

## Bead 3301 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 94.2  $\mu\text{m}$  (x), 570 nm (y), 57.8  $\mu\text{m}$  (z)

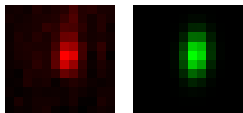
Corresponding bead : Not found

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

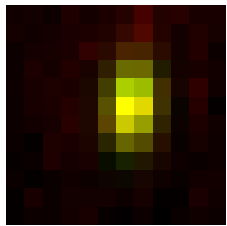
FWHM	Non corrected	Corrected	Theoretical
min	453 nm	472 nm	270 nm
max	776 nm	808 nm	270 nm
z	2.6 $\mu\text{m}$	2.61 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.584		
Theta	85.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 239.174 (brightness)

B = 119.285 (background)

a = 0.651 px

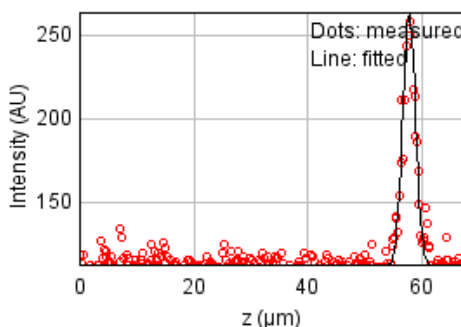
b = 0.034 px

c = 0.226 px

xc = 6.378 px

yc = 4.909 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15091.4551

Standard deviation: 7.01126

$R^2$ : 0.92714

Parameters:

a = 112.24199

b = 263.59681

c = 57.81256

d = 1.10436

## Bead 3302 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 79.2  $\mu\text{m}$  (x), -2.34  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

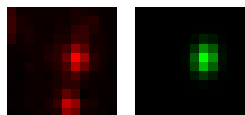
Corresponding bead : Not found

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

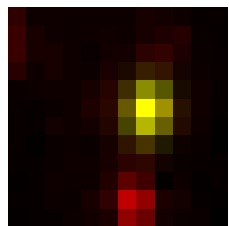
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	422 nm	270 nm
max	539 nm	561 nm	270 nm
z	2.49 $\mu\text{m}$	2.5 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.753		
Theta	83.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.625$



Parameters:

A = 559.825 (brightness)

B = 154.894 (background)

a = 0.811 px

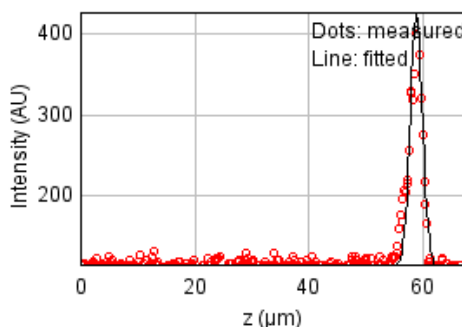
b = 0.039 px

c = 0.467 px

xc = 7.145 px

yc = 5.124 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47265.1589

Standard deviation: 12.40799

$R^2$ : 0.94313

Parameters:

a = 114.14302

b = 426.29384

c = 58.89584

d = 1.05690

## Bead 3303 (Rejected)

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

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

Frame size : 12 pixels

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

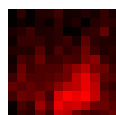
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

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

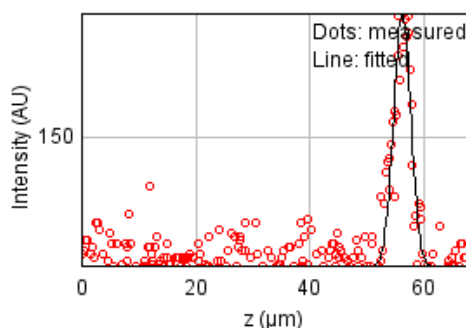
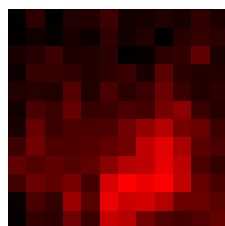
### XY profile & fitting parameters :

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



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

### Z profile & fitting parameters:



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

Sum of residuals squared: 15019.8345

Standard deviation: 6.99461

R<sup>2</sup>: 0.80288

Parameters:

a = 112.18313

b = 186.30718

c = 56.25371

d = 1.49973

## Bead 3304

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

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

Frame size : 12 pixels

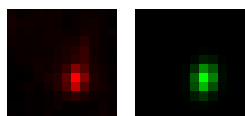
Coordinates : 91.1  $\mu\text{m}$  (x), -8.06  $\mu\text{m}$  (y), 59.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

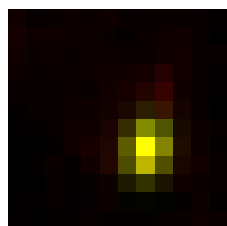
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	412 nm	270 nm
max	540 nm	563 nm	270 nm
z	2.12 $\mu\text{m}$	2.13 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.732		
Theta	78.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 606.078 (brightness)

B = 133.147 (background)

a = 0.841 px

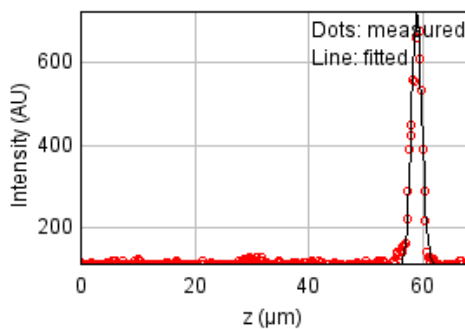
b = 0.080 px

c = 0.476 px

$x_c = 7.091$  px

$y_c = 7.123$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 52411.5993

Standard deviation: 13.06606

$R^2$ : 0.97999

Parameters:

a = 112.50611

b = 721.25891

c = 58.96883

d = 0.90227

## Bead 3305

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

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

Frame size : 12 pixels

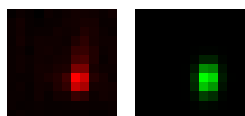
Coordinates : 119  $\mu\text{m}$  (x), -8.72  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

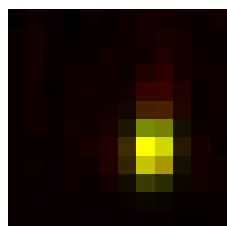
FWHM	Non corrected	Corrected	Theoretical
min	373 nm	388 nm	270 nm
max	557 nm	580 nm	270 nm
z	2.01 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.668		
Theta	85.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 587.968 (brightness)

B = 125.781 (background)

a = 0.964 px

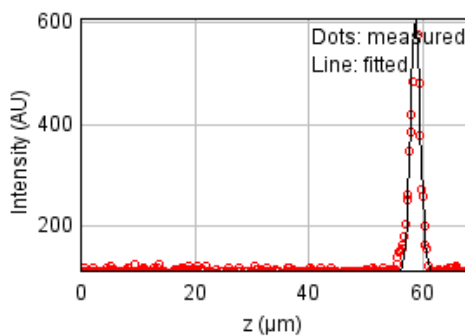
b = 0.041 px

c = 0.435 px

$x_c = 7.404$  px

$y_c = 7.149$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35214.3587

Standard deviation: 10.71003

$R^2$ : 0.97847

Parameters:

a = 112.74425

b = 606.47651

c = 58.73526

d = 0.85287

## Bead 3306

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

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

Frame size : 12 pixels

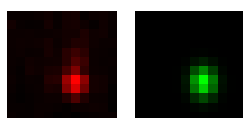
Coordinates : 117  $\mu\text{m}$  (x), -12.3  $\mu\text{m}$  (y), 58.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

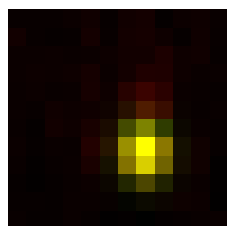
FWHM	Non corrected	Corrected	Theoretical
min	448 nm	467 nm	270 nm
max	553 nm	576 nm	270 nm
z	2.1 $\mu\text{m}$	2.11 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.811		
Theta	-87.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 524.155$  (brightness)

$B = 124.791$  (background)

$a = 0.667$  px

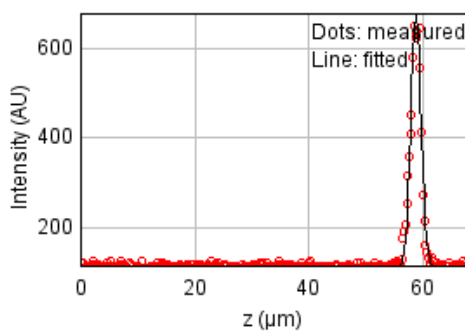
$b = -0.009$  px

$c = 0.439$  px

$x_c = 6.935$  px

$y_c = 7.260$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47532.7950

Standard deviation: 12.44307

$R^2: 0.97915$

Parameters:

$a = 111.98834$

$b = 683.15219$

$c = 58.83510$

$d = 0.89073$

## Bead 3307 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 106  $\mu\text{m}$  (x), -14.2  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

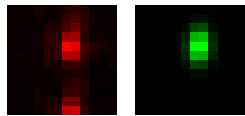
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

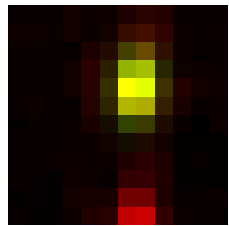
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	416 nm	270 nm
max	632 nm	658 nm	270 nm
z	2.15 $\mu\text{m}$	2.16 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.632		
Theta	86.3°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.637$



Parameters:

A = 559.756 (brightness)

B = 148.184 (background)

a = 0.839 px

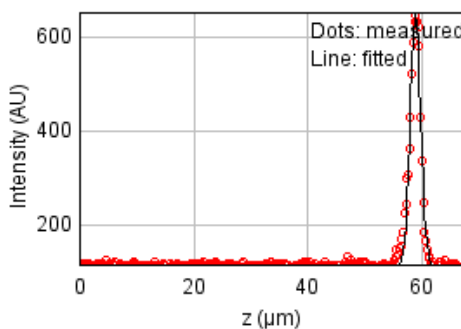
b = 0.033 px

c = 0.338 px

xc = 6.504 px

yc = 3.961 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 39658.4734

Standard deviation: 11.36577

$R^2$ : 0.98101

Parameters:

a = 113.15520

b = 653.87227

c = 58.91518

d = 0.91323

## Bead 3308 (Rejected)

Date : Mon Oct 17 13:54:08 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), 55.5  $\mu\text{m}$  (z)

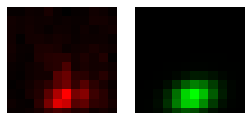
Corresponding bead : Not found

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

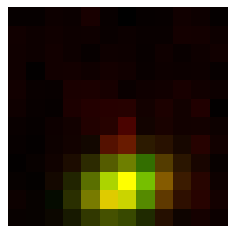
FWHM	Non corrected	Corrected	Theoretical
min	538 nm	560 nm	270 nm
max	795 nm	828 nm	270 nm
z	3.42 $\mu\text{m}$	3.44 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.677		
Theta	17.2°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.854$



Parameters:

A = 256.223 (brightness)

B = 124.462 (background)

a = 0.234 px

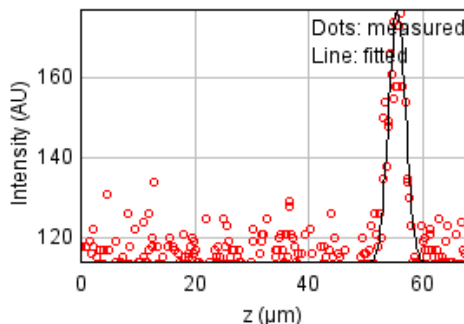
b = 0.071 px

c = 0.441 px

xc = 5.793 px

yc = 9.324 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 13526.8307

Standard deviation: 6.63787

$R^2$ : 0.76175

Parameters:

a = 113.69390

b = 176.90528

c = 55.52598

d = 1.45412



## Bead 3309 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 94.6  $\mu\text{m}$  (x), -29.1  $\mu\text{m}$  (y), 59.2  $\mu\text{m}$  (z)

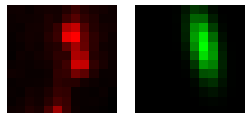
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

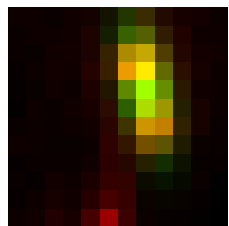
FWHM	Non corrected	Corrected	Theoretical
min	463 nm	483 nm	270 nm
max	1.18 $\mu\text{m}$	1.23 $\mu\text{m}$	270 nm
z	2.63 $\mu\text{m}$	2.64 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.393		
Theta	-78.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.765$



Parameters:

A = 564.305 (brightness)

B = 148.649 (background)

a = 0.602 px

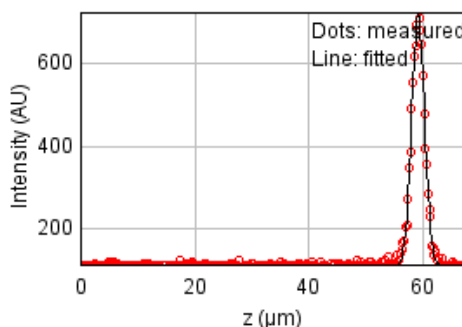
b = -0.107 px

c = 0.119 px

xc = 6.990 px

yc = 3.856 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19196.3510

Standard deviation: 7.90752

$R^2$ : 0.99391

Parameters:

a = 113.00656

b = 721.28547

c = 59.20598

d = 1.11679

## Bead 3310 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : -1.98  $\mu\text{m}$  (x), -32.4  $\mu\text{m}$  (y), 59.0  $\mu\text{m}$  (z)

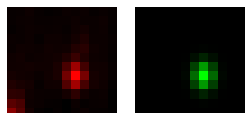
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

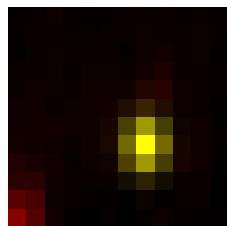
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	405 nm	270 nm
max	515 nm	536 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.755		
Theta	89.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 781.616 (brightness)

B = 150.539 (background)

a = 0.889 px

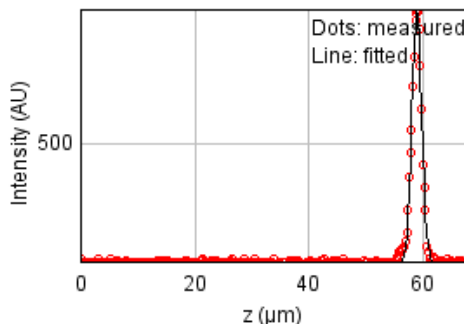
b = 0.003 px

c = 0.507 px

xc = 6.993 px

yc = 6.993 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31476.1070

Standard deviation: 10.12561

$R^2$ : 0.99295

Parameters:

a = 114.03727

b = 937.93401

c = 58.97897

d = 0.84844

## Bead 3311

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

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

Frame size : 12 pixels

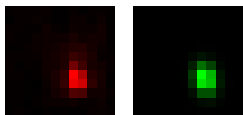
Coordinates : -16.6  $\mu\text{m}$  (x), -56.5  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

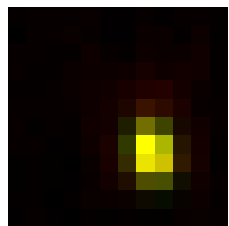
FWHM	Non corrected	Corrected	Theoretical
min	378 nm	394 nm	270 nm
max	540 nm	563 nm	270 nm
z	2.11 $\mu\text{m}$	2.12 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.7		
Theta	-79.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 735.936$  (brightness)

$B = 130.416$  (background)

$a = 0.922$  px

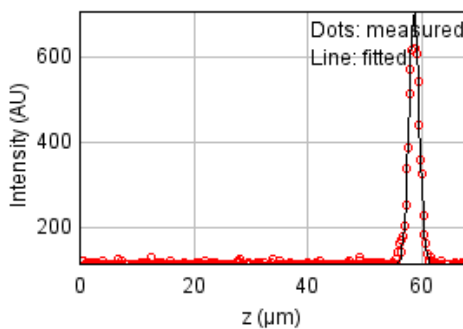
$b = -0.085$  px

$c = 0.475$  px

$x_c = 7.357$  px

$y_c = 7.443$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26633.5739

Standard deviation: 9.31420

$R^2 = 0.98905$

Parameters:

$a = 114.27189$

$b = 705.90170$

$c = 58.67854$

$d = 0.89473$

## Bead 3312

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

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

Frame size : 12 pixels

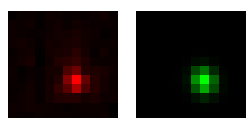
Coordinates : -95.3  $\mu\text{m}$  (x), -60.4  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

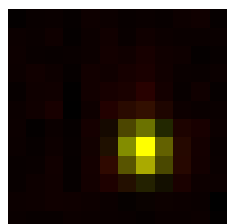
FWHM	Non corrected	Corrected	Theoretical
min	411 nm	428 nm	270 nm
max	476 nm	495 nm	270 nm
z	1.79 $\mu\text{m}$	1.8 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.864		
Theta	-74.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 443.156 (brightness)

B = 122.840 (background)

a = 0.780 px

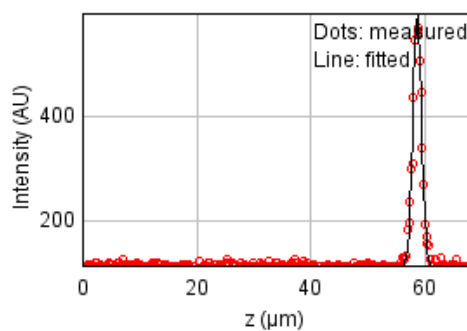
b = -0.052 px

c = 0.607 px

xc = 6.892 px

yc = 7.154 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22211.7086

Standard deviation: 8.50593

$R^2$ : 0.98425

Parameters:

a = 112.85461

b = 598.92485

c = 58.70820

d = 0.75960

## Bead 3313

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

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

Frame size : 12 pixels

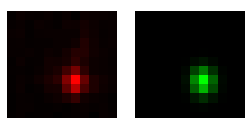
Coordinates : 89.7  $\mu\text{m}$  (x), -60.2  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

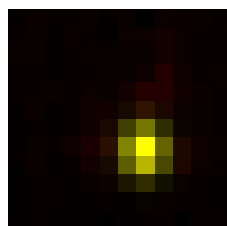
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	426 nm	270 nm
max	495 nm	516 nm	270 nm
z	2.01 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.826		
Theta	-87.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 664.702$  (brightness)

$B = 127.867$  (background)

$a = 0.802$  px

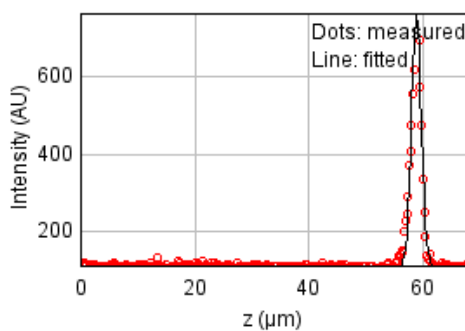
$b = -0.012$  px

$c = 0.548$  px

$x_c = 6.913$  px

$y_c = 7.186$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 52034.2708

Standard deviation: 13.01894

$R^2: 0.98150$

Parameters:

$a = 112.75042$

$b = 761.04698$

$c = 58.90742$

$d = 0.85343$

## Bead 3314

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

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

Frame size : 12 pixels

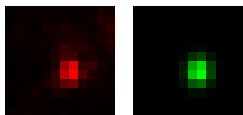
Coordinates : -110  $\mu\text{m}$  (x), -63.6  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

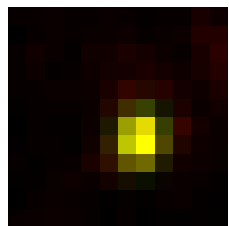
FWHM	Non corrected	Corrected	Theoretical
min	415 nm	432 nm	270 nm
max	507 nm	528 nm	270 nm
z	1.86 $\mu\text{m}$	1.87 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.818		
Theta	83.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 491.921$  (brightness)

$B = 127.875$  (background)

$a = 0.776$  px

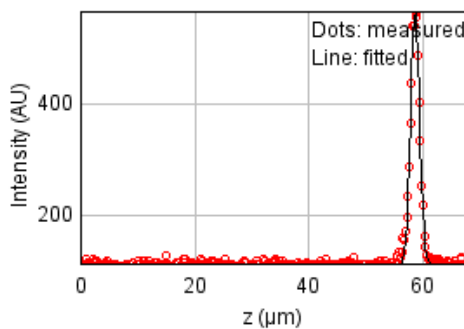
$b = 0.028$  px

$c = 0.525$  px

$x_c = 6.678$  px

$y_c = 6.666$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16653.3319

Standard deviation: 7.36515

$R^2: 0.98694$

Parameters:

$a = 113.12353$

$b = 566.89119$

$c = 58.68423$

$d = 0.79127$

## Bead 3315

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

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

Frame size : 12 pixels

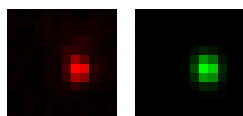
Coordinates : -75.8  $\mu\text{m}$  (x), -65.7  $\mu\text{m}$  (y), 58.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

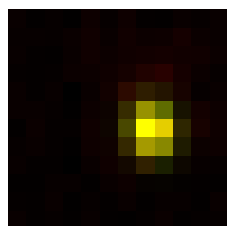
FWHM	Non corrected	Corrected	Theoretical
min	422 nm	440 nm	270 nm
max	506 nm	527 nm	270 nm
z	2.16 $\mu\text{m}$	2.17 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.834		
Theta	-78.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 644.136$  (brightness)

$B = 123.197$  (background)

$a = 0.745$  px

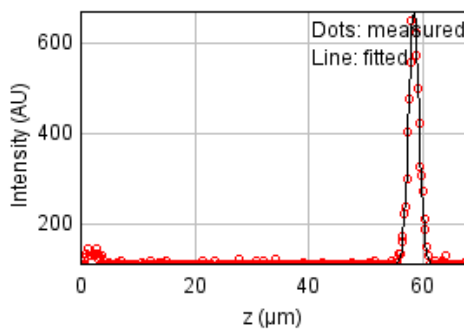
$b = -0.043$  px

$c = 0.533$  px

$x_c = 7.359$  px

$y_c = 6.057$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27627.2151

Standard deviation: 9.48635

$R^2: 0.98753$

Parameters:

$a = 113.22574$

$b = 671.09015$

$c = 58.45742$

$d = 0.91666$

## Bead 3316

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

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

Frame size : 12 pixels

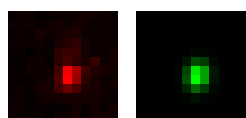
Coordinates : -124  $\mu\text{m}$  (x), -89.3  $\mu\text{m}$  (y), 58.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

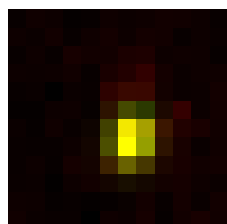
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	419 nm	270 nm
max	511 nm	532 nm	270 nm
z	2.46 $\mu\text{m}$	2.47 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.787		
Theta	80.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 323.548$  (brightness)

$B = 116.063$  (background)

$a = 0.823$  px

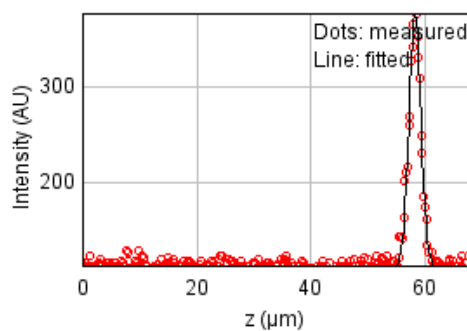
$b = 0.051$  px

$c = 0.523$  px

$x_c = 6.239$  px

$y_c = 6.567$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 14890.3006

Standard deviation: 6.96438

$R^2: 0.97434$

Parameters:

$a = 111.18308$

$b = 377.81009$

$c = 58.30089$

$d = 1.04402$



## Bead 3317

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

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

Frame size : 12 pixels

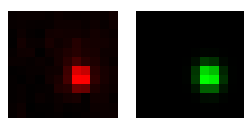
Coordinates : -86.1  $\mu\text{m}$  (x), -91.1  $\mu\text{m}$  (y), 58.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

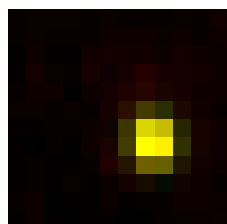
FWHM	Non corrected	Corrected	Theoretical
min	417 nm	435 nm	270 nm
max	484 nm	504 nm	270 nm
z	2.44 $\mu\text{m}$	2.45 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.862		
Theta	-80.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 563.248 (brightness)

B = 125.158 (background)

a = 0.765 px

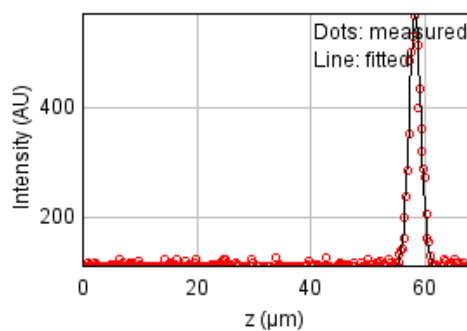
b = -0.033 px

c = 0.578 px

$x_c = 7.442$  px

$y_c = 6.677$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28831.9844

Standard deviation: 9.69099

$R^2$ : 0.98275

Parameters:

a = 112.36333

b = 568.40485

c = 58.30507

d = 1.03639

## Bead 3318

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

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

Frame size : 12 pixels

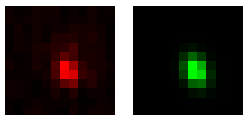
Coordinates : -117  $\mu\text{m}$  (x), 90.4  $\mu\text{m}$  (y), 58.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

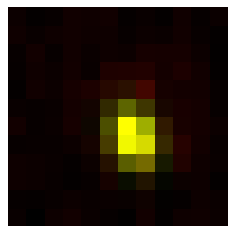
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	421 nm	270 nm
max	560 nm	584 nm	270 nm
z	1.96 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.722		
Theta	-70.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 389.790$  (brightness)

$B = 118.183$  (background)

$a = 0.774$  px

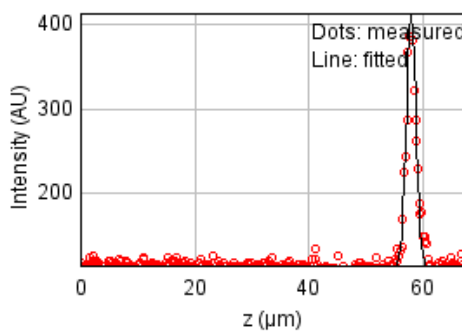
$b = -0.126$  px

$c = 0.473$  px

$x_c = 6.345$  px

$y_c = 6.563$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 21618.0594

Standard deviation: 8.39149

$R^2: 0.96444$

Parameters:

$a = 113.15347$

$b = 415.42478$

$c = 57.98327$

$d = 0.83267$

## Bead 3319

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

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

Frame size : 12 pixels

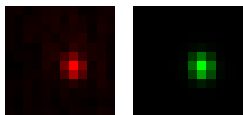
Coordinates : -141  $\mu\text{m}$  (x), 87.0  $\mu\text{m}$  (y), 58.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

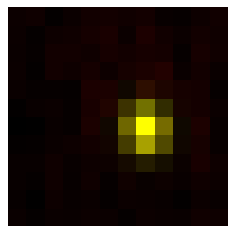
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	460 nm	480 nm	270 nm
z	1.9 $\mu\text{m}$	1.91 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.841		
Theta	-81.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 385.397 (brightness)

B = 118.403 (background)

a = 0.890 px

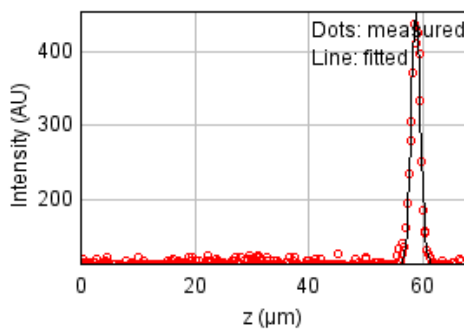
b = -0.040 px

c = 0.639 px

$x_c = 7.015$  px

$y_c = 6.137$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20761.3993

Standard deviation: 8.22355

$R^2$ : 0.97269

Parameters:

a = 111.17063

b = 455.88877

c = 58.80839

d = 0.80645

## Bead 3320

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

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

Frame size : 12 pixels

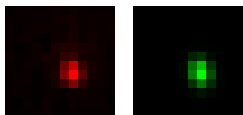
Coordinates : -118  $\mu\text{m}$  (x), 87.1  $\mu\text{m}$  (y), 58.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

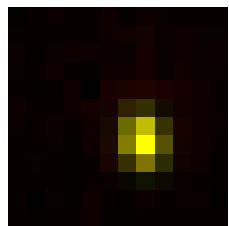
FWHM	Non corrected	Corrected	Theoretical
min	374 nm	390 nm	270 nm
max	503 nm	524 nm	270 nm
z	1.76 $\mu\text{m}$	1.77 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.744		
Theta	-79.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 601.211 (brightness)

B = 121.366 (background)

a = 0.943 px

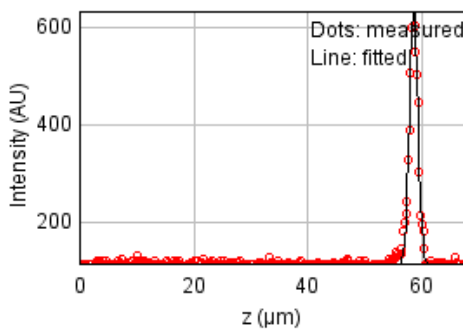
b = -0.078 px

c = 0.545 px

$x_c = 6.863$  px

$y_c = 6.756$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28756.0090

Standard deviation: 9.67821

$R^2: 0.98214$

Parameters:

a = 113.50091

b = 636.29063

c = 58.60931

d = 0.74753

## Bead 3321

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

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

Frame size : 12 pixels

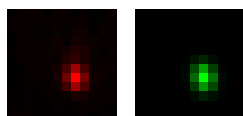
Coordinates : -112  $\mu\text{m}$  (x), 78.2  $\mu\text{m}$  (y), 58.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

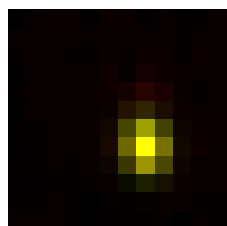
FWHM	Non corrected	Corrected	Theoretical
min	395 nm	411 nm	270 nm
max	519 nm	541 nm	270 nm
z	1.99 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.761		
Theta	-82.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 669.807 (brightness)

B = 123.632 (background)

a = 0.855 px

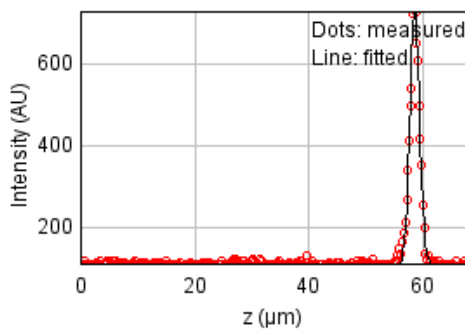
b = -0.045 px

c = 0.503 px

xc = 7.019 px

yc = 6.960 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 33694.8410

Standard deviation: 10.47641

$R^2$ : 0.98663

Parameters:

a = 112.47064

b = 730.46233

c = 58.62418

d = 0.84574

## Bead 3322

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

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

Frame size : 12 pixels

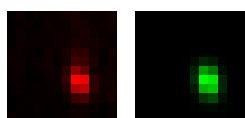
Coordinates : -133  $\mu\text{m}$  (x), 78.2  $\mu\text{m}$  (y), 58.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

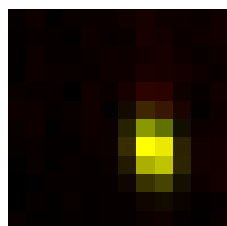
FWHM	Non corrected	Corrected	Theoretical
min	379 nm	395 nm	270 nm
max	562 nm	586 nm	270 nm
z	1.99 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.675		
Theta	-78.2°		

### 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 = 489.111 (brightness)

B = 118.243 (background)

a = 0.911 px

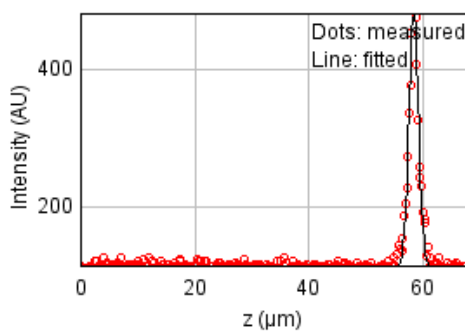
b = -0.101 px

c = 0.446 px

$x_c = 7.471$  px

$y_c = 7.183$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24352.0048

Standard deviation: 8.90632

$R^2$ : 0.97328

Parameters:

a = 113.02724

b = 482.18788

c = 58.43884

d = 0.84534

## Bead 3323

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

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

Frame size : 12 pixels

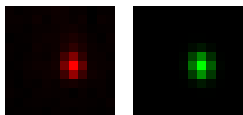
Coordinates : -87.1  $\mu\text{m}$  (x), 69.8  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

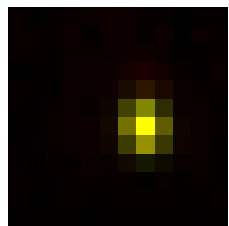
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	396 nm	270 nm
max	474 nm	493 nm	270 nm
z	1.78 $\mu\text{m}$	1.79 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.804		
Theta	-83.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 747.193$  (brightness)

$B = 121.993$  (background)

$a = 0.922$  px

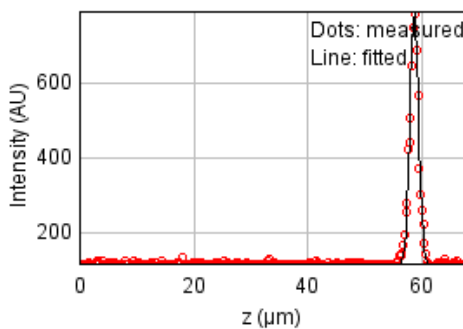
$b = -0.039$  px

$c = 0.603$  px

$x_c = 6.945$  px

$y_c = 6.024$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47329.2268

Standard deviation: 12.41639

$R^2: 0.98260$

Parameters:

$a = 114.40802$

$b = 790.42452$

$c = 58.71812$

$d = 0.75565$

## Bead 3324

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

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

Frame size : 12 pixels

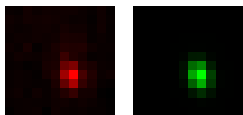
Coordinates : -25.1  $\mu\text{m}$  (x), 69.2  $\mu\text{m}$  (y), 58.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

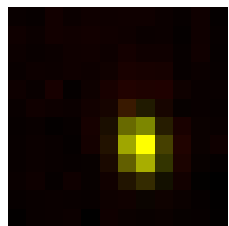
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	396 nm	270 nm
max	523 nm	545 nm	270 nm
z	1.88 $\mu\text{m}$	1.88 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.727		
Theta	-77.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 376.276 (brightness)

B = 120.496 (background)

a = 0.907 px

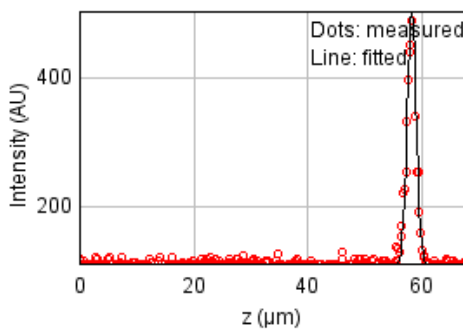
b = -0.091 px

c = 0.510 px

xc = 6.743 px

yc = 7.075 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29127.7152

Standard deviation: 9.74056

$R^2$ : 0.96951

Parameters:

a = 112.71791

b = 500.84119

c = 58.25769

d = 0.79641



## Bead 3325

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

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

Frame size : 12 pixels

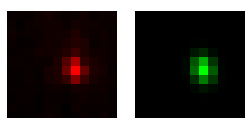
Coordinates : -116  $\mu\text{m}$  (x), 68.1  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

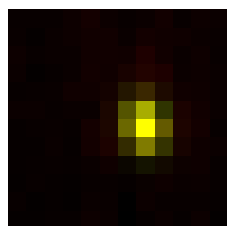
FWHM	Non corrected	Corrected	Theoretical
min	369 nm	385 nm	270 nm
max	498 nm	518 nm	270 nm
z	1.82 $\mu\text{m}$	1.83 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.742		
Theta	-79.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 577.755$  (brightness)

$B = 120.022$  (background)

$a = 0.968$  px

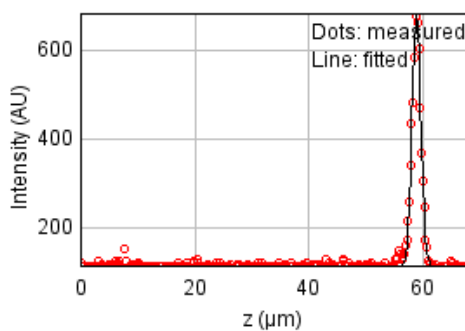
$b = -0.081$  px

$c = 0.558$  px

$x_c = 6.949$  px

$y_c = 5.839$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23953.2716

Standard deviation: 8.83310

$R^2: 0.98779$

Parameters:

$a = 112.71526$

$b = 681.79744$

$c = 58.92395$

$d = 0.77386$

## Bead 3326

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

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

Frame size : 12 pixels

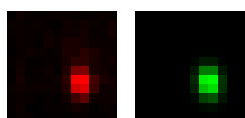
Coordinates : -153  $\mu\text{m}$  (x), 67.6  $\mu\text{m}$  (y), 59.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

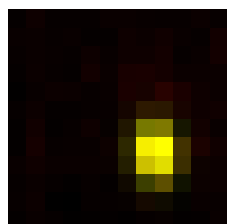
FWHM	Non corrected	Corrected	Theoretical
min	395 nm	412 nm	270 nm
max	552 nm	575 nm	270 nm
z	2.17 $\mu\text{m}$	2.18 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.717		
Theta	-85.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 637.104$  (brightness)

$B = 125.252$  (background)

$a = 0.855$  px

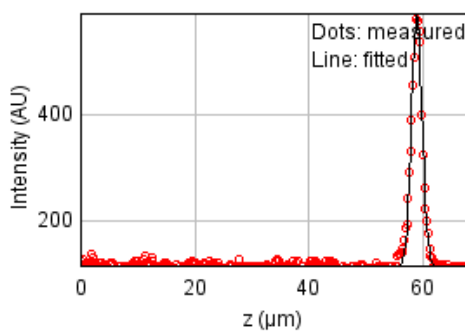
$b = -0.036$  px

$c = 0.444$  px

$x_c = 7.555$  px

$y_c = 7.302$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25716.9583

Standard deviation: 9.15252

$R^2: 0.98446$

Parameters:

$a = 113.01416$

$b = 592.81513$

$c = 58.98028$

$d = 0.92279$

## Bead 3327

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

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

Frame size : 12 pixels

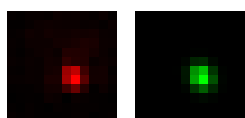
Coordinates : -150  $\mu\text{m}$  (x), 66.2  $\mu\text{m}$  (y), 59.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

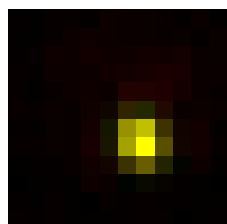
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	415 nm	270 nm
max	468 nm	488 nm	270 nm
z	1.9 $\mu\text{m}$	1.91 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.851		
Theta	-65.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 753.777$  (brightness)

$B = 124.799$  (background)

$a = 0.805$  px

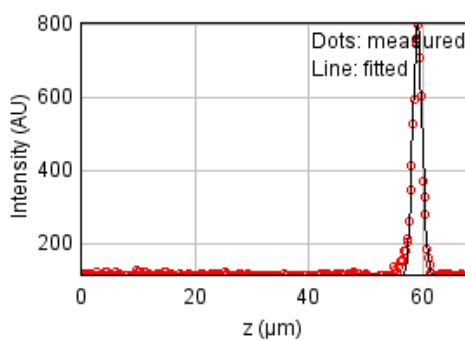
$b = -0.087$  px

$c = 0.650$  px

$x_c = 6.748$  px

$y_c = 6.686$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 45128.2711

Standard deviation: 12.12426

$R^2: 0.98533$

Parameters:

$a = 112.10711$

$b = 808.92158$

$c = 59.10190$

$d = 0.80888$

## Bead 3328

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

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

Frame size : 12 pixels

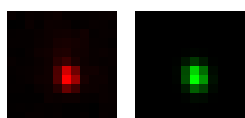
Coordinates : -78.3  $\mu\text{m}$  (x), 65.3  $\mu\text{m}$  (y), 58.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

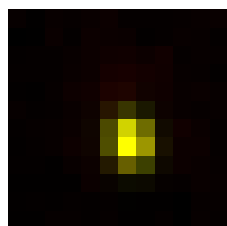
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	407 nm	270 nm
max	483 nm	503 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.811		
Theta	-76.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 778.902$  (brightness)

$B = 123.497$  (background)

$a = 0.861$  px

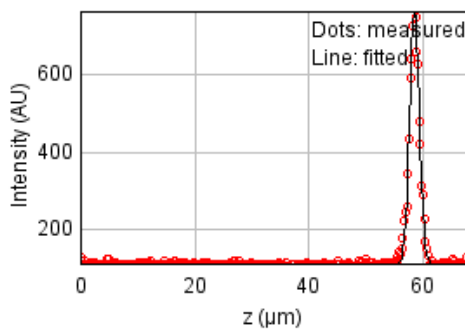
$b = -0.067$  px

$c = 0.592$  px

$x_c = 6.165$  px

$y_c = 6.683$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 32471.9497

Standard deviation: 10.28454

$R^2: 0.98847$

Parameters:

$a = 112.22924$

$b = 760.83026$

$c = 58.57453$

$d = 0.85986$

## Bead 3329

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

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

Frame size : 12 pixels

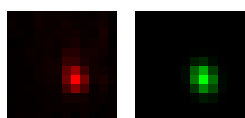
Coordinates : -97.0  $\mu\text{m}$  (x), 65.0  $\mu\text{m}$  (y), 58.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

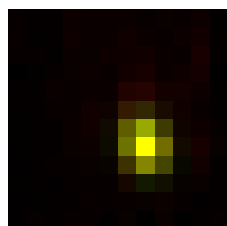
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	413 nm	270 nm
max	518 nm	540 nm	270 nm
z	1.69 $\mu\text{m}$	1.7 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.765		
Theta	-73.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 629.941 (brightness)

B = 122.726 (background)

a = 0.824 px

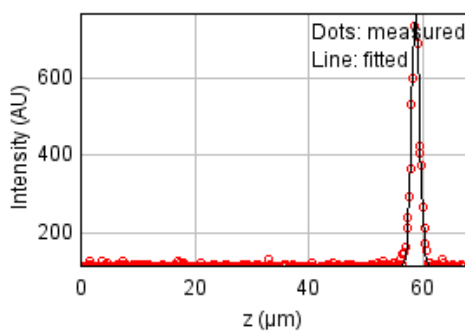
b = -0.099 px

c = 0.530 px

xc = 6.970 px

yc = 6.880 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 54352.5192

Standard deviation: 13.30579

$R^2$ : 0.97747

Parameters:

a = 114.32850

b = 764.47501

c = 58.77007

d = 0.71951

## Bead 3330

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

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

Frame size : 12 pixels

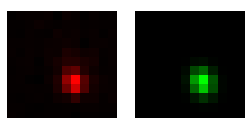
Coordinates : -70.4  $\mu\text{m}$  (x), 62.5  $\mu\text{m}$  (y), 58.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

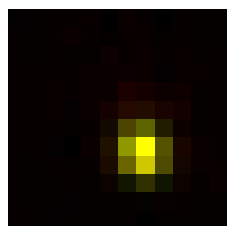
FWHM	Non corrected	Corrected	Theoretical
min	398 nm	414 nm	270 nm
max	485 nm	506 nm	270 nm
z	1.69 $\mu\text{m}$	1.69 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.82		
Theta	-72.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 788.266 (brightness)

B = 123.576 (background)

a = 0.824 px

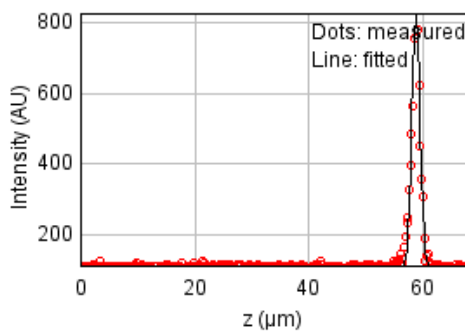
b = -0.078 px

c = 0.594 px

xc = 6.840 px

yc = 7.270 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47114.4977

Standard deviation: 12.38820

$R^2$ : 0.98372

Parameters:

a = 113.41852

b = 829.53354

c = 58.83395

d = 0.71589

## Bead 3331

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

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

Frame size : 12 pixels

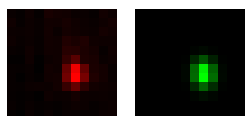
Coordinates : -119  $\mu\text{m}$  (x), 61.8  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

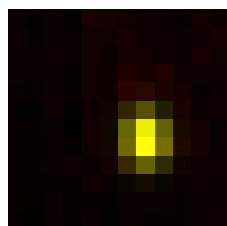
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	407 nm	270 nm
max	512 nm	533 nm	270 nm
z	2.07 $\mu\text{m}$	2.08 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.764		
Theta	-86.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 572.076$  (brightness)

$B = 122.795$  (background)

$a = 0.877$  px

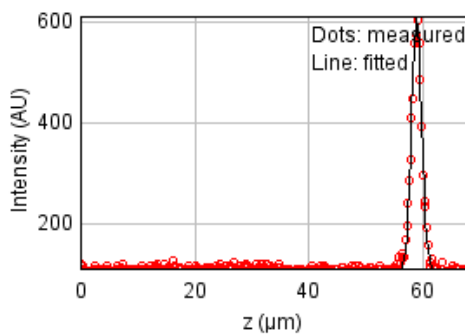
$b = -0.022$  px

$c = 0.513$  px

$x_c = 6.997$  px

$y_c = 6.563$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20804.7953

Standard deviation: 8.23214

$R^2 = 0.98768$

Parameters:

$a = 112.11909$

$b = 609.01421$

$c = 58.94640$

$d = 0.87862$

## Bead 3332

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

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

Frame size : 12 pixels

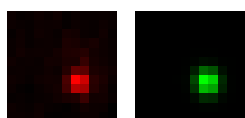
Coordinates : -91.2  $\mu\text{m}$  (x), 60.6  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

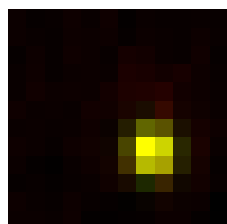
FWHM	Non corrected	Corrected	Theoretical
min	422 nm	439 nm	270 nm
max	467 nm	487 nm	270 nm
z	1.96 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.902		
Theta	-81.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 564.710$  (brightness)

$B = 120.403$  (background)

$a = 0.752$  px

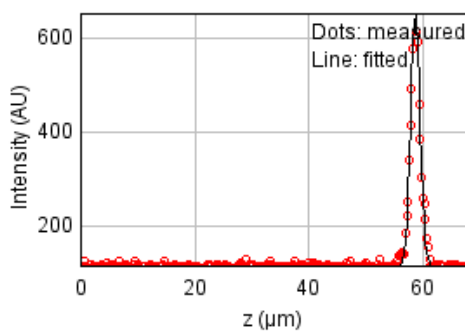
$b = -0.020$  px

$c = 0.617$  px

$x_c = 7.384$  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: 27171.5278

Standard deviation: 9.40779

$R^2: 0.98573$

Parameters:

$a = 113.61013$

$b = 654.03656$

$c = 58.72926$

$d = 0.83379$



## Bead 3333 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : -144  $\mu\text{m}$  (x), 59.6  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

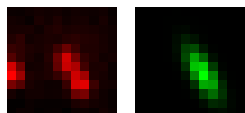
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

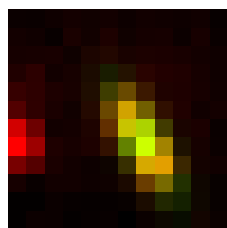
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	415 nm	270 nm
max	1.01 $\mu\text{m}$	1.05 $\mu\text{m}$	270 nm
z	2.33 $\mu\text{m}$	2.34 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.394		
Theta	-60.8°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.567$



Parameters:

A = 423.138 (brightness)

B = 150.231 (background)

a = 0.675 px

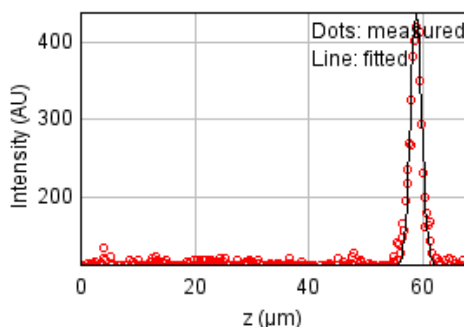
b = -0.304 px

c = 0.301 px

xc = 6.856 px

yc = 6.672 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28724.2916

Standard deviation: 9.67287

$R^2$ : 0.96593

Parameters:

a = 112.10831

b = 440.22762

c = 58.85329

d = 0.99014

## Bead 3334

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

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

Frame size : 12 pixels

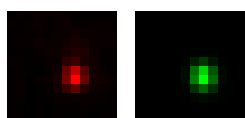
Coordinates : -82.1  $\mu\text{m}$  (x), 57.8  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

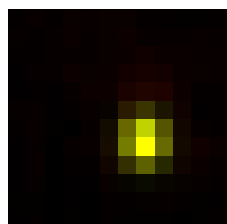
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	426 nm	270 nm
max	479 nm	499 nm	270 nm
z	1.86 $\mu\text{m}$	1.86 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.855		
Theta	-87.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 967.975$  (brightness)

$B = 127.417$  (background)

$a = 0.800$  px

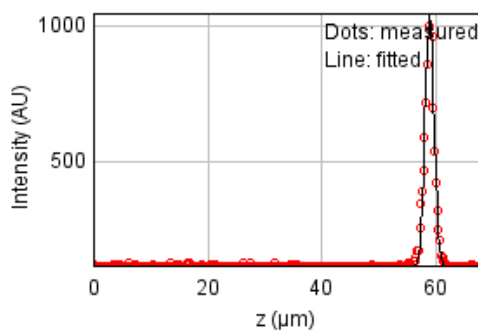
$b = -0.010$  px

$c = 0.586$  px

$x_c = 6.943$  px

$y_c = 6.669$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 59725.4152

Standard deviation: 13.94795

$R^2: 0.98877$

Parameters:

$a = 113.99657$

$b = 1043.73996$

$c = 58.94495$

$d = 0.78786$

## Bead 3335

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

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

Frame size : 12 pixels

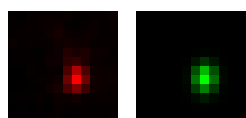
Coordinates : -60.7  $\mu\text{m}$  (x), 57.8  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

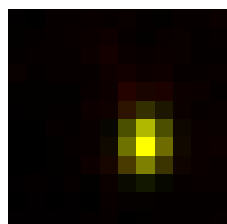
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	417 nm	270 nm
max	512 nm	533 nm	270 nm
z	1.77 $\mu\text{m}$	1.78 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.781		
Theta	87.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 718.700 (brightness)

B = 124.730 (background)

a = 0.838 px

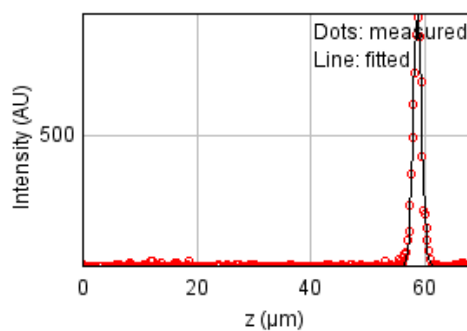
b = 0.013 px

c = 0.512 px

xc = 6.987 px

yc = 6.824 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 39922.1207

Standard deviation: 11.40349

$R^2$ : 0.98777

Parameters:

a = 113.07384

b = 857.06864

c = 58.74807

d = 0.75243

## Bead 3336 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 99.2  $\mu\text{m}$  (x), 55.6  $\mu\text{m}$  (y), 57.5  $\mu\text{m}$  (z)

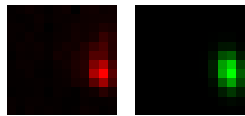
Corresponding bead : Not found

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

FWHM	Non corrected	Corrected	Theoretical
min	427 nm	444 nm	270 nm
max	653 nm	680 nm	270 nm
z	3.71 $\mu\text{m}$	3.73 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.654		
Theta	-81.1°		

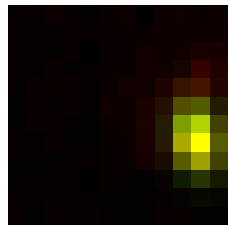
### XY profile & fitting parameters :

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



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

$R^2 = 0.933$



Parameters:

A = 605.359 (brightness)

B = 129.148 (background)

a = 0.727 px

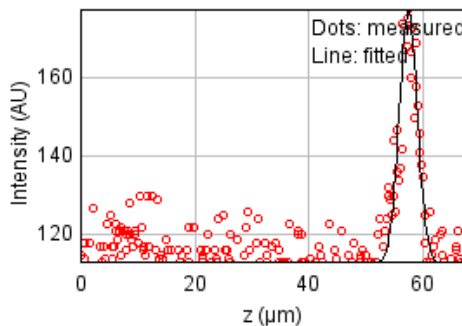
b = -0.064 px

c = 0.325 px

xc = 9.764 px

yc = 6.742 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 14601.0104

Standard deviation: 6.89640

$R^2$ : 0.76773

Parameters:

a = 112.88725

b = 177.24995

c = 57.47962

d = 1.57599

## Bead 3337

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

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

Frame size : 12 pixels

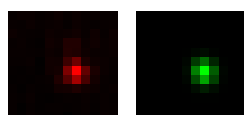
Coordinates : -64.3  $\mu\text{m}$  (x), 50.5  $\mu\text{m}$  (y), 59.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

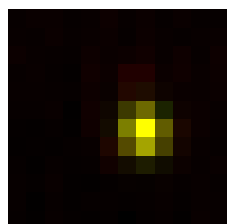
FWHM	Non corrected	Corrected	Theoretical
min	392 nm	409 nm	270 nm
max	452 nm	471 nm	270 nm
z	1.76 $\mu\text{m}$	1.77 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.867		
Theta	-77.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 770.055 (brightness)

B = 121.193 (background)

a = 0.862 px

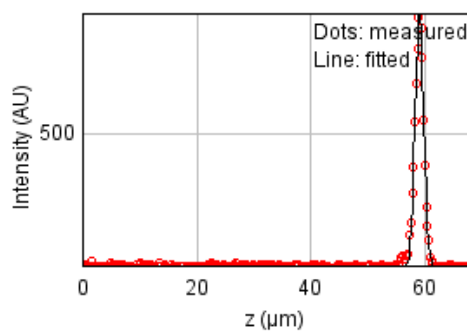
b = -0.046 px

c = 0.666 px

$x_c = 6.914$  px

$y_c = 6.160$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25314.0714

Standard deviation: 9.08054

$R^2$ : 0.99223

Parameters:

a = 114.13615

b = 861.26865

c = 59.08338

d = 0.74831

## Bead 3338

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

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

Frame size : 12 pixels

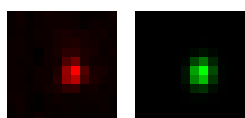
Coordinates : -96.0  $\mu\text{m}$  (x), 48.7  $\mu\text{m}$  (y), 59.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

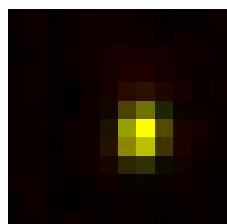
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	414 nm	270 nm
max	498 nm	519 nm	270 nm
z	1.66 $\mu\text{m}$	1.67 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.798		
Theta	81.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 761.162 (brightness)

B = 123.205 (background)

a = 0.843 px

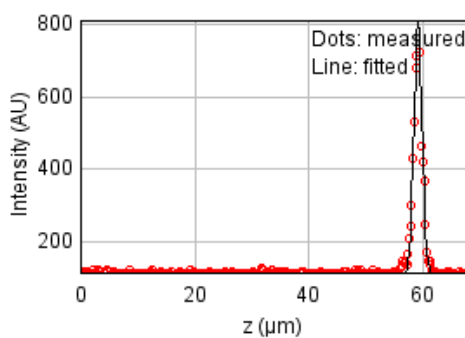
b = 0.045 px

c = 0.547 px

xc = 6.756 px

yc = 6.258 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 39171.6627

Standard deviation: 11.29580

$R^2$ : 0.98557

Parameters:

a = 113.11979

b = 811.77638

c = 59.19241

d = 0.70639

## Bead 3339

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

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

Frame size : 12 pixels

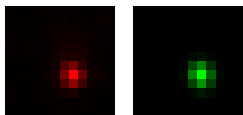
Coordinates : -50.6  $\mu\text{m}$  (x), 45.0  $\mu\text{m}$  (y), 59.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

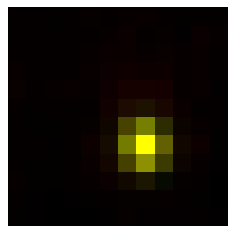
FWHM	Non corrected	Corrected	Theoretical
min	395 nm	411 nm	270 nm
max	460 nm	479 nm	270 nm
z	1.85 $\mu\text{m}$	1.86 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.858		
Theta	-79.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 992.678$  (brightness)

$B = 127.145$  (background)

$a = 0.853$  px

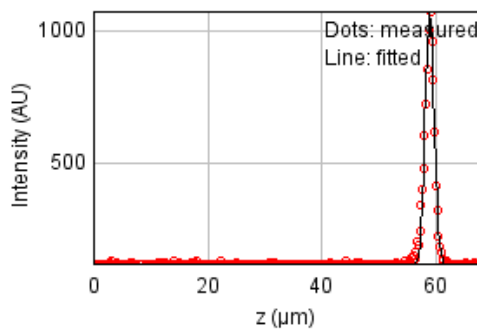
$b = -0.039$  px

$c = 0.641$  px

$x_c = 6.927$  px

$y_c = 7.044$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 60423.3869

Standard deviation: 14.02921

$R^2: 0.98935$

Parameters:

$a = 114.44851$

$b = 1075.14070$

$c = 58.96361$

$d = 0.78713$

## Bead 3340

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

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

Frame size : 12 pixels

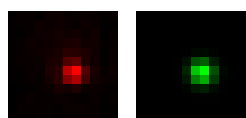
Coordinates : -25.4  $\mu\text{m}$  (x), 43.6  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

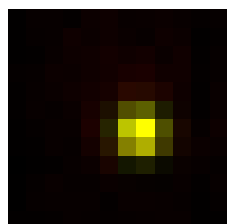
FWHM	Non corrected	Corrected	Theoretical
min	429 nm	447 nm	270 nm
max	448 nm	467 nm	270 nm
z	1.71 $\mu\text{m}$	1.72 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.958		
Theta	-64.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 757.637$  (brightness)

$B = 124.232$  (background)

$a = 0.717$  px

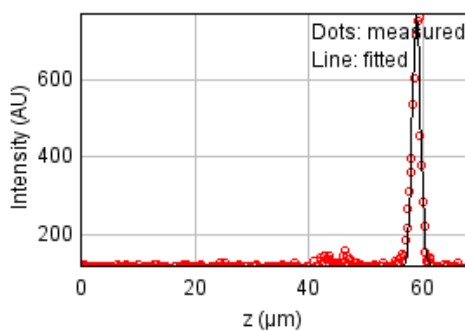
$b = -0.023$  px

$c = 0.679$  px

$x_c = 6.689$  px

$y_c = 6.208$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 77180.2014

Standard deviation: 15.85564

$R^2: 0.96913$

Parameters:

$a = 116.68592$

$b = 773.01244$

$c = 58.92852$

$d = 0.72582$



## Bead 3341

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

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

Frame size : 12 pixels

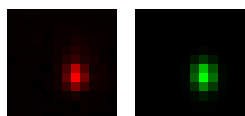
Coordinates : -100  $\mu\text{m}$  (x), 43.3  $\mu\text{m}$  (y), 59.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

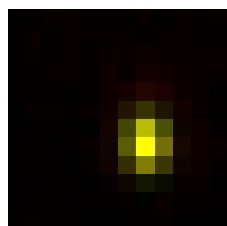
FWHM	Non corrected	Corrected	Theoretical
min	382 nm	398 nm	270 nm
max	516 nm	537 nm	270 nm
z	1.85 $\mu\text{m}$	1.86 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.74		
Theta	-88.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 858.311$  (brightness)

$B = 126.467$  (background)

$a = 0.920$  px

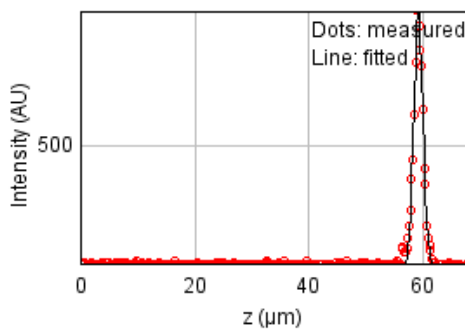
$b = -0.014$  px

$c = 0.505$  px

$x_c = 7.044$  px

$y_c = 6.800$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40194.0408

Standard deviation: 11.44226

$R^2: 0.99048$

Parameters:

$a = 113.94399$

$b = 943.58620$

$c = 59.25487$

$d = 0.78678$

## Bead 3342 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 154  $\mu\text{m}$  (x), 39.1  $\mu\text{m}$  (y), 57.7  $\mu\text{m}$  (z)

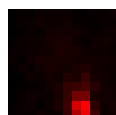
Corresponding bead : Not found

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	3.21 $\mu\text{m}$	3.23 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

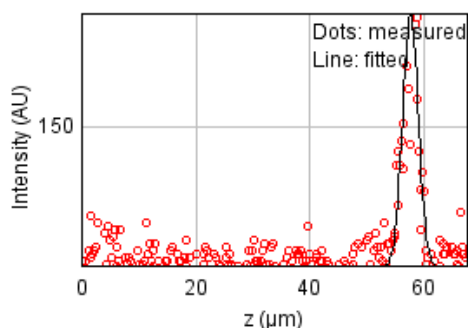
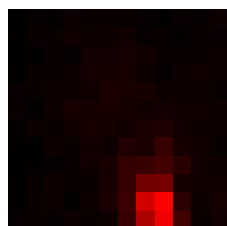
### XY profile & fitting parameters :

(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: 12564.1581

Standard deviation: 6.39731

R<sup>2</sup>: 0.81551

Parameters:

a = 109.12505

b = 182.89864

c = 57.69265

d = 1.36395

## Bead 3343

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

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

Frame size : 12 pixels

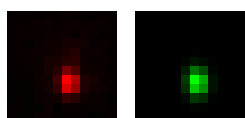
Coordinates : -25.0  $\mu\text{m}$  (x), 38.5  $\mu\text{m}$  (y), 58.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

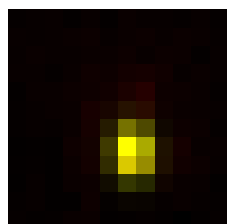
FWHM	Non corrected	Corrected	Theoretical
min	377 nm	393 nm	270 nm
max	507 nm	528 nm	270 nm
z	1.9 $\mu\text{m}$	1.91 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.744		
Theta	-87.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 886.218 (brightness)

B = 129.685 (background)

a = 0.941 px

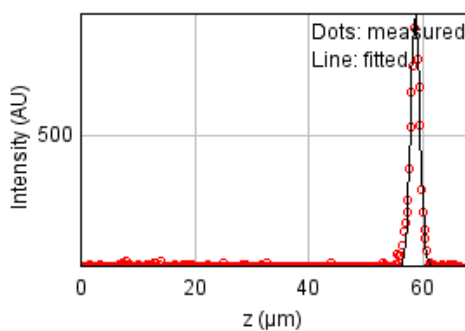
b = -0.022 px

c = 0.522 px

xc = 6.290 px

yc = 7.282 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 45209.7373

Standard deviation: 12.13520

$R^2$ : 0.98718

Parameters:

a = 114.14258

b = 861.38365

c = 58.72629

d = 0.80822

## Bead 3344

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

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

Frame size : 12 pixels

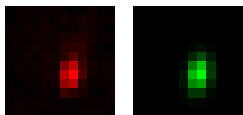
Coordinates : 2.79  $\mu\text{m}$  (x), 38.2  $\mu\text{m}$  (y), 58.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

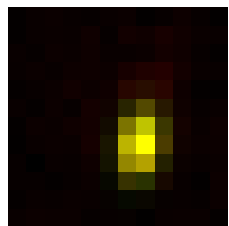
FWHM	Non corrected	Corrected	Theoretical
min	383 nm	399 nm	270 nm
max	621 nm	646 nm	270 nm
z	2.59 $\mu\text{m}$	2.6 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.617		
Theta	81.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 565.526 (brightness)

B = 128.378 (background)

a = 0.902 px

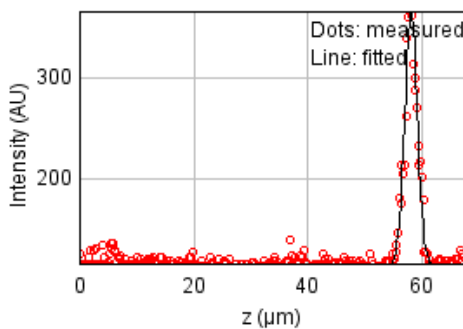
b = 0.087 px

c = 0.362 px

xc = 6.701 px

yc = 6.939 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28765.5709

Standard deviation: 9.67982

$R^2$ : 0.94845

Parameters:

a = 114.41475

b = 366.30767

c = 58.13720

d = 1.09834

## Bead 3345

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

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

Frame size : 12 pixels

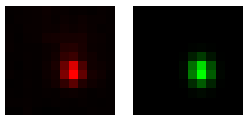
Coordinates : -65.6  $\mu\text{m}$  (x), 36.1  $\mu\text{m}$  (y), 59.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

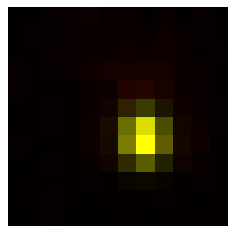
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	408 nm	270 nm
max	477 nm	497 nm	270 nm
z	1.87 $\mu\text{m}$	1.88 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.821		
Theta	-86.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 990.055 (brightness)

B = 124.176 (background)

a = 0.874 px

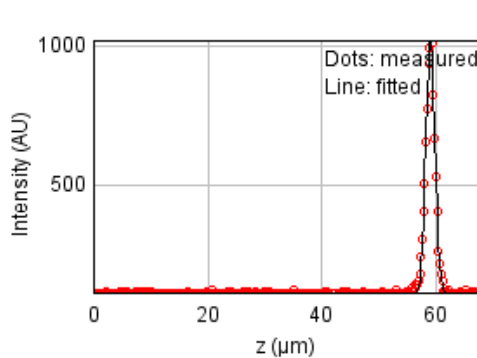
b = -0.020 px

c = 0.591 px

xc = 6.909 px

yc = 6.621 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25133.7066

Standard deviation: 9.04814

$R^2$ : 0.99511

Parameters:

a = 114.01950

b = 1026.73576

c = 59.08590

d = 0.79486

## Bead 3346

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

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

Frame size : 12 pixels

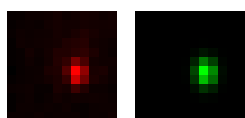
Coordinates : 54.8  $\mu\text{m}$  (x), 31.5  $\mu\text{m}$  (y), 58.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

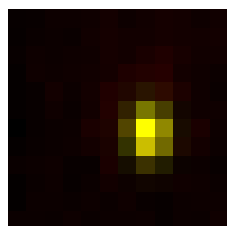
FWHM	Non corrected	Corrected	Theoretical
min	372 nm	387 nm	270 nm
max	505 nm	526 nm	270 nm
z	1.86 $\mu\text{m}$	1.87 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.736		
Theta	-87.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 579.667$  (brightness)

$B = 124.237$  (background)

$a = 0.971$  px

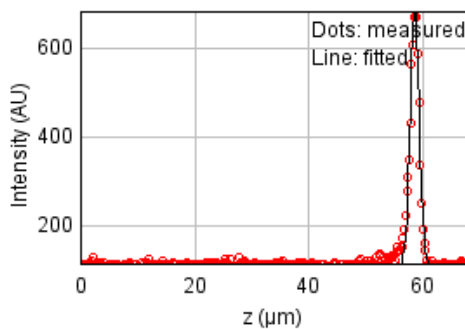
$b = -0.016$  px

$c = 0.527$  px

$x_c = 7.180$  px

$y_c = 6.226$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 39063.1246

Standard deviation: 11.28014

$R^2: 0.98081$

Parameters:

$a = 113.34986$

$b = 685.03344$

$c = 58.61821$

$d = 0.79099$

## Bead 3347

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

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

Frame size : 12 pixels

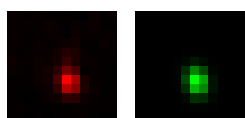
Coordinates : 718 nm (x), 30.6 um (y), 58.7 um (z)

Corresponding bead : Not found

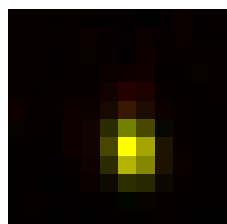
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	407 nm	270 nm
max	517 nm	539 nm	270 nm
z	1.89 um	1.9 um	1.3 um
Asymmetry	0.756		
Theta	-78.1°		

### 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 = 740.710 (brightness)

B = 126.323 (background)

a = 0.862 px

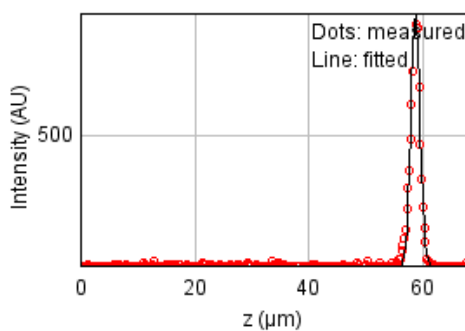
b = -0.076 px

c = 0.517 px

xc = 6.263 px

yc = 7.199 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 44931.3643

Standard deviation: 12.09778

$R^2$ : 0.98708

Parameters:

a = 113.81862

b = 858.20334

c = 58.74443

d = 0.80245

## Bead 3348

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

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

Frame size : 12 pixels

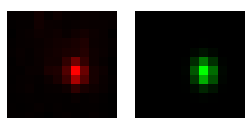
Coordinates : 24.9  $\mu\text{m}$  (x), 27.6  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

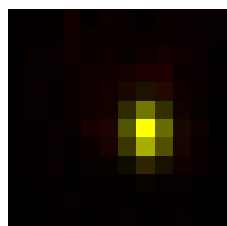
FWHM	Non corrected	Corrected	Theoretical
min	370 nm	385 nm	270 nm
max	484 nm	504 nm	270 nm
z	1.98 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.764		
Theta	-85.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 781.742 (brightness)

B = 127.252 (background)

a = 0.980 px

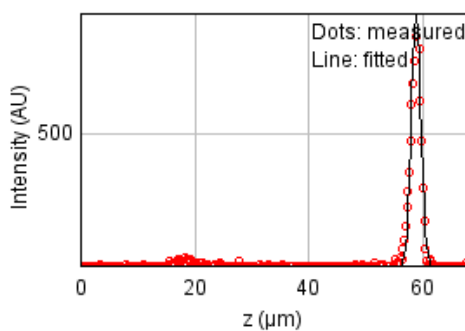
b = -0.035 px

c = 0.576 px

$x_c = 7.068$  px

$y_c = 6.168$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 73174.7909

Standard deviation: 15.43873

$R^2$ : 0.97949

Parameters:

a = 116.01576

b = 851.03614

c = 58.85832

d = 0.83958



## Bead 3349

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

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

Frame size : 12 pixels

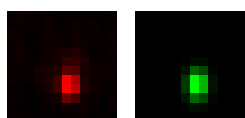
Coordinates : 20.5  $\mu\text{m}$  (x), 26.6  $\mu\text{m}$  (y), 58.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

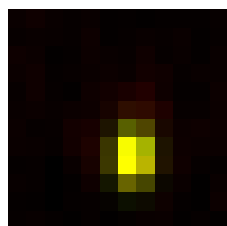
FWHM	Non corrected	Corrected	Theoretical
min	378 nm	394 nm	270 nm
max	532 nm	554 nm	270 nm
z	1.95 $\mu\text{m}$	1.96 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.711		
Theta	89.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 691.235 (brightness)

B = 126.526 (background)

a = 0.937 px

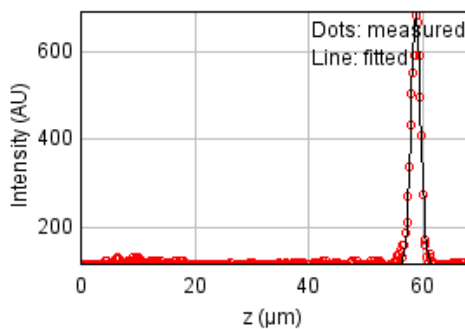
b = 0.005 px

c = 0.474 px

xc = 6.315 px

yc = 7.513 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 33751.2034

Standard deviation: 10.48517

$R^2$ : 0.98463

Parameters:

a = 114.59763

b = 695.87812

c = 58.82378

d = 0.83013

## Bead 3350

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

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

Frame size : 12 pixels

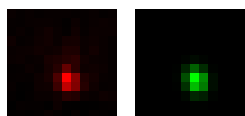
Coordinates : -11.2  $\mu\text{m}$  (x), 25.3  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

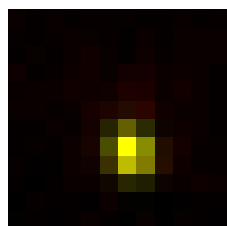
FWHM	Non corrected	Corrected	Theoretical
min	380 nm	396 nm	270 nm
max	468 nm	487 nm	270 nm
z	1.82 $\mu\text{m}$	1.82 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.813		
Theta	-72.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 726.346$  (brightness)

$B = 128.913$  (background)

$a = 0.899$  px

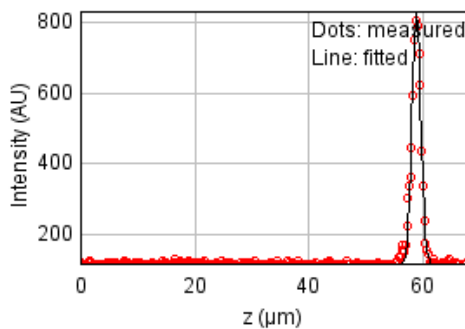
$b = -0.092$  px

$c = 0.643$  px

$x_c = 6.194$  px

$y_c = 7.291$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 43430.3283

Standard deviation: 11.89398

$R^2: 0.98611$

Parameters:

$a = 113.86557$

$b = 832.78760$

$c = 58.91483$

$d = 0.77148$

## Bead 3351

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

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

Frame size : 12 pixels

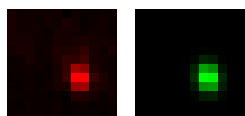
Coordinates : -8.91  $\mu\text{m}$  (x), 24.3  $\mu\text{m}$  (y), 58.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

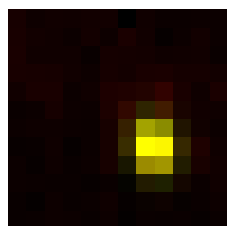
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	508 nm	530 nm	270 nm
z	2.11 $\mu\text{m}$	2.12 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.761		
Theta	-80.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 578.453$  (brightness)

$B = 125.955$  (background)

$a = 0.887$  px

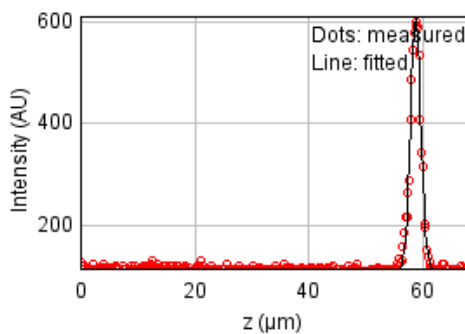
$b = -0.059$  px

$c = 0.529$  px

$x_c = 7.478$  px

$y_c = 6.978$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20545.0376

Standard deviation: 8.18058

$R^2: 0.98805$

Parameters:

$a = 113.96975$

$b = 610.75317$

$c = 58.78183$

$d = 0.89666$

## Bead 3352

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

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

Frame size : 12 pixels

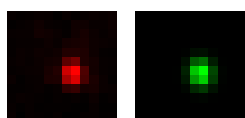
Coordinates : -5.57  $\mu\text{m}$  (x), 20.7  $\mu\text{m}$  (y), 59.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

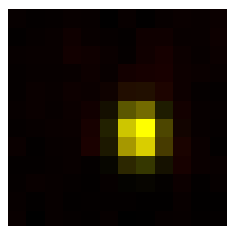
FWHM	Non corrected	Corrected	Theoretical
min	416 nm	434 nm	270 nm
max	497 nm	518 nm	270 nm
z	1.76 $\mu\text{m}$	1.77 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.837		
Theta	-84.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 788.986$  (brightness)

$B = 123.507$  (background)

$a = 0.772$  px

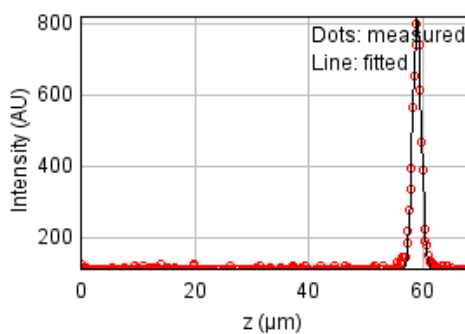
$b = -0.022$  px

$c = 0.545$  px

$x_c = 6.672$  px

$y_c = 6.287$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34771.6765

Standard deviation: 10.64250

$R^2: 0.98806$

Parameters:

$a = 114.18001$

$b = 819.64789$

$c = 59.01496$

$d = 0.74665$

## Bead 3353 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : -47.7  $\mu\text{m}$  (x), 18.6  $\mu\text{m}$  (y), 45.8  $\mu\text{m}$  (z)

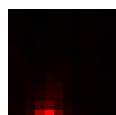
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	270 nm
max	0	0	270 nm
z	2.12 $\mu\text{m}$	2.13 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

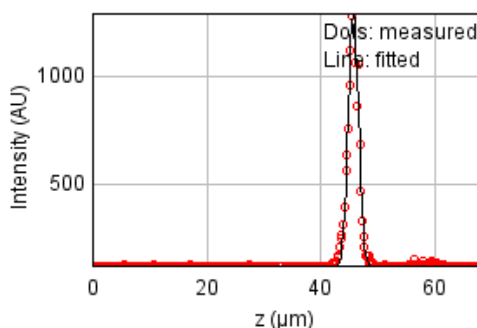
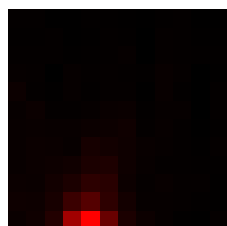
### XY profile & fitting parameters :

(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: 159094.949

Standard deviation: 22.76455

R<sup>2</sup>: 0.98371

Parameters:

a = 116.10940

b = 1295.91336

c = 45.76936

d = 0.89889

## Bead 3354

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

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

Frame size : 12 pixels

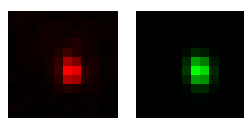
Coordinates : -20.8  $\mu\text{m}$  (x), 17.7  $\mu\text{m}$  (y), 59.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

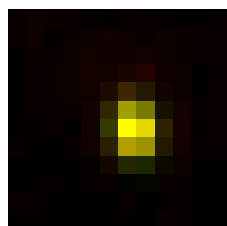
FWHM	Non corrected	Corrected	Theoretical
min	401 nm	417 nm	270 nm
max	534 nm	556 nm	270 nm
z	2.05 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.751		
Theta	-82.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 796.074 (brightness)

B = 125.414 (background)

a = 0.830 px

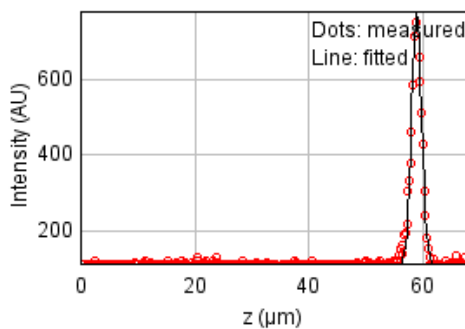
b = -0.049 px

c = 0.478 px

$x_c = 6.401$  px

$y_c = 6.038$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 33288.4958

Standard deviation: 10.41305

$R^2$ : 0.98888

Parameters:

a = 113.54851

b = 777.94644

c = 58.95397

d = 0.87187

## Bead 3355

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

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

Frame size : 12 pixels

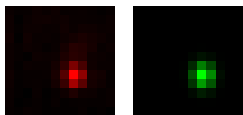
Coordinates : 52.6  $\mu\text{m}$  (x), 17.7  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

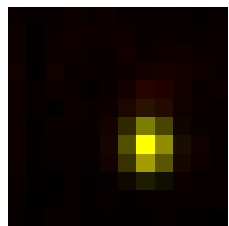
FWHM	Non corrected	Corrected	Theoretical
min	389 nm	405 nm	270 nm
max	472 nm	492 nm	270 nm
z	1.95 $\mu\text{m}$	1.96 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.824		
Theta	89.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 702.431$  (brightness)

$B = 129.502$  (background)

$a = 0.886$  px

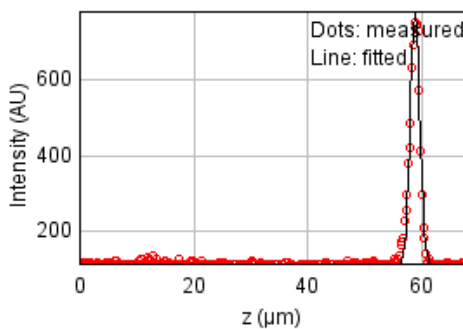
$b = 0.002$  px

$c = 0.602$  px

$x_c = 7.157$  px

$y_c = 7.089$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 51612.5275

Standard deviation: 12.96607

$R^2: 0.98245$

Parameters:

$a = 114.82367$

$b = 787.40546$

$c = 58.85101$

$d = 0.82854$

## Bead 3356

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

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

Frame size : 12 pixels

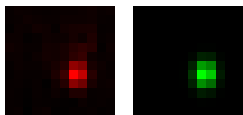
Coordinates : 55.5  $\mu\text{m}$  (x), 17.5  $\mu\text{m}$  (y), 58.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

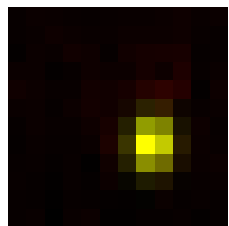
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	400 nm	270 nm
max	501 nm	522 nm	270 nm
z	2.05 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.768		
Theta	86.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 631.375 (brightness)

B = 126.835 (background)

a = 0.906 px

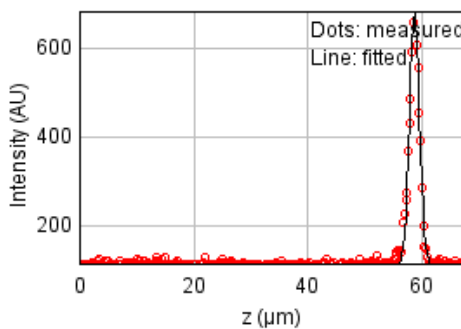
b = 0.024 px

c = 0.536 px

$x_c = 7.373$  px

$y_c = 6.936$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28079.7543

Standard deviation: 9.56373

$R^2$ : 0.98718

Parameters:

a = 113.91558

b = 682.19493

c = 58.75450

d = 0.87045



## Bead 3357

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

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

Frame size : 12 pixels

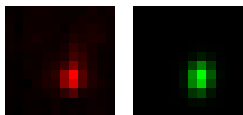
Coordinates : 71.2  $\mu\text{m}$  (x), 17.0  $\mu\text{m}$  (y), 58.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

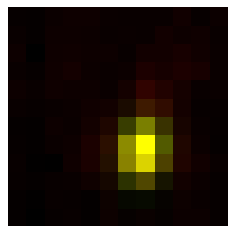
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	416 nm	270 nm
max	554 nm	577 nm	270 nm
z	2.08 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.721		
Theta	80.9°		

### 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 = 536.039 (brightness)

B = 126.344 (background)

a = 0.830 px

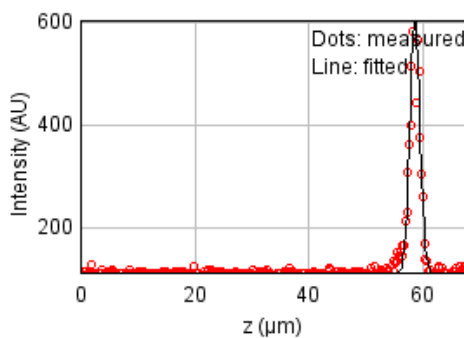
b = 0.063 px

c = 0.447 px

$x_c = 6.844$  px

$y_c = 7.305$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 45930.0439

Standard deviation: 12.23149

$R^2$ : 0.97280

Parameters:

a = 113.37684

b = 604.74845

c = 58.64332

d = 0.88539

## Bead 3358

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

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

Frame size : 12 pixels

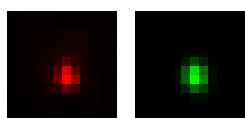
Coordinates : 20.3  $\mu\text{m}$  (x), 16.7  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

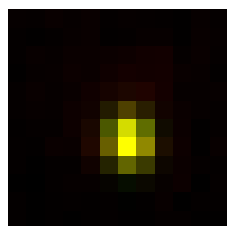
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	423 nm	270 nm
max	500 nm	521 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.812		
Theta	-82.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 877.124$  (brightness)

$B = 126.623$  (background)

$a = 0.808$  px

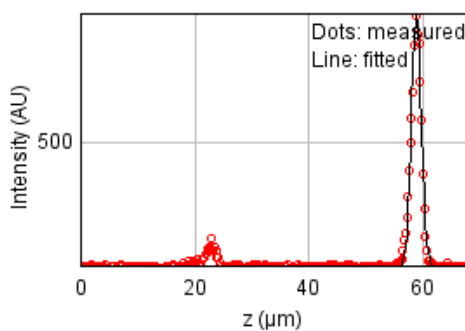
$b = -0.035$  px

$c = 0.540$  px

$x_c = 6.096$  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: 81653.7010

Standard deviation: 16.30868

$R^2 = 0.98027$

Parameters:

$a = 117.22410$

$b = 900.54527$

$c = 58.89635$

$d = 0.85950$

## Bead 3359

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

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

Frame size : 12 pixels

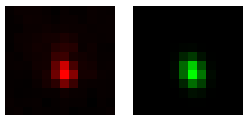
Coordinates : -26.4  $\mu\text{m}$  (x), 16.0  $\mu\text{m}$  (y), 59.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

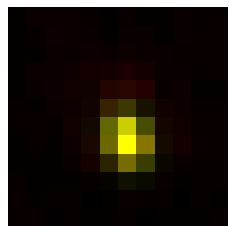
FWHM	Non corrected	Corrected	Theoretical
min	392 nm	408 nm	270 nm
max	516 nm	538 nm	270 nm
z	2.08 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.759		
Theta	-72.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 910.191 (brightness)

B = 128.735 (background)

a = 0.840 px

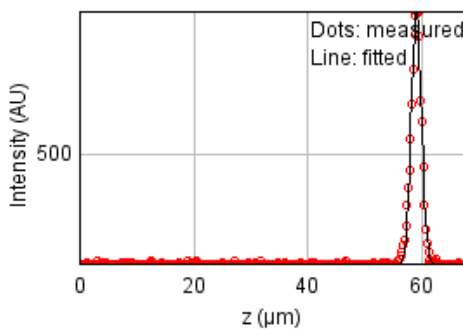
b = -0.107 px

c = 0.538 px

xc = 6.003 px

yc = 6.702 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 39167.9103

Standard deviation: 11.29525

$R^2$ : 0.99278

Parameters:

a = 112.75620

b = 1003.90912

c = 59.08610

d = 0.88186

## Bead 3360

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

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

Frame size : 12 pixels

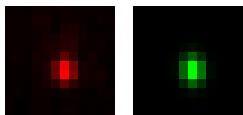
Coordinates : 229 nm (x), 14.7 um (y), 59.0 um (z)

Corresponding bead : Not found

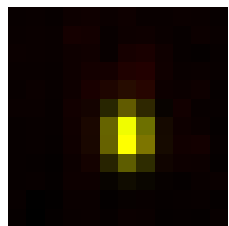
FWHM	Non corrected	Corrected	Theoretical
min	393 nm	409 nm	270 nm
max	515 nm	536 nm	270 nm
z	1.89 um	1.9 um	1.3 um
Asymmetry	0.763		
Theta	-87.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 728.362 (brightness)

B = 127.213 (background)

a = 0.869 px

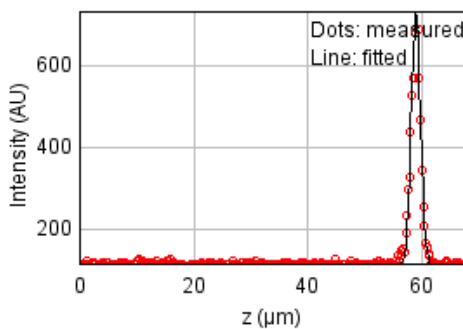
b = -0.017 px

c = 0.508 px

xc = 6.041 px

yc = 6.510 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25088.4157

Standard deviation: 9.03998

$R^2$ : 0.98957

Parameters:

a = 114.44122

b = 734.54723

c = 58.99946

d = 0.80196

## Bead 3361

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

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

Frame size : 12 pixels

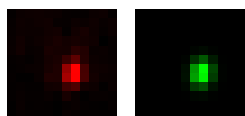
Coordinates : 10.1  $\mu\text{m}$  (x), 14.1  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

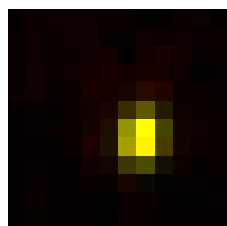
FWHM	Non corrected	Corrected	Theoretical
min	379 nm	395 nm	270 nm
max	492 nm	513 nm	270 nm
z	2.02 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.77		
Theta	81.3°		

### 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 = 721.198 (brightness)

B = 128.418 (background)

a = 0.925 px

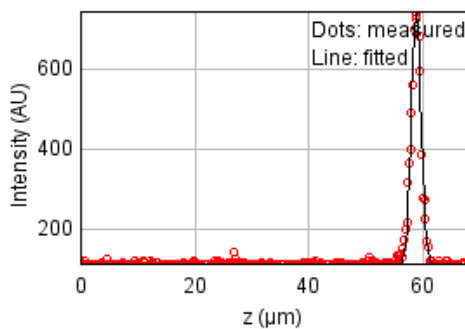
b = 0.057 px

c = 0.562 px

$x_c = 6.763$  px

$y_c = 6.482$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 41510.1490

Standard deviation: 11.62808

$R^2$ : 0.98444

Parameters:

a = 114.70526

b = 745.90749

c = 58.87513

d = 0.85636

## Bead 3362 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 71.3  $\mu\text{m}$  (x), 10.9  $\mu\text{m}$  (y), 58.8  $\mu\text{m}$  (z)

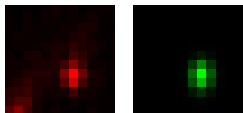
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

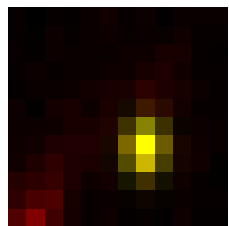
FWHM	Non corrected	Corrected	Theoretical
min	370 nm	386 nm	270 nm
max	518 nm	539 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.715		
Theta	88.0°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.762$



Parameters:

A = 573.099 (brightness)

B = 149.209 (background)

a = 0.979 px

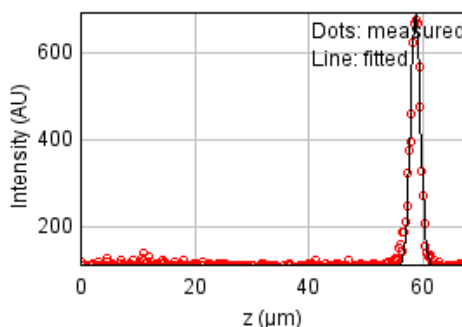
b = 0.017 px

c = 0.501 px

xc = 6.962 px

yc = 7.167 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40497.5734

Standard deviation: 11.48538

$R^2$ : 0.98186

Parameters:

a = 114.07998

b = 689.87182

c = 58.75439

d = 0.85930

## Bead 3363

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

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

Frame size : 12 pixels

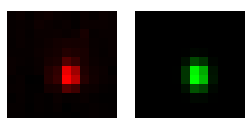
Coordinates : 15.5  $\mu\text{m}$  (x), 10.1  $\mu\text{m}$  (y), 59.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

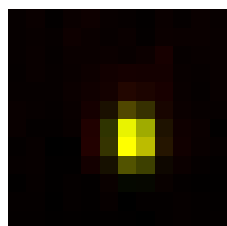
FWHM	Non corrected	Corrected	Theoretical
min	376 nm	392 nm	270 nm
max	479 nm	498 nm	270 nm
z	1.85 $\mu\text{m}$	1.86 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.785		
Theta	-86.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 915.874$  (brightness)

$B = 127.626$  (background)

$a = 0.948$  px

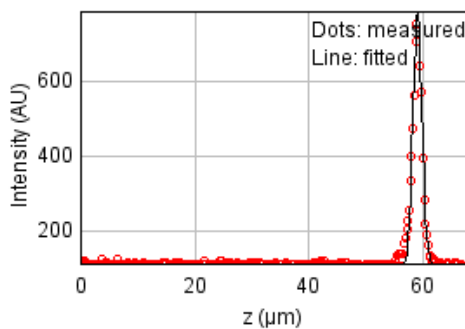
$b = -0.022$  px

$c = 0.587$  px

$x_c = 6.327$  px

$y_c = 6.555$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 44070.1369

Standard deviation: 11.98127

$R^2: 0.98423$

Parameters:

$a = 114.41988$

$b = 787.93298$

$c = 59.10397$

$d = 0.78470$

## Bead 3364

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

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

Frame size : 12 pixels

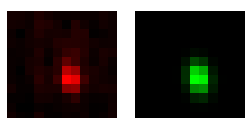
Coordinates : 132  $\mu\text{m}$  (x), 9.17  $\mu\text{m}$  (y), 58.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

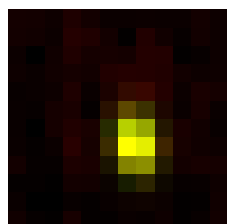
FWHM	Non corrected	Corrected	Theoretical
min	383 nm	399 nm	270 nm
max	566 nm	590 nm	270 nm
z	2.25 $\mu\text{m}$	2.26 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.676		
Theta	-80.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 276.741$  (brightness)

$B = 116.767$  (background)

$a = 0.902$  px

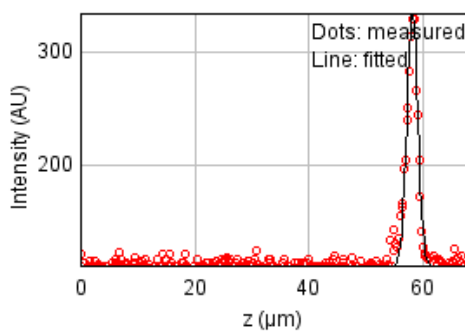
$b = -0.078$  px

$c = 0.431$  px

$x_c = 6.445$  px

$y_c = 6.812$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16278.5350

Standard deviation: 7.28180

$R^2: 0.95756$

Parameters:

$a = 110.81424$

$b = 334.86548$

$c = 58.19441$

$d = 0.95590$



## Bead 3365

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

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

Frame size : 12 pixels

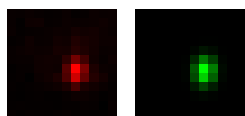
Coordinates : 35.9  $\mu\text{m}$  (x), 7.97  $\mu\text{m}$  (y), 59.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

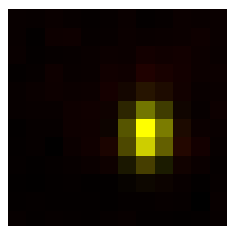
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	400 nm	270 nm
max	523 nm	544 nm	270 nm
z	1.97 $\mu\text{m}$	1.98 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.734		
Theta	86.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 744.840 (brightness)

B = 126.628 (background)

a = 0.909 px

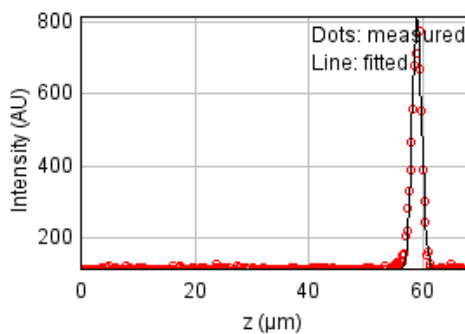
b = 0.025 px

c = 0.493 px

xc = 7.096 px

yc = 6.277 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 39342.7659

Standard deviation: 11.32044

$R^2$ : 0.98777

Parameters:

a = 113.61918

b = 816.15918

c = 59.00929

d = 0.83593

## Bead 3366

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

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

Frame size : 12 pixels

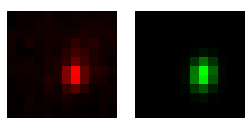
Coordinates : -147  $\mu\text{m}$  (x), 7.5  $\mu\text{m}$  (y), 58.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

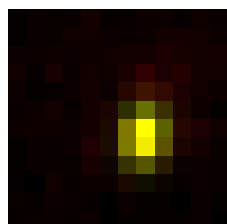
FWHM	Non corrected	Corrected	Theoretical
min	395 nm	412 nm	270 nm
max	544 nm	567 nm	270 nm
z	2.13 $\mu\text{m}$	2.14 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.727		
Theta	83.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 375.494 (brightness)

B = 121.049 (background)

a = 0.853 px

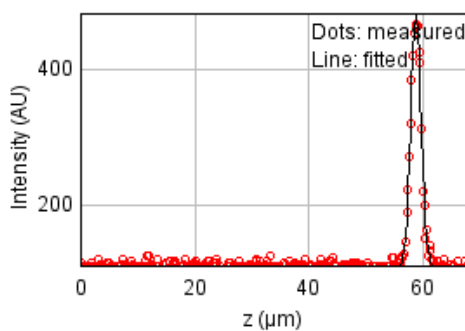
b = 0.048 px

c = 0.459 px

$x_c = 6.917$  px

$y_c = 6.415$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17082.5289

Standard deviation: 7.45945

$R^2$ : 0.98271

Parameters:

a = 110.81233

b = 484.99066

c = 58.82988

d = 0.90371

## Bead 3367

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

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

Frame size : 12 pixels

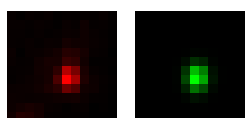
Coordinates : 26.0  $\mu\text{m}$  (x), 4.78  $\mu\text{m}$  (y), 59.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

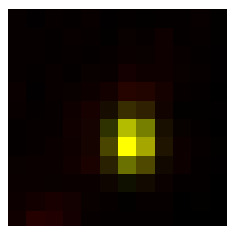
FWHM	Non corrected	Corrected	Theoretical
min	394 nm	410 nm	270 nm
max	490 nm	510 nm	270 nm
z	2.04 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.804		
Theta	87.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 969.358 (brightness)

B = 140.449 (background)

a = 0.864 px

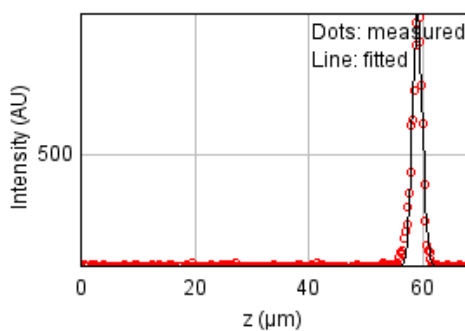
b = 0.016 px

c = 0.560 px

xc = 6.257 px

yc = 6.766 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 86762.4818

Standard deviation: 16.81113

$R^2$ : 0.98342

Parameters:

a = 114.47716

b = 992.85863

c = 59.08982

d = 0.86700

## Bead 3368

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

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

Frame size : 12 pixels

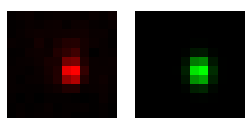
Coordinates : 20.1  $\mu\text{m}$  (x), 2.29  $\mu\text{m}$  (y), 59.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

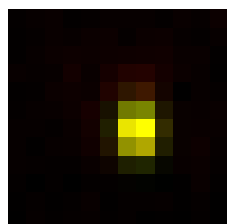
FWHM	Non corrected	Corrected	Theoretical
min	379 nm	394 nm	270 nm
max	499 nm	520 nm	270 nm
z	1.9 $\mu\text{m}$	1.91 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.759		
Theta	-88.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 752.516$  (brightness)

$B = 125.362$  (background)

$a = 0.936$  px

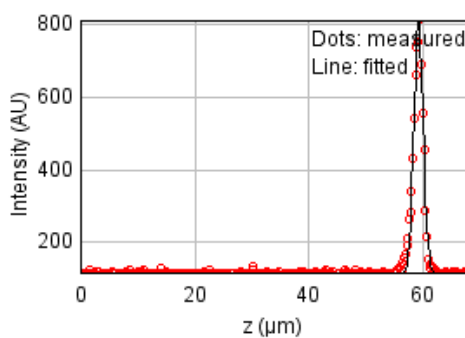
$b = -0.013$  px

$c = 0.540$  px

$x_c = 6.561$  px

$y_c = 6.096$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 41301.2557

Standard deviation: 11.59878

$R^2: 0.98672$

Parameters:

$a = 114.36913$

$b = 816.47227$

$c = 59.28227$

$d = 0.80683$

## Bead 3369

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

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

Frame size : 12 pixels

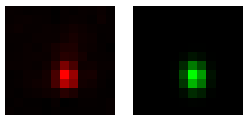
Coordinates : 6.65  $\mu\text{m}$  (x), 1.17  $\mu\text{m}$  (y), 59.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

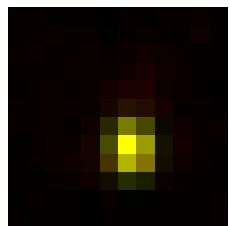
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	413 nm	270 nm
max	498 nm	519 nm	270 nm
z	1.91 $\mu\text{m}$	1.91 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.795		
Theta	-85.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 880.185 (brightness)

B = 126.825 (background)

a = 0.853 px

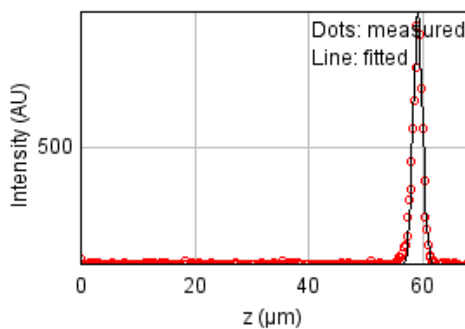
b = -0.025 px

c = 0.543 px

$x_c = 6.215$  px

$y_c = 7.187$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 60304.6562

Standard deviation: 14.01542

$R^2$ : 0.98634

Parameters:

a = 113.82309

b = 948.81841

c = 59.17006

d = 0.80972

## Bead 3370

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

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

Frame size : 12 pixels

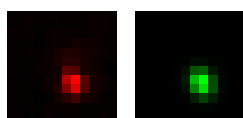
Coordinates : 10.5  $\mu\text{m}$  (x), -2.82  $\mu\text{m}$  (y), 59.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

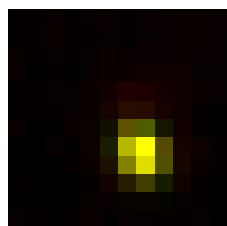
FWHM	Non corrected	Corrected	Theoretical
min	403 nm	419 nm	270 nm
max	502 nm	523 nm	270 nm
z	1.94 $\mu\text{m}$	1.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.802		
Theta	-67.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 882.318 (brightness)

B = 127.814 (background)

a = 0.783 px

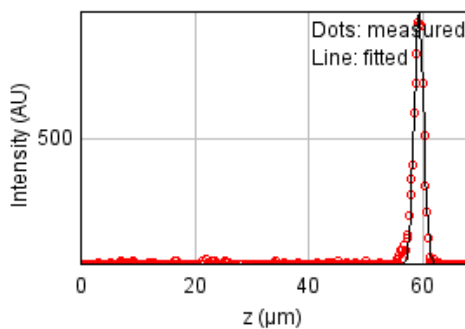
b = -0.105 px

c = 0.576 px

$x_c = 6.755$  px

$y_c = 7.334$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 56124.1545

Standard deviation: 13.52090

$R^2 = 0.98567$

Parameters:

a = 114.84183

b = 893.56132

c = 59.34372

d = 0.82577

## Bead 3371

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

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

Frame size : 12 pixels

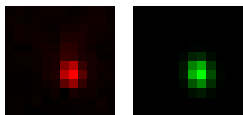
Coordinates : 27.7  $\mu\text{m}$  (x), -8.88  $\mu\text{m}$  (y), 59.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

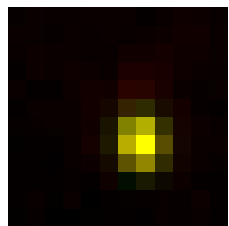
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	427 nm	270 nm
max	513 nm	534 nm	270 nm
z	1.96 $\mu\text{m}$	1.96 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.8		
Theta	-81.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 731.674$  (brightness)

$B = 127.738$  (background)

$a = 0.791$  px

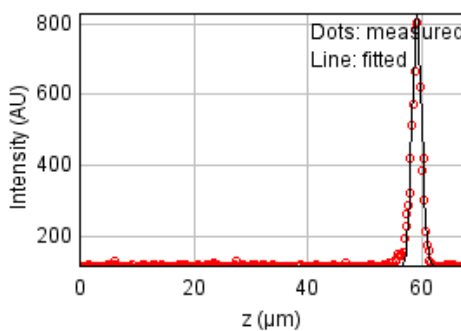
$b = -0.044$  px

$c = 0.517$  px

$x_c = 6.733$  px

$y_c = 6.845$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 86189.6627

Standard deviation: 16.75554

$R^2: 0.97427$

Parameters:

$a = 114.84723$

$b = 828.87029$

$c = 59.18101$

$d = 0.83057$

## Bead 3372

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

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

Frame size : 12 pixels

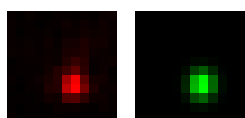
Coordinates : 60.7  $\mu\text{m}$  (x), -16.9  $\mu\text{m}$  (y), 59.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

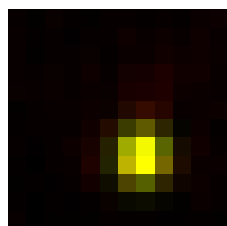
FWHM	Non corrected	Corrected	Theoretical
min	458 nm	477 nm	270 nm
max	517 nm	538 nm	270 nm
z	1.97 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.886		
Theta	86.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 700.944$  (brightness)

$B = 127.710$  (background)

$a = 0.639$  px

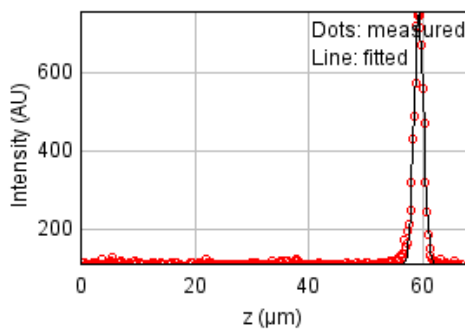
$b = 0.009$  px

$c = 0.503$  px

$x_c = 6.787$  px

$y_c = 7.531$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31625.6031

Standard deviation: 10.14963

$R^2: 0.98821$

Parameters:

$a = 113.50959$

$b = 755.37669$

$c = 59.32873$

$d = 0.83506$



## Bead 3373 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 81.5  $\mu\text{m}$  (x), -20.6  $\mu\text{m}$  (y), 59.3  $\mu\text{m}$  (z)

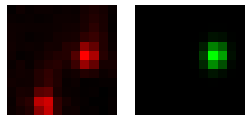
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

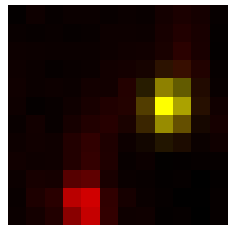
FWHM	Non corrected	Corrected	Theoretical
min	375 nm	391 nm	270 nm
max	461 nm	480 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.815		
Theta	80.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.468$



Parameters:

A = 633.095 (brightness)

B = 161.100 (background)

a = 0.943 px

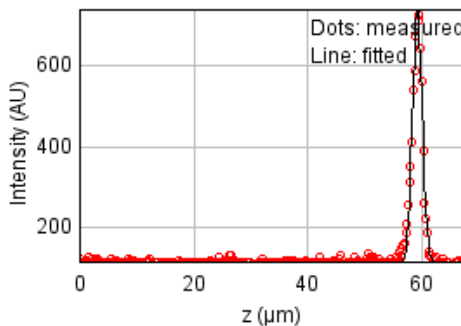
b = 0.054 px

c = 0.642 px

xc = 8.256 px

yc = 5.009 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40355.6336

Standard deviation: 11.46523

$R^2$ : 0.98461

Parameters:

a = 113.85213

b = 742.33326

c = 59.25511

d = 0.84887

## Bead 3374

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

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

Frame size : 12 pixels

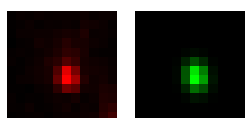
Coordinates : 20.9  $\mu\text{m}$  (x), -22.0  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

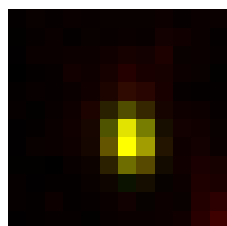
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	426 nm	270 nm
max	531 nm	553 nm	270 nm
z	2.23 $\mu\text{m}$	2.24 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.77		
Theta	-80.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 608.842 (brightness)

B = 138.323 (background)

a = 0.794 px

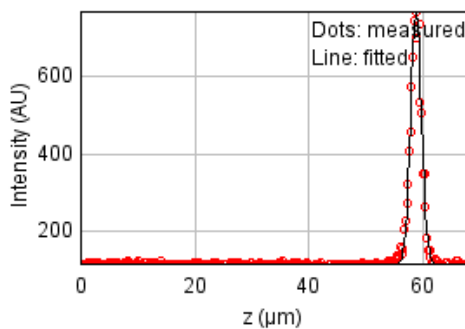
b = -0.053 px

c = 0.485 px

xc = 6.169 px

yc = 6.641 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37826.6979

Standard deviation: 11.10018

$R^2$ : 0.98812

Parameters:

a = 114.02804

b = 772.87695

c = 58.85043

d = 0.94626

## Bead 3375

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

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

Frame size : 12 pixels

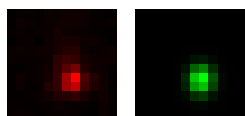
Coordinates : 155  $\mu\text{m}$  (x), -22.6  $\mu\text{m}$  (y), 59.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

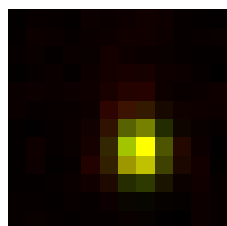
FWHM	Non corrected	Corrected	Theoretical
min	445 nm	464 nm	270 nm
max	529 nm	551 nm	270 nm
z	1.75 $\mu\text{m}$	1.76 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.842		
Theta	89.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 473.149 (brightness)

B = 121.208 (background)

a = 0.676 px

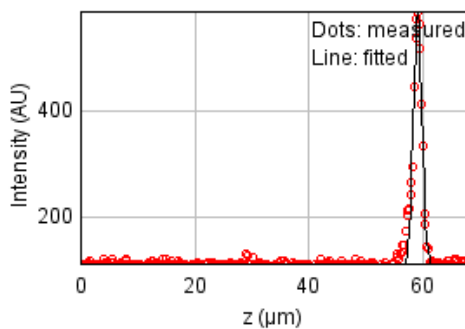
b = 0.003 px

c = 0.479 px

xc = 6.690 px

yc = 7.218 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 39070.0783

Standard deviation: 11.28114

$R^2$ : 0.97082

Parameters:

a = 110.74605

b = 585.74204

c = 59.13051

d = 0.74413

## Bead 3376

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

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

Frame size : 12 pixels

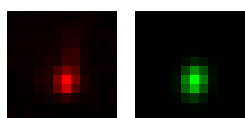
Coordinates : 109  $\mu\text{m}$  (x), -26.5  $\mu\text{m}$  (y), 59.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

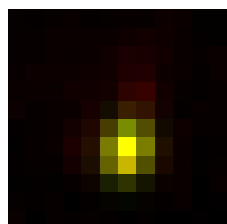
FWHM	Non corrected	Corrected	Theoretical
min	429 nm	447 nm	270 nm
max	543 nm	565 nm	270 nm
z	2.13 $\mu\text{m}$	2.14 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.79		
Theta	78.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 701.759 (brightness)

B = 130.786 (background)

a = 0.718 px

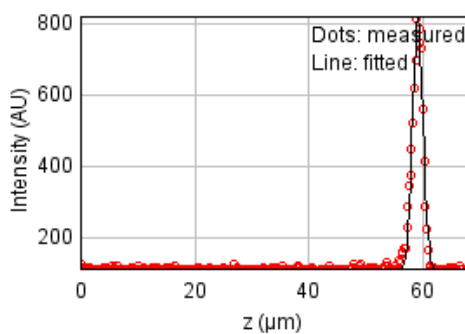
b = 0.056 px

c = 0.467 px

$x_c = 5.993$  px

$y_c = 7.140$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 56109.0487

Standard deviation: 13.51908

$R^2$ : 0.98421

Parameters:

a = 112.25858

b = 821.99659

c = 59.15158

d = 0.90450

## Bead 3377

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

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

Frame size : 12 pixels

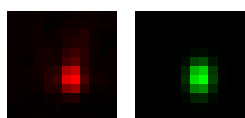
Coordinates : 97.2  $\mu\text{m}$  (x), -29.1  $\mu\text{m}$  (y), 59.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

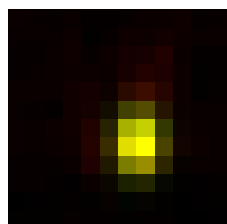
FWHM	Non corrected	Corrected	Theoretical
min	426 nm	443 nm	270 nm
max	581 nm	605 nm	270 nm
z	2.24 $\mu\text{m}$	2.25 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.732		
Theta	88.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 877.939 (brightness)

B = 138.378 (background)

a = 0.741 px

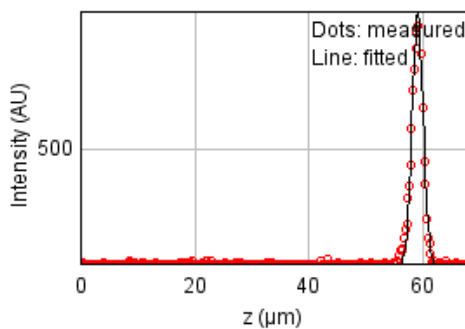
b = 0.008 px

c = 0.397 px

xc = 6.601 px

yc = 6.770 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 68556.5171

Standard deviation: 14.94360

$R^2$ : 0.98707

Parameters:

a = 113.50105

b = 961.55412

c = 59.13044

d = 0.95055

## Bead 3378

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

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

Frame size : 12 pixels

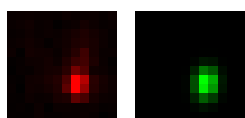
Coordinates : 115  $\mu\text{m}$  (x), -29.9  $\mu\text{m}$  (y), 59.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

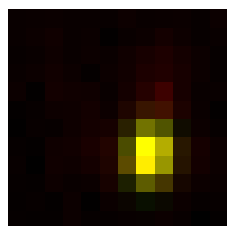
FWHM	Non corrected	Corrected	Theoretical
min	408 nm	425 nm	270 nm
max	557 nm	580 nm	270 nm
z	1.97 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.733		
Theta	84.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 578.420 (brightness)

B = 123.629 (background)

a = 0.801 px

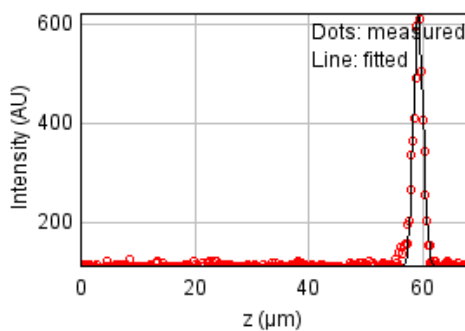
b = 0.035 px

c = 0.436 px

xc = 7.241 px

yc = 7.395 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28846.3798

Standard deviation: 9.69341

$R^2$ : 0.98299

Parameters:

a = 112.19613

b = 621.23344

c = 59.24333

d = 0.83478

## Bead 3379

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

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

Frame size : 12 pixels

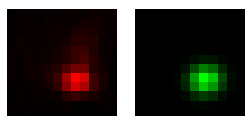
Coordinates : 81.0  $\mu\text{m}$  (x), -33.8  $\mu\text{m}$  (y), 59.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

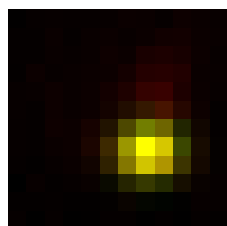
FWHM	Non corrected	Corrected	Theoretical
min	526 nm	548 nm	270 nm
max	588 nm	613 nm	270 nm
z	2.25 $\mu\text{m}$	2.26 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.895		
Theta	8.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 853.807$  (brightness)

$B = 136.598$  (background)

$a = 0.390$  px

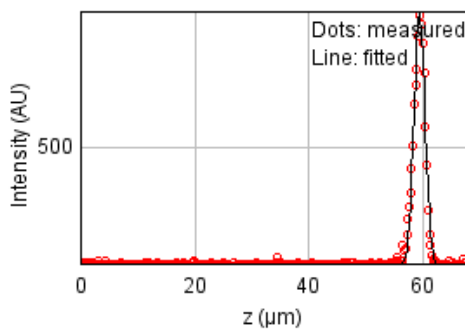
$b = 0.014$  px

$c = 0.483$  px

$x_c = 7.170$  px

$y_c = 7.224$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 60992.1549

Standard deviation: 14.09509

$R^2: 0.98827$

Parameters:

$a = 113.08792$

$b = 951.01518$

$c = 59.45212$

$d = 0.95598$

## Bead 3380 (Rejected)

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

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

Frame size : 12 pixels

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

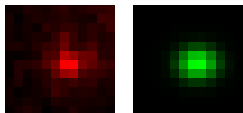
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	604 nm	629 nm	270 nm
max	735 nm	766 nm	270 nm
z	6.34 $\mu\text{m}$	6.37 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.822		
Theta	1.5°		

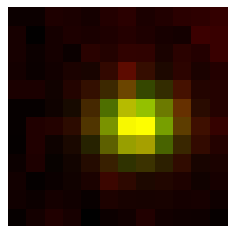
### XY profile & fitting parameters :

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



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

$R^2 = 0.880$



Parameters:

A = 140.214 (brightness)

B = 120.404 (background)

a = 0.248 px

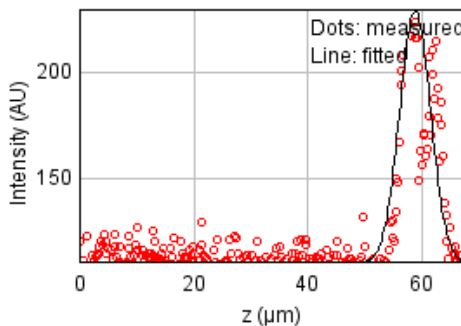
b = 0.003 px

c = 0.368 px

xc = 6.553 px

yc = 5.881 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 84961.5383

Standard deviation: 16.63574

$R^2$ : 0.75458

Parameters:

a = 111.17862

b = 229.53045

c = 58.85623

d = 2.69414



## Bead 3381

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

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

Frame size : 12 pixels

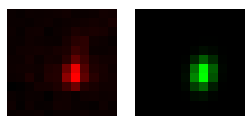
Coordinates : 93.9  $\mu\text{m}$  (x), -95.5  $\mu\text{m}$  (y), 58.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

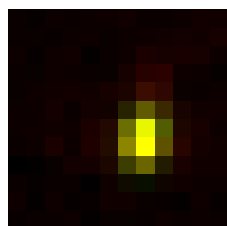
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	400 nm	270 nm
max	537 nm	560 nm	270 nm
z	2.1 $\mu\text{m}$	2.11 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.715		
Theta	79.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 394.340 (brightness)

B = 121.938 (background)

a = 0.895 px

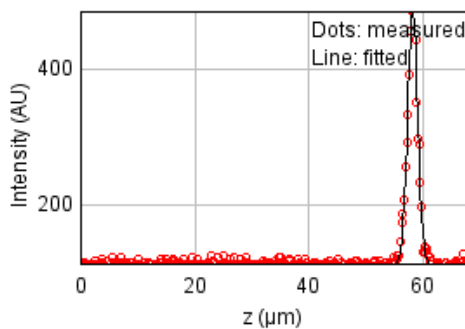
b = 0.078 px

c = 0.479 px

xc = 6.904 px

yc = 6.552 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15339.8821

Standard deviation: 7.06874

$R^2$ : 0.98418

Parameters:

a = 111.94731

b = 485.06801

c = 58.23886

d = 0.89273

## Bead 3382

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

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

Frame size : 12 pixels

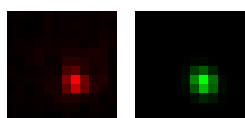
Coordinates : -149  $\mu\text{m}$  (x), 81.2  $\mu\text{m}$  (y), 59.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

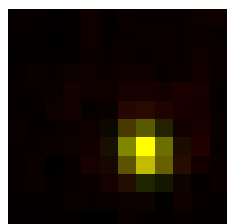
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	426 nm	270 nm
max	468 nm	488 nm	270 nm
z	1.88 $\mu\text{m}$	1.89 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.873		
Theta	-56.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 446.167 (brightness)

B = 118.571 (background)

a = 0.744 px

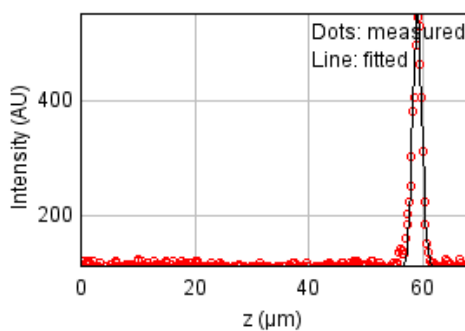
b = -0.088 px

c = 0.671 px

xc = 6.964 px

yc = 7.266 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28111.9643

Standard deviation: 9.56922

$R^2$ : 0.97751

Parameters:

a = 111.87613

b = 556.75061

c = 59.07178

d = 0.79983

## Bead 3383

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

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

Frame size : 12 pixels

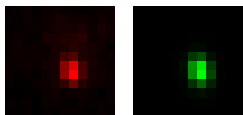
Coordinates : -146  $\mu\text{m}$  (x), 72.6  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

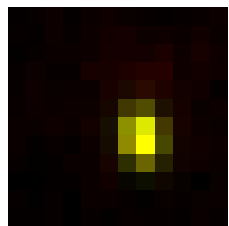
FWHM	Non corrected	Corrected	Theoretical
min	374 nm	389 nm	270 nm
max	518 nm	540 nm	270 nm
z	1.92 $\mu\text{m}$	1.93 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.722		
Theta	-81.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 520.417$  (brightness)

$B = 119.400$  (background)

$a = 0.949$  px

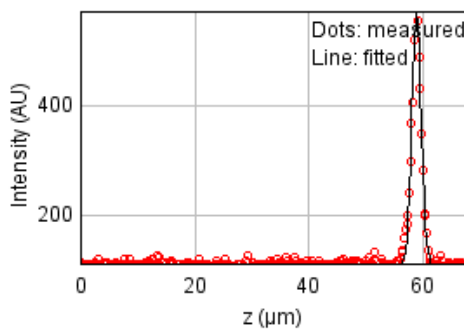
$b = -0.069$  px

$c = 0.511$  px

$x_c = 6.792$  px

$y_c = 6.560$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20503.3822

Standard deviation: 8.17229

$R^2: 0.98483$

Parameters:

$a = 112.00517$

$b = 571.60352$

$c = 58.93229$

$d = 0.81722$

## Bead 3384

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

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

Frame size : 12 pixels

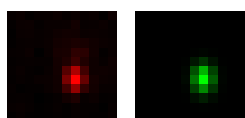
Coordinates : -134  $\mu\text{m}$  (x), 63.9  $\mu\text{m}$  (y), 59.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

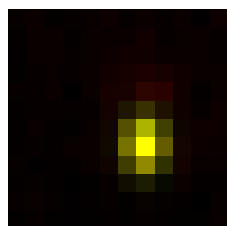
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	400 nm	270 nm
max	525 nm	547 nm	270 nm
z	2.04 $\mu\text{m}$	2.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.731		
Theta	89.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 637.706$  (brightness)

$B = 121.163$  (background)

$a = 0.912$  px

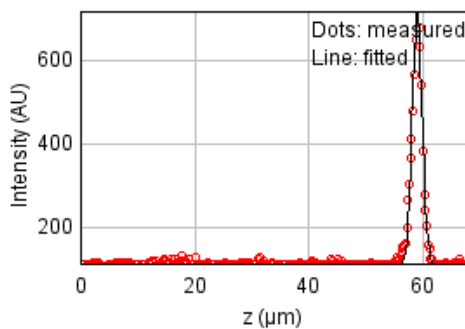
$b = 0.001$  px

$c = 0.487$  px

$x_c = 6.936$  px

$y_c = 6.860$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 36307.2352

Standard deviation: 10.87495

$R^2: 0.98533$

Parameters:

$a = 112.13535$

$b = 717.75235$

$c = 59.05229$

$d = 0.86451$

## Bead 3385

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

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

Frame size : 12 pixels

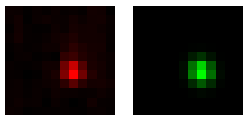
Coordinates : -98.4  $\mu\text{m}$  (x), 60.5  $\mu\text{m}$  (y), 58.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

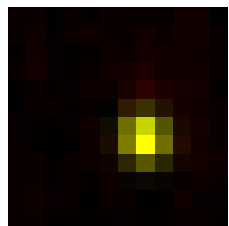
FWHM	Non corrected	Corrected	Theoretical
min	413 nm	430 nm	270 nm
max	463 nm	482 nm	270 nm
z	1.9 $\mu\text{m}$	1.9 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.891		
Theta	-77.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 443.839 (brightness)

B = 120.766 (background)

a = 0.780 px

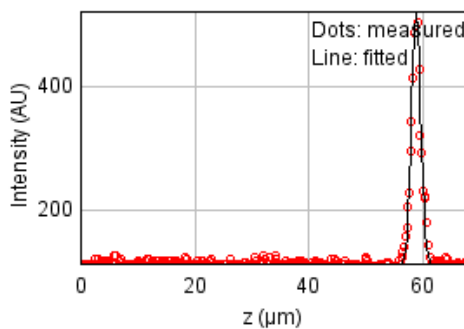
b = -0.035 px

c = 0.633 px

xc = 6.944 px

yc = 6.646 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24983.1114

Standard deviation: 9.02099

$R^2$ : 0.97669

Parameters:

a = 114.27151

b = 524.69014

c = 58.86261

d = 0.80543

## Bead 3386 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 62.0  $\mu\text{m}$  (x), 61.7  $\mu\text{m}$  (y), 57.1  $\mu\text{m}$  (z)

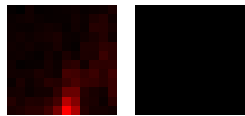
Corresponding bead : Not found

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

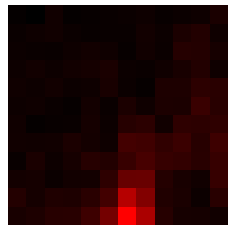
FWHM	Non corrected	Corrected	Theoretical
min	2.4 $\mu\text{m}$	2.5 $\mu\text{m}$	270 nm
max	7.38 $\mu\text{m}$	7.69 $\mu\text{m}$	270 nm
z	3.68 $\mu\text{m}$	3.69 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.325		
Theta	0.0°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.331$



Parameters:

A = -59.725 (brightness)

B = 181.697 (background)

a = 0.004 px

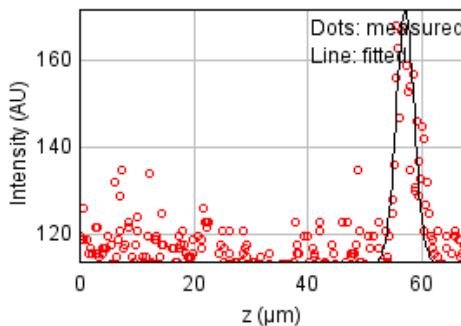
b = 0.011 px

c = 0.017 px

xc = 6.901 px

yc = 0.203 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16856.4261

Standard deviation: 7.40992

$R^2$ : 0.69685

Parameters:

a = 113.62537

b = 171.53882

c = 57.12581

d = 1.56154

## Bead 3387 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : -146  $\mu\text{m}$  (x), 59.6  $\mu\text{m}$  (y), 59.0  $\mu\text{m}$  (z)

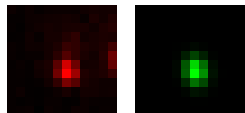
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

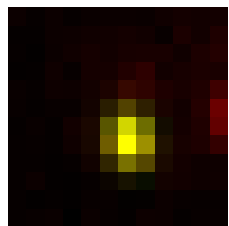
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	427 nm	270 nm
max	523 nm	545 nm	270 nm
z	2.21 $\mu\text{m}$	2.22 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.784		
Theta	-80.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.830$



Parameters:

A = 470.479 (brightness)

B = 130.859 (background)

a = 0.789 px

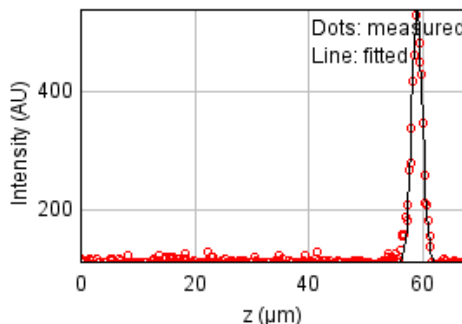
b = -0.050 px

c = 0.498 px

xc = 6.119 px

yc = 6.691 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24092.5130

Standard deviation: 8.85874

$R^2$ : 0.98199

Parameters:

a = 112.38951

b = 539.43382

c = 59.03309

d = 0.94027

## Bead 3388

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

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

Frame size : 12 pixels

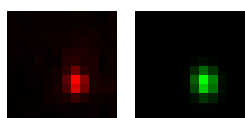
Coordinates : -135  $\mu\text{m}$  (x), 57.9  $\mu\text{m}$  (y), 59.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

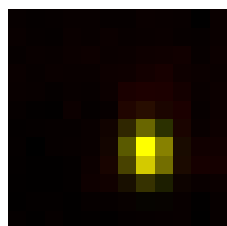
FWHM	Non corrected	Corrected	Theoretical
min	392 nm	408 nm	270 nm
max	484 nm	504 nm	270 nm
z	1.94 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.811		
Theta	-82.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 653.460 (brightness)

B = 125.064 (background)

a = 0.868 px

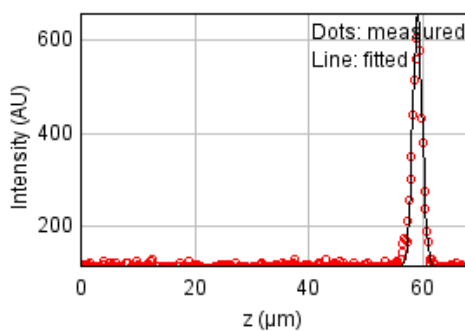
b = -0.037 px

c = 0.579 px

$x_c = 7.118$  px

$y_c = 7.305$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 38552.8643

Standard deviation: 11.20622

$R^2$ : 0.98007

Parameters:

a = 112.96932

b = 659.87985

c = 59.10255

d = 0.82220



## Bead 3389

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

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

Frame size : 12 pixels

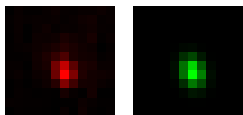
Coordinates : -128  $\mu\text{m}$  (x), 53.4  $\mu\text{m}$  (y), 59.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

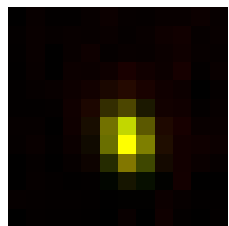
FWHM	Non corrected	Corrected	Theoretical
min	411 nm	428 nm	270 nm
max	550 nm	573 nm	270 nm
z	2.23 $\mu\text{m}$	2.24 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.747		
Theta	-73.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 540.146$  (brightness)

$B = 125.833$  (background)

$a = 0.766$  px

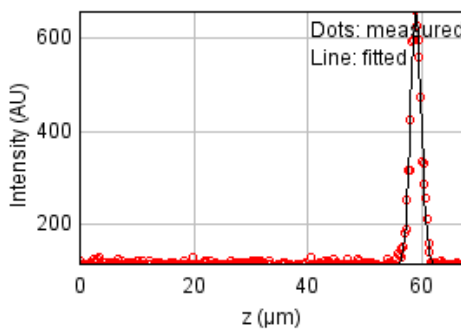
$b = -0.096$  px

$c = 0.471$  px

$x_c = 6.005$  px

$y_c = 6.686$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30602.1341

Standard deviation: 9.98405

$R^2: 0.98608$

Parameters:

$a = 111.96306$

$b = 658.35397$

$c = 58.99013$

$d = 0.94827$

## Bead 3390

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

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

Frame size : 12 pixels

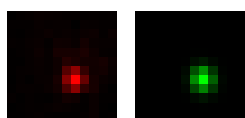
Coordinates : -75.7  $\mu\text{m}$  (x), 51.2  $\mu\text{m}$  (y), 59.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

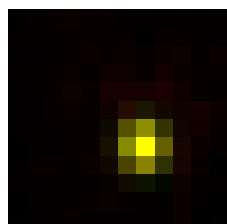
FWHM	Non corrected	Corrected	Theoretical
min	408 nm	425 nm	270 nm
max	462 nm	481 nm	270 nm
z	1.82 $\mu\text{m}$	1.83 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.883		
Theta	-84.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 814.682$  (brightness)

$B = 125.787$  (background)

$a = 0.805$  px

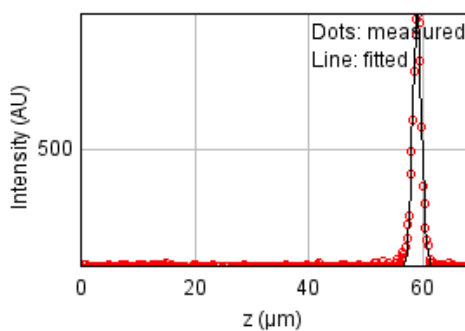
$b = -0.016$  px

$c = 0.631$  px

$x_c = 6.884$  px

$y_c = 6.959$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 43313.2167

Standard deviation: 11.87794

$R^2: 0.98988$

Parameters:

$a = 113.51560$

$b = 954.77885$

$c = 59.03430$

$d = 0.77424$

## Bead 3391

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

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

Frame size : 12 pixels

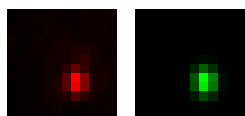
Coordinates : -153  $\mu\text{m}$  (x), 49.1  $\mu\text{m}$  (y), 59.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

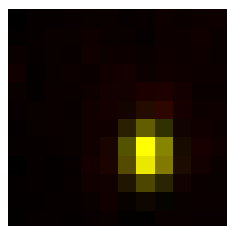
FWHM	Non corrected	Corrected	Theoretical
min	389 nm	405 nm	270 nm
max	494 nm	514 nm	270 nm
z	1.93 $\mu\text{m}$	1.93 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.787		
Theta	-89.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 783.228 (brightness)

B = 126.549 (background)

a = 0.888 px

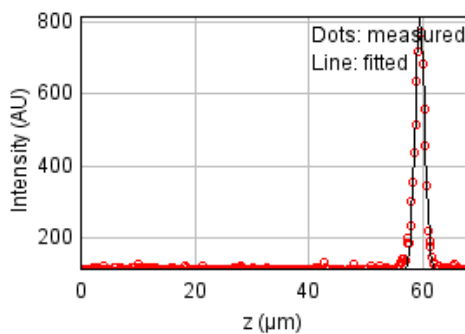
b = -0.005 px

c = 0.550 px

xc = 7.132 px

yc = 7.413 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 39918.2942

Standard deviation: 11.40294

$R^2$ : 0.98758

Parameters:

a = 111.55144

b = 820.99651

c = 59.51674

d = 0.81776

## Bead 3392

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

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

Frame size : 12 pixels

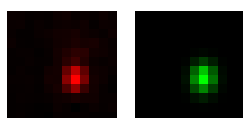
Coordinates : -145  $\mu\text{m}$  (x), 48.6  $\mu\text{m}$  (y), 59.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

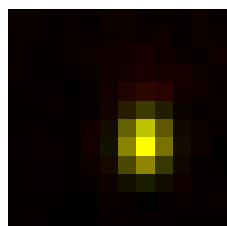
FWHM	Non corrected	Corrected	Theoretical
min	427 nm	444 nm	270 nm
max	538 nm	560 nm	270 nm
z	2.07 $\mu\text{m}$	2.08 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.793		
Theta	86.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 636.109 (brightness)

B = 122.782 (background)

a = 0.736 px

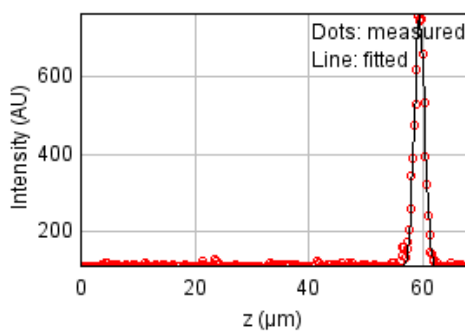
b = 0.016 px

c = 0.465 px

xc = 6.954 px

yc = 6.795 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 32413.2330

Standard deviation: 10.27524

$R^2$ : 0.98885

Parameters:

a = 111.28265

b = 764.01037

c = 59.45207

d = 0.87803

## Bead 3393

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

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

Frame size : 12 pixels

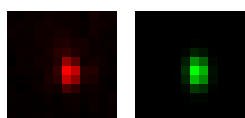
Coordinates : -116  $\mu\text{m}$  (x), 46.3  $\mu\text{m}$  (y), 59.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

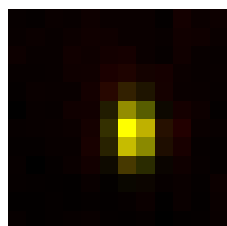
FWHM	Non corrected	Corrected	Theoretical
min	364 nm	379 nm	270 nm
max	548 nm	571 nm	270 nm
z	1.99 $\mu\text{m}$	2.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.663		
Theta	-87.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 640.397$  (brightness)

$B = 121.786$  (background)

$a = 1.014$  px

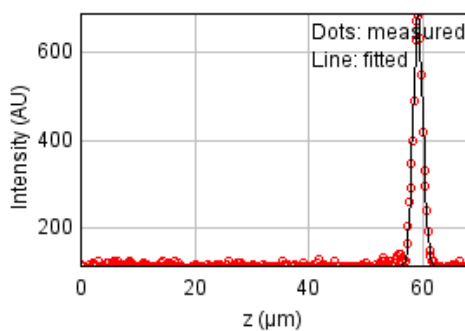
$b = -0.025$  px

$c = 0.447$  px

$x_c = 6.323$  px

$y_c = 6.179$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27624.5280

Standard deviation: 9.48589

$R^2: 0.98724$

Parameters:

$a = 113.99830$

$b = 686.42616$

$c = 59.19595$

$d = 0.84689$

## Bead 3394 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : -112  $\mu\text{m}$  (x), 41.1  $\mu\text{m}$  (y), 60.4  $\mu\text{m}$  (z)

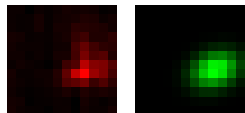
Corresponding bead : Not found

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

FWHM	Non corrected	Corrected	Theoretical
min	628 nm	654 nm	270 nm
max	871 nm	908 nm	270 nm
z	2.69 $\mu\text{m}$	2.7 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.72		
Theta	21.2°		

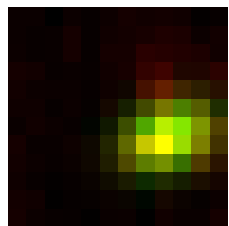
### XY profile & fitting parameters :

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



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

$R^2 = 0.868$



Parameters:

$A = 234.800$  (brightness)

$B = 120.763$  (background)

$a = 0.198$  px

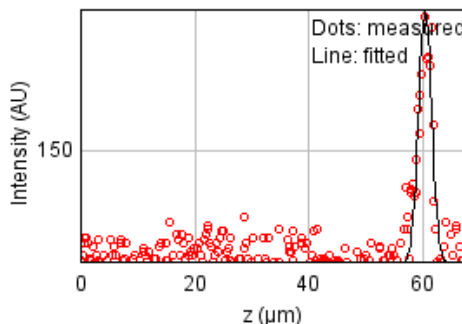
$b = 0.055$  px

$c = 0.319$  px

$xc = 8.253$  px

$yc = 6.559$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15595.4076

Standard deviation: 7.12737

$R^2: 0.80095$

Parameters:

$a = 112.28137$

$b = 197.44445$

$c = 60.43992$

$d = 1.14223$

## Bead 3395

Date : Mon Oct 17 13:54:18 PDT 2022

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

Frame size : 12 pixels

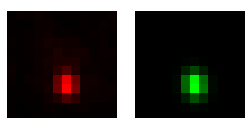
Coordinates : -55.0  $\mu\text{m}$  (x), 38.3  $\mu\text{m}$  (y), 59.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

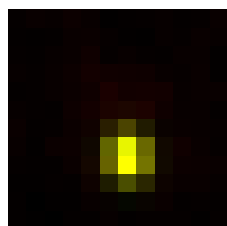
FWHM	Non corrected	Corrected	Theoretical
min	392 nm	408 nm	270 nm
max	468 nm	487 nm	270 nm
z	1.89 $\mu\text{m}$	1.89 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.837		
Theta	-82.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 988.833$  (brightness)

$B = 126.143$  (background)

$a = 0.870$  px

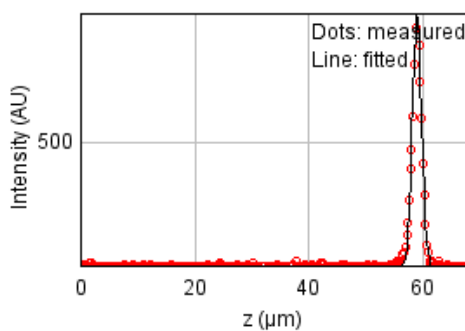
$b = -0.036$  px

$c = 0.618$  px

$x_c = 6.028$  px

$y_c = 7.535$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28835.5028

Standard deviation: 9.69158

$R^2 = 0.99267$

Parameters:

$a = 113.45922$

$b = 908.54417$

$c = 59.01549$

$d = 0.80081$

## Bead 3396

Date : Mon Oct 17 13:54:18 PDT 2022

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

Frame size : 12 pixels

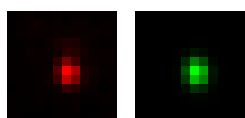
Coordinates : -80.0  $\mu\text{m}$  (x), 35.9  $\mu\text{m}$  (y), 59.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

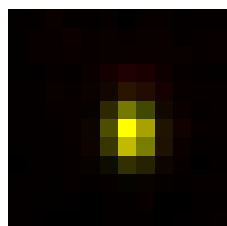
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	421 nm	270 nm
max	504 nm	525 nm	270 nm
z	1.83 $\mu\text{m}$	1.84 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.802		
Theta	-84.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 891.277 (brightness)

B = 126.044 (background)

a = 0.819 px

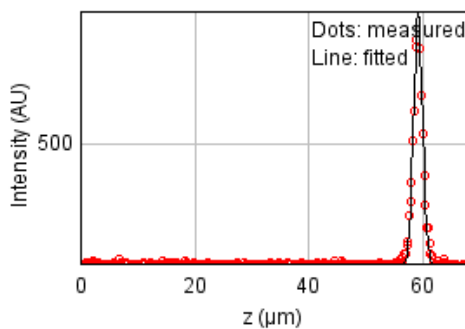
b = -0.030 px

c = 0.531 px

xc = 6.229 px

yc = 6.216 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 38519.9833

Standard deviation: 11.20144

$R^2$ : 0.99040

Parameters:

a = 113.82035

b = 927.16144

c = 59.20417

d = 0.77698



## Bead 3397 (Rejected)

Date : Mon Oct 17 13:54:18 PDT 2022

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

Frame size : 12 pixels

Coordinates : -114  $\mu\text{m}$  (x), 31.2  $\mu\text{m}$  (y), 59.6  $\mu\text{m}$  (z)

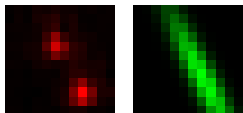
Corresponding bead : Not found

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

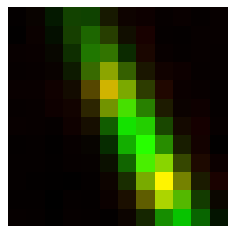
FWHM	Non corrected	Corrected	Theoretical
min	470 nm	489 nm	270 nm
max	2.76 $\mu\text{m}$	2.88 $\mu\text{m}$	270 nm
z	1.79 $\mu\text{m}$	1.79 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.17		
Theta	-63.3°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.521$



Parameters:

A = 310.943 (brightness)

B = 127.798 (background)

a = 0.489 px

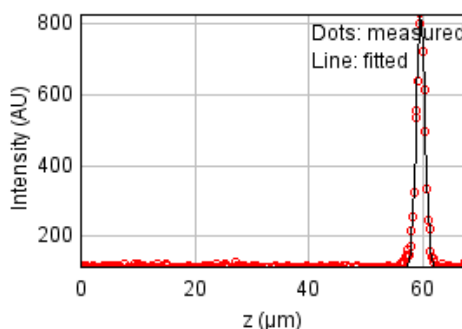
b = -0.237 px

c = 0.137 px

xc = 7.144 px

yc = 7.517 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 36690.4025

Standard deviation: 10.93219

$R^2$ : 0.98787

Parameters:

a = 113.45366

b = 826.92547

c = 59.64142

d = 0.75842

## Bead 3398

Date : Mon Oct 17 13:54:18 PDT 2022

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

Frame size : 12 pixels

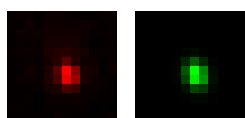
Coordinates : -46.2  $\mu\text{m}$  (x), 24.9  $\mu\text{m}$  (y), 59.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

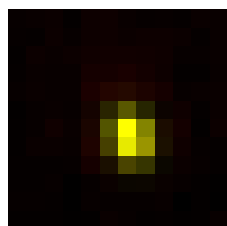
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	400 nm	270 nm
max	497 nm	517 nm	270 nm
z	1.84 $\mu\text{m}$	1.85 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.773		
Theta	-73.2°		

### 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:

$A = 801.862$  (brightness)

$B = 124.673$  (background)

$a = 0.879$  px

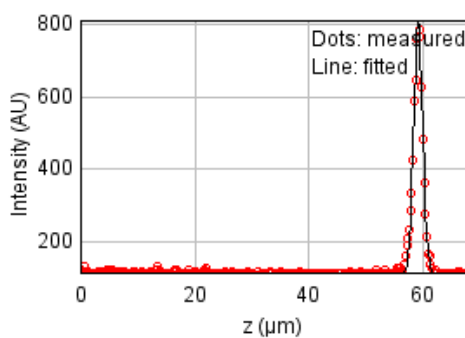
$b = -0.101$  px

$c = 0.574$  px

$x_c = 6.179$  px

$y_c = 6.455$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 32159.4199

Standard deviation: 10.23493

$R^2: 0.98917$

Parameters:

$a = 113.70467$

$b = 811.35396$

$c = 59.22156$

$d = 0.78074$

## Bead 3399 (Rejected)

Date : Mon Oct 17 13:54:18 PDT 2022

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

Frame size : 12 pixels

Coordinates : -108  $\mu\text{m}$  (x), 24.3  $\mu\text{m}$  (y), 59.6  $\mu\text{m}$  (z)

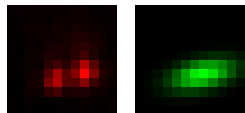
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

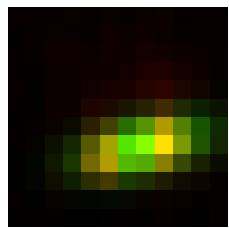
FWHM	Non corrected	Corrected	Theoretical
min	521 nm	543 nm	270 nm
max	1.17 $\mu\text{m}$	1.22 $\mu\text{m}$	270 nm
z	2.13 $\mu\text{m}$	2.13 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.446		
Theta	13.4°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.762$



Parameters:

A = 525.371 (brightness)

B = 129.805 (background)

a = 0.120 px

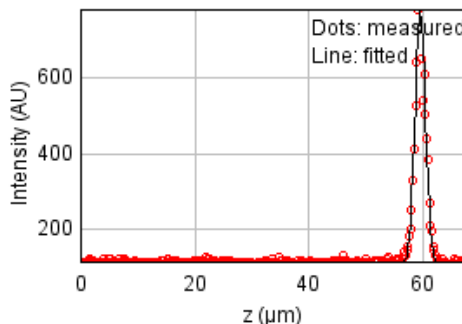
b = 0.089 px

c = 0.473 px

xc = 6.866 px

yc = 7.104 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 73136.2572

Standard deviation: 15.43466

$R^2$ : 0.97695

Parameters:

a = 113.25910

b = 782.22458

c = 59.57404

d = 0.90254

## Bead 3400

Date : Mon Oct 17 13:54:18 PDT 2022

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

Frame size : 12 pixels

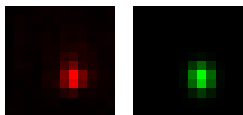
Coordinates : -91.5  $\mu\text{m}$  (x), 13.7  $\mu\text{m}$  (y), 59.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

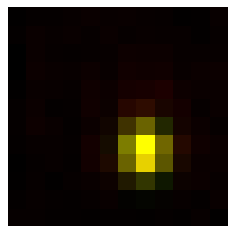
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	423 nm	270 nm
max	484 nm	504 nm	270 nm
z	1.89 $\mu\text{m}$	1.9 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.838		
Theta	-86.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 720.945$  (brightness)

$B = 124.914$  (background)

$a = 0.814$  px

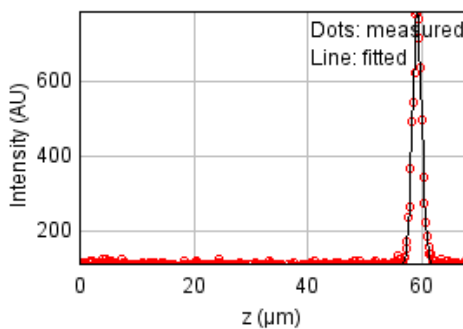
$b = -0.015$  px

$c = 0.574$  px

$x_c = 6.945$  px

$y_c = 7.323$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23493.7903

Standard deviation: 8.74797

$R^2: 0.99161$

Parameters:

$a = 113.74877$

$b = 783.07881$

$c = 59.21252$

$d = 0.80268$