deviation: 8.73280

$R^2$ : 0.97524

Parameters:

a = 113.14058

b = 465.00350

c = 25.63454

d = 0.97397

## Bead 2192

Date : Mon Oct 17 13:53:03 PDT 2022

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

Frame size : 12 pixels

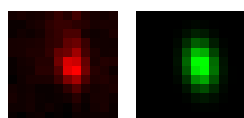
Coordinates : 92.1  $\mu\text{m}$  (x), 34.6  $\mu\text{m}$  (y), 41.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

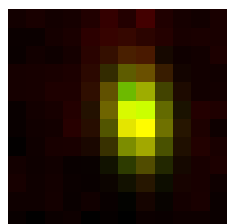
FWHM	Non corrected	Corrected	Theoretical
min	545 nm	568 nm	270 nm
max	841 nm	876 nm	270 nm
z	2.22 $\mu\text{m}$	2.23 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.648		
Theta	-81.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 208.189 (brightness)

B = 120.571 (background)

a = 0.445 px

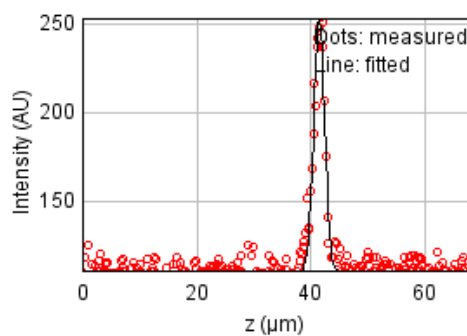
b = -0.039 px

c = 0.196 px

xc = 6.550 px

yc = 5.380 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15771.0017

Standard deviation: 7.16738

$R^2$ : 0.90232

Parameters:

a = 111.27487

b = 253.43172

c = 41.51804

d = 0.94112

## Bead 2193

Date : Mon Oct 17 13:53:03 PDT 2022

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

Frame size : 12 pixels

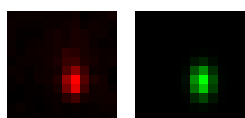
Coordinates : 80.9  $\mu\text{m}$  (x), 6.45  $\mu\text{m}$  (y), 42.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

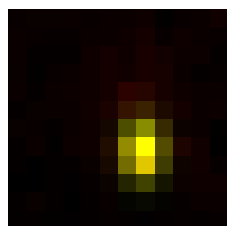
FWHM	Non corrected	Corrected	Theoretical
min	385 nm	401 nm	270 nm
max	564 nm	588 nm	270 nm
z	1.91 $\mu\text{m}$	1.91 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.682		
Theta	-89.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 589.632 (brightness)

B = 125.053 (background)

a = 0.905 px

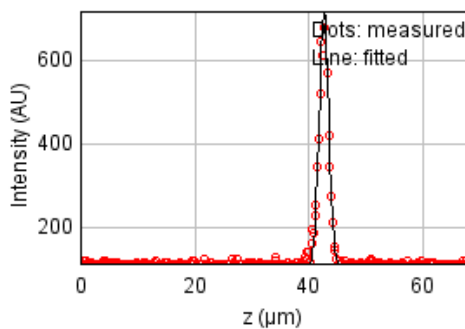
b = -0.004 px

c = 0.422 px

xc = 6.833 px

yc = 7.202 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 38604.8627

Standard deviation: 11.21377

$R^2$ : 0.98332

Parameters:

a = 113.38865

b = 717.19300

c = 42.71864

d = 0.80925

## Bead 2194

Date : Mon Oct 17 13:53:03 PDT 2022

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

Frame size : 12 pixels

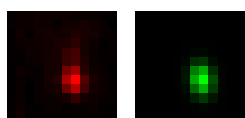
Coordinates : 104  $\mu\text{m}$  (x), -13.3  $\mu\text{m}$  (y), 42.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

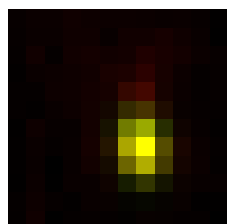
FWHM	Non corrected	Corrected	Theoretical
min	403 nm	419 nm	270 nm
max	587 nm	611 nm	270 nm
z	1.99 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.687		
Theta	-82.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 514.885 (brightness)

B = 122.344 (background)

a = 0.820 px

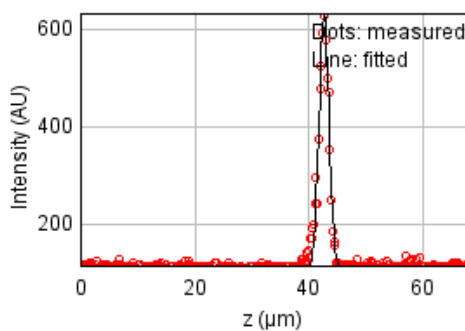
b = -0.056 px

c = 0.397 px

$x_c = 6.760$  px

$y_c = 6.978$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40098.3658

Standard deviation: 11.42863

$R^2: 0.97756$

Parameters:

a = 114.04413

b = 632.51283

c = 42.73495

d = 0.84394

## Bead 2195

Date : Mon Oct 17 13:53:03 PDT 2022

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

Frame size : 12 pixels

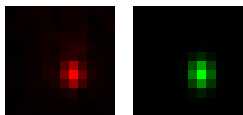
Coordinates : 8.79  $\mu\text{m}$  (x), -19.2  $\mu\text{m}$  (y), 42.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

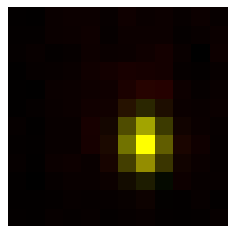
FWHM	Non corrected	Corrected	Theoretical
min	385 nm	401 nm	270 nm
max	510 nm	531 nm	270 nm
z	2.05 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.756		
Theta	-88.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 571.346 (brightness)

B = 123.831 (background)

a = 0.904 px

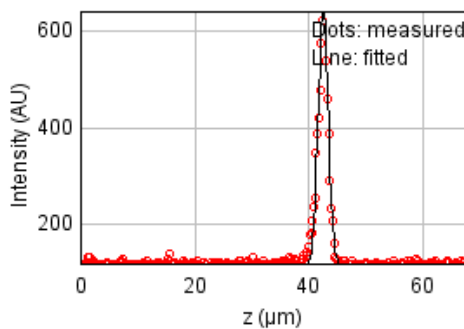
b = -0.012 px

c = 0.517 px

xc = 6.940 px

yc = 6.925 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 42886.8573

Standard deviation: 11.81933

$R^2$ : 0.97760

Parameters:

a = 115.18854

b = 644.56766

c = 42.58626

d = 0.86858

## Bead 2196

Date : Mon Oct 17 13:53:03 PDT 2022

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

Frame size : 12 pixels

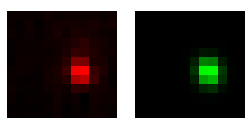
Coordinates : -85.0  $\mu\text{m}$  (x), -30.3  $\mu\text{m}$  (y), 42.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

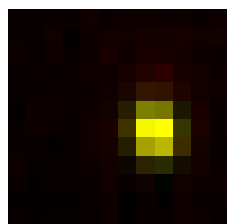
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	427 nm	270 nm
max	500 nm	520 nm	270 nm
z	2.19 $\mu\text{m}$	2.19 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.822		
Theta	-78.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 611.365 (brightness)

B = 123.241 (background)

a = 0.785 px

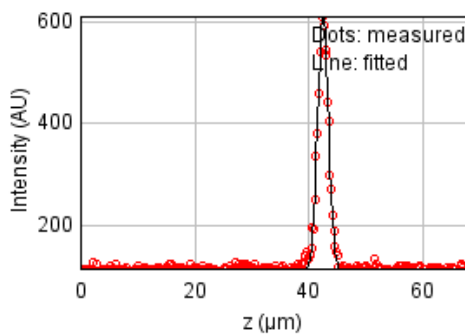
b = -0.053 px

c = 0.549 px

xc = 7.530 px

yc = 6.151 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24959.9819

Standard deviation: 9.01681

$R^2$ : 0.98605

Parameters:

a = 113.47367

b = 611.43844

c = 42.55268

d = 0.92799



## Bead 2197 (Rejected)

Date : Mon Oct 17 13:53:04 PDT 2022

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

Frame size : 12 pixels

Coordinates : -130  $\mu\text{m}$  (x), -54.2  $\mu\text{m}$  (y), 40.6  $\mu\text{m}$  (z)

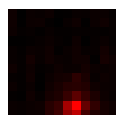
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	270 nm
max	0	0	270 nm
z	3.54 $\mu\text{m}$	3.55 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

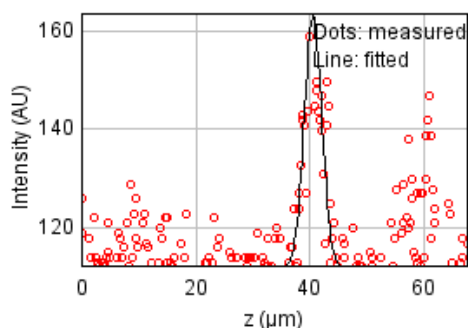
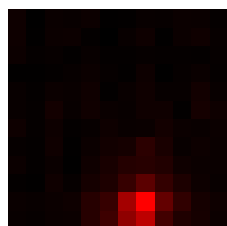
### XY profile & fitting parameters :

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



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

### Z profile & fitting parameters:



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

Sum of residuals squared: 20973.4086

Standard deviation: 8.26543

R<sup>2</sup>: 0.58578

Parameters:

a = 112.03738

b = 163.61994

c = 40.63703

d = 1.50155

## Bead 2198 (Rejected)

Date : Mon Oct 17 13:53:04 PDT 2022

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

Frame size : 12 pixels

Coordinates : 110 um (x), 77.7 um (y), 39.5 um (z)

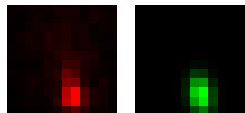
Corresponding bead : Not found

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

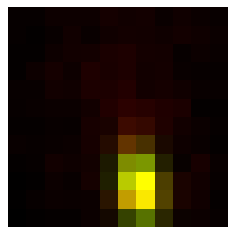
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	419 nm	270 nm
max	672 nm	700 nm	270 nm
z	3.55 um	3.56 um	1.3 um
Asymmetry	0.599		
Theta	-81.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 423.483 (brightness)

B = 125.643 (background)

a = 0.818 px

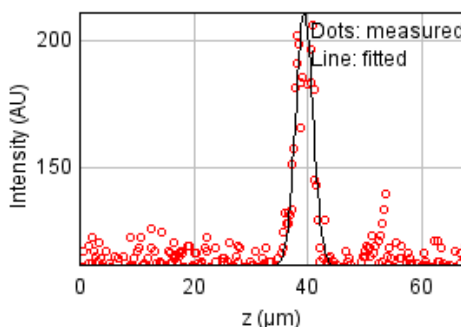
b = -0.079 px

c = 0.309 px

xc = 6.667 px

yc = 9.263 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17334.4530

Standard deviation: 7.51425

$R^2$ : 0.86297

Parameters:

a = 112.07218

b = 210.84721

c = 39.45647

d = 1.50768

## Bead 2199

Date : Mon Oct 17 13:53:04 PDT 2022

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

Frame size : 12 pixels

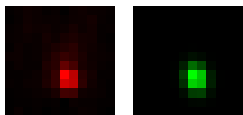
Coordinates : 14.2  $\mu\text{m}$  (x), 40.3  $\mu\text{m}$  (y), 42.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

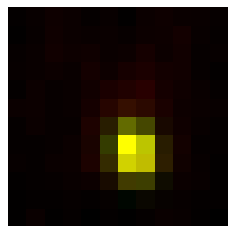
FWHM	Non corrected	Corrected	Theoretical
min	392 nm	408 nm	270 nm
max	509 nm	530 nm	270 nm
z	1.91 $\mu\text{m}$	1.92 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.771		
Theta	-77.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 720.308$  (brightness)

$B = 127.252$  (background)

$a = 0.856$  px

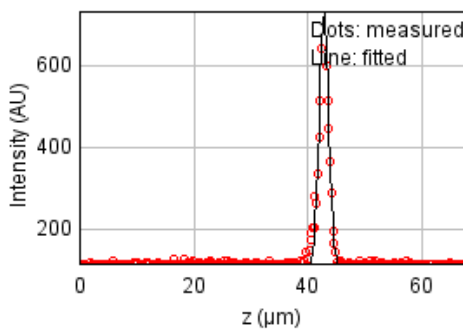
$b = -0.075$  px

$c = 0.536$  px

$x_c = 6.380$  px

$y_c = 7.371$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 41588.0662

Standard deviation: 11.63899

$R^2: 0.98280$

Parameters:

$a = 115.18640$

$b = 731.82873$

$c = 42.88926$

$d = 0.81009$

## Bead 2200

Date : Mon Oct 17 13:53:04 PDT 2022

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

Frame size : 12 pixels

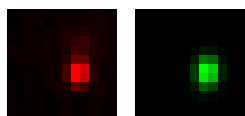
Coordinates : -156  $\mu\text{m}$  (x), 38.7  $\mu\text{m}$  (y), 43.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

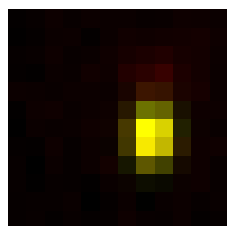
FWHM	Non corrected	Corrected	Theoretical
min	398 nm	414 nm	270 nm
max	548 nm	571 nm	270 nm
z	2.18 $\mu\text{m}$	2.19 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.726		
Theta	86.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 628.051 (brightness)

B = 123.078 (background)

a = 0.846 px

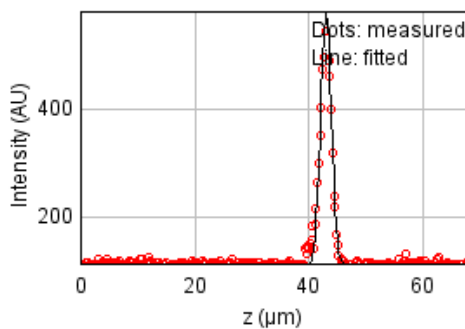
b = 0.025 px

c = 0.448 px

$x_c = 7.374$  px

$y_c = 6.379$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34271.1098

Standard deviation: 10.56562

$R^2$ : 0.97876

Parameters:

a = 111.69699

b = 583.37032

c = 43.06835

d = 0.92616