

## Bead 1601

Date : Mon Oct 17 13:29:08 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

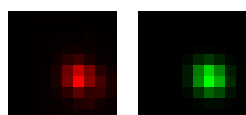
Coordinates : 23.6  $\mu\text{m}$  (x), -32.5  $\mu\text{m}$  (y), 36.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

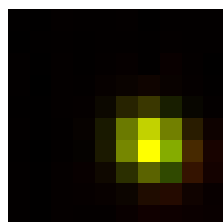
FWHM	Non corrected	Corrected	Theoretical
min	472 nm	488 nm	223 nm
max	523 nm	541 nm	223 nm
z	1.32 $\mu\text{m}$	1.33 $\mu\text{m}$	885 nm
Asymmetry	0.902		
Theta	-29.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1151.761 (brightness)

B = 124.567 (background)

a = 0.517 px

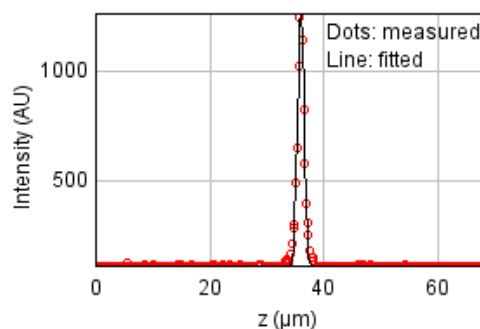
b = -0.048 px

c = 0.575 px

xc = 6.086 px

yc = 5.679 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 77526.0717

Standard deviation: 15.89113

$R^2$ : 0.98676

Parameters:

a = 116.76978

b = 1264.08141

c = 36.02787

d = 0.56118

## Bead 1602

Date : Mon Oct 17 13:29:08 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

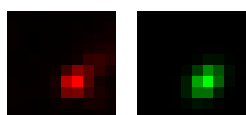
Coordinates : 128 um (x), 86.2 um (y), 35.9 um (z)

Corresponding bead : Not found

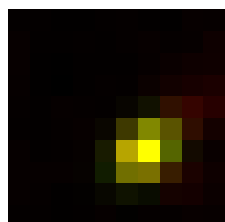
FWHM	Non corrected	Corrected	Theoretical
min	382 nm	395 nm	223 nm
max	525 nm	542 nm	223 nm
z	1.56 um	1.56 um	885 nm
Asymmetry	0.728		
Theta	42.1°		

### 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 = 780.741 (brightness)

B = 121.031 (background)

a = 0.682 px

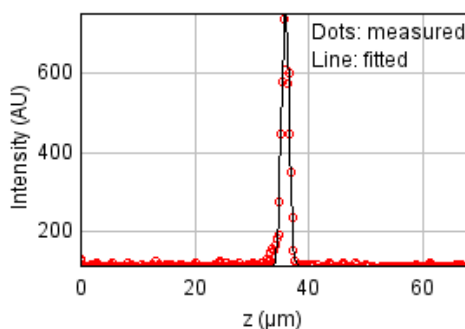
b = 0.215 px

c = 0.725 px

xc = 5.824 px

yc = 5.985 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 77056.6646

Standard deviation: 15.84295

$R^2$ : 0.96522

Parameters:

a = 111.20288

b = 755.87956

c = 35.94415

d = 0.66158

## Bead 1603

Date : Mon Oct 17 13:29:08 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

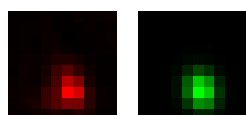
Coordinates : -76.1  $\mu\text{m}$  (x), 72.6  $\mu\text{m}$  (y), 36.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	478 nm	494 nm	223 nm
max	578 nm	598 nm	223 nm
z	1.61 $\mu\text{m}$	1.61 $\mu\text{m}$	885 nm
Asymmetry	0.826		
Theta	-72.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1046.586 (brightness)

B = 135.455 (background)

a = 0.571 px

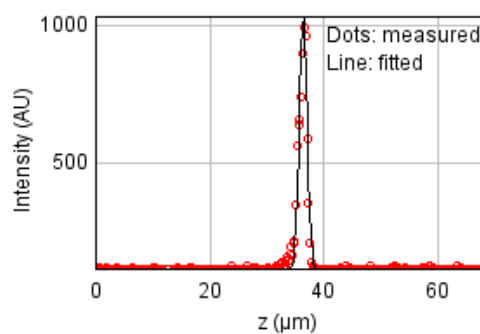
b = -0.053 px

c = 0.418 px

xc = 5.271 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: 239040.821

Standard deviation: 27.90402

$R^2$ : 0.94981

Parameters:

a = 114.21449

b = 1037.87036

c = 36.45644

d = 0.68253

## Bead 1604

Date : Mon Oct 17 13:29:08 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

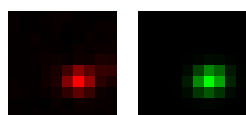
Coordinates : 158  $\mu\text{m}$  (x), 67.6  $\mu\text{m}$  (y), 35.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	392 nm	405 nm	223 nm
max	507 nm	524 nm	223 nm
z	1.42 $\mu\text{m}$	1.43 $\mu\text{m}$	885 nm
Asymmetry	0.773		
Theta	10.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 586.146 (brightness)

B = 116.140 (background)

a = 0.533 px

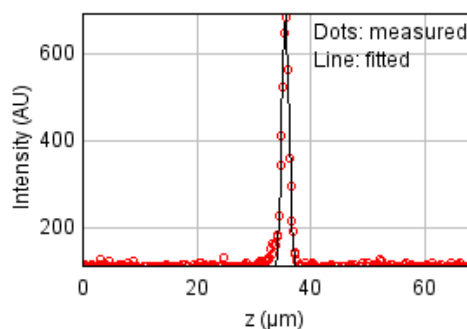
b = 0.060 px

c = 0.863 px

xc = 6.100 px

yc = 5.873 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34186.6634

Standard deviation: 10.55259

$R^2$ : 0.97885

Parameters:

a = 110.96545

b = 690.84196

c = 35.62742

d = 0.60294

## Bead 1605 (Rejected)

Date : Mon Oct 17 13:29:09 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

Coordinates : -77.7  $\mu\text{m}$  (x), 53.9  $\mu\text{m}$  (y), 63.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	223 nm
max	0	0	223 nm
z	1.12 $\mu\text{m}$	1.13 $\mu\text{m}$	885 nm
Asymmetry	0.0		
Theta	0.0°		

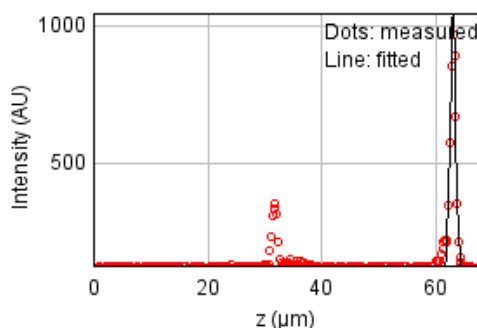
### XY profile & fitting parameters :

(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: 268163.776

Standard deviation: 29.55499

$R^2$ : 0.92604

Parameters:

$a = 120.29898$

$b = 1066.37410$

$c = 63.04021$

$d = 0.47757$

## Bead 1606 (Rejected)

Date : Mon Oct 17 13:29:09 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

Coordinates : -92.4  $\mu\text{m}$  (x), 51.3  $\mu\text{m}$  (y), 36.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	223 nm
max	0	0	223 nm
z	1.43 $\mu\text{m}$	1.44 $\mu\text{m}$	885 nm
Asymmetry	0.0		
Theta	0.0°		

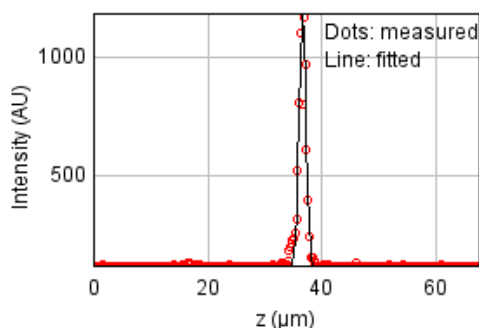
### XY profile & fitting parameters :

(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: 223363.663

Standard deviation: 26.97349

R<sup>2</sup>: 0.96106

Parameters:

a = 114.38623

b = 1191.73268

c = 36.69357

d = 0.60888

## Bead 1607

Date : Mon Oct 17 13:29:09 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

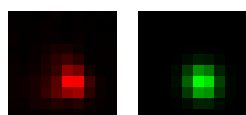
Coordinates : -85.7  $\mu\text{m}$  (x), 50.6  $\mu\text{m}$  (y), 36.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

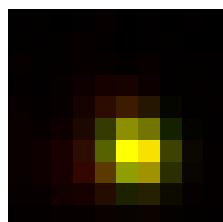
FWHM	Non corrected	Corrected	Theoretical
min	486 nm	503 nm	223 nm
max	513 nm	531 nm	223 nm
z	1.25 $\mu\text{m}$	1.26 $\mu\text{m}$	885 nm
Asymmetry	0.948		
Theta	-52.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1191.342$  (brightness)

$B = 135.213$  (background)

$a = 0.545$  px

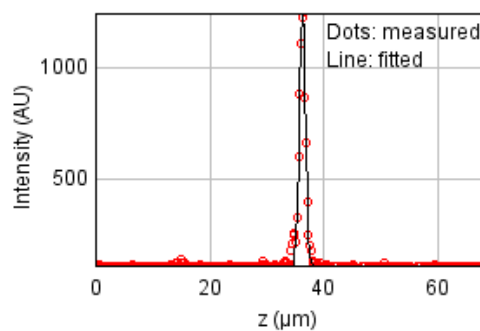
$b = -0.028$  px

$c = 0.531$  px

$x_c = 5.384$  px

$y_c = 6.070$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 84246.1732

Standard deviation: 16.56555

$R^2: 0.98419$

Parameters:

$a = 116.19187$

$b = 1238.47139$

$c = 36.32335$

$d = 0.53178$

## Bead 1608

Date : Mon Oct 17 13:29:09 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

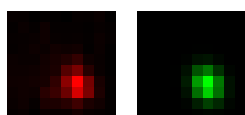
Coordinates : -91.1  $\mu\text{m}$  (x), 46.1  $\mu\text{m}$  (y), 35.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

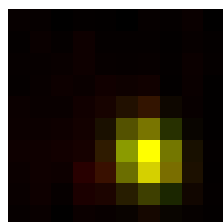
FWHM	Non corrected	Corrected	Theoretical
min	452 nm	467 nm	223 nm
max	538 nm	556 nm	223 nm
z	1.56 $\mu\text{m}$	1.57 $\mu\text{m}$	885 nm
Asymmetry	0.84		
Theta	-68.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 701.958$  (brightness)

$B = 128.528$  (background)

$a = 0.631$  px

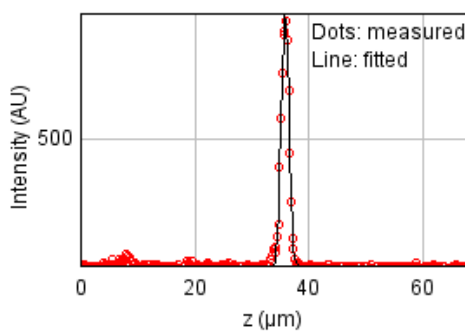
$b = -0.066$  px

$c = 0.491$  px

$x_c = 5.923$  px

$y_c = 6.280$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37262.1445

Standard deviation: 11.01704

$R^2: 0.98770$

Parameters:

$a = 116.83933$

$b = 878.67463$

$c = 35.91293$

$d = 0.66272$



## Bead 1609

Date : Mon Oct 17 13:29:09 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

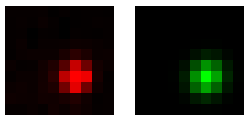
Coordinates : -138  $\mu\text{m}$  (x), -16.1  $\mu\text{m}$  (y), 35.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

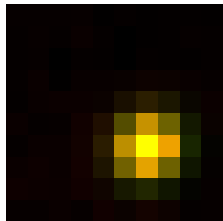
FWHM	Non corrected	Corrected	Theoretical
min	496 nm	513 nm	223 nm
max	529 nm	546 nm	223 nm
z	1.66 $\mu\text{m}$	1.67 $\mu\text{m}$	885 nm
Asymmetry	0.939		
Theta	52.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 737.861$  (brightness)

$B = 117.979$  (background)

$a = 0.520$  px

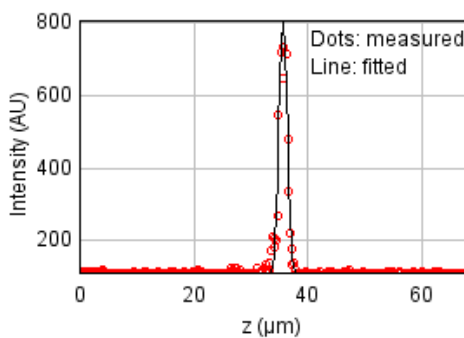
$b = 0.031$  px

$c = 0.505$  px

$x_c = 6.059$  px

$y_c = 6.052$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 129416.887

Standard deviation: 20.53177

$R^2: 0.95421$

Parameters:

$a = 111.02739$

$b = 812.51180$

$c = 35.73068$

$d = 0.70635$

## Bead 1610

Date : Mon Oct 17 13:29:09 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

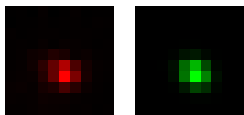
Coordinates : -129  $\mu\text{m}$  (x), -19.1  $\mu\text{m}$  (y), 35.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

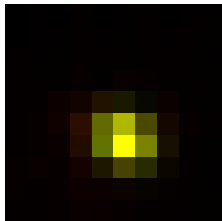
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	394 nm	223 nm
max	454 nm	469 nm	223 nm
z	1.33 $\mu\text{m}$	1.34 $\mu\text{m}$	885 nm
Asymmetry	0.839		
Theta	-34.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1022.057$  (brightness)

$B = 120.953$  (background)

$a = 0.737$  px

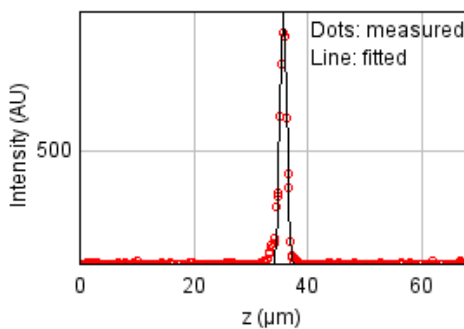
$b = -0.127$  px

$c = 0.840$  px

$x_c = 4.990$  px

$y_c = 5.699$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 87161.5413

Standard deviation: 16.84974

$R^2: 0.97522$

Parameters:

$a = 112.57644$

$b = 992.49058$

$c = 35.77593$

$d = 0.56660$

## Bead 1611

Date : Mon Oct 17 13:29:09 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

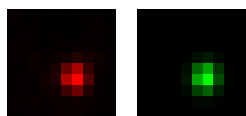
Coordinates : -141  $\mu\text{m}$  (x), -25.5  $\mu\text{m}$  (y), 35.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

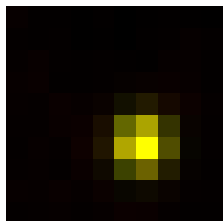
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	419 nm	223 nm
max	438 nm	452 nm	223 nm
z	1.32 $\mu\text{m}$	1.32 $\mu\text{m}$	885 nm
Asymmetry	0.926		
Theta	81.8°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.992$



Parameters:

$A = 1012.006$  (brightness)

$B = 118.985$  (background)

$a = 0.815$  px

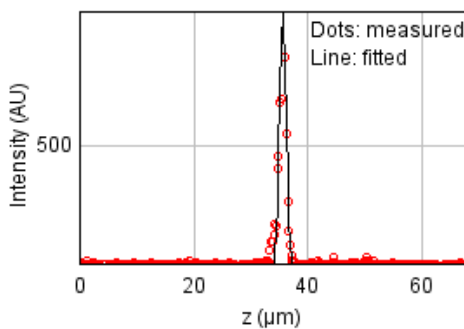
$b = 0.016$  px

$c = 0.703$  px

$x_c = 5.767$  px

$y_c = 5.822$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 119052.247

Standard deviation: 19.69244

$R^2: 0.96156$

Parameters:

$a = 113.28735$

$b = 938.00086$

$c = 35.69243$

$d = 0.55983$

## Bead 1612

Date : Mon Oct 17 13:29:09 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

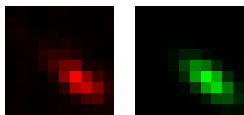
Coordinates : 156 um (x), -32.2 um (y), 35.2 um (z)

Corresponding bead : Not found

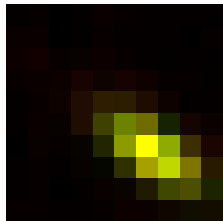
FWHM	Non corrected	Corrected	Theoretical
min	380 nm	393 nm	223 nm
max	835 nm	863 nm	223 nm
z	1.27 um	1.27 um	885 nm
Asymmetry	0.455		
Theta	-36.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 456.311 (brightness)

B = 117.242 (background)

a = 0.451 px

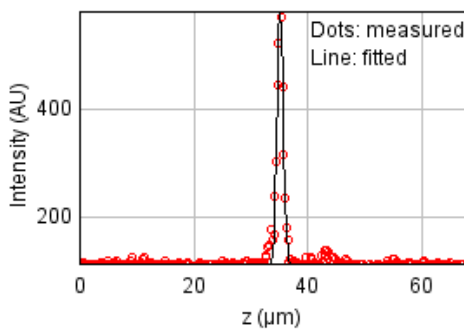
b = -0.351 px

c = 0.670 px

xc = 6.288 px

yc = 6.301 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24149.4516

Standard deviation: 8.86920

$R^2$ : 0.97491

Parameters:

a = 110.89548

b = 582.84455

c = 35.21106

d = 0.53804

## Bead 1613

Date : Mon Oct 17 13:29:10 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

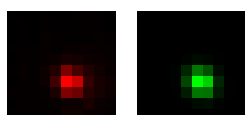
Coordinates : 96.7  $\mu\text{m}$  (x), -33.7  $\mu\text{m}$  (y), 35.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

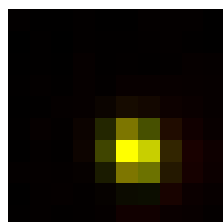
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	409 nm	223 nm
max	445 nm	460 nm	223 nm
z	1.25 $\mu\text{m}$	1.26 $\mu\text{m}$	885 nm
Asymmetry	0.89		
Theta	-42.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1331.433$  (brightness)

$B = 126.887$  (background)

$a = 0.761$  px

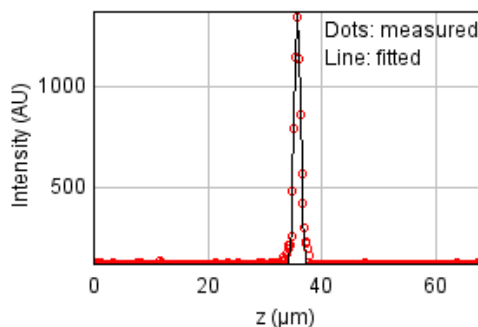
$b = -0.089$  px

$c = 0.775$  px

$x_c = 5.366$  px

$y_c = 6.042$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 86378.3141

Standard deviation: 16.77387

$R^2: 0.98736$

Parameters:

$a = 114.41776$

$b = 1388.08928$

$c = 35.77540$

$d = 0.53110$

## Bead 1614

Date : Mon Oct 17 13:29:10 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

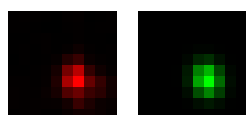
Coordinates : 18.4  $\mu\text{m}$  (x), -66.0  $\mu\text{m}$  (y), 35.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	446 nm	461 nm	223 nm
max	520 nm	538 nm	223 nm
z	1.26 $\mu\text{m}$	1.26 $\mu\text{m}$	885 nm
Asymmetry	0.858		
Theta	-74.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1622.230 (brightness)

B = 132.641 (background)

a = 0.661 px

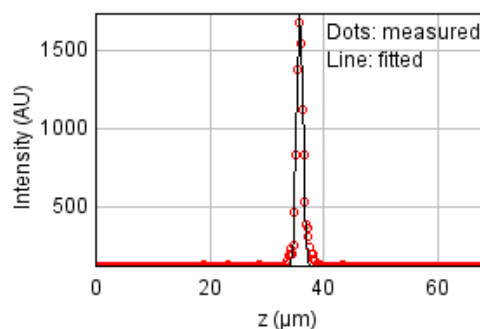
b = -0.045 px

c = 0.508 px

$x_c = 5.821$  px

$y_c = 5.829$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 178588.007

Standard deviation: 24.11887

$R^2$ : 0.98387

Parameters:

a = 117.25922

b = 1730.93289

c = 35.84166

d = 0.53422

## Bead 1615

Date : Mon Oct 17 13:29:10 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

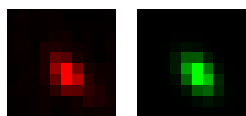
Coordinates : 135  $\mu\text{m}$  (x), -85.0  $\mu\text{m}$  (y), 35.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

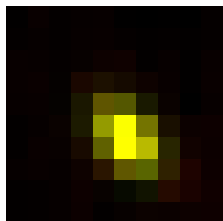
FWHM	Non corrected	Corrected	Theoretical
min	401 nm	414 nm	223 nm
max	619 nm	640 nm	223 nm
z	1.62 $\mu\text{m}$	1.63 $\mu\text{m}$	885 nm
Asymmetry	0.647		
Theta	-51.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.983$



Parameters:

A = 585.254 (brightness)

B = 119.171 (background)

a = 0.644 px

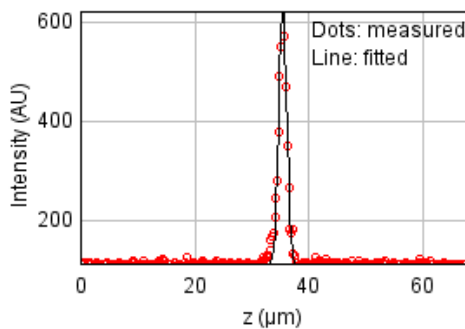
b = -0.237 px

c = 0.541 px

$x_c = 5.082$  px

$y_c = 5.536$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24171.8381

Standard deviation: 8.87331

$R^2$ : 0.98332

Parameters:

a = 110.34391

b = 626.03282

c = 35.50093

d = 0.68981

## Bead 1616

Date : Mon Oct 17 13:29:10 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

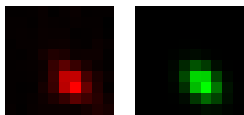
Coordinates : 125 µm (x), -89.2 µm (y), 35.8 µm (z)

Corresponding bead : Not found

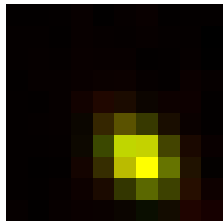
FWHM	Non corrected	Corrected	Theoretical
min	432 nm	446 nm	223 nm
max	590 nm	610 nm	223 nm
z	1.65 µm	1.66 µm	885 nm
Asymmetry	0.732		
Theta	-45.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 836.316 (brightness)

B = 120.469 (background)

a = 0.555 px

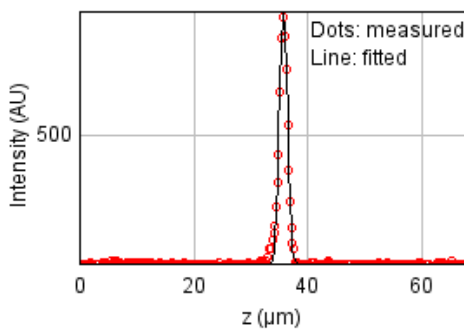
b = -0.167 px

c = 0.551 px

xc = 5.656 px

yc = 6.575 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 33378.2840

Standard deviation: 10.42708

$R^2$ : 0.98963

Parameters:

a = 112.84428

b = 877.74954

c = 35.78780

d = 0.70176



## Bead 1617

Date : Mon Oct 17 13:29:10 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

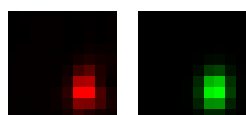
Coordinates : 10.2  $\mu\text{m}$  (x), 55.5  $\mu\text{m}$  (y), 36.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	427 nm	441 nm	223 nm
max	570 nm	589 nm	223 nm
z	1.41 $\mu\text{m}$	1.42 $\mu\text{m}$	885 nm
Asymmetry	0.749		
Theta	86.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1471.523$  (brightness)

$B = 122.833$  (background)

$a = 0.736$  px

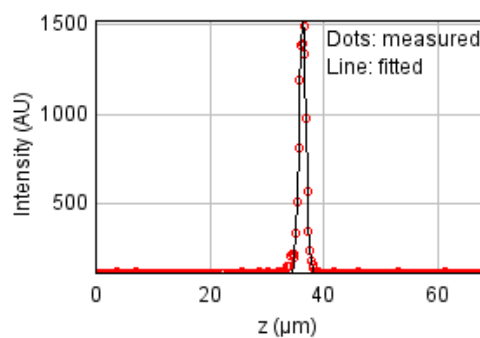
$b = 0.020$  px

$c = 0.415$  px

$x_c = 6.549$  px

$y_c = 6.839$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 80688.1333

Standard deviation: 16.21196

$R^2: 0.99144$

Parameters:

$a = 114.63174$

$b = 1528.01465$

$c = 36.34435$

$d = 0.59933$

## Bead 1618

Date : Mon Oct 17 13:29:10 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

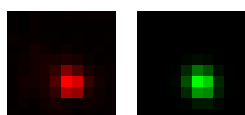
Coordinates : -152  $\mu\text{m}$  (x), 50.1  $\mu\text{m}$  (y), 36.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

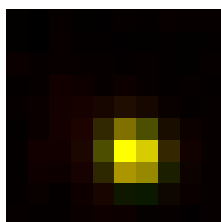
FWHM	Non corrected	Corrected	Theoretical
min	420 nm	435 nm	223 nm
max	463 nm	479 nm	223 nm
z	1.65 $\mu\text{m}$	1.66 $\mu\text{m}$	885 nm
Asymmetry	0.907		
Theta	-52.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 806.379 (brightness)

B = 122.935 (background)

a = 0.709 px

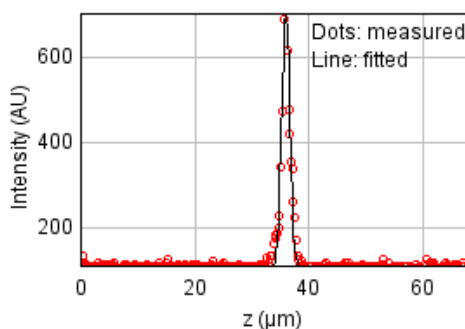
b = -0.065 px

c = 0.676 px

$x_c = 5.353$  px

$y_c = 6.142$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 79784.8812

Standard deviation: 16.12097

$R^2$ : 0.95954

Parameters:

a = 112.65610

b = 702.72729

c = 36.03237

d = 0.70011

## Bead 1619

Date : Mon Oct 17 13:29:10 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

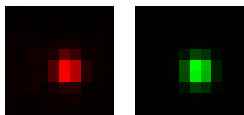
Coordinates : -143  $\mu\text{m}$  (x), -2.74  $\mu\text{m}$  (y), 35.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

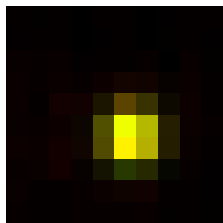
FWHM	Non corrected	Corrected	Theoretical
min	424 nm	438 nm	223 nm
max	440 nm	454 nm	223 nm
z	1.19 $\mu\text{m}$	1.19 $\mu\text{m}$	885 nm
Asymmetry	0.965		
Theta	-89.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.984$



Parameters:

$A = 1102.598$  (brightness)

$B = 122.898$  (background)

$a = 0.746$  px

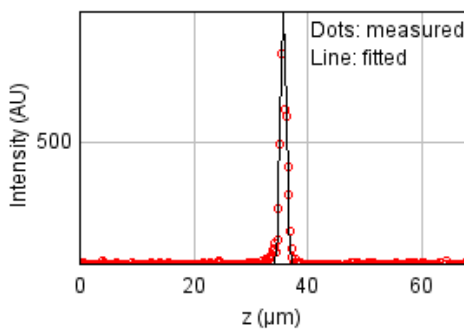
$b = -0.001$  px

$c = 0.695$  px

$x_c = 5.283$  px

$y_c = 5.459$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 86441.9762

Standard deviation: 16.78005

$R^2: 0.96800$

Parameters:

$a = 111.63973$

$b = 925.30200$

$c = 35.77006$

$d = 0.50352$

## Bead 1620

Date : Mon Oct 17 13:29:10 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

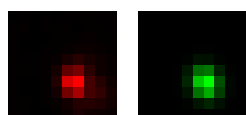
Coordinates : 44.6  $\mu\text{m}$  (x), -14.5  $\mu\text{m}$  (y), 36.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

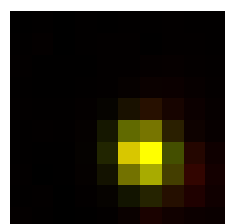
FWHM	Non corrected	Corrected	Theoretical
min	423 nm	438 nm	223 nm
max	492 nm	509 nm	223 nm
z	1.31 $\mu\text{m}$	1.32 $\mu\text{m}$	885 nm
Asymmetry	0.86		
Theta	-63.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1868.052 (brightness)

B = 136.522 (background)

a = 0.711 px

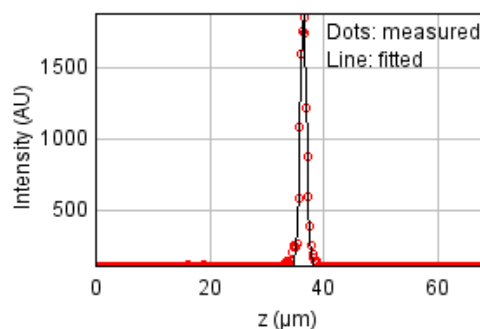
b = -0.077 px

c = 0.592 px

$x_c = 5.690$  px

$y_c = 6.120$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 130789.552

Standard deviation: 20.64036

$R^2$ : 0.99046

Parameters:

a = 115.89399

b = 1881.17319

c = 36.47807

d = 0.55718

## Bead 1621

Date : Mon Oct 17 13:29:10 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

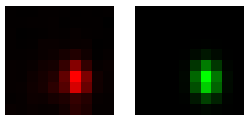
Coordinates : -102  $\mu\text{m}$  (x), -18.3  $\mu\text{m}$  (y), 35.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

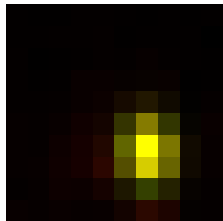
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	411 nm	223 nm
max	532 nm	550 nm	223 nm
z	1.25 $\mu\text{m}$	1.26 $\mu\text{m}$	885 nm
Asymmetry	0.746		
Theta	-86.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1006.299$  (brightness)

$B = 129.281$  (background)

$a = 0.848$  px

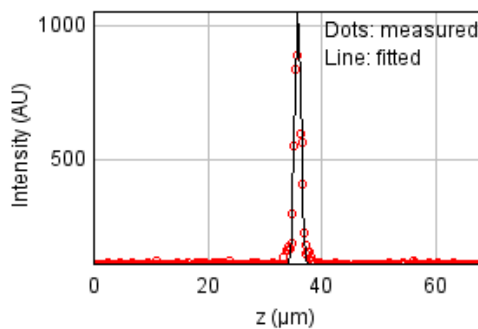
$b = -0.025$  px

$c = 0.475$  px

$x_c = 6.051$  px

$y_c = 6.271$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 88906.9594

Standard deviation: 17.01761

$R^2: 0.97639$

Parameters:

$a = 113.97038$

$b = 1053.39333$

$c = 35.85784$

$d = 0.53189$

## Bead 1622

Date : Mon Oct 17 13:29:10 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

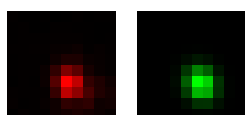
Coordinates : 43.9  $\mu\text{m}$  (x), -32.4  $\mu\text{m}$  (y), 36.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

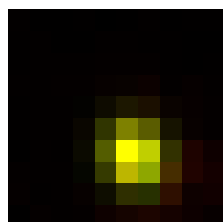
FWHM	Non corrected	Corrected	Theoretical
min	457 nm	473 nm	223 nm
max	528 nm	545 nm	223 nm
z	1.41 $\mu\text{m}$	1.42 $\mu\text{m}$	885 nm
Asymmetry	0.867		
Theta	-64.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1055.399 (brightness)

B = 125.916 (background)

a = 0.612 px

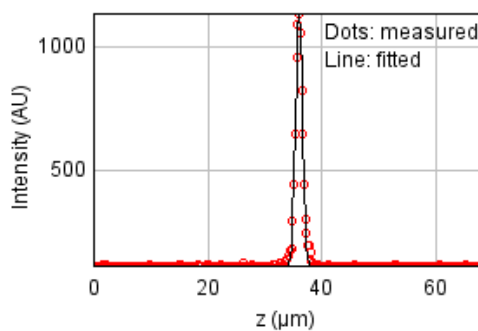
b = -0.062 px

c = 0.512 px

xc = 5.347 px

yc = 6.210 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 38574.9732

Standard deviation: 11.20943

$R^2$ : 0.99216

Parameters:

a = 113.82610

b = 1134.81448

c = 36.06232

d = 0.60033

## Bead 1623

Date : Mon Oct 17 13:29:10 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

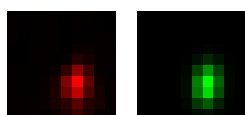
Coordinates : -15.9  $\mu\text{m}$  (x), -35.3  $\mu\text{m}$  (y), 35.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

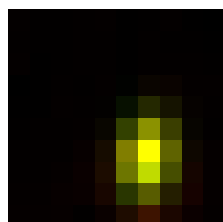
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	415 nm	223 nm
max	615 nm	636 nm	223 nm
z	1.1 $\mu\text{m}$	1.1 $\mu\text{m}$	885 nm
Asymmetry	0.653		
Theta	84.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1535.391 (brightness)

B = 126.575 (background)

a = 0.827 px

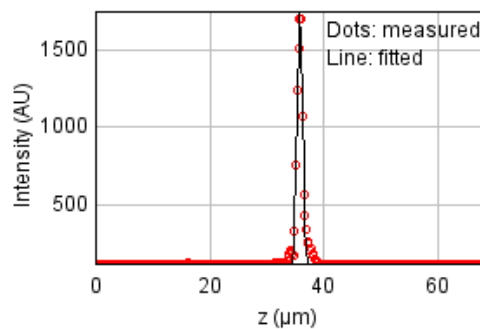
b = 0.046 px

c = 0.359 px

$x_c = 5.913$  px

$y_c = 6.297$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 177794.286

Standard deviation: 24.06521

$R^2$ : 0.98203

Parameters:

a = 116.81531

b = 1744.46240

c = 35.84996

d = 0.46664

## Bead 1624

Date : Mon Oct 17 13:29:10 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

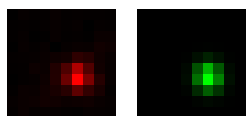
Coordinates : -144  $\mu\text{m}$  (x), -62.9  $\mu\text{m}$  (y), 35.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

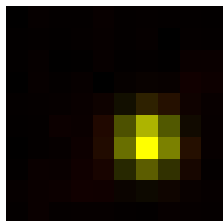
FWHM	Non corrected	Corrected	Theoretical
min	420 nm	434 nm	223 nm
max	445 nm	460 nm	223 nm
z	1.44 $\mu\text{m}$	1.45 $\mu\text{m}$	885 nm
Asymmetry	0.944		
Theta	-79.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 678.543 (brightness)

B = 120.456 (background)

a = 0.758 px

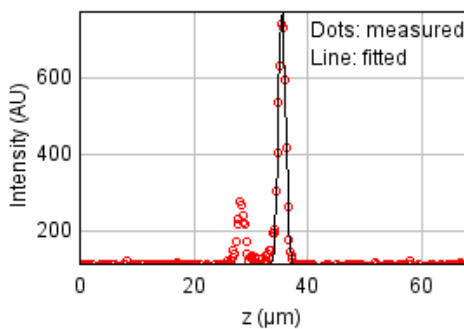
b = -0.014 px

c = 0.680 px

xc = 6.044 px

yc = 5.760 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 165086.764

Standard deviation: 23.18926

$R^2$ : 0.92641

Parameters:

a = 116.64740

b = 776.51384

c = 35.55166

d = 0.61205



## Bead 1625

Date : Mon Oct 17 13:29:11 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

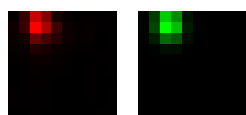
Coordinates : -14.0  $\mu\text{m}$  (x), -84.6  $\mu\text{m}$  (y), 53.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	407 nm	421 nm	223 nm
max	500 nm	517 nm	223 nm
z	1.37 $\mu\text{m}$	1.37 $\mu\text{m}$	885 nm
Asymmetry	0.815		
Theta	-82.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1652.067 (brightness)

B = 124.716 (background)

a = 0.805 px

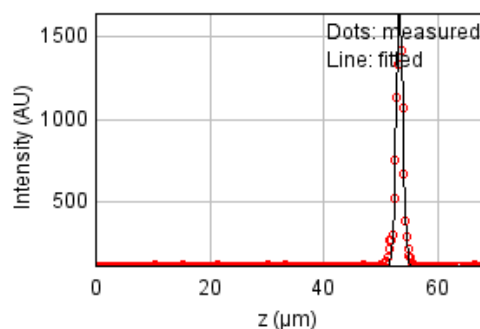
b = -0.035 px

c = 0.542 px

$x_c = 2.299$  px

$y_c = 0.725$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 88588.9825

Standard deviation: 16.98716

$R^2$ : 0.99185

Parameters:

a = 116.01754

b = 1657.16131

c = 53.33288

d = 0.58092

## Bead 1626

Date : Mon Oct 17 13:29:11 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

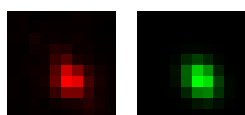
Coordinates : 117  $\mu\text{m}$  (x), -94.1  $\mu\text{m}$  (y), 36.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

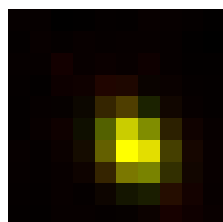
FWHM	Non corrected	Corrected	Theoretical
min	455 nm	471 nm	223 nm
max	576 nm	596 nm	223 nm
z	1.57 $\mu\text{m}$	1.57 $\mu\text{m}$	885 nm
Asymmetry	0.79		
Theta	-53.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.981$



Parameters:

$A = 807.359$  (brightness)

$B = 122.307$  (background)

$a = 0.561$  px

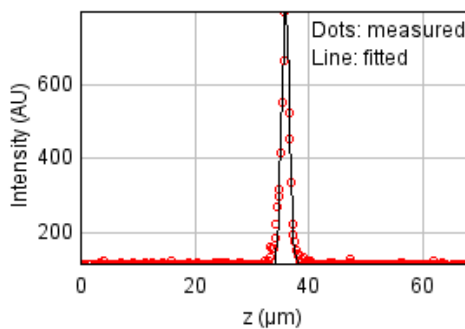
$b = -0.116$  px

$c = 0.490$  px

$x_c = 5.332$  px

$y_c = 5.805$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 70533.1529

Standard deviation: 15.15750

$R^2: 0.97246$

Parameters:

$a = 112.80448$

$b = 806.27800$

$c = 35.98386$

$d = 0.66600$

## Bead 1627

Date : Mon Oct 17 13:29:11 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

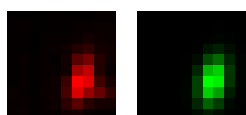
Coordinates : 12.9  $\mu\text{m}$  (x), 86.9  $\mu\text{m}$  (y), 36.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

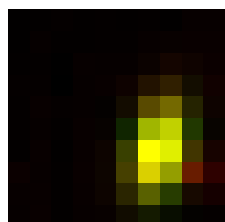
FWHM	Non corrected	Corrected	Theoretical
min	424 nm	438 nm	223 nm
max	729 nm	754 nm	223 nm
z	1.5 $\mu\text{m}$	1.5 $\mu\text{m}$	885 nm
Asymmetry	0.581		
Theta	77.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1083.506 (brightness)

B = 131.378 (background)

a = 0.724 px

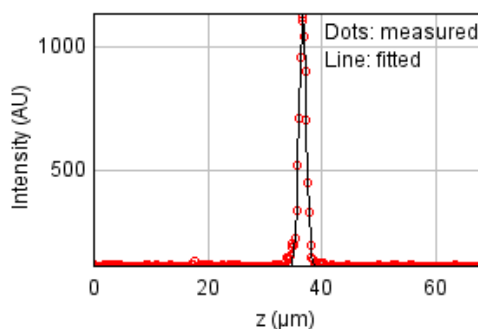
b = 0.104 px

c = 0.275 px

xc = 6.460 px

yc = 5.950 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35056.3584

Standard deviation: 10.68598

$R^2$ : 0.99325

Parameters:

a = 114.95682

b = 1135.47649

c = 36.71043

d = 0.63610

## Bead 1628 (Rejected)

Date : Mon Oct 17 13:29:11 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

Coordinates : -12.0  $\mu\text{m}$  (x), 74.1  $\mu\text{m}$  (y), 46.6  $\mu\text{m}$  (z)

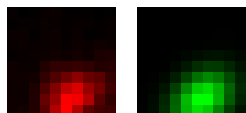
Corresponding bead : Not found

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

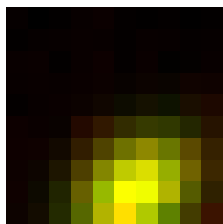
FWHM	Non corrected	Corrected	Theoretical
min	778 nm	804 nm	223 nm
max	1.05 $\mu\text{m}$	1.08 $\mu\text{m}$	223 nm
z	1.23 $\mu\text{m}$	1.24 $\mu\text{m}$	885 nm
Asymmetry	0.743		
Theta	41.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 382.484 (brightness)

B = 117.601 (background)

a = 0.165 px

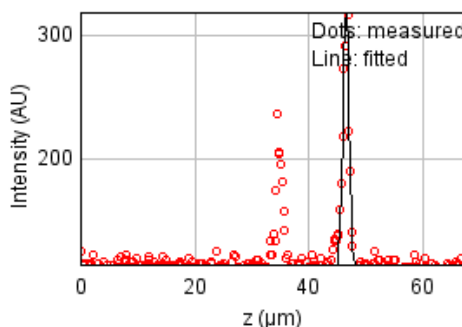
b = 0.049 px

c = 0.179 px

xc = 5.466 px

yc = 8.005 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 66451.2724

Standard deviation: 14.71236

$R^2$ : 0.72094

Parameters:

a = 115.43998

b = 319.96879

c = 46.56330

d = 0.52373

## Bead 1629

Date : Mon Oct 17 13:29:11 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

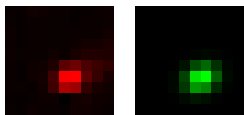
Coordinates : 142  $\mu\text{m}$  (x), 59.4  $\mu\text{m}$  (y), 36.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

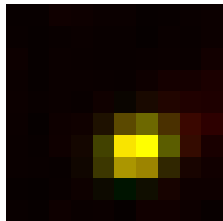
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	415 nm	223 nm
max	513 nm	530 nm	223 nm
z	1.65 $\mu\text{m}$	1.65 $\mu\text{m}$	885 nm
Asymmetry	0.783		
Theta	23.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 706.912$  (brightness)

$B = 116.689$  (background)

$a = 0.562$  px

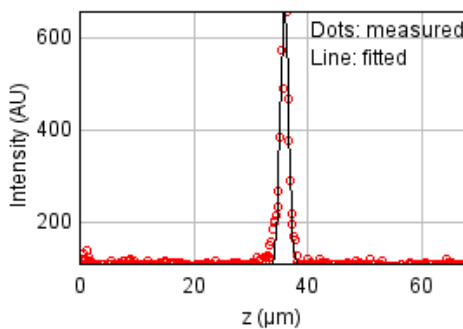
$b = 0.119$  px

$c = 0.778$  px

$x_c = 5.571$  px

$y_c = 6.142$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 66347.4023

Standard deviation: 14.70086

$R^2: 0.96146$

Parameters:

$a = 111.47922$

$b = 663.72458$

$c = 35.97057$

$d = 0.69919$

## Bead 1630

Date : Mon Oct 17 13:29:11 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

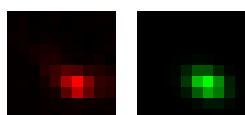
Coordinates : 159 um (x), 17.3 um (y), 36.2 um (z)

Corresponding bead : Not found

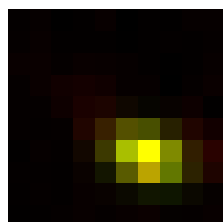
FWHM	Non corrected	Corrected	Theoretical
min	395 nm	408 nm	223 nm
max	577 nm	597 nm	223 nm
z	1.49 um	1.5 um	885 nm
Asymmetry	0.684		
Theta	-20.0°		

### 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 = 652.584 (brightness)

B = 123.108 (background)

a = 0.456 px

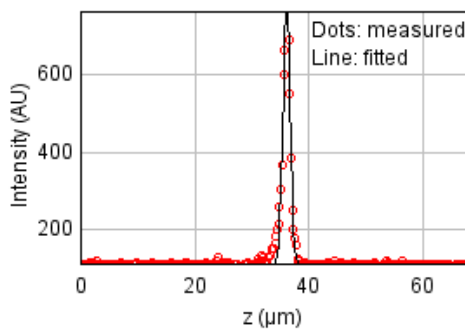
b = -0.147 px

c = 0.806 px

xc = 5.888 px

yc = 6.205 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 42189.3002

Standard deviation: 11.72282

$R^2$ : 0.98055

Parameters:

a = 110.96567

b = 767.74559

c = 36.16642

d = 0.63283

## Bead 1631

Date : Mon Oct 17 13:29:11 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

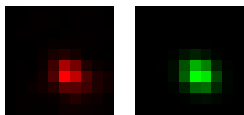
Coordinates : 3.82  $\mu\text{m}$  (x), -20.6  $\mu\text{m}$  (y), 36.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

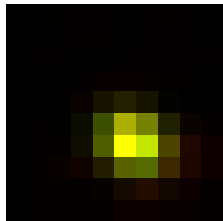
FWHM	Non corrected	Corrected	Theoretical
min	429 nm	443 nm	223 nm
max	523 nm	540 nm	223 nm
z	1.45 $\mu\text{m}$	1.46 $\mu\text{m}$	885 nm
Asymmetry	0.821		
Theta	-29.4°		

### 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 = 1634.911 (brightness)

B = 132.708 (background)

a = 0.549 px

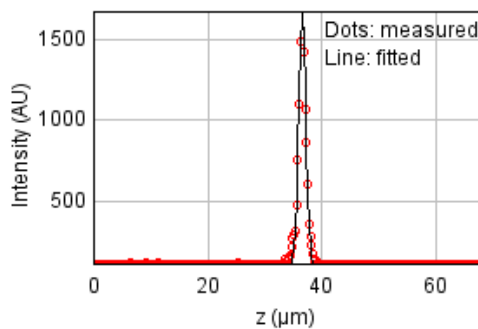
b = -0.102 px

c = 0.672 px

$x_c = 5.373$  px

$y_c = 5.834$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 109070.002

Standard deviation: 18.84879

$R^2$ : 0.99091

Parameters:

a = 115.93579

b = 1688.76998

c = 36.64157

d = 0.61660

## Bead 1632

Date : Mon Oct 17 13:29:11 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

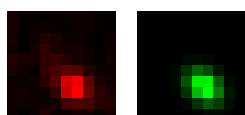
Coordinates : 153  $\mu\text{m}$  (x), -57.7  $\mu\text{m}$  (y), 35.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

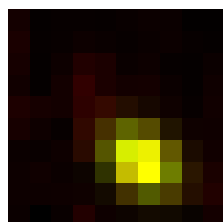
FWHM	Non corrected	Corrected	Theoretical
min	445 nm	460 nm	223 nm
max	593 nm	614 nm	223 nm
z	1.48 $\mu\text{m}$	1.49 $\mu\text{m}$	885 nm
Asymmetry	0.75		
Theta	-40.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 405.456 (brightness)

B = 117.560 (background)

a = 0.507 px

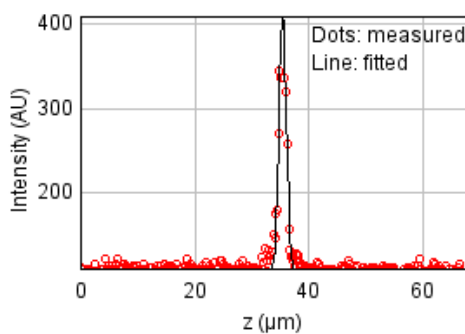
b = -0.146 px

c = 0.550 px

xc = 5.644 px

yc = 6.458 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19553.5690

Standard deviation: 7.98075

$R^2$ : 0.95733

Parameters:

a = 110.34640

b = 409.49169

c = 35.48829

d = 0.62913



## Bead 1633

Date : Mon Oct 17 13:29:11 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

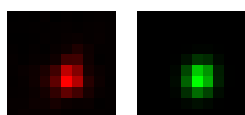
Coordinates : -126  $\mu\text{m}$  (x), -77.2  $\mu\text{m}$  (y), 36.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	441 nm	456 nm	223 nm
max	497 nm	514 nm	223 nm
z	1.39 $\mu\text{m}$	1.4 $\mu\text{m}$	885 nm
Asymmetry	0.887		
Theta	71.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 965.438 (brightness)

B = 126.769 (background)

a = 0.674 px

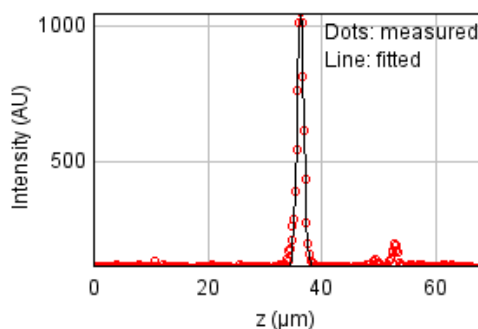
b = 0.045 px

c = 0.558 px

xc = 5.231 px

yc = 5.699 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 74376.8561

Standard deviation: 15.56502

$R^2$ : 0.98163

Parameters:

a = 115.90509

b = 1044.06439

c = 36.32003

d = 0.59084

## Bead 1634 (Rejected)

Date : Mon Oct 17 13:29:11 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

Coordinates : -12.1  $\mu\text{m}$  (x), 73.8  $\mu\text{m}$  (y), 46.6  $\mu\text{m}$  (z)

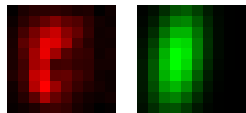
Corresponding bead : Not found

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

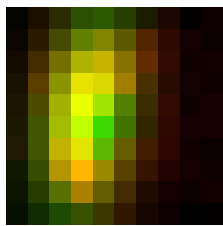
FWHM	Non corrected	Corrected	Theoretical
min	748 nm	773 nm	223 nm
max	1.59 $\mu\text{m}$	1.64 $\mu\text{m}$	223 nm
z	1.23 $\mu\text{m}$	1.24 $\mu\text{m}$	885 nm
Asymmetry	0.471		
Theta	81.4°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.870$



Parameters:

A = 350.945 (brightness)

B = 141.570 (background)

a = 0.236 px

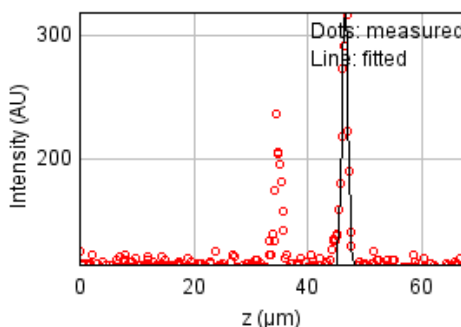
b = 0.028 px

c = 0.057 px

xc = 3.223 px

yc = 4.415 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 66451.2724

Standard deviation: 14.71236

$R^2$ : 0.72094

Parameters:

a = 115.43998

b = 319.96879

c = 46.56330

d = 0.52373

## Bead 1635

Date : Mon Oct 17 13:29:11 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

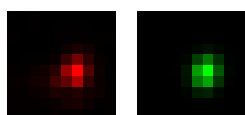
Coordinates : -54.6  $\mu\text{m}$  (x), -35.5  $\mu\text{m}$  (y), 36.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

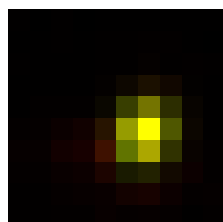
FWHM	Non corrected	Corrected	Theoretical
min	407 nm	421 nm	223 nm
max	478 nm	494 nm	223 nm
z	1.32 $\mu\text{m}$	1.33 $\mu\text{m}$	885 nm
Asymmetry	0.852		
Theta	72.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1789.650 (brightness)

B = 139.169 (background)

a = 0.789 px

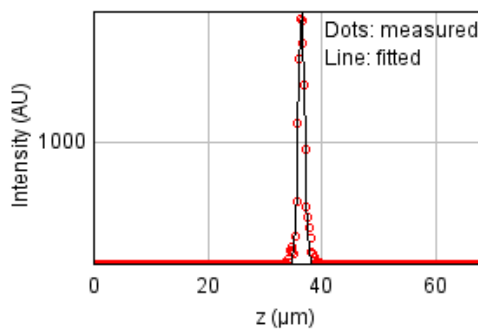
b = 0.064 px

c = 0.608 px

xc = 5.801 px

yc = 5.173 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 175402.805

Standard deviation: 23.90282

$R^2$ : 0.98838

Parameters:

a = 115.66854

b = 1957.63401

c = 36.48828

d = 0.56235

## Bead 1636

Date : Mon Oct 17 13:29:12 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

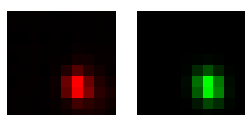
Coordinates : 69.1  $\mu\text{m}$  (x), -50.7  $\mu\text{m}$  (y), 36.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

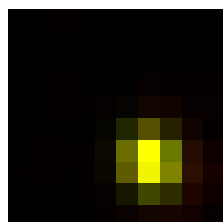
FWHM	Non corrected	Corrected	Theoretical
min	403 nm	416 nm	223 nm
max	480 nm	496 nm	223 nm
z	1.14 $\mu\text{m}$	1.14 $\mu\text{m}$	885 nm
Asymmetry	0.84		
Theta	-71.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1652.202$  (brightness)

$B = 124.327$  (background)

$a = 0.804$  px

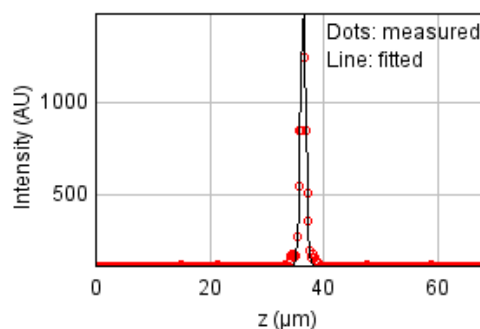
$b = -0.073$  px

$c = 0.607$  px

$x_c = 6.069$  px

$y_c = 6.471$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 171287.079

Standard deviation: 23.62072

$R^2: 0.97687$

Parameters:

$a = 114.76635$

$b = 1494.28062$

$c = 36.45252$

$d = 0.48416$

## Bead 1637

Date : Mon Oct 17 13:29:12 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

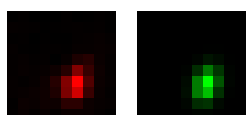
Coordinates : -125  $\mu\text{m}$  (x), -63.9  $\mu\text{m}$  (y), 36.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

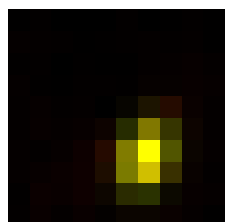
FWHM	Non corrected	Corrected	Theoretical
min	374 nm	387 nm	223 nm
max	529 nm	547 nm	223 nm
z	1.2 $\mu\text{m}$	1.21 $\mu\text{m}$	885 nm
Asymmetry	0.707		
Theta	71.9°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.983$



Parameters:

A = 936.032 (brightness)

B = 121.178 (background)

a = 0.913 px

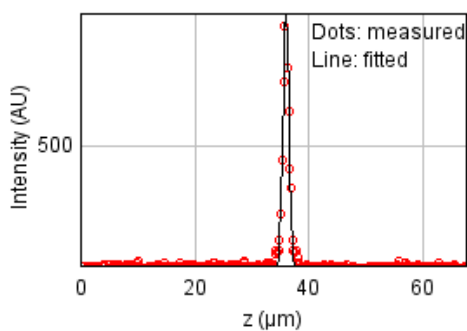
b = 0.141 px

c = 0.525 px

xc = 5.856 px

yc = 6.261 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 50800.3549

Standard deviation: 12.86365

$R^2$ : 0.98093

Parameters:

a = 113.82142

b = 921.31145

c = 36.05130

d = 0.51118

## Bead 1638

Date : Mon Oct 17 13:29:12 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

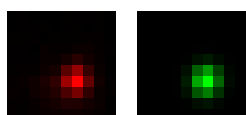
Coordinates : -89.6  $\mu\text{m}$  (x), -70.2  $\mu\text{m}$  (y), 36.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

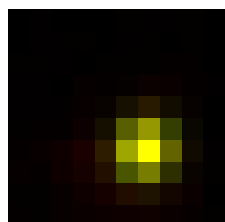
FWHM	Non corrected	Corrected	Theoretical
min	441 nm	456 nm	223 nm
max	469 nm	484 nm	223 nm
z	1.31 $\mu\text{m}$	1.32 $\mu\text{m}$	885 nm
Asymmetry	0.942		
Theta	74.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1287.637$  (brightness)

$B = 132.593$  (background)

$a = 0.683$  px

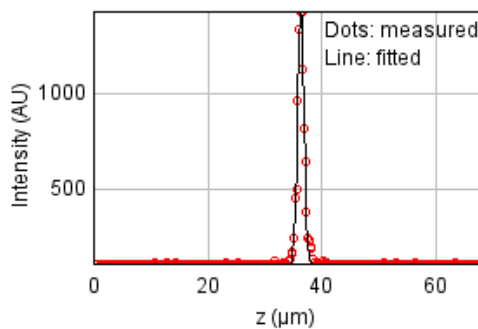
$b = 0.020$  px

$c = 0.617$  px

$x_c = 5.813$  px

$y_c = 5.928$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 85760.8262

Standard deviation: 16.71380

$R^2: 0.98899$

Parameters:

$a = 114.31512$

$b = 1443.73635$

$c = 36.38463$

$d = 0.55713$

## Bead 1639

Date : Mon Oct 17 13:29:12 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

Coordinates : -113  $\mu\text{m}$  (x), 83.5  $\mu\text{m}$  (y), 36.6  $\mu\text{m}$  (z)

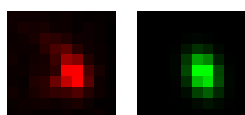
Corresponding bead : Not found



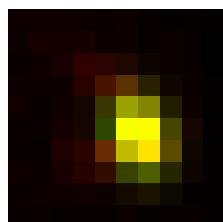
FWHM	Non corrected	Corrected	Theoretical
min	445 nm	460 nm	223 nm
max	621 nm	642 nm	223 nm
z	1.84 $\mu\text{m}$	1.85 $\mu\text{m}$	885 nm
Asymmetry	0.717		
Theta	-71.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 668.792 (brightness)

B = 129.269 (background)

a = 0.646 px

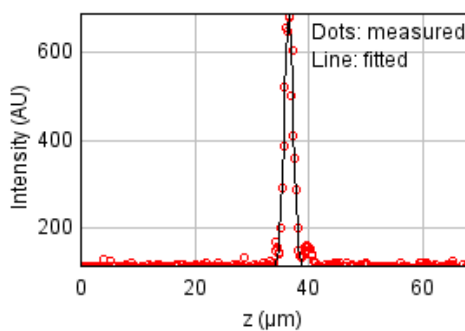
b = -0.098 px

c = 0.380 px

xc = 5.529 px

yc = 5.234 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 55841.3490

Standard deviation: 13.48680

$R^2$ : 0.97268

Parameters:

a = 114.61470

b = 688.03965

c = 36.55333

d = 0.78238

## Bead 1640

Date : Mon Oct 17 13:29:12 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

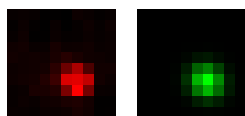
Coordinates : -145  $\mu\text{m}$  (x), 21.3  $\mu\text{m}$  (y), 36.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

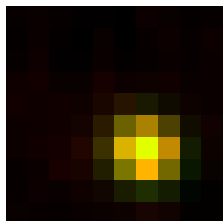
FWHM	Non corrected	Corrected	Theoretical
min	501 nm	518 nm	223 nm
max	538 nm	556 nm	223 nm
z	1.69 $\mu\text{m}$	1.7 $\mu\text{m}$	885 nm
Asymmetry	0.931		
Theta	-34.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 448.833 (brightness)

B = 115.081 (background)

a = 0.487 px

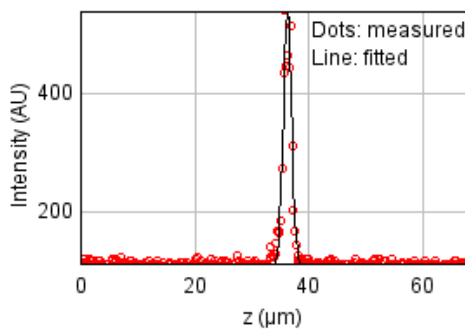
b = -0.033 px

c = 0.512 px

xc = 5.876 px

yc = 6.155 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 54763.8684

Standard deviation: 13.35604

$R^2$ : 0.94856

Parameters:

a = 111.95257

b = 537.89496

c = 36.32841

d = 0.71781



## Bead 1641

Date : Mon Oct 17 13:29:12 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

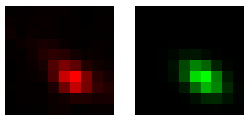
Coordinates : 160  $\mu\text{m}$  (x), -13.2  $\mu\text{m}$  (y), 36.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

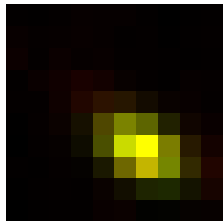
FWHM	Non corrected	Corrected	Theoretical
min	419 nm	433 nm	223 nm
max	662 nm	684 nm	223 nm
z	1.56 $\mu\text{m}$	1.56 $\mu\text{m}$	885 nm
Asymmetry	0.633		
Theta	-32.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 873.217$  (brightness)

$B = 124.329$  (background)

$a = 0.436$  px

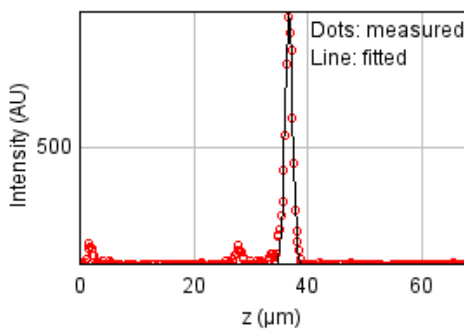
$b = -0.206$  px

$c = 0.635$  px

$x_c = 5.746$  px

$y_c = 6.146$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 87154.5346

Standard deviation: 16.84907

$R^2: 0.97632$

Parameters:

$a = 115.33385$

$b = 951.17126$

$c = 36.74283$

$d = 0.66134$

## Bead 1642

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

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

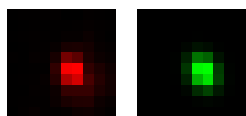
Coordinates : 52.0  $\mu\text{m}$  (x), -30.9  $\mu\text{m}$  (y), 36.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

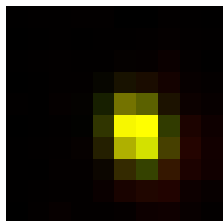
FWHM	Non corrected	Corrected	Theoretical
min	411 nm	425 nm	223 nm
max	516 nm	534 nm	223 nm
z	1.11 $\mu\text{m}$	1.11 $\mu\text{m}$	885 nm
Asymmetry	0.797		
Theta	-66.9°		

### 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:

$A = 1676.816$  (brightness)

$B = 135.608$  (background)

$a = 0.749$  px

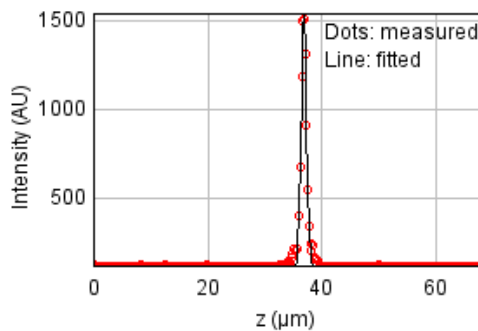
$b = -0.105$  px

$c = 0.548$  px

$x_c = 5.567$  px

$y_c = 5.300$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 89386.6062

Standard deviation: 17.06346

$R^2: 0.98840$

Parameters:

$a = 115.41958$

$b = 1549.82590$

$c = 36.90391$

$d = 0.47119$

## Bead 1643

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

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

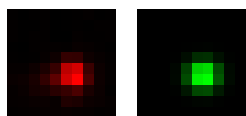
Coordinates : -56.2  $\mu\text{m}$  (x), -39.1  $\mu\text{m}$  (y), 37.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

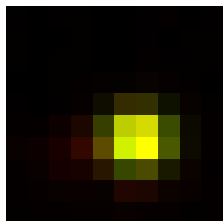
FWHM	Non corrected	Corrected	Theoretical
min	440 nm	455 nm	223 nm
max	489 nm	505 nm	223 nm
z	1.46 $\mu\text{m}$	1.46 $\mu\text{m}$	885 nm
Asymmetry	0.901		
Theta	1.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1660.590 (brightness)

B = 135.328 (background)

a = 0.562 px

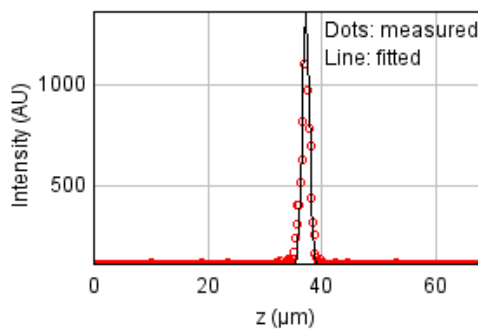
b = 0.004 px

c = 0.692 px

$x_c = 5.551$  px

$y_c = 5.614$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 337544.870

Standard deviation: 33.15863

$R^2$ : 0.95735

Parameters:

a = 115.28931

b = 1367.87717

c = 37.26264

d = 0.61947

## Bead 1644

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

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

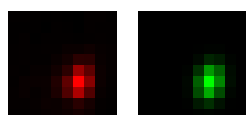
Coordinates : -121  $\mu\text{m}$  (x), -48.2  $\mu\text{m}$  (y), 36.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

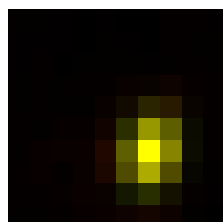
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	413 nm	223 nm
max	551 nm	570 nm	223 nm
z	1.2 $\mu\text{m}$	1.2 $\mu\text{m}$	885 nm
Asymmetry	0.724		
Theta	77.2°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.987$



Parameters:

A = 1202.950 (brightness)

B = 127.622 (background)

a = 0.822 px

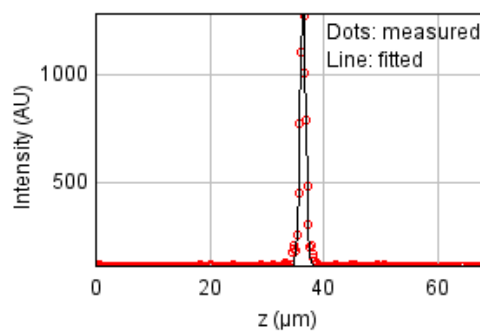
b = 0.087 px

c = 0.462 px

xc = 6.098 px

yc = 6.047 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 51718.5576

Standard deviation: 12.97938

$R^2$ : 0.99107

Parameters:

a = 112.98300

b = 1312.63261

c = 36.40621

d = 0.50870

## Bead 1645

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

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

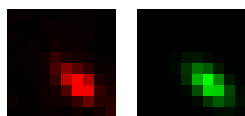
Coordinates : 156  $\mu\text{m}$  (x), -95.8  $\mu\text{m}$  (y), 36.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

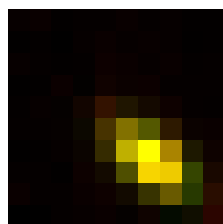
FWHM	Non corrected	Corrected	Theoretical
min	390 nm	403 nm	223 nm
max	723 nm	748 nm	223 nm
z	1.75 $\mu\text{m}$	1.76 $\mu\text{m}$	885 nm
Asymmetry	0.539		
Theta	-40.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 506.674 (brightness)

B = 113.866 (background)

a = 0.516 px

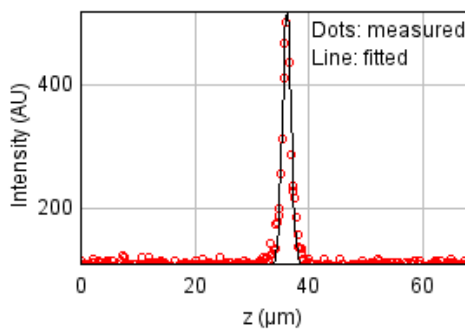
b = -0.309 px

c = 0.623 px

xc = 6.099 px

yc = 6.402 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35297.7486

Standard deviation: 10.72270

$R^2$ : 0.96476

Parameters:

a = 110.06621

b = 519.44928

c = 36.21679

d = 0.74470

## Bead 1646

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

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

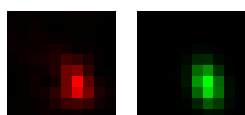
Coordinates : -128  $\mu\text{m}$  (x), 81.1  $\mu\text{m}$  (y), 36.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

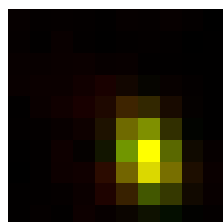
FWHM	Non corrected	Corrected	Theoretical
min	424 nm	438 nm	223 nm
max	632 nm	653 nm	223 nm
z	1.56 $\mu\text{m}$	1.56 $\mu\text{m}$	885 nm
Asymmetry	0.671		
Theta	-73.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 742.821 (brightness)

B = 123.890 (background)

a = 0.714 px

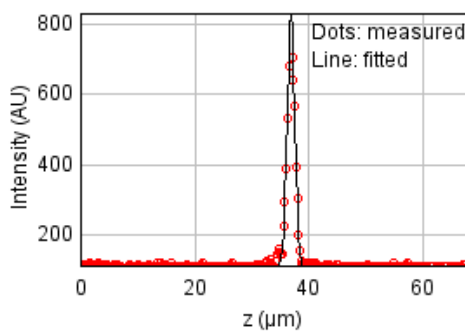
b = -0.112 px

c = 0.370 px

$x_c = 5.912$  px

$y_c = 6.247$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 32083.3457

Standard deviation: 10.22282

$R^2$ : 0.98796

Parameters:

a = 113.27301

b = 828.83611

c = 36.94350

d = 0.66085

## Bead 1647

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

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

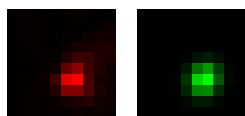
Coordinates : 92.5  $\mu\text{m}$  (x), 48.2  $\mu\text{m}$  (y), 36.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

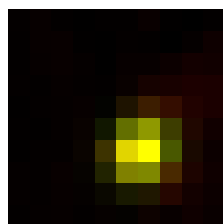
FWHM	Non corrected	Corrected	Theoretical
min	448 nm	463 nm	223 nm
max	505 nm	522 nm	223 nm
z	1.98 $\mu\text{m}$	1.99 $\mu\text{m}$	885 nm
Asymmetry	0.887		
Theta	55.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 718.719$  (brightness)

$B = 126.467$  (background)

$a = 0.624$  px

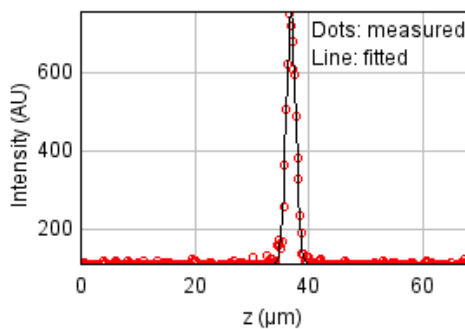
$b = 0.067$  px

$c = 0.572$  px

$x_c = 5.649$  px

$y_c = 5.989$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 41554.8470

Standard deviation: 11.63434

$R^2: 0.98479$

Parameters:

$a = 112.09040$

$b = 756.64115$

$c = 36.94025$

$d = 0.84086$

## Bead 1648

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

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

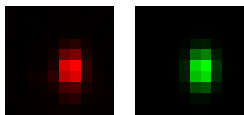
Coordinates : -23.2  $\mu\text{m}$  (x), -7.11  $\mu\text{m}$  (y), 36.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

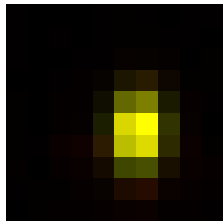
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	401 nm	223 nm
max	560 nm	579 nm	223 nm
z	1.13 $\mu\text{m}$	1.14 $\mu\text{m}$	885 nm
Asymmetry	0.693		
Theta	88.3°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.990$



Parameters:

A = 1508.223 (brightness)

B = 124.943 (background)

a = 0.889 px

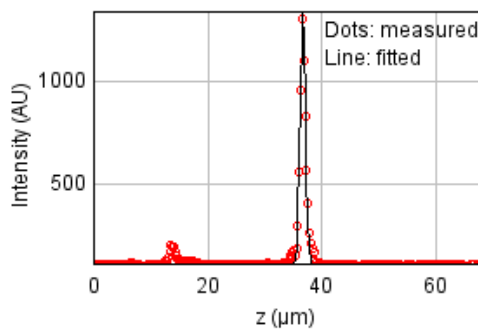
b = 0.014 px

c = 0.428 px

xc = 5.592 px

yc = 5.327 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 138301.390

Standard deviation: 21.22482

$R^2$ : 0.97589

Parameters:

a = 118.08023

b = 1335.65281

c = 36.72091

d = 0.48075



## Bead 1649

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

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

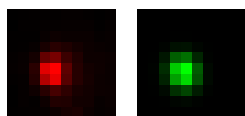
Coordinates : 88.4  $\mu\text{m}$  (x), -10.2  $\mu\text{m}$  (y), 39.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

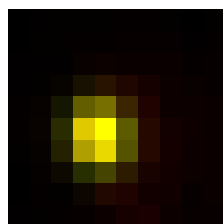
FWHM	Non corrected	Corrected	Theoretical
min	456 nm	471 nm	223 nm
max	524 nm	541 nm	223 nm
z	1.23 $\mu\text{m}$	1.23 $\mu\text{m}$	885 nm
Asymmetry	0.871		
Theta	-77.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1568.845 (brightness)

B = 145.110 (background)

a = 0.638 px

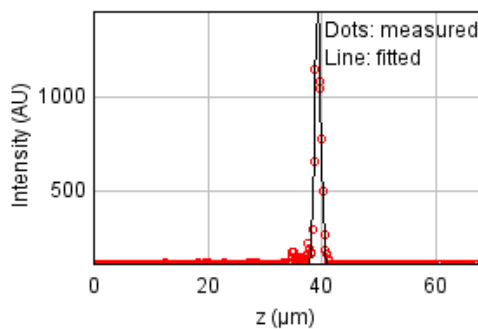
b = -0.032 px

c = 0.496 px

xc = 3.707 px

yc = 5.313 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 216328.737

Standard deviation: 26.54532

$R^2$ : 0.97127

Parameters:

a = 115.97165

b = 1454.05214

c = 39.37181

d = 0.52118

## Bead 1650

Date : Mon Oct 17 13:29:14 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

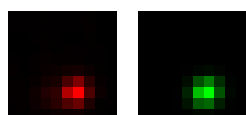
Coordinates : -109  $\mu\text{m}$  (x), -22.9  $\mu\text{m}$  (y), 37.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

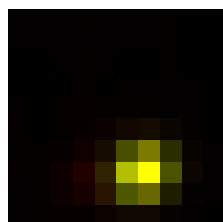
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	409 nm	223 nm
max	446 nm	461 nm	223 nm
z	1.4 $\mu\text{m}$	1.41 $\mu\text{m}$	885 nm
Asymmetry	0.888		
Theta	25.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1472.151 (brightness)

B = 125.500 (background)

a = 0.709 px

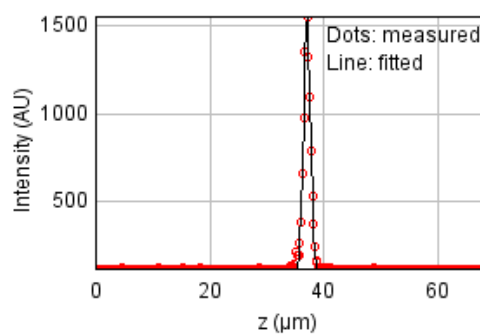
b = 0.070 px

c = 0.823 px

$x_c = 5.712$  px

$y_c = 6.970$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 49033.7332

Standard deviation: 12.63800

$R^2$ : 0.99502

Parameters:

a = 113.39553

b = 1564.34482

c = 37.10739

d = 0.59607

## Bead 1651

Date : Mon Oct 17 13:29:14 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

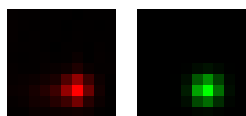
Coordinates : -92.2  $\mu\text{m}$  (x), -32.1  $\mu\text{m}$  (y), 37.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

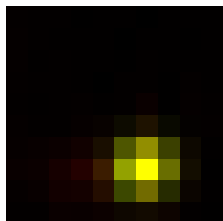
FWHM	Non corrected	Corrected	Theoretical
min	427 nm	441 nm	223 nm
max	457 nm	472 nm	223 nm
z	1.39 $\mu\text{m}$	1.4 $\mu\text{m}$	885 nm
Asymmetry	0.934		
Theta	17.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1292.137$  (brightness)

$B = 128.554$  (background)

$a = 0.651$  px

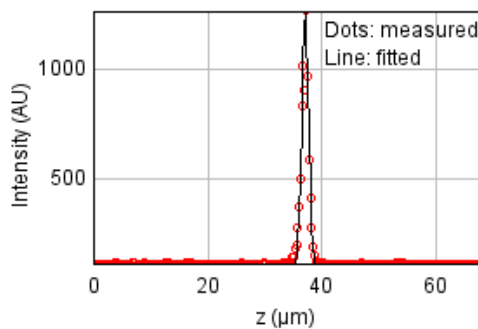
$b = 0.026$  px

$c = 0.728$  px

$x_c = 5.853$  px

$y_c = 6.908$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 174099.489

Standard deviation: 23.81385

$R^2: 0.97219$

Parameters:

$a = 113.30201$

$b = 1261.30971$

$c = 37.14985$

$d = 0.59143$

## Bead 1652

Date : Mon Oct 17 13:29:14 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

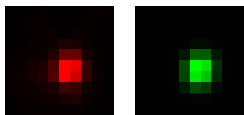
Coordinates : -116  $\mu\text{m}$  (x), -33.1  $\mu\text{m}$  (y), 36.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

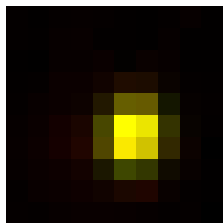
FWHM	Non corrected	Corrected	Theoretical
min	437 nm	452 nm	223 nm
max	499 nm	516 nm	223 nm
z	1.37 $\mu\text{m}$	1.37 $\mu\text{m}$	885 nm
Asymmetry	0.875		
Theta	76.8°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.984$



Parameters:

$A = 1240.021$  (brightness)

$B = 127.786$  (background)

$a = 0.694$  px

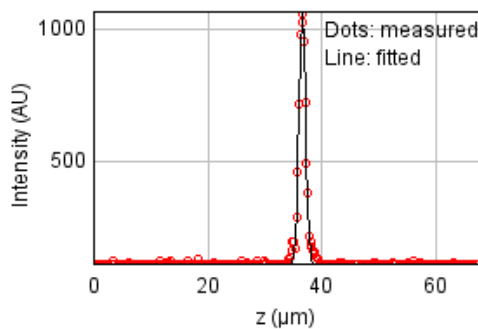
$b = 0.037$  px

$c = 0.547$  px

$x_c = 5.399$  px

$y_c = 5.388$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47053.5806

Standard deviation: 12.38019

$R^2: 0.98895$

Parameters:

$a = 113.66951$

$b = 1077.88963$

$c = 36.64292$

$d = 0.57990$

## Bead 1653

Date : Mon Oct 17 13:29:14 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

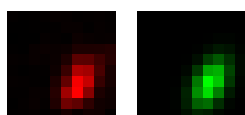
Coordinates : 148 um (x), 79.2 um (y), 36.7 um (z)

Corresponding bead : Not found

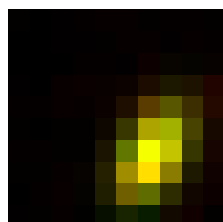
FWHM	Non corrected	Corrected	Theoretical
min	474 nm	490 nm	223 nm
max	808 nm	835 nm	223 nm
z	792 nm	795 nm	885 nm
Asymmetry	0.587		
Theta	62.3°		

### 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 = 590.023 (brightness)

B = 116.742 (background)

a = 0.513 px

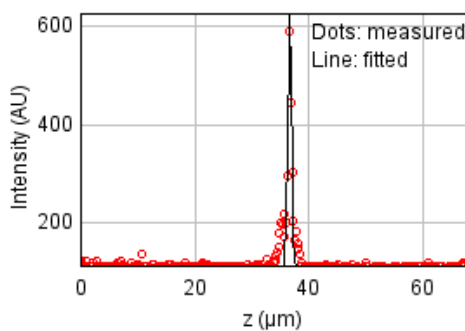
b = 0.161 px

c = 0.290 px

xc = 6.203 px

yc = 6.144 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 67148.7276

Standard deviation: 14.78937

$R^2$ : 0.91357

Parameters:

a = 113.02248

b = 629.26431

c = 36.70300

d = 0.33647

## Bead 1654

Date : Mon Oct 17 13:29:14 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

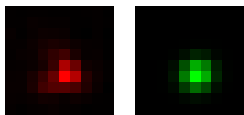
Coordinates : -103  $\mu\text{m}$  (x), 74.6  $\mu\text{m}$  (y), 38.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

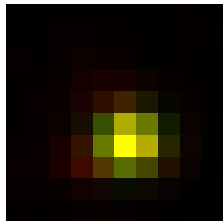
FWHM	Non corrected	Corrected	Theoretical
min	460 nm	475 nm	223 nm
max	491 nm	507 nm	223 nm
z	1.26 $\mu\text{m}$	1.26 $\mu\text{m}$	885 nm
Asymmetry	0.937		
Theta	20.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1043.618$  (brightness)

$B = 134.200$  (background)

$a = 0.567$  px

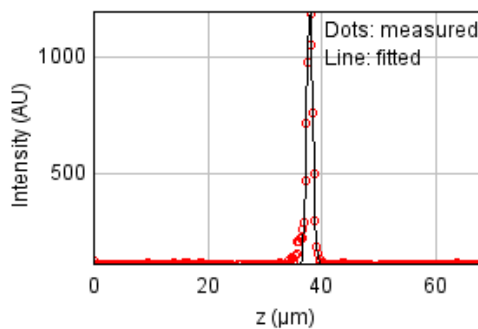
$b = 0.025$  px

$c = 0.625$  px

$x_c = 5.159$  px

$y_c = 5.807$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 64986.6449

Standard deviation: 14.54933

$R^2: 0.98721$

Parameters:

$a = 114.84918$

$b = 1209.61389$

$c = 37.96242$

$d = 0.53421$

## Bead 1655

Date : Mon Oct 17 13:29:14 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

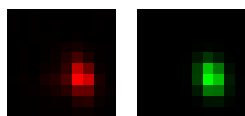
Coordinates : -46.8  $\mu\text{m}$  (x), 46.7  $\mu\text{m}$  (y), 37.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

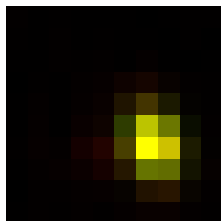
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	404 nm	223 nm
max	521 nm	539 nm	223 nm
z	1.4 $\mu\text{m}$	1.41 $\mu\text{m}$	885 nm
Asymmetry	0.751		
Theta	-72.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1704.635$  (brightness)

$B = 132.588$  (background)

$a = 0.842$  px

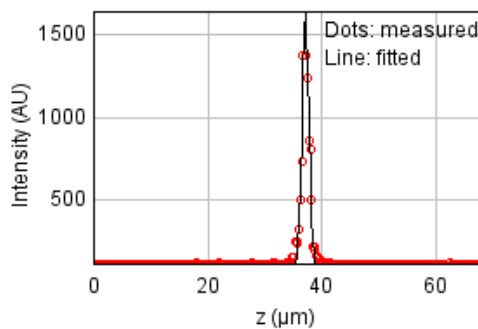
$b = -0.111$  px

$c = 0.530$  px

$x_c = 6.309$  px

$y_c = 5.817$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 218868.902

Standard deviation: 26.70071

$R^2: 0.98008$

Parameters:

$a = 114.08489$

$b = 1636.25210$

$c = 37.19629$

$d = 0.59544$

## Bead 1656

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

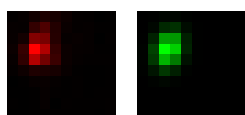
Coordinates : 67.0  $\mu\text{m}$  (x), 42.9  $\mu\text{m}$  (y), 62.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	406 nm	420 nm	223 nm
max	579 nm	598 nm	223 nm
z	1.34 $\mu\text{m}$	1.35 $\mu\text{m}$	885 nm
Asymmetry	0.702		
Theta	76.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1573.363 (brightness)

B = 132.091 (background)

a = 0.790 px

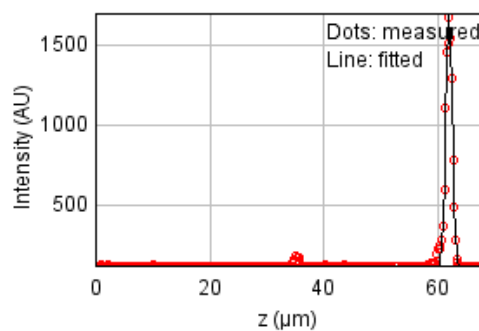
b = 0.094 px

c = 0.423 px

xc = 2.366 px

yc = 3.010 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 127625.508

Standard deviation: 20.38917

$R^2$ : 0.98876

Parameters:

a = 115.60338

b = 1703.73876

c = 61.98024

d = 0.56962



## Bead 1657 (Rejected)

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

Coordinates : -164  $\mu\text{m}$  (x), -19.8  $\mu\text{m}$  (y), 36.8  $\mu\text{m}$  (z)

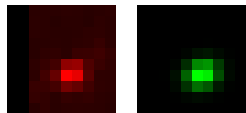
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

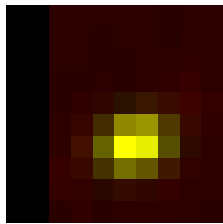
FWHM	Non corrected	Corrected	Theoretical
min	419 nm	433 nm	223 nm
max	522 nm	540 nm	223 nm
z	1.42 $\mu\text{m}$	1.43 $\mu\text{m}$	885 nm
Asymmetry	0.802		
Theta	18.3°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.796$



Parameters:

A = 606.392 (brightness)

B = 87.311 (background)

a = 0.519 px

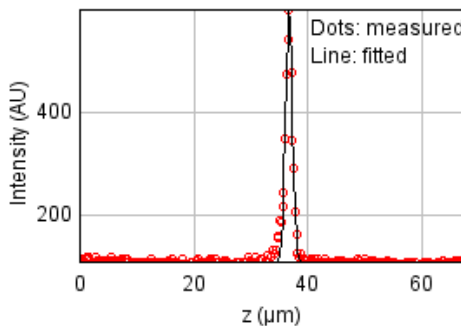
b = 0.082 px

c = 0.738 px

xc = 5.446 px

yc = 5.873 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29477.3078

Standard deviation: 9.79884

$R^2$ : 0.97428

Parameters:

a = 110.79276

b = 597.16349

c = 36.75957

d = 0.60503

## Bead 1658

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

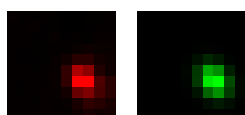
Coordinates : 30.7  $\mu\text{m}$  (x), -20.2  $\mu\text{m}$  (y), 37.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

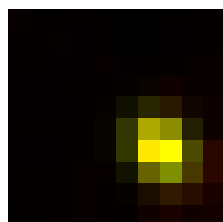
FWHM	Non corrected	Corrected	Theoretical
min	418 nm	432 nm	223 nm
max	529 nm	546 nm	223 nm
z	1.32 $\mu\text{m}$	1.32 $\mu\text{m}$	885 nm
Asymmetry	0.79		
Theta	-52.6°		

### 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:

$A = 1325.231$  (brightness)

$B = 126.237$  (background)

$a = 0.662$  px

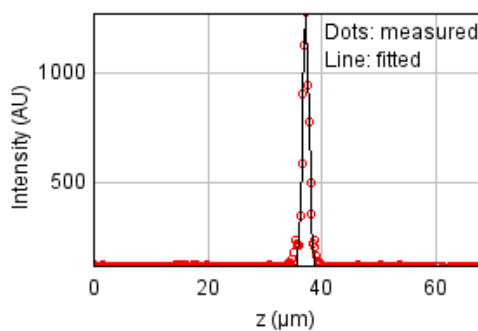
$b = -0.139$  px

$c = 0.587$  px

$x_c = 6.552$  px

$y_c = 5.904$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 78069.1298

Standard deviation: 15.94669

$R^2: 0.98700$

Parameters:

$a = 114.78781$

$b = 1279.42314$

$c = 37.24751$

$d = 0.55852$

## Bead 1659

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

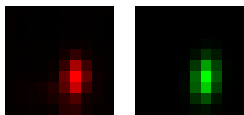
Coordinates : -36.5  $\mu\text{m}$  (x), -37.4  $\mu\text{m}$  (y), 37.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

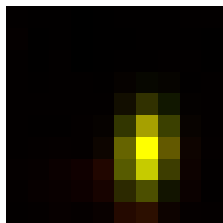
FWHM	Non corrected	Corrected	Theoretical
min	365 nm	377 nm	223 nm
max	625 nm	646 nm	223 nm
z	1.24 $\mu\text{m}$	1.24 $\mu\text{m}$	885 nm
Asymmetry	0.584		
Theta	83.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1597.455$  (brightness)

$B = 128.550$  (background)

$a = 1.000$  px

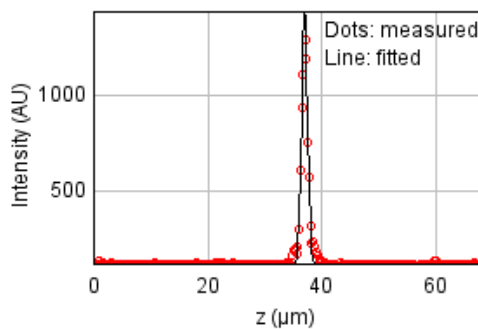
$b = 0.074$  px

$c = 0.352$  px

$x_c = 5.959$  px

$y_c = 6.177$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 305644.417

Standard deviation: 31.55288

$R^2: 0.96012$

Parameters:

$a = 115.86492$

$b = 1453.33095$

$c = 37.03830$

$d = 0.52495$

## Bead 1660

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

Coordinates : 17.3  $\mu\text{m}$  (x), -78.3  $\mu\text{m}$  (y), 47.3  $\mu\text{m}$  (z)

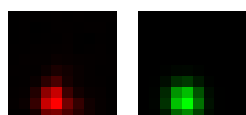
Corresponding bead : Not found



FWHM	Non corrected	Corrected	Theoretical
min	494 nm	511 nm	223 nm
max	543 nm	561 nm	223 nm
z	1.14 $\mu\text{m}$	1.15 $\mu\text{m}$	885 nm
Asymmetry	0.91		
Theta	-79.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1721.104$  (brightness)

$B = 126.262$  (background)

$a = 0.546$  px

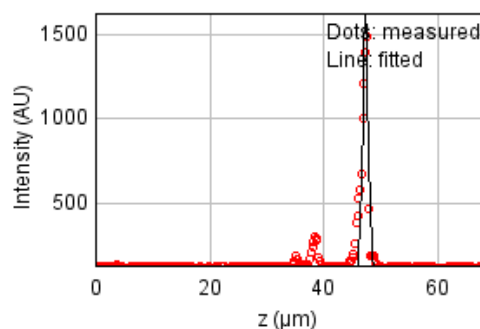
$b = -0.017$  px

$c = 0.458$  px

$x_c = 3.754$  px

$y_c = 7.816$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 1009328.78

Standard deviation: 57.33861

$R^2: 0.89561$

Parameters:

$a = 123.56845$

$b = 1631.90678$

$c = 47.34129$

$d = 0.48470$

## Bead 1661 (Rejected)

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

Coordinates : -114  $\mu\text{m}$  (x), -89.1  $\mu\text{m}$  (y), 37.9  $\mu\text{m}$  (z)

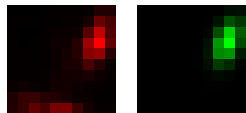
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

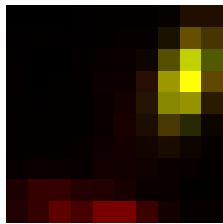
FWHM	Non corrected	Corrected	Theoretical
min	369 nm	382 nm	223 nm
max	670 nm	693 nm	223 nm
z	1.34 $\mu\text{m}$	1.34 $\mu\text{m}$	885 nm
Asymmetry	0.551		
Theta	69.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1056.848 (brightness)

B = 172.767 (background)

a = 0.902 px

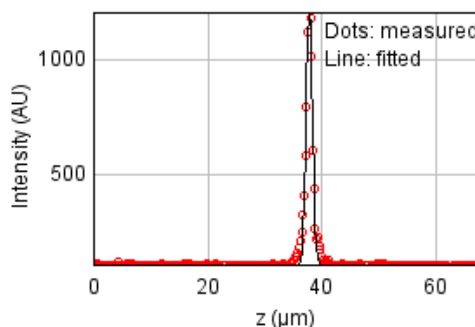
b = 0.222 px

c = 0.381 px

xc = 7.819 px

yc = 2.878 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 90193.8976

Standard deviation: 17.14034

$R^2$ : 0.98305

Parameters:

a = 114.44884

b = 1200.39411

c = 37.87552

d = 0.56726

## Bead 1662

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

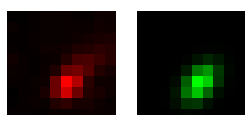
Coordinates : 132  $\mu\text{m}$  (x), 91.1  $\mu\text{m}$  (y), 37.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

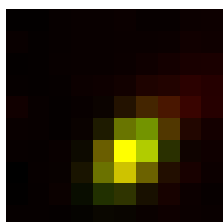
FWHM	Non corrected	Corrected	Theoretical
min	408 nm	422 nm	223 nm
max	633 nm	654 nm	223 nm
z	1.73 $\mu\text{m}$	1.74 $\mu\text{m}$	885 nm
Asymmetry	0.645		
Theta	50.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 682.345 (brightness)

B = 125.037 (background)

a = 0.612 px

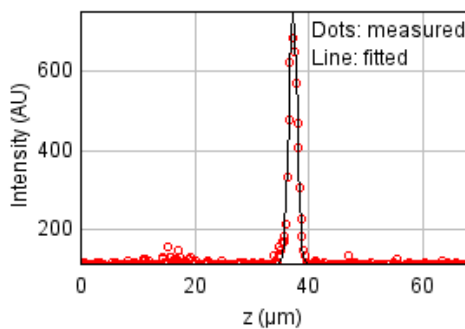
b = 0.231 px

c = 0.528 px

xc = 5.268 px

yc = 6.125 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 46641.1223

Standard deviation: 12.32581

$R^2$ : 0.98062

Parameters:

a = 112.74358

b = 756.98494

c = 37.28738

d = 0.73389

## Bead 1663

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

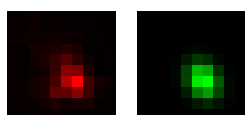
Coordinates : -112  $\mu\text{m}$  (x), 87.6  $\mu\text{m}$  (y), 37.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

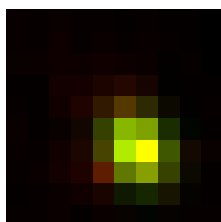
FWHM	Non corrected	Corrected	Theoretical
min	458 nm	473 nm	223 nm
max	576 nm	595 nm	223 nm
z	1.72 $\mu\text{m}$	1.73 $\mu\text{m}$	885 nm
Asymmetry	0.795		
Theta	-59.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 639.019 (brightness)

B = 126.969 (background)

a = 0.581 px

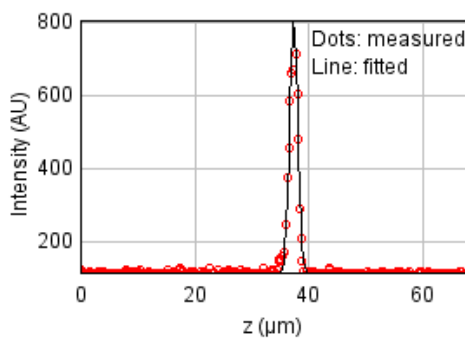
b = -0.103 px

c = 0.465 px

$x_c = 5.551$  px

$y_c = 5.889$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40329.8868

Standard deviation: 11.46158

$R^2$ : 0.98540

Parameters:

a = 112.97572

b = 806.40149

c = 37.40777

d = 0.73075

## Bead 1664

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

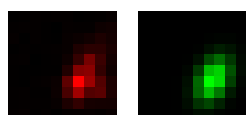
Coordinates : 44.7  $\mu\text{m}$  (x), 75.5  $\mu\text{m}$  (y), 38.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

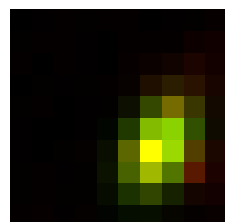
FWHM	Non corrected	Corrected	Theoretical
min	470 nm	486 nm	223 nm
max	730 nm	754 nm	223 nm
z	1.62 $\mu\text{m}$	1.62 $\mu\text{m}$	885 nm
Asymmetry	0.645		
Theta	63.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 907.520$  (brightness)

$B = 124.044$  (background)

$a = 0.537$  px

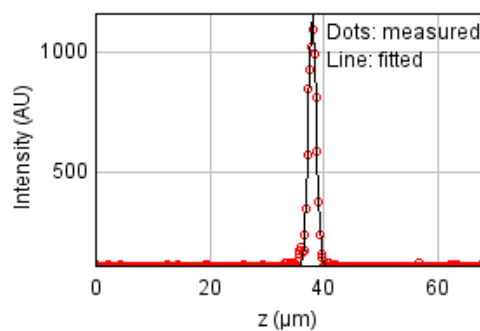
$b = 0.141$  px

$c = 0.322$  px

$x_c = 6.394$  px

$y_c = 5.814$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 45969.6592

Standard deviation: 12.23676

$R^2: 0.99210$

Parameters:

$a = 113.95788$

$b = 1154.92656$

$c = 38.07138$

$d = 0.68605$



## Bead 1665

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

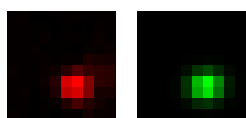
Coordinates : 137 um (x), 32.3 um (y), 37.6 um (z)

Corresponding bead : Not found

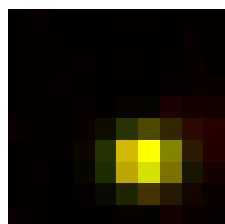
FWHM	Non corrected	Corrected	Theoretical
min	437 nm	452 nm	223 nm
max	523 nm	540 nm	223 nm
z	1.54 um	1.54 um	885 nm
Asymmetry	0.837		
Theta	4.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 925.552 (brightness)

B = 119.600 (background)

a = 0.492 px

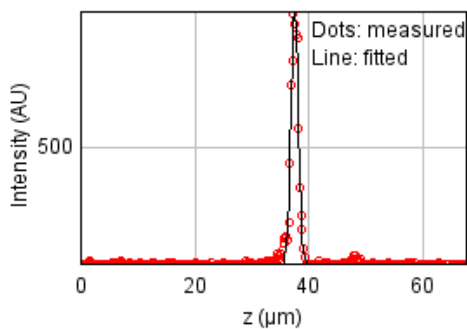
b = 0.015 px

c = 0.701 px

xc = 5.823 px

yc = 6.409 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 99146.2766

Standard deviation: 17.97087

$R^2$ : 0.97334

Parameters:

a = 111.89242

b = 955.80507

c = 37.57744

d = 0.65324

## Bead 1666

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

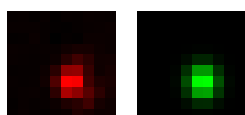
Coordinates : 46.1  $\mu\text{m}$  (x), 15.0  $\mu\text{m}$  (y), 37.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

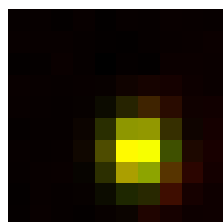
FWHM	Non corrected	Corrected	Theoretical
min	477 nm	493 nm	223 nm
max	528 nm	546 nm	223 nm
z	1.68 $\mu\text{m}$	1.69 $\mu\text{m}$	885 nm
Asymmetry	0.903		
Theta	-87.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 787.924 (brightness)

B = 127.314 (background)

a = 0.590 px

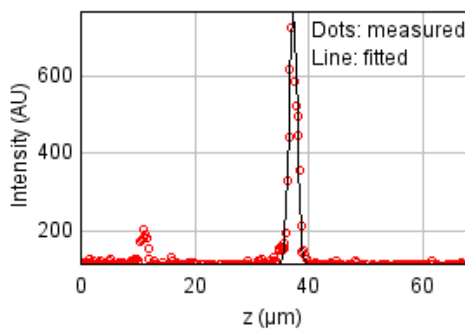
b = -0.006 px

c = 0.481 px

$x_c = 5.518$  px

$y_c = 6.034$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 116986.785

Standard deviation: 19.52087

$R^2$ : 0.95293

Parameters:

a = 115.53577

b = 769.26201

c = 37.31107

d = 0.71465

## Bead 1667

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

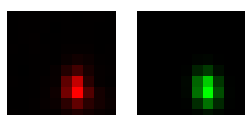
Coordinates : -2.88  $\mu\text{m}$  (x), 2.05  $\mu\text{m}$  (y), 37.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

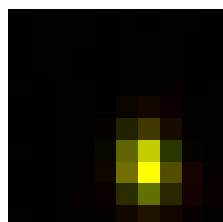
FWHM	Non corrected	Corrected	Theoretical
min	361 nm	374 nm	223 nm
max	512 nm	530 nm	223 nm
z	1.21 $\mu\text{m}$	1.22 $\mu\text{m}$	885 nm
Asymmetry	0.706		
Theta	-82.3°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.986$



Parameters:

A = 2227.946 (brightness)

B = 127.672 (background)

a = 1.018 px

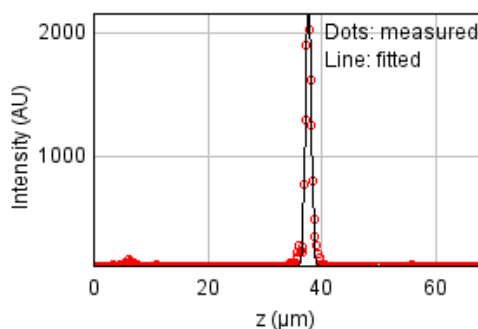
b = -0.069 px

c = 0.521 px

xc = 5.892 px

yc = 6.703 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 247768.775

Standard deviation: 28.40888

$R^2$ : 0.98584

Parameters:

a = 118.97382

b = 2185.97715

c = 37.71424

d = 0.51518

## Bead 1668

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

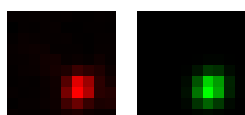
Coordinates : 134  $\mu\text{m}$  (x), -27.2  $\mu\text{m}$  (y), 37.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

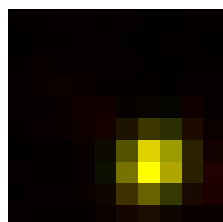
FWHM	Non corrected	Corrected	Theoretical
min	450 nm	466 nm	223 nm
max	504 nm	521 nm	223 nm
z	1.54 $\mu\text{m}$	1.55 $\mu\text{m}$	885 nm
Asymmetry	0.895		
Theta	52.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.983$



Parameters:

A = 696.405 (brightness)

B = 116.556 (background)

a = 0.613 px

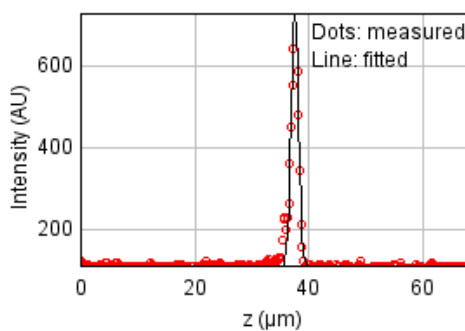
b = 0.064 px

c = 0.578 px

xc = 6.189 px

yc = 6.651 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 84805.0770

Standard deviation: 16.62041

$R^2$ : 0.95804

Parameters:

a = 112.13215

b = 728.61855

c = 37.61775

d = 0.65479

## Bead 1669 (Rejected)

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

Coordinates : -30.4  $\mu\text{m}$  (x), -43.6  $\mu\text{m}$  (y), 54.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	223 nm
max	0	0	223 nm
z	263 nm	264 nm	885 nm
Asymmetry	0.0		
Theta	0.0°		

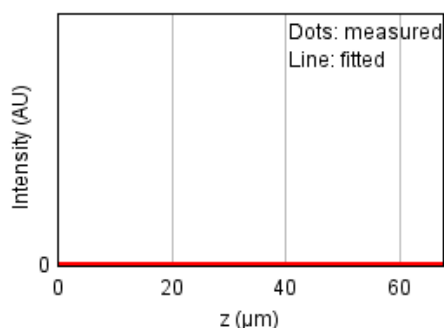
### XY profile & fitting parameters :

(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: 0.00000E0

Standard deviation: 0.00000E0

R<sup>2</sup>: 0.00000

Parameters:

a = 0.00000E0

b = 0.00000E0

c = -0.11115

d = 0.11151

## Bead 1670

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

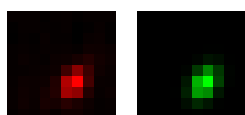
Coordinates : -146  $\mu\text{m}$  (x), -43.4  $\mu\text{m}$  (y), 36.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

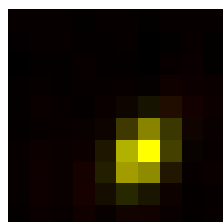
FWHM	Non corrected	Corrected	Theoretical
min	362 nm	375 nm	223 nm
max	528 nm	546 nm	223 nm
z	1.28 $\mu\text{m}$	1.28 $\mu\text{m}$	885 nm
Asymmetry	0.686		
Theta	57.7°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.989$



Parameters:

A = 619.007 (brightness)

B = 114.876 (background)

a = 0.867 px

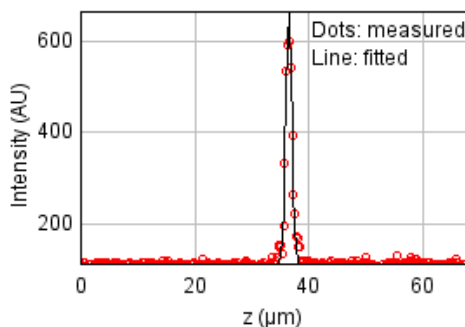
b = 0.244 px

c = 0.635 px

xc = 5.672 px

yc = 6.145 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29197.7518

Standard deviation: 9.75227

$R^2$ : 0.97792

Parameters:

a = 112.80274

b = 664.77121

c = 36.56531

d = 0.54234

## Bead 1671 (Rejected)

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

Coordinates : -71.7  $\mu\text{m}$  (x), -46.5  $\mu\text{m}$  (y), 38.6  $\mu\text{m}$  (z)

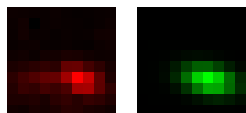
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

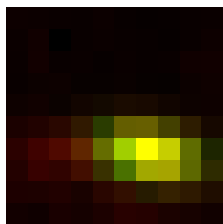
FWHM	Non corrected	Corrected	Theoretical
min	432 nm	447 nm	223 nm
max	828 nm	856 nm	223 nm
z	1.34 $\mu\text{m}$	1.35 $\mu\text{m}$	885 nm
Asymmetry	0.522		
Theta	-10.7°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.883$



Parameters:

A = 460.094 (brightness)

B = 131.493 (background)

a = 0.214 px

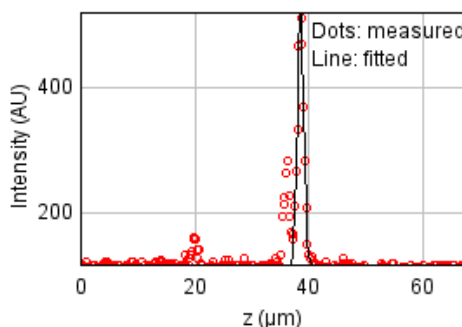
b = -0.095 px

c = 0.701 px

xc = 6.089 px

yc = 6.213 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 126198.973

Standard deviation: 20.27490

$R^2$ : 0.85380

Parameters:

a = 117.93555

b = 524.88770

c = 38.61972

d = 0.56934

## Bead 1672 (Rejected)

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

Coordinates : -71.7  $\mu\text{m}$  (x), -46.5  $\mu\text{m}$  (y), 38.6  $\mu\text{m}$  (z)

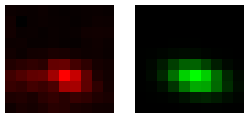
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

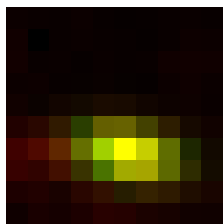
FWHM	Non corrected	Corrected	Theoretical
min	437 nm	452 nm	223 nm
max	833 nm	862 nm	223 nm
z	1.34 $\mu\text{m}$	1.35 $\mu\text{m}$	885 nm
Asymmetry	0.524		
Theta	-10.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 460.384 (brightness)

B = 129.117 (background)

a = 0.211 px

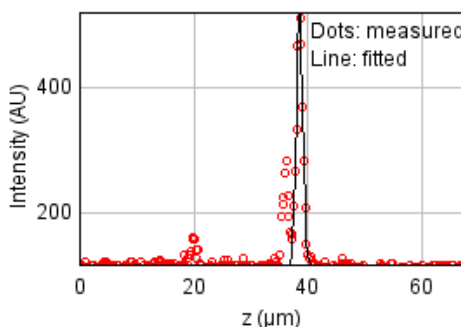
b = -0.093 px

c = 0.685 px

xc = 5.081 px

yc = 6.214 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 126198.973

Standard deviation: 20.27490

$R^2$ : 0.85380

Parameters:

a = 117.93555

b = 524.88770

c = 38.61972

d = 0.56934



## Bead 1673

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

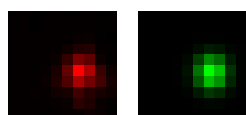
Coordinates : -8.09  $\mu\text{m}$  (x), -71.5  $\mu\text{m}$  (y), 37.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

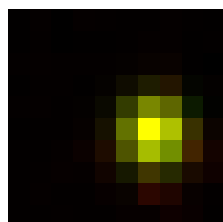
FWHM	Non corrected	Corrected	Theoretical
min	496 nm	513 nm	223 nm
max	533 nm	551 nm	223 nm
z	1.27 $\mu\text{m}$	1.27 $\mu\text{m}$	885 nm
Asymmetry	0.93		
Theta	-89.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1334.594 (brightness)

B = 131.333 (background)

a = 0.546 px

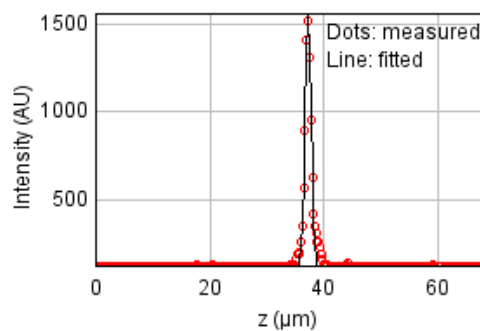
b = -0.001 px

c = 0.472 px

xc = 6.244 px

yc = 5.178 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 154300.511

Standard deviation: 22.41891

$R^2$ : 0.98339

Parameters:

a = 117.39558

b = 1589.15034

c = 37.29798

d = 0.53869

## Bead 1674 (Rejected)

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

Coordinates : 61.1  $\mu\text{m}$  (x), 78.6  $\mu\text{m}$  (y), 38.3  $\mu\text{m}$  (z)

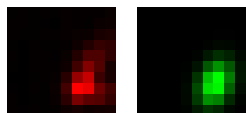
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

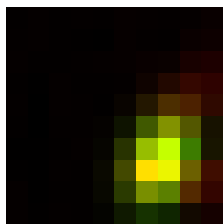
FWHM	Non corrected	Corrected	Theoretical
min	492 nm	509 nm	223 nm
max	718 nm	743 nm	223 nm
z	1.94 $\mu\text{m}$	1.95 $\mu\text{m}$	885 nm
Asymmetry	0.685		
Theta	67.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 926.881 (brightness)

B = 133.819 (background)

a = 0.512 px

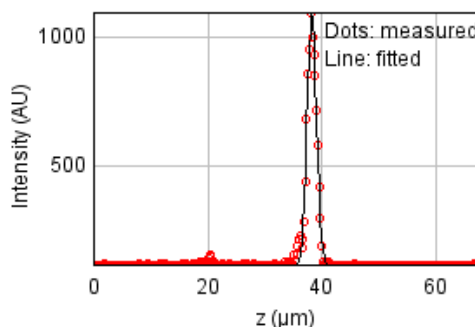
b = 0.102 px

c = 0.302 px

xc = 6.682 px

yc = 6.535 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 96327.2882

Standard deviation: 17.71354

$R^2$ : 0.98448

Parameters:

a = 115.07893

b = 1095.72505

c = 38.31460

d = 0.82399

## Bead 1675

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

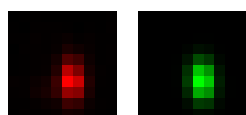
Coordinates : -36.7  $\mu\text{m}$  (x), 59.4  $\mu\text{m}$  (y), 37.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

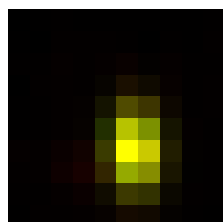
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	409 nm	223 nm
max	629 nm	651 nm	223 nm
z	1.1 $\mu\text{m}$	1.1 $\mu\text{m}$	885 nm
Asymmetry	0.629		
Theta	-87.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.988$



Parameters:

A = 1956.474 (brightness)

B = 132.259 (background)

a = 0.856 px

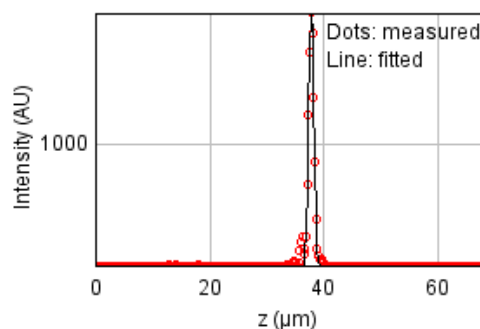
b = -0.027 px

c = 0.340 px

xc = 5.357 px

yc = 5.930 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 136798.120

Standard deviation: 21.10916

$R^2$ : 0.98897

Parameters:

a = 116.64243

b = 1946.97876

c = 37.87563

d = 0.46571

## Bead 1676

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

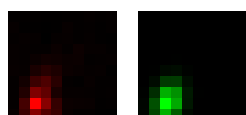
Coordinates : 73.1  $\mu\text{m}$  (x), 56.3  $\mu\text{m}$  (y), 57.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	406 nm	419 nm	223 nm
max	627 nm	648 nm	223 nm
z	1.35 $\mu\text{m}$	1.36 $\mu\text{m}$	885 nm
Asymmetry	0.647		
Theta	75.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.931$



Parameters:

$A = 788.181$  (brightness)

$B = 133.506$  (background)

$a = 0.785$  px

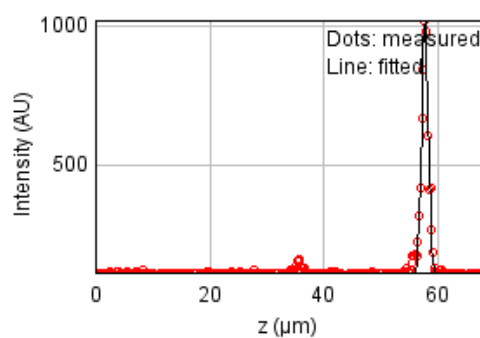
$b = 0.115$  px

$c = 0.371$  px

$x_c = 2.245$  px

$y_c = 7.935$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 75819.1284

Standard deviation: 15.71521

$R^2: 0.97997$

Parameters:

$a = 117.45737$

$b = 1027.34311$

$c = 57.76959$

$d = 0.57347$

## Bead 1677

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

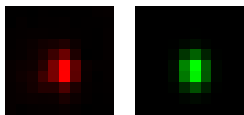
Coordinates : -106  $\mu\text{m}$  (x), 10.0  $\mu\text{m}$  (y), 37.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

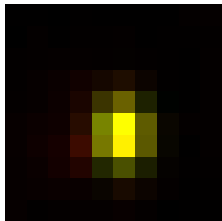
FWHM	Non corrected	Corrected	Theoretical
min	398 nm	411 nm	223 nm
max	510 nm	527 nm	223 nm
z	1.28 $\mu\text{m}$	1.29 $\mu\text{m}$	885 nm
Asymmetry	0.78		
Theta	-87.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1187.183$  (brightness)

$B = 131.275$  (background)

$a = 0.848$  px

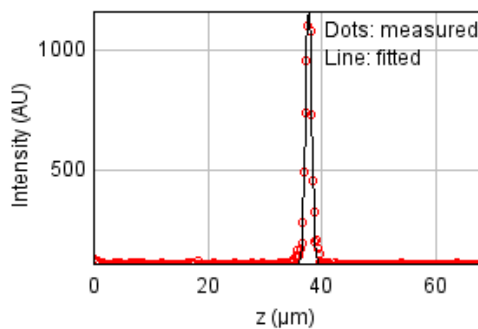
$b = -0.017$  px

$c = 0.517$  px

$x_c = 4.898$  px

$y_c = 5.436$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 44426.0293

Standard deviation: 12.02955

$R^2: 0.99082$

Parameters:

$a = 113.50363$

$b = 1173.93875$

$c = 37.74836$

$d = 0.54500$

## Bead 1678

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

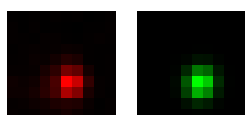
Coordinates : -97.0  $\mu\text{m}$  (x), 3.27  $\mu\text{m}$  (y), 37.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

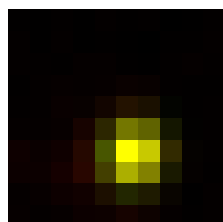
FWHM	Non corrected	Corrected	Theoretical
min	446 nm	461 nm	223 nm
max	488 nm	504 nm	223 nm
z	1.2 $\mu\text{m}$	1.2 $\mu\text{m}$	885 nm
Asymmetry	0.914		
Theta	72.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1504.849 (brightness)

B = 136.444 (background)

a = 0.665 px

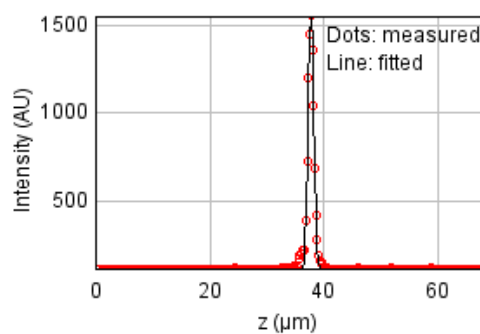
b = 0.032 px

c = 0.574 px

xc = 5.311 px

yc = 6.152 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 68708.8135

Standard deviation: 14.96019

$R^2$ : 0.99168

Parameters:

a = 115.28641

b = 1548.39362

c = 37.81649

d = 0.50818

## Bead 1679

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

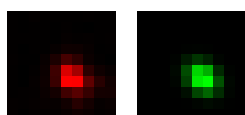
Coordinates : 14.6  $\mu\text{m}$  (x), -16.7  $\mu\text{m}$  (y), 38.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

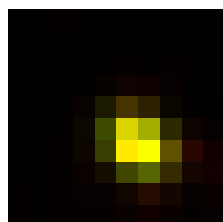
FWHM	Non corrected	Corrected	Theoretical
min	413 nm	427 nm	223 nm
max	523 nm	540 nm	223 nm
z	1.56 $\mu\text{m}$	1.56 $\mu\text{m}$	885 nm
Asymmetry	0.79		
Theta	-41.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1575.006 (brightness)

B = 128.709 (background)

a = 0.620 px

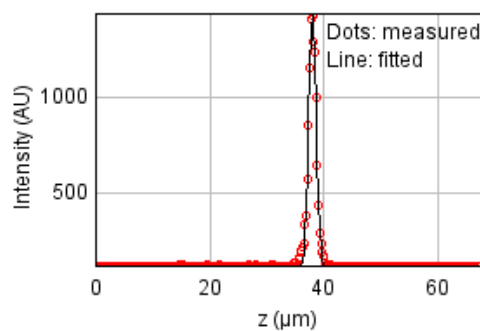
b = -0.147 px

c = 0.658 px

$x_c = 5.498$  px

$y_c = 5.682$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 59419.0200

Standard deviation: 13.91213

$R^2$ : 0.99350

Parameters:

a = 114.08944

b = 1443.75089

c = 38.08657

d = 0.66089

## Bead 1680

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

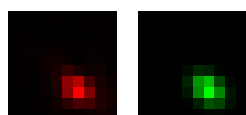
Coordinates : 127  $\mu\text{m}$  (x), -54.5  $\mu\text{m}$  (y), 37.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

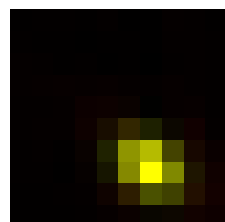
FWHM	Non corrected	Corrected	Theoretical
min	390 nm	403 nm	223 nm
max	534 nm	552 nm	223 nm
z	1.38 $\mu\text{m}$	1.39 $\mu\text{m}$	885 nm
Asymmetry	0.729		
Theta	-37.8°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.985$



Parameters:

$A = 1345.661$  (brightness)

$B = 124.774$  (background)

$a = 0.625$  px

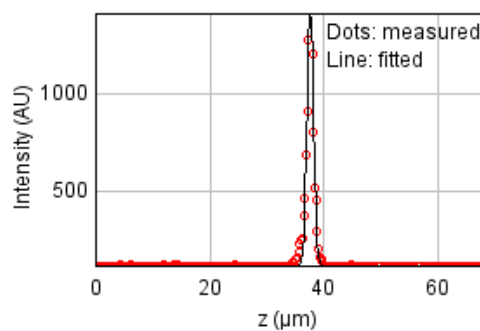
$b = -0.201$  px

$c = 0.729$  px

$x_c = 5.901$  px

$y_c = 6.689$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 104486.667

Standard deviation: 18.44851

$R^2: 0.98684$

Parameters:

$a = 112.84999$

$b = 1420.58061$

$c = 37.68855$

$d = 0.58652$



## Bead 1681

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

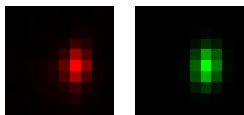
Coordinates : -98.1  $\mu\text{m}$  (x), -72.2  $\mu\text{m}$  (y), 37.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

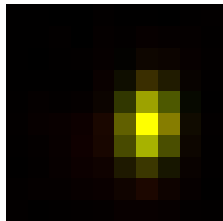
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	410 nm	223 nm
max	577 nm	596 nm	223 nm
z	1.25 $\mu\text{m}$	1.26 $\mu\text{m}$	885 nm
Asymmetry	0.687		
Theta	83.4°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.984$



Parameters:

A = 1598.344 (brightness)

B = 134.353 (background)

a = 0.848 px

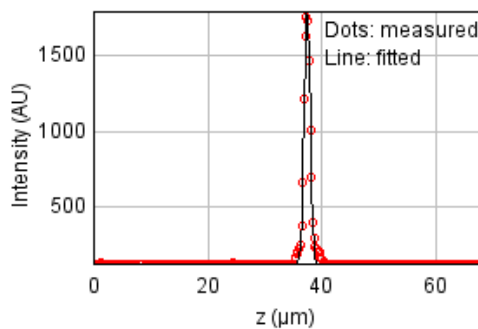
b = 0.051 px

c = 0.409 px

$x_c = 6.074$  px

$y_c = 5.046$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 95510.2706

Standard deviation: 17.63826

$R^2$ : 0.99213

Parameters:

a = 114.98482

b = 1815.81262

c = 37.48301

d = 0.53149

## Bead 1682

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

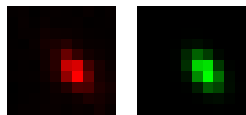
Coordinates : 121  $\mu\text{m}$  (x), -82.4  $\mu\text{m}$  (y), 37.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

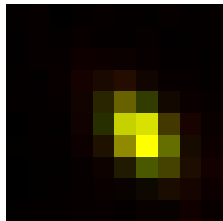
FWHM	Non corrected	Corrected	Theoretical
min	376 nm	389 nm	223 nm
max	594 nm	615 nm	223 nm
z	1.53 $\mu\text{m}$	1.53 $\mu\text{m}$	885 nm
Asymmetry	0.633		
Theta	-51.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.983$



Parameters:

$A = 897.222$  (brightness)

$B = 121.228$  (background)

$a = 0.727$  px

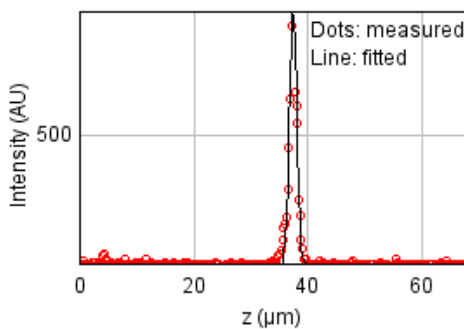
$b = -0.276$  px

$c = 0.600$  px

$x_c = 5.729$  px

$y_c = 5.484$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 74647.3135

Standard deviation: 15.59330

$R^2: 0.97514$

Parameters:

$a = 112.86751$

$b = 874.46178$

$c = 37.48105$

$d = 0.64856$

## Bead 1683

Date : Mon Oct 17 13:29:15 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

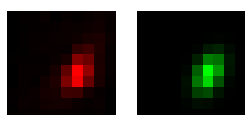
Coordinates : -145  $\mu\text{m}$  (x), -90.3  $\mu\text{m}$  (y), 37.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

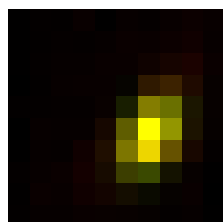
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	404 nm	223 nm
max	626 nm	648 nm	223 nm
z	1.33 $\mu\text{m}$	1.34 $\mu\text{m}$	885 nm
Asymmetry	0.624		
Theta	63.8°		

### 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:

$A = 713.065$  (brightness)

$B = 121.257$  (background)

$a = 0.773$  px

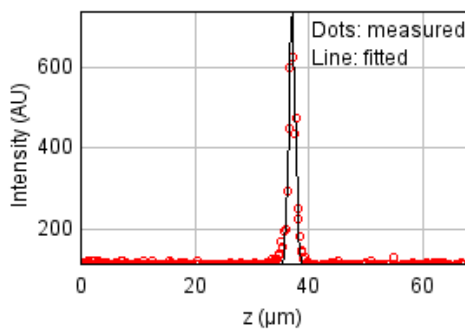
$b = 0.212$  px

$c = 0.447$  px

$x_c = 6.086$  px

$y_c = 5.261$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 52730.2929

Standard deviation: 13.10572

$R^2: 0.97084$

Parameters:

$a = 111.91843$

$b = 741.58564$

$c = 37.12166$

$d = 0.56635$

## Bead 1684

Date : Mon Oct 17 13:29:16 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

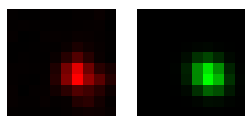
Coordinates : 37.2  $\mu\text{m}$  (x), -93.6  $\mu\text{m}$  (y), 37.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

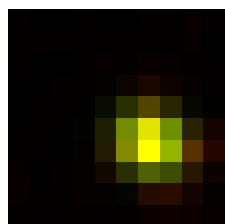
FWHM	Non corrected	Corrected	Theoretical
min	482 nm	498 nm	223 nm
max	550 nm	569 nm	223 nm
z	1.55 $\mu\text{m}$	1.56 $\mu\text{m}$	885 nm
Asymmetry	0.875		
Theta	-32.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1093.268 (brightness)

B = 126.502 (background)

a = 0.483 px

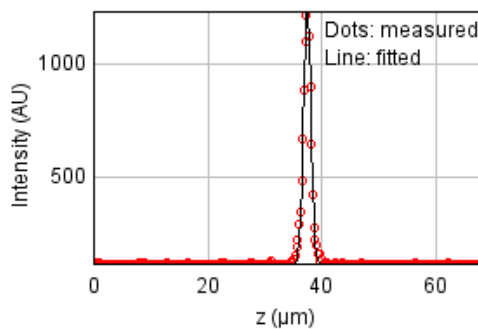
b = -0.061 px

c = 0.539 px

xc = 6.094 px

yc = 5.616 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40266.9421

Standard deviation: 11.45263

$R^2$ : 0.99382

Parameters:

a = 114.34964

b = 1238.59713

c = 37.49697

d = 0.65852

## Bead 1685

Date : Mon Oct 17 13:29:16 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

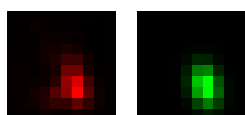
Coordinates : -83.4  $\mu\text{m}$  (x), 80.4  $\mu\text{m}$  (y), 38.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

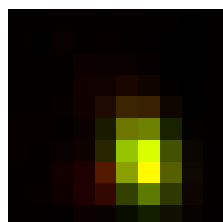
FWHM	Non corrected	Corrected	Theoretical
min	430 nm	445 nm	223 nm
max	637 nm	659 nm	223 nm
z	1.49 $\mu\text{m}$	1.5 $\mu\text{m}$	885 nm
Asymmetry	0.675		
Theta	-76.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1033.375$  (brightness)

$B = 135.692$  (background)

$a = 0.702$  px

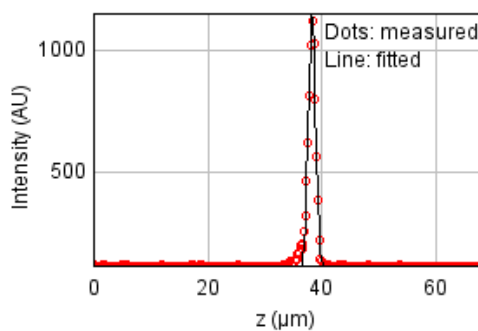
$b = -0.092$  px

$c = 0.353$  px

$x_c = 5.741$  px

$y_c = 6.401$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 45062.4836

Standard deviation: 12.11542

$R^2: 0.99169$

Parameters:

$a = 114.09313$

$b = 1157.70107$

$c = 38.35657$

$d = 0.63389$

## Bead 1686

Date : Mon Oct 17 13:29:16 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

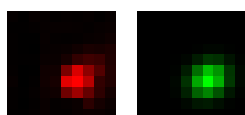
Coordinates : 116  $\mu\text{m}$  (x), 40.3  $\mu\text{m}$  (y), 38.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

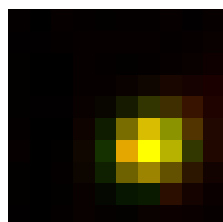
FWHM	Non corrected	Corrected	Theoretical
min	510 nm	528 nm	223 nm
max	606 nm	627 nm	223 nm
z	1.55 $\mu\text{m}$	1.55 $\mu\text{m}$	885 nm
Asymmetry	0.842		
Theta	27.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 870.202 (brightness)

B = 118.678 (background)

a = 0.397 px

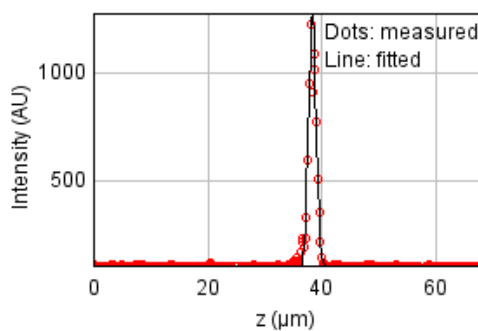
b = 0.061 px

c = 0.483 px

xc = 6.064 px

yc = 5.806 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 339919.976

Standard deviation: 33.27508

$R^2$ : 0.95324

Parameters:

a = 113.56556

b = 1278.40296

c = 38.41130

d = 0.65641

## Bead 1687

Date : Mon Oct 17 13:29:16 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

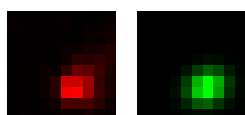
Coordinates : 103  $\mu\text{m}$  (x), 37.1  $\mu\text{m}$  (y), 38.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

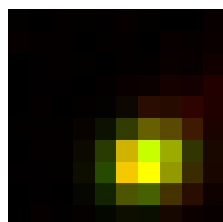
FWHM	Non corrected	Corrected	Theoretical
min	512 nm	529 nm	223 nm
max	617 nm	638 nm	223 nm
z	1.45 $\mu\text{m}$	1.45 $\mu\text{m}$	885 nm
Asymmetry	0.829		
Theta	23.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 710.613$  (brightness)

$B = 119.805$  (background)

$a = 0.377$  px

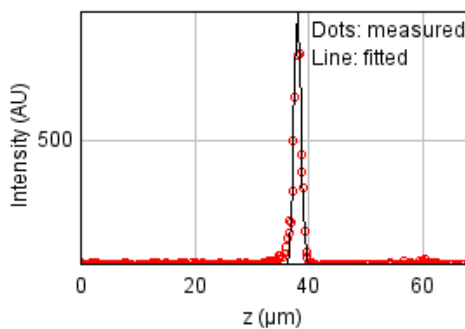
$b = 0.058$  px

$c = 0.488$  px

$x_c = 5.893$  px

$y_c = 6.514$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 133616.876

Standard deviation: 20.86227

$R^2: 0.95764$

Parameters:

$a = 114.26701$

$b = 908.49524$

$c = 38.09656$

$d = 0.61417$

## Bead 1688

Date : Mon Oct 17 13:29:16 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

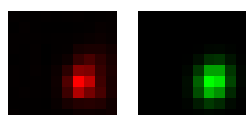
Coordinates : 66.1  $\mu\text{m}$  (x), 19.4  $\mu\text{m}$  (y), 38.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

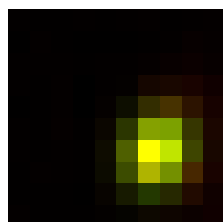
FWHM	Non corrected	Corrected	Theoretical
min	488 nm	505 nm	223 nm
max	589 nm	609 nm	223 nm
z	1.6 $\mu\text{m}$	1.61 $\mu\text{m}$	885 nm
Asymmetry	0.829		
Theta	70.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1147.309 (brightness)

B = 126.536 (background)

a = 0.543 px

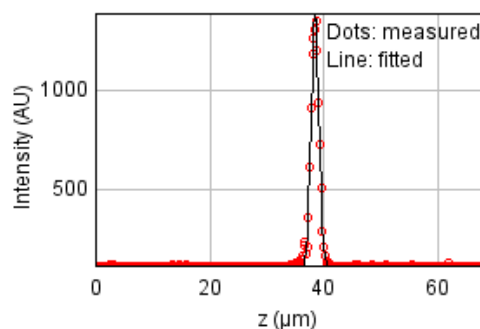
b = 0.055 px

c = 0.406 px

xc = 6.398 px

yc = 6.014 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 61596.8003

Standard deviation: 14.16478

$R^2$ : 0.99295

Parameters:

a = 113.38960

b = 1394.26360

c = 38.53906

d = 0.68076



## Bead 1689

Date : Mon Oct 17 13:29:16 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

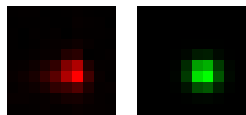
Coordinates : -55.5  $\mu\text{m}$  (x), 14.6  $\mu\text{m}$  (y), 38.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

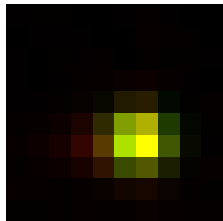
FWHM	Non corrected	Corrected	Theoretical
min	431 nm	446 nm	223 nm
max	470 nm	486 nm	223 nm
z	1.34 $\mu\text{m}$	1.35 $\mu\text{m}$	885 nm
Asymmetry	0.918		
Theta	-5.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1159.127$  (brightness)

$B = 127.437$  (background)

$a = 0.608$  px

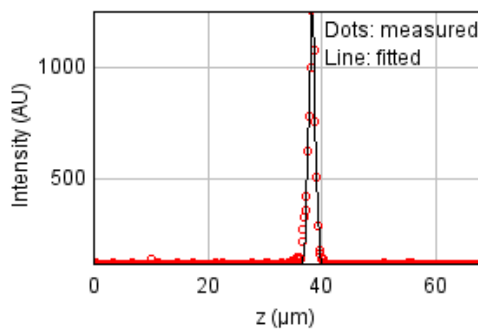
$b = -0.011$  px

$c = 0.720$  px

$x_c = 5.603$  px

$y_c = 5.752$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 132271.388

Standard deviation: 20.75696

$R^2: 0.97775$

Parameters:

$a = 114.92815$

$b = 1257.55822$

$c = 38.36181$

$d = 0.56957$

## Bead 1690

Date : Mon Oct 17 13:29:16 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

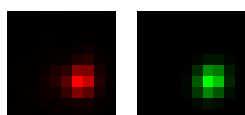
Coordinates : -122  $\mu\text{m}$  (x), -33.6  $\mu\text{m}$  (y), 37.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

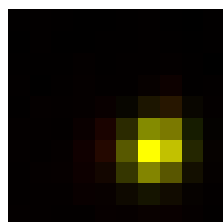
FWHM	Non corrected	Corrected	Theoretical
min	429 nm	444 nm	223 nm
max	483 nm	500 nm	223 nm
z	1.18 $\mu\text{m}$	1.19 $\mu\text{m}$	885 nm
Asymmetry	0.888		
Theta	52.0°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.987$



Parameters:

$A = 1217.645$  (brightness)

$B = 122.325$  (background)

$a = 0.670$  px

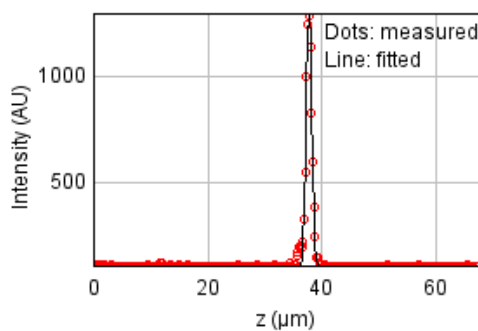
$b = 0.075$  px

$c = 0.633$  px

$x_c = 6.294$  px

$y_c = 5.948$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 62388.1421

Standard deviation: 14.25548

$R^2: 0.98871$

Parameters:

$a = 113.67728$

$b = 1291.82054$

$c = 37.82030$

$d = 0.50161$

## Bead 1691

Date : Mon Oct 17 13:29:16 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

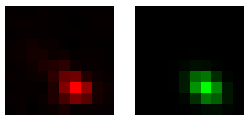
Coordinates : -154  $\mu\text{m}$  (x), 92.0  $\mu\text{m}$  (y), 38.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

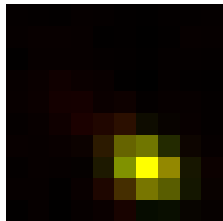
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	399 nm	223 nm
max	535 nm	553 nm	223 nm
z	1.45 $\mu\text{m}$	1.45 $\mu\text{m}$	885 nm
Asymmetry	0.722		
Theta	-32.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 736.313$  (brightness)

$B = 121.256$  (background)

$a = 0.597$  px

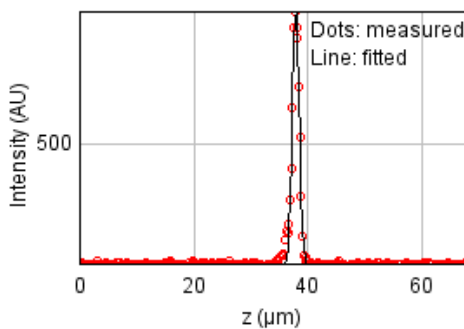
$b = -0.197$  px

$c = 0.773$  px

$x_c = 5.967$  px

$y_c = 6.991$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 43136.8105

Standard deviation: 11.85372

$R^2: 0.98686$

Parameters:

$a = 111.09283$

$b = 933.80621$

$c = 37.96410$

$d = 0.61367$

## Bead 1692

Date : Mon Oct 17 13:29:16 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

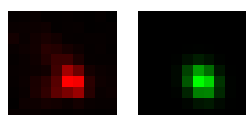
Coordinates : -117  $\mu\text{m}$  (x), 85.1  $\mu\text{m}$  (y), 38.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

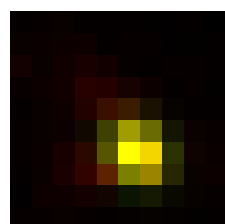
FWHM	Non corrected	Corrected	Theoretical
min	433 nm	447 nm	223 nm
max	514 nm	532 nm	223 nm
z	1.96 $\mu\text{m}$	1.96 $\mu\text{m}$	885 nm
Asymmetry	0.841		
Theta	-50.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 653.532 (brightness)

B = 128.352 (background)

a = 0.633 px

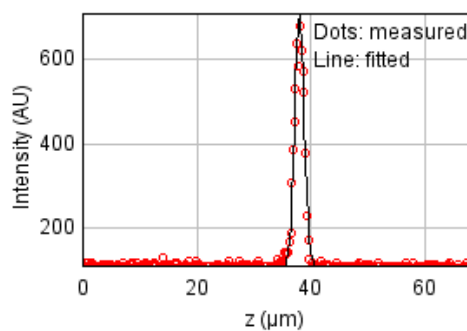
b = -0.103 px

c = 0.592 px

$x_c = 5.358$  px

$y_c = 5.978$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 44814.7448

Standard deviation: 12.08207

$R^2$ : 0.98075

Parameters:

a = 111.35669

b = 708.52689

c = 38.07642

d = 0.83071

## Bead 1693

Date : Mon Oct 17 13:29:16 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

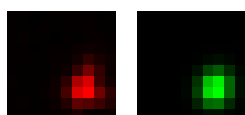
Coordinates : 15.1  $\mu\text{m}$  (x), 70.0  $\mu\text{m}$  (y), 38.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

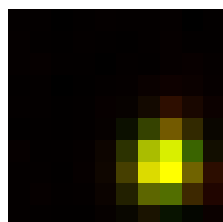
FWHM	Non corrected	Corrected	Theoretical
min	488 nm	504 nm	223 nm
max	552 nm	570 nm	223 nm
z	1.33 $\mu\text{m}$	1.33 $\mu\text{m}$	885 nm
Asymmetry	0.884		
Theta	70.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1173.727$  (brightness)

$B = 123.076$  (background)

$a = 0.549$  px

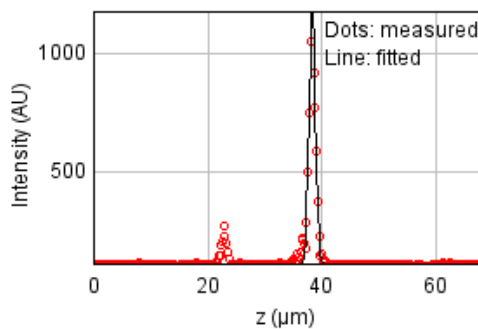
$b = 0.040$  px

$c = 0.455$  px

$x_c = 6.668$  px

$y_c = 6.604$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 145943.400

Standard deviation: 21.80334

$R^2: 0.97185$

Parameters:

$a = 118.02464$

$b = 1187.98196$

$c = 38.39812$

$d = 0.56292$

## Bead 1694

Date : Mon Oct 17 13:29:16 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

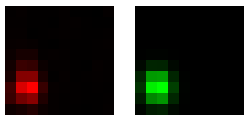
Coordinates : -49.6  $\mu\text{m}$  (x), 60.1  $\mu\text{m}$  (y), 40.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	425 nm	439 nm	223 nm
max	515 nm	533 nm	223 nm
z	1.33 $\mu\text{m}$	1.33 $\mu\text{m}$	885 nm
Asymmetry	0.824		
Theta	-84.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1710.833 (brightness)

B = 125.033 (background)

a = 0.742 px

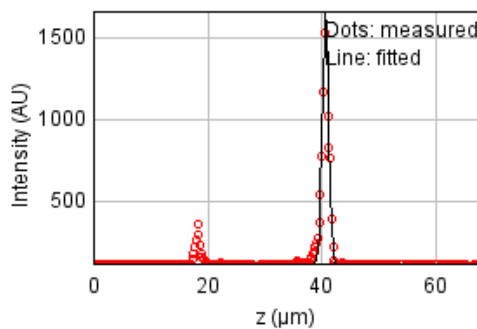
b = -0.022 px

c = 0.508 px

xc = 1.549 px

yc = 6.953 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 380097.625

Standard deviation: 35.18669

$R^2$ : 0.96505

Parameters:

a = 119.99765

b = 1664.37966

c = 40.71809

d = 0.56277

## Bead 1695 (Rejected)

Date : Mon Oct 17 13:29:16 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

Coordinates : -111  $\mu\text{m}$  (x), 59.2  $\mu\text{m}$  (y), 38.7  $\mu\text{m}$  (z)

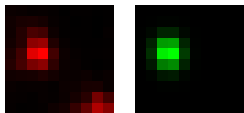
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

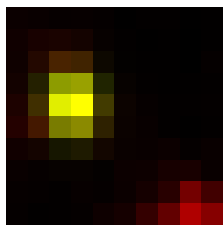
FWHM	Non corrected	Corrected	Theoretical
min	416 nm	430 nm	223 nm
max	500 nm	517 nm	223 nm
z	1.64 $\mu\text{m}$	1.65 $\mu\text{m}$	885 nm
Asymmetry	0.833		
Theta	-85.3°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.685$



Parameters:

A = 999.872 (brightness)

B = 169.464 (background)

a = 0.772 px

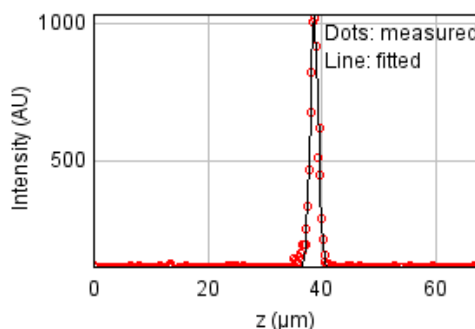
b = -0.019 px

c = 0.539 px

xc = 2.545 px

yc = 3.912 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 87441.4447

Standard deviation: 16.87678

$R^2$ : 0.98132

Parameters:

a = 114.11826

b = 1035.31869

c = 38.74836

d = 0.69737

## Bead 1696

Date : Mon Oct 17 13:29:16 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

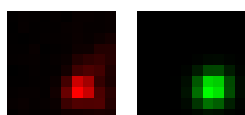
Coordinates : 78.6  $\mu\text{m}$  (x), 43.2  $\mu\text{m}$  (y), 38.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

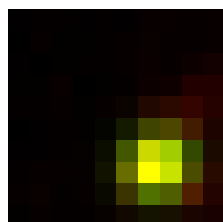
FWHM	Non corrected	Corrected	Theoretical
min	508 nm	525 nm	223 nm
max	542 nm	561 nm	223 nm
z	1.95 $\mu\text{m}$	1.96 $\mu\text{m}$	885 nm
Asymmetry	0.937		
Theta	43.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 705.568$  (brightness)

$B = 126.376$  (background)

$a = 0.486$  px

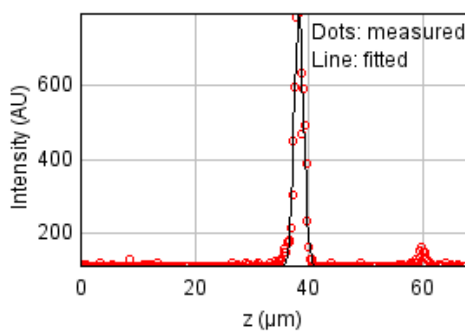
$b = 0.032$  px

$c = 0.490$  px

$x_c = 6.400$  px

$y_c = 6.641$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 129939.352

Standard deviation: 20.57317

$R^2: 0.95753$

Parameters:

$a = 113.46431$

$b = 790.97183$

$c = 38.33314$

$d = 0.82805$



## Bead 1697

Date : Mon Oct 17 13:29:16 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

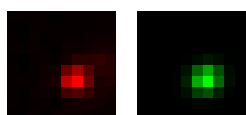
Coordinates : 124 µm (x), 29.7 µm (y), 37.6 µm (z)

Corresponding bead : Not found

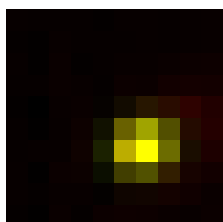
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	418 nm	223 nm
max	471 nm	487 nm	223 nm
z	1.39 µm	1.39 µm	885 nm
Asymmetry	0.858		
Theta	18.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 637.848 (brightness)

B = 120.111 (background)

a = 0.626 px

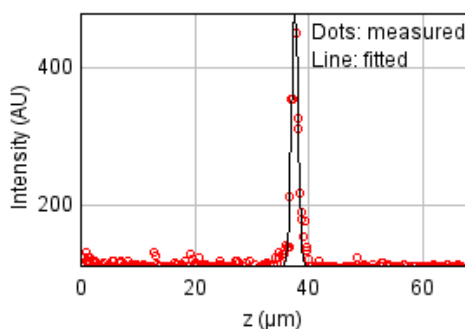
b = 0.066 px

c = 0.797 px

xc = 5.833 px

yc = 5.790 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31184.4827

Standard deviation: 10.07860

$R^2$ : 0.95172

Parameters:

a = 112.97894

b = 478.29880

c = 37.60085

d = 0.58993

## Bead 1698 (Rejected)

Date : Mon Oct 17 13:29:16 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

Coordinates : 81.8  $\mu\text{m}$  (x), 26.0  $\mu\text{m}$  (y), 17.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	223 nm
max	0	0	223 nm
z	1.51 $\mu\text{m}$	1.51 $\mu\text{m}$	885 nm
Asymmetry	0.0		
Theta	0.0°		

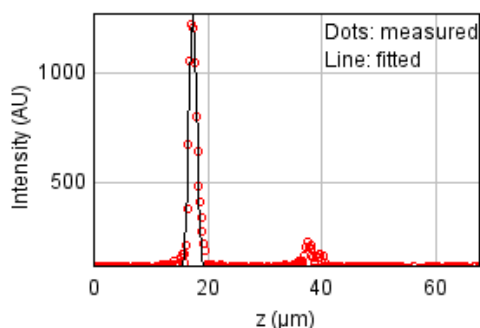
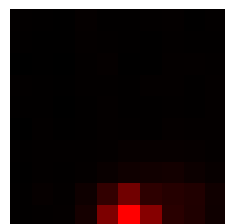
### XY profile & fitting parameters :

(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: 235893.436

Standard deviation: 27.71971

$R^2$ : 0.96627

Parameters:

$a = 120.07649$

$b = 1284.11476$

$c = 17.46788$

$d = 0.64055$

## Bead 1699

Date : Mon Oct 17 13:29:16 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

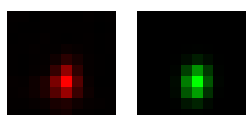
Coordinates : -30.6  $\mu\text{m}$  (x), 21.8  $\mu\text{m}$  (y), 38.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

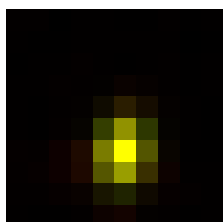
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	394 nm	223 nm
max	512 nm	529 nm	223 nm
z	1.05 $\mu\text{m}$	1.05 $\mu\text{m}$	885 nm
Asymmetry	0.744		
Theta	81.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.986$



Parameters:

A = 2101.534 (brightness)

B = 132.198 (background)

a = 0.915 px

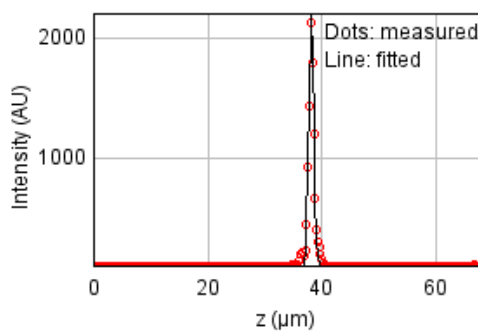
b = 0.060 px

c = 0.521 px

xc = 4.894 px

yc = 6.053 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 147843.688

Standard deviation: 21.94483

$R^2$ : 0.99040

Parameters:

a = 116.62571

b = 2206.16870

c = 38.23116

d = 0.44382

## Bead 1700

Date : Mon Oct 17 13:29:16 PDT 2022

Origin : data\_traditional.tif ( Nikon 40x1.15 water )

Frame size : 10 pixels

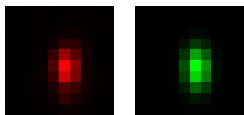
Coordinates : -17.3  $\mu\text{m}$  (x), 21.1  $\mu\text{m}$  (y), 37.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

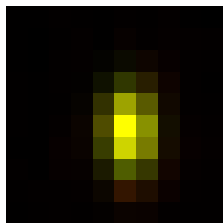
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	401 nm	223 nm
max	648 nm	670 nm	223 nm
z	1.11 $\mu\text{m}$	1.12 $\mu\text{m}$	885 nm
Asymmetry	0.598		
Theta	-88.8°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.988$



Parameters:

A = 1904.788 (brightness)

B = 130.975 (background)

a = 0.893 px

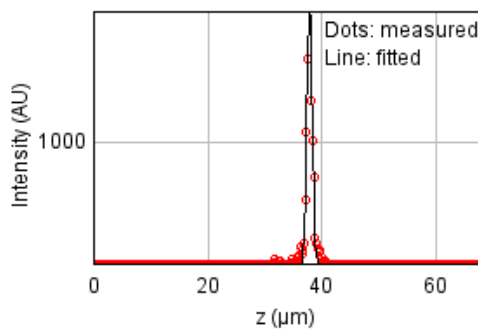
b = -0.012 px

c = 0.319 px

xc = 5.186 px

yc = 5.214 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 200463.508

Standard deviation: 25.55339

$R^2$ : 0.98452

Parameters:

a = 117.54088

b = 1972.08761

c = 37.93280

d = 0.47171