

## Bead 1801

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

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

Frame size : 10 pixels

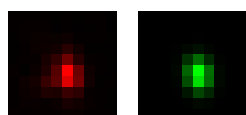
Coordinates : -62.0  $\mu\text{m}$  (x), 52.3  $\mu\text{m}$  (y), 39.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

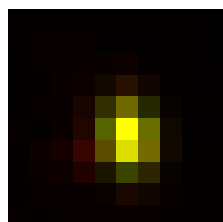
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	399 nm	223 nm
max	516 nm	533 nm	223 nm
z	1.23 $\mu\text{m}$	1.23 $\mu\text{m}$	885 nm
Asymmetry	0.749		
Theta	-81.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1163.123 (brightness)

B = 128.085 (background)

a = 0.892 px

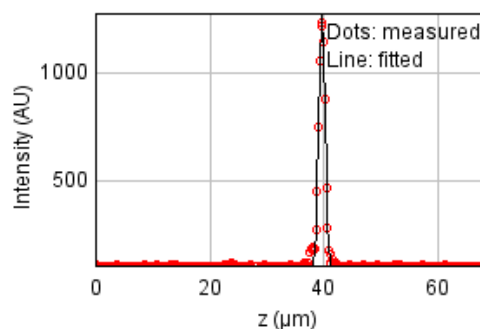
b = -0.057 px

c = 0.513 px

xc = 5.048 px

yc = 5.363 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47075.6057

Standard deviation: 12.38308

$R^2$ : 0.99162

Parameters:

a = 114.01840

b = 1281.73962

c = 39.73715

d = 0.52104

## Bead 1802

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

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

Frame size : 10 pixels

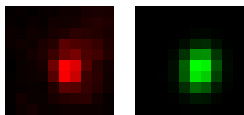
Coordinates : 126  $\mu\text{m}$  (x), 45.9  $\mu\text{m}$  (y), 39.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

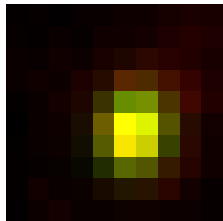
FWHM	Non corrected	Corrected	Theoretical
min	507 nm	524 nm	223 nm
max	626 nm	647 nm	223 nm
z	1.11 $\mu\text{m}$	1.12 $\mu\text{m}$	885 nm
Asymmetry	0.81		
Theta	79.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.915$



Parameters:

A = 444.102 (brightness)

B = 127.582 (background)

a = 0.516 px

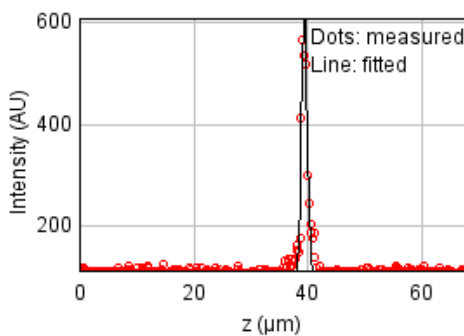
b = 0.032 px

c = 0.348 px

xc = 5.436 px

yc = 5.307 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 53385.8415

Standard deviation: 13.18693

$R^2$ : 0.94670

Parameters:

a = 112.43084

b = 618.07016

c = 39.47628

d = 0.47201

## Bead 1803

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

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

Frame size : 10 pixels

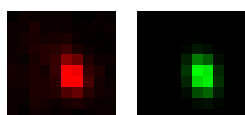
Coordinates : -143  $\mu\text{m}$  (x), 43.0  $\mu\text{m}$  (y), 39.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

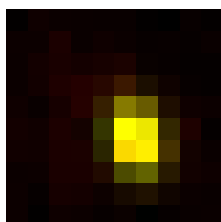
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	409 nm	223 nm
max	560 nm	579 nm	223 nm
z	1.55 $\mu\text{m}$	1.56 $\mu\text{m}$	885 nm
Asymmetry	0.707		
Theta	-76.7°		

### 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 = 563.968 (brightness)

B = 120.667 (background)

a = 0.834 px

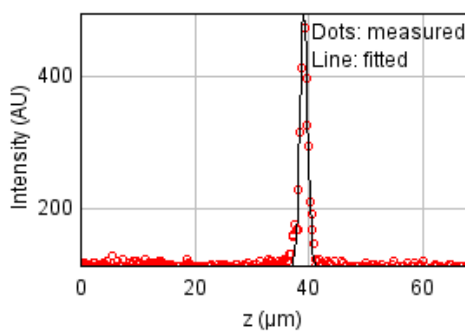
b = -0.096 px

c = 0.451 px

xc = 5.488 px

yc = 5.424 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23930.2663

Standard deviation: 8.82886

$R^2$ : 0.96945

Parameters:

a = 111.87935

b = 496.90618

c = 39.18749

d = 0.65859

## Bead 1804 (Rejected)

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

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

Frame size : 10 pixels

Coordinates : 86.2  $\mu\text{m}$  (x), 39.9  $\mu\text{m}$  (y), 61.6  $\mu\text{m}$  (z)

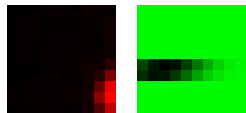
Corresponding bead : Not found

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

FWHM	Non corrected	Corrected	Theoretical
min	125 nm	130 nm	223 nm
max	1.35 $\mu\text{m}$	1.39 $\mu\text{m}$	223 nm
z	263 nm	264 nm	885 nm
Asymmetry	0.093		
Theta	0.4°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.024$

Parameters:

A = -553.247 (brightness)

B = 163.025 (background)

a = 0.074 px

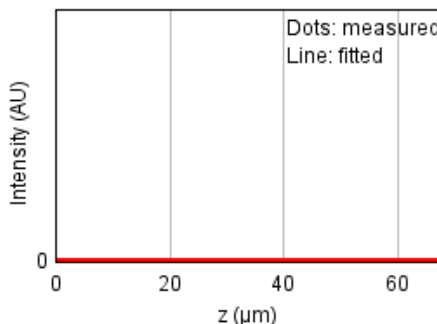
b = 0.054 px

c = 8.538 px

xc = 1.751 px

yc = 5.497 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 0.00000E0

Standard deviation: 0.00000E0

$R^2$ : 0.00000

Parameters:

a = 0.00000E0

b = 0.00000E0

c = -0.11115

d = 0.11151

## Bead 1805

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

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

Frame size : 10 pixels

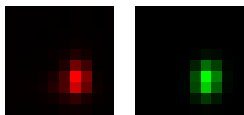
Coordinates : -46.4  $\mu\text{m}$  (x), 23.5  $\mu\text{m}$  (y), 40.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

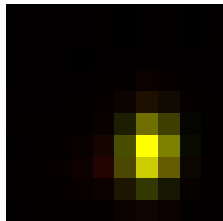
FWHM	Non corrected	Corrected	Theoretical
min	376 nm	389 nm	223 nm
max	506 nm	523 nm	223 nm
z	1.03 $\mu\text{m}$	1.04 $\mu\text{m}$	885 nm
Asymmetry	0.744		
Theta	82.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1930.330 (brightness)

B = 128.899 (background)

a = 0.940 px

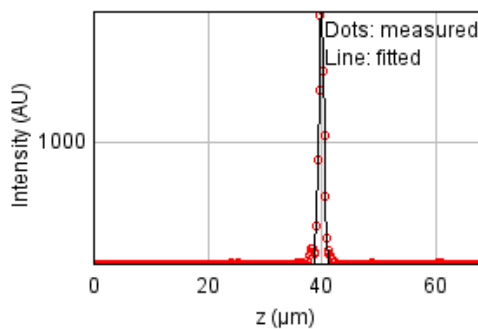
b = 0.056 px

c = 0.533 px

xc = 6.116 px

yc = 6.279 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 94891.9288

Standard deviation: 17.58108

$R^2$ : 0.99206

Parameters:

a = 117.72701

b = 1971.64508

c = 39.96762

d = 0.43829

## Bead 1806

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

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

Frame size : 10 pixels

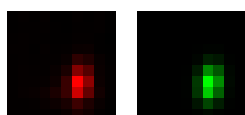
Coordinates : -35.4  $\mu\text{m}$  (x), 11.2  $\mu\text{m}$  (y), 39.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	355 nm	367 nm	223 nm
max	563 nm	582 nm	223 nm
z	1.08 $\mu\text{m}$	1.08 $\mu\text{m}$	885 nm
Asymmetry	0.63		
Theta	83.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1579.085 (brightness)

B = 125.497 (background)

a = 1.059 px

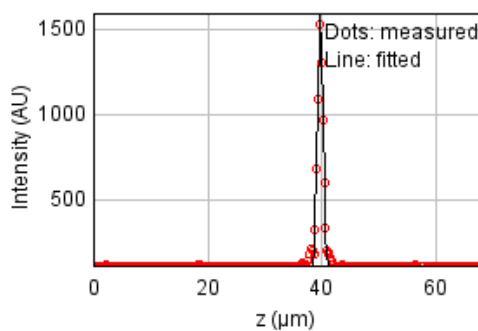
b = 0.073 px

c = 0.431 px

$x_c = 6.203$  px

$y_c = 6.200$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 77000.2439

Standard deviation: 15.83714

$R^2$ : 0.99041

Parameters:

a = 114.59618

b = 1600.91513

c = 39.78579

d = 0.45796

## Bead 1807

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

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

Frame size : 10 pixels

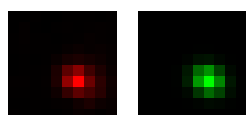
Coordinates : 72.8  $\mu\text{m}$  (x), -5.03  $\mu\text{m}$  (y), 40.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

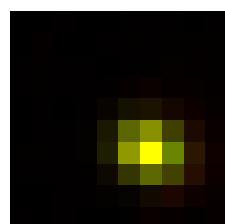
FWHM	Non corrected	Corrected	Theoretical
min	418 nm	432 nm	223 nm
max	497 nm	513 nm	223 nm
z	1.44 $\mu\text{m}$	1.44 $\mu\text{m}$	885 nm
Asymmetry	0.842		
Theta	-24.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1463.401$  (brightness)

$B = 129.219$  (background)

$a = 0.582$  px

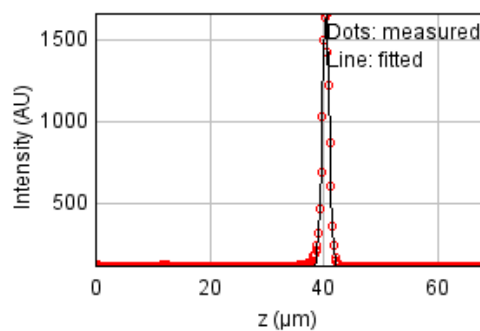
$b = -0.084$  px

$c = 0.730$  px

$x_c = 5.925$  px

$y_c = 5.884$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 60389.2203

Standard deviation: 14.02525

$R^2: 0.99479$

Parameters:

$a = 114.74865$

$b = 1670.66182$

$c = 40.40881$

$d = 0.61054$

## Bead 1808

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

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

Frame size : 10 pixels

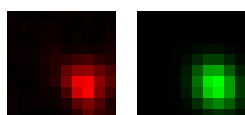
Coordinates : 135  $\mu\text{m}$  (x), -22.3  $\mu\text{m}$  (y), 39.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

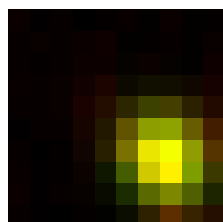
FWHM	Non corrected	Corrected	Theoretical
min	646 nm	668 nm	223 nm
max	756 nm	782 nm	223 nm
z	1.19 $\mu\text{m}$	1.19 $\mu\text{m}$	885 nm
Asymmetry	0.854		
Theta	-60.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 586.638 (brightness)

B = 122.335 (background)

a = 0.300 px

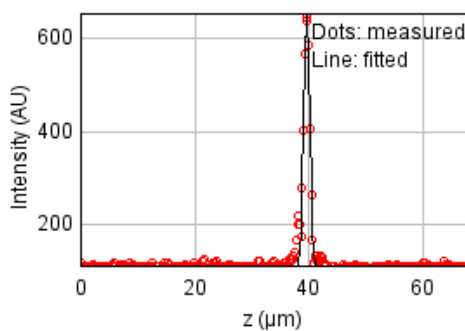
b = -0.037 px

c = 0.256 px

xc = 6.719 px

yc = 6.341 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 42453.4344

Standard deviation: 11.75946

$R^2$ : 0.96578

Parameters:

a = 112.53427

b = 663.09591

c = 39.70424

d = 0.50398



## Bead 1809

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

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

Frame size : 10 pixels

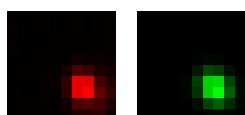
Coordinates : 57.6  $\mu\text{m}$  (x), -39.3  $\mu\text{m}$  (y), 40.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

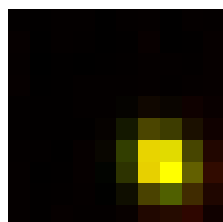
FWHM	Non corrected	Corrected	Theoretical
min	448 nm	463 nm	223 nm
max	521 nm	539 nm	223 nm
z	1.19 $\mu\text{m}$	1.19 $\mu\text{m}$	885 nm
Asymmetry	0.86		
Theta	-49.4°		

### 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:

$A = 1128.378$  (brightness)

$B = 120.511$  (background)

$a = 0.594$  px

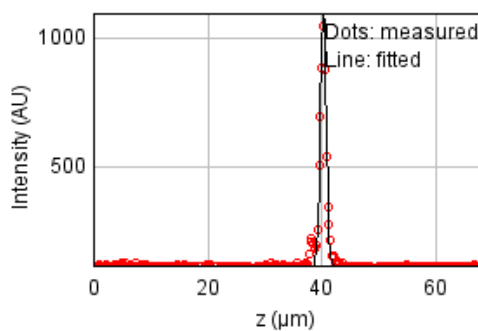
$b = -0.086$  px

$c = 0.567$  px

$x_c = 6.613$  px

$y_c = 6.578$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 95317.1616

Standard deviation: 17.62042

$R^2: 0.97588$

Parameters:

$a = 116.14992$

$b = 1103.13112$

$c = 40.33559$

$d = 0.50463$

## Bead 1810

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

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

Frame size : 10 pixels

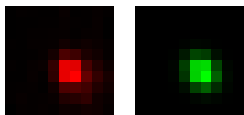
Coordinates : 57.6  $\mu\text{m}$  (x), -39.3  $\mu\text{m}$  (y), 40.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

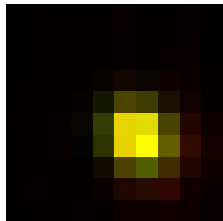
FWHM	Non corrected	Corrected	Theoretical
min	446 nm	461 nm	223 nm
max	518 nm	536 nm	223 nm
z	1.19 $\mu\text{m}$	1.19 $\mu\text{m}$	885 nm
Asymmetry	0.86		
Theta	-49.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1128.718$  (brightness)

$B = 123.953$  (background)

$a = 0.601$  px

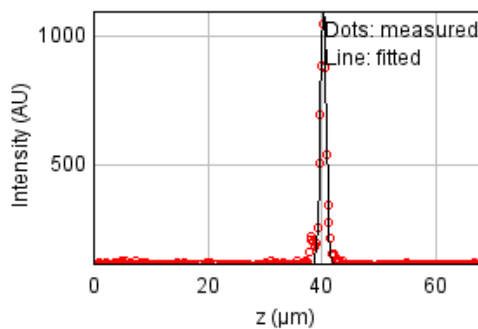
$b = -0.087$  px

$c = 0.575$  px

$x_c = 5.612$  px

$y_c = 5.577$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 95317.1616

Standard deviation: 17.62042

$R^2: 0.97588$

Parameters:

$a = 116.14992$

$b = 1103.13112$

$c = 40.33559$

$d = 0.50463$

## Bead 1811

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

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

Frame size : 10 pixels

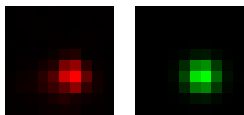
Coordinates : -65.0  $\mu\text{m}$  (x), -59.0  $\mu\text{m}$  (y), 40.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

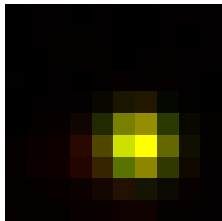
FWHM	Non corrected	Corrected	Theoretical
min	467 nm	483 nm	223 nm
max	511 nm	528 nm	223 nm
z	1.52 $\mu\text{m}$	1.53 $\mu\text{m}$	885 nm
Asymmetry	0.915		
Theta	-5.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1708.677$  (brightness)

$B = 132.187$  (background)

$a = 0.515$  px

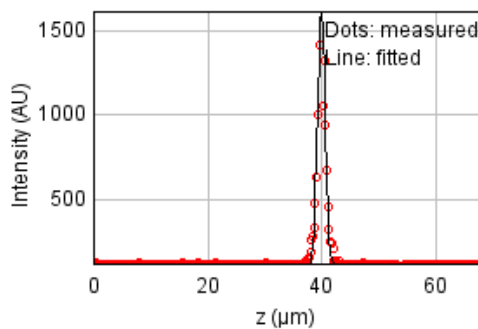
$b = -0.009$  px

$c = 0.614$  px

$x_c = 5.628$  px

$y_c = 5.968$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 357599.753

Standard deviation: 34.12946

$R^2: 0.96946$

Parameters:

$a = 115.47835$

$b = 1616.86856$

$c = 39.98841$

$d = 0.64687$

## Bead 1812

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

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

Frame size : 10 pixels

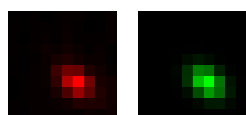
Coordinates : 157 um (x), -69.1 um (y), 39.6 um (z)

Corresponding bead : Not found

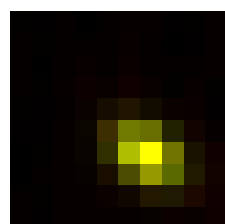
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	418 nm	223 nm
max	581 nm	601 nm	223 nm
z	1.46 um	1.46 um	885 nm
Asymmetry	0.695		
Theta	-36.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 705.597 (brightness)

B = 115.774 (background)

a = 0.544 px

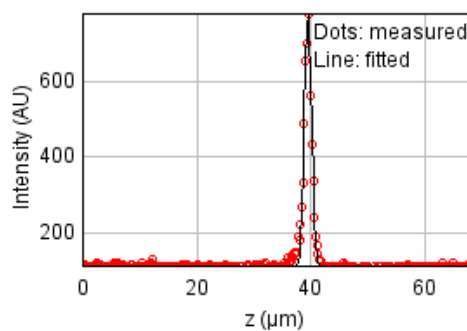
b = -0.202 px

c = 0.674 px

xc = 5.798 px

yc = 6.065 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 38756.9778

Standard deviation: 11.23585

$R^2$ : 0.98244

Parameters:

a = 110.82561

b = 781.04548

c = 39.57111

d = 0.61911

## Bead 1813

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

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

Frame size : 10 pixels

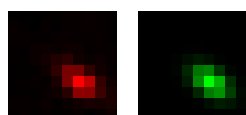
Coordinates : 162  $\mu\text{m}$  (x), -92.2  $\mu\text{m}$  (y), 39.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

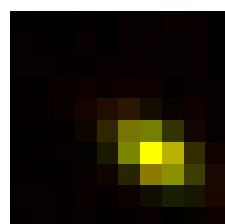
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	397 nm	223 nm
max	647 nm	669 nm	223 nm
z	1.67 $\mu\text{m}$	1.68 $\mu\text{m}$	885 nm
Asymmetry	0.594		
Theta	-34.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 560.618 (brightness)

B = 114.942 (background)

a = 0.510 px

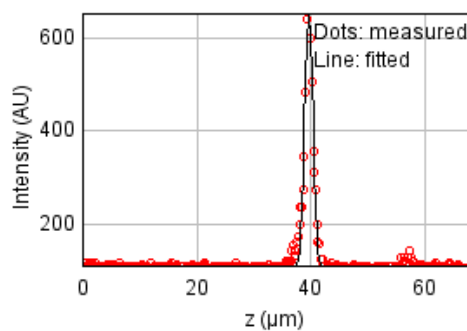
b = -0.275 px

c = 0.720 px

xc = 6.157 px

yc = 6.043 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 44395.1183

Standard deviation: 12.02537

$R^2$ : 0.97353

Parameters:

a = 111.33418

b = 655.99926

c = 39.71872

d = 0.70951

## Bead 1814 (Rejected)

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

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

Frame size : 10 pixels

Coordinates : 93.6  $\mu\text{m}$  (x), 92.7  $\mu\text{m}$  (y), 40.2  $\mu\text{m}$  (z)

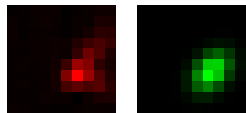
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	468 nm	484 nm	223 nm
max	662 nm	684 nm	223 nm
z	1.61 $\mu\text{m}$	1.61 $\mu\text{m}$	885 nm
Asymmetry	0.707		
Theta	47.4°		

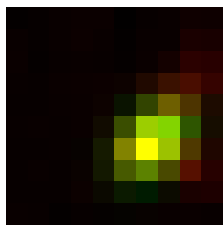
### XY profile & fitting parameters :

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



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

$R^2 = 0.849$



Parameters:

A = 561.151 (brightness)

B = 125.742 (background)

a = 0.472 px

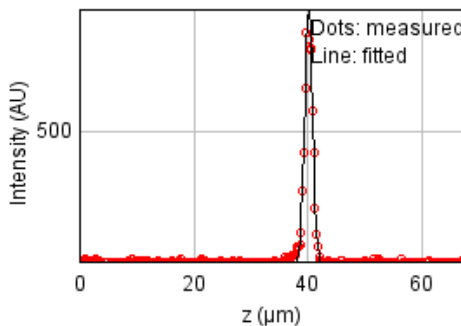
b = 0.152 px

c = 0.447 px

xc = 6.328 px

yc = 5.630 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 38781.0465

Standard deviation: 11.23933

$R^2$ : 0.98715

Parameters:

a = 113.20884

b = 863.11013

c = 40.21182

d = 0.68206

## Bead 1815

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

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

Frame size : 10 pixels

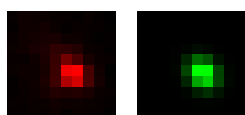
Coordinates : -149  $\mu\text{m}$  (x), 89.5  $\mu\text{m}$  (y), 40.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

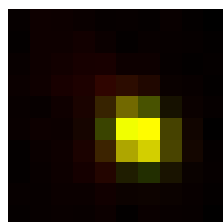
FWHM	Non corrected	Corrected	Theoretical
min	415 nm	429 nm	223 nm
max	496 nm	512 nm	223 nm
z	1.75 $\mu\text{m}$	1.76 $\mu\text{m}$	885 nm
Asymmetry	0.837		
Theta	-45.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 799.755 (brightness)

B = 122.449 (background)

a = 0.666 px

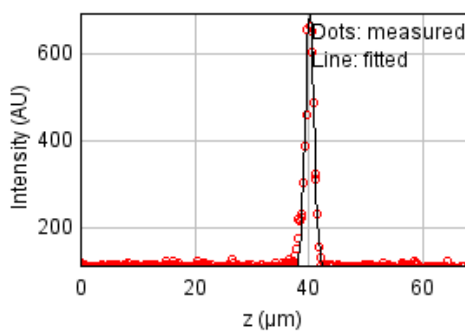
b = -0.117 px

c = 0.660 px

$x_c = 5.538$  px

$y_c = 5.270$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 44563.4651

Standard deviation: 12.04815

$R^2$ : 0.97758

Parameters:

a = 111.75190

b = 692.29446

c = 40.21561

d = 0.74463

## Bead 1816

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

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

Frame size : 10 pixels

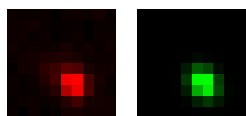
Coordinates : -162  $\mu\text{m}$  (x), 70.3  $\mu\text{m}$  (y), 39.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

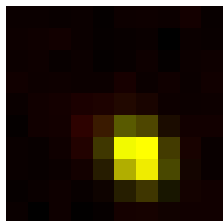
FWHM	Non corrected	Corrected	Theoretical
min	395 nm	409 nm	223 nm
max	484 nm	501 nm	223 nm
z	1.49 $\mu\text{m}$	1.5 $\mu\text{m}$	885 nm
Asymmetry	0.816		
Theta	-50.4°		

### 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 = 407.830 (brightness)

B = 114.510 (background)

a = 0.742 px

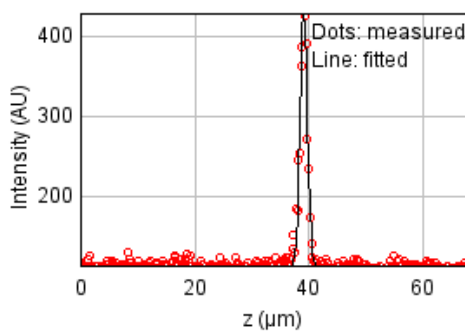
b = -0.141 px

c = 0.689 px

xc = 5.582 px

yc = 6.356 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18431.0409

Standard deviation: 7.74829

$R^2$ : 0.96437

Parameters:

a = 111.36897

b = 429.41038

c = 39.17318

d = 0.63315



## Bead 1817

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

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

Frame size : 10 pixels

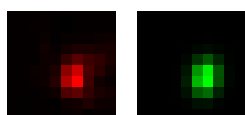
Coordinates : 129  $\mu\text{m}$  (x), 20.5  $\mu\text{m}$  (y), 39.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

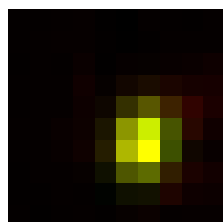
FWHM	Non corrected	Corrected	Theoretical
min	420 nm	434 nm	223 nm
max	541 nm	559 nm	223 nm
z	1.26 $\mu\text{m}$	1.26 $\mu\text{m}$	885 nm
Asymmetry	0.776		
Theta	78.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 797.960$  (brightness)

$B = 125.236$  (background)

$a = 0.749$  px

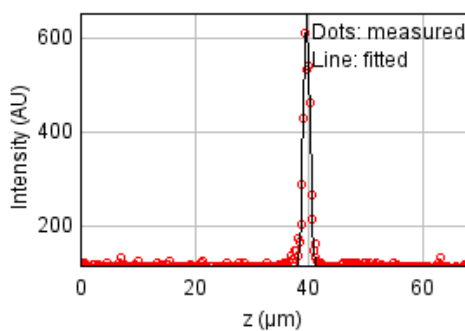
$b = 0.060$  px

$c = 0.472$  px

$x_c = 5.756$  px

$y_c = 5.609$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 43035.0261

Standard deviation: 11.83973

$R^2: 0.96630$

Parameters:

$a = 113.46925$

$b = 656.99220$

$c = 39.68092$

$d = 0.53328$

## Bead 1818

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

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

Frame size : 10 pixels

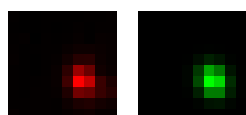
Coordinates : 15.5  $\mu\text{m}$  (x), -11.0  $\mu\text{m}$  (y), 40.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

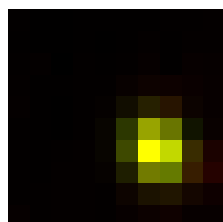
FWHM	Non corrected	Corrected	Theoretical
min	422 nm	436 nm	223 nm
max	495 nm	511 nm	223 nm
z	1.34 $\mu\text{m}$	1.35 $\mu\text{m}$	885 nm
Asymmetry	0.854		
Theta	-63.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1506.567$  (brightness)

$B = 127.110$  (background)

$a = 0.711$  px

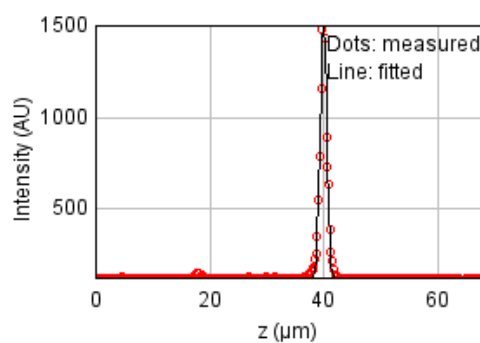
$b = -0.082$  px

$c = 0.590$  px

$x_c = 6.373$  px

$y_c = 5.931$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 132283.883

Standard deviation: 20.75794

$R^2: 0.98489$

Parameters:

$a = 114.92959$

$b = 1504.95726$

$c = 40.01209$

$d = 0.57077$

## Bead 1819

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

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

Frame size : 10 pixels

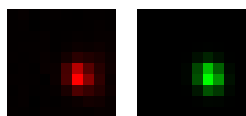
Coordinates : 95.3  $\mu\text{m}$  (x), -11.8  $\mu\text{m}$  (y), 40.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

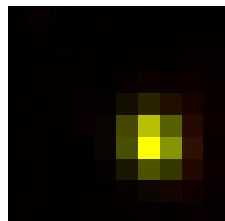
FWHM	Non corrected	Corrected	Theoretical
min	390 nm	403 nm	223 nm
max	445 nm	460 nm	223 nm
z	1.4 $\mu\text{m}$	1.4 $\mu\text{m}$	885 nm
Asymmetry	0.876		
Theta	-66.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1169.548 (brightness)

B = 124.459 (background)

a = 0.850 px

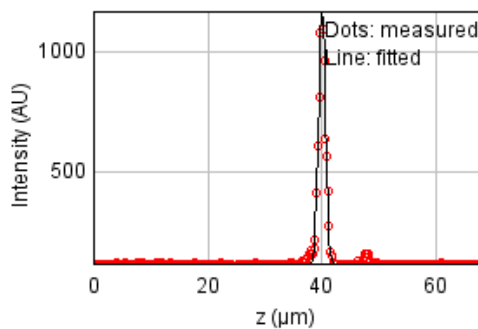
b = -0.076 px

c = 0.712 px

xc = 6.156 px

yc = 5.717 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 67644.3562

Standard deviation: 14.84385

$R^2$ : 0.98708

Parameters:

a = 114.47107

b = 1169.88518

c = 40.10349

d = 0.59425

## Bead 1820

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

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

Frame size : 10 pixels

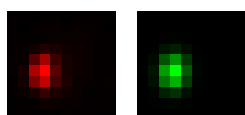
Coordinates : 136  $\mu\text{m}$  (x), -18.5  $\mu\text{m}$  (y), 60.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

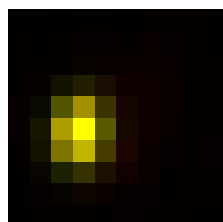
FWHM	Non corrected	Corrected	Theoretical
min	417 nm	431 nm	223 nm
max	536 nm	554 nm	223 nm
z	1.4 $\mu\text{m}$	1.4 $\mu\text{m}$	885 nm
Asymmetry	0.778		
Theta	85.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1340.630 (brightness)

B = 125.992 (background)

a = 0.770 px

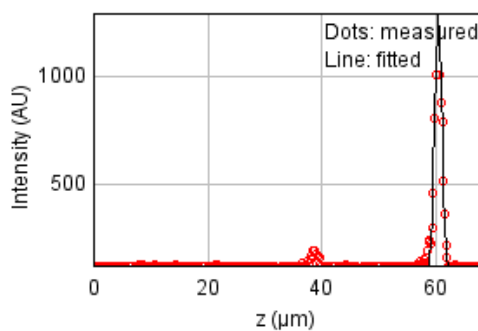
b = 0.022 px

c = 0.469 px

xc = 2.813 px

yc = 5.131 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 166623.498

Standard deviation: 23.29694

$R^2$ : 0.97483

Parameters:

a = 115.84316

b = 1295.51973

c = 60.46027

d = 0.59410

## Bead 1821

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

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

Frame size : 10 pixels

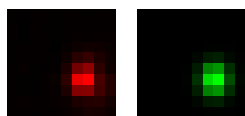
Coordinates : 51.8  $\mu\text{m}$  (x), -22.2  $\mu\text{m}$  (y), 40.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

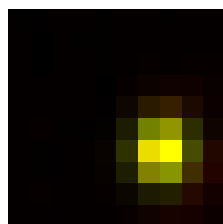
FWHM	Non corrected	Corrected	Theoretical
min	446 nm	461 nm	223 nm
max	501 nm	518 nm	223 nm
z	1.15 $\mu\text{m}$	1.16 $\mu\text{m}$	885 nm
Asymmetry	0.891		
Theta	88.4°		

### 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:

$A = 1243.115$  (brightness)

$B = 122.985$  (background)

$a = 0.674$  px

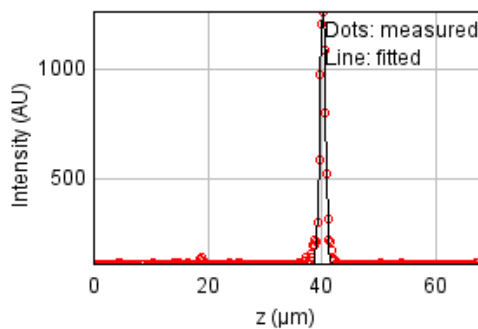
$b = 0.004$  px

$c = 0.535$  px

$x_c = 6.609$  px

$y_c = 6.000$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 64855.1650

Standard deviation: 14.53460

$R^2: 0.98736$

Parameters:

$a = 114.99911$

$b = 1263.45558$

$c = 40.21967$

$d = 0.48912$

## Bead 1822

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

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

Frame size : 10 pixels

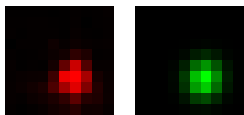
Coordinates : -37.4  $\mu\text{m}$  (x), -23.4  $\mu\text{m}$  (y), 40.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

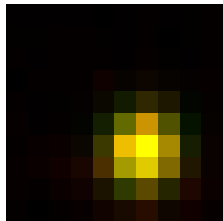
FWHM	Non corrected	Corrected	Theoretical
min	537 nm	555 nm	223 nm
max	588 nm	608 nm	223 nm
z	1.28 $\mu\text{m}$	1.28 $\mu\text{m}$	885 nm
Asymmetry	0.914		
Theta	77.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1277.700$  (brightness)

$B = 123.312$  (background)

$a = 0.461$  px

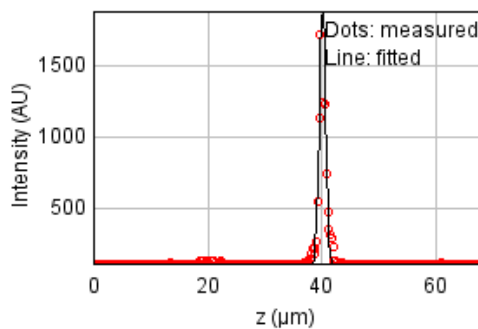
$b = 0.017$  px

$c = 0.392$  px

$x_c = 5.816$  px

$y_c = 6.207$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 779879.221

Standard deviation: 50.40162

$R^2: 0.94473$

Parameters:

$a = 117.62868$

$b = 1888.77299$

$c = 40.17731$

$d = 0.54283$

## Bead 1823

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

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

Frame size : 10 pixels

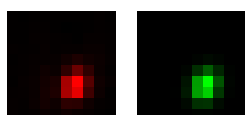
Coordinates : -137  $\mu\text{m}$  (x), -35.1  $\mu\text{m}$  (y), 40.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

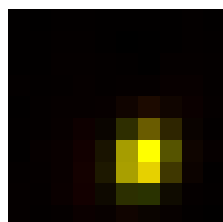
FWHM	Non corrected	Corrected	Theoretical
min	398 nm	411 nm	223 nm
max	487 nm	503 nm	223 nm
z	1.12 $\mu\text{m}$	1.12 $\mu\text{m}$	885 nm
Asymmetry	0.817		
Theta	65.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1633.647$  (brightness)

$B = 126.695$  (background)

$a = 0.802$  px

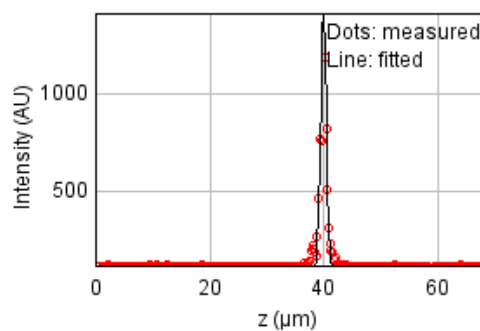
$b = 0.105$  px

$c = 0.614$  px

$x_c = 5.754$  px

$y_c = 6.377$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 185827.731

Standard deviation: 24.60289

$R^2: 0.97177$

Parameters:

$a = 113.51540$

$b = 1424.69306$

$c = 39.99167$

$d = 0.47353$

## Bead 1824

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

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

Frame size : 10 pixels

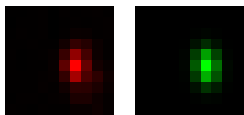
Coordinates : 11.9  $\mu\text{m}$  (x), -35.9  $\mu\text{m}$  (y), 39.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

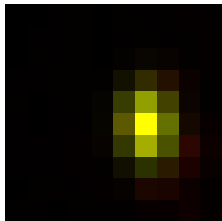
FWHM	Non corrected	Corrected	Theoretical
min	377 nm	389 nm	223 nm
max	563 nm	582 nm	223 nm
z	1.26 $\mu\text{m}$	1.26 $\mu\text{m}$	885 nm
Asymmetry	0.669		
Theta	-85.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1533.422 (brightness)

B = 134.239 (background)

a = 0.943 px

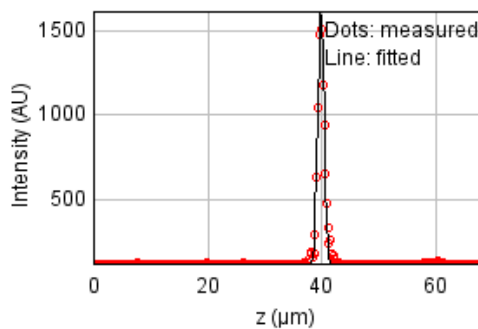
b = -0.039 px

c = 0.427 px

xc = 6.065 px

yc = 5.053 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 156546.827

Standard deviation: 22.58151

$R^2$ : 0.98389

Parameters:

a = 115.49470

b = 1628.01254

c = 39.90554

d = 0.53360



## Bead 1825

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

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

Frame size : 10 pixels

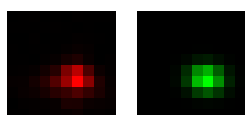
Coordinates : -51.3  $\mu\text{m}$  (x), -70.6  $\mu\text{m}$  (y), 40.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

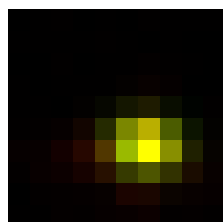
FWHM	Non corrected	Corrected	Theoretical
min	425 nm	439 nm	223 nm
max	547 nm	566 nm	223 nm
z	1.41 $\mu\text{m}$	1.42 $\mu\text{m}$	885 nm
Asymmetry	0.776		
Theta	-5.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1847.576 (brightness)

B = 133.713 (background)

a = 0.451 px

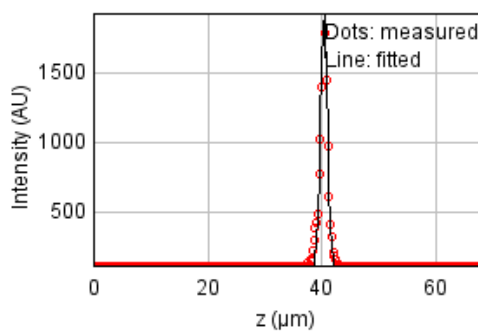
b = -0.029 px

c = 0.741 px

$x_c = 5.836$  px

$y_c = 5.751$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 198129.115

Standard deviation: 25.40417

$R^2$ : 0.98718

Parameters:

a = 116.07021

b = 1921.45127

c = 40.45082

d = 0.59987

## Bead 1826

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

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

Frame size : 10 pixels

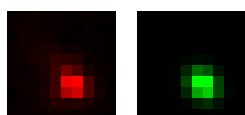
Coordinates : -149  $\mu\text{m}$  (x), 89.5  $\mu\text{m}$  (y), 40.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

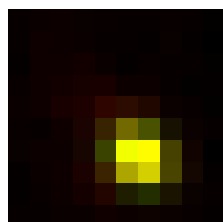
FWHM	Non corrected	Corrected	Theoretical
min	414 nm	428 nm	223 nm
max	495 nm	512 nm	223 nm
z	1.75 $\mu\text{m}$	1.76 $\mu\text{m}$	885 nm
Asymmetry	0.837		
Theta	-45.7°		

### 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 = 799.846 (brightness)

B = 122.729 (background)

a = 0.668 px

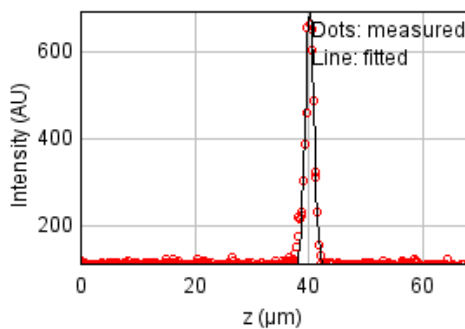
b = -0.117 px

c = 0.661 px

xc = 5.538 px

yc = 6.270 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 44563.4651

Standard deviation: 12.04815

$R^2$ : 0.97758

Parameters:

a = 111.75190

b = 692.29446

c = 40.21561

d = 0.74463

## Bead 1827

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

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

Frame size : 10 pixels

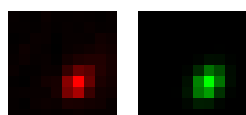
Coordinates : 139  $\mu\text{m}$  (x), 56.9  $\mu\text{m}$  (y), 39.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

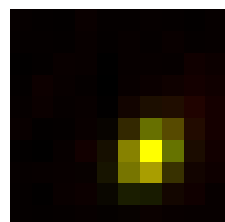
FWHM	Non corrected	Corrected	Theoretical
min	389 nm	402 nm	223 nm
max	519 nm	536 nm	223 nm
z	1.35 $\mu\text{m}$	1.36 $\mu\text{m}$	885 nm
Asymmetry	0.749		
Theta	51.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 590.190 (brightness)

B = 117.421 (background)

a = 0.737 px

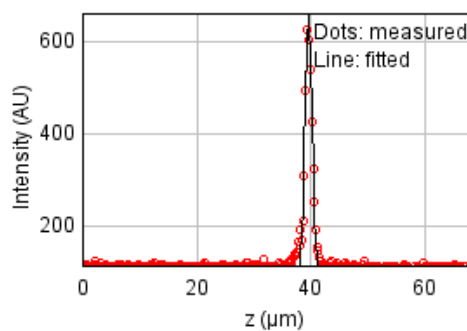
b = 0.190 px

c = 0.651 px

xc = 5.919 px

yc = 6.153 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 33159.1847

Standard deviation: 10.39280

$R^2$ : 0.97640

Parameters:

a = 111.34594

b = 664.62796

c = 39.67482

d = 0.57352

## Bead 1828

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

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

Frame size : 10 pixels

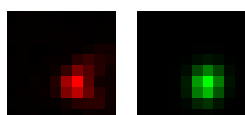
Coordinates : 101 um (x), 53.4 um (y), 40.5 um (z)

Corresponding bead : Not found

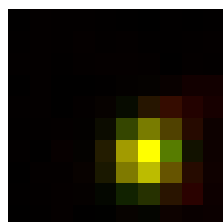
FWHM	Non corrected	Corrected	Theoretical
min	463 nm	479 nm	223 nm
max	516 nm	533 nm	223 nm
z	1.59 um	1.59 um	885 nm
Asymmetry	0.899		
Theta	71.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 846.681 (brightness)

B = 123.307 (background)

a = 0.613 px

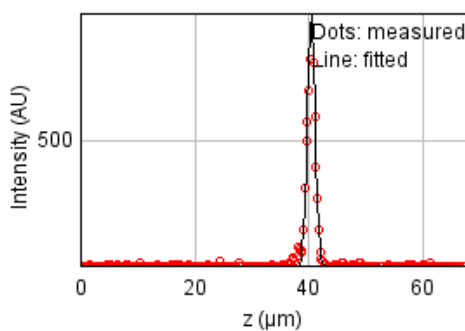
b = 0.036 px

c = 0.517 px

xc = 5.895 px

yc = 6.208 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 55157.9668

Standard deviation: 13.40402

$R^2$ : 0.98283

Parameters:

a = 112.83844

b = 889.14729

c = 40.49681

d = 0.67391

## Bead 1829 (Rejected)

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

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

Frame size : 10 pixels

Coordinates : 49.3  $\mu\text{m}$  (x), 39.4  $\mu\text{m}$  (y), 5.94  $\mu\text{m}$  (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°		

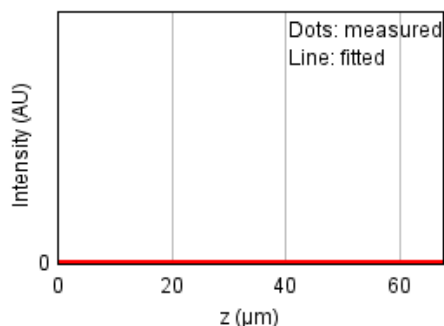
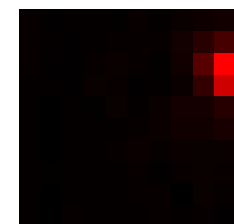
### XY profile & fitting parameters :

(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 1830

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

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

Frame size : 10 pixels

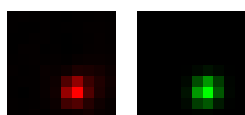
Coordinates : 127 um (x), 12.1 um (y), 40.5 um (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	391 nm	404 nm	223 nm
max	431 nm	445 nm	223 nm
z	1.15 um	1.15 um	885 nm
Asymmetry	0.906		
Theta	43.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1220.641 (brightness)

B = 121.767 (background)

a = 0.798 px

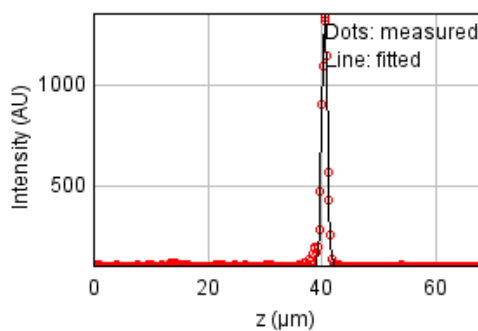
b = 0.079 px

c = 0.805 px

xc = 5.841 px

yc = 6.842 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 85997.4088

Standard deviation: 16.73684

$R^2$ : 0.98575

Parameters:

a = 112.10206

b = 1359.99772

c = 40.54996

d = 0.48653

## Bead 1831

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

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

Frame size : 10 pixels

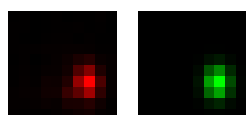
Coordinates : -72.9  $\mu\text{m}$  (x), 9.22  $\mu\text{m}$  (y), 40.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

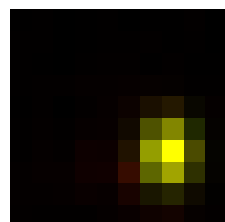
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	410 nm	223 nm
max	497 nm	514 nm	223 nm
z	1.23 $\mu\text{m}$	1.24 $\mu\text{m}$	885 nm
Asymmetry	0.798		
Theta	89.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1609.178 (brightness)

B = 133.409 (background)

a = 0.853 px

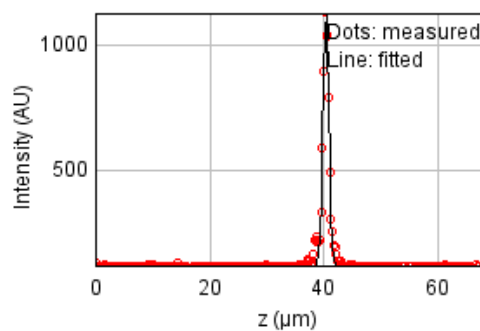
b = 0.003 px

c = 0.543 px

xc = 6.782 px

yc = 6.094 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 87758.7386

Standard deviation: 16.90737

$R^2$ : 0.97966

Parameters:

a = 114.76673

b = 1130.38608

c = 40.44209

d = 0.52290

## Bead 1832

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

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

Frame size : 10 pixels

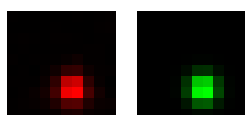
Coordinates : -27.4  $\mu\text{m}$  (x), -8.07  $\mu\text{m}$  (y), 40.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	446 nm	461 nm	223 nm
max	462 nm	478 nm	223 nm
z	1.27 $\mu\text{m}$	1.27 $\mu\text{m}$	885 nm
Asymmetry	0.966		
Theta	-87.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.993$



Parameters:

A = 2384.583 (brightness)

B = 128.858 (background)

a = 0.674 px

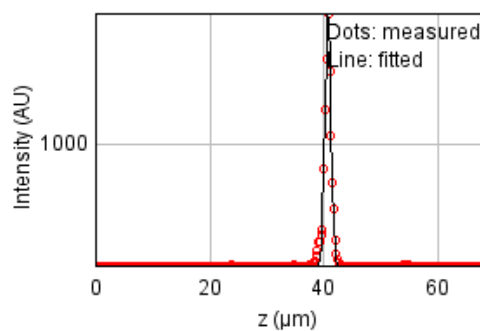
b = -0.002 px

c = 0.628 px

$x_c = 5.537$  px

$y_c = 6.678$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 160991.458

Standard deviation: 22.89983

$R^2$ : 0.98915

Parameters:

a = 116.51678

b = 1981.08041

c = 40.78287

d = 0.53905



## Bead 1833

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

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

Frame size : 10 pixels

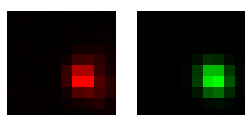
Coordinates : 64.4  $\mu\text{m}$  (x), -7.42  $\mu\text{m}$  (y), 40.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

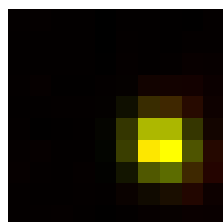
FWHM	Non corrected	Corrected	Theoretical
min	451 nm	467 nm	223 nm
max	494 nm	511 nm	223 nm
z	1.22 $\mu\text{m}$	1.23 $\mu\text{m}$	885 nm
Asymmetry	0.914		
Theta	-47.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1564.654 (brightness)

B = 129.935 (background)

a = 0.610 px

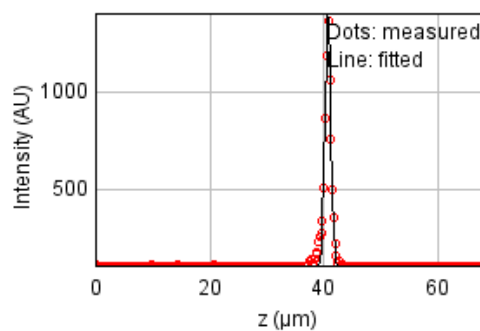
b = -0.054 px

c = 0.599 px

xc = 6.561 px

yc = 5.742 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 89212.6008

Standard deviation: 17.04684

$R^2$ : 0.98697

Parameters:

a = 116.24513

b = 1405.67157

c = 40.77727

d = 0.51857

## Bead 1834

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

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

Frame size : 10 pixels

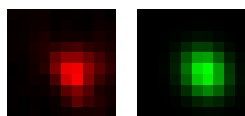
Coordinates : 135  $\mu\text{m}$  (x), -22.3  $\mu\text{m}$  (y), 39.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

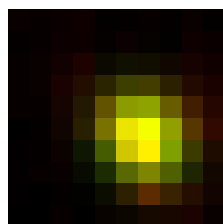
FWHM	Non corrected	Corrected	Theoretical
min	650 nm	672 nm	223 nm
max	751 nm	777 nm	223 nm
z	1.19 $\mu\text{m}$	1.19 $\mu\text{m}$	885 nm
Asymmetry	0.865		
Theta	-57.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 580.103 (brightness)

B = 126.302 (background)

a = 0.295 px

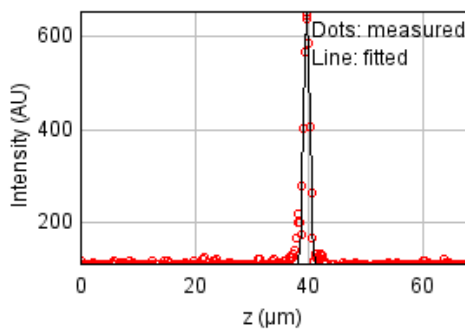
b = -0.036 px

c = 0.260 px

xc = 5.732 px

yc = 5.340 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 42453.4344

Standard deviation: 11.75946

$R^2$ : 0.96578

Parameters:

a = 112.53427

b = 663.09591

c = 39.70424

d = 0.50398

## Bead 1835

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

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

Frame size : 10 pixels

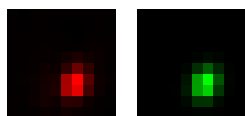
Coordinates : -137  $\mu\text{m}$  (x), -35.1  $\mu\text{m}$  (y), 40.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

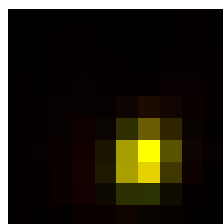
FWHM	Non corrected	Corrected	Theoretical
min	398 nm	411 nm	223 nm
max	487 nm	503 nm	223 nm
z	1.12 $\mu\text{m}$	1.12 $\mu\text{m}$	885 nm
Asymmetry	0.817		
Theta	65.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1633.647 (brightness)

B = 126.695 (background)

a = 0.802 px

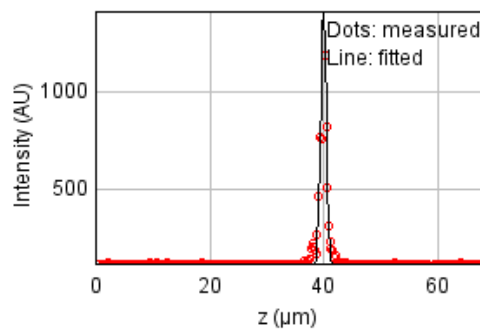
b = 0.105 px

c = 0.614 px

xc = 5.754 px

yc = 6.377 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 185827.731

Standard deviation: 24.60289

$R^2$ : 0.97177

Parameters:

a = 113.51540

b = 1424.69306

c = 39.99167

d = 0.47353

## Bead 1836

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

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

Frame size : 10 pixels

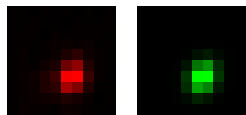
Coordinates : -128  $\mu\text{m}$  (x), -40.9  $\mu\text{m}$  (y), 40.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

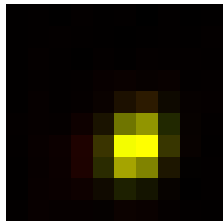
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	413 nm	223 nm
max	495 nm	512 nm	223 nm
z	1.45 $\mu\text{m}$	1.45 $\mu\text{m}$	885 nm
Asymmetry	0.807		
Theta	63.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1679.795$  (brightness)

$B = 127.562$  (background)

$a = 0.782$  px

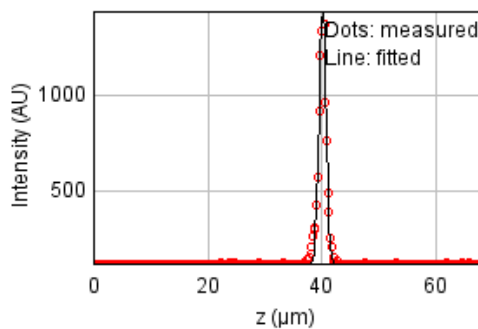
$b = 0.116$  px

$c = 0.604$  px

$x_c = 5.501$  px

$y_c = 6.043$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 98781.2551

Standard deviation: 17.93775

$R^2: 0.98860$

Parameters:

$a = 113.25547$

$b = 1450.29131$

$c = 40.20449$

$d = 0.61431$

## Bead 1837

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

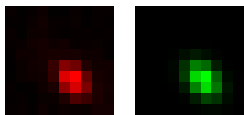
Coordinates : 139  $\mu\text{m}$  (x), -60.3  $\mu\text{m}$  (y), 39.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

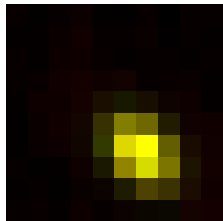
FWHM	Non corrected	Corrected	Theoretical
min	428 nm	442 nm	223 nm
max	603 nm	623 nm	223 nm
z	1.38 $\mu\text{m}$	1.39 $\mu\text{m}$	885 nm
Asymmetry	0.71		
Theta	-49.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 529.529$  (brightness)

$B = 116.761$  (background)

$a = 0.577$  px

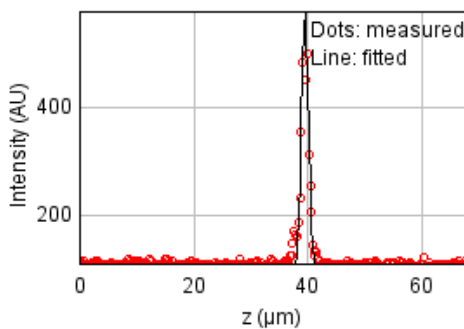
$b = -0.180$  px

$c = 0.526$  px

$x_c = 5.726$  px

$y_c = 6.264$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35111.7589

Standard deviation: 10.69442

$R^2: 0.96594$

Parameters:

$a = 111.42895$

$b = 577.79550$

$c = 39.56956$

$d = 0.58620$

## Bead 1838

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

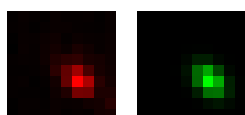
Coordinates : 162  $\mu\text{m}$  (x), -84.2  $\mu\text{m}$  (y), 40.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

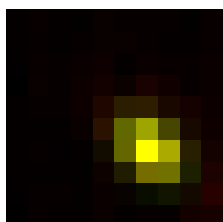
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	404 nm	223 nm
max	558 nm	577 nm	223 nm
z	1.58 $\mu\text{m}$	1.58 $\mu\text{m}$	885 nm
Asymmetry	0.701		
Theta	-45.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 636.658 (brightness)

B = 118.113 (background)

a = 0.661 px

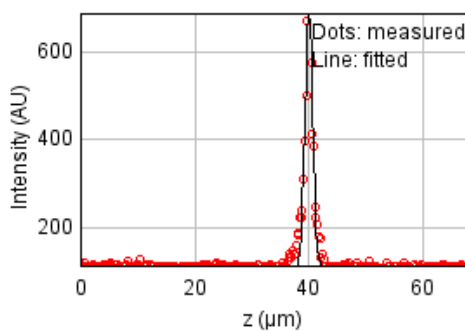
b = -0.223 px

c = 0.647 px

$x_c = 6.156$  px

$y_c = 5.890$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 61429.3819

Standard deviation: 14.14552

$R^2$ : 0.96559

Parameters:

a = 111.99044

b = 687.31580

c = 40.08162

d = 0.66985

## Bead 1839

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

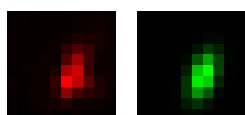
Coordinates : 15.5  $\mu\text{m}$  (x), 75.8  $\mu\text{m}$  (y), 40.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

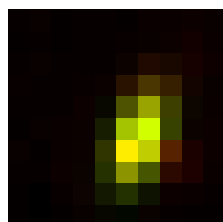
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	399 nm	223 nm
max	724 nm	749 nm	223 nm
z	1.67 $\mu\text{m}$	1.67 $\mu\text{m}$	885 nm
Asymmetry	0.533		
Theta	70.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 633.658 (brightness)

B = 123.491 (background)

a = 0.825 px

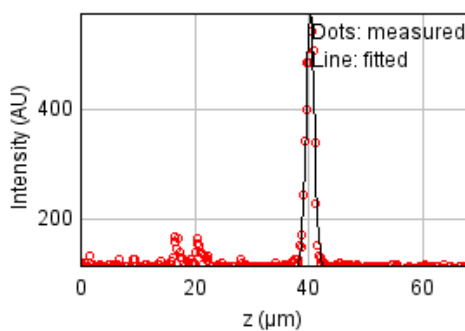
b = 0.208 px

c = 0.332 px

xc = 5.551 px

yc = 5.451 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 56128.6478

Standard deviation: 13.52144

$R^2$ : 0.95428

Parameters:

a = 115.82076

b = 577.83047

c = 40.31946

d = 0.70748

## Bead 1840

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

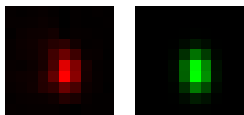
Coordinates : -117  $\mu\text{m}$  (x), 48.9  $\mu\text{m}$  (y), 40.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

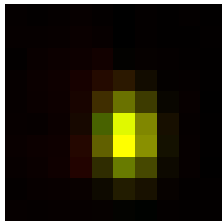
FWHM	Non corrected	Corrected	Theoretical
min	416 nm	430 nm	223 nm
max	597 nm	617 nm	223 nm
z	1.19 $\mu\text{m}$	1.19 $\mu\text{m}$	885 nm
Asymmetry	0.696		
Theta	-87.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1089.712 (brightness)

B = 135.531 (background)

a = 0.776 px

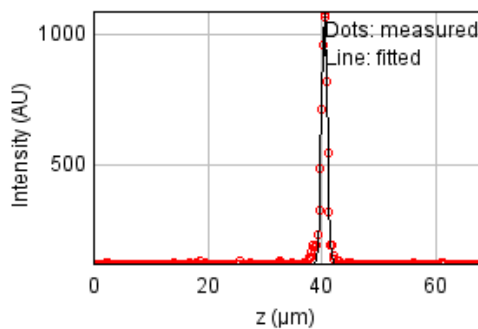
b = -0.021 px

c = 0.378 px

$x_c = 5.118$  px

$y_c = 5.541$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 43277.9320

Standard deviation: 11.87310

$R^2$ : 0.98867

Parameters:

a = 114.39790

b = 1091.67243

c = 40.51243

d = 0.50404



## Bead 1841

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

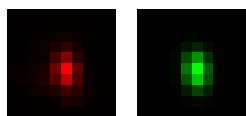
Coordinates : -54.8  $\mu\text{m}$  (x), 41.1  $\mu\text{m}$  (y), 40.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

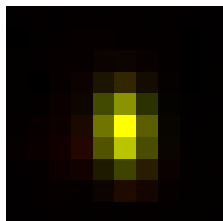
FWHM	Non corrected	Corrected	Theoretical
min	385 nm	398 nm	223 nm
max	578 nm	598 nm	223 nm
z	1.18 $\mu\text{m}$	1.18 $\mu\text{m}$	885 nm
Asymmetry	0.666		
Theta	-85.3°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.982$



Parameters:

A = 1344.824 (brightness)

B = 129.930 (background)

a = 0.902 px

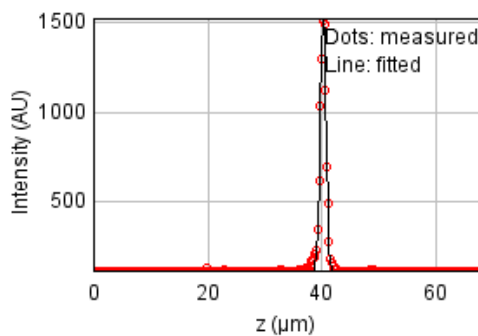
b = -0.041 px

c = 0.404 px

$x_c = 4.943$  px

$y_c = 5.171$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 50269.1085

Standard deviation: 12.79621

$R^2$ : 0.99363

Parameters:

a = 113.37592

b = 1526.25846

c = 40.30216

d = 0.50082

## Bead 1842

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

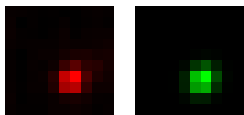
Coordinates : 141  $\mu\text{m}$  (x), 35.6  $\mu\text{m}$  (y), 40.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

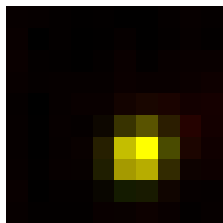
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	411 nm	223 nm
max	448 nm	463 nm	223 nm
z	1.29 $\mu\text{m}$	1.29 $\mu\text{m}$	885 nm
Asymmetry	0.887		
Theta	45.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 776.604 (brightness)

B = 117.124 (background)

a = 0.759 px

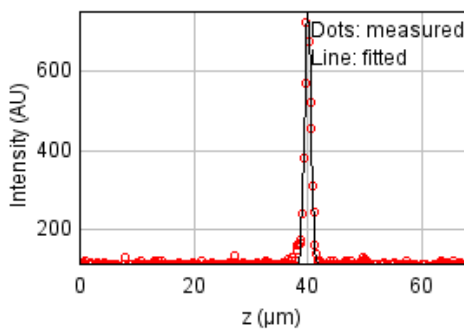
b = 0.091 px

c = 0.758 px

xc = 5.661 px

yc = 6.283 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31350.3724

Standard deviation: 10.10537

$R^2$ : 0.98236

Parameters:

a = 111.86744

b = 750.50846

c = 40.05702

d = 0.54694

## Bead 1843

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

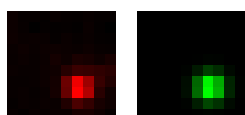
Coordinates : 141  $\mu\text{m}$  (x), 21.2  $\mu\text{m}$  (y), 39.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

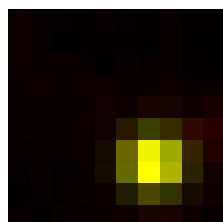
FWHM	Non corrected	Corrected	Theoretical
min	448 nm	463 nm	223 nm
max	467 nm	483 nm	223 nm
z	1.15 $\mu\text{m}$	1.15 $\mu\text{m}$	885 nm
Asymmetry	0.96		
Theta	0.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 619.801$  (brightness)

$B = 117.780$  (background)

$a = 0.616$  px

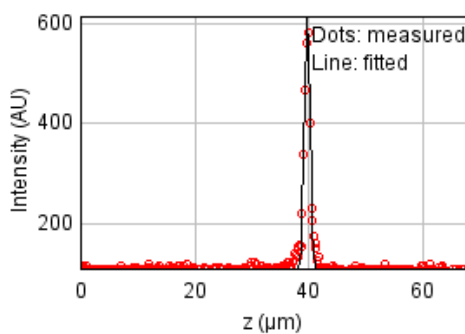
$b = 0.000$  px

$c = 0.668$  px

$x_c = 6.208$  px

$y_c = 6.536$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27395.6640

Standard deviation: 9.44652

$R^2: 0.97249$

Parameters:

$a = 110.80678$

$b = 614.43324$

$c = 39.77535$

$d = 0.48630$

## Bead 1844

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

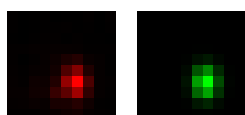
Coordinates : -72.9  $\mu\text{m}$  (x), 9.22  $\mu\text{m}$  (y), 40.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	397 nm	410 nm	223 nm
max	497 nm	514 nm	223 nm
z	1.23 $\mu\text{m}$	1.24 $\mu\text{m}$	885 nm
Asymmetry	0.798		
Theta	89.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1609.099 (brightness)

B = 132.943 (background)

a = 0.852 px

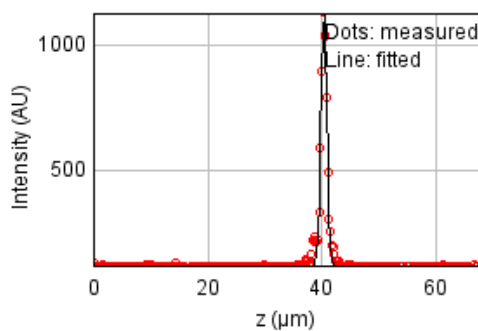
b = 0.003 px

c = 0.543 px

xc = 5.782 px

yc = 6.094 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 87758.7386

Standard deviation: 16.90737

$R^2$ : 0.97966

Parameters:

a = 114.76673

b = 1130.38608

c = 40.44209

d = 0.52290

## Bead 1845

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

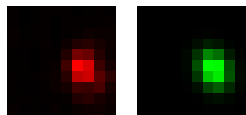
Coordinates : 40.6  $\mu\text{m}$  (x), -9.09  $\mu\text{m}$  (y), 40.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

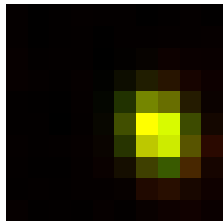
FWHM	Non corrected	Corrected	Theoretical
min	458 nm	473 nm	223 nm
max	577 nm	596 nm	223 nm
z	1.44 $\mu\text{m}$	1.44 $\mu\text{m}$	885 nm
Asymmetry	0.794		
Theta	-64.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1037.754$  (brightness)

$B = 124.462$  (background)

$a = 0.597$  px

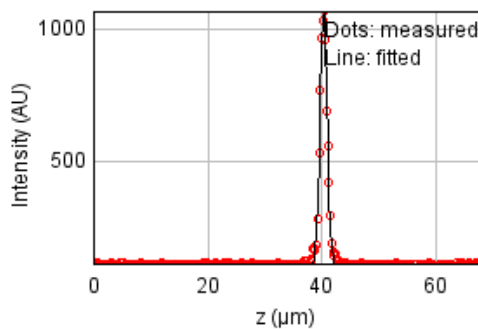
$b = -0.091$  px

$c = 0.447$  px

$x_c = 6.534$  px

$y_c = 5.332$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 39803.8345

Standard deviation: 11.38658

$R^2: 0.99109$

Parameters:

$a = 113.59914$

$b = 1078.55422$

$c = 40.38552$

$d = 0.60944$

## Bead 1846

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

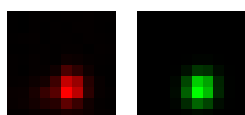
Coordinates : -77.8  $\mu\text{m}$  (x), -43.3  $\mu\text{m}$  (y), 40.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	446 nm	462 nm	223 nm
max	489 nm	506 nm	223 nm
z	1.23 $\mu\text{m}$	1.24 $\mu\text{m}$	885 nm
Asymmetry	0.912		
Theta	65.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1264.568 (brightness)

B = 121.237 (background)

a = 0.653 px

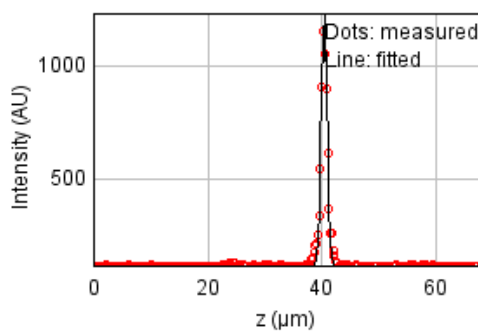
b = 0.043 px

c = 0.581 px

$x_c = 5.280$  px

$y_c = 6.669$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 68894.9487

Standard deviation: 14.98044

$R^2$ : 0.98661

Parameters:

a = 115.36350

b = 1227.30578

c = 40.48302

d = 0.52411

## Bead 1847

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

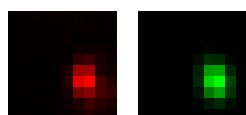
Coordinates : 31.2  $\mu\text{m}$  (x), -47.5  $\mu\text{m}$  (y), 40.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

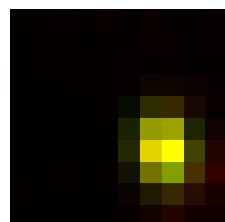
FWHM	Non corrected	Corrected	Theoretical
min	418 nm	432 nm	223 nm
max	547 nm	566 nm	223 nm
z	1.14 $\mu\text{m}$	1.15 $\mu\text{m}$	885 nm
Asymmetry	0.763		
Theta	-76.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1157.048$  (brightness)

$B = 130.799$  (background)

$a = 0.752$  px

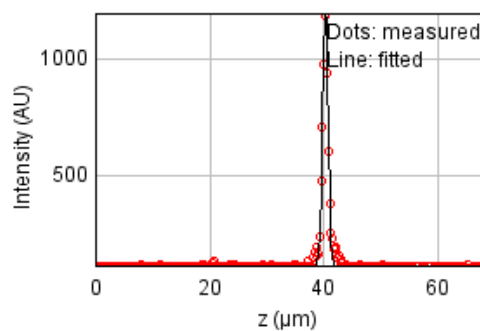
$b = -0.073$  px

$c = 0.466$  px

$x_c = 6.617$  px

$y_c = 5.932$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 66331.1256

Standard deviation: 14.69906

$R^2: 0.98577$

Parameters:

$a = 115.37586$

$b = 1214.04831$

$c = 40.34633$

$d = 0.48492$

## Bead 1848

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

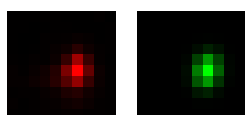
Coordinates : -68.9  $\mu\text{m}$  (x), -68.0  $\mu\text{m}$  (y), 40.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

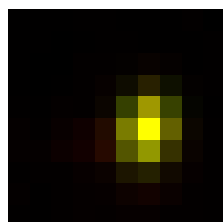
FWHM	Non corrected	Corrected	Theoretical
min	393 nm	407 nm	223 nm
max	515 nm	532 nm	223 nm
z	1.25 $\mu\text{m}$	1.25 $\mu\text{m}$	885 nm
Asymmetry	0.764		
Theta	78.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1758.005 (brightness)

B = 136.865 (background)

a = 0.853 px

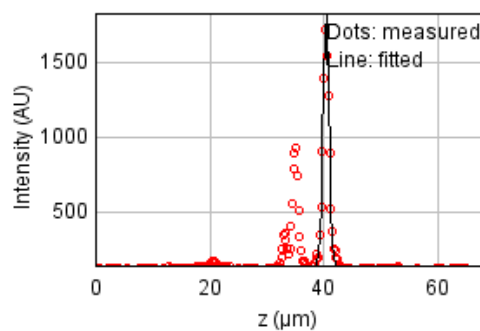
b = 0.071 px

c = 0.520 px

$x_c = 5.922$  px

$y_c = 5.012$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 2891145.93

Standard deviation: 97.04336

$R^2$ : 0.80374

Parameters:

a = 139.76383

b = 1828.98719

c = 40.46220

d = 0.52969



## Bead 1849

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

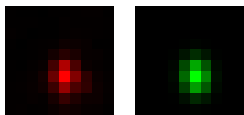
Coordinates : -8.56  $\mu\text{m}$  (x), -69.1  $\mu\text{m}$  (y), 40.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

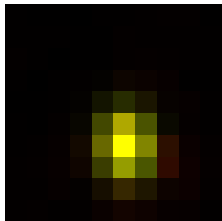
FWHM	Non corrected	Corrected	Theoretical
min	415 nm	429 nm	223 nm
max	544 nm	562 nm	223 nm
z	1.25 $\mu\text{m}$	1.26 $\mu\text{m}$	885 nm
Asymmetry	0.763		
Theta	-85.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1680.809 (brightness)

B = 127.672 (background)

a = 0.776 px

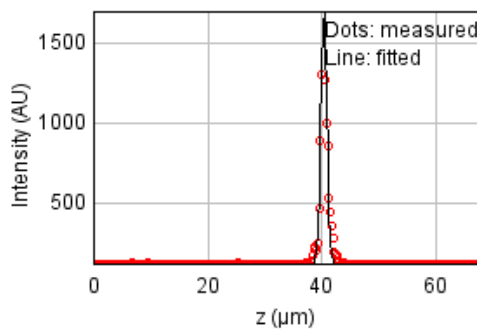
b = -0.026 px

c = 0.456 px

$x_c = 5.077$  px

$y_c = 5.968$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 304220.440

Standard deviation: 31.47930

$R^2$ : 0.97173

Parameters:

a = 117.51199

b = 1700.63707

c = 40.43276

d = 0.53268

## Bead 1850

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

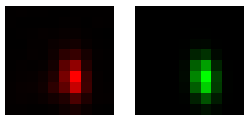
Coordinates : -46.2  $\mu\text{m}$  (x), 71.5  $\mu\text{m}$  (y), 40.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

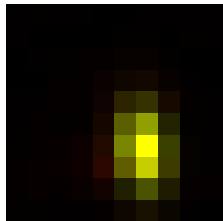
FWHM	Non corrected	Corrected	Theoretical
min	362 nm	374 nm	223 nm
max	628 nm	649 nm	223 nm
z	1.13 $\mu\text{m}$	1.13 $\mu\text{m}$	885 nm
Asymmetry	0.576		
Theta	-84.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1495.402 (brightness)

B = 129.962 (background)

a = 1.018 px

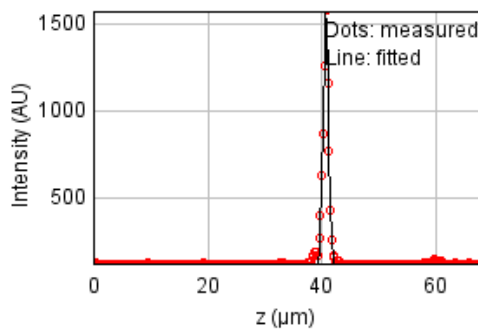
b = -0.070 px

c = 0.348 px

xc = 5.831 px

yc = 6.153 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 82170.1412

Standard deviation: 16.36017

$R^2$ : 0.98997

Parameters:

a = 116.83191

b = 1586.52863

c = 40.76658

d = 0.47797

## Bead 1851 (Rejected)

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

Coordinates : 29.7 um (x), 50.4 um (y), 56.7 um (z)

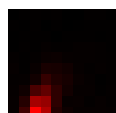
Corresponding bead : Not found

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	1.14 um	1.14 um	885 nm
Asymmetry	0.0		
Theta	0.0°		

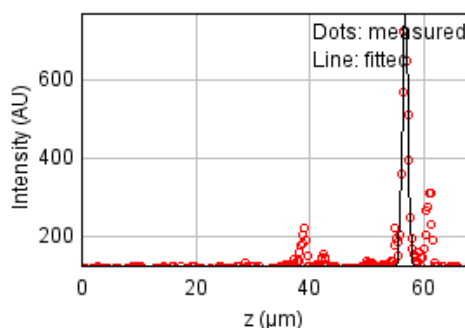
### XY profile & fitting parameters :

(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: 240997.473

Standard deviation: 28.01800

R<sup>2</sup>: 0.86797

Parameters:

a = 124.69055

b = 771.57312

c = 56.74856

d = 0.48210

## Bead 1852

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

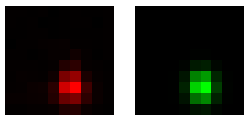
Coordinates : -35.1  $\mu\text{m}$  (x), 29.1  $\mu\text{m}$  (y), 40.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

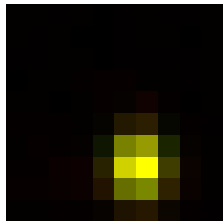
FWHM	Non corrected	Corrected	Theoretical
min	407 nm	421 nm	223 nm
max	486 nm	502 nm	223 nm
z	1.19 $\mu\text{m}$	1.2 $\mu\text{m}$	885 nm
Asymmetry	0.838		
Theta	-88.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1498.584 (brightness)

B = 122.966 (background)

a = 0.808 px

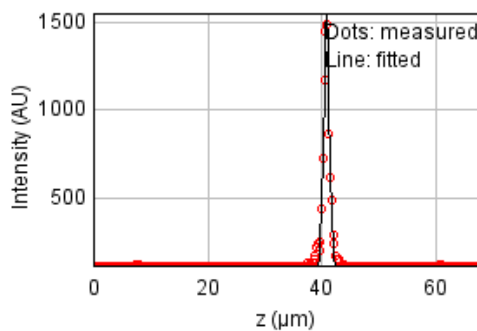
b = -0.006 px

c = 0.568 px

$x_c = 5.621$  px

$y_c = 6.937$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 148387.841

Standard deviation: 21.98518

$R^2$ : 0.98213

Parameters:

a = 115.87357

b = 1549.96650

c = 40.88885

d = 0.50570

## Bead 1853

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

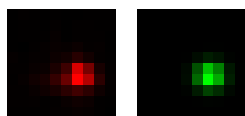
Coordinates : -68.2  $\mu\text{m}$  (x), 19.4  $\mu\text{m}$  (y), 41.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

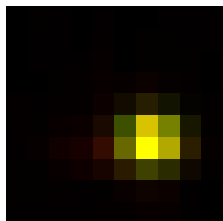
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	418 nm	223 nm
max	452 nm	467 nm	223 nm
z	1.37 $\mu\text{m}$	1.38 $\mu\text{m}$	885 nm
Asymmetry	0.894		
Theta	-0.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1655.019 (brightness)

B = 130.231 (background)

a = 0.657 px

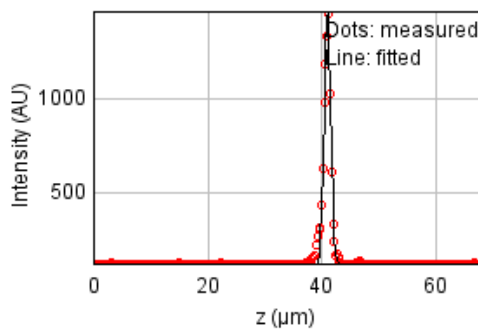
b = -0.003 px

c = 0.821 px

xc = 6.184 px

yc = 5.664 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 269898.175

Standard deviation: 29.65042

$R^2$ : 0.96938

Parameters:

a = 114.53550

b = 1485.41249

c = 41.04655

d = 0.58216

## Bead 1854

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

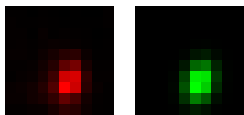
Coordinates : -81.8  $\mu\text{m}$  (x), 8.69  $\mu\text{m}$  (y), 40.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

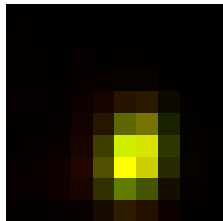
FWHM	Non corrected	Corrected	Theoretical
min	433 nm	448 nm	223 nm
max	604 nm	625 nm	223 nm
z	1.05 $\mu\text{m}$	1.06 $\mu\text{m}$	885 nm
Asymmetry	0.717		
Theta	74.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1562.117 (brightness)

B = 133.692 (background)

a = 0.691 px

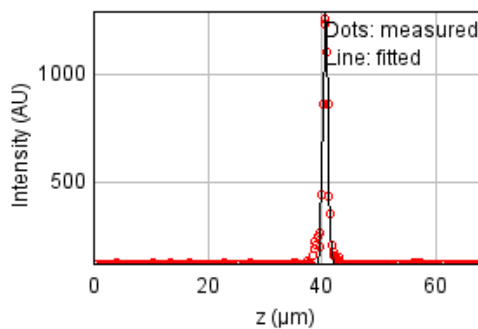
b = 0.087 px

c = 0.391 px

xc = 5.404 px

yc = 6.496 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 88573.3280

Standard deviation: 16.98565

$R^2$ : 0.98216

Parameters:

a = 115.22022

b = 1292.63220

c = 40.69144

d = 0.44697

## Bead 1855

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

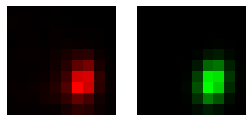
Coordinates : -81.8  $\mu\text{m}$  (x), 8.69  $\mu\text{m}$  (y), 40.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

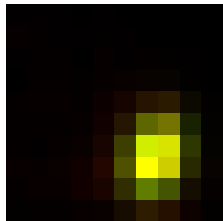
FWHM	Non corrected	Corrected	Theoretical
min	433 nm	447 nm	223 nm
max	603 nm	624 nm	223 nm
z	1.05 $\mu\text{m}$	1.06 $\mu\text{m}$	885 nm
Asymmetry	0.717		
Theta	74.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1562.416 (brightness)

B = 134.630 (background)

a = 0.693 px

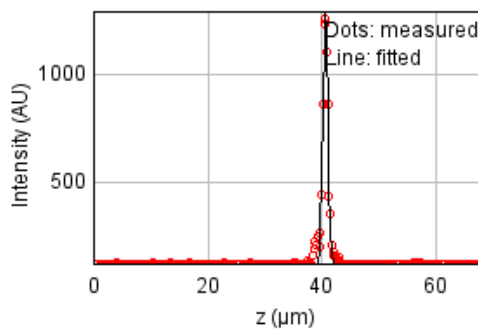
b = 0.088 px

c = 0.392 px

$x_c = 6.404$  px

$y_c = 6.496$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 88573.3280

Standard deviation: 16.98565

$R^2$ : 0.98216

Parameters:

a = 115.22022

b = 1292.63220

c = 40.69144

d = 0.44697

## Bead 1856

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

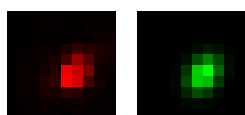
Coordinates : -157  $\mu\text{m}$  (x), -38.8  $\mu\text{m}$  (y), 40.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

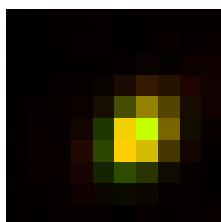
FWHM	Non corrected	Corrected	Theoretical
min	444 nm	459 nm	223 nm
max	593 nm	613 nm	223 nm
z	1.44 $\mu\text{m}$	1.45 $\mu\text{m}$	885 nm
Asymmetry	0.747		
Theta	52.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 688.221 (brightness)

B = 117.152 (background)

a = 0.569 px

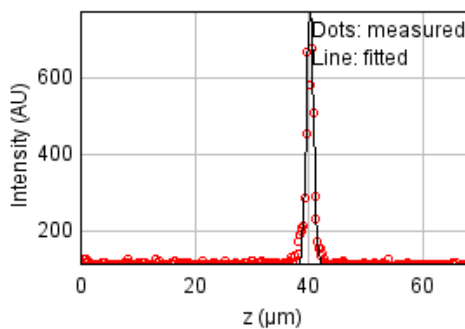
b = 0.146 px

c = 0.494 px

xc = 5.603 px

yc = 5.308 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 90428.4022

Standard deviation: 17.16261

$R^2$ : 0.95843

Parameters:

a = 111.90561

b = 772.41403

c = 40.27398

d = 0.61284



## Bead 1857

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

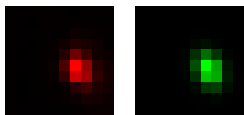
Coordinates : 79.5  $\mu\text{m}$  (x), -73.1  $\mu\text{m}$  (y), 40.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

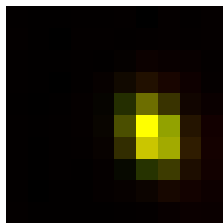
FWHM	Non corrected	Corrected	Theoretical
min	389 nm	402 nm	223 nm
max	527 nm	545 nm	223 nm
z	1.2 $\mu\text{m}$	1.2 $\mu\text{m}$	885 nm
Asymmetry	0.737		
Theta	-65.7°		

### 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 = 1331.242 (brightness)

B = 126.022 (background)

a = 0.820 px

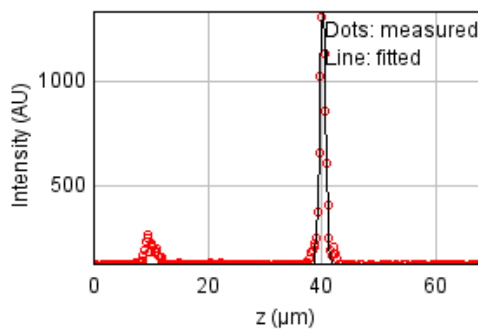
b = -0.152 px

c = 0.551 px

xc = 6.284 px

yc = 5.347 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 183843.836

Standard deviation: 24.47120

$R^2$ : 0.97009

Parameters:

a = 120.83083

b = 1343.19882

c = 40.22298

d = 0.50886

## Bead 1858

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

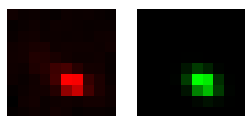
Coordinates : -162  $\mu\text{m}$  (x), 94.1  $\mu\text{m}$  (y), 40.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

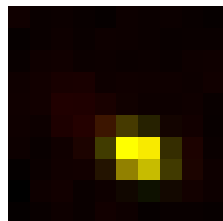
FWHM	Non corrected	Corrected	Theoretical
min	333 nm	344 nm	223 nm
max	455 nm	471 nm	223 nm
z	1.74 $\mu\text{m}$	1.74 $\mu\text{m}$	885 nm
Asymmetry	0.731		
Theta	-28.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 702.210 (brightness)

B = 118.638 (background)

a = 0.770 px

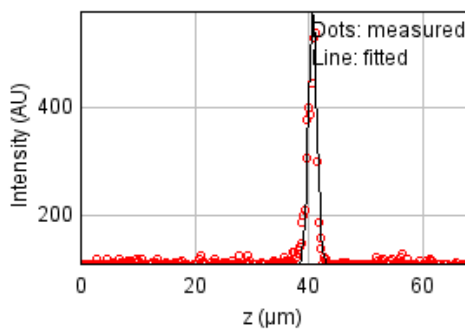
b = -0.233 px

c = 1.086 px

xc = 5.532 px

yc = 6.299 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 90286.3635

Standard deviation: 17.14912

$R^2$ : 0.93187

Parameters:

a = 111.73952

b = 576.55703

c = 40.74159

d = 0.73796

## Bead 1859

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

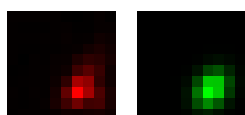
Coordinates : 64.8  $\mu\text{m}$  (x), 55.7  $\mu\text{m}$  (y), 41.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

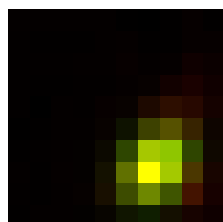
FWHM	Non corrected	Corrected	Theoretical
min	470 nm	486 nm	223 nm
max	611 nm	632 nm	223 nm
z	1.6 $\mu\text{m}$	1.61 $\mu\text{m}$	885 nm
Asymmetry	0.769		
Theta	55.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1025.464$  (brightness)

$B = 128.321$  (background)

$a = 0.529$  px

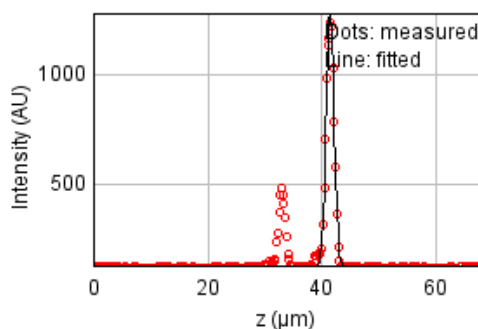
$b = 0.116$  px

$c = 0.439$  px

$x_c = 6.342$  px

$y_c = 6.691$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 684953.841

Standard deviation: 47.23473

$R^2: 0.91279$

Parameters:

$a = 124.43480$

$b = 1288.12655$

$c = 41.50878$

$d = 0.68144$

## Bead 1860

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

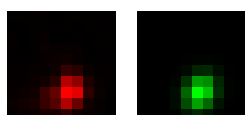
Coordinates : -111  $\mu\text{m}$  (x), -874 nm (y), 41.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	452 nm	467 nm	223 nm
max	557 nm	576 nm	223 nm
z	1.19 $\mu\text{m}$	1.19 $\mu\text{m}$	885 nm
Asymmetry	0.811		
Theta	62.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1295.900$  (brightness)

$B = 126.079$  (background)

$a = 0.609$  px

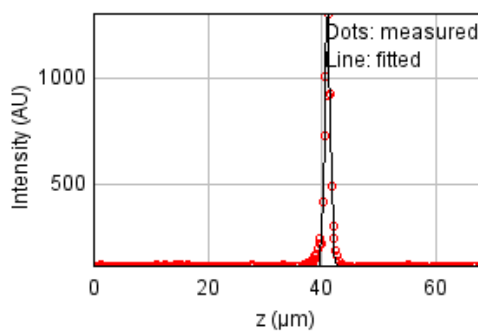
$b = 0.092$  px

$c = 0.480$  px

$x_c = 5.278$  px

$y_c = 6.971$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 133357.739

Standard deviation: 20.84203

$R^2: 0.97729$

Parameters:

$a = 114.31795$

$b = 1319.82557$

$c = 41.05074$

$d = 0.50345$

## Bead 1861

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

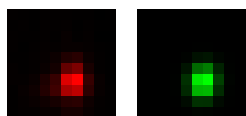
Coordinates : -65.0  $\mu\text{m}$  (x), -13.5  $\mu\text{m}$  (y), 40.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

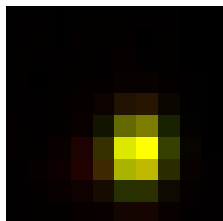
FWHM	Non corrected	Corrected	Theoretical
min	424 nm	439 nm	223 nm
max	509 nm	526 nm	223 nm
z	1.36 $\mu\text{m}$	1.37 $\mu\text{m}$	885 nm
Asymmetry	0.834		
Theta	81.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1635.838 (brightness)

B = 128.345 (background)

a = 0.740 px

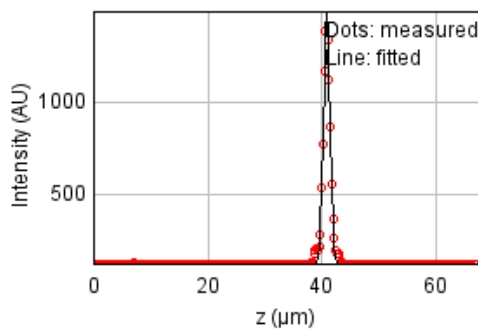
b = 0.034 px

c = 0.524 px

$x_c = 5.555$  px

$y_c = 6.215$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 54770.3662

Standard deviation: 13.35684

$R^2$ : 0.99369

Parameters:

a = 114.68006

b = 1495.13620

c = 40.92910

d = 0.57892

## Bead 1862 (Rejected)

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

Coordinates : 53.2  $\mu\text{m}$  (x), -22.2  $\mu\text{m}$  (y), 21.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

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

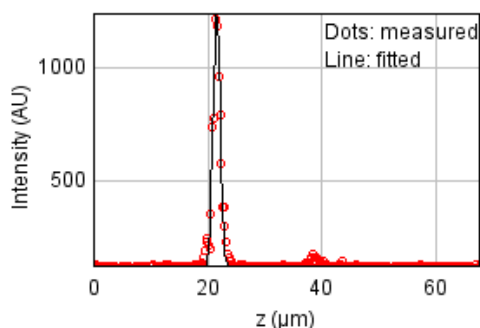
### XY profile & fitting parameters :

(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: 177940.617

Standard deviation: 24.07511

R<sup>2</sup>: 0.97142

Parameters:

a = 118.38839

b = 1248.62345

c = 21.63560

d = 0.60690

## Bead 1863

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

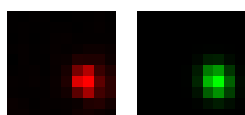
Coordinates : 91.5  $\mu\text{m}$  (x), -24.2  $\mu\text{m}$  (y), 41.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

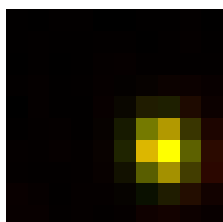
FWHM	Non corrected	Corrected	Theoretical
min	447 nm	463 nm	223 nm
max	508 nm	526 nm	223 nm
z	1.25 $\mu\text{m}$	1.26 $\mu\text{m}$	885 nm
Asymmetry	0.88		
Theta	-68.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1201.536$  (brightness)

$B = 125.429$  (background)

$a = 0.650$  px

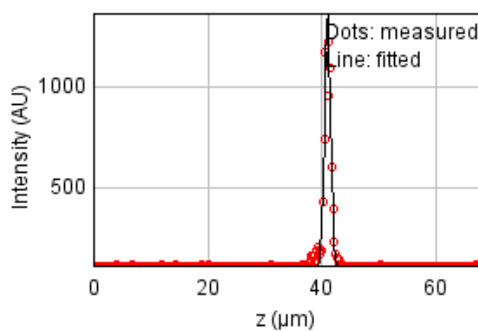
$b = -0.051$  px

$c = 0.539$  px

$x_c = 6.752$  px

$y_c = 5.951$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 223433.372

Standard deviation: 26.97769

$R^2: 0.96703$

Parameters:

$a = 113.26361$

$b = 1368.25979$

$c = 41.06803$

$d = 0.53128$

## Bead 1864

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

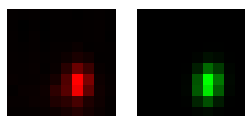
Coordinates : -49.3  $\mu\text{m}$  (x), -24.3  $\mu\text{m}$  (y), 41.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

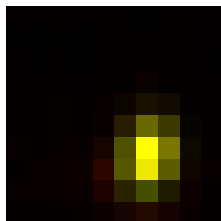
FWHM	Non corrected	Corrected	Theoretical
min	373 nm	386 nm	223 nm
max	529 nm	547 nm	223 nm
z	1.11 $\mu\text{m}$	1.12 $\mu\text{m}$	885 nm
Asymmetry	0.706		
Theta	80.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1705.899 (brightness)

B = 130.430 (background)

a = 0.948 px

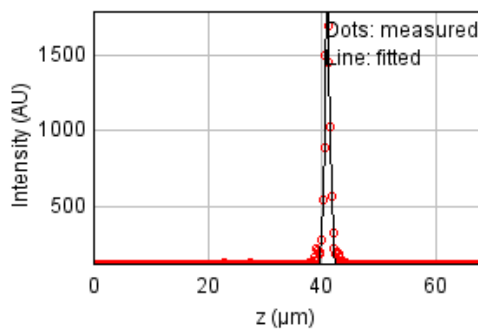
b = 0.082 px

c = 0.494 px

$x_c = 6.063$  px

$y_c = 6.392$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 85741.0239

Standard deviation: 16.71187

$R^2$ : 0.99221

Parameters:

a = 115.00063

b = 1828.23702

c = 41.03677

d = 0.47340



## Bead 1865

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

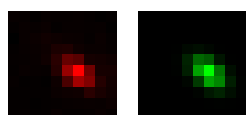
Coordinates : 140  $\mu\text{m}$  (x), -45.6  $\mu\text{m}$  (y), 40.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

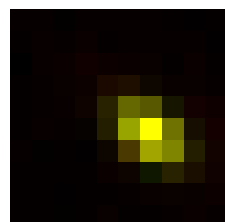
FWHM	Non corrected	Corrected	Theoretical
min	366 nm	379 nm	223 nm
max	589 nm	609 nm	223 nm
z	1.29 $\mu\text{m}$	1.3 $\mu\text{m}$	885 nm
Asymmetry	0.621		
Theta	-39.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 834.395 (brightness)

B = 116.779 (background)

a = 0.632 px

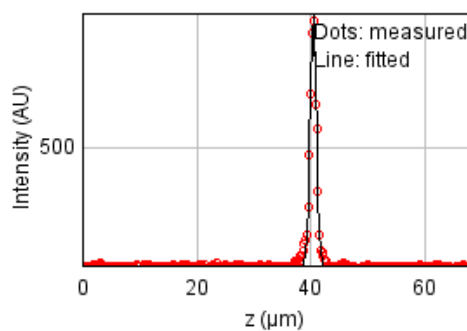
b = -0.301 px

c = 0.755 px

xc = 5.941 px

yc = 5.183 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37087.7462

Standard deviation: 10.99122

$R^2$ : 0.98743

Parameters:

a = 111.86855

b = 936.24081

c = 40.49747

d = 0.54792

## Bead 1866

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

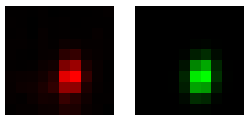
Coordinates : -81.9  $\mu\text{m}$  (x), -68.0  $\mu\text{m}$  (y), 40.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

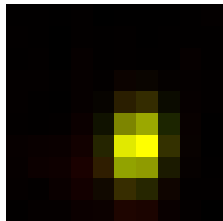
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	402 nm	223 nm
max	547 nm	565 nm	223 nm
z	1.36 $\mu\text{m}$	1.37 $\mu\text{m}$	885 nm
Asymmetry	0.71		
Theta	80.8°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.982$



Parameters:

$A = 1285.047$  (brightness)

$B = 127.398$  (background)

$a = 0.878$  px

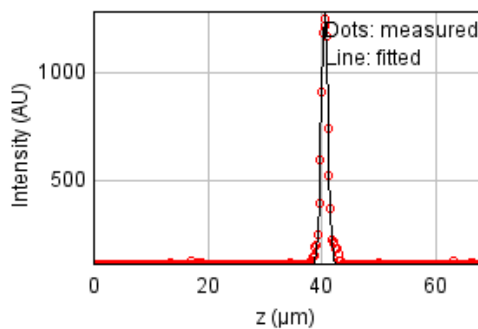
$b = 0.070$  px

$c = 0.460$  px

$x_c = 5.551$  px

$y_c = 6.026$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 64877.1376

Standard deviation: 14.53706

$R^2: 0.98981$

Parameters:

$a = 115.25518$

$b = 1295.90681$

$c = 40.55449$

$d = 0.57838$

## Bead 1867

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

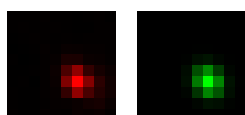
Coordinates : 87.8  $\mu\text{m}$  (x), -72.8  $\mu\text{m}$  (y), 40.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	415 nm	429 nm	223 nm
max	482 nm	498 nm	223 nm
z	1.38 $\mu\text{m}$	1.38 $\mu\text{m}$	885 nm
Asymmetry	0.861		
Theta	-53.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1719.209$  (brightness)

$B = 125.229$  (background)

$a = 0.706$  px

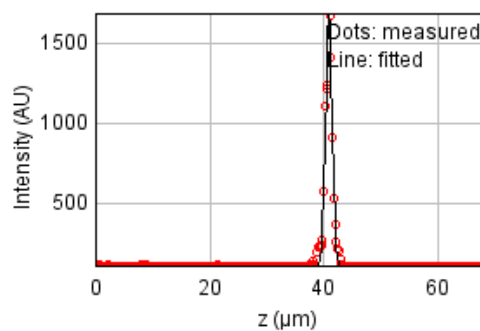
$b = -0.097$  px

$c = 0.650$  px

$x_c = 6.029$  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: 256954.894

Standard deviation: 28.93072

$R^2: 0.97770$

Parameters:

$a = 114.64647$

$b = 1685.38528$

$c = 40.94366$

$d = 0.58452$

## Bead 1868 (Rejected)

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

Coordinates : 58.5  $\mu\text{m}$  (x), 81.1  $\mu\text{m}$  (y), 41.4  $\mu\text{m}$  (z)

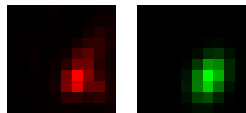
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	463 nm	479 nm	223 nm
max	653 nm	675 nm	223 nm
z	1.47 $\mu\text{m}$	1.48 $\mu\text{m}$	885 nm
Asymmetry	0.709		
Theta	62.8°		

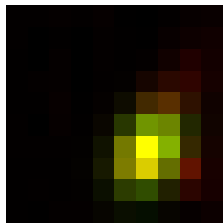
### XY profile & fitting parameters :

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



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

$R^2 = 0.893$



Parameters:

A = 696.001 (brightness)

B = 127.994 (background)

a = 0.560 px

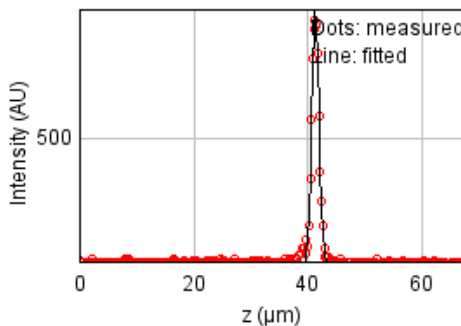
b = 0.126 px

c = 0.380 px

xc = 6.134 px

yc = 6.164 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27730.3038

Standard deviation: 9.50404

$R^2$ : 0.99088

Parameters:

a = 114.00701

b = 900.09295

c = 41.38241

d = 0.62545

## Bead 1869

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

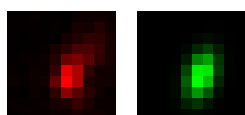
Coordinates : 112  $\mu\text{m}$  (x), 46.5  $\mu\text{m}$  (y), 40.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

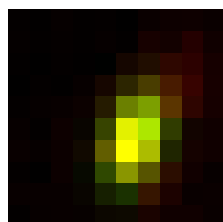
FWHM	Non corrected	Corrected	Theoretical
min	439 nm	454 nm	223 nm
max	735 nm	760 nm	223 nm
z	1.44 $\mu\text{m}$	1.45 $\mu\text{m}$	885 nm
Asymmetry	0.598		
Theta	71.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 439.230 (brightness)

B = 126.591 (background)

a = 0.653 px

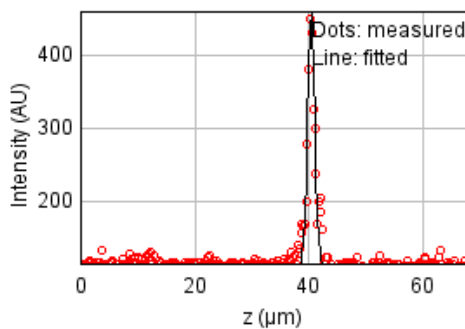
b = 0.132 px

c = 0.292 px

xc = 5.380 px

yc = 5.422 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 41468.1018

Standard deviation: 11.62219

$R^2$ : 0.93219

Parameters:

a = 113.43722

b = 458.82687

c = 40.48594

d = 0.61275

## Bead 1870

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

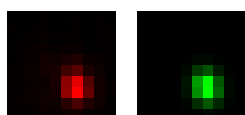
Coordinates : -152  $\mu\text{m}$  (x), 36.8  $\mu\text{m}$  (y), 41.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

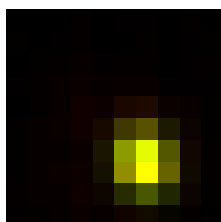
FWHM	Non corrected	Corrected	Theoretical
min	416 nm	431 nm	223 nm
max	500 nm	517 nm	223 nm
z	1.28 $\mu\text{m}$	1.29 $\mu\text{m}$	885 nm
Asymmetry	0.833		
Theta	-76.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1204.999 (brightness)

B = 128.934 (background)

a = 0.761 px

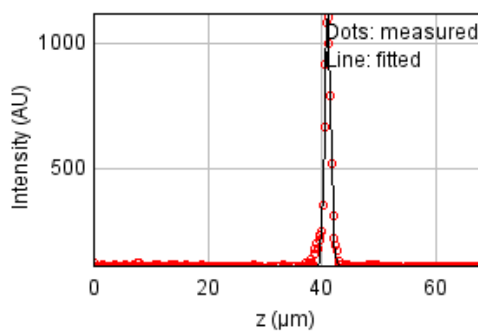
b = -0.053 px

c = 0.550 px

$x_c = 5.847$  px

$y_c = 6.508$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 57971.2247

Standard deviation: 13.74159

$R^2$ : 0.98688

Parameters:

a = 112.80164

b = 1123.40528

c = 41.08519

d = 0.54549

## Bead 1871

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

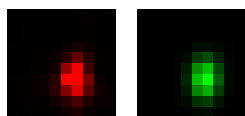
Coordinates : -29.3  $\mu\text{m}$  (x), 5.07  $\mu\text{m}$  (y), 41.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

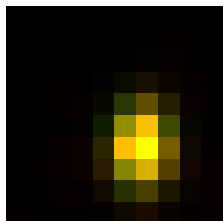
FWHM	Non corrected	Corrected	Theoretical
min	453 nm	468 nm	223 nm
max	640 nm	662 nm	223 nm
z	1.31 $\mu\text{m}$	1.31 $\mu\text{m}$	885 nm
Asymmetry	0.708		
Theta	88.4°		

### 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 = 1694.024 (brightness)

B = 119.286 (background)

a = 0.654 px

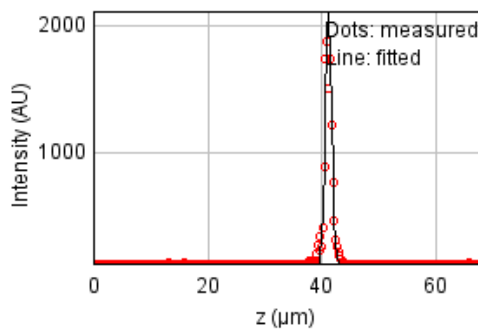
b = 0.009 px

c = 0.328 px

$x_c = 5.729$  px

$y_c = 5.937$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 889923.704

Standard deviation: 53.84027

$R^2$ : 0.95241

Parameters:

a = 115.71668

b = 2139.62210

c = 41.22353

d = 0.55582

## Bead 1872

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

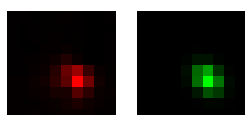
Coordinates : -64.5  $\mu\text{m}$  (x), -28.8  $\mu\text{m}$  (y), 41.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

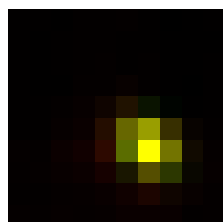
FWHM	Non corrected	Corrected	Theoretical
min	359 nm	371 nm	223 nm
max	468 nm	483 nm	223 nm
z	1.05 $\mu\text{m}$	1.05 $\mu\text{m}$	885 nm
Asymmetry	0.769		
Theta	-44.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1724.297$  (brightness)

$B = 132.025$  (background)

$a = 0.822$  px

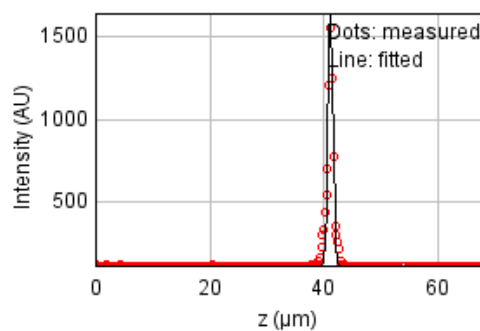
$b = -0.213$  px

$c = 0.831$  px

$x_c = 5.964$  px

$y_c = 5.779$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 263033.228

Standard deviation: 29.27090

$R^2: 0.96963$

Parameters:

$a = 117.32409$

$b = 1666.56806$

$c = 41.23212$

$d = 0.44467$



## Bead 1873

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

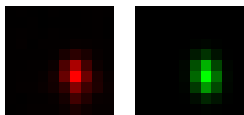
Coordinates : -13.9  $\mu\text{m}$  (x), -57.8  $\mu\text{m}$  (y), 41.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

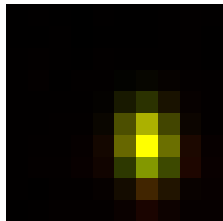
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	404 nm	223 nm
max	553 nm	572 nm	223 nm
z	1.26 $\mu\text{m}$	1.27 $\mu\text{m}$	885 nm
Asymmetry	0.707		
Theta	-83.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1968.175 (brightness)

B = 133.300 (background)

a = 0.872 px

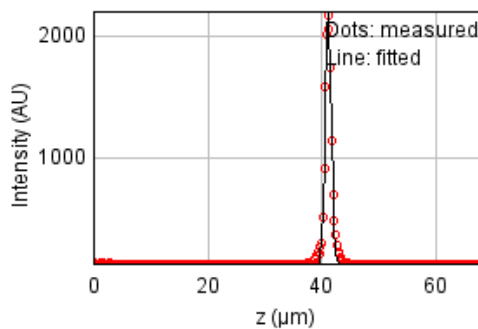
b = -0.050 px

c = 0.444 px

$x_c = 6.016$  px

$y_c = 5.919$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 142376.498

Standard deviation: 21.53525

$R^2$ : 0.99231

Parameters:

a = 118.17791

b = 2210.95488

c = 41.18438

d = 0.53598

## Bead 1874

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

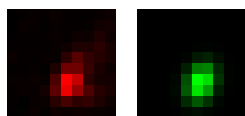
Coordinates : 90.1  $\mu\text{m}$  (x), 54.5  $\mu\text{m}$  (y), 41.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

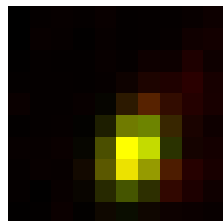
FWHM	Non corrected	Corrected	Theoretical
min	436 nm	451 nm	223 nm
max	593 nm	613 nm	223 nm
z	1.83 $\mu\text{m}$	1.84 $\mu\text{m}$	885 nm
Asymmetry	0.736		
Theta	68.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 581.021 (brightness)

B = 127.133 (background)

a = 0.660 px

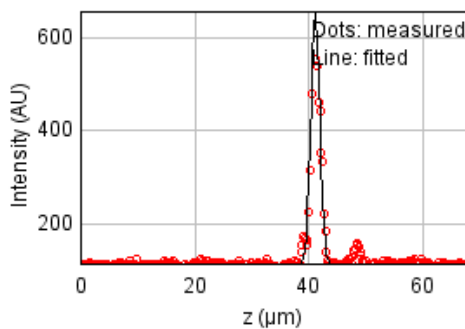
b = 0.112 px

c = 0.427 px

xc = 5.339 px

yc = 6.267 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 75828.6863

Standard deviation: 15.71620

$R^2$ : 0.95862

Parameters:

a = 114.75481

b = 655.10303

c = 41.19107

d = 0.77844

## Bead 1875

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

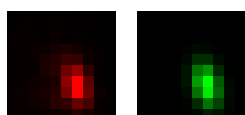
Coordinates : -106  $\mu\text{m}$  (x), 47.9  $\mu\text{m}$  (y), 41.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

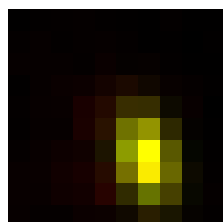
FWHM	Non corrected	Corrected	Theoretical
min	407 nm	420 nm	223 nm
max	685 nm	708 nm	223 nm
z	1.4 $\mu\text{m}$	1.41 $\mu\text{m}$	885 nm
Asymmetry	0.594		
Theta	-76.2°		

### 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 = 966.678 (brightness)

B = 133.788 (background)

a = 0.782 px

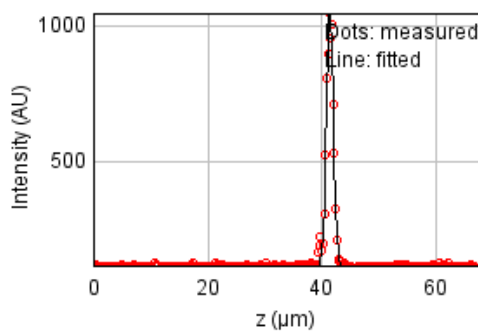
b = -0.122 px

c = 0.316 px

$x_c = 5.867$  px

$y_c = 6.317$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 56572.6303

Standard deviation: 13.57482

$R^2$ : 0.98665

Parameters:

a = 113.82841

b = 1062.41095

c = 41.46578

d = 0.59529

## Bead 1876

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

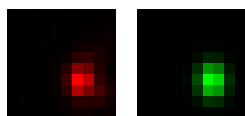
Coordinates : 34.8  $\mu\text{m}$  (x), 29.5  $\mu\text{m}$  (y), 41.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

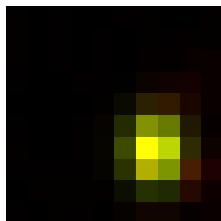
FWHM	Non corrected	Corrected	Theoretical
min	436 nm	451 nm	223 nm
max	537 nm	555 nm	223 nm
z	1.53 $\mu\text{m}$	1.53 $\mu\text{m}$	885 nm
Asymmetry	0.812		
Theta	-88.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1311.275$  (brightness)

$B = 127.116$  (background)

$a = 0.705$  px

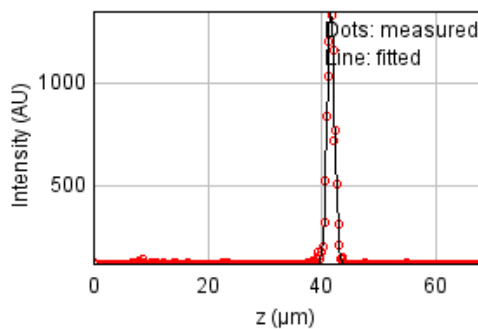
$b = -0.006$  px

$c = 0.466$  px

$x_c = 6.372$  px

$y_c = 6.104$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 86238.5239

Standard deviation: 16.76029

$R^2: 0.98901$

Parameters:

$a = 114.96318$

$b = 1355.01942$

$c = 41.63599$

$d = 0.64834$

## Bead 1877

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

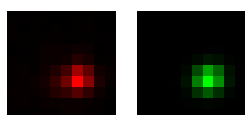
Coordinates : -123  $\mu\text{m}$  (x), 12.6  $\mu\text{m}$  (y), 41.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

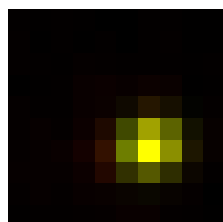
FWHM	Non corrected	Corrected	Theoretical
min	415 nm	429 nm	223 nm
max	462 nm	477 nm	223 nm
z	1.19 $\mu\text{m}$	1.19 $\mu\text{m}$	885 nm
Asymmetry	0.899		
Theta	18.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1556.089 (brightness)

B = 134.180 (background)

a = 0.645 px

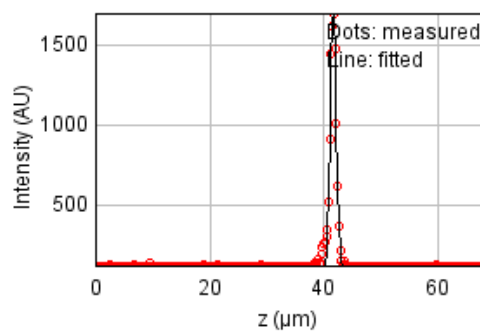
b = 0.046 px

c = 0.763 px

$x_c = 6.063$  px

$y_c = 5.797$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 108974.095

Standard deviation: 18.84050

$R^2$ : 0.98942

Parameters:

a = 115.05347

b = 1718.95999

c = 41.70969

d = 0.50483

## Bead 1878

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

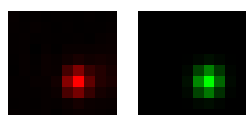
Coordinates : 138  $\mu\text{m}$  (x), 9.68  $\mu\text{m}$  (y), 41.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

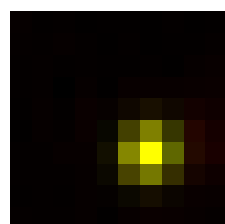
FWHM	Non corrected	Corrected	Theoretical
min	413 nm	427 nm	223 nm
max	434 nm	448 nm	223 nm
z	1.23 $\mu\text{m}$	1.23 $\mu\text{m}$	885 nm
Asymmetry	0.952		
Theta	68.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1106.248 (brightness)

B = 120.132 (background)

a = 0.777 px

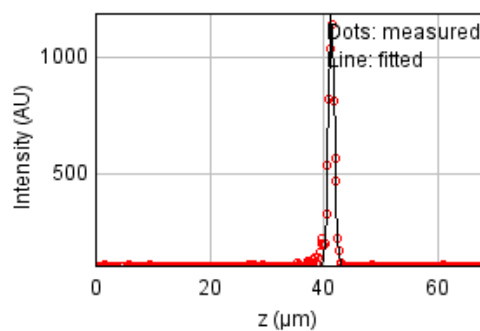
b = 0.026 px

c = 0.724 px

xc = 5.913 px

yc = 5.982 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 66888.5485

Standard deviation: 14.76069

$R^2$ : 0.98594

Parameters:

a = 111.98250

b = 1184.11856

c = 41.38384

d = 0.52084

## Bead 1879

Date : Mon Oct 17 13:29:18 PDT 2022

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

Frame size : 10 pixels

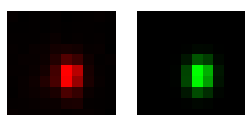
Coordinates : -113  $\mu\text{m}$  (x), -27.2  $\mu\text{m}$  (y), 40.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

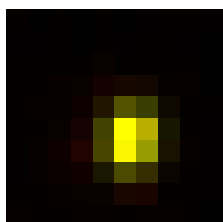
FWHM	Non corrected	Corrected	Theoretical
min	395 nm	408 nm	223 nm
max	484 nm	500 nm	223 nm
z	1.16 $\mu\text{m}$	1.17 $\mu\text{m}$	885 nm
Asymmetry	0.816		
Theta	83.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1058.082$  (brightness)

$B = 125.619$  (background)

$a = 0.856$  px

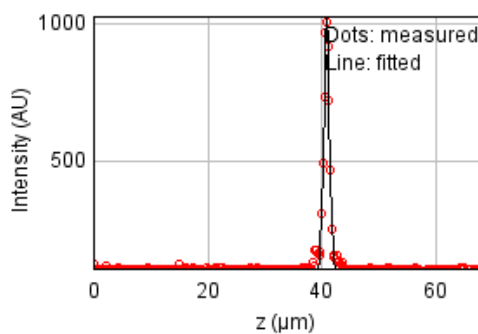
$b = 0.034$  px

$c = 0.578$  px

$x_c = 5.260$  px

$y_c = 5.452$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34755.0203

Standard deviation: 10.63995

$R^2 = 0.98933$

Parameters:

$a = 112.84533$

$b = 1024.35329$

$c = 40.90161$

$d = 0.49421$

## Bead 1880

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

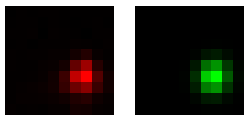
Coordinates : -39.7  $\mu\text{m}$  (x), -48.2  $\mu\text{m}$  (y), 41.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

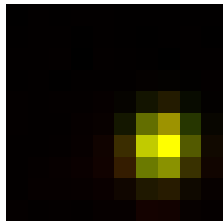
FWHM	Non corrected	Corrected	Theoretical
min	455 nm	470 nm	223 nm
max	494 nm	510 nm	223 nm
z	1.4 $\mu\text{m}$	1.41 $\mu\text{m}$	885 nm
Asymmetry	0.922		
Theta	73.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1630.457 (brightness)

B = 126.733 (background)

a = 0.640 px

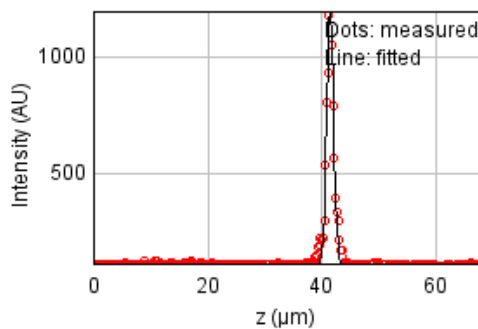
b = 0.026 px

c = 0.559 px

$x_c = 6.682$  px

$y_c = 6.012$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 107332.876

Standard deviation: 18.69809

$R^2$ : 0.98078

Parameters:

a = 116.22883

b = 1201.78455

c = 41.50821

d = 0.59550



## Bead 1881

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

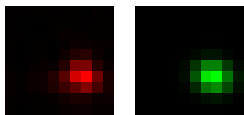
Coordinates : -56.2  $\mu\text{m}$  (x), -85.6  $\mu\text{m}$  (y), 41.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

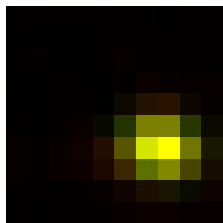
FWHM	Non corrected	Corrected	Theoretical
min	451 nm	466 nm	223 nm
max	557 nm	575 nm	223 nm
z	1.45 $\mu\text{m}$	1.45 $\mu\text{m}$	885 nm
Asymmetry	0.809		
Theta	-10.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1205.695$  (brightness)

$B = 124.425$  (background)

$a = 0.441$  px

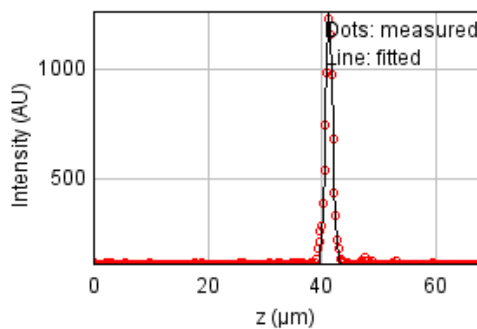
$b = -0.042$  px

$c = 0.653$  px

$x_c = 6.624$  px

$y_c = 5.994$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 60948.5488

Standard deviation: 14.09005

$R^2: 0.99034$

Parameters:

$a = 115.71836$

$b = 1257.82001$

$c = 41.32442$

$d = 0.61430$

## Bead 1882

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

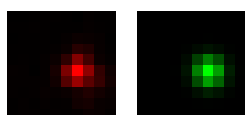
Coordinates : 40.9  $\mu\text{m}$  (x), -89.3  $\mu\text{m}$  (y), 41.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

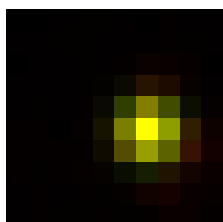
FWHM	Non corrected	Corrected	Theoretical
min	470 nm	486 nm	223 nm
max	479 nm	495 nm	223 nm
z	1.27 $\mu\text{m}$	1.28 $\mu\text{m}$	885 nm
Asymmetry	0.982		
Theta	-42.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1677.774$  (brightness)

$B = 134.135$  (background)

$a = 0.595$  px

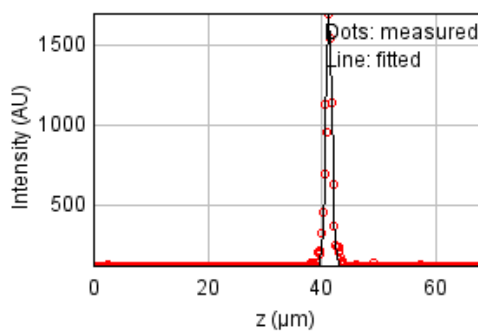
$b = -0.011$  px

$c = 0.597$  px

$x_c = 6.093$  px

$y_c = 5.098$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 327855.484

Standard deviation: 32.67925

$R^2: 0.97023$

Parameters:

$a = 116.24168$

$b = 1706.35670$

$c = 41.29045$

$d = 0.53979$

## Bead 1883

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

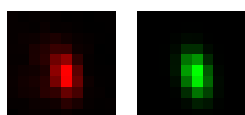
Coordinates : -106  $\mu\text{m}$  (x), 47.9  $\mu\text{m}$  (y), 41.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

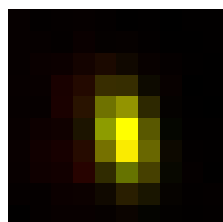
FWHM	Non corrected	Corrected	Theoretical
min	407 nm	421 nm	223 nm
max	684 nm	707 nm	223 nm
z	1.4 $\mu\text{m}$	1.41 $\mu\text{m}$	885 nm
Asymmetry	0.595		
Theta	-76.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 967.665$  (brightness)

$B = 133.245$  (background)

$a = 0.781$  px

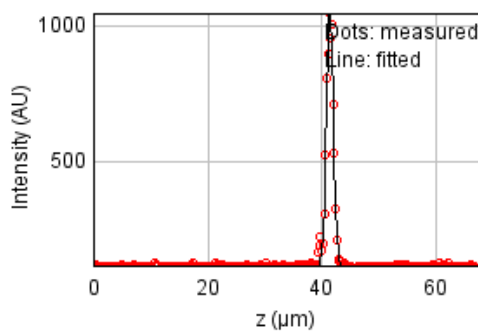
$b = -0.121$  px

$c = 0.317$  px

$x_c = 4.866$  px

$y_c = 5.316$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 56572.6303

Standard deviation: 13.57482

$R^2: 0.98665$

Parameters:

$a = 113.82841$

$b = 1062.41095$

$c = 41.46578$

$d = 0.59529$

## Bead 1884

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

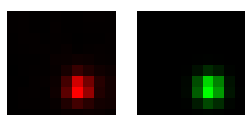
Coordinates : 120 µm (x), -40.0 µm (y), 41.8 µm (z)

Corresponding bead : Not found

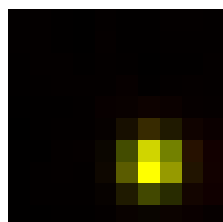
FWHM	Non corrected	Corrected	Theoretical
min	418 nm	432 nm	223 nm
max	430 nm	444 nm	223 nm
z	1.3 µm	1.3 µm	885 nm
Asymmetry	0.972		
Theta	85.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1555.040 (brightness)

B = 121.817 (background)

a = 0.769 px

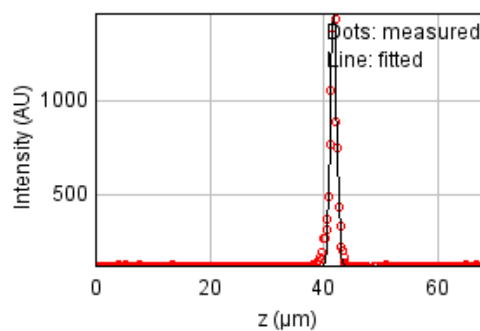
b = 0.003 px

c = 0.726 px

xc = 6.170 px

yc = 6.626 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 137827.005

Standard deviation: 21.18839

$R^2$ : 0.98284

Parameters:

a = 113.38581

b = 1466.53360

c = 41.77281

d = 0.55107

## Bead 1885

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

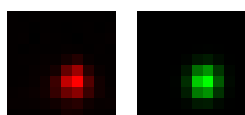
Coordinates : -39.7  $\mu\text{m}$  (x), -48.2  $\mu\text{m}$  (y), 41.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

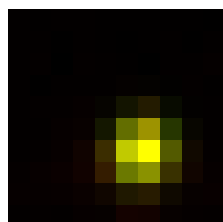
FWHM	Non corrected	Corrected	Theoretical
min	455 nm	470 nm	223 nm
max	493 nm	510 nm	223 nm
z	1.4 $\mu\text{m}$	1.41 $\mu\text{m}$	885 nm
Asymmetry	0.922		
Theta	73.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1630.637 (brightness)

B = 127.309 (background)

a = 0.641 px

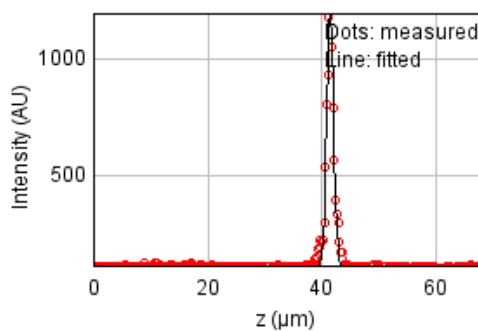
b = 0.026 px

c = 0.560 px

xc = 5.682 px

yc = 6.012 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 107332.876

Standard deviation: 18.69809

$R^2$ : 0.98078

Parameters:

a = 116.22883

b = 1201.78455

c = 41.50821

d = 0.59550

## Bead 1886

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

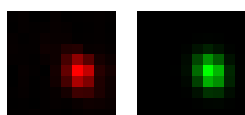
Coordinates : 122  $\mu\text{m}$  (x), -86.7  $\mu\text{m}$  (y), 41.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

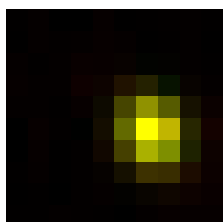
FWHM	Non corrected	Corrected	Theoretical
min	459 nm	474 nm	223 nm
max	553 nm	572 nm	223 nm
z	1.28 $\mu\text{m}$	1.29 $\mu\text{m}$	885 nm
Asymmetry	0.829		
Theta	-69.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 778.539 (brightness)

B = 117.371 (background)

a = 0.614 px

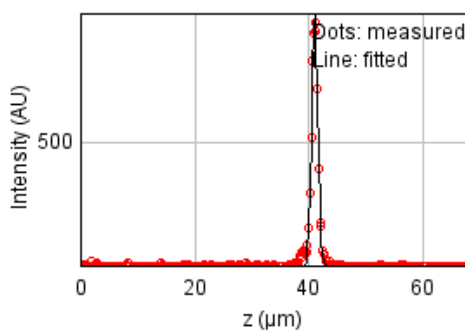
b = -0.065 px

c = 0.462 px

xc = 6.234 px

yc = 5.138 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31639.3554

Standard deviation: 10.15184

$R^2$ : 0.98841

Parameters:

a = 112.30913

b = 908.39987

c = 41.09449

d = 0.54394

## Bead 1887

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

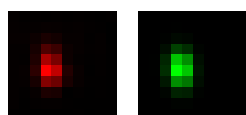
Coordinates : -87.7  $\mu\text{m}$  (x), 84.3  $\mu\text{m}$  (y), 59.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

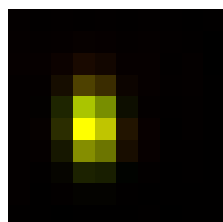
FWHM	Non corrected	Corrected	Theoretical
min	365 nm	378 nm	223 nm
max	563 nm	582 nm	223 nm
z	1.24 $\mu\text{m}$	1.24 $\mu\text{m}$	885 nm
Asymmetry	0.649		
Theta	-86.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1879.037$  (brightness)

$B = 125.107$  (background)

$a = 1.004$  px

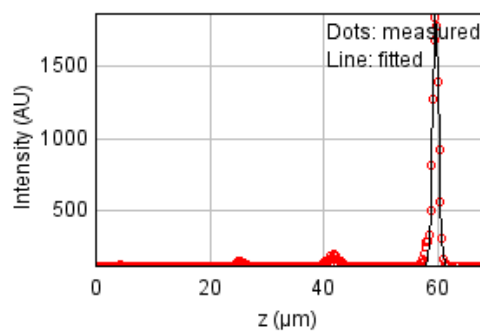
$b = -0.033$  px

$c = 0.425$  px

$x_c = 3.363$  px

$y_c = 4.837$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 145655.495

Standard deviation: 21.78182

$R^2: 0.98851$

Parameters:

$a = 120.36007$

$b = 1866.05956$

$c = 59.64444$

$d = 0.52459$

## Bead 1888

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

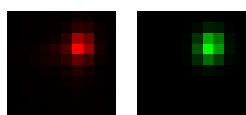
Coordinates : -42.4  $\mu\text{m}$  (x), 22.3  $\mu\text{m}$  (y), 31.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

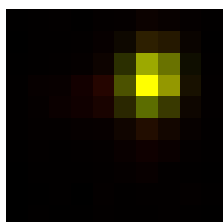
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	410 nm	223 nm
max	467 nm	482 nm	223 nm
z	1.12 $\mu\text{m}$	1.13 $\mu\text{m}$	885 nm
Asymmetry	0.851		
Theta	73.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1897.251 (brightness)

B = 139.342 (background)

a = 0.833 px

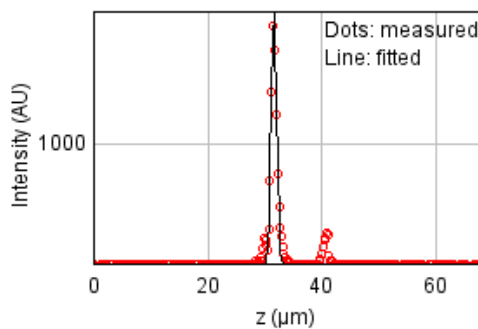
b = 0.064 px

c = 0.635 px

xc = 6.201 px

yc = 2.808 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 489203.163

Standard deviation: 39.91861

$R^2$ : 0.96331

Parameters:

a = 123.29573

b = 1975.19176

c = 31.67215

d = 0.47682



## Bead 1889

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

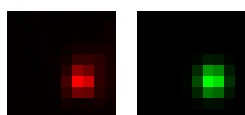
Coordinates : 110 µm (x), 8.38 µm (y), 41.8 µm (z)

Corresponding bead : Not found

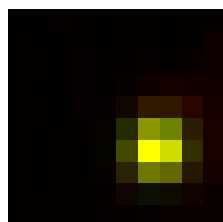
FWHM	Non corrected	Corrected	Theoretical
min	438 nm	453 nm	223 nm
max	459 nm	474 nm	223 nm
z	1.56 µm	1.56 µm	885 nm
Asymmetry	0.955		
Theta	85.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1165.866 (brightness)

B = 123.845 (background)

a = 0.699 px

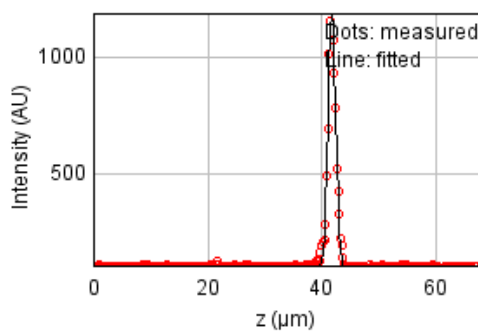
b = 0.005 px

c = 0.639 px

xc = 6.392 px

yc = 5.910 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 60655.4038

Standard deviation: 14.05612

$R^2$ : 0.98976

Parameters:

a = 113.15197

b = 1181.21782

c = 41.82155

d = 0.66086

## Bead 1890

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

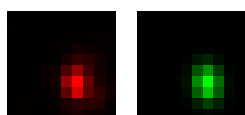
Coordinates : 24.6  $\mu\text{m}$  (x), -4.0  $\mu\text{m}$  (y), 41.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

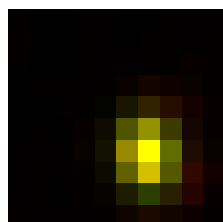
FWHM	Non corrected	Corrected	Theoretical
min	426 nm	441 nm	223 nm
max	565 nm	584 nm	223 nm
z	1.41 $\mu\text{m}$	1.42 $\mu\text{m}$	885 nm
Asymmetry	0.754		
Theta	-83.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1536.349 (brightness)

B = 134.069 (background)

a = 0.735 px

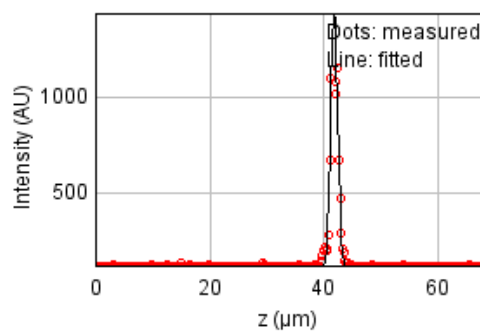
b = -0.034 px

c = 0.424 px

xc = 5.927 px

yc = 6.162 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 400468.747

Standard deviation: 36.11729

$R^2$ : 0.95409

Parameters:

a = 113.75179

b = 1447.84175

c = 41.87675

d = 0.59923

## Bead 1891

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

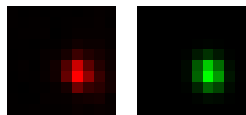
Coordinates : 88.7  $\mu\text{m}$  (x), -25.2  $\mu\text{m}$  (y), 42.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

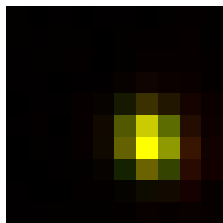
FWHM	Non corrected	Corrected	Theoretical
min	421 nm	436 nm	223 nm
max	485 nm	501 nm	223 nm
z	1.49 $\mu\text{m}$	1.49 $\mu\text{m}$	885 nm
Asymmetry	0.869		
Theta	-69.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1321.343$  (brightness)

$B = 124.347$  (background)

$a = 0.734$  px

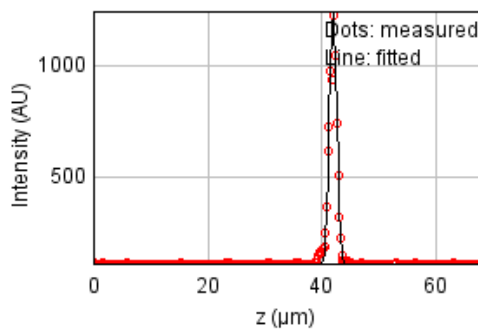
$b = -0.060$  px

$c = 0.592$  px

$x_c = 6.126$  px

$y_c = 5.708$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 119702.043

Standard deviation: 19.74611

$R^2: 0.98124$

Parameters:

$a = 112.48287$

$b = 1240.54007$

$c = 42.03021$

$d = 0.63140$

## Bead 1892

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

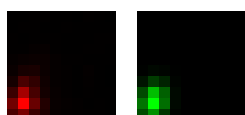
Coordinates : -5.28  $\mu\text{m}$  (x), -45.5  $\mu\text{m}$  (y), 63.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	402 nm	415 nm	223 nm
max	568 nm	587 nm	223 nm
z	1.15 $\mu\text{m}$	1.16 $\mu\text{m}$	885 nm
Asymmetry	0.708		
Theta	79.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 2076.446 (brightness)

B = 134.087 (background)

a = 0.817 px

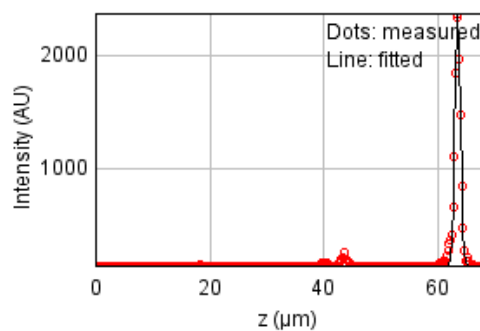
b = 0.075 px

c = 0.430 px

$x_c = 1.000$  px

$y_c = 7.843$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 227963.498

Standard deviation: 27.24981

$R^2$ : 0.98873

Parameters:

a = 121.30949

b = 2403.64234

c = 63.50948

d = 0.48925

## Bead 1893

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

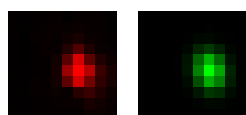
Coordinates : 80.3  $\mu\text{m}$  (x), -89.5  $\mu\text{m}$  (y), 41.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

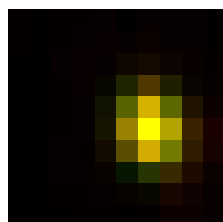
FWHM	Non corrected	Corrected	Theoretical
min	482 nm	498 nm	223 nm
max	603 nm	623 nm	223 nm
z	1.46 $\mu\text{m}$	1.47 $\mu\text{m}$	885 nm
Asymmetry	0.799		
Theta	-75.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1097.122 (brightness)

B = 121.118 (background)

a = 0.565 px

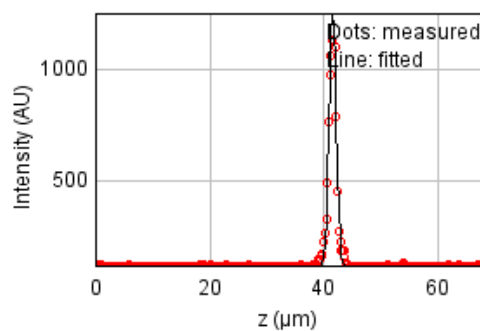
b = -0.051 px

c = 0.383 px

xc = 6.105 px

yc = 4.991 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 149073.744

Standard deviation: 22.03593

$R^2$ : 0.97679

Parameters:

a = 113.81958

b = 1252.12213

c = 41.60535

d = 0.62104

## Bead 1894

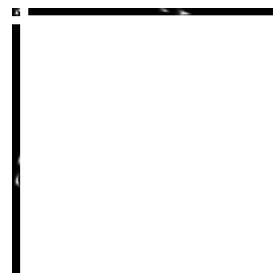
Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

Coordinates : -114  $\mu\text{m}$  (x), 82.8  $\mu\text{m}$  (y), 41.9  $\mu\text{m}$  (z)

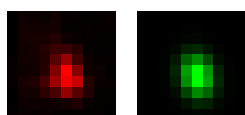
Corresponding bead : Not found



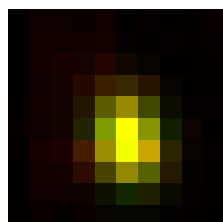
FWHM	Non corrected	Corrected	Theoretical
min	504 nm	521 nm	223 nm
max	669 nm	692 nm	223 nm
z	1.48 $\mu\text{m}$	1.49 $\mu\text{m}$	885 nm
Asymmetry	0.753		
Theta	-76.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 658.787 (brightness)

B = 123.473 (background)

a = 0.516 px

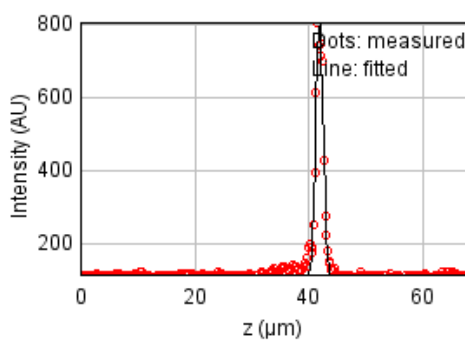
b = -0.053 px

c = 0.313 px

$x_c = 5.024$  px

$y_c = 5.494$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 72773.3259

Standard deviation: 15.39632

$R^2$ : 0.97025

Parameters:

a = 115.03854

b = 810.77133

c = 41.92618

d = 0.62926

## Bead 1895

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

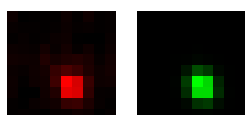
Coordinates : -164  $\mu\text{m}$  (x), 58.9  $\mu\text{m}$  (y), 41.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

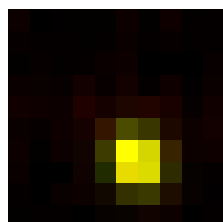
FWHM	Non corrected	Corrected	Theoretical
min	394 nm	408 nm	223 nm
max	458 nm	473 nm	223 nm
z	1.41 $\mu\text{m}$	1.41 $\mu\text{m}$	885 nm
Asymmetry	0.861		
Theta	-64.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 480.215$  (brightness)

$B = 121.401$  (background)

$a = 0.821$  px

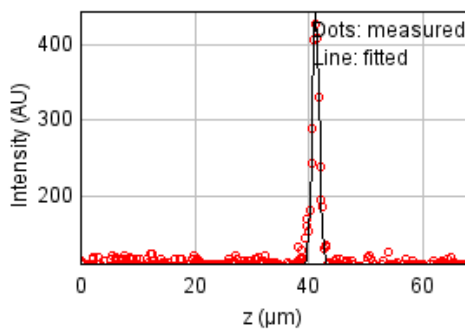
$b = -0.088$  px

$c = 0.683$  px

$x_c = 5.439$  px

$y_c = 6.444$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22731.8323

Standard deviation: 8.60494

$R^2: 0.95862$

Parameters:

$a = 110.89356$

$b = 446.80147$

$c = 41.26656$

$d = 0.59802$

## Bead 1896

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

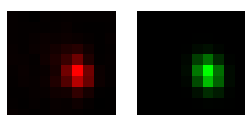
Coordinates : -134  $\mu\text{m}$  (x), 36.0  $\mu\text{m}$  (y), 41.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

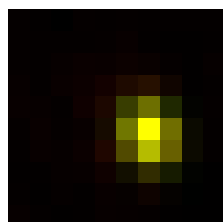
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	415 nm	223 nm
max	497 nm	514 nm	223 nm
z	1.31 $\mu\text{m}$	1.31 $\mu\text{m}$	885 nm
Asymmetry	0.808		
Theta	-72.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 983.009 (brightness)

B = 127.376 (background)

a = 0.805 px

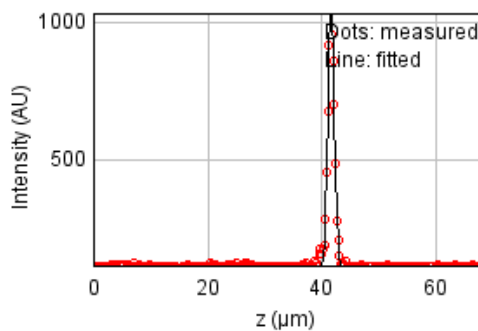
b = -0.084 px

c = 0.570 px

xc = 6.000 px

yc = 5.231 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35578.2887

Standard deviation: 10.76523

$R^2$ : 0.99075

Parameters:

a = 113.52827

b = 1049.35923

c = 41.68314

d = 0.55608



## Bead 1897

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

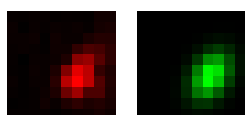
Coordinates : 85.0  $\mu\text{m}$  (x), 34.9  $\mu\text{m}$  (y), 42.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

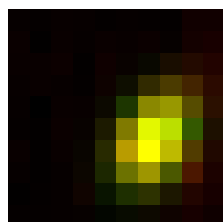
FWHM	Non corrected	Corrected	Theoretical
min	535 nm	553 nm	223 nm
max	782 nm	808 nm	223 nm
z	1.56 $\mu\text{m}$	1.57 $\mu\text{m}$	885 nm
Asymmetry	0.684		
Theta	59.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 588.526 (brightness)

B = 116.738 (background)

a = 0.406 px

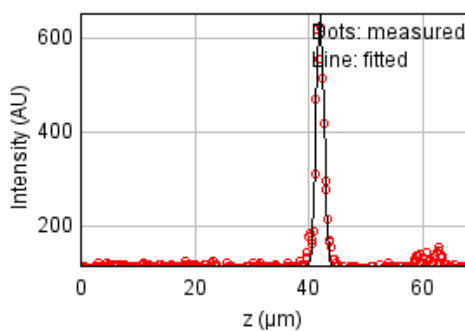
b = 0.108 px

c = 0.282 px

xc = 6.249 px

yc = 5.463 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 61534.6762

Standard deviation: 14.15764

$R^2$ : 0.96040

Parameters:

a = 113.72209

b = 651.26625

c = 42.02076

d = 0.66414

## Bead 1898

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

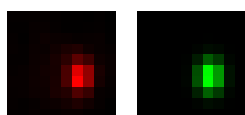
Coordinates : -137  $\mu\text{m}$  (x), 19.2  $\mu\text{m}$  (y), 41.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

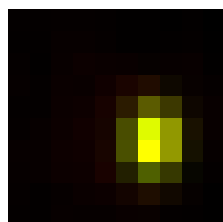
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	413 nm	223 nm
max	519 nm	536 nm	223 nm
z	1.15 $\mu\text{m}$	1.15 $\mu\text{m}$	885 nm
Asymmetry	0.771		
Theta	88.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1340.390 (brightness)

B = 136.057 (background)

a = 0.840 px

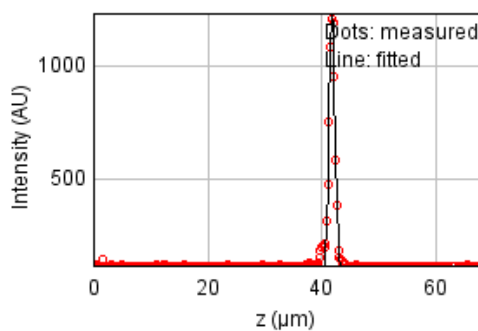
b = 0.009 px

c = 0.499 px

xc = 6.198 px

yc = 5.516 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 53469.3500

Standard deviation: 13.19724

$R^2$ : 0.98914

Parameters:

a = 113.12358

b = 1242.30021

c = 41.85173

d = 0.48641

## Bead 1899

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

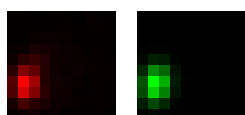
Coordinates : 76.8  $\mu\text{m}$  (x), -4.67  $\mu\text{m}$  (y), 53.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	418 nm	432 nm	223 nm
max	568 nm	587 nm	223 nm
z	1.35 $\mu\text{m}$	1.35 $\mu\text{m}$	885 nm
Asymmetry	0.736		
Theta	82.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1097.895 (brightness)

B = 128.518 (background)

a = 0.762 px

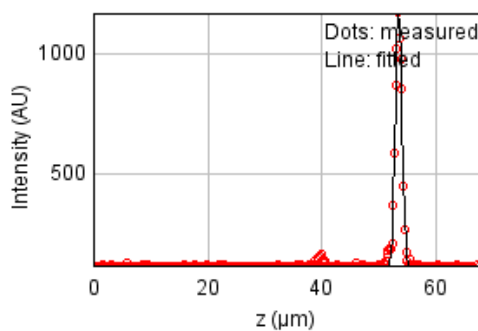
b = 0.048 px

c = 0.423 px

xc = 1.234 px

yc = 6.222 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 68906.7024

Standard deviation: 14.98172

$R^2$ : 0.98658

Parameters:

a = 115.00017

b = 1178.39370

c = 53.52706

d = 0.57304

## Bead 1900

Date : Mon Oct 17 13:29:19 PDT 2022

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

Frame size : 10 pixels

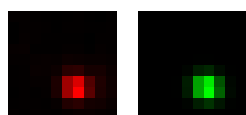
Coordinates : 137  $\mu\text{m}$  (x), -10.7  $\mu\text{m}$  (y), 42.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	392 nm	406 nm	223 nm
max	441 nm	455 nm	223 nm
z	1.29 $\mu\text{m}$	1.3 $\mu\text{m}$	885 nm
Asymmetry	0.891		
Theta	-14.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1445.271$  (brightness)

$B = 121.194$  (background)

$a = 0.703$  px

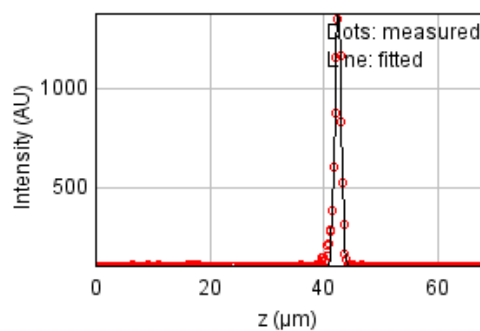
$b = -0.043$  px

$c = 0.861$  px

$x_c = 5.789$  px

$y_c = 6.543$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 76682.0187

Standard deviation: 15.80438

$R^2: 0.98908$

Parameters:

$a = 112.96209$

$b = 1384.39856$

$c = 42.54768$

$d = 0.54918$