

## Bead 2801

Date : Mon Oct 17 13:53:45 PDT 2022

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

Frame size : 12 pixels

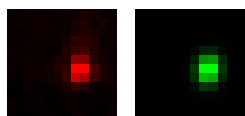
Coordinates : 73.6  $\mu\text{m}$  (x), -36.9  $\mu\text{m}$  (y), 53.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

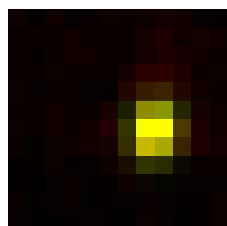
FWHM	Non corrected	Corrected	Theoretical
min	422 nm	440 nm	270 nm
max	542 nm	564 nm	270 nm
z	2.03 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.779		
Theta	81.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 528.950 (brightness)

B = 122.682 (background)

a = 0.746 px

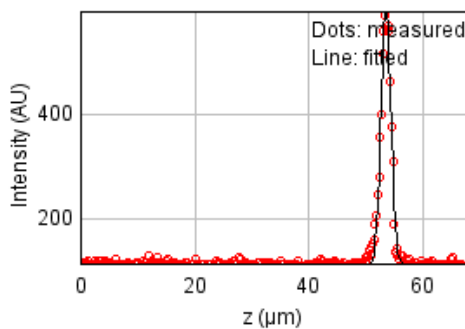
b = 0.044 px

c = 0.463 px

$x_c = 7.495$  px

$y_c = 6.108$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26536.4529

Standard deviation: 9.29720

$R^2$ : 0.98318

Parameters:

a = 113.23572

b = 597.39936

c = 53.58312

d = 0.86005

## Bead 2802 (Rejected)

Date : Mon Oct 17 13:53:45 PDT 2022

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

Frame size : 12 pixels

Coordinates : 30.6  $\mu\text{m}$  (x), -56.1  $\mu\text{m}$  (y), 52.5  $\mu\text{m}$  (z)

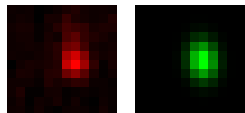
Corresponding bead : Not found

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

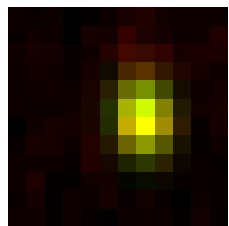
FWHM	Non corrected	Corrected	Theoretical
min	521 nm	542 nm	270 nm
max	719 nm	749 nm	270 nm
z	2.14 $\mu\text{m}$	2.15 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.725		
Theta	-84.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 224.014 (brightness)

B = 120.694 (background)

a = 0.492 px

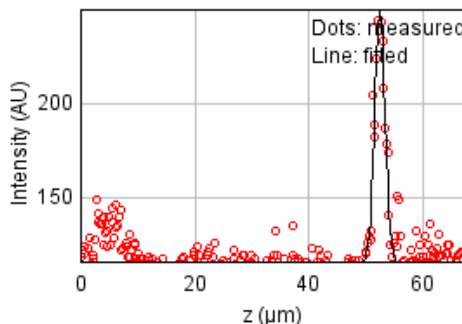
b = -0.024 px

c = 0.262 px

xc = 6.866 px

yc = 5.524 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30189.8964

Standard deviation: 9.91657

$R^2$ : 0.80470

Parameters:

a = 116.03821

b = 249.56637

c = 52.51334

d = 0.90919

## Bead 2803

Date : Mon Oct 17 13:53:45 PDT 2022

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

Frame size : 12 pixels

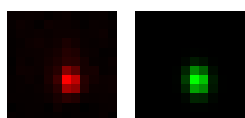
Coordinates : -31.2  $\mu\text{m}$  (x), -76.7  $\mu\text{m}$  (y), 53.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

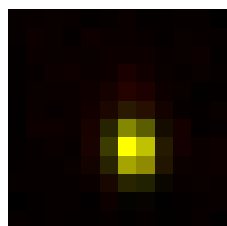
FWHM	Non corrected	Corrected	Theoretical
min	392 nm	408 nm	270 nm
max	502 nm	523 nm	270 nm
z	2.15 $\mu\text{m}$	2.16 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.78		
Theta	-81.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 757.813$  (brightness)

$B = 127.448$  (background)

$a = 0.866$  px

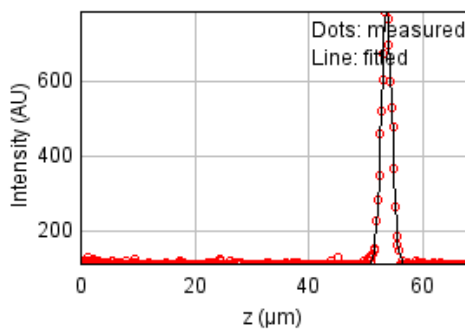
$b = -0.050$  px

$c = 0.539$  px

$x_c = 6.348$  px

$y_c = 7.121$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19976.8762

Standard deviation: 8.06668

$R^2: 0.99366$

Parameters:

$a = 114.44315$

$b = 782.60857$

$c = 53.68297$

$d = 0.91443$

## Bead 2804

Date : Mon Oct 17 13:53:45 PDT 2022

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

Frame size : 12 pixels

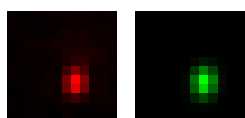
Coordinates : -159  $\mu\text{m}$  (x), 91.6  $\mu\text{m}$  (y), 53.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

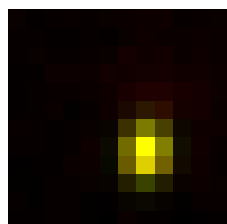
FWHM	Non corrected	Corrected	Theoretical
min	412 nm	429 nm	270 nm
max	536 nm	558 nm	270 nm
z	2.09 $\mu\text{m}$	2.1 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.769		
Theta	85.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 752.305$  (brightness)

$B = 124.543$  (background)

$a = 0.787$  px

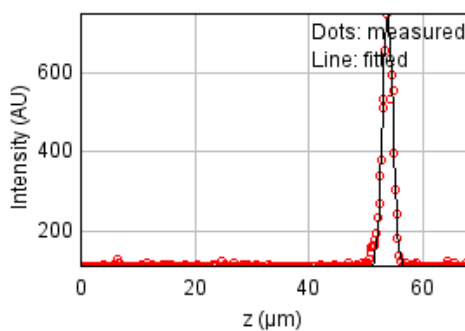
$b = 0.027$  px

$c = 0.469$  px

$x_c = 7.043$  px

$y_c = 7.273$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 61127.8131

Standard deviation: 14.11075

$R^2: 0.97847$

Parameters:

$a = 111.72008$

$b = 749.47815$

$c = 53.88478$

$d = 0.88932$

## Bead 2805

Date : Mon Oct 17 13:53:45 PDT 2022

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

Frame size : 12 pixels

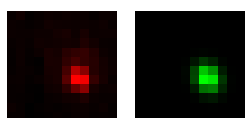
Coordinates : 24.9  $\mu\text{m}$  (x), 89.3  $\mu\text{m}$  (y), 53.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

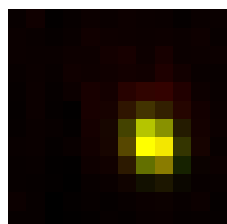
FWHM	Non corrected	Corrected	Theoretical
min	425 nm	443 nm	270 nm
max	522 nm	543 nm	270 nm
z	1.9 $\mu\text{m}$	1.91 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.815		
Theta	-62.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 635.702 (brightness)

B = 125.587 (background)

a = 0.690 px

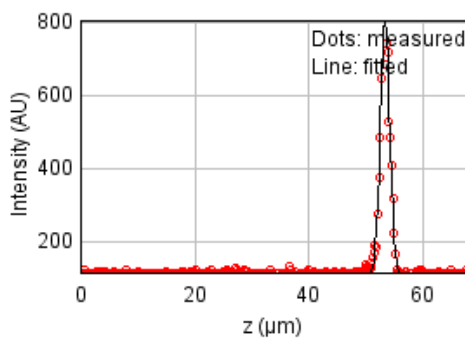
b = -0.102 px

c = 0.545 px

xc = 7.400 px

yc = 6.814 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 59815.3265

Standard deviation: 13.95845

$R^2$ : 0.98019

Parameters:

a = 114.90970

b = 803.87995

c = 53.41636

d = 0.80826

## Bead 2806

Date : Mon Oct 17 13:53:45 PDT 2022

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

Frame size : 12 pixels

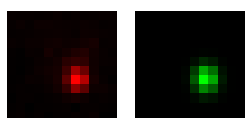
Coordinates : 34.8  $\mu\text{m}$  (x), 88.1  $\mu\text{m}$  (y), 53.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

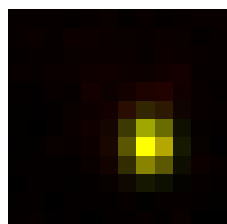
FWHM	Non corrected	Corrected	Theoretical
min	424 nm	441 nm	270 nm
max	499 nm	519 nm	270 nm
z	1.94 $\mu\text{m}$	1.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.85		
Theta	-87.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 812.535$  (brightness)

$B = 125.166$  (background)

$a = 0.747$  px

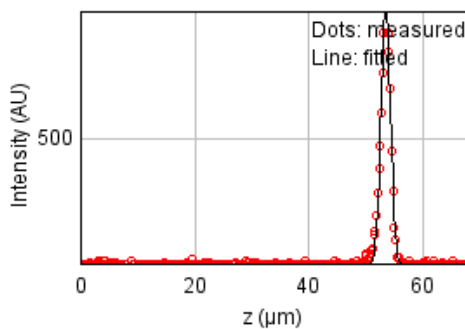
$b = -0.009$  px

$c = 0.540$  px

$x_c = 7.218$  px

$y_c = 6.892$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 41961.3233

Standard deviation: 11.69110

$R^2: 0.98937$

Parameters:

$a = 115.01918$

$b = 898.88070$

$c = 53.55242$

$d = 0.82465$

## Bead 2807

Date : Mon Oct 17 13:53:46 PDT 2022

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

Frame size : 12 pixels

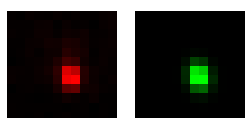
Coordinates : -73.2  $\mu\text{m}$  (x), 85.3  $\mu\text{m}$  (y), 53.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

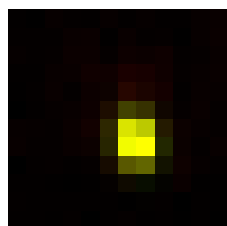
FWHM	Non corrected	Corrected	Theoretical
min	373 nm	388 nm	270 nm
max	486 nm	506 nm	270 nm
z	2.1 $\mu\text{m}$	2.1 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.768		
Theta	-79.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 888.809$  (brightness)

$B = 122.453$  (background)

$a = 0.952$  px

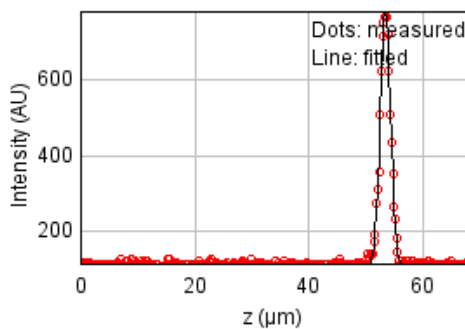
$b = -0.070$  px

$c = 0.581$  px

$x_c = 6.480$  px

$y_c = 6.646$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23960.4987

Standard deviation: 8.83443

$R^2: 0.99208$

Parameters:

$a = 114.66484$

$b = 777.44379$

$c = 53.48572$

$d = 0.88991$

## Bead 2808 (Rejected)

Date : Mon Oct 17 13:53:46 PDT 2022

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

Frame size : 12 pixels

Coordinates : -5.62  $\mu\text{m}$  (x), 58.5  $\mu\text{m}$  (y), 29.6  $\mu\text{m}$  (z)

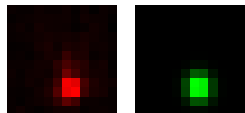
Corresponding bead : Not found

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

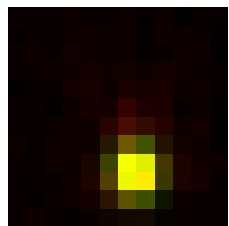
FWHM	Non corrected	Corrected	Theoretical
min	437 nm	455 nm	270 nm
max	499 nm	520 nm	270 nm
z	3.11 $\mu\text{m}$	3.13 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.875		
Theta	-87.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 512.399 (brightness)

B = 126.192 (background)

a = 0.703 px

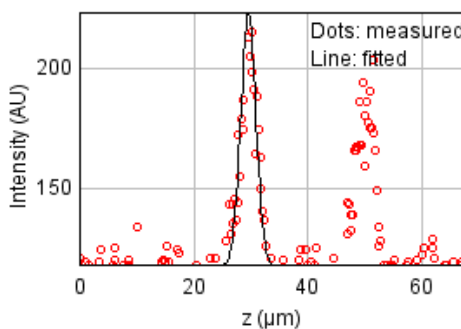
b = -0.008 px

c = 0.539 px

xc = 6.457 px

yc = 8.481 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 90120.2780

Standard deviation: 17.13334

$R^2$ : 0.54907

Parameters:

a = 118.46119

b = 223.65088

c = 29.64001

d = 1.32244



## Bead 2809

Date : Mon Oct 17 13:53:46 PDT 2022

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

Frame size : 12 pixels

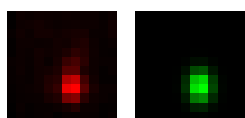
Coordinates : 109 um (x), 9.85 um (y), 54.0 um (z)

Corresponding bead : Not found

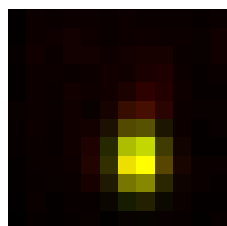
FWHM	Non corrected	Corrected	Theoretical
min	434 nm	453 nm	270 nm
max	578 nm	602 nm	270 nm
z	2.16 um	2.17 um	1.3 um
Asymmetry	0.751		
Theta	-89.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 807.249 (brightness)

B = 130.302 (background)

a = 0.711 px

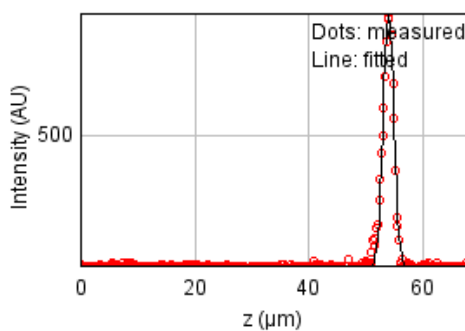
b = -0.005 px

c = 0.401 px

xc = 6.592 px

yc = 7.707 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 64660.7715

Standard deviation: 14.51280

$R^2$ : 0.98377

Parameters:

a = 113.68475

b = 860.58590

c = 54.02177

d = 0.91623

## Bead 2810

Date : Mon Oct 17 13:53:46 PDT 2022

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

Frame size : 12 pixels

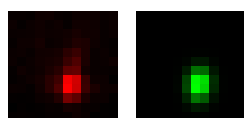
Coordinates : 102  $\mu\text{m}$  (x), -13.0  $\mu\text{m}$  (y), 53.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

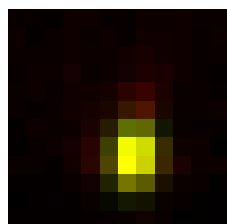
FWHM	Non corrected	Corrected	Theoretical
min	425 nm	442 nm	270 nm
max	582 nm	606 nm	270 nm
z	1.97 $\mu\text{m}$	1.98 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.729		
Theta	84.9°		

### 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 = 535.963 (brightness)

B = 124.049 (background)

a = 0.741 px

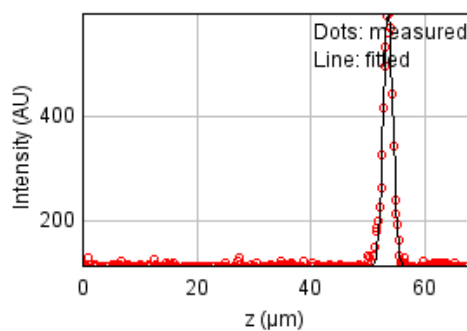
b = 0.031 px

c = 0.399 px

$x_c = 6.390$  px

$y_c = 7.488$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25213.2202

Standard deviation: 9.06244

$R^2$ : 0.98369

Parameters:

a = 112.77599

b = 598.74776

c = 53.59717

d = 0.83582

## Bead 2811

Date : Mon Oct 17 13:53:46 PDT 2022

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

Frame size : 12 pixels

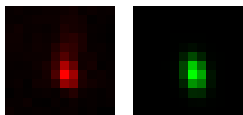
Coordinates : 130  $\mu\text{m}$  (x), -20.3  $\mu\text{m}$  (y), 53.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

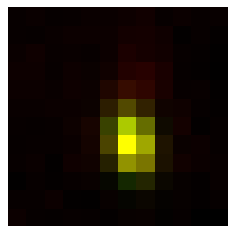
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	598 nm	623 nm	270 nm
z	2.06 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.648		
Theta	-78.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 528.552$  (brightness)

$B = 122.439$  (background)

$a = 0.875$  px

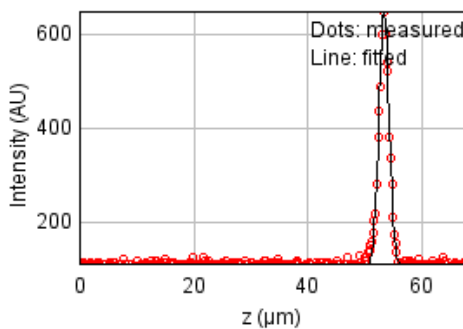
$b = -0.098$  px

$c = 0.395$  px

$x_c = 6.242$  px

$y_c = 6.858$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28579.7024

Standard deviation: 9.64850

$R^2: 0.98544$

Parameters:

$a = 110.70911$

$b = 647.56074$

$c = 53.40910$

$d = 0.87294$

## Bead 2812

Date : Mon Oct 17 13:53:46 PDT 2022

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

Frame size : 12 pixels

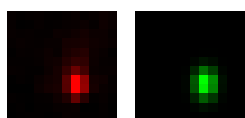
Coordinates : 66.7  $\mu\text{m}$  (x), -31.7  $\mu\text{m}$  (y), 54.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

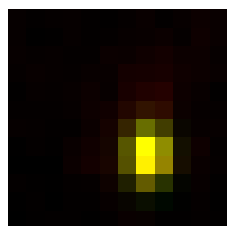
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	415 nm	270 nm
max	544 nm	567 nm	270 nm
z	1.86 $\mu\text{m}$	1.87 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.733		
Theta	89.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 800.167$  (brightness)

$B = 126.100$  (background)

$a = 0.844$  px

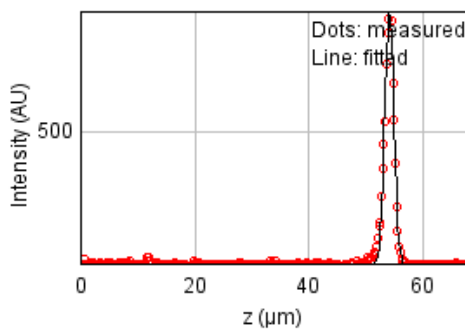
$b = 0.003$  px

$c = 0.454$  px

$x_c = 7.146$  px

$y_c = 7.432$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 43788.1193

Standard deviation: 11.94288

$R^2: 0.98712$

Parameters:

$a = 113.89857$

$b = 855.78179$

$c = 54.17709$

$d = 0.78923$

## Bead 2813

Date : Mon Oct 17 13:53:46 PDT 2022

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

Frame size : 12 pixels

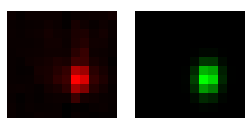
Coordinates : 61.9  $\mu\text{m}$  (x), -36.6  $\mu\text{m}$  (y), 53.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

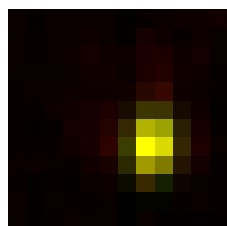
FWHM	Non corrected	Corrected	Theoretical
min	411 nm	428 nm	270 nm
max	561 nm	584 nm	270 nm
z	2.1 $\mu\text{m}$	2.1 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.732		
Theta	84.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 644.048 (brightness)

B = 125.998 (background)

a = 0.792 px

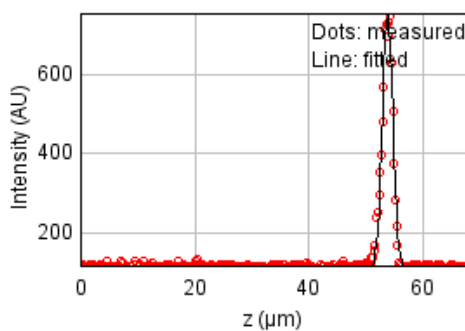
b = 0.033 px

c = 0.429 px

xc = 7.402 px

yc = 6.887 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 42882.0160

Standard deviation: 11.81866

$R^2$ : 0.98511

Parameters:

a = 113.46827

b = 757.51855

c = 53.87501

d = 0.89011

## Bead 2814 (Rejected)

Date : Mon Oct 17 13:53:46 PDT 2022

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

Frame size : 12 pixels

Coordinates : 108  $\mu\text{m}$  (x), -39.4  $\mu\text{m}$  (y), 50.4  $\mu\text{m}$  (z)

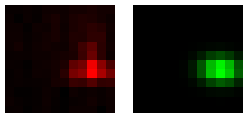
Corresponding bead : Not found

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

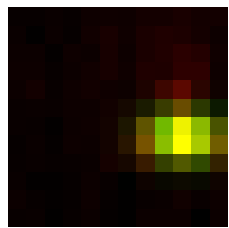
FWHM	Non corrected	Corrected	Theoretical
min	492 nm	513 nm	270 nm
max	710 nm	740 nm	270 nm
z	1.96 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.693		
Theta	-2.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 417.144 (brightness)

B = 121.956 (background)

a = 0.267 px

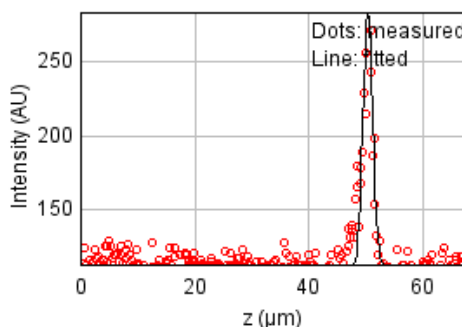
b = -0.015 px

c = 0.553 px

xc = 9.030 px

yc = 6.549 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27776.5283

Standard deviation: 9.51196

$R^2$ : 0.86967

Parameters:

a = 112.93789

b = 283.02526

c = 50.41624

d = 0.83136

## Bead 2815

Date : Mon Oct 17 13:53:47 PDT 2022

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

Frame size : 12 pixels

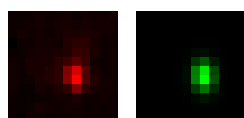
Coordinates : 82.7  $\mu\text{m}$  (x), -48.2  $\mu\text{m}$  (y), 53.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

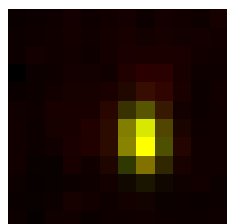
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	400 nm	270 nm
max	545 nm	568 nm	270 nm
z	2.08 $\mu\text{m}$	2.08 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.704		
Theta	-86.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 471.934$  (brightness)

$B = 122.317$  (background)

$a = 0.910$  px

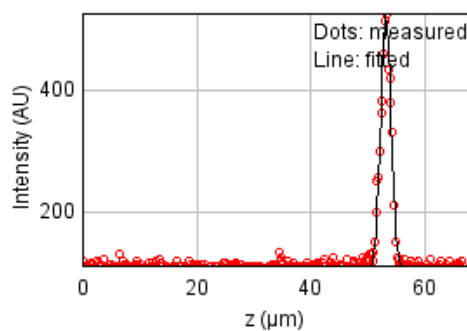
$b = -0.028$  px

$c = 0.453$  px

$x_c = 6.853$  px

$y_c = 6.597$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28151.0437

Standard deviation: 9.57587

$R^2: 0.97614$

Parameters:

$a = 112.47167$

$b = 524.73236$

$c = 53.21730$

$d = 0.88174$

## Bead 2816

Date : Mon Oct 17 13:53:47 PDT 2022

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

Frame size : 12 pixels

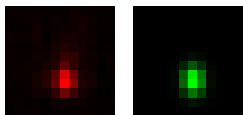
Coordinates : 106  $\mu\text{m}$  (x), -50.6  $\mu\text{m}$  (y), 54.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

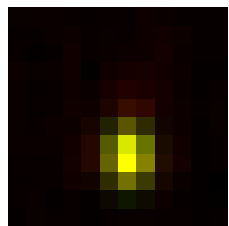
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	423 nm	270 nm
max	546 nm	568 nm	270 nm
z	1.98 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.745		
Theta	-89.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 744.277$  (brightness)

$B = 125.757$  (background)

$a = 0.812$  px

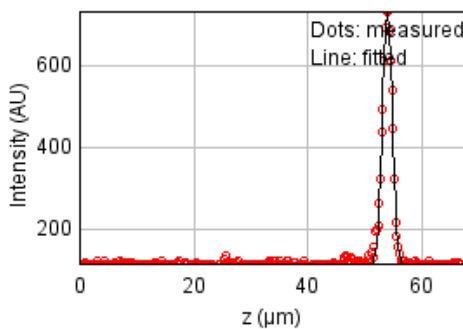
$b = -0.005$  px

$c = 0.451$  px

$x_c = 6.078$  px

$y_c = 7.609$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23897.1288

Standard deviation: 8.82274

$R^2 = 0.99068$

Parameters:

$a = 113.88878$

$b = 739.78640$

$c = 54.00557$

$d = 0.84223$



## Bead 2817

Date : Mon Oct 17 13:53:47 PDT 2022

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

Frame size : 12 pixels

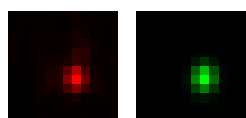
Coordinates : 74.3  $\mu\text{m}$  (x), -92.9  $\mu\text{m}$  (y), 53.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

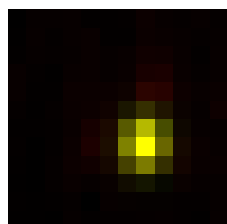
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	426 nm	270 nm
max	506 nm	527 nm	270 nm
z	2.04 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.81		
Theta	85.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 864.238$  (brightness)

$B = 127.198$  (background)

$a = 0.799$  px

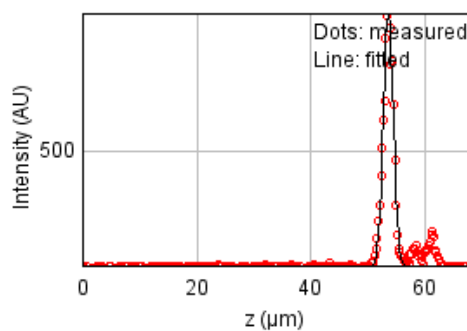
$b = 0.021$  px

$c = 0.527$  px

$x_c = 6.929$  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: 150425.672

Standard deviation: 22.13563

$R^2: 0.96928$

Parameters:

$a = 118.67469$

$b = 961.69523$

$c = 53.65406$

$d = 0.86830$

## Bead 2818

Date : Mon Oct 17 13:53:47 PDT 2022

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

Frame size : 12 pixels

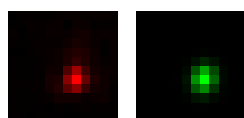
Coordinates : -36.3  $\mu\text{m}$  (x), -93.4  $\mu\text{m}$  (y), 53.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

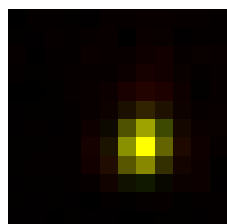
FWHM	Non corrected	Corrected	Theoretical
min	418 nm	435 nm	270 nm
max	504 nm	525 nm	270 nm
z	2.05 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.828		
Theta	75.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 784.247 (brightness)

B = 128.042 (background)

a = 0.754 px

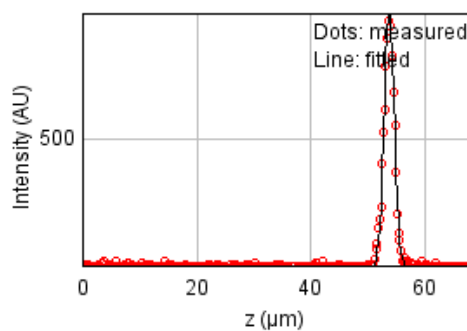
b = 0.058 px

c = 0.542 px

xc = 6.884 px

yc = 6.927 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23999.3833

Standard deviation: 8.84160

$R^2$ : 0.99406

Parameters:

a = 112.59263

b = 886.33621

c = 53.80001

d = 0.87235

## Bead 2819 (Rejected)

Date : Mon Oct 17 13:53:47 PDT 2022

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

Frame size : 12 pixels

Coordinates : 121  $\mu\text{m}$  (x), 96.0  $\mu\text{m}$  (y), 49.8  $\mu\text{m}$  (z)

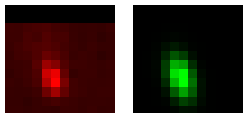
Corresponding bead : Not found

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

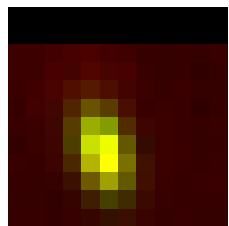
FWHM	Non corrected	Corrected	Theoretical
min	465 nm	485 nm	270 nm
max	812 nm	846 nm	270 nm
z	3.64 $\mu\text{m}$	3.65 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.573		
Theta	-73.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.704$



Parameters:

A = 439.111 (brightness)

B = 97.307 (background)

a = 0.586 px

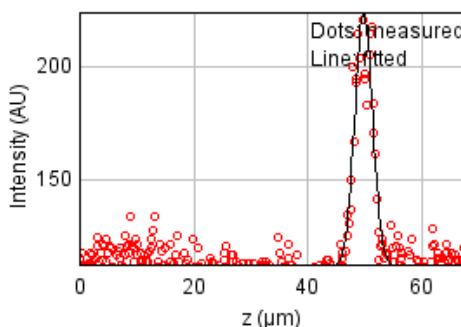
b = -0.113 px

c = 0.237 px

xc = 4.674 px

yc = 7.363 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19572.8554

Standard deviation: 7.98469

$R^2$ : 0.87967

Parameters:

a = 112.16523

b = 223.97169

c = 49.84844

d = 1.54574

## Bead 2820

Date : Mon Oct 17 13:53:47 PDT 2022

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

Frame size : 12 pixels

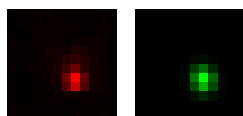
Coordinates : 23.1  $\mu\text{m}$  (x), 75.5  $\mu\text{m}$  (y), 54.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

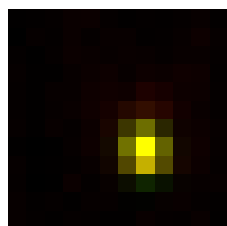
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	473 nm	493 nm	270 nm
z	1.89 $\mu\text{m}$	1.9 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.818		
Theta	-80.4°		

### 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 = 850.358 (brightness)

B = 131.389 (background)

a = 0.889 px

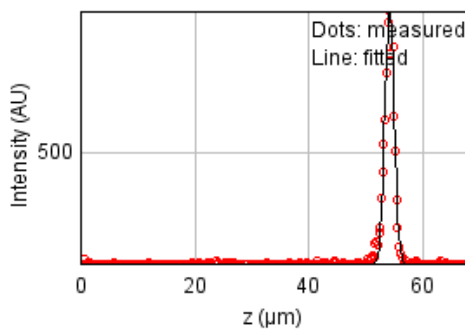
b = -0.049 px

c = 0.608 px

xc = 6.968 px

yc = 7.191 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 100329.782

Standard deviation: 18.07781

$R^2$ : 0.97939

Parameters:

a = 114.64983

b = 991.15672

c = 54.21421

d = 0.80395

## Bead 2821

Date : Mon Oct 17 13:53:47 PDT 2022

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

Frame size : 12 pixels

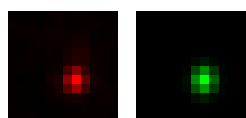
Coordinates : -75.3  $\mu\text{m}$  (x), 66.1  $\mu\text{m}$  (y), 53.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

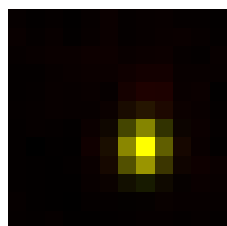
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	421 nm	270 nm
max	474 nm	494 nm	270 nm
z	1.81 $\mu\text{m}$	1.82 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.852		
Theta	87.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 923.907 (brightness)

B = 126.483 (background)

a = 0.821 px

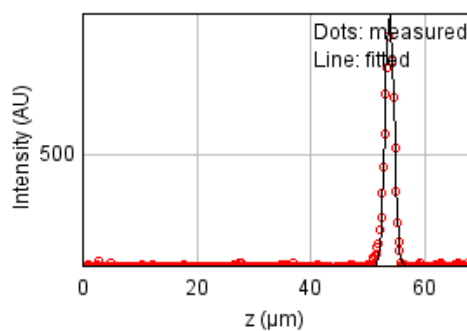
b = 0.010 px

c = 0.597 px

xc = 6.889 px

yc = 7.046 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 52587.1616

Standard deviation: 13.08792

$R^2$ : 0.98843

Parameters:

a = 115.09409

b = 983.78662

c = 53.86624

d = 0.77018

## Bead 2822 (Rejected)

Date : Mon Oct 17 13:53:47 PDT 2022

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

Frame size : 12 pixels

Coordinates : -59.4  $\mu\text{m}$  (x), 63.5  $\mu\text{m}$  (y), 56.2  $\mu\text{m}$  (z)

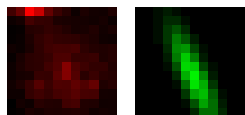
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

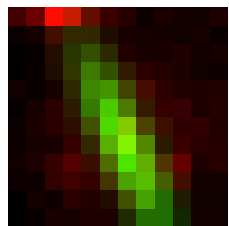
FWHM	Non corrected	Corrected	Theoretical
min	487 nm	508 nm	270 nm
max	1.92 $\mu\text{m}$	2.0 $\mu\text{m}$	270 nm
z	6.88 $\mu\text{m}$	6.91 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.254		
Theta	-65.4°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.479$



Parameters:

A = 18.271 (brightness)

B = 139.716 (background)

a = 0.461 px

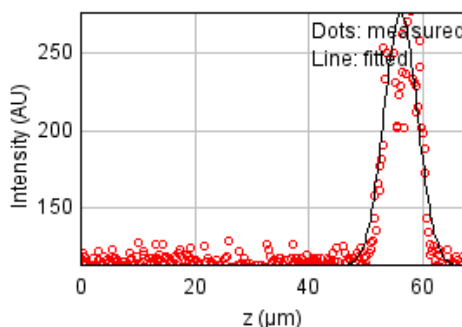
b = -0.228 px

c = 0.068 px

xc = 5.868 px

yc = 7.006 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 86880.9188

Standard deviation: 16.82260

$R^2$ : 0.86095

Parameters:

a = 112.34106

b = 276.57412

c = 56.17748

d = 2.92224

## Bead 2823 (Rejected)

Date : Mon Oct 17 13:53:47 PDT 2022

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

Frame size : 12 pixels

Coordinates : 19.6  $\mu\text{m}$  (x), 58.3  $\mu\text{m}$  (y), 53.3  $\mu\text{m}$  (z)

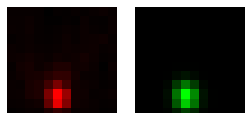
Corresponding bead : Not found

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

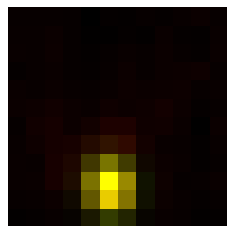
FWHM	Non corrected	Corrected	Theoretical
min	433 nm	451 nm	270 nm
max	517 nm	538 nm	270 nm
z	4.11 $\mu\text{m}$	4.12 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.837		
Theta	-82.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 734.520 (brightness)

B = 126.382 (background)

a = 0.714 px

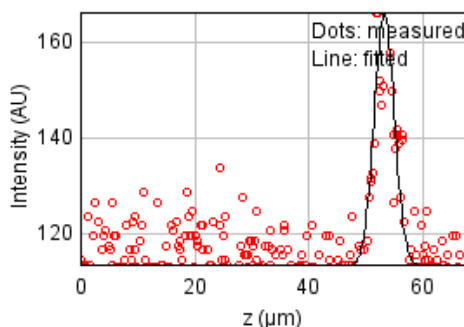
b = -0.026 px

c = 0.505 px

xc = 5.074 px

yc = 9.282 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16162.6958

Standard deviation: 7.25584

$R^2$ : 0.68379

Parameters:

a = 113.67280

b = 165.98505

c = 53.28500

d = 1.74450

## Bead 2824 (Rejected)

Date : Mon Oct 17 13:53:47 PDT 2022

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

Frame size : 12 pixels

Coordinates : 9.81  $\mu\text{m}$  (x), 34.3  $\mu\text{m}$  (y), 23.2  $\mu\text{m}$  (z)

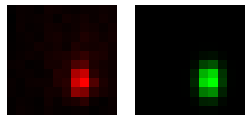
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	404 nm	421 nm	270 nm
max	585 nm	609 nm	270 nm
z	1.93 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.691		
Theta	88.2°		

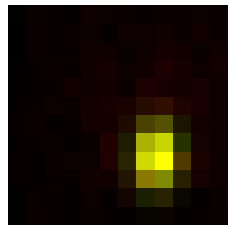
### XY profile & fitting parameters :

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



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

$R^2 = 0.960$



Parameters:

A = 505.042 (brightness)

B = 122.827 (background)

a = 0.821 px

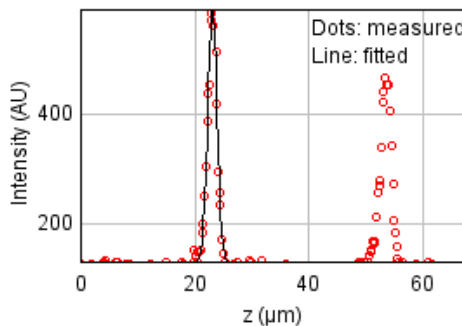
b = 0.013 px

c = 0.393 px

xc = 7.603 px

yc = 7.739 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 971265.196

Standard deviation: 56.24705

$R^2$ : 0.58488

Parameters:

a = 128.77824

b = 593.80315

c = 23.16807

d = 0.82068



## Bead 2825 (Rejected)

Date : Mon Oct 17 13:53:47 PDT 2022

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

Frame size : 12 pixels

Coordinates : -63.6  $\mu\text{m}$  (x), 31.0  $\mu\text{m}$  (y), 51.5  $\mu\text{m}$  (z)

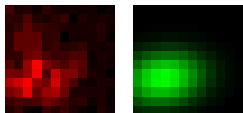
Corresponding bead : Not found

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

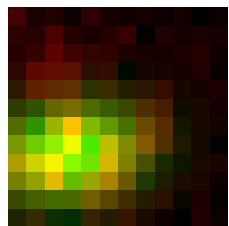
FWHM	Non corrected	Corrected	Theoretical
min	981 nm	1.02 $\mu\text{m}$	270 nm
max	1.49 $\mu\text{m}$	1.55 $\mu\text{m}$	270 nm
z	1.06 $\mu\text{m}$	1.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.659		
Theta	7.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.701$



Parameters:

A = 85.092 (brightness)

B = 120.504 (background)

a = 0.062 px

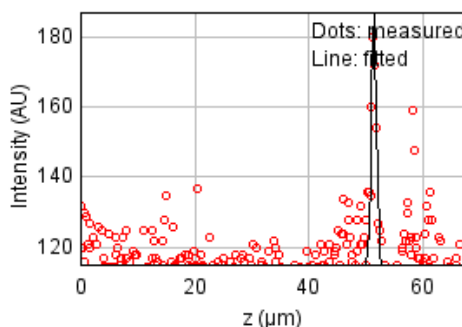
b = 0.010 px

c = 0.138 px

xc = 2.819 px

yc = 7.469 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19355.8044

Standard deviation: 7.94029

$R^2$ : 0.48486

Parameters:

a = 114.86990

b = 186.74381

c = 51.46219

d = 0.44824

## Bead 2826

Date : Mon Oct 17 13:53:47 PDT 2022

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

Frame size : 12 pixels

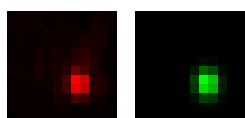
Coordinates : 67.6  $\mu\text{m}$  (x), 24.7  $\mu\text{m}$  (y), 53.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

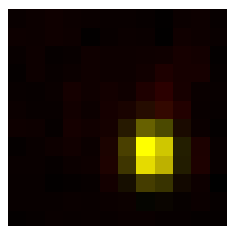
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	421 nm	270 nm
max	489 nm	510 nm	270 nm
z	1.97 $\mu\text{m}$	1.98 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.826		
Theta	-86.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 615.063 (brightness)

B = 127.900 (background)

a = 0.819 px

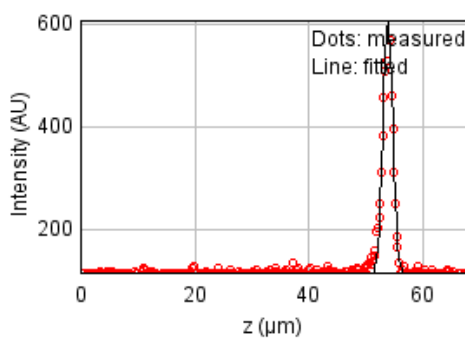
b = -0.018 px

c = 0.561 px

$x_c = 7.357$  px

$y_c = 7.375$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30514.9060

Standard deviation: 9.96981

$R^2 = 0.98089$

Parameters:

a = 113.39080

b = 606.27327

c = 53.91683

d = 0.83686

## Bead 2827 (Rejected)

Date : Mon Oct 17 13:53:47 PDT 2022

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

Frame size : 12 pixels

Coordinates : 133  $\mu\text{m}$  (x), -7.7  $\mu\text{m}$  (y), 31.4  $\mu\text{m}$  (z)

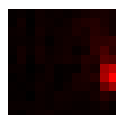
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	270 nm
max	0	0	270 nm
z	2.69 $\mu\text{m}$	2.7 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

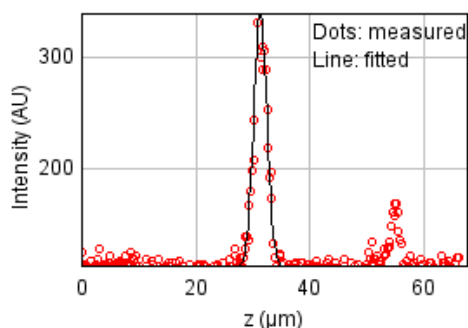
### XY profile & fitting parameters :

(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: 44398.4837

Standard deviation: 12.02583

R<sup>2</sup>: 0.90917

Parameters:

a = 113.37898

b = 340.09522

c = 31.38070

d = 1.14135

## Bead 2828

Date : Mon Oct 17 13:53:48 PDT 2022

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

Frame size : 12 pixels

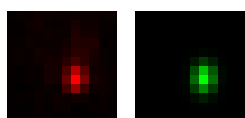
Coordinates : 81.8  $\mu\text{m}$  (x), -19.4  $\mu\text{m}$  (y), 53.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

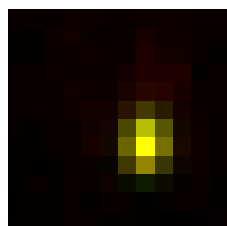
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	407 nm	270 nm
max	535 nm	558 nm	270 nm
z	1.94 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.73		
Theta	86.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 562.023 (brightness)

B = 126.996 (background)

a = 0.878 px

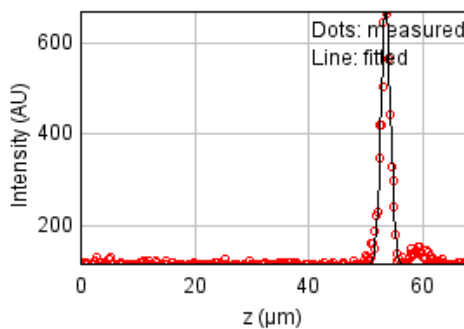
b = 0.026 px

c = 0.470 px

xc = 7.028 px

yc = 6.807 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 49383.3594

Standard deviation: 12.68297

$R^2$ : 0.97543

Parameters:

a = 115.94901

b = 671.97142

c = 53.54990

d = 0.82250

## Bead 2829

Date : Mon Oct 17 13:53:48 PDT 2022

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

Frame size : 12 pixels

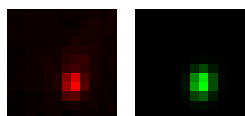
Coordinates : 46.4  $\mu\text{m}$  (x), -24.0  $\mu\text{m}$  (y), 54.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

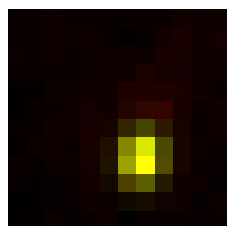
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	415 nm	270 nm
max	497 nm	518 nm	270 nm
z	1.96 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.802		
Theta	81.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 604.109 (brightness)

B = 129.371 (background)

a = 0.838 px

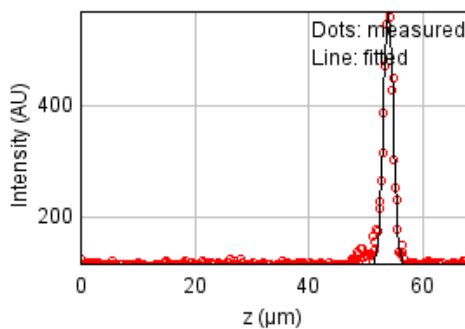
b = 0.042 px

c = 0.548 px

xc = 6.795 px

yc = 7.608 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34220.9605

Standard deviation: 10.55788

$R^2$ : 0.97558

Parameters:

a = 114.10226

b = 575.41888

c = 53.99964

d = 0.83360

## Bead 2830

Date : Mon Oct 17 13:53:48 PDT 2022

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

Frame size : 12 pixels

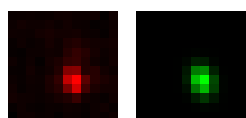
Coordinates : -115  $\mu\text{m}$  (x), -38.2  $\mu\text{m}$  (y), 53.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

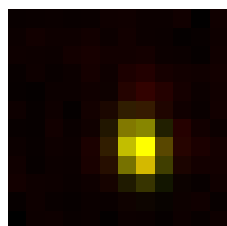
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	422 nm	270 nm
max	543 nm	565 nm	270 nm
z	2.15 $\mu\text{m}$	2.15 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.746		
Theta	-74.0°		

### 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:

$A = 408.553$  (brightness)

$B = 118.113$  (background)

$a = 0.789$  px

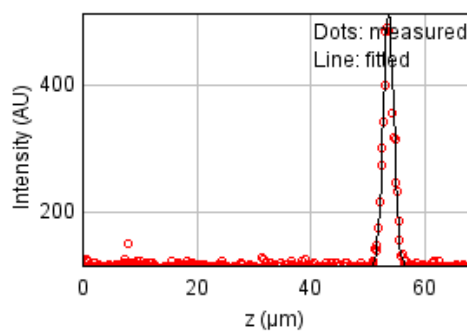
$b = -0.096$  px

$c = 0.483$  px

$x_c = 6.699$  px

$y_c = 7.110$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29747.9362

Standard deviation: 9.84372

$R^2: 0.97437$

Parameters:

$a = 112.81818$

$b = 515.03224$

$c = 53.68448$

$d = 0.91103$

## Bead 2831

Date : Mon Oct 17 13:53:48 PDT 2022

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

Frame size : 12 pixels

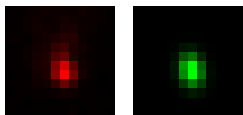
Coordinates : 106  $\mu\text{m}$  (x), 79.4  $\mu\text{m}$  (y), 54.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

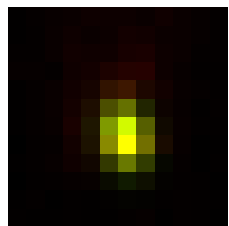
FWHM	Non corrected	Corrected	Theoretical
min	427 nm	445 nm	270 nm
max	599 nm	624 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.713		
Theta	-79.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 939.069 (brightness)

B = 133.985 (background)

a = 0.723 px

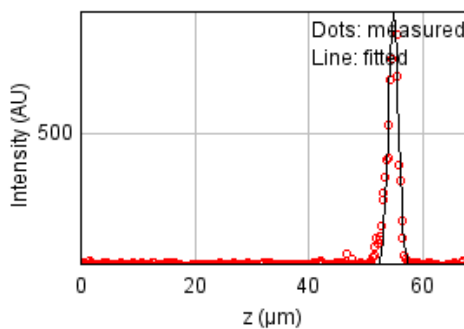
b = -0.067 px

c = 0.386 px

xc = 5.881 px

yc = 6.511 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 127738.037

Standard deviation: 20.39816

$R^2$ : 0.96661

Parameters:

a = 113.85902

b = 862.49934

c = 54.89863

d = 0.85728

## Bead 2832 (Rejected)

Date : Mon Oct 17 13:53:48 PDT 2022

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

Frame size : 12 pixels

Coordinates : -146  $\mu\text{m}$  (x), 76.8  $\mu\text{m}$  (y), 53.9  $\mu\text{m}$  (z)

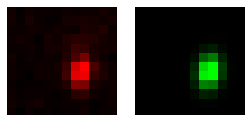
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

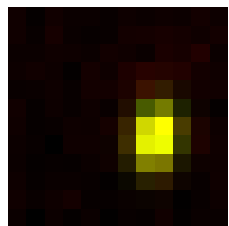
FWHM	Non corrected	Corrected	Theoretical
min	407 nm	424 nm	270 nm
max	608 nm	633 nm	270 nm
z	2.08 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.67		
Theta	81.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 387.014 (brightness)

B = 116.522 (background)

a = 0.802 px

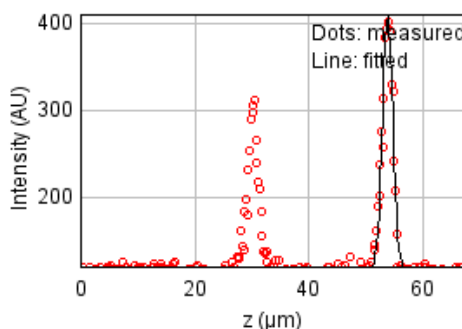
b = 0.062 px

c = 0.372 px

xc = 7.564 px

yc = 6.558 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 279828.492

Standard deviation: 30.19095

$R^2$ : 0.67274

Parameters:

a = 118.88876

b = 410.04991

c = 53.87480

d = 0.88299



## Bead 2833

Date : Mon Oct 17 13:53:48 PDT 2022

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

Frame size : 12 pixels

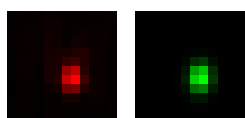
Coordinates : 23.0  $\mu\text{m}$  (x), 72.8  $\mu\text{m}$  (y), 54.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

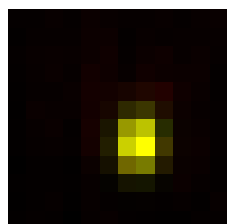
FWHM	Non corrected	Corrected	Theoretical
min	395 nm	411 nm	270 nm
max	517 nm	538 nm	270 nm
z	2.0 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.764		
Theta	87.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1176.385$  (brightness)

$B = 128.840$  (background)

$a = 0.860$  px

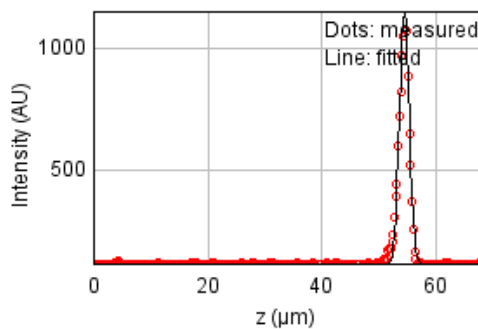
$b = 0.017$  px

$c = 0.503$  px

$x_c = 6.625$  px

$y_c = 6.785$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 79148.0212

Standard deviation: 16.05650

$R^2: 0.98875$

Parameters:

$a = 114.52434$

$b = 1147.00307$

$c = 54.53365$

$d = 0.84756$

## Bead 2834

Date : Mon Oct 17 13:53:48 PDT 2022

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

Frame size : 12 pixels

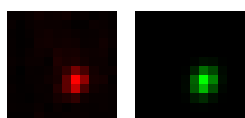
Coordinates : -35.2  $\mu\text{m}$  (x), 70.0  $\mu\text{m}$  (y), 53.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

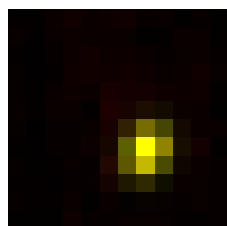
FWHM	Non corrected	Corrected	Theoretical
min	394 nm	410 nm	270 nm
max	497 nm	518 nm	270 nm
z	1.68 $\mu\text{m}$	1.68 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.792		
Theta	68.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 678.593 (brightness)

B = 123.819 (background)

a = 0.823 px

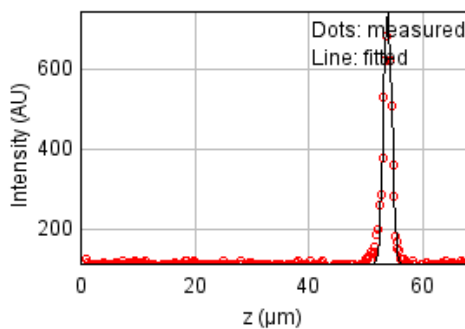
b = 0.110 px

c = 0.586 px

xc = 7.064 px

yc = 7.212 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 41165.3655

Standard deviation: 11.57969

$R^2$ : 0.98142

Parameters:

a = 113.68407

b = 741.10553

c = 53.87837

d = 0.71206

## Bead 2835 (Rejected)

Date : Mon Oct 17 13:53:48 PDT 2022

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

Frame size : 12 pixels

Coordinates : 15.4  $\mu\text{m}$  (x), 62.4  $\mu\text{m}$  (y), 53.7  $\mu\text{m}$  (z)

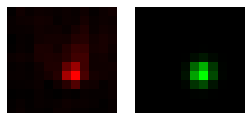
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

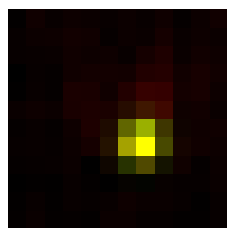
FWHM	Non corrected	Corrected	Theoretical
min	389 nm	405 nm	270 nm
max	413 nm	431 nm	270 nm
z	1.95 $\mu\text{m}$	1.96 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.941		
Theta	57.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 483.299 (brightness)

B = 126.688 (background)

a = 0.858 px

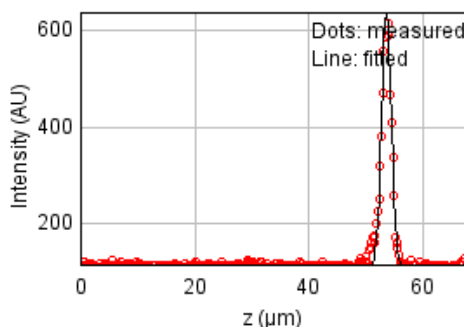
b = 0.046 px

c = 0.814 px

xc = 6.779 px

yc = 6.741 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34783.9714

Standard deviation: 10.64438

$R^2$ : 0.98045

Parameters:

a = 113.63403

b = 636.45085

c = 53.67209

d = 0.82807

## Bead 2836

Date : Mon Oct 17 13:53:48 PDT 2022

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

Frame size : 12 pixels

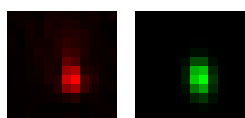
Coordinates : 137  $\mu\text{m}$  (x), 31.2  $\mu\text{m}$  (y), 54.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

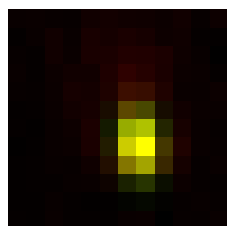
FWHM	Non corrected	Corrected	Theoretical
min	389 nm	406 nm	270 nm
max	617 nm	643 nm	270 nm
z	2.18 $\mu\text{m}$	2.19 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.631		
Theta	-84.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 591.773 (brightness)

B = 124.521 (background)

a = 0.879 px

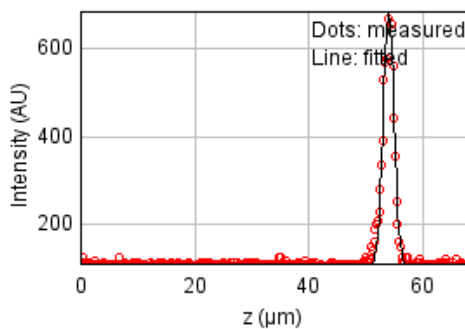
b = -0.054 px

c = 0.358 px

xc = 6.618 px

yc = 6.827 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37981.8322

Standard deviation: 11.12292

$R^2$ : 0.98409

Parameters:

a = 110.51560

b = 685.58591

c = 54.04649

d = 0.92659

## Bead 2837

Date : Mon Oct 17 13:53:48 PDT 2022

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

Frame size : 12 pixels

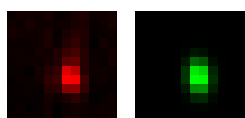
Coordinates : 90.3  $\mu\text{m}$  (x), 8.76  $\mu\text{m}$  (y), 54.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

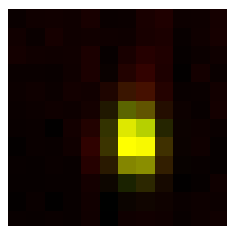
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	423 nm	270 nm
max	606 nm	631 nm	270 nm
z	2.22 $\mu\text{m}$	2.22 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.669		
Theta	-84.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 410.325$  (brightness)

$B = 121.995$  (background)

$a = 0.812$  px

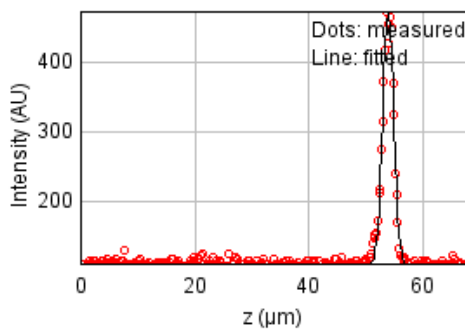
$b = -0.039$  px

$c = 0.369$  px

$x_c = 6.469$  px

$y_c = 6.681$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18904.8771

Standard deviation: 7.84725

$R^2: 0.98023$

Parameters:

$a = 111.76763$

$b = 472.42238$

$c = 53.97625$

$d = 0.94095$

## Bead 2838

Date : Mon Oct 17 13:53:48 PDT 2022

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

Frame size : 12 pixels

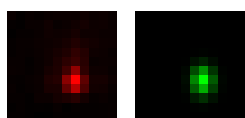
Coordinates : 89.1  $\mu\text{m}$  (x), -132 nm (y), 54.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

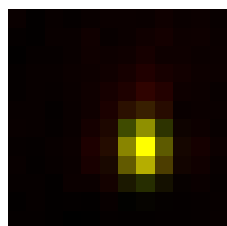
FWHM	Non corrected	Corrected	Theoretical
min	398 nm	414 nm	270 nm
max	528 nm	550 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.753		
Theta	89.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 583.383 (brightness)

B = 126.861 (background)

a = 0.849 px

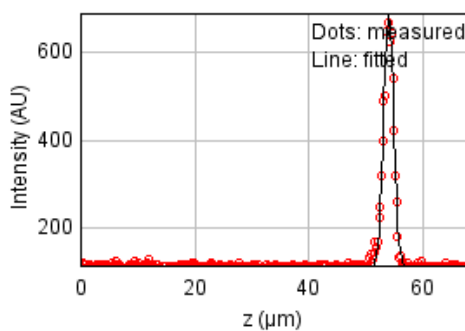
b = 0.000 px

c = 0.481 px

$x_c = 6.886$  px

$y_c = 7.098$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27375.9458

Standard deviation: 9.44312

$R^2$ : 0.98778

Parameters:

a = 112.55855

b = 690.96958

c = 54.04966

d = 0.85975

## Bead 2839

Date : Mon Oct 17 13:53:48 PDT 2022

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

Frame size : 12 pixels

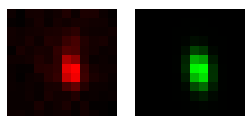
Coordinates : 131  $\mu\text{m}$  (x), -2.35  $\mu\text{m}$  (y), 53.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

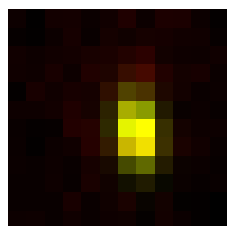
FWHM	Non corrected	Corrected	Theoretical
min	390 nm	406 nm	270 nm
max	665 nm	692 nm	270 nm
z	2.14 $\mu\text{m}$	2.15 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.587		
Theta	-82.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 305.160 (brightness)

B = 120.482 (background)

a = 0.871 px

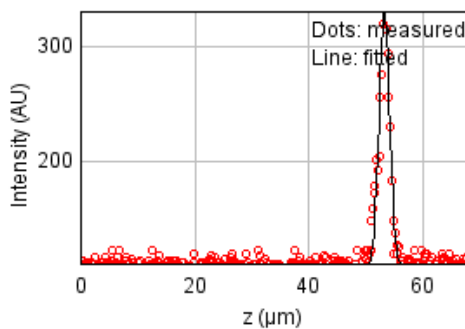
b = -0.079 px

c = 0.315 px

xc = 6.544 px

yc = 6.181 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17845.1347

Standard deviation: 7.62414

$R^2$ : 0.95035

Parameters:

a = 110.46348

b = 331.65309

c = 53.29941

d = 0.90995

## Bead 2840

Date : Mon Oct 17 13:53:48 PDT 2022

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

Frame size : 12 pixels

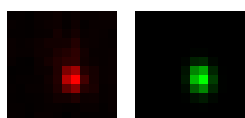
Coordinates : -40.8  $\mu\text{m}$  (x), -16.4  $\mu\text{m}$  (y), 54.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

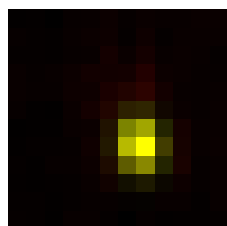
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	407 nm	270 nm
max	507 nm	528 nm	270 nm
z	2.09 $\mu\text{m}$	2.1 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.772		
Theta	-83.2°		

### 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:

$A = 729.213$  (brightness)

$B = 125.638$  (background)

$a = 0.872$  px

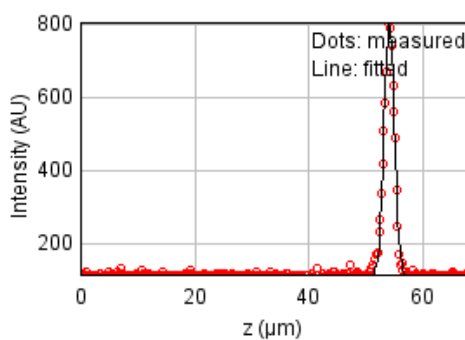
$b = -0.042$  px

$c = 0.528$  px

$x_c = 6.674$  px

$y_c = 6.881$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29066.9589

Standard deviation: 9.73040

$R^2: 0.99114$

Parameters:

$a = 114.11743$

$b = 805.23799$

$c = 54.15404$

$d = 0.88613$



## Bead 2841

Date : Mon Oct 17 13:53:48 PDT 2022

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

Frame size : 12 pixels

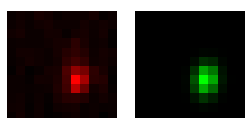
Coordinates : -146  $\mu\text{m}$  (x), -17.7  $\mu\text{m}$  (y), 53.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

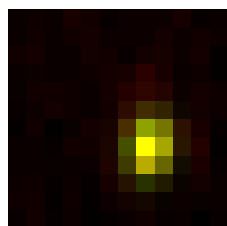
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	427 nm	270 nm
max	566 nm	590 nm	270 nm
z	2.27 $\mu\text{m}$	2.28 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.724		
Theta	82.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 382.971 (brightness)

B = 119.611 (background)

a = 0.791 px

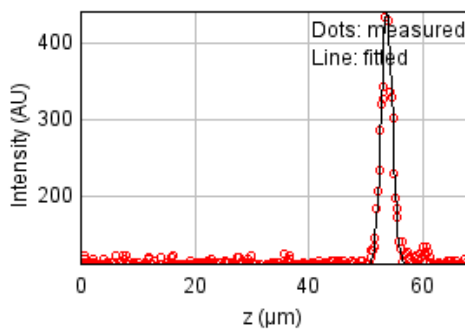
b = 0.048 px

c = 0.424 px

$x_c = 7.232$  px

$y_c = 7.004$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27538.6629

Standard deviation: 9.47114

$R^2$ : 0.96699

Parameters:

a = 111.56879

b = 442.01197

c = 53.72734

d = 0.96569

## Bead 2842 (Rejected)

Date : Mon Oct 17 13:53:48 PDT 2022

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

Frame size : 12 pixels

Coordinates : 21.4  $\mu\text{m}$  (x), -30.2  $\mu\text{m}$  (y), 50.3  $\mu\text{m}$  (z)

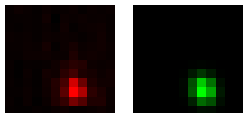
Corresponding bead : Not found

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

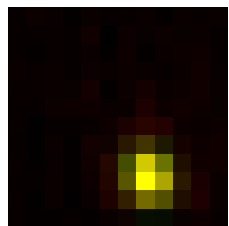
FWHM	Non corrected	Corrected	Theoretical
min	415 nm	433 nm	270 nm
max	500 nm	521 nm	270 nm
z	3.18 $\mu\text{m}$	3.19 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.83		
Theta	-72.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 575.960 (brightness)

B = 122.587 (background)

a = 0.755 px

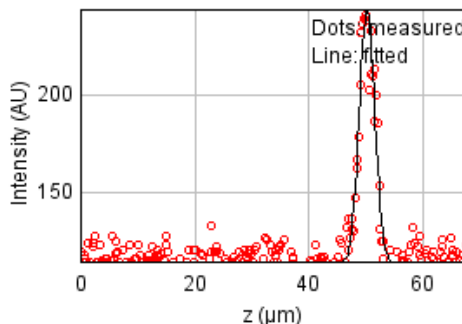
b = -0.070 px

c = 0.558 px

xc = 7.192 px

yc = 8.737 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16413.8543

Standard deviation: 7.31200

$R^2$ : 0.91245

Parameters:

a = 113.86347

b = 244.00078

c = 50.26687

d = 1.34888

## Bead 2843

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

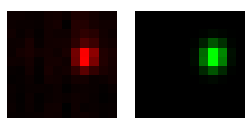
Coordinates : -103  $\mu\text{m}$  (x), -40.0  $\mu\text{m}$  (y), 23.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

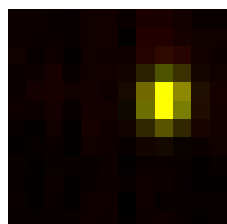
FWHM	Non corrected	Corrected	Theoretical
min	417 nm	434 nm	270 nm
max	494 nm	515 nm	270 nm
z	2.28 $\mu\text{m}$	2.29 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.843		
Theta	81.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 442.159$  (brightness)

$B = 116.557$  (background)

$a = 0.767$  px

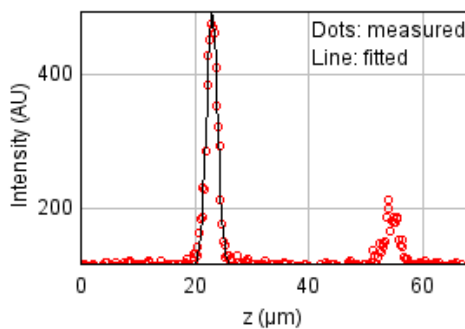
$b = 0.033$  px

$c = 0.554$  px

$x_c = 8.067$  px

$y_c = 4.491$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 82447.9051

Standard deviation: 16.38780

$R^2: 0.92706$

Parameters:

$a = 116.85039$

$b = 492.77628$

$c = 23.10349$

$d = 0.96962$

## Bead 2844

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

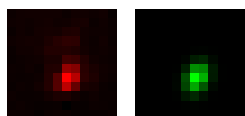
Coordinates : -34.0  $\mu\text{m}$  (x), -41.5  $\mu\text{m}$  (y), 54.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

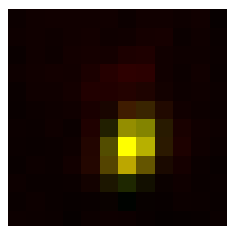
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	414 nm	270 nm
max	552 nm	575 nm	270 nm
z	2.33 $\mu\text{m}$	2.34 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.72		
Theta	66.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 805.574 (brightness)

B = 131.650 (background)

a = 0.783 px

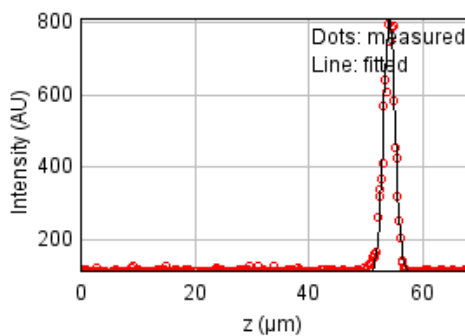
b = 0.152 px

c = 0.508 px

xc = 6.262 px

yc = 7.001 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 68963.1551

Standard deviation: 14.98785

$R^2$ : 0.98156

Parameters:

a = 114.41393

b = 810.73196

c = 54.17164

d = 0.99090

## Bead 2845 (Rejected)

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

Coordinates : 30.6  $\mu\text{m}$  (x), -56.1  $\mu\text{m}$  (y), 52.5  $\mu\text{m}$  (z)

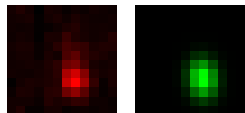
Corresponding bead : Not found

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

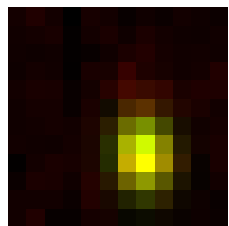
FWHM	Non corrected	Corrected	Theoretical
min	518 nm	540 nm	270 nm
max	714 nm	744 nm	270 nm
z	2.14 $\mu\text{m}$	2.15 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.725		
Theta	-84.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 223.998 (brightness)

B = 121.341 (background)

a = 0.497 px

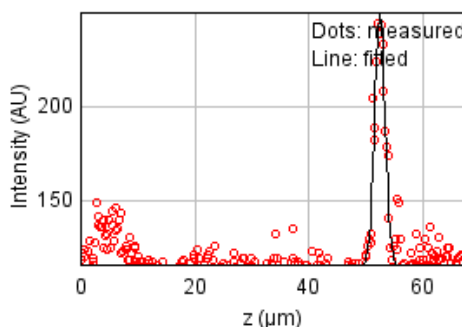
b = -0.024 px

c = 0.265 px

xc = 6.866 px

yc = 7.528 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30189.8964

Standard deviation: 9.91657

$R^2$ : 0.80470

Parameters:

a = 116.03821

b = 249.56637

c = 52.51334

d = 0.90919

## Bead 2846

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

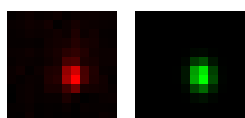
Coordinates : -52.0  $\mu\text{m}$  (x), -65.8  $\mu\text{m}$  (y), 53.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

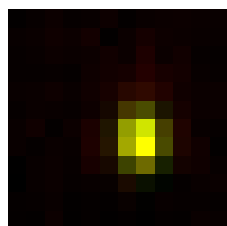
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	418 nm	270 nm
max	521 nm	543 nm	270 nm
z	2.11 $\mu\text{m}$	2.12 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.771		
Theta	-86.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 489.552 (brightness)

B = 122.731 (background)

a = 0.830 px

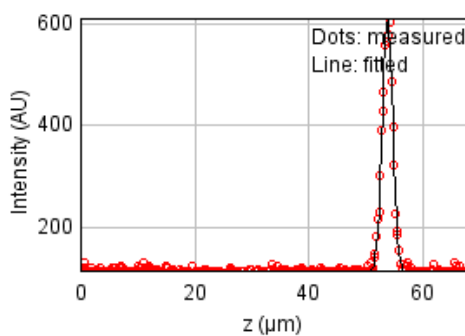
b = -0.024 px

c = 0.496 px

xc = 6.739 px

yc = 6.600 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25832.2405

Standard deviation: 9.17301

$R^2$ : 0.98496

Parameters:

a = 113.68929

b = 609.09033

c = 53.85794

d = 0.89799

## Bead 2847

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

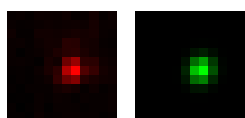
Coordinates : -89.4  $\mu\text{m}$  (x), -69.2  $\mu\text{m}$  (y), 54.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

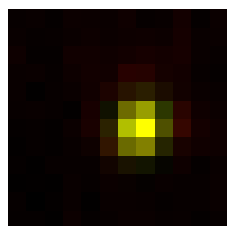
FWHM	Non corrected	Corrected	Theoretical
min	425 nm	443 nm	270 nm
max	486 nm	506 nm	270 nm
z	1.99 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.875		
Theta	72.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 610.706 (brightness)

B = 122.949 (background)

a = 0.726 px

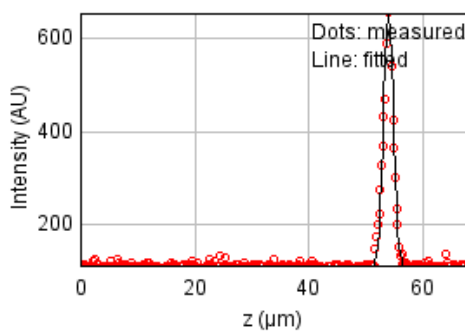
b = 0.051 px

c = 0.584 px

xc = 6.704 px

yc = 5.935 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40495.7341

Standard deviation: 11.48512

$R^2$ : 0.97918

Parameters:

a = 112.73148

b = 654.05062

c = 54.02101

d = 0.84419

## Bead 2848

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

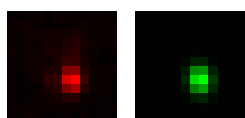
Coordinates : 78.7  $\mu\text{m}$  (x), 7.81  $\mu\text{m}$  (y), 54.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

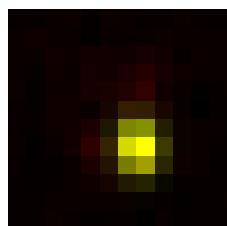
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	418 nm	270 nm
max	509 nm	530 nm	270 nm
z	2.08 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.789		
Theta	-82.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 581.126 (brightness)

B = 124.203 (background)

a = 0.826 px

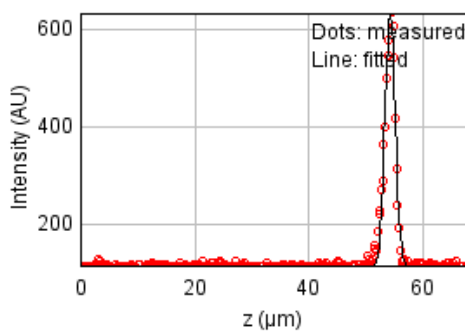
b = -0.039 px

c = 0.523 px

xc = 6.597 px

yc = 7.010 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 38725.8994

Standard deviation: 11.23134

$R^2$ : 0.97928

Parameters:

a = 113.15610

b = 632.09661

c = 54.30971

d = 0.88436



## Bead 2849 (Rejected)

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

Coordinates : -40.8  $\mu\text{m}$  (x), 5.5  $\mu\text{m}$  (y), 50.9  $\mu\text{m}$  (z)

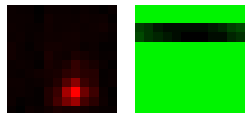
Corresponding bead : Not found

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

FWHM	Non corrected	Corrected	Theoretical
min	147 nm	153 nm	270 nm
max	3.7 $\mu\text{m}$	3.85 $\mu\text{m}$	270 nm
z	3.52 $\mu\text{m}$	3.53 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.04		
Theta	-0.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.057$

Parameters:

A = -90.480 (brightness)

B = 143.617 (background)

a = -0.010 px

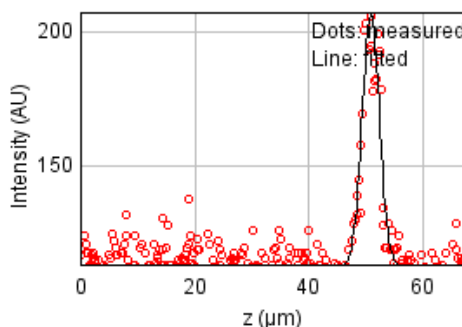
b = -0.011 px

c = 6.187 px

xc = 5.621 px

yc = 2.503 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17155.5173

Standard deviation: 7.47537

$R^2$ : 0.85275

Parameters:

a = 112.86584

b = 207.50968

c = 50.93256

d = 1.49332

## Bead 2850

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

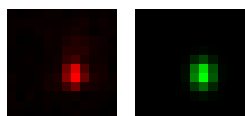
Coordinates : -90.4  $\mu\text{m}$  (x), -2.89  $\mu\text{m}$  (y), 53.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

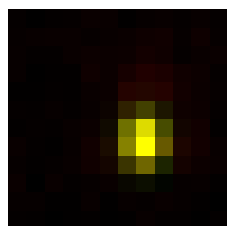
FWHM	Non corrected	Corrected	Theoretical
min	394 nm	411 nm	270 nm
max	501 nm	522 nm	270 nm
z	2.03 $\mu\text{m}$	2.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.787		
Theta	-89.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 561.137 (brightness)

B = 122.071 (background)

a = 0.864 px

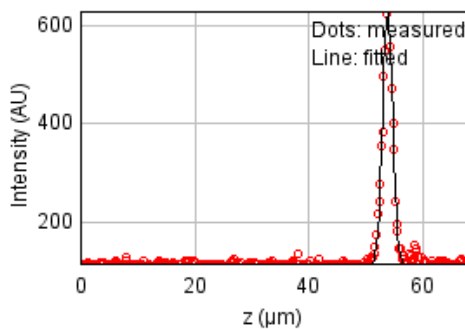
b = -0.003 px

c = 0.535 px

$x_c = 6.887$  px

$y_c = 6.643$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24252.2863

Standard deviation: 8.88806

$R^2$ : 0.98640

Parameters:

a = 113.67290

b = 628.16080

c = 53.87515

d = 0.86417

## Bead 2851

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

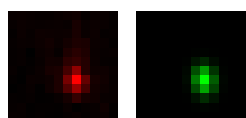
Coordinates : 130  $\mu\text{m}$  (x), -26.5  $\mu\text{m}$  (y), 54.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

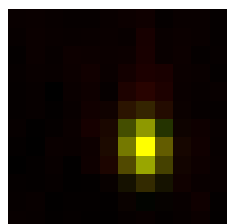
FWHM	Non corrected	Corrected	Theoretical
min	389 nm	405 nm	270 nm
max	535 nm	557 nm	270 nm
z	1.92 $\mu\text{m}$	1.93 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.727		
Theta	-84.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 498.397 (brightness)

B = 119.867 (background)

a = 0.882 px

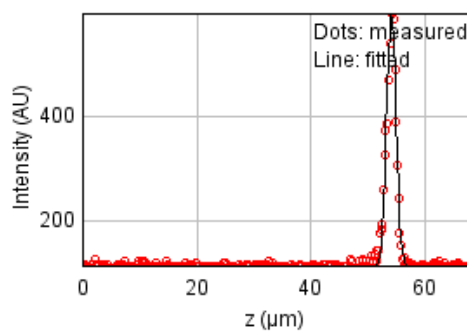
b = -0.039 px

c = 0.472 px

xc = 6.926 px

yc = 7.036 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28760.4770

Standard deviation: 9.67896

$R^2$ : 0.98102

Parameters:

a = 111.78765

b = 597.79016

c = 54.17338

d = 0.81616

## Bead 2852

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

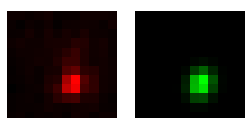
Coordinates : -87.4  $\mu\text{m}$  (x), -27.7  $\mu\text{m}$  (y), 54.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

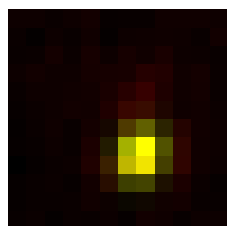
FWHM	Non corrected	Corrected	Theoretical
min	416 nm	433 nm	270 nm
max	506 nm	527 nm	270 nm
z	1.92 $\mu\text{m}$	1.93 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.822		
Theta	72.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 607.411 (brightness)

B = 128.551 (background)

a = 0.753 px

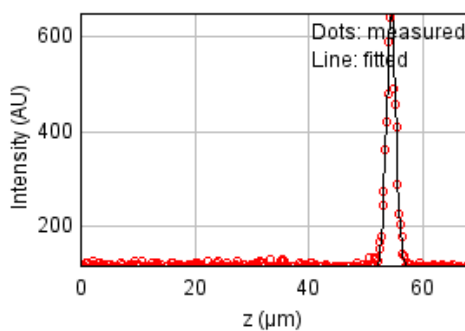
b = 0.071 px

c = 0.545 px

xc = 6.704 px

yc = 7.434 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31544.2298

Standard deviation: 10.13656

$R^2$ : 0.98287

Parameters:

a = 114.70337

b = 651.09008

c = 54.50135

d = 0.81558

## Bead 2853

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

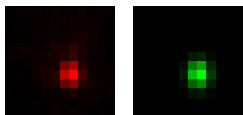
Coordinates : -9.31  $\mu\text{m}$  (x), -70.9  $\mu\text{m}$  (y), 54.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

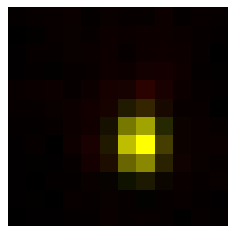
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	412 nm	270 nm
max	498 nm	519 nm	270 nm
z	1.94 $\mu\text{m}$	1.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.794		
Theta	89.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 669.081 (brightness)

B = 123.342 (background)

a = 0.858 px

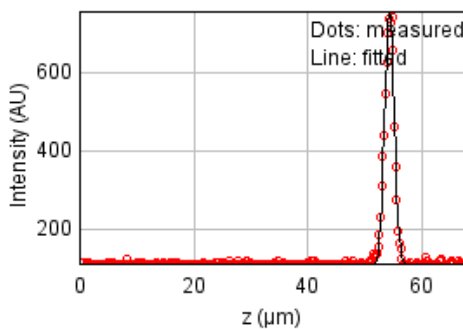
b = 0.002 px

c = 0.540 px

$x_c = 6.677$  px

$y_c = 6.918$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27941.4801

Standard deviation: 9.54016

$R^2$ : 0.98946

Parameters:

a = 113.02553

b = 755.79750

c = 54.37483

d = 0.82311

## Bead 2854

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

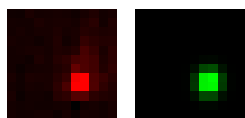
Coordinates : -43.9  $\mu\text{m}$  (x), -78.1  $\mu\text{m}$  (y), 54.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

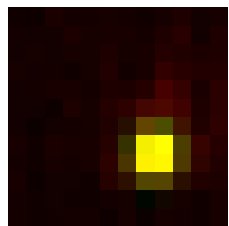
FWHM	Non corrected	Corrected	Theoretical
min	423 nm	441 nm	270 nm
max	467 nm	486 nm	270 nm
z	2.32 $\mu\text{m}$	2.33 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.906		
Theta	82.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 558.773$  (brightness)

$B = 126.906$  (background)

$a = 0.748$  px

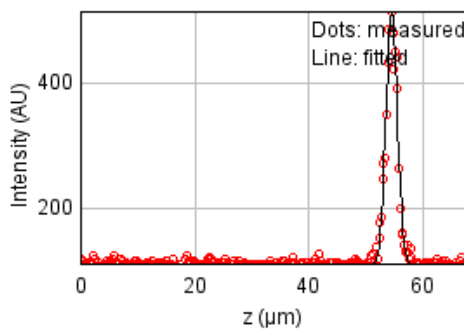
$b = 0.018$  px

$c = 0.618$  px

$x_c = 7.531$  px

$y_c = 7.487$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27812.8987

Standard deviation: 9.51818

$R^2: 0.97735$

Parameters:

$a = 113.24587$

$b = 512.19265$

$c = 54.59325$

$d = 0.98697$

## Bead 2855

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

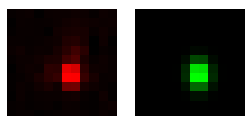
Coordinates : 107  $\mu\text{m}$  (x), -82.3  $\mu\text{m}$  (y), 54.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

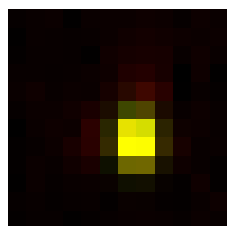
FWHM	Non corrected	Corrected	Theoretical
min	385 nm	401 nm	270 nm
max	509 nm	530 nm	270 nm
z	2.31 $\mu\text{m}$	2.32 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.757		
Theta	-88.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 631.525 (brightness)

B = 121.519 (background)

a = 0.903 px

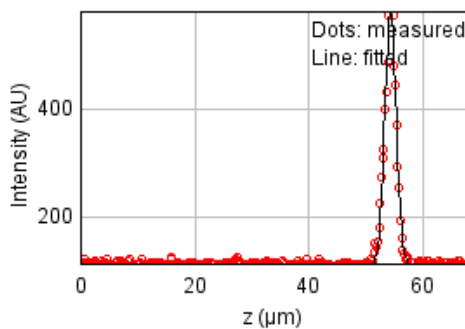
b = -0.008 px

c = 0.517 px

xc = 6.492 px

yc = 6.627 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20675.7896

Standard deviation: 8.20657

$R^2$ : 0.98760

Parameters:

a = 111.71562

b = 580.60988

c = 54.38083

d = 0.97981

## Bead 2856 (Rejected)

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

Coordinates : 120  $\mu\text{m}$  (x), 70.9  $\mu\text{m}$  (y), 54.2  $\mu\text{m}$  (z)

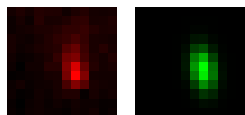
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

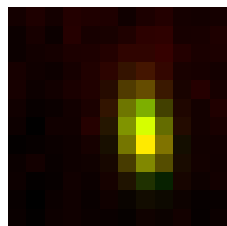
FWHM	Non corrected	Corrected	Theoretical
min	434 nm	452 nm	270 nm
max	782 nm	814 nm	270 nm
z	1.92 $\mu\text{m}$	1.92 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.555		
Theta	-81.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.878$



Parameters:

A = 302.123 (brightness)

B = 124.411 (background)

a = 0.703 px

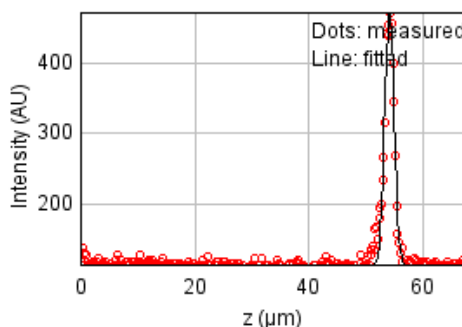
b = -0.072 px

c = 0.230 px

xc = 6.917 px

yc = 6.288 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29322.9162

Standard deviation: 9.77315

$R^2$ : 0.96573

Parameters:

a = 111.74406

b = 474.62320

c = 54.19177

d = 0.81359



## Bead 2857

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

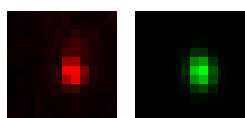
Coordinates : -117  $\mu\text{m}$  (x), 64.1  $\mu\text{m}$  (y), 54.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

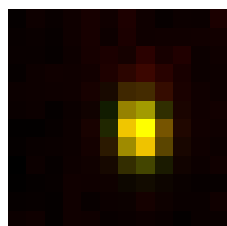
FWHM	Non corrected	Corrected	Theoretical
min	441 nm	459 nm	270 nm
max	594 nm	618 nm	270 nm
z	1.94 $\mu\text{m}$	1.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.743		
Theta	-82.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 466.443 (brightness)

B = 120.103 (background)

a = 0.684 px

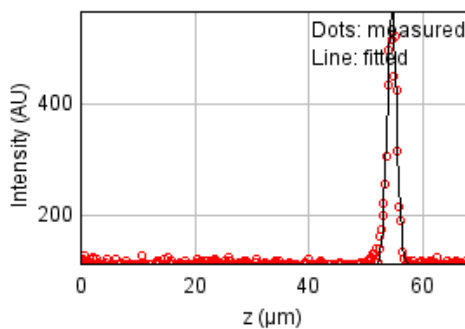
b = -0.041 px

c = 0.386 px

xc = 6.693 px

yc = 6.118 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47420.0176

Standard deviation: 12.42830

$R^2$ : 0.96510

Parameters:

a = 113.04229

b = 567.30897

c = 54.63737

d = 0.82421

## Bead 2858

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

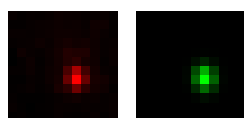
Coordinates : -55.0  $\mu\text{m}$  (x), 49.2  $\mu\text{m}$  (y), 54.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

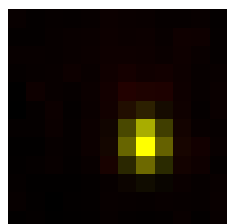
FWHM	Non corrected	Corrected	Theoretical
min	375 nm	391 nm	270 nm
max	458 nm	477 nm	270 nm
z	1.85 $\mu\text{m}$	1.86 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.818		
Theta	-84.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 632.238$  (brightness)

$B = 122.263$  (background)

$a = 0.951$  px

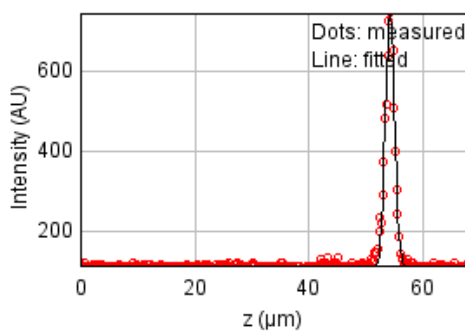
$b = -0.029$  px

$c = 0.642$  px

$x_c = 6.983$  px

$y_c = 6.804$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35250.3265

Standard deviation: 10.71550

$R^2: 0.98557$

Parameters:

$a = 114.09166$

$b = 743.84095$

$c = 54.28907$

$d = 0.78559$

## Bead 2859

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

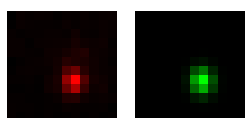
Coordinates : -15.4  $\mu\text{m}$  (x), 32.0  $\mu\text{m}$  (y), 54.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

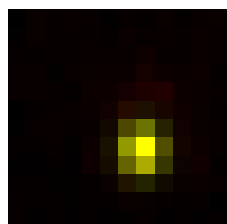
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	413 nm	270 nm
max	475 nm	495 nm	270 nm
z	1.74 $\mu\text{m}$	1.74 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.835		
Theta	-86.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 827.388$  (brightness)

$B = 126.835$  (background)

$a = 0.851$  px

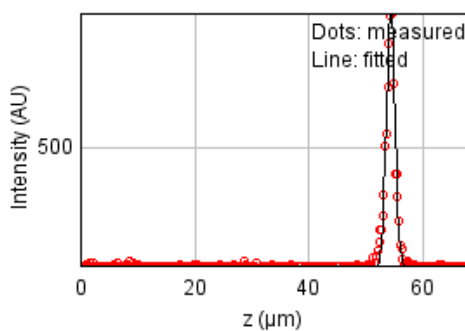
$b = -0.014$  px

$c = 0.595$  px

$x_c = 6.804$  px

$y_c = 7.162$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 85902.0945

Standard deviation: 16.72756

$R^2 = 0.97850$

Parameters:

$a = 114.40837$

$b = 941.86941$

$c = 54.41998$

$d = 0.73699$

## Bead 2860

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

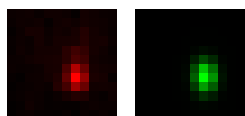
Coordinates : 118 um (x), 29.6 um (y), 54.5 um (z)

Corresponding bead : Not found

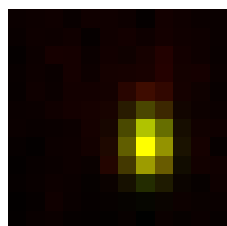
FWHM	Non corrected	Corrected	Theoretical
min	416 nm	433 nm	270 nm
max	592 nm	617 nm	270 nm
z	2.02 um	2.03 um	1.3 um
Asymmetry	0.702		
Theta	-88.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 518.381 (brightness)

B = 124.487 (background)

a = 0.777 px

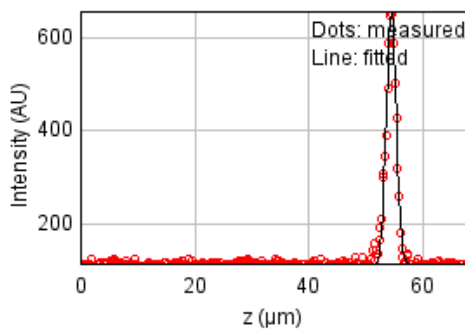
b = -0.008 px

c = 0.383 px

xc = 7.141 px

yc = 6.856 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35853.7270

Standard deviation: 10.80682

$R^2$ : 0.98205

Parameters:

a = 111.97952

b = 656.99900

c = 54.52407

d = 0.85804

## Bead 2861 (Rejected)

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

Coordinates : -77.2  $\mu\text{m}$  (x), 28.9  $\mu\text{m}$  (y), 51.3  $\mu\text{m}$  (z)

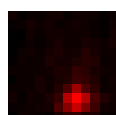
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	270 nm
max	0	0	270 nm
z	2.94 $\mu\text{m}$	2.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

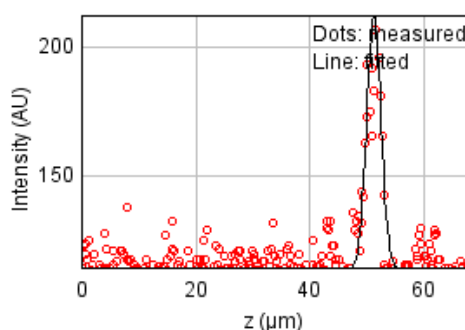
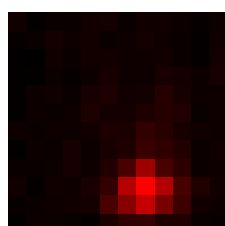
### XY profile & fitting parameters :

(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: 24168.0381

Standard deviation: 8.87261

R<sup>2</sup>: 0.78765

Parameters:

a = 114.14576

b = 211.84919

c = 51.28882

d = 1.24694

## Bead 2862

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

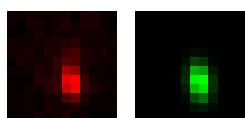
Coordinates : 131  $\mu\text{m}$  (x), -2.35  $\mu\text{m}$  (y), 53.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

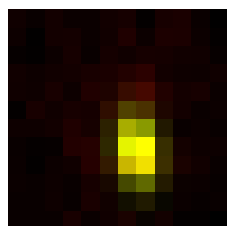
FWHM	Non corrected	Corrected	Theoretical
min	389 nm	405 nm	270 nm
max	663 nm	691 nm	270 nm
z	2.14 $\mu\text{m}$	2.15 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.586		
Theta	-82.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 305.390$  (brightness)

$B = 120.837$  (background)

$a = 0.877$  px

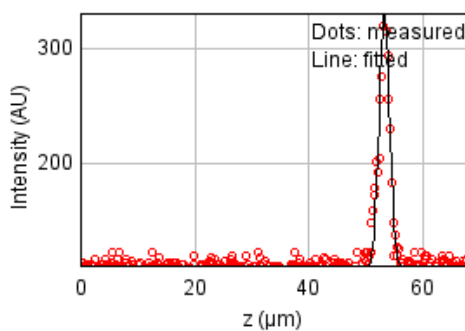
$b = -0.079$  px

$c = 0.316$  px

$x_c = 6.544$  px

$y_c = 7.181$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17845.1347

Standard deviation: 7.62414

$R^2: 0.95035$

Parameters:

$a = 110.46348$

$b = 331.65309$

$c = 53.29941$

$d = 0.90995$

## Bead 2863

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

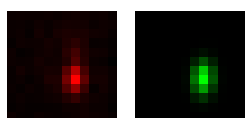
Coordinates : 131  $\mu\text{m}$  (x), -39.7  $\mu\text{m}$  (y), 54.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

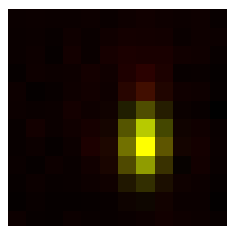
FWHM	Non corrected	Corrected	Theoretical
min	374 nm	389 nm	270 nm
max	608 nm	634 nm	270 nm
z	1.93 $\mu\text{m}$	1.93 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.615		
Theta	87.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 400.788$  (brightness)

$B = 117.776$  (background)

$a = 0.959$  px

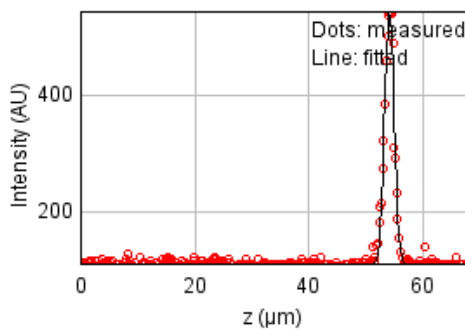
$b = 0.027$  px

$c = 0.364$  px

$x_c = 6.929$  px

$y_c = 6.829$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24881.1650

Standard deviation: 9.00256

$R^2: 0.97928$

Parameters:

$a = 111.53654$

$b = 543.35672$

$c = 54.17873$

$d = 0.81762$

## Bead 2864

Date : Mon Oct 17 13:53:49 PDT 2022

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

Frame size : 12 pixels

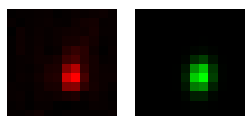
Coordinates : 17.1  $\mu\text{m}$  (x), -54.9  $\mu\text{m}$  (y), 54.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

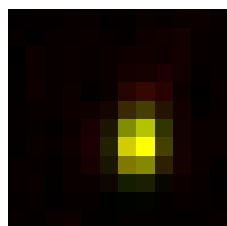
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	422 nm	270 nm
max	551 nm	574 nm	270 nm
z	1.97 $\mu\text{m}$	1.98 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.736		
Theta	82.4°		

### 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 = 575.048 (brightness)

B = 121.901 (background)

a = 0.809 px

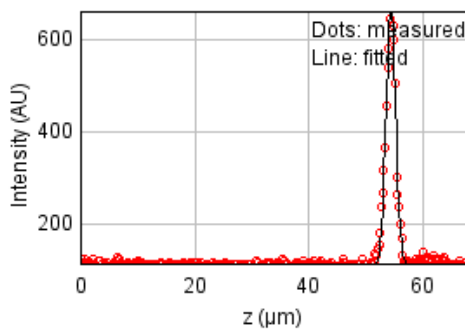
b = 0.049 px

c = 0.449 px

xc = 6.645 px

yc = 6.837 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 36540.5381

Standard deviation: 10.90984

$R^2$ : 0.98171

Parameters:

a = 114.00651

b = 665.93567

c = 54.44740

d = 0.83564



## Bead 2865

Date : Mon Oct 17 13:53:50 PDT 2022

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

Frame size : 12 pixels

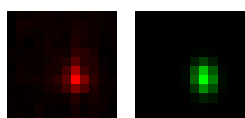
Coordinates : 151  $\mu\text{m}$  (x), -60.4  $\mu\text{m}$  (y), 53.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

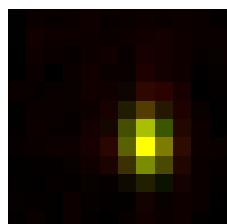
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	413 nm	270 nm
max	552 nm	575 nm	270 nm
z	2.08 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.718		
Theta	-84.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 323.183 (brightness)

B = 117.997 (background)

a = 0.850 px

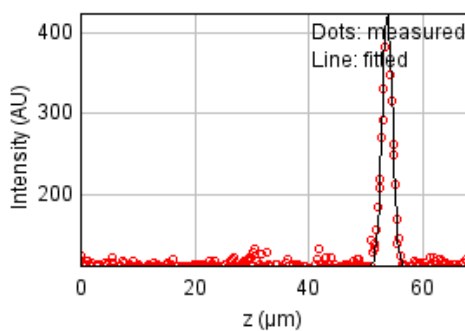
b = -0.040 px

c = 0.444 px

$x_c = 7.066$  px

$y_c = 6.827$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20400.0166

Standard deviation: 8.15166

$R^2$ : 0.97040

Parameters:

a = 110.75394

b = 424.41982

c = 53.82552

d = 0.88470

## Bead 2866

Date : Mon Oct 17 13:53:50 PDT 2022

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

Frame size : 12 pixels

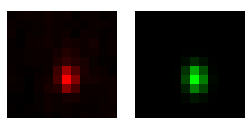
Coordinates : -123  $\mu\text{m}$  (x), 87.9  $\mu\text{m}$  (y), 54.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

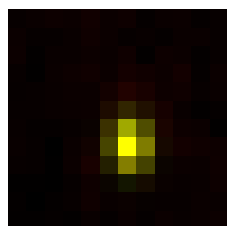
FWHM	Non corrected	Corrected	Theoretical
min	363 nm	378 nm	270 nm
max	493 nm	513 nm	270 nm
z	1.93 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.737		
Theta	-85.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 435.505 (brightness)

B = 117.651 (background)

a = 1.016 px

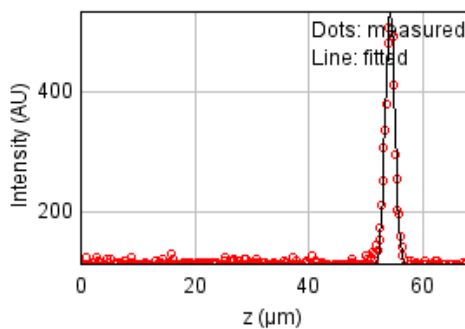
b = -0.036 px

c = 0.555 px

xc = 6.141 px

yc = 6.877 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 21532.4229

Standard deviation: 8.37485

$R^2$ : 0.98113

Parameters:

a = 112.32978

b = 533.35503

c = 54.31061

d = 0.81913

## Bead 2867

Date : Mon Oct 17 13:53:50 PDT 2022

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

Frame size : 12 pixels

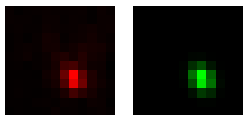
Coordinates : -9.68  $\mu\text{m}$  (x), 87.6  $\mu\text{m}$  (y), 54.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

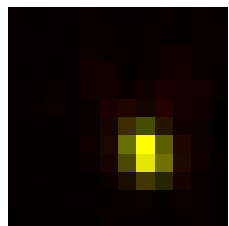
FWHM	Non corrected	Corrected	Theoretical
min	370 nm	385 nm	270 nm
max	477 nm	497 nm	270 nm
z	1.79 $\mu\text{m}$	1.8 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.775		
Theta	-66.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 669.902 (brightness)

B = 123.665 (background)

a = 0.921 px

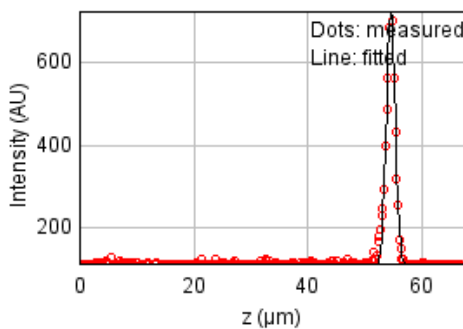
b = -0.142 px

c = 0.651 px

$x_c = 7.023$  px

$y_c = 7.424$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28512.2844

Standard deviation: 9.63711

$R^2$ : 0.98718

Parameters:

a = 113.23740

b = 724.30735

c = 54.60951

d = 0.75978

## Bead 2868

Date : Mon Oct 17 13:53:50 PDT 2022

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

Frame size : 12 pixels

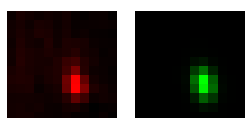
Coordinates : 89.8  $\mu\text{m}$  (x), 83.2  $\mu\text{m}$  (y), 54.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

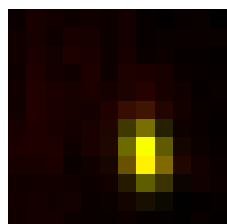
FWHM	Non corrected	Corrected	Theoretical
min	371 nm	386 nm	270 nm
max	560 nm	583 nm	270 nm
z	1.78 $\mu\text{m}$	1.78 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.663		
Theta	-78.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 553.533 (brightness)

B = 142.439 (background)

a = 0.955 px

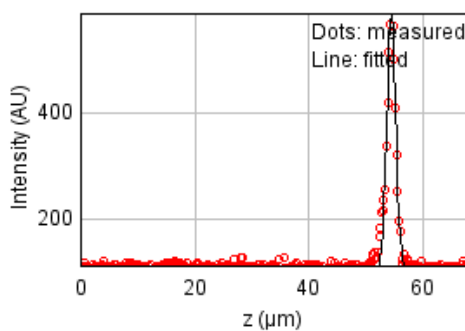
b = -0.104 px

c = 0.449 px

$x_c = 7.005$  px

$y_c = 7.436$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31975.6347

Standard deviation: 10.20564

$R^2$ : 0.97579

Parameters:

a = 113.61539

b = 583.42020

c = 54.52236

d = 0.75464

## Bead 2869

Date : Mon Oct 17 13:53:50 PDT 2022

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

Frame size : 12 pixels

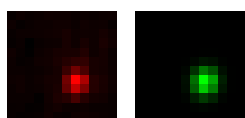
Coordinates : -115  $\mu\text{m}$  (x), 45.6  $\mu\text{m}$  (y), 54.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

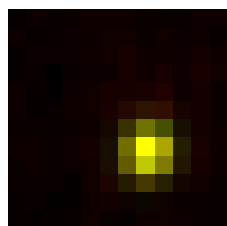
FWHM	Non corrected	Corrected	Theoretical
min	456 nm	475 nm	270 nm
max	513 nm	534 nm	270 nm
z	1.9 $\mu\text{m}$	1.91 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.89		
Theta	78.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 550.927$  (brightness)

$B = 119.433$  (background)

$a = 0.639$  px

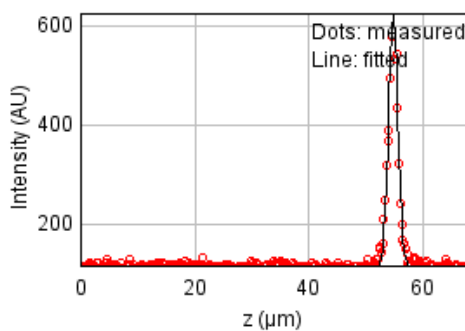
$b = 0.026$  px

$c = 0.515$  px

$x_c = 7.147$  px

$y_c = 7.257$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 32857.2185

Standard deviation: 10.34537

$R^2: 0.98030$

Parameters:

$a = 114.93307$

$b = 627.13890$

$c = 54.86415$

$d = 0.80751$

## Bead 2870

Date : Mon Oct 17 13:53:50 PDT 2022

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

Frame size : 12 pixels

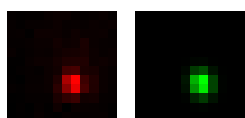
Coordinates : -101  $\mu\text{m}$  (x), 41.4  $\mu\text{m}$  (y), 55.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

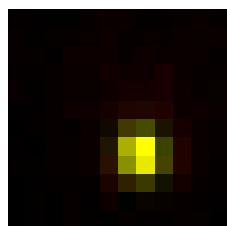
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	407 nm	270 nm
max	455 nm	474 nm	270 nm
z	1.79 $\mu\text{m}$	1.8 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.859		
Theta	-77.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 748.913$  (brightness)

$B = 127.997$  (background)

$a = 0.866$  px

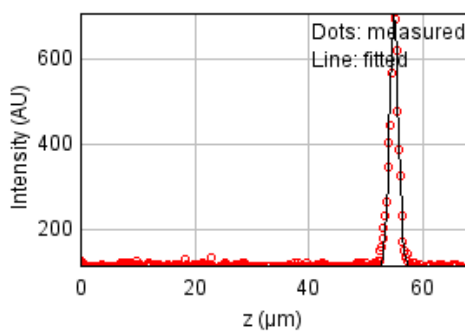
$b = -0.049$  px

$c = 0.659$  px

$x_c = 6.741$  px

$y_c = 7.409$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37598.0175

Standard deviation: 11.06658

$R^2: 0.98222$

Parameters:

$a = 113.84927$

$b = 708.05739$

$c = 54.99039$

$d = 0.76059$

## Bead 2871

Date : Mon Oct 17 13:53:50 PDT 2022

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

Frame size : 12 pixels

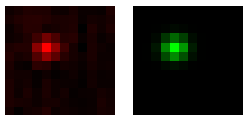
Coordinates : -158  $\mu\text{m}$  (x), 13.5  $\mu\text{m}$  (y), 6.43  $\mu\text{m}$  (z)

Corresponding bead : Not found

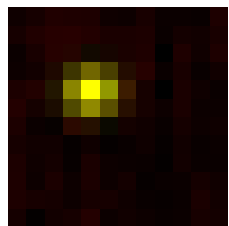
FWHM	Non corrected	Corrected	Theoretical
min	419 nm	437 nm	270 nm
max	481 nm	501 nm	270 nm
z	2.73 $\mu\text{m}$	2.74 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.872		
Theta	3.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 190.605 (brightness)

B = 114.054 (background)

a = 0.581 px

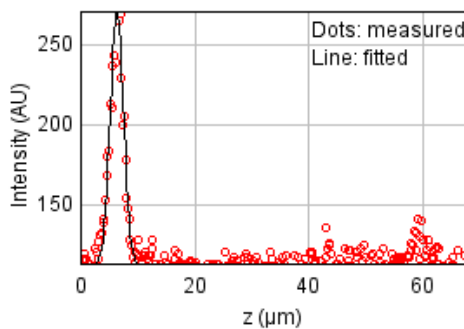
b = 0.012 px

c = 0.763 px

xc = 4.055 px

yc = 4.094 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 2872

Date : Mon Oct 17 13:53:50 PDT 2022

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

Frame size : 12 pixels

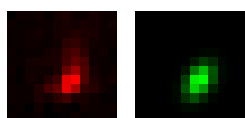
Coordinates : 127  $\mu\text{m}$  (x), -11.6  $\mu\text{m}$  (y), 54.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

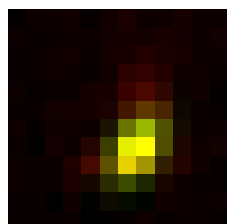
FWHM	Non corrected	Corrected	Theoretical
min	422 nm	440 nm	270 nm
max	658 nm	686 nm	270 nm
z	2.12 $\mu\text{m}$	2.13 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.641		
Theta	58.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 359.627 (brightness)

B = 121.680 (background)

a = 0.634 px

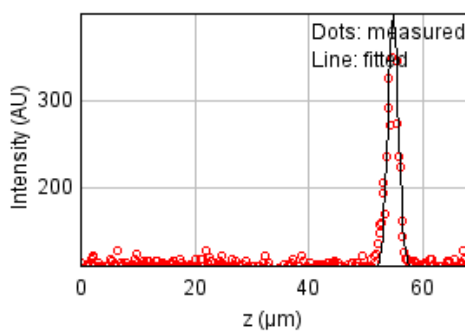
b = 0.197 px

c = 0.429 px

xc = 6.524 px

yc = 7.099 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 42728.1279

Standard deviation: 11.79744

$R^2$ : 0.93164

Parameters:

a = 110.52747

b = 400.69487

c = 54.84910

d = 0.90092



## Bead 2873

Date : Mon Oct 17 13:53:50 PDT 2022

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

Frame size : 12 pixels

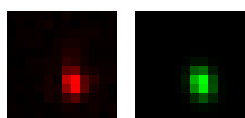
Coordinates : -158  $\mu\text{m}$  (x), -16.9  $\mu\text{m}$  (y), 54.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

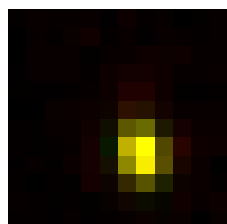
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	416 nm	270 nm
max	541 nm	563 nm	270 nm
z	1.99 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.738		
Theta	-76.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 512.273$  (brightness)

$B = 118.015$  (background)

$a = 0.821$  px

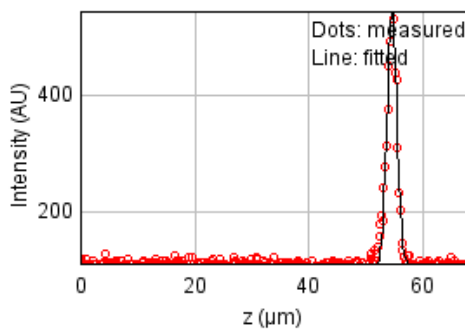
$b = -0.088$  px

$c = 0.480$  px

$x_c = 6.764$  px

$y_c = 7.373$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26105.3058

Standard deviation: 9.22136

$R^2: 0.97934$

Parameters:

$a = 110.68182$

$b = 546.23839$

$c = 54.65184$

$d = 0.84713$

## Bead 2874

Date : Mon Oct 17 13:53:51 PDT 2022

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

Frame size : 12 pixels

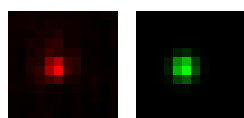
Coordinates : -148  $\mu\text{m}$  (x), -75.5  $\mu\text{m}$  (y), 50.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

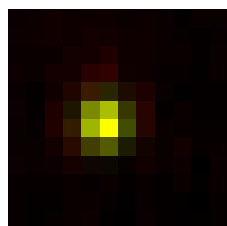
FWHM	Non corrected	Corrected	Theoretical
min	417 nm	434 nm	270 nm
max	447 nm	466 nm	270 nm
z	2.15 $\mu\text{m}$	2.16 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.932		
Theta	-86.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 479.626$  (brightness)

$B = 118.034$  (background)

$a = 0.771$  px

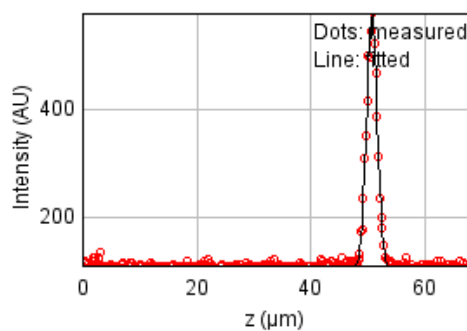
$b = -0.007$  px

$c = 0.671$  px

$x_c = 4.718$  px

$y_c = 5.720$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17254.9937

Standard deviation: 7.49701

$R^2: 0.98879$

Parameters:

$a = 110.95324$

$b = 576.76254$

$c = 50.77051$

$d = 0.91466$

## Bead 2875 (Rejected)

Date : Mon Oct 17 13:53:51 PDT 2022

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

Frame size : 12 pixels

Coordinates : 37.1  $\mu\text{m}$  (x), 90.3  $\mu\text{m}$  (y), 52.4  $\mu\text{m}$  (z)

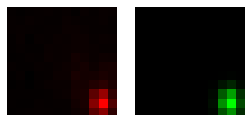
Corresponding bead : Not found

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

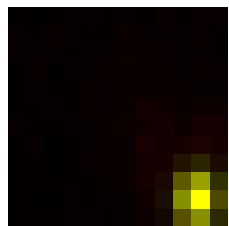
FWHM	Non corrected	Corrected	Theoretical
min	383 nm	399 nm	270 nm
max	507 nm	528 nm	270 nm
z	2.3 $\mu\text{m}$	2.31 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.756		
Theta	89.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1112.426 (brightness)

B = 133.761 (background)

a = 0.914 px

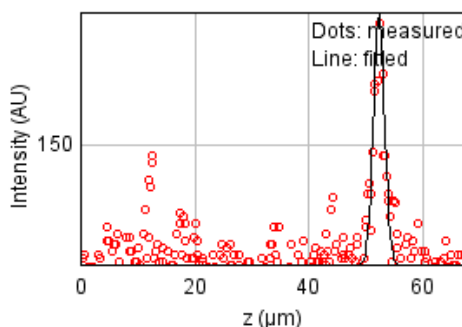
b = 0.005 px

c = 0.522 px

xc = 9.818 px

yc = 9.944 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17250.6723

Standard deviation: 7.49607

$R^2$ : 0.70394

Parameters:

a = 114.59093

b = 188.68893

c = 52.35993

d = 0.97719

## Bead 2876

Date : Mon Oct 17 13:53:51 PDT 2022

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

Frame size : 12 pixels

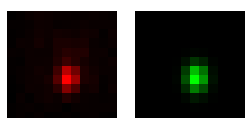
Coordinates : -121  $\mu\text{m}$  (x), 54.9  $\mu\text{m}$  (y), 55.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

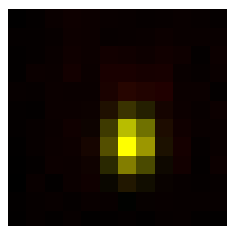
FWHM	Non corrected	Corrected	Theoretical
min	398 nm	414 nm	270 nm
max	517 nm	538 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.77		
Theta	89.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 650.975 (brightness)

B = 123.332 (background)

a = 0.849 px

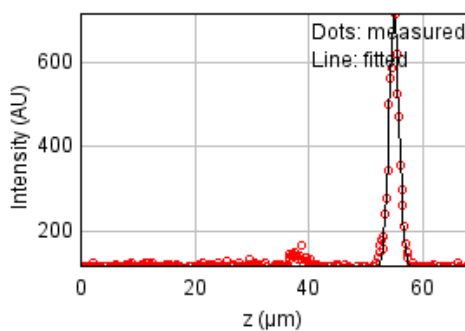
b = 0.004 px

c = 0.503 px

xc = 6.191 px

yc = 6.798 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40797.1288

Standard deviation: 11.52778

$R^2$ : 0.98309

Parameters:

a = 115.82271

b = 715.05461

c = 55.00173

d = 0.85824

## Bead 2877 (Rejected)

Date : Mon Oct 17 13:53:51 PDT 2022

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

Frame size : 12 pixels

Coordinates : 76.5  $\mu\text{m}$  (x), 41.1  $\mu\text{m}$  (y), 51.1  $\mu\text{m}$  (z)

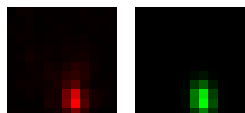
Corresponding bead : Not found

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

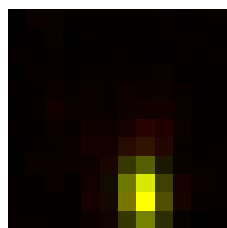
FWHM	Non corrected	Corrected	Theoretical
min	370 nm	385 nm	270 nm
max	586 nm	610 nm	270 nm
z	3.5 $\mu\text{m}$	3.51 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.631		
Theta	-84.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 682.865 (brightness)

B = 129.185 (background)

a = 0.977 px

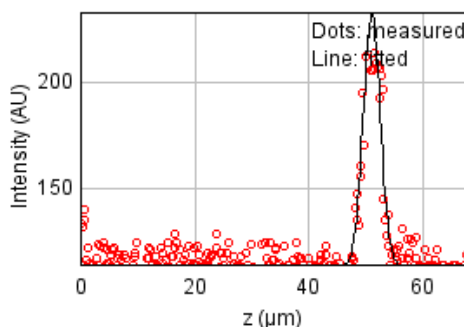
b = -0.057 px

c = 0.397 px

xc = 6.873 px

yc = 9.609 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 21498.3911

Standard deviation: 8.36823

$R^2$ : 0.88053

Parameters:

a = 113.52190

b = 233.31313

c = 51.10168

d = 1.48604

## Bead 2878 (Rejected)

Date : Mon Oct 17 13:53:51 PDT 2022

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

Frame size : 12 pixels

Coordinates : -77.0  $\mu\text{m}$  (x), 22.7  $\mu\text{m}$  (y), 32.1  $\mu\text{m}$  (z)

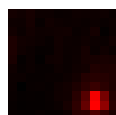
Corresponding bead : Not found

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	3.68 $\mu\text{m}$	3.69 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

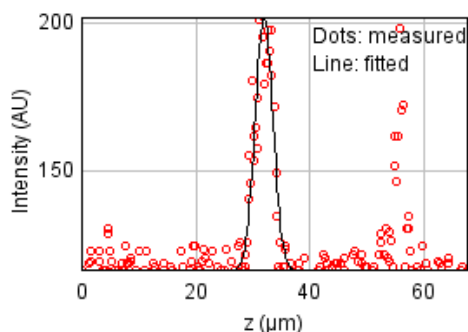
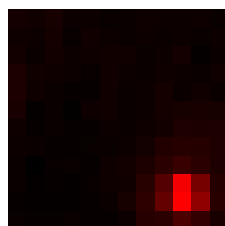
### XY profile & fitting parameters :

(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: 55432.7754

Standard deviation: 13.43737

R<sup>2</sup>: 0.60456

Parameters:

a = 116.47710

b = 202.11557

c = 32.05414

d = 1.56194

## Bead 2879

Date : Mon Oct 17 13:53:51 PDT 2022

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

Frame size : 12 pixels

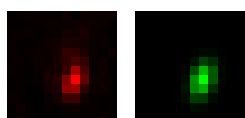
Coordinates : 129  $\mu\text{m}$  (x), 22.8  $\mu\text{m}$  (y), 55.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

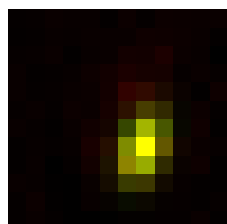
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	404 nm	270 nm
max	651 nm	678 nm	270 nm
z	1.94 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.596		
Theta	72.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 489.323 (brightness)

B = 121.812 (background)

a = 0.837 px

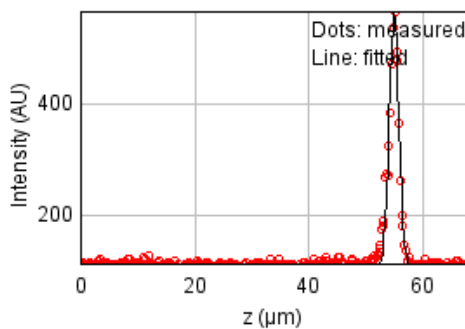
b = 0.168 px

c = 0.371 px

xc = 6.852 px

yc = 7.029 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 41567.2891

Standard deviation: 11.63608

$R^2$ : 0.96922

Parameters:

a = 112.19353

b = 566.45942

c = 55.00443

d = 0.82256

## Bead 2880

Date : Mon Oct 17 13:53:52 PDT 2022

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

Frame size : 12 pixels

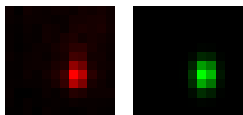
Coordinates : 85.0  $\mu\text{m}$  (x), -8.03  $\mu\text{m}$  (y), 55.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

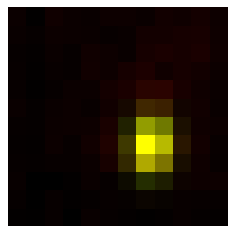
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	400 nm	270 nm
max	547 nm	570 nm	270 nm
z	1.99 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.701		
Theta	86.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 665.938 (brightness)

B = 130.586 (background)

a = 0.909 px

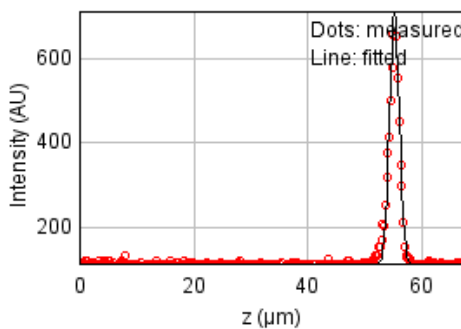
b = 0.029 px

c = 0.450 px

$x_c = 7.324$  px

$y_c = 7.020$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40280.9996

Standard deviation: 11.45463

$R^2$ : 0.98300

Parameters:

a = 112.17624

b = 710.78861

c = 55.23812

d = 0.84418



## Bead 2881

Date : Mon Oct 17 13:53:52 PDT 2022

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

Frame size : 12 pixels

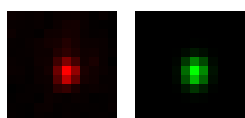
Coordinates : -91.3  $\mu\text{m}$  (x), -57.6  $\mu\text{m}$  (y), 55.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

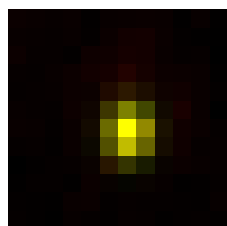
FWHM	Non corrected	Corrected	Theoretical
min	424 nm	442 nm	270 nm
max	522 nm	543 nm	270 nm
z	1.93 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.813		
Theta	88.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 610.793 (brightness)

B = 121.833 (background)

a = 0.745 px

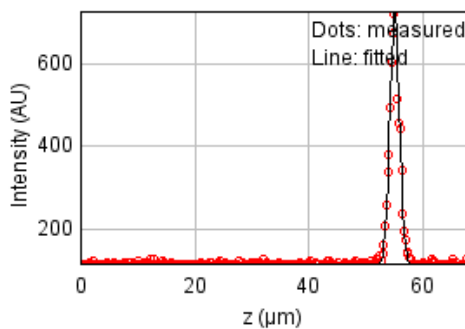
b = 0.006 px

c = 0.493 px

xc = 6.083 px

yc = 6.189 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 32891.7581

Standard deviation: 10.35081

$R^2$ : 0.98657

Parameters:

a = 113.95120

b = 732.45622

c = 55.10763

d = 0.81906

## Bead 2882

Date : Mon Oct 17 13:53:52 PDT 2022

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

Frame size : 12 pixels

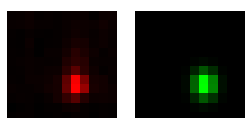
Coordinates : 24.9  $\mu\text{m}$  (x), -69.7  $\mu\text{m}$  (y), 55.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

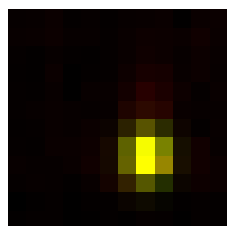
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	427 nm	270 nm
max	495 nm	516 nm	270 nm
z	1.85 $\mu\text{m}$	1.86 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.827		
Theta	-89.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 790.477$  (brightness)

$B = 128.818$  (background)

$a = 0.800$  px

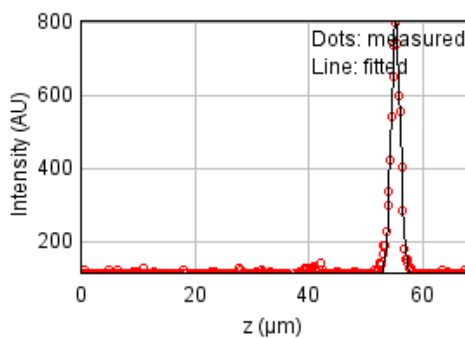
$b = -0.004$  px

$c = 0.547$  px

$x_c = 7.091$  px

$y_c = 7.516$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 36343.3216

Standard deviation: 10.88036

$R^2: 0.98770$

Parameters:

$a = 115.22573$

$b = 808.99850$

$c = 55.28811$

$d = 0.78466$

## Bead 2883

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

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

Frame size : 12 pixels

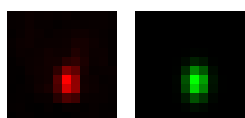
Coordinates : 36.6  $\mu\text{m}$  (x), 72.4  $\mu\text{m}$  (y), 55.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

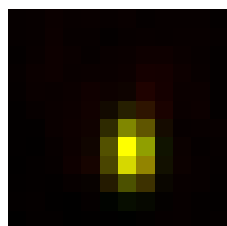
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	422 nm	270 nm
max	574 nm	598 nm	270 nm
z	1.79 $\mu\text{m}$	1.8 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.706		
Theta	89.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 989.748$  (brightness)

$B = 128.217$  (background)

$a = 0.816$  px

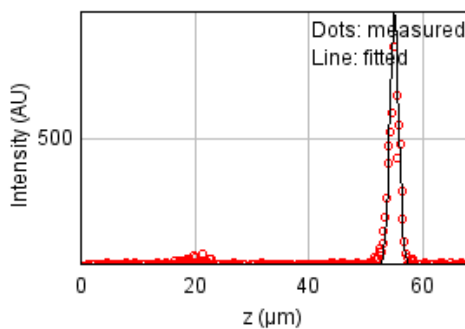
$b = 0.006$  px

$c = 0.407$  px

$x_c = 6.207$  px

$y_c = 7.287$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 290717.999

Standard deviation: 30.77278

$R^2: 0.92411$

Parameters:

$a = 116.89236$

$b = 892.30431$

$c = 55.04962$

$d = 0.76109$

## Bead 2884

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

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

Frame size : 12 pixels

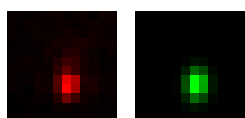
Coordinates : -147  $\mu\text{m}$  (x), 57.4  $\mu\text{m}$  (y), 55.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

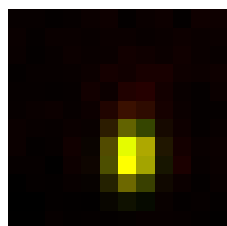
FWHM	Non corrected	Corrected	Theoretical
min	407 nm	424 nm	270 nm
max	543 nm	565 nm	270 nm
z	2.07 $\mu\text{m}$	2.08 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.75		
Theta	87.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 626.639 (brightness)

B = 125.816 (background)

a = 0.810 px

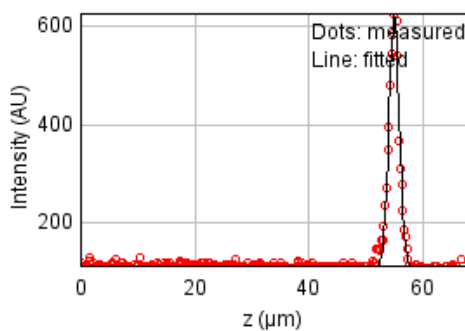
b = 0.019 px

c = 0.457 px

$x_c = 6.238$  px

$y_c = 7.507$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29210.1454

Standard deviation: 9.75434

$R^2$ : 0.98396

Parameters:

a = 111.74078

b = 626.58844

c = 55.01540

d = 0.87978

## Bead 2885

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

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

Frame size : 12 pixels

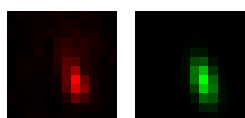
Coordinates : 163  $\mu\text{m}$  (x), 56.8  $\mu\text{m}$  (y), 55.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

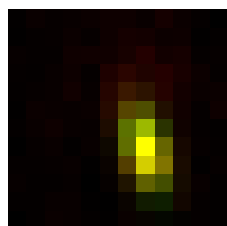
FWHM	Non corrected	Corrected	Theoretical
min	379 nm	395 nm	270 nm
max	778 nm	811 nm	270 nm
z	1.93 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.487		
Theta	-75.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 432.760$  (brightness)

$B = 121.808$  (background)

$a = 0.886$  px

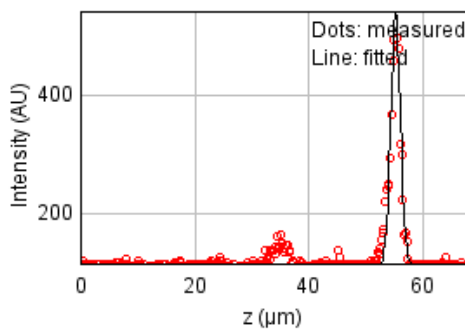
$b = -0.178$  px

$c = 0.269$  px

$x_c = 6.993$  px

$y_c = 7.093$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 57222.5984

Standard deviation: 13.65258

$R^2: 0.95326$

Parameters:

$a = 113.22850$

$b = 542.65600$

$c = 55.26952$

$d = 0.82072$

## Bead 2886

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

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

Frame size : 12 pixels

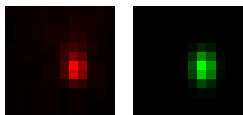
Coordinates : 66.7  $\mu\text{m}$  (x), 54.0  $\mu\text{m}$  (y), 55.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

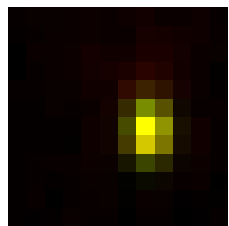
FWHM	Non corrected	Corrected	Theoretical
min	389 nm	406 nm	270 nm
max	569 nm	593 nm	270 nm
z	1.92 $\mu\text{m}$	1.93 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.684		
Theta	-89.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 550.070 (brightness)

B = 121.726 (background)

a = 0.885 px

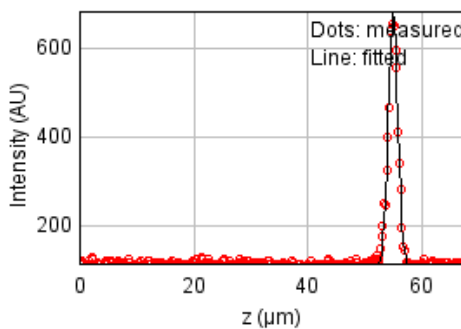
b = -0.001 px

c = 0.414 px

$x_c = 7.192$  px

$y_c = 6.212$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28678.5872

Standard deviation: 9.66517

$R^2$ : 0.98614

Parameters:

a = 112.96864

b = 681.92049

c = 55.00636

d = 0.81722

## Bead 2887

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

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

Frame size : 12 pixels

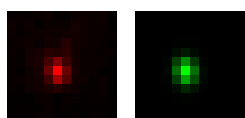
Coordinates : 24.6  $\mu\text{m}$  (x), 52.9  $\mu\text{m}$  (y), 51.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

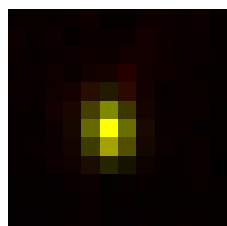
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	408 nm	270 nm
max	504 nm	525 nm	270 nm
z	2.05 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.776		
Theta	-81.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 583.267$  (brightness)

$B = 123.482$  (background)

$a = 0.868$  px

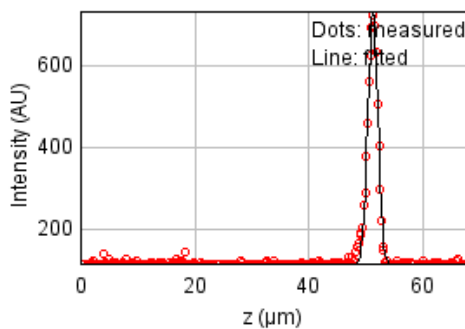
$b = -0.052$  px

$c = 0.536$  px

$x_c = 5.017$  px

$y_c = 6.077$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31709.2352

Standard deviation: 10.16304

$R^2: 0.98783$

Parameters:

$a = 113.79059$

$b = 733.51692$

$c = 51.29035$

$d = 0.87190$

## Bead 2888

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

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

Frame size : 12 pixels

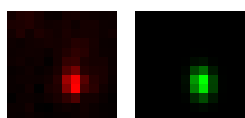
Coordinates : -126  $\mu\text{m}$  (x), 39.0  $\mu\text{m}$  (y), 55.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

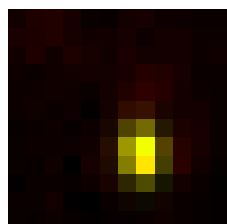
FWHM	Non corrected	Corrected	Theoretical
min	375 nm	391 nm	270 nm
max	521 nm	542 nm	270 nm
z	1.88 $\mu\text{m}$	1.89 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.721		
Theta	-85.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 518.290 (brightness)

B = 129.619 (background)

a = 0.949 px

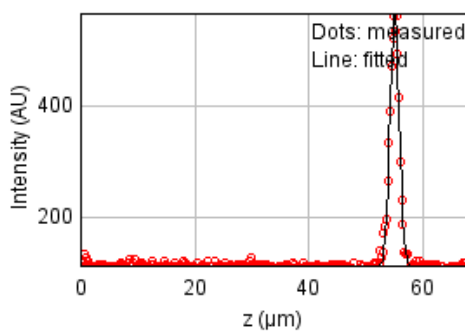
b = -0.039 px

c = 0.498 px

xc = 6.793 px

yc = 7.374 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18185.8314

Standard deviation: 7.69657

$R^2$ : 0.98612

Parameters:

a = 111.87825

b = 569.44306

c = 55.09897

d = 0.79958



## Bead 2889

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

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

Frame size : 12 pixels

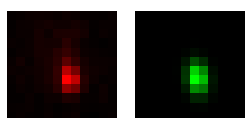
Coordinates : 128  $\mu\text{m}$  (x), 36.7  $\mu\text{m}$  (y), 54.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

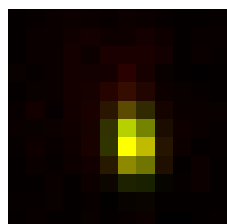
FWHM	Non corrected	Corrected	Theoretical
min	375 nm	390 nm	270 nm
max	579 nm	603 nm	270 nm
z	2.12 $\mu\text{m}$	2.13 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.647		
Theta	-82.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 583.140$  (brightness)

$B = 123.076$  (background)

$a = 0.945$  px

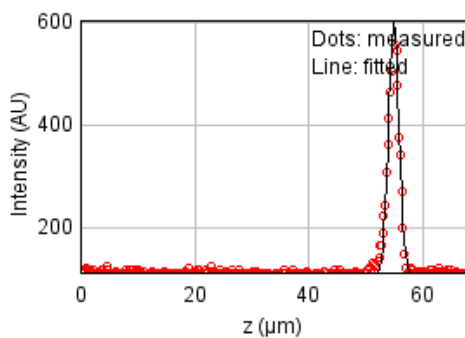
$b = -0.072$  px

$c = 0.409$  px

$x_c = 6.321$  px

$y_c = 6.808$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29562.8816

Standard deviation: 9.81305

$R^2: 0.98279$

Parameters:

$a = 112.10515$

$b = 605.87285$

$c = 54.94501$

$d = 0.90184$

## Bead 2890

Date : Mon Oct 17 13:53:54 PDT 2022

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

Frame size : 12 pixels

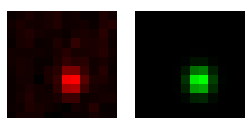
Coordinates : -161  $\mu\text{m}$  (x), 28.7  $\mu\text{m}$  (y), 54.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

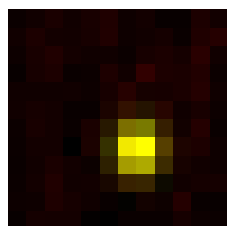
FWHM	Non corrected	Corrected	Theoretical
min	427 nm	445 nm	270 nm
max	485 nm	506 nm	270 nm
z	1.9 $\mu\text{m}$	1.9 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.88		
Theta	-89.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 248.114$  (brightness)

$B = 115.017$  (background)

$a = 0.735$  px

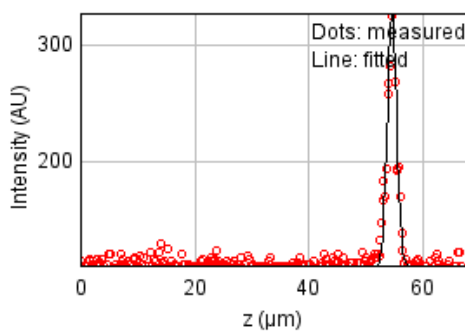
$b = -0.002$  px

$c = 0.569$  px

$x_c = 6.561$  px

$y_c = 7.146$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 21980.7860

Standard deviation: 8.46160

$R^2: 0.93036$

Parameters:

$a = 111.30327$

$b = 328.65955$

$c = 54.64889$

$d = 0.80541$

## Bead 2891 (Rejected)

Date : Mon Oct 17 13:53:54 PDT 2022

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

Frame size : 12 pixels

Coordinates : -136  $\mu\text{m}$  (x), 20.0  $\mu\text{m}$  (y), 51.8  $\mu\text{m}$  (z)

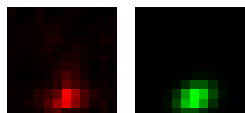
Corresponding bead : Not found

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

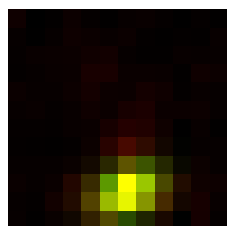
FWHM	Non corrected	Corrected	Theoretical
min	460 nm	479 nm	270 nm
max	644 nm	671 nm	270 nm
z	3.65 $\mu\text{m}$	3.67 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.715		
Theta	25.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 462.649 (brightness)

B = 125.939 (background)

a = 0.382 px

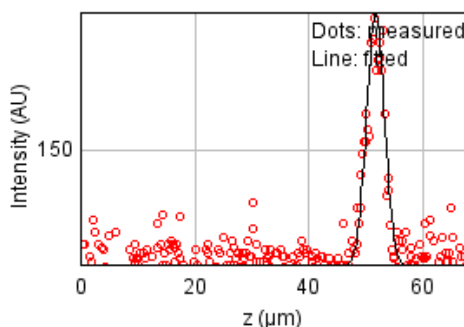
b = 0.121 px

c = 0.576 px

xc = 6.028 px

yc = 9.457 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15469.0940

Standard deviation: 7.09845

$R^2$ : 0.83942

Parameters:

a = 111.66044

b = 195.55508

c = 51.75138

d = 1.55207

## Bead 2892

Date : Mon Oct 17 13:53:54 PDT 2022

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

Frame size : 12 pixels

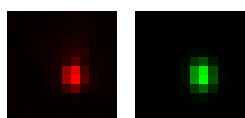
Coordinates : 3.26  $\mu\text{m}$  (x), -6.18  $\mu\text{m}$  (y), 55.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

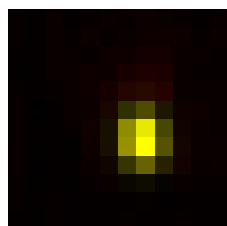
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	413 nm	270 nm
max	508 nm	529 nm	270 nm
z	2.12 $\mu\text{m}$	2.13 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.781		
Theta	-85.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 906.633 (brightness)

B = 132.128 (background)

a = 0.851 px

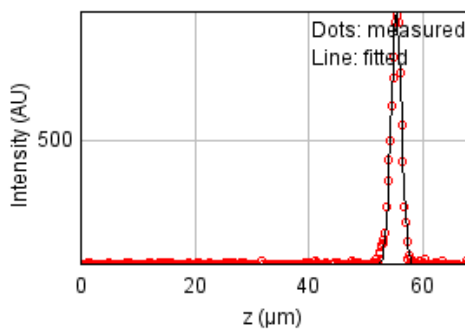
b = -0.028 px

c = 0.523 px

xc = 6.814 px

yc = 6.576 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 52307.4179

Standard deviation: 13.05306

$R^2$ : 0.98823

Parameters:

a = 112.02398

b = 909.50040

c = 55.37649

d = 0.89934

## Bead 2893

Date : Mon Oct 17 13:53:54 PDT 2022

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

Frame size : 12 pixels

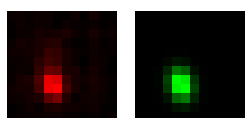
Coordinates : -137  $\mu\text{m}$  (x), -16.5  $\mu\text{m}$  (y), 51.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

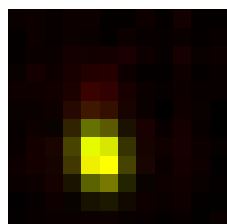
FWHM	Non corrected	Corrected	Theoretical
min	430 nm	448 nm	270 nm
max	578 nm	602 nm	270 nm
z	2.19 $\mu\text{m}$	2.2 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.744		
Theta	-76.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 384.654 (brightness)

B = 118.579 (background)

a = 0.707 px

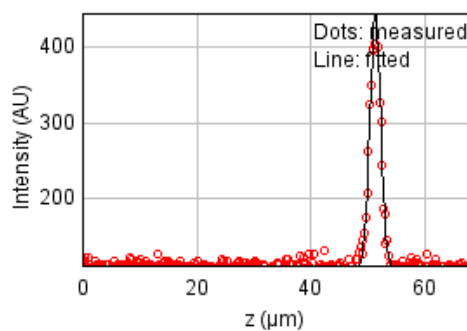
b = -0.074 px

c = 0.420 px

xc = 4.495 px

yc = 7.529 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18299.2666

Standard deviation: 7.72054

$R^2$ : 0.97743

Parameters:

a = 111.70383

b = 445.42543

c = 51.35487

d = 0.92843

## Bead 2894 (Rejected)

Date : Mon Oct 17 13:53:54 PDT 2022

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

Frame size : 12 pixels

Coordinates : -136  $\mu\text{m}$  (x), -60.7  $\mu\text{m}$  (y), 56.5  $\mu\text{m}$  (z)

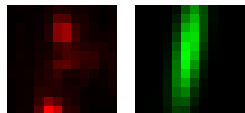
Corresponding bead : Not found

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

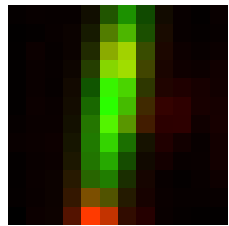
FWHM	Non corrected	Corrected	Theoretical
min	469 nm	488 nm	270 nm
max	2.06 $\mu\text{m}$	2.15 $\mu\text{m}$	270 nm
z	2.08 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.227		
Theta	81.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.617$



Parameters:

A = 151.868 (brightness)

B = 155.556 (background)

a = 0.597 px

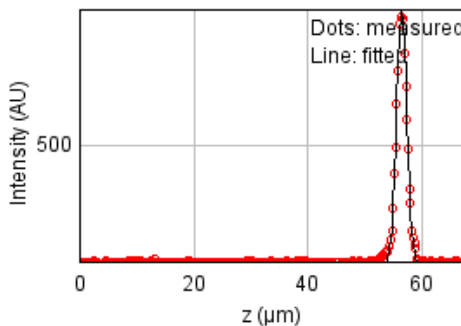
b = 0.093 px

c = -0.018 px

xc = 5.336 px

yc = 4.343 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23123.8914

Standard deviation: 8.67883

$R^2$ : 0.99517

Parameters:

a = 111.91715

b = 949.57454

c = 56.49805

d = 0.88343

## Bead 2895

Date : Mon Oct 17 13:53:54 PDT 2022

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

Frame size : 12 pixels

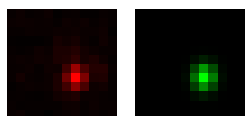
Coordinates : -151  $\mu\text{m}$  (x), -92.1  $\mu\text{m}$  (y), 55.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

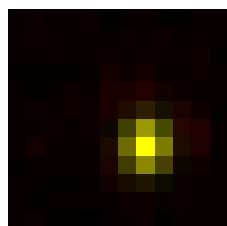
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	427 nm	270 nm
max	485 nm	505 nm	270 nm
z	2.33 $\mu\text{m}$	2.33 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.846		
Theta	86.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 482.209 (brightness)

B = 120.021 (background)

a = 0.796 px

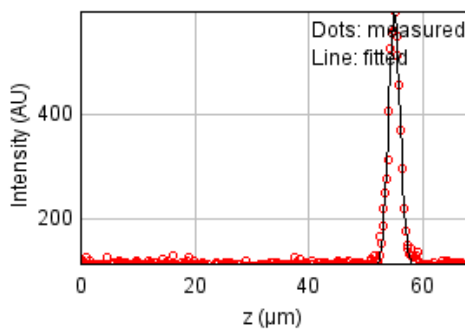
b = 0.013 px

c = 0.572 px

xc = 7.041 px

yc = 6.951 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 21719.3757

Standard deviation: 8.41113

$R^2$ : 0.98800

Parameters:

a = 112.49093

b = 599.24742

c = 55.04551

d = 0.98752

## Bead 2896

Date : Mon Oct 17 13:53:54 PDT 2022

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

Frame size : 12 pixels

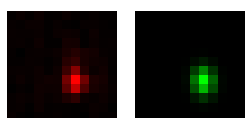
Coordinates : -135  $\mu\text{m}$  (x), 89.6  $\mu\text{m}$  (y), 55.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

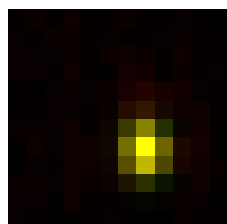
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	516 nm	537 nm	270 nm
z	1.86 $\mu\text{m}$	1.86 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.751		
Theta	-88.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 568.545 (brightness)

B = 119.116 (background)

a = 0.895 px

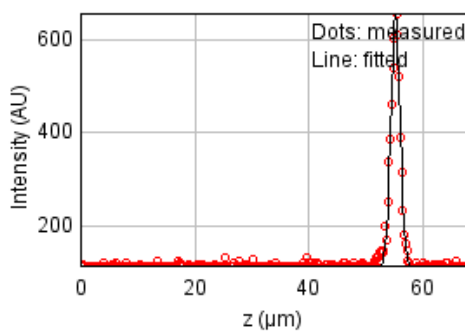
b = -0.012 px

c = 0.505 px

xc = 6.965 px

yc = 7.164 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 21693.9358

Standard deviation: 8.40621

$R^2$ : 0.98815

Parameters:

a = 112.43113

b = 657.55142

c = 55.24762

d = 0.78816



## Bead 2897

Date : Mon Oct 17 13:53:55 PDT 2022

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

Frame size : 12 pixels

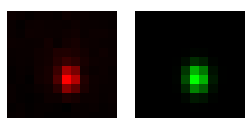
Coordinates : 16.3  $\mu\text{m}$  (x), 86.4  $\mu\text{m}$  (y), 55.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

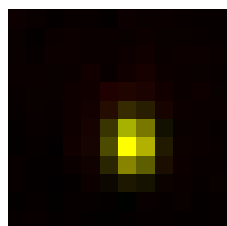
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	427 nm	270 nm
max	510 nm	531 nm	270 nm
z	1.92 $\mu\text{m}$	1.93 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.804		
Theta	-87.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 976.583 (brightness)

B = 130.009 (background)

a = 0.799 px

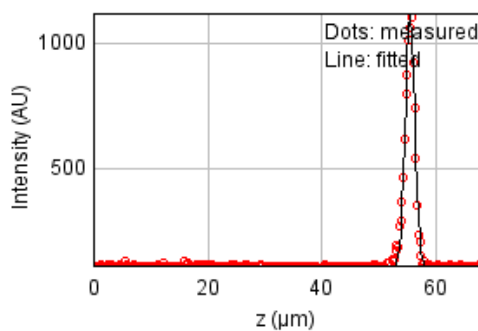
b = -0.014 px

c = 0.517 px

$x_c = 6.268$  px

$y_c = 6.864$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 63440.1308

Standard deviation: 14.37517

$R^2$ : 0.99010

Parameters:

a = 114.78969

b = 1118.68208

c = 55.50966

d = 0.81585

## Bead 2898

Date : Mon Oct 17 13:53:55 PDT 2022

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

Frame size : 12 pixels

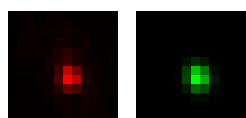
Coordinates : -60.2  $\mu\text{m}$  (x), 65.3  $\mu\text{m}$  (y), 55.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

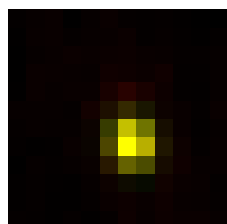
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	414 nm	270 nm
max	470 nm	489 nm	270 nm
z	2.06 $\mu\text{m}$	2.07 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.845		
Theta	-74.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 829.369 (brightness)

B = 129.986 (background)

a = 0.834 px

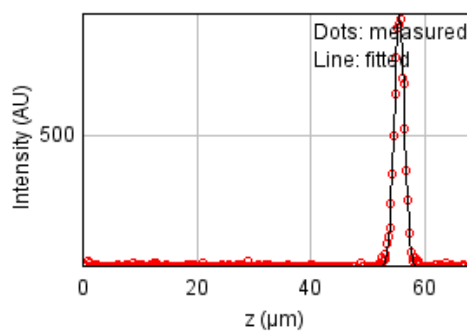
b = -0.063 px

c = 0.625 px

xc = 6.254 px

yc = 6.755 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20853.7469

Standard deviation: 8.24181

$R^2$ : 0.99457

Parameters:

a = 113.28542

b = 866.63399

c = 55.55437

d = 0.87471

## Bead 2899

Date : Mon Oct 17 13:53:55 PDT 2022

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

Frame size : 12 pixels

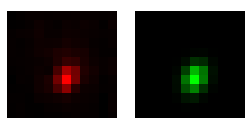
Coordinates : -41.1  $\mu\text{m}$  (x), 47.9  $\mu\text{m}$  (y), 55.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

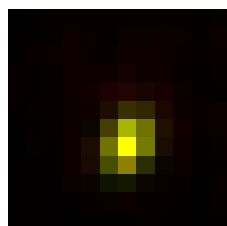
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	419 nm	270 nm
max	548 nm	571 nm	270 nm
z	1.95 $\mu\text{m}$	1.96 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.734		
Theta	66.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 799.731 (brightness)

B = 126.506 (background)

a = 0.769 px

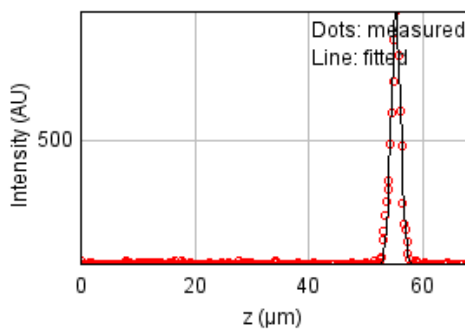
b = 0.141 px

c = 0.509 px

xc = 6.049 px

yc = 6.820 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 62442.5848

Standard deviation: 14.26170

$R^2$ : 0.98450

Parameters:

a = 114.17145

b = 902.01557

c = 55.31241

d = 0.82907

## Bead 2900

Date : Mon Oct 17 13:53:55 PDT 2022

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

Frame size : 12 pixels

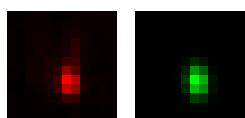
Coordinates : 77.5  $\mu\text{m}$  (x), 11.7  $\mu\text{m}$  (y), 55.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

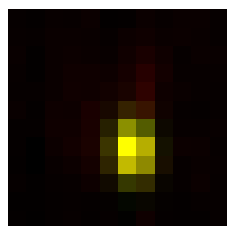
FWHM	Non corrected	Corrected	Theoretical
min	370 nm	386 nm	270 nm
max	551 nm	574 nm	270 nm
z	2.05 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.672		
Theta	-86.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 826.542 (brightness)

B = 132.493 (background)

a = 0.977 px

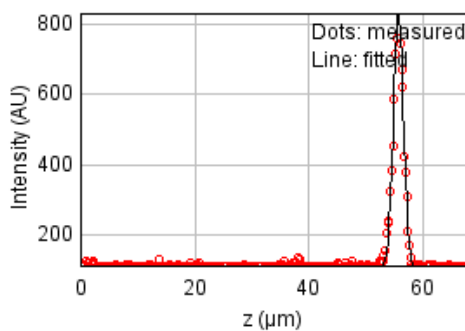
b = -0.036 px

c = 0.445 px

$x_c = 6.310$  px

$y_c = 7.170$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31761.1360

Standard deviation: 10.17136

$R^2$ : 0.99092

Parameters:

a = 112.80779

b = 833.03684

c = 55.74527

d = 0.86913