

## Bead 2901 (Rejected)

Date : Mon Oct 17 13:30:06 PDT 2022

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

Frame size : 10 pixels

Coordinates : -39.0  $\mu\text{m}$  (x), 79.9  $\mu\text{m}$  (y), 60.7  $\mu\text{m}$  (z)

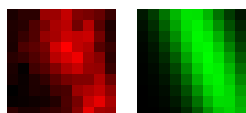
Corresponding bead : Not found

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

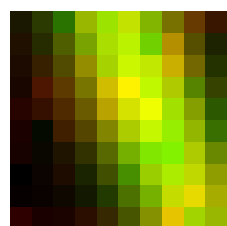
FWHM	Non corrected	Corrected	Theoretical
min	1.01 $\mu\text{m}$	1.05 $\mu\text{m}$	223 nm
max	5.06 $\mu\text{m}$	5.23 $\mu\text{m}$	223 nm
z	2.42 $\mu\text{m}$	2.43 $\mu\text{m}$	885 nm
Asymmetry	0.2		
Theta	-68.7°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.864$



Parameters:

A = 127.671 (brightness)

B = 122.953 (background)

a = 0.114 px

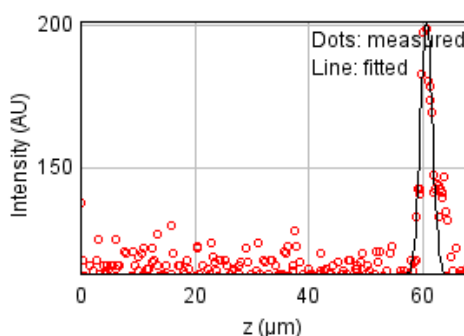
b = -0.043 px

c = 0.022 px

xc = 5.852 px

yc = 3.674 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18025.0113

Standard deviation: 7.66247

$R^2$ : 0.77438

Parameters:

a = 112.65502

b = 201.46357

c = 60.66640

d = 1.02905

## Bead 2902

Date : Mon Oct 17 13:30:06 PDT 2022

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

Frame size : 10 pixels

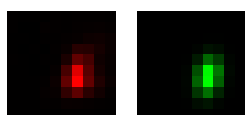
Coordinates : -25.7  $\mu\text{m}$  (x), 79.1  $\mu\text{m}$  (y), 62.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

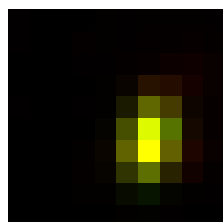
FWHM	Non corrected	Corrected	Theoretical
min	368 nm	381 nm	223 nm
max	571 nm	590 nm	223 nm
z	1.29 $\mu\text{m}$	1.3 $\mu\text{m}$	885 nm
Asymmetry	0.645		
Theta	79.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 2001.254 (brightness)

B = 135.191 (background)

a = 0.971 px

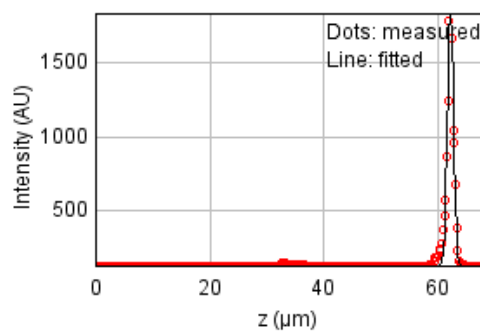
b = 0.101 px

c = 0.430 px

xc = 6.046 px

yc = 5.517 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 386606.383

Standard deviation: 35.48668

$R^2$ : 0.97050

Parameters:

a = 116.54481

b = 1838.08090

c = 62.24439

d = 0.54832

## Bead 2903 (Rejected)

Date : Mon Oct 17 13:30:06 PDT 2022

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

Frame size : 10 pixels

Coordinates : -38.9  $\mu\text{m}$  (x), 79.4  $\mu\text{m}$  (y), 60.7  $\mu\text{m}$  (z)

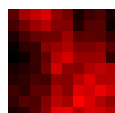
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	223 nm
max	0	0	223 nm
z	2.42 $\mu\text{m}$	2.43 $\mu\text{m}$	885 nm
Asymmetry	0.0		
Theta	0.0°		

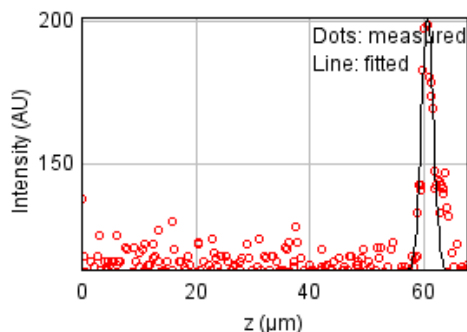
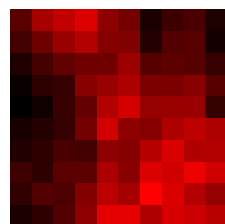
### XY profile & fitting parameters :

(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: 18025.0113

Standard deviation: 7.66247

R<sup>2</sup>: 0.77438

Parameters:

a = 112.65502

b = 201.46357

c = 60.66640

d = 1.02905

## Bead 2904 (Rejected)

Date : Mon Oct 17 13:30:06 PDT 2022

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

Frame size : 10 pixels

Coordinates : -80.6  $\mu\text{m}$  (x), 77.8  $\mu\text{m}$  (y), 62.6  $\mu\text{m}$  (z)

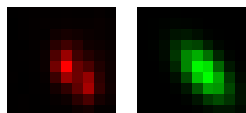
Corresponding bead : Not found

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

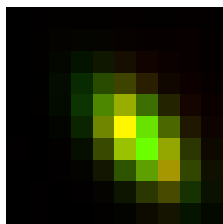
FWHM	Non corrected	Corrected	Theoretical
min	514 nm	532 nm	223 nm
max	979 nm	1.01 $\mu\text{m}$	223 nm
z	2.45 $\mu\text{m}$	2.46 $\mu\text{m}$	885 nm
Asymmetry	0.525		
Theta	-49.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.875$



Parameters:

A = 1680.493 (brightness)

B = 129.079 (background)

a = 0.350 px

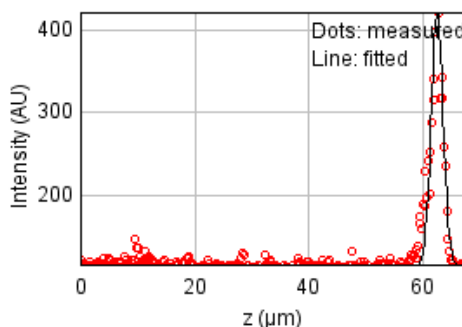
b = -0.182 px

c = 0.297 px

xc = 5.623 px

yc = 5.475 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 56225.2472

Standard deviation: 13.53308

$R^2$ : 0.92986

Parameters:

a = 115.14748

b = 421.85235

c = 62.55064

d = 1.04008

## Bead 2905

Date : Mon Oct 17 13:30:06 PDT 2022

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

Frame size : 10 pixels

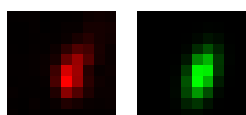
Coordinates : 28.0  $\mu\text{m}$  (x), 77.1  $\mu\text{m}$  (y), 61.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

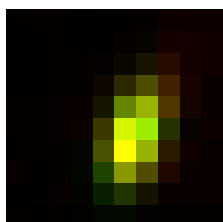
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	423 nm	223 nm
max	766 nm	792 nm	223 nm
z	1.43 $\mu\text{m}$	1.43 $\mu\text{m}$	885 nm
Asymmetry	0.534		
Theta	72.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 894.929 (brightness)

B = 124.874 (background)

a = 0.749 px

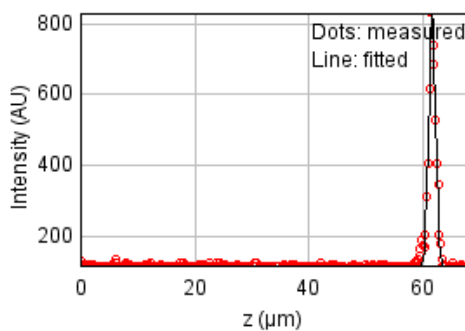
b = 0.167 px

c = 0.282 px

$x_c = 5.404$  px

$y_c = 5.338$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 44155.9223

Standard deviation: 11.99293

$R^2$ : 0.98227

Parameters:

a = 113.70226

b = 833.07504

c = 61.66169

d = 0.60596

## Bead 2906 (Rejected)

Date : Mon Oct 17 13:30:06 PDT 2022

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

Frame size : 10 pixels

Coordinates : -80.6  $\mu\text{m}$  (x), 77.8  $\mu\text{m}$  (y), 62.6  $\mu\text{m}$  (z)

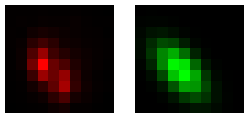
Corresponding bead : Not found

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

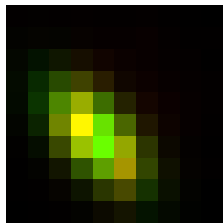
FWHM	Non corrected	Corrected	Theoretical
min	511 nm	528 nm	223 nm
max	974 nm	1.01 $\mu\text{m}$	223 nm
z	2.45 $\mu\text{m}$	2.46 $\mu\text{m}$	885 nm
Asymmetry	0.524		
Theta	-49.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.876$



Parameters:

A = 1679.821 (brightness)

B = 134.365 (background)

a = 0.354 px

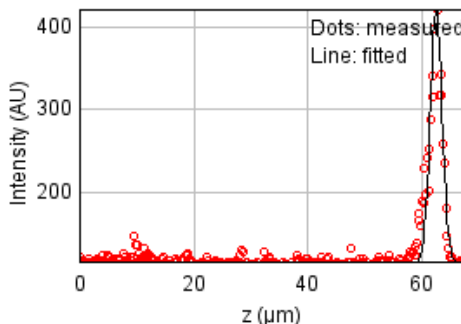
b = -0.185 px

c = 0.301 px

xc = 3.621 px

yc = 5.475 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 56225.2472

Standard deviation: 13.53308

$R^2$ : 0.92986

Parameters:

a = 115.14748

b = 421.85235

c = 62.55064

d = 1.04008

## Bead 2907

Date : Mon Oct 17 13:30:06 PDT 2022

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

Frame size : 10 pixels

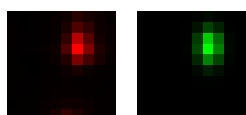
Coordinates : -107  $\mu\text{m}$  (x), 76.0  $\mu\text{m}$  (y), 62.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

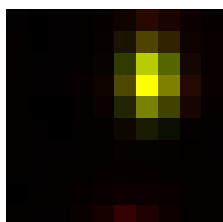
FWHM	Non corrected	Corrected	Theoretical
min	370 nm	383 nm	223 nm
max	548 nm	567 nm	223 nm
z	1.29 $\mu\text{m}$	1.3 $\mu\text{m}$	885 nm
Asymmetry	0.675		
Theta	-89.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1584.310 (brightness)

B = 143.204 (background)

a = 0.978 px

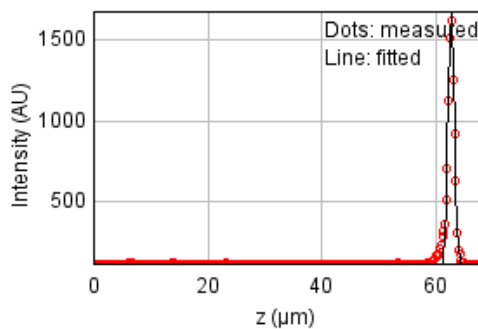
b = -0.003 px

c = 0.446 px

$x_c = 6.146$  px

$y_c = 2.751$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 121004.374

Standard deviation: 19.85324

$R^2$ : 0.98863

Parameters:

a = 115.15784

b = 1681.02686

c = 62.73992

d = 0.54847

## Bead 2908 (Rejected)

Date : Mon Oct 17 13:30:06 PDT 2022

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

Frame size : 10 pixels

Coordinates : -92.6  $\mu\text{m}$  (x), 71.2  $\mu\text{m}$  (y), 62.8  $\mu\text{m}$  (z)

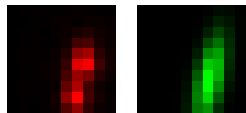
Corresponding bead : Not found

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

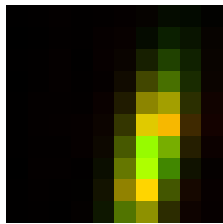
FWHM	Non corrected	Corrected	Theoretical
min	428 nm	443 nm	223 nm
max	1.37 $\mu\text{m}$	1.42 $\mu\text{m}$	223 nm
z	1.19 $\mu\text{m}$	1.19 $\mu\text{m}$	885 nm
Asymmetry	0.312		
Theta	77.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1681.245 (brightness)

B = 125.019 (background)

a = 0.702 px

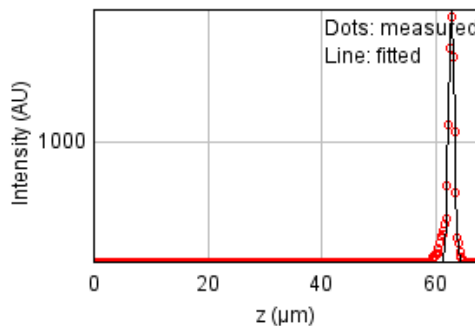
b = 0.136 px

c = 0.100 px

xc = 6.171 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: 241027.207

Standard deviation: 28.01972

$R^2$ : 0.98306

Parameters:

a = 118.51577

b = 1997.12928

c = 62.78713

d = 0.50513



## Bead 2909

Date : Mon Oct 17 13:30:06 PDT 2022

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

Frame size : 10 pixels

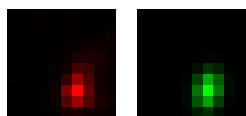
Coordinates : 31.2  $\mu\text{m}$  (x), 69.3  $\mu\text{m}$  (y), 62.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

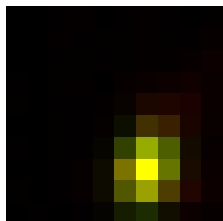
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	419 nm	223 nm
max	572 nm	591 nm	223 nm
z	1.24 $\mu\text{m}$	1.25 $\mu\text{m}$	885 nm
Asymmetry	0.709		
Theta	76.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1057.281$  (brightness)

$B = 125.499$  (background)

$a = 0.795$  px

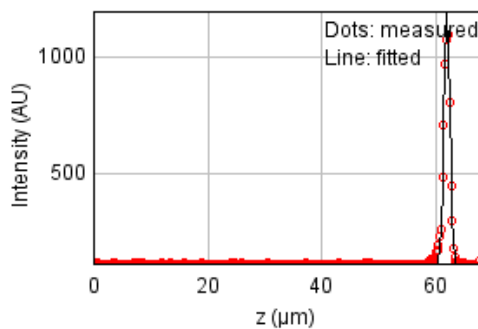
$b = 0.091$  px

$c = 0.432$  px

$x_c = 6.011$  px

$y_c = 6.960$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47959.4094

Standard deviation: 12.49878

$R^2: 0.99034$

Parameters:

$a = 114.03568$

$b = 1204.23571$

$c = 61.96154$

$d = 0.52788$

## Bead 2910 (Rejected)

Date : Mon Oct 17 13:30:06 PDT 2022

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

Frame size : 10 pixels

Coordinates : -26.0  $\mu\text{m}$  (x), 62.2  $\mu\text{m}$  (y), 59.7  $\mu\text{m}$  (z)

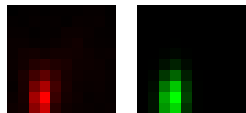
Corresponding bead : Not found

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

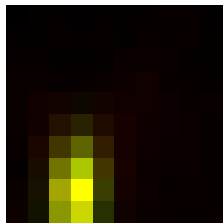
FWHM	Non corrected	Corrected	Theoretical
min	382 nm	394 nm	223 nm
max	793 nm	820 nm	223 nm
z	3.06 $\mu\text{m}$	3.07 $\mu\text{m}$	885 nm
Asymmetry	0.481		
Theta	86.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1317.705 (brightness)

B = 159.582 (background)

a = 0.919 px

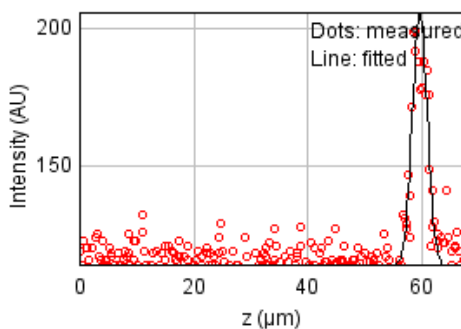
b = 0.044 px

c = 0.216 px

xc = 2.731 px

yc = 8.142 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16330.6998

Standard deviation: 7.29345

$R^2$ : 0.83566

Parameters:

a = 113.53382

b = 205.80430

c = 59.67083

d = 1.29894

## Bead 2911

Date : Mon Oct 17 13:30:06 PDT 2022

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

Frame size : 10 pixels

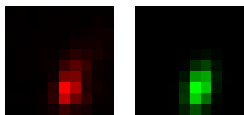
Coordinates : 29.6  $\mu\text{m}$  (x), 56.8  $\mu\text{m}$  (y), 62.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

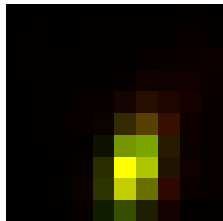
FWHM	Non corrected	Corrected	Theoretical
min	361 nm	373 nm	223 nm
max	638 nm	660 nm	223 nm
z	1.38 $\mu\text{m}$	1.39 $\mu\text{m}$	885 nm
Asymmetry	0.565		
Theta	74.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1336.609 (brightness)

B = 136.902 (background)

a = 0.982 px

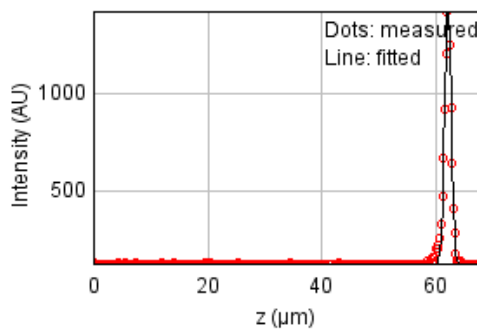
b = 0.181 px

c = 0.379 px

$x_c = 5.363$  px

$y_c = 7.035$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 60771.2142

Standard deviation: 14.06954

$R^2$ : 0.99261

Parameters:

a = 116.13349

b = 1451.31108

c = 62.14385

d = 0.58628

## Bead 2912

Date : Mon Oct 17 13:30:06 PDT 2022

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

Frame size : 10 pixels

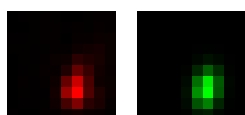
Coordinates : 18.5  $\mu\text{m}$  (x), 56.0  $\mu\text{m}$  (y), 62.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

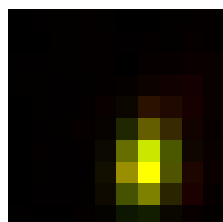
FWHM	Non corrected	Corrected	Theoretical
min	394 nm	407 nm	223 nm
max	590 nm	610 nm	223 nm
z	1.33 $\mu\text{m}$	1.33 $\mu\text{m}$	885 nm
Asymmetry	0.668		
Theta	80.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1443.525 (brightness)

B = 129.316 (background)

a = 0.851 px

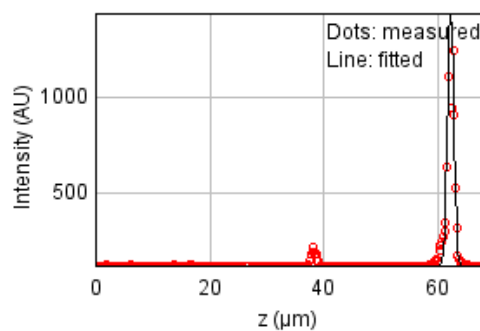
b = 0.078 px

c = 0.399 px

$x_c = 5.875$  px

$y_c = 6.653$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 363443.379

Standard deviation: 34.40719

$R^2$ : 0.95485

Parameters:

a = 117.35702

b = 1438.25299

c = 62.28042

d = 0.56346

## Bead 2913

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

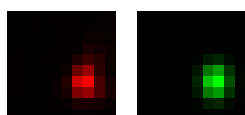
Coordinates : 21.9  $\mu\text{m}$  (x), 44.0  $\mu\text{m}$  (y), 62.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

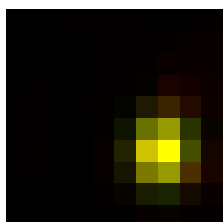
FWHM	Non corrected	Corrected	Theoretical
min	431 nm	445 nm	223 nm
max	518 nm	536 nm	223 nm
z	1.21 $\mu\text{m}$	1.22 $\mu\text{m}$	885 nm
Asymmetry	0.831		
Theta	86.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 2072.240 (brightness)

B = 129.773 (background)

a = 0.723 px

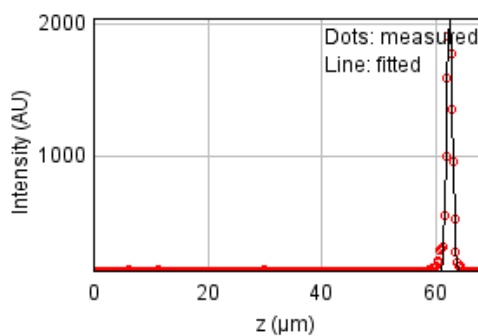
b = 0.014 px

c = 0.500 px

xc = 6.691 px

yc = 6.008 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 116546.805

Standard deviation: 19.48413

$R^2$ : 0.99234

Parameters:

a = 116.01573

b = 2048.10561

c = 62.44797

d = 0.51591

## Bead 2914

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

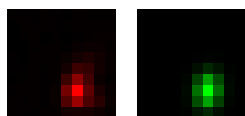
Coordinates : 46.6  $\mu\text{m}$  (x), 43.3  $\mu\text{m}$  (y), 62.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

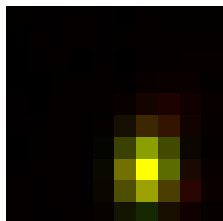
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	413 nm	223 nm
max	538 nm	557 nm	223 nm
z	1.18 $\mu\text{m}$	1.18 $\mu\text{m}$	885 nm
Asymmetry	0.743		
Theta	83.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1355.969$  (brightness)

$B = 128.101$  (background)

$a = 0.835$  px

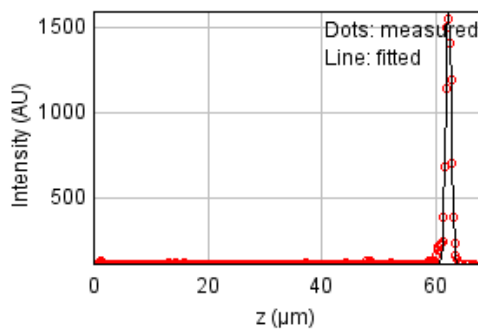
$b = 0.040$  px

$c = 0.467$  px

$x_c = 5.987$  px

$y_c = 7.005$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 77166.5523

Standard deviation: 15.85424

$R^2: 0.99112$

Parameters:

$a = 114.88355$

$b = 1595.46316$

$c = 62.25966$

$d = 0.50054$

## Bead 2915

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

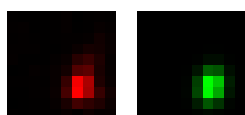
Coordinates : 65.0  $\mu\text{m}$  (x), 40.2  $\mu\text{m}$  (y), 62.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

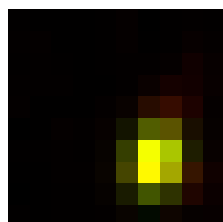
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	410 nm	223 nm
max	514 nm	532 nm	223 nm
z	1.41 $\mu\text{m}$	1.42 $\mu\text{m}$	885 nm
Asymmetry	0.771		
Theta	77.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1134.340$  (brightness)

$B = 124.190$  (background)

$a = 0.837$  px

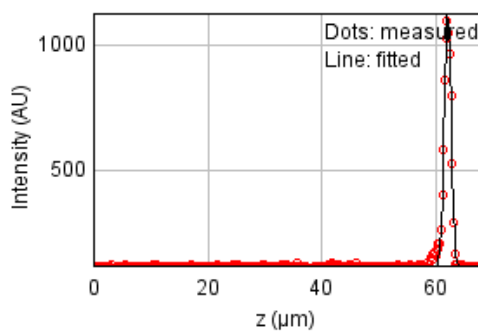
$b = 0.071$  px

$c = 0.522$  px

$x_c = 6.311$  px

$y_c = 6.432$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 46625.4237

Standard deviation: 12.32373

$R^2: 0.99047$

Parameters:

$a = 113.72339$

$b = 1130.98218$

$c = 62.10222$

$d = 0.59991$

## Bead 2916

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

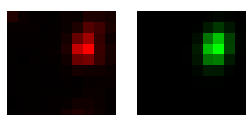
Coordinates : 49.4  $\mu\text{m}$  (x), 35.2  $\mu\text{m}$  (y), 62.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

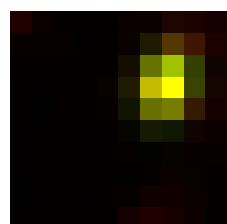
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	409 nm	223 nm
max	537 nm	555 nm	223 nm
z	1.16 $\mu\text{m}$	1.16 $\mu\text{m}$	885 nm
Asymmetry	0.738		
Theta	73.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1352.769$  (brightness)

$B = 138.484$  (background)

$a = 0.825$  px

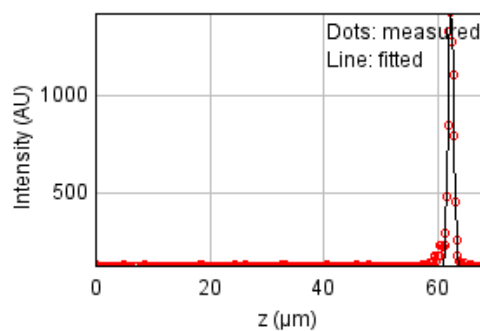
$b = 0.106$  px

$c = 0.497$  px

$x_c = 6.708$  px

$y_c = 2.840$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 90207.2359

Standard deviation: 17.14161

$R^2: 0.98688$

Parameters:

$a = 115.81281$

$b = 1442.96328$

$c = 62.32886$

$d = 0.49068$



## Bead 2917

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

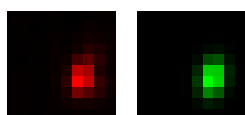
Coordinates : 70.5  $\mu\text{m}$  (x), 33.3  $\mu\text{m}$  (y), 62.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

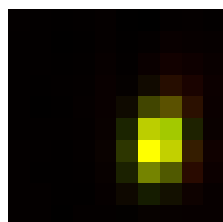
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	400 nm	223 nm
max	564 nm	583 nm	223 nm
z	1.43 $\mu\text{m}$	1.44 $\mu\text{m}$	885 nm
Asymmetry	0.685		
Theta	78.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1417.305 (brightness)

B = 126.526 (background)

a = 0.880 px

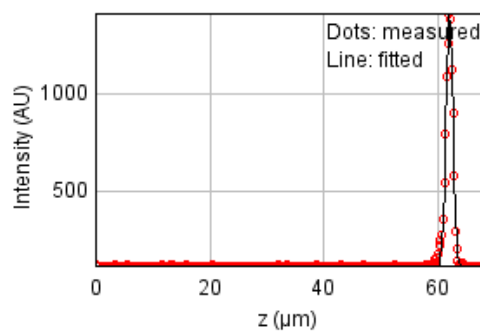
b = 0.090 px

c = 0.440 px

$x_c = 6.418$  px

$y_c = 5.660$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 57192.4447

Standard deviation: 13.64898

$R^2$ : 0.99294

Parameters:

a = 113.53248

b = 1416.32966

c = 62.05784

d = 0.60766

## Bead 2918

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

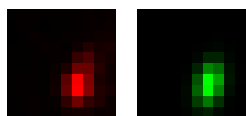
Coordinates : 82.1  $\mu\text{m}$  (x), 29.4  $\mu\text{m}$  (y), 61.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

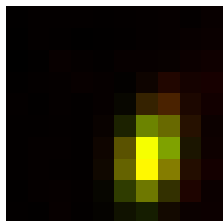
FWHM	Non corrected	Corrected	Theoretical
min	403 nm	417 nm	223 nm
max	647 nm	669 nm	223 nm
z	1.23 $\mu\text{m}$	1.23 $\mu\text{m}$	885 nm
Asymmetry	0.623		
Theta	76.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 895.292 (brightness)

B = 119.207 (background)

a = 0.798 px

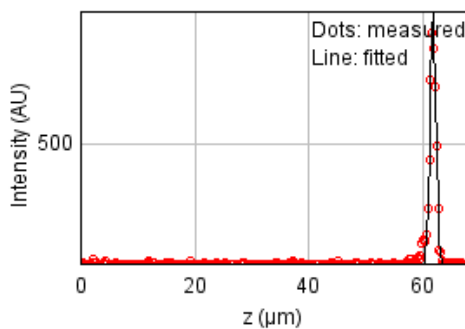
b = 0.113 px

c = 0.347 px

$x_c = 6.156$  px

$y_c = 6.403$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 38594.2067

Standard deviation: 11.21223

$R^2$ : 0.98583

Parameters:

a = 113.37656

b = 924.21223

c = 61.81122

d = 0.52130

## Bead 2919

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

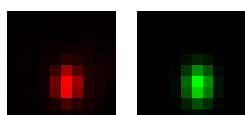
Coordinates : 125  $\mu\text{m}$  (x), -24.3  $\mu\text{m}$  (y), 61.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	427 nm	442 nm	223 nm
max	577 nm	596 nm	223 nm
z	1.4 $\mu\text{m}$	1.41 $\mu\text{m}$	885 nm
Asymmetry	0.74		
Theta	88.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1123.517$  (brightness)

$B = 123.128$  (background)

$a = 0.735$  px

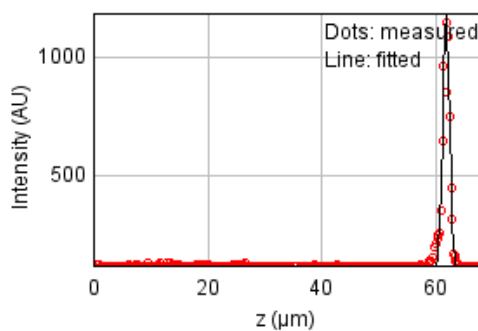
$b = 0.006$  px

$c = 0.403$  px

$x_c = 5.111$  px

$y_c = 6.244$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 190062.392

Standard deviation: 24.88163

$R^2: 0.96558$

Parameters:

$a = 112.41002$

$b = 1184.29529$

$c = 61.82624$

$d = 0.59452$

## Bead 2920 (Rejected)

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

Coordinates : 75.4  $\mu\text{m}$  (x), -29.2  $\mu\text{m}$  (y), 61.9  $\mu\text{m}$  (z)

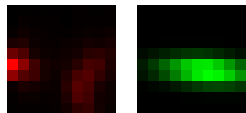
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

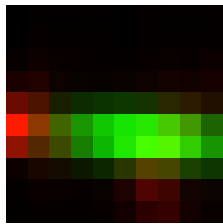
FWHM	Non corrected	Corrected	Theoretical
min	431 nm	446 nm	223 nm
max	1.43 $\mu\text{m}$	1.48 $\mu\text{m}$	223 nm
z	1.44 $\mu\text{m}$	1.44 $\mu\text{m}$	885 nm
Asymmetry	0.302		
Theta	-4.3°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.767$



Parameters:

A = 149.155 (brightness)

B = 187.634 (background)

a = -0.061 px

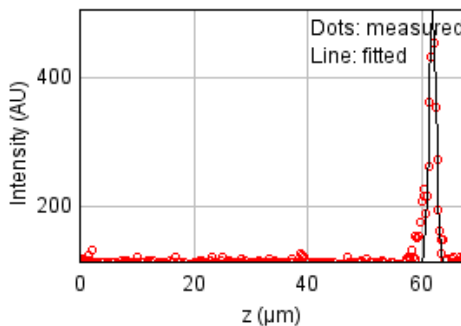
b = -0.058 px

c = 0.716 px

xc = 5.911 px

yc = 5.564 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 53057.7985

Standard deviation: 13.14636

$R^2$ : 0.93361

Parameters:

a = 114.41443

b = 510.15516

c = 61.91228

d = 0.61086

## Bead 2921

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

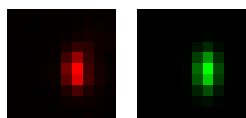
Coordinates : -38.3  $\mu\text{m}$  (x), -42.1  $\mu\text{m}$  (y), 62.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

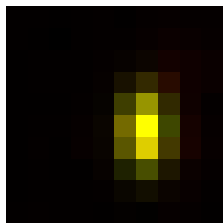
FWHM	Non corrected	Corrected	Theoretical
min	352 nm	364 nm	223 nm
max	596 nm	617 nm	223 nm
z	1.21 $\mu\text{m}$	1.21 $\mu\text{m}$	885 nm
Asymmetry	0.59		
Theta	90.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 2323.902 (brightness)

B = 135.320 (background)

a = 1.082 px

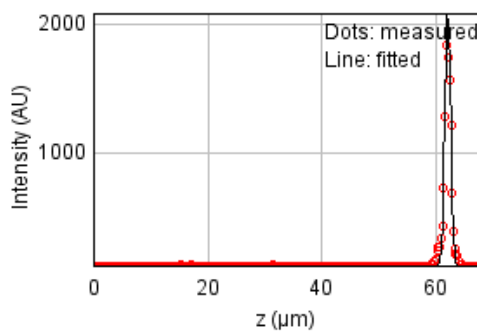
b = 0.000 px

c = 0.377 px

xc = 5.906 px

yc = 5.215 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 267294.654

Standard deviation: 29.50706

$R^2$ : 0.98324

Parameters:

a = 115.55492

b = 2091.76564

c = 62.10378

d = 0.51225

## Bead 2922 (Rejected)

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

Coordinates : 147  $\mu\text{m}$  (x), -53.1  $\mu\text{m}$  (y), 60.9  $\mu\text{m}$  (z)

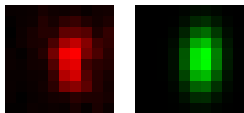
Corresponding bead : Not found

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

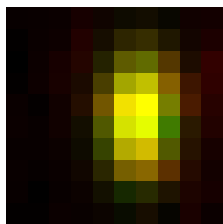
FWHM	Non corrected	Corrected	Theoretical
min	567 nm	587 nm	223 nm
max	957 nm	989 nm	223 nm
z	1.16 $\mu\text{m}$	1.16 $\mu\text{m}$	885 nm
Asymmetry	0.593		
Theta	88.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 371.521 (brightness)

B = 119.535 (background)

a = 0.416 px

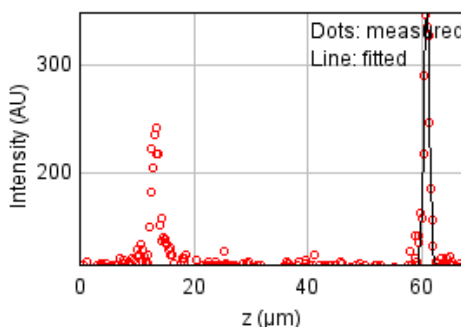
b = 0.008 px

c = 0.147 px

xc = 5.643 px

yc = 4.491 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 104057.702

Standard deviation: 18.41060

$R^2$ : 0.66969

Parameters:

a = 115.29575

b = 349.24959

c = 60.87558

d = 0.49103

## Bead 2923

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

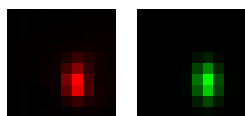
Coordinates : 87.3  $\mu\text{m}$  (x), -54.4  $\mu\text{m}$  (y), 62.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

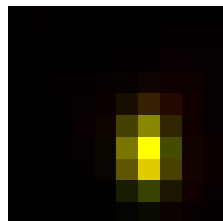
FWHM	Non corrected	Corrected	Theoretical
min	365 nm	377 nm	223 nm
max	558 nm	577 nm	223 nm
z	1.21 $\mu\text{m}$	1.22 $\mu\text{m}$	885 nm
Asymmetry	0.653		
Theta	-87.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1775.035$  (brightness)

$B = 133.310$  (background)

$a = 1.008$  px

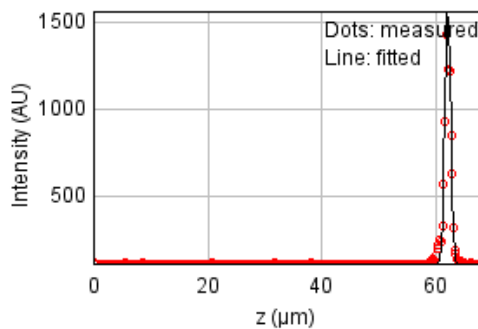
$b = -0.028$  px

$c = 0.432$  px

$x_c = 5.898$  px

$y_c = 6.224$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 216795.092

Standard deviation: 26.57391

$R^2: 0.97542$

Parameters:

$a = 114.42862$

$b = 1573.83159$

$c = 62.10442$

$d = 0.51527$

## Bead 2924

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

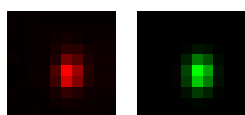
Coordinates : 141  $\mu\text{m}$  (x), -54.2  $\mu\text{m}$  (y), 61.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

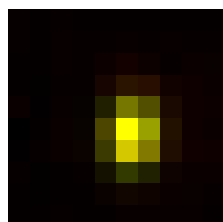
FWHM	Non corrected	Corrected	Theoretical
min	390 nm	403 nm	223 nm
max	517 nm	535 nm	223 nm
z	1.25 $\mu\text{m}$	1.25 $\mu\text{m}$	885 nm
Asymmetry	0.755		
Theta	86.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1080.109 (brightness)

B = 125.204 (background)

a = 0.880 px

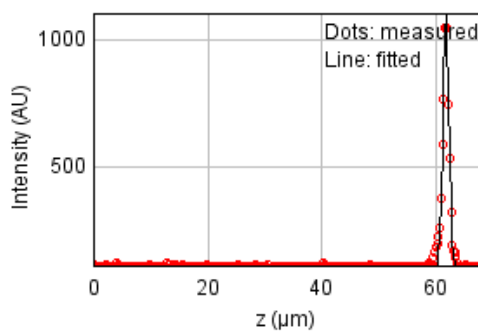
b = 0.023 px

c = 0.503 px

xc = 5.231 px

yc = 5.249 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 46484.1103

Standard deviation: 12.30504

$R^2$ : 0.98882

Parameters:

a = 111.65059

b = 1106.99548

c = 61.79730

d = 0.52974



## Bead 2925

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

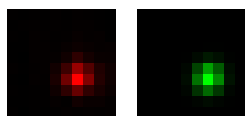
Coordinates : 145  $\mu\text{m}$  (x), -72.1  $\mu\text{m}$  (y), 62.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	428 nm	443 nm	223 nm
max	448 nm	464 nm	223 nm
z	1.5 $\mu\text{m}$	1.51 $\mu\text{m}$	885 nm
Asymmetry	0.955		
Theta	56.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1778.508 (brightness)

B = 124.884 (background)

a = 0.713 px

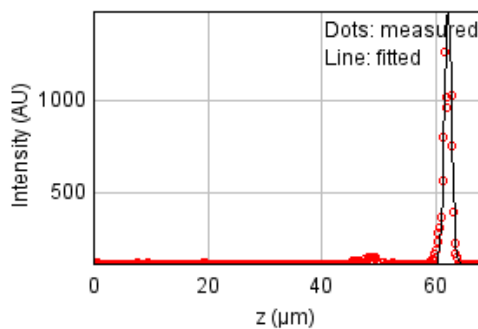
b = 0.030 px

c = 0.687 px

$x_c = 6.071$  px

$y_c = 5.840$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 738085.046

Standard deviation: 49.03250

$R^2$ : 0.92774

Parameters:

a = 115.03680

b = 1497.10047

c = 62.16565

d = 0.63699

## Bead 2926

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

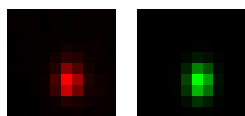
Coordinates : 127  $\mu\text{m}$  (x), -78.6  $\mu\text{m}$  (y), 62.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

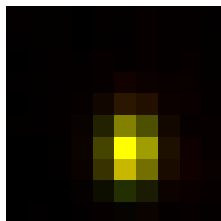
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	399 nm	223 nm
max	512 nm	530 nm	223 nm
z	1.35 $\mu\text{m}$	1.36 $\mu\text{m}$	885 nm
Asymmetry	0.754		
Theta	89.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1765.693 (brightness)

B = 129.442 (background)

a = 0.899 px

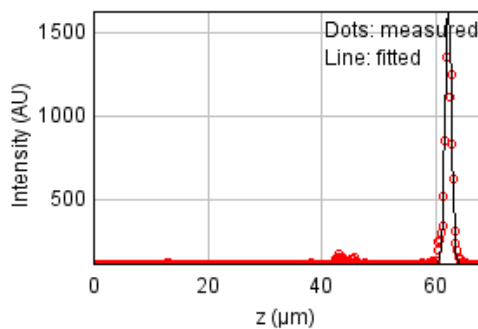
b = 0.007 px

c = 0.511 px

xc = 5.228 px

yc = 6.170 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 295294.045

Standard deviation: 31.01403

$R^2$ : 0.97208

Parameters:

a = 116.30940

b = 1629.92551

c = 62.21717

d = 0.57415

## Bead 2927

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

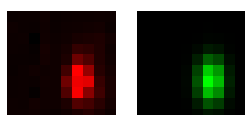
Coordinates : 44.9  $\mu\text{m}$  (x), -96.1  $\mu\text{m}$  (y), 61.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

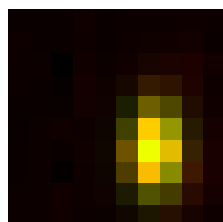
FWHM	Non corrected	Corrected	Theoretical
min	431 nm	445 nm	223 nm
max	710 nm	734 nm	223 nm
z	1.56 $\mu\text{m}$	1.57 $\mu\text{m}$	885 nm
Asymmetry	0.607		
Theta	89.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1019.291$  (brightness)

$B = 123.176$  (background)

$a = 0.723$  px

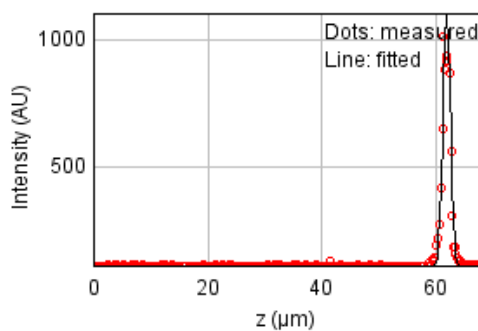
$b = 0.002$  px

$c = 0.266$  px

$x_c = 6.288$  px

$y_c = 5.924$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 308373.460

Standard deviation: 31.69343

$R^2: 0.94339$

Parameters:

$a = 113.54470$

$b = 1111.70783$

$c = 61.92547$

$d = 0.66327$

## Bead 2928

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

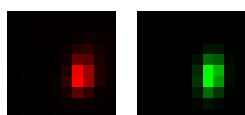
Coordinates : -56.7  $\mu\text{m}$  (x), 95.2  $\mu\text{m}$  (y), 62.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

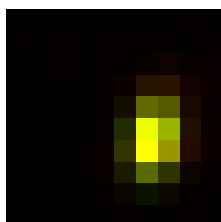
FWHM	Non corrected	Corrected	Theoretical
min	354 nm	366 nm	223 nm
max	558 nm	576 nm	223 nm
z	1.38 $\mu\text{m}$	1.38 $\mu\text{m}$	885 nm
Asymmetry	0.634		
Theta	81.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 2112.041 (brightness)

B = 129.183 (background)

a = 1.060 px

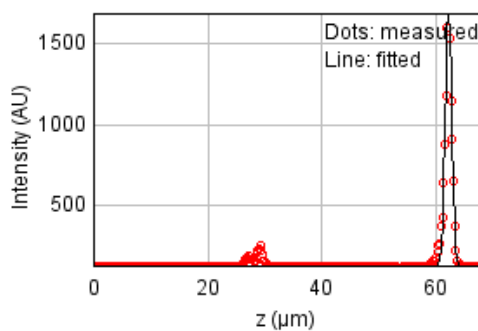
b = 0.089 px

c = 0.444 px

$x_c = 6.299$  px

$y_c = 5.443$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 466058.702

Standard deviation: 38.96289

$R^2$ : 0.96010

Parameters:

a = 120.38632

b = 1686.89747

c = 62.24953

d = 0.58521

## Bead 2929

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

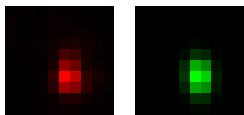
Coordinates : -104  $\mu\text{m}$  (x), 90.4  $\mu\text{m}$  (y), 62.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

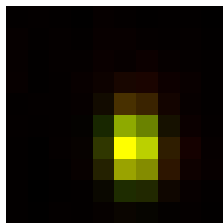
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	404 nm	223 nm
max	560 nm	579 nm	223 nm
z	1.34 $\mu\text{m}$	1.34 $\mu\text{m}$	885 nm
Asymmetry	0.698		
Theta	-86.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1314.625$  (brightness)

$B = 127.033$  (background)

$a = 0.875$  px

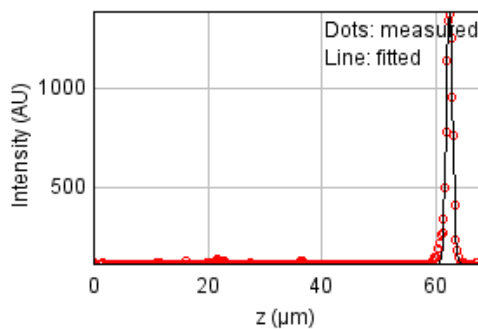
$b = -0.030$  px

$c = 0.429$  px

$x_c = 5.381$  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: 68250.0357

Standard deviation: 14.91016

$R^2: 0.99064$

Parameters:

$a = 115.86351$

$b = 1391.49583$

$c = 62.43155$

$d = 0.56763$

## Bead 2930

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

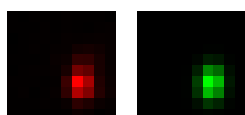
Coordinates : -36.0  $\mu\text{m}$  (x), 86.9  $\mu\text{m}$  (y), 62.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

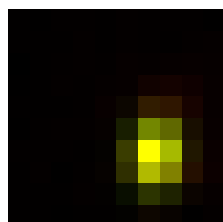
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	404 nm	223 nm
max	531 nm	549 nm	223 nm
z	1.25 $\mu\text{m}$	1.26 $\mu\text{m}$	885 nm
Asymmetry	0.735		
Theta	86.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1488.752 (brightness)

B = 126.701 (background)

a = 0.878 px

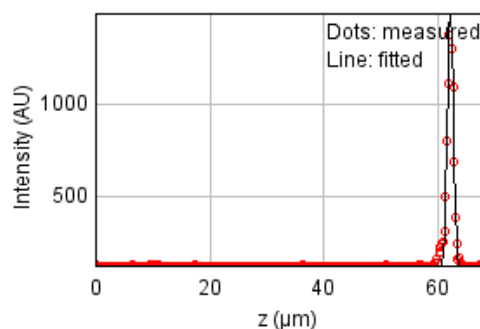
b = 0.026 px

c = 0.477 px

xc = 6.315 px

yc = 6.150 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 60366.8768

Standard deviation: 14.02265

$R^2$ : 0.99247

Parameters:

a = 114.91527

b = 1496.88063

c = 62.22619

d = 0.53183

## Bead 2931

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

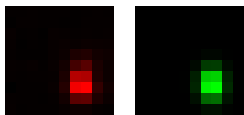
Coordinates : -59.9  $\mu\text{m}$  (x), 83.7  $\mu\text{m}$  (y), 62.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

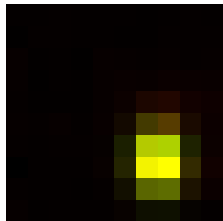
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	393 nm	223 nm
max	505 nm	522 nm	223 nm
z	1.12 $\mu\text{m}$	1.12 $\mu\text{m}$	885 nm
Asymmetry	0.754		
Theta	-88.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 2201.108 (brightness)

B = 130.911 (background)

a = 0.926 px

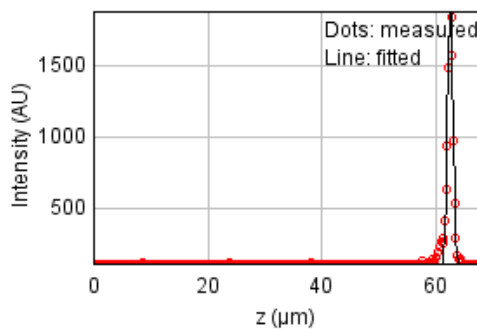
b = -0.008 px

c = 0.526 px

$x_c = 6.525$  px

$y_c = 6.684$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 147301.064

Standard deviation: 21.90452

$R^2$ : 0.98800

Parameters:

a = 116.63017

b = 1917.91611

c = 62.58421

d = 0.47574

## Bead 2932

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

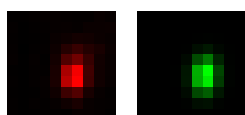
Coordinates : -45.8  $\mu\text{m}$  (x), 81.1  $\mu\text{m}$  (y), 62.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

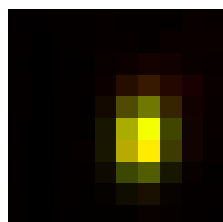
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	409 nm	223 nm
max	566 nm	585 nm	223 nm
z	1.15 $\mu\text{m}$	1.16 $\mu\text{m}$	885 nm
Asymmetry	0.699		
Theta	85.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1608.253 (brightness)

B = 129.299 (background)

a = 0.854 px

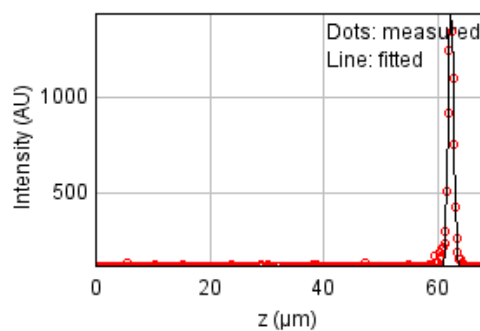
b = 0.035 px

c = 0.422 px

xc = 5.713 px

yc = 5.425 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 53089.8376

Standard deviation: 13.15033

$R^2$ : 0.99235

Parameters:

a = 115.08888

b = 1454.11391

c = 62.32139

d = 0.48954



## Bead 2933 (Rejected)

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

Coordinates : -116  $\mu\text{m}$  (x), 79.7  $\mu\text{m}$  (y), 62.7  $\mu\text{m}$  (z)

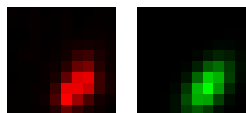
Corresponding bead : Not found

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

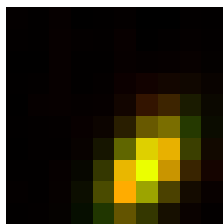
FWHM	Non corrected	Corrected	Theoretical
min	481 nm	498 nm	223 nm
max	857 nm	886 nm	223 nm
z	1.45 $\mu\text{m}$	1.46 $\mu\text{m}$	885 nm
Asymmetry	0.562		
Theta	53.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1310.430 (brightness)

B = 123.609 (background)

a = 0.438 px

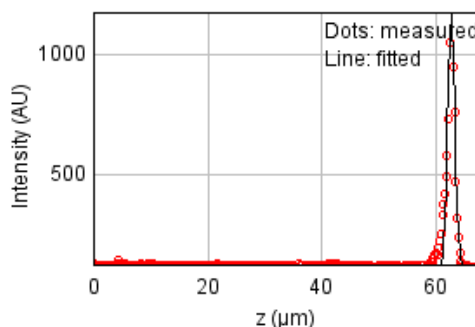
b = 0.190 px

c = 0.324 px

xc = 5.947 px

yc = 6.846 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 192131.411

Standard deviation: 25.01670

$R^2$ : 0.96605

Parameters:

a = 116.35611

b = 1182.23022

c = 62.74510

d = 0.61727

## Bead 2934

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

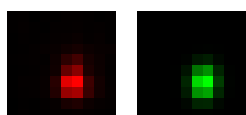
Coordinates : -113  $\mu\text{m}$  (x), 78.3  $\mu\text{m}$  (y), 62.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

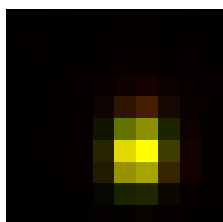
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	423 nm	223 nm
max	512 nm	529 nm	223 nm
z	1.22 $\mu\text{m}$	1.22 $\mu\text{m}$	885 nm
Asymmetry	0.8		
Theta	85.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1959.595 (brightness)

B = 130.809 (background)

a = 0.799 px

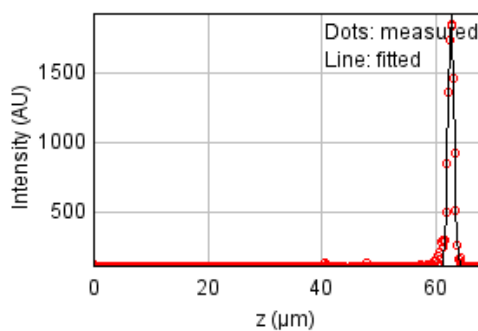
b = 0.025 px

c = 0.515 px

$x_c = 5.602$  px

$y_c = 6.086$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 126705.419

Standard deviation: 20.31554

$R^2$ : 0.99054

Parameters:

a = 116.04857

b = 1924.98233

c = 62.71599

d = 0.51736

## Bead 2935 (Rejected)

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

Coordinates : -59.1  $\mu\text{m}$  (x), 76.7  $\mu\text{m}$  (y), 62.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

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

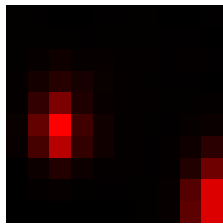
FWHM	Non corrected	Corrected	Theoretical
min	66.9 nm	69.2 nm	223 nm
max	143 nm	148 nm	223 nm
z	1.14 $\mu\text{m}$	1.15 $\mu\text{m}$	885 nm
Asymmetry	0.467		
Theta	-4.0°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.000$



Parameters:

A = -43.109 (brightness)

B = 287.060 (background)

a = 6.648 px

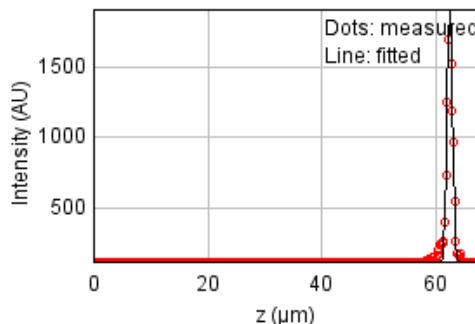
b = -1.627 px

c = 29.875 px

xc = -3.769 px

yc = 10.149 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 238965.809

Standard deviation: 27.89965

$R^2$ : 0.98087

Parameters:

a = 114.46020

b = 1908.68813

c = 62.48848

d = 0.48463

## Bead 2936

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

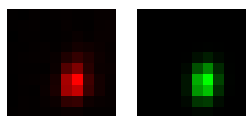
Coordinates : -45.8  $\mu\text{m}$  (x), 72.3  $\mu\text{m}$  (y), 62.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

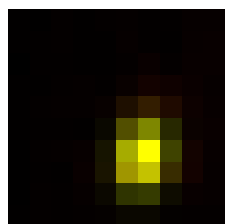
FWHM	Non corrected	Corrected	Theoretical
min	390 nm	403 nm	223 nm
max	548 nm	567 nm	223 nm
z	1.23 $\mu\text{m}$	1.24 $\mu\text{m}$	885 nm
Asymmetry	0.711		
Theta	80.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1356.442 (brightness)

B = 123.081 (background)

a = 0.872 px

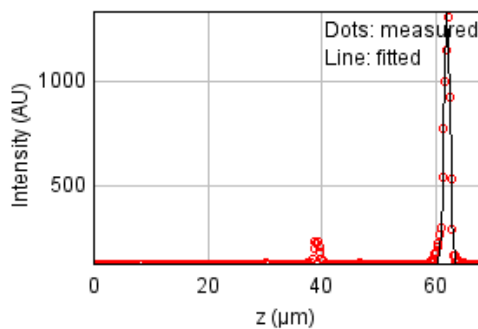
b = 0.068 px

c = 0.457 px

xc = 5.708 px

yc = 6.242 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 159634.365

Standard deviation: 22.80311

$R^2$ : 0.97497

Parameters:

a = 116.63746

b = 1346.80242

c = 61.98579

d = 0.52437

## Bead 2937

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

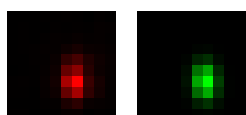
Coordinates : -102  $\mu\text{m}$  (x), 71.1  $\mu\text{m}$  (y), 62.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

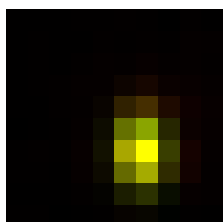
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	394 nm	223 nm
max	565 nm	584 nm	223 nm
z	1.11 $\mu\text{m}$	1.11 $\mu\text{m}$	885 nm
Asymmetry	0.674		
Theta	-87.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1884.366 (brightness)

B = 131.682 (background)

a = 0.925 px

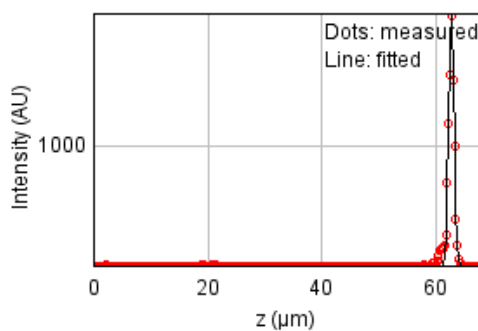
b = -0.024 px

c = 0.421 px

$x_c = 5.730$  px

$y_c = 6.004$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 143369.312

Standard deviation: 21.61021

$R^2$ : 0.98932

Parameters:

a = 116.57842

b = 2010.17573

c = 62.77789

d = 0.47127

## Bead 2938

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

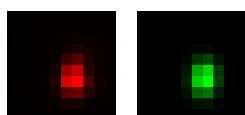
Coordinates : -66.3  $\mu\text{m}$  (x), 71.1  $\mu\text{m}$  (y), 62.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

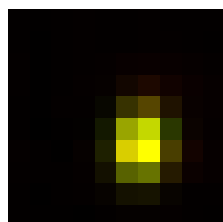
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	418 nm	223 nm
max	526 nm	544 nm	223 nm
z	1.17 $\mu\text{m}$	1.17 $\mu\text{m}$	885 nm
Asymmetry	0.768		
Theta	85.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 2521.763 (brightness)

B = 130.961 (background)

a = 0.819 px

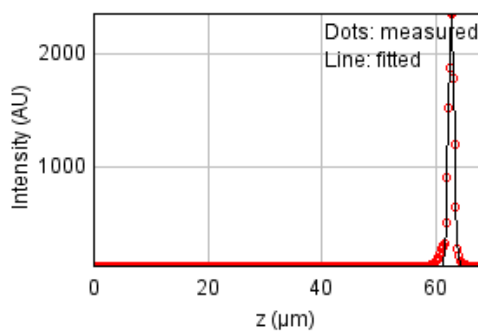
b = 0.027 px

c = 0.487 px

xc = 5.641 px

yc = 5.695 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 182807.082

Standard deviation: 24.40211

$R^2$ : 0.99084

Parameters:

a = 116.15291

b = 2367.52226

c = 62.76035

d = 0.49689

## Bead 2939

Date : Mon Oct 17 13:30:07 PDT 2022

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

Frame size : 10 pixels

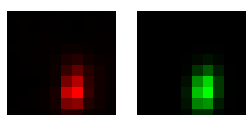
Coordinates : -114  $\mu\text{m}$  (x), 70.4  $\mu\text{m}$  (y), 62.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	386 nm	399 nm	223 nm
max	620 nm	641 nm	223 nm
z	1.12 $\mu\text{m}$	1.13 $\mu\text{m}$	885 nm
Asymmetry	0.622		
Theta	81.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1887.890 (brightness)

B = 133.565 (background)

a = 0.890 px

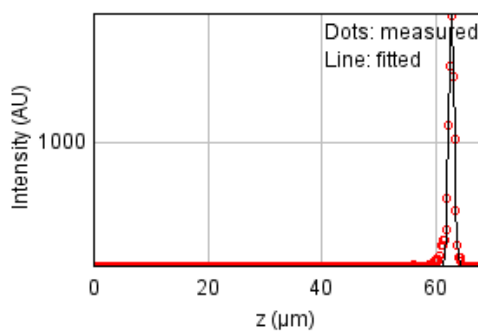
b = 0.078 px

c = 0.361 px

$x_c = 5.675$  px

$y_c = 6.816$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 140526.450

Standard deviation: 21.39488

$R^2$ : 0.98916

Parameters:

a = 114.83906

b = 1965.20463

c = 62.78686

d = 0.47691

## Bead 2940

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

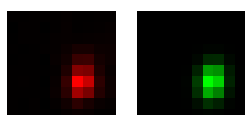
Coordinates : -33.4  $\mu\text{m}$  (x), 65.3  $\mu\text{m}$  (y), 62.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

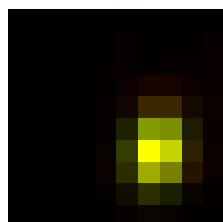
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	418 nm	223 nm
max	552 nm	571 nm	223 nm
z	1.28 $\mu\text{m}$	1.29 $\mu\text{m}$	885 nm
Asymmetry	0.732		
Theta	82.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1763.064 (brightness)

B = 129.758 (background)

a = 0.815 px

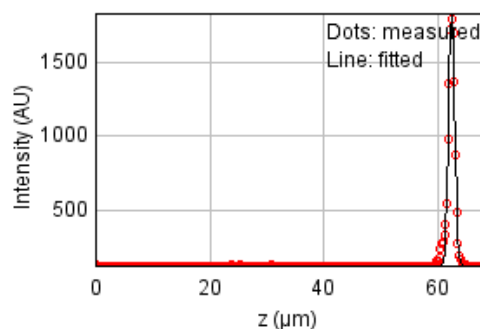
b = 0.053 px

c = 0.448 px

$x_c = 6.385$  px

$y_c = 6.008$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 113163.590

Standard deviation: 19.19925

$R^2$ : 0.99111

Parameters:

a = 115.07023

b = 1834.92724

c = 62.45780

d = 0.54509



## Bead 2941

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

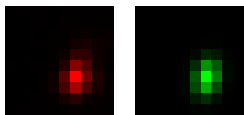
Coordinates : -24.8  $\mu\text{m}$  (x), 63.3  $\mu\text{m}$  (y), 62.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

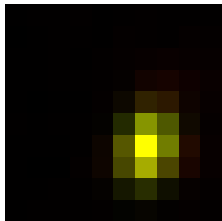
FWHM	Non corrected	Corrected	Theoretical
min	382 nm	395 nm	223 nm
max	547 nm	566 nm	223 nm
z	1.21 $\mu\text{m}$	1.21 $\mu\text{m}$	885 nm
Asymmetry	0.698		
Theta	77.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1886.023 (brightness)

B = 131.554 (background)

a = 0.898 px

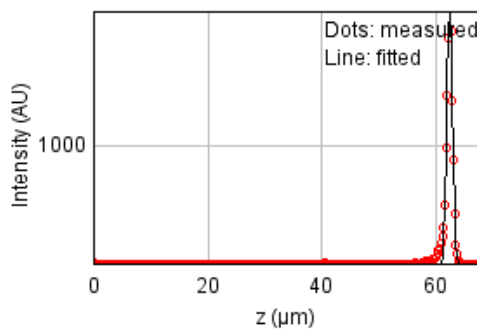
b = 0.097 px

c = 0.469 px

xc = 6.093 px

yc = 6.059 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 123951.482

Standard deviation: 20.09355

$R^2$ : 0.99140

Parameters:

a = 116.13442

b = 1999.97076

c = 62.46296

d = 0.51377

## Bead 2942

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

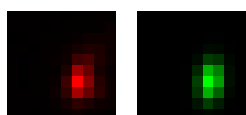
Coordinates : -9.4  $\mu\text{m}$  (x), 62.7  $\mu\text{m}$  (y), 62.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

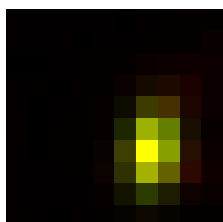
FWHM	Non corrected	Corrected	Theoretical
min	376 nm	389 nm	223 nm
max	612 nm	633 nm	223 nm
z	1.35 $\mu\text{m}$	1.35 $\mu\text{m}$	885 nm
Asymmetry	0.614		
Theta	83.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1494.006 (brightness)

B = 134.695 (background)

a = 0.941 px

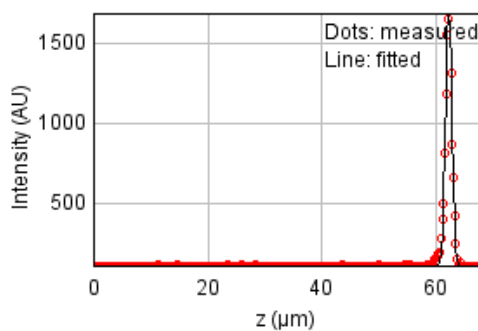
b = 0.066 px

c = 0.366 px

$x_c = 6.250$  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: 78166.4408

Standard deviation: 15.95662

$R^2$ : 0.99298

Parameters:

a = 115.60915

b = 1688.28294

c = 62.29634

d = 0.57216

## Bead 2943

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

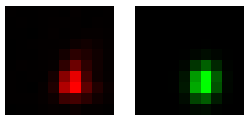
Coordinates : -2.24  $\mu\text{m}$  (x), 56.2  $\mu\text{m}$  (y), 62.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

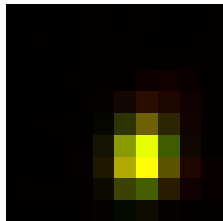
FWHM	Non corrected	Corrected	Theoretical
min	416 nm	430 nm	223 nm
max	525 nm	542 nm	223 nm
z	1.25 $\mu\text{m}$	1.25 $\mu\text{m}$	885 nm
Asymmetry	0.793		
Theta	80.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1649.888 (brightness)

B = 130.123 (background)

a = 0.767 px

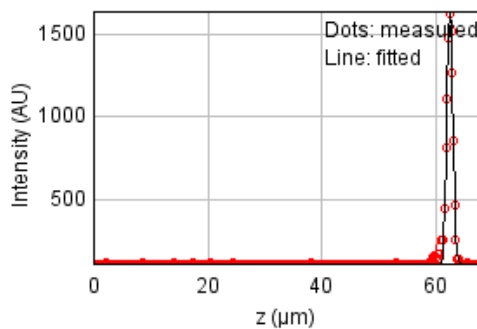
b = 0.049 px

c = 0.496 px

xc = 5.798 px

yc = 6.511 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 77555.5332

Standard deviation: 15.89415

$R^2$ : 0.99195

Parameters:

a = 115.46347

b = 1633.19088

c = 62.49916

d = 0.52995

## Bead 2944 (Rejected)

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

Coordinates : -35.9  $\mu\text{m}$  (x), 48.2  $\mu\text{m}$  (y), 62.8  $\mu\text{m}$  (z)

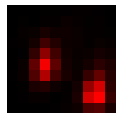
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	223 nm
max	0	0	223 nm
z	1.21 $\mu\text{m}$	1.21 $\mu\text{m}$	885 nm
Asymmetry	0.0		
Theta	0.0°		

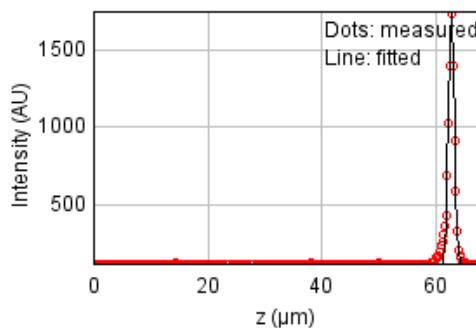
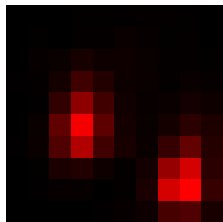
### XY profile & fitting parameters :

(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: 150265.581

Standard deviation: 22.12384

$R^2$ : 0.98634

Parameters:

a = 116.80586

b = 1760.82561

c = 62.77931

d = 0.51207

## Bead 2945

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

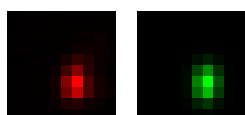
Coordinates : -1.79  $\mu\text{m}$  (x), 47.0  $\mu\text{m}$  (y), 62.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

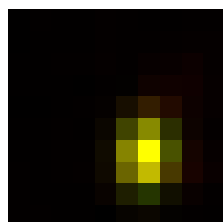
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	399 nm	223 nm
max	536 nm	554 nm	223 nm
z	1.14 $\mu\text{m}$	1.15 $\mu\text{m}$	885 nm
Asymmetry	0.719		
Theta	86.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1845.865$  (brightness)

$B = 133.337$  (background)

$a = 0.901$  px

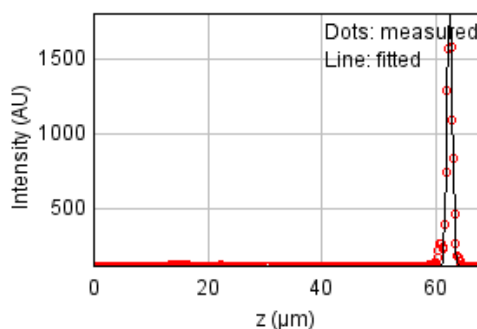
$b = 0.024$  px

$c = 0.468$  px

$x_c = 5.863$  px

$y_c = 6.164$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 142169.812

Standard deviation: 21.51962

$R^2: 0.98700$

Parameters:

$a = 117.22381$

$b = 1800.43730$

$c = 62.47494$

$d = 0.48535$

## Bead 2946

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

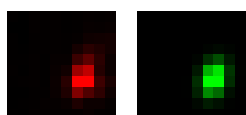
Coordinates : 21.2  $\mu\text{m}$  (x), 39.4  $\mu\text{m}$  (y), 62.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

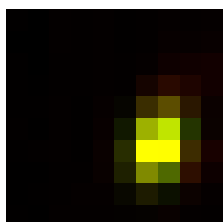
FWHM	Non corrected	Corrected	Theoretical
min	383 nm	396 nm	223 nm
max	544 nm	563 nm	223 nm
z	1.46 $\mu\text{m}$	1.46 $\mu\text{m}$	885 nm
Asymmetry	0.704		
Theta	72.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1494.559 (brightness)

B = 125.935 (background)

a = 0.873 px

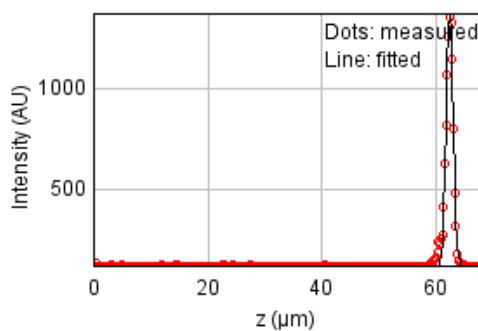
b = 0.133 px

c = 0.495 px

xc = 6.537 px

yc = 5.730 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 77986.6801

Standard deviation: 15.93826

$R^2$ : 0.98999

Parameters:

a = 114.08286

b = 1379.30790

c = 62.46039

d = 0.61818

## Bead 2947

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

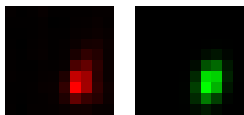
Coordinates : 47.6  $\mu\text{m}$  (x), 36.2  $\mu\text{m}$  (y), 62.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

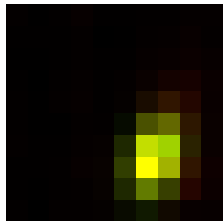
FWHM	Non corrected	Corrected	Theoretical
min	378 nm	391 nm	223 nm
max	587 nm	607 nm	223 nm
z	1.37 $\mu\text{m}$	1.38 $\mu\text{m}$	885 nm
Asymmetry	0.645		
Theta	72.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1261.085$  (brightness)

$B = 124.798$  (background)

$a = 0.890$  px

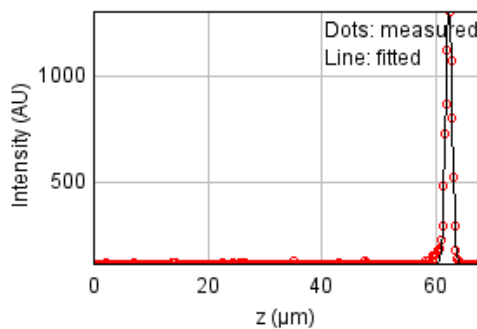
$b = 0.154$  px

$c = 0.437$  px

$x_c = 6.378$  px

$y_c = 6.528$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 53038.0131

Standard deviation: 13.14391

$R^2: 0.99191$

Parameters:

$a = 112.93486$

$b = 1309.12987$

$c = 62.30815$

$d = 0.58192$

## Bead 2948 (Rejected)

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

Coordinates : -59.1  $\mu\text{m}$  (x), 35.8  $\mu\text{m}$  (y), 62.1  $\mu\text{m}$  (z)

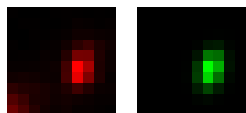
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

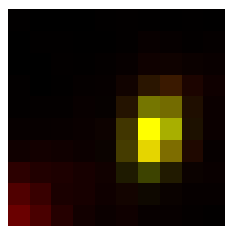
FWHM	Non corrected	Corrected	Theoretical
min	366 nm	378 nm	223 nm
max	551 nm	570 nm	223 nm
z	1.21 $\mu\text{m}$	1.22 $\mu\text{m}$	885 nm
Asymmetry	0.663		
Theta	74.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1136.806 (brightness)

B = 165.775 (background)

a = 0.963 px

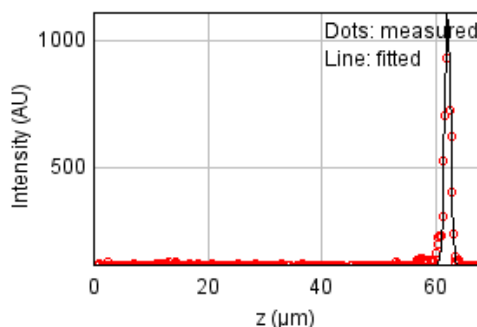
b = 0.144 px

c = 0.481 px

xc = 6.268 px

yc = 5.228 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 84364.6992

Standard deviation: 16.57720

$R^2$ : 0.97935

Parameters:

a = 114.92626

b = 1109.76499

c = 62.08253

d = 0.51581



## Bead 2949

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

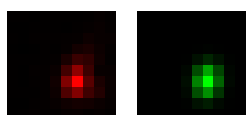
Coordinates : 35.6  $\mu\text{m}$  (x), 33.9  $\mu\text{m}$  (y), 62.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

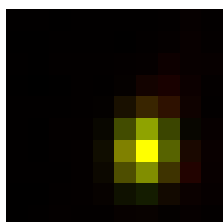
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	418 nm	223 nm
max	512 nm	529 nm	223 nm
z	1.16 $\mu\text{m}$	1.17 $\mu\text{m}$	885 nm
Asymmetry	0.79		
Theta	81.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1399.925 (brightness)

B = 128.129 (background)

a = 0.814 px

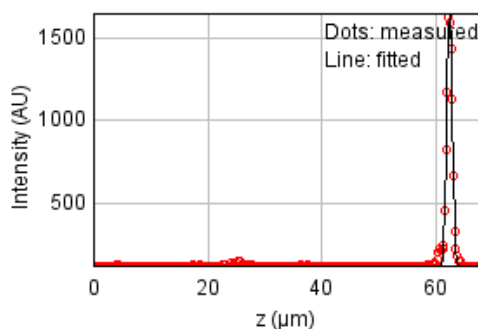
b = 0.043 px

c = 0.518 px

xc = 5.922 px

yc = 5.939 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 77818.6606

Standard deviation: 15.92109

$R^2$ : 0.99157

Parameters:

a = 116.08511

b = 1652.47733

c = 62.44008

d = 0.49424

## Bead 2950

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

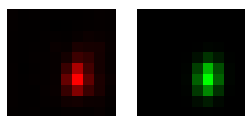
Coordinates : 32.1  $\mu\text{m}$  (x), 30.6  $\mu\text{m}$  (y), 62.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

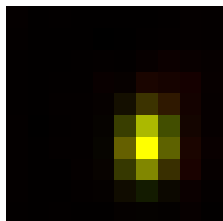
FWHM	Non corrected	Corrected	Theoretical
min	371 nm	383 nm	223 nm
max	529 nm	547 nm	223 nm
z	1.16 $\mu\text{m}$	1.16 $\mu\text{m}$	885 nm
Asymmetry	0.701		
Theta	84.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1778.152 (brightness)

B = 133.800 (background)

a = 0.970 px

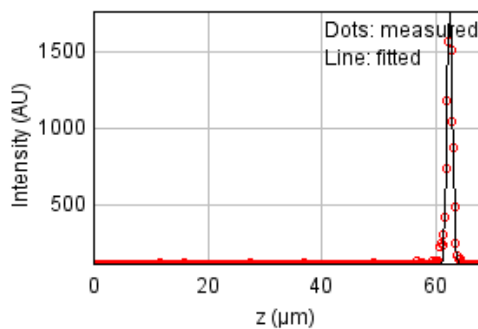
b = 0.050 px

c = 0.484 px

$x_c = 6.015$  px

$y_c = 5.835$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 146691.325

Standard deviation: 21.85914

$R^2$ : 0.98619

Parameters:

a = 115.53188

b = 1763.19172

c = 62.47723

d = 0.49151

## Bead 2951 (Rejected)

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

Coordinates : -68.6  $\mu\text{m}$  (x), 30.1  $\mu\text{m}$  (y), 63.4  $\mu\text{m}$  (z)

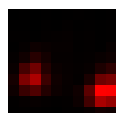
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

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

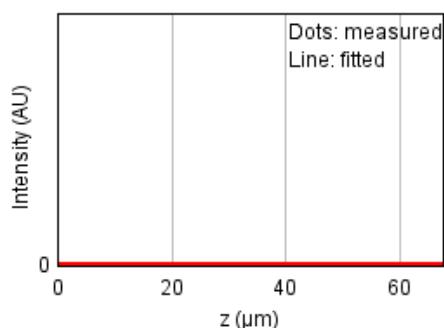
### XY profile & fitting parameters :

(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 2952

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

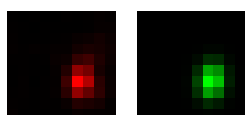
Coordinates : 22.7  $\mu\text{m}$  (x), 28.2  $\mu\text{m}$  (y), 62.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

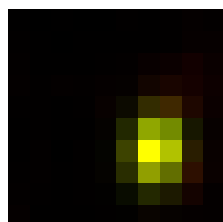
FWHM	Non corrected	Corrected	Theoretical
min	406 nm	420 nm	223 nm
max	549 nm	567 nm	223 nm
z	1.41 $\mu\text{m}$	1.42 $\mu\text{m}$	885 nm
Asymmetry	0.74		
Theta	83.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1638.134 (brightness)

B = 133.170 (background)

a = 0.808 px

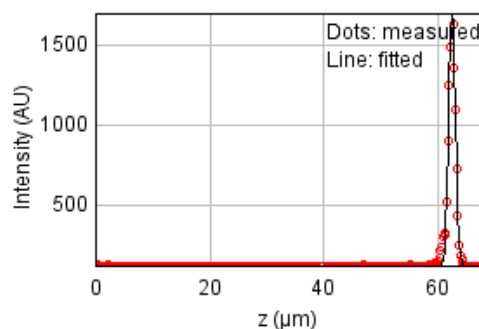
b = 0.045 px

c = 0.451 px

$x_c = 6.333$  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: 83870.3416

Standard deviation: 16.52856

$R^2$ : 0.99291

Parameters:

a = 114.74176

b = 1699.96689

c = 62.53283

d = 0.59865

## Bead 2953

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

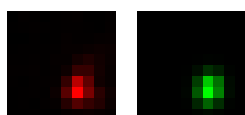
Coordinates : 29.9  $\mu\text{m}$  (x), 26.5  $\mu\text{m}$  (y), 62.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

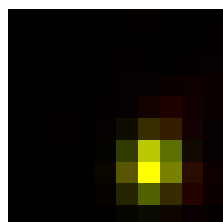
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	400 nm	223 nm
max	474 nm	490 nm	223 nm
z	1.3 $\mu\text{m}$	1.3 $\mu\text{m}$	885 nm
Asymmetry	0.815		
Theta	79.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1576.812 (brightness)

B = 128.724 (background)

a = 0.888 px

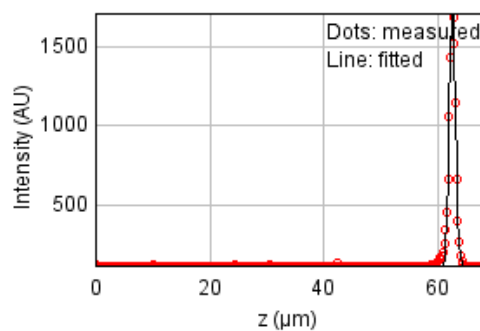
b = 0.052 px

c = 0.606 px

$x_c = 6.131$  px

$y_c = 6.694$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 65092.5325

Standard deviation: 14.56117

$R^2$ : 0.99427

Parameters:

a = 114.34269

b = 1732.14901

c = 62.59652

d = 0.55143

## Bead 2954

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

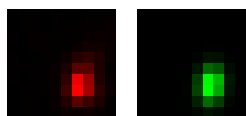
Coordinates : 56.8 um (x), 24.3 um (y), 62.3 um (z)

Corresponding bead : Not found

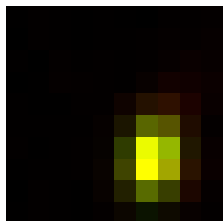
FWHM	Non corrected	Corrected	Theoretical
min	390 nm	403 nm	223 nm
max	556 nm	575 nm	223 nm
z	1.38 um	1.38 um	885 nm
Asymmetry	0.701		
Theta	82.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1339.161 (brightness)

B = 124.694 (background)

a = 0.875 px

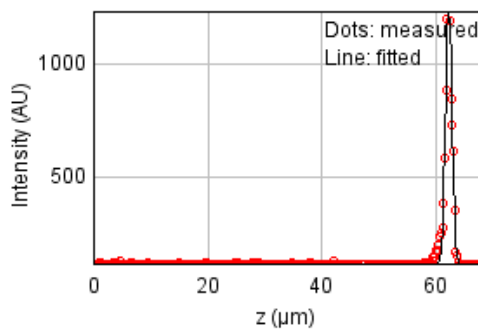
b = 0.060 px

c = 0.443 px

xc = 6.288 px

yc = 6.483 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 159204.241

Standard deviation: 22.77236

$R^2$ : 0.97319

Parameters:

a = 114.13156

b = 1238.03514

c = 62.29961

d = 0.58580

## Bead 2955

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

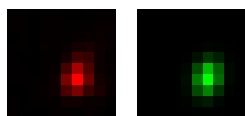
Coordinates : 16.5  $\mu\text{m}$  (x), 20.7  $\mu\text{m}$  (y), 62.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

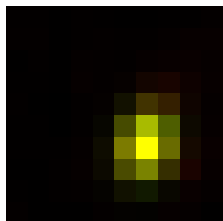
FWHM	Non corrected	Corrected	Theoretical
min	403 nm	416 nm	223 nm
max	536 nm	554 nm	223 nm
z	1.2 $\mu\text{m}$	1.21 $\mu\text{m}$	885 nm
Asymmetry	0.751		
Theta	75.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1766.793 (brightness)

B = 131.453 (background)

a = 0.803 px

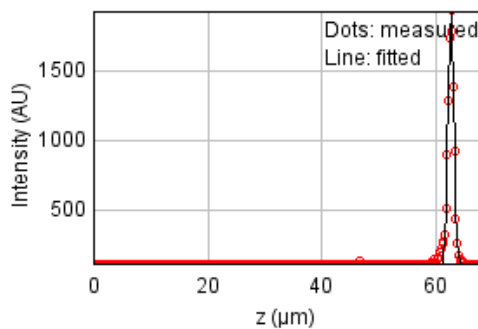
b = 0.090 px

c = 0.491 px

$x_c = 5.976$  px

$y_c = 5.822$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 88510.6741

Standard deviation: 16.97965

$R^2$ : 0.99332

Parameters:

a = 115.37318

b = 1926.86757

c = 62.70521

d = 0.51120

## Bead 2956

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

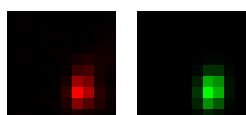
Coordinates : 13.7  $\mu\text{m}$  (x), 20.3  $\mu\text{m}$  (y), 62.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

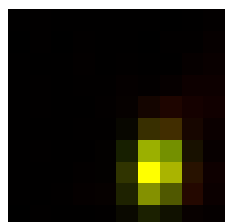
FWHM	Non corrected	Corrected	Theoretical
min	370 nm	383 nm	223 nm
max	540 nm	558 nm	223 nm
z	1.36 $\mu\text{m}$	1.37 $\mu\text{m}$	885 nm
Asymmetry	0.686		
Theta	81.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1943.959$  (brightness)

$B = 133.776$  (background)

$a = 0.967$  px

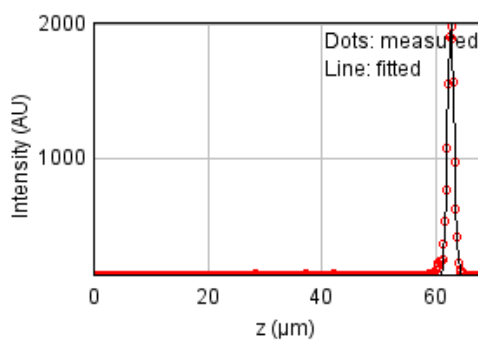
$b = 0.073$  px

$c = 0.471$  px

$x_c = 6.331$  px

$y_c = 6.844$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 92175.2652

Standard deviation: 17.32758

$R^2: 0.99441$

Parameters:

$a = 115.51123$

$b = 2021.39403$

$c = 62.67358$

$d = 0.57764$



## Bead 2957

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

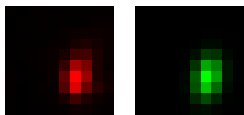
Coordinates : 58.3  $\mu\text{m}$  (x), 16.3  $\mu\text{m}$  (y), 62.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

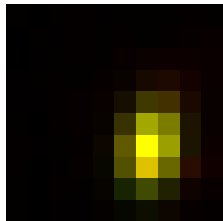
FWHM	Non corrected	Corrected	Theoretical
min	415 nm	429 nm	223 nm
max	638 nm	660 nm	223 nm
z	1.44 $\mu\text{m}$	1.44 $\mu\text{m}$	885 nm
Asymmetry	0.65		
Theta	79.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1304.983$  (brightness)

$B = 124.514$  (background)

$a = 0.763$  px

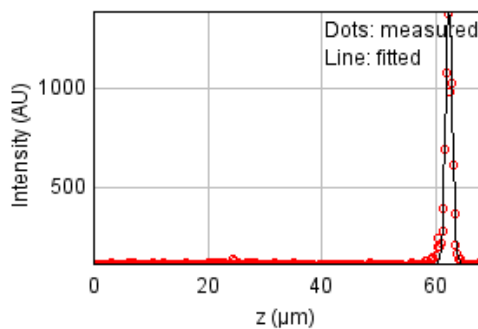
$b = 0.082$  px

$c = 0.345$  px

$x_c = 6.183$  px

$y_c = 6.060$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 291793.773

Standard deviation: 30.82967

$R^2: 0.96364$

Parameters:

$a = 115.27129$

$b = 1389.08717$

$c = 62.33197$

$d = 0.61118$

## Bead 2958 (Rejected)

Date : Mon Oct 17 13:30:08 PDT 2022

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

Frame size : 10 pixels

Coordinates : 18.3  $\mu\text{m}$  (x), 17.4  $\mu\text{m}$  (y), 62.3  $\mu\text{m}$  (z)

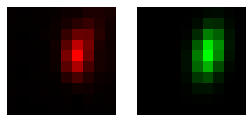
Corresponding bead : Not found

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

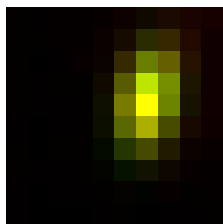
FWHM	Non corrected	Corrected	Theoretical
min	433 nm	448 nm	223 nm
max	775 nm	801 nm	223 nm
z	2.31 $\mu\text{m}$	2.32 $\mu\text{m}$	885 nm
Asymmetry	0.559		
Theta	78.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1393.193 (brightness)

B = 133.551 (background)

a = 0.695 px

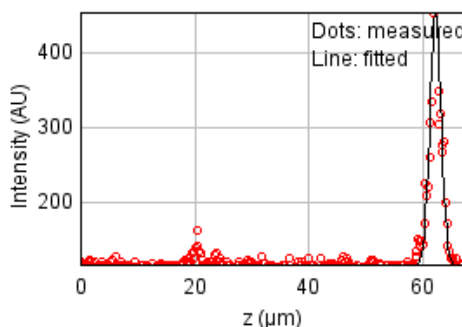
b = 0.095 px

c = 0.243 px

xc = 6.066 px

yc = 3.704 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 59275.3110

Standard deviation: 13.89529

$R^2$ : 0.93502

Parameters:

a = 115.15544

b = 452.42758

c = 62.26215

d = 0.98109

## Bead 2959

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

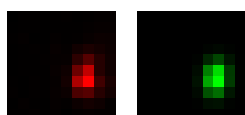
Coordinates : 55.4  $\mu\text{m}$  (x), 12.6  $\mu\text{m}$  (y), 62.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

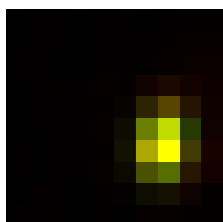
FWHM	Non corrected	Corrected	Theoretical
min	375 nm	388 nm	223 nm
max	520 nm	538 nm	223 nm
z	1.08 $\mu\text{m}$	1.08 $\mu\text{m}$	885 nm
Asymmetry	0.721		
Theta	82.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1564.541$  (brightness)

$B = 125.573$  (background)

$a = 0.947$  px

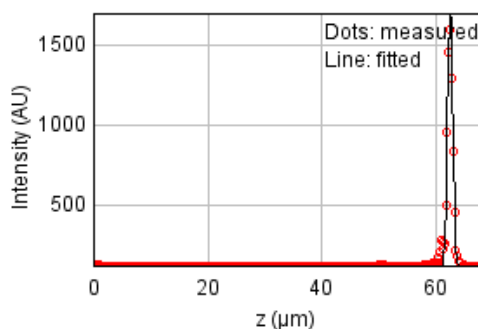
$b = 0.061$  px

$c = 0.504$  px

$x_c = 6.741$  px

$y_c = 5.681$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 108450.770

Standard deviation: 18.79521

$R^2: 0.98842$

Parameters:

$a = 116.45711$

$b = 1720.99986$

$c = 62.56513$

$d = 0.45713$

## Bead 2960

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

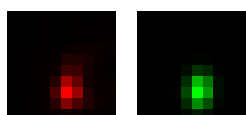
Coordinates : 28.9  $\mu\text{m}$  (x), 8.18  $\mu\text{m}$  (y), 62.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	382 nm	395 nm	223 nm
max	533 nm	551 nm	223 nm
z	1.34 $\mu\text{m}$	1.34 $\mu\text{m}$	885 nm
Asymmetry	0.717		
Theta	84.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 2218.986 (brightness)

B = 140.739 (background)

a = 0.916 px

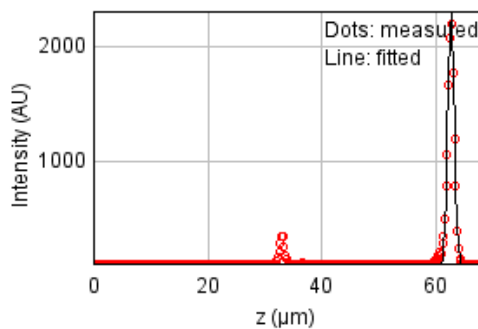
b = 0.040 px

c = 0.477 px

$x_c = 5.222$  px

$y_c = 6.839$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 334673.120

Standard deviation: 33.01728

$R^2$ : 0.98432

Parameters:

a = 120.63517

b = 2297.36473

c = 62.71360

d = 0.56721

## Bead 2961

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

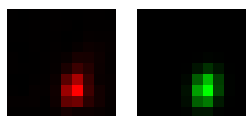
Coordinates : 60.7  $\mu\text{m}$  (x), 8.61  $\mu\text{m}$  (y), 62.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

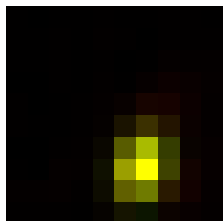
FWHM	Non corrected	Corrected	Theoretical
min	377 nm	390 nm	223 nm
max	522 nm	540 nm	223 nm
z	1.04 $\mu\text{m}$	1.05 $\mu\text{m}$	885 nm
Asymmetry	0.721		
Theta	74.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1792.778$  (brightness)

$B = 132.183$  (background)

$a = 0.913$  px

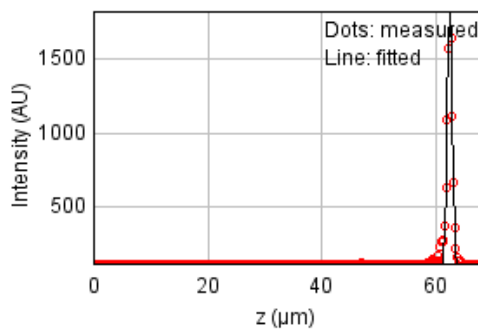
$b = 0.116$  px

$c = 0.524$  px

$x_c = 5.780$  px

$y_c = 6.846$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 107394.247

Standard deviation: 18.70343

$R^2 = 0.98950$

Parameters:

$a = 115.71391$

$b = 1820.23587$

$c = 62.48629$

$d = 0.44278$

## Bead 2962

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

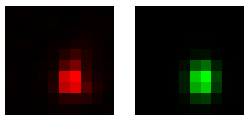
Coordinates : 44.4  $\mu\text{m}$  (x), 6.31  $\mu\text{m}$  (y), 62.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

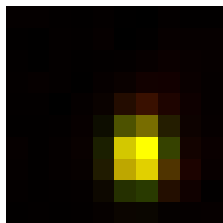
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	423 nm	223 nm
max	503 nm	520 nm	223 nm
z	1.12 $\mu\text{m}$	1.12 $\mu\text{m}$	885 nm
Asymmetry	0.815		
Theta	86.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1492.428$  (brightness)

$B = 127.959$  (background)

$a = 0.800$  px

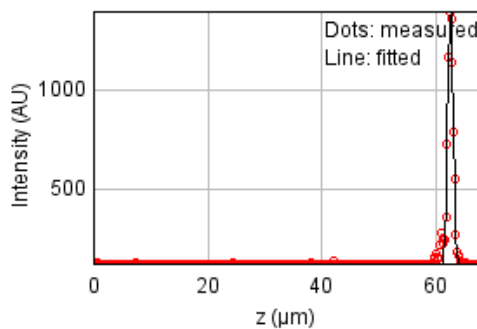
$b = 0.014$  px

$c = 0.532$  px

$x_c = 5.649$  px

$y_c = 6.315$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 94610.9378

Standard deviation: 17.55503

$R^2: 0.98545$

Parameters:

$a = 115.07949$

$b = 1425.30951$

$c = 62.60888$

$d = 0.47523$

## Bead 2963

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

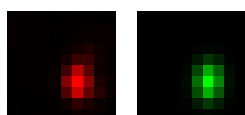
Coordinates : 47.5  $\mu\text{m}$  (x), -2.64  $\mu\text{m}$  (y), 62.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	425 nm	439 nm	223 nm
max	589 nm	609 nm	223 nm
z	1.3 $\mu\text{m}$	1.3 $\mu\text{m}$	885 nm
Asymmetry	0.721		
Theta	86.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1329.951 (brightness)

B = 126.939 (background)

a = 0.743 px

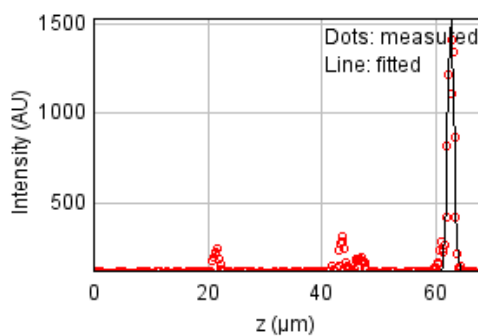
b = 0.021 px

c = 0.388 px

xc = 6.068 px

yc = 6.020 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 554022.630

Standard deviation: 42.48098

$R^2$ : 0.93868

Parameters:

a = 122.79762

b = 1525.57839

c = 62.67595

d = 0.55080

## Bead 2964

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

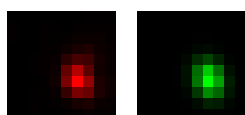
Coordinates : 75.5  $\mu\text{m}$  (x), -47.7  $\mu\text{m}$  (y), 62.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

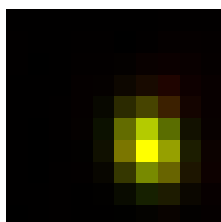
FWHM	Non corrected	Corrected	Theoretical
min	456 nm	471 nm	223 nm
max	579 nm	598 nm	223 nm
z	1.35 $\mu\text{m}$	1.35 $\mu\text{m}$	885 nm
Asymmetry	0.788		
Theta	-71.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 2326.169 (brightness)

B = 139.060 (background)

a = 0.620 px

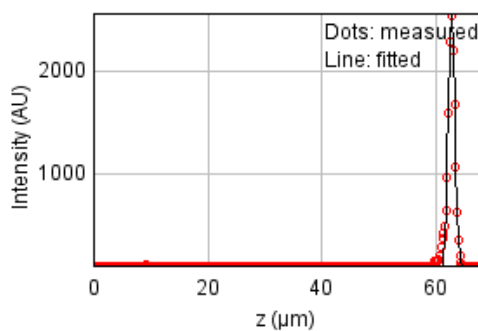
b = -0.074 px

c = 0.426 px

$x_c = 6.098$  px

$y_c = 5.792$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 231151.726

Standard deviation: 27.43970

$R^2$ : 0.99160

Parameters:

a = 117.03327

b = 2588.58067

c = 62.80889

d = 0.57154



## Bead 2965

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

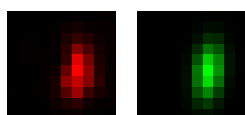
Coordinates : -102  $\mu\text{m}$  (x), -64.9  $\mu\text{m}$  (y), 62.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

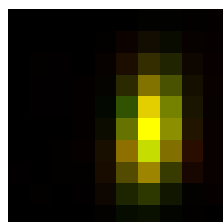
FWHM	Non corrected	Corrected	Theoretical
min	440 nm	455 nm	223 nm
max	877 nm	907 nm	223 nm
z	1.02 $\mu\text{m}$	1.03 $\mu\text{m}$	885 nm
Asymmetry	0.502		
Theta	83.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1576.628 (brightness)

B = 126.898 (background)

a = 0.686 px

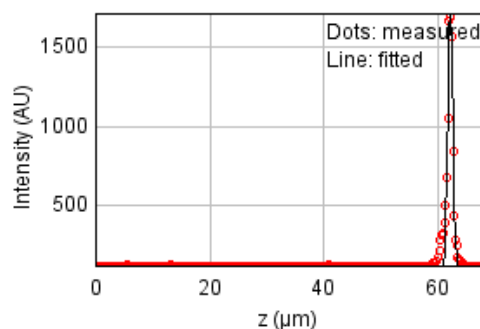
b = 0.059 px

c = 0.181 px

$x_c = 6.074$  px

$y_c = 5.078$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 270674.456

Standard deviation: 29.69303

$R^2$ : 0.97037

Parameters:

a = 116.45546

b = 1726.91863

c = 62.20306

d = 0.43406

## Bead 2966

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

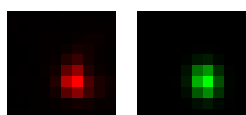
Coordinates : 56.9  $\mu\text{m}$  (x), -93.9  $\mu\text{m}$  (y), 62.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

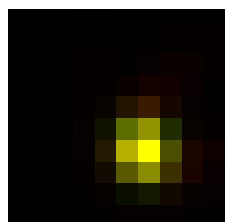
FWHM	Non corrected	Corrected	Theoretical
min	414 nm	428 nm	223 nm
max	486 nm	502 nm	223 nm
z	1.19 $\mu\text{m}$	1.2 $\mu\text{m}$	885 nm
Asymmetry	0.853		
Theta	-79.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 2259.316$  (brightness)

$B = 132.772$  (background)

$a = 0.774$  px

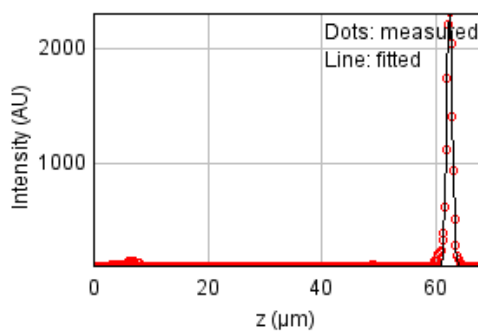
$b = -0.038$  px

$c = 0.575$  px

$x_c = 5.745$  px

$y_c = 5.961$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 131291.994

Standard deviation: 20.67997

$R^2: 0.99314$

Parameters:

$a = 120.07675$

$b = 2307.93038$

$c = 62.43014$

$d = 0.50631$

## Bead 2967

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

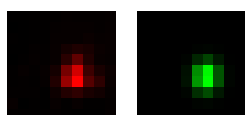
Coordinates : -109  $\mu\text{m}$  (x), 91.2  $\mu\text{m}$  (y), 62.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

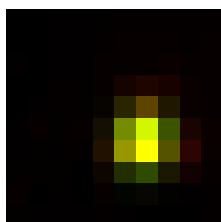
FWHM	Non corrected	Corrected	Theoretical
min	403 nm	417 nm	223 nm
max	462 nm	477 nm	223 nm
z	1.31 $\mu\text{m}$	1.32 $\mu\text{m}$	885 nm
Asymmetry	0.872		
Theta	84.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1273.737$  (brightness)

$B = 124.555$  (background)

$a = 0.825$  px

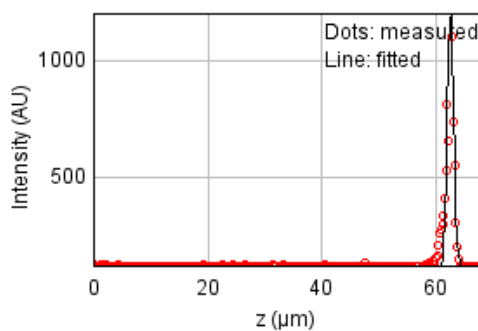
$b = 0.019$  px

$c = 0.631$  px

$x_c = 5.829$  px

$y_c = 5.534$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 288666.100

Standard deviation: 30.66399

$R^2: 0.94794$

Parameters:

$a = 115.27119$

$b = 1212.64101$

$c = 62.61080$

$d = 0.55806$

## Bead 2968

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

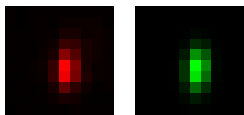
Coordinates : -71.9  $\mu\text{m}$  (x), 90.6  $\mu\text{m}$  (y), 62.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

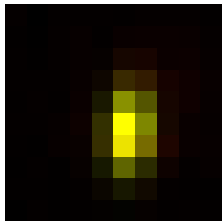
FWHM	Non corrected	Corrected	Theoretical
min	340 nm	352 nm	223 nm
max	628 nm	649 nm	223 nm
z	1.19 $\mu\text{m}$	1.2 $\mu\text{m}$	885 nm
Asymmetry	0.542		
Theta	86.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1402.610$  (brightness)

$B = 131.774$  (background)

$a = 1.155$  px

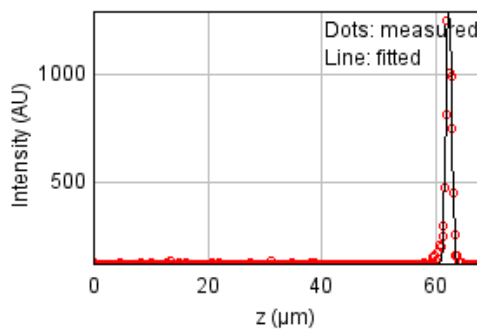
$b = 0.055$  px

$c = 0.344$  px

$x_c = 5.210$  px

$y_c = 5.293$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 126423.306

Standard deviation: 20.29291

$R^2: 0.97800$

Parameters:

$a = 113.76712$

$b = 1302.80713$

$c = 62.30592$

$d = 0.50693$

## Bead 2969

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

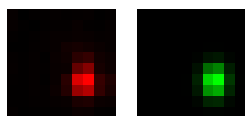
Coordinates : -131  $\mu\text{m}$  (x), 83.4  $\mu\text{m}$  (y), 62.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

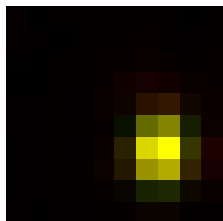
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	410 nm	223 nm
max	501 nm	518 nm	223 nm
z	1.15 $\mu\text{m}$	1.16 $\mu\text{m}$	885 nm
Asymmetry	0.791		
Theta	87.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1333.419$  (brightness)

$B = 125.970$  (background)

$a = 0.854$  px

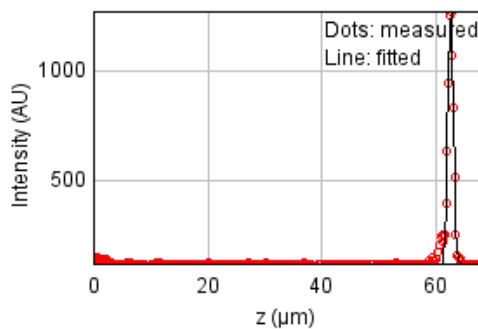
$b = 0.014$  px

$c = 0.535$  px

$x_c = 6.602$  px

$y_c = 6.132$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 85146.8954

Standard deviation: 16.65387

$R^2: 0.98392$

Parameters:

$a = 115.25615$

$b = 1280.23652$

$c = 62.64017$

$d = 0.48888$

## Bead 2970

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

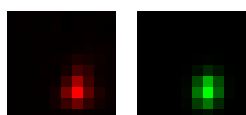
Coordinates : -77.0  $\mu\text{m}$  (x), 79.2  $\mu\text{m}$  (y), 62.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

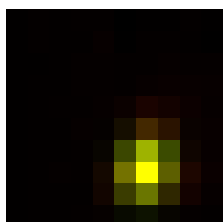
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	397 nm	223 nm
max	492 nm	509 nm	223 nm
z	1.16 $\mu\text{m}$	1.17 $\mu\text{m}$	885 nm
Asymmetry	0.78		
Theta	80.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 2077.862$  (brightness)

$B = 136.274$  (background)

$a = 0.900$  px

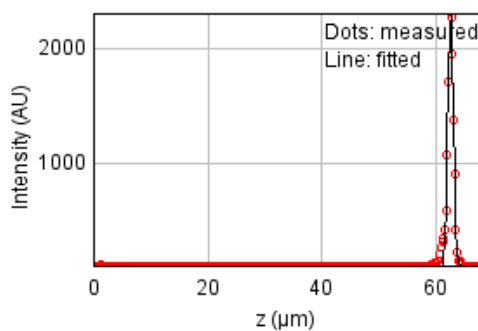
$b = 0.060$  px

$c = 0.565$  px

$x_c = 5.960$  px

$y_c = 6.821$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 163951.438

Standard deviation: 23.10939

$R^2: 0.99135$

Parameters:

$a = 116.66653$

$b = 2320.10292$

$c = 62.63925$

$d = 0.49307$

## Bead 2971

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

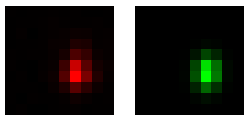
Coordinates : -125  $\mu\text{m}$  (x), 79.1  $\mu\text{m}$  (y), 62.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

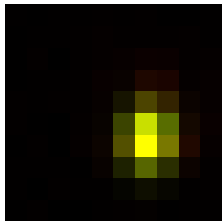
FWHM	Non corrected	Corrected	Theoretical
min	374 nm	387 nm	223 nm
max	506 nm	523 nm	223 nm
z	1.31 $\mu\text{m}$	1.32 $\mu\text{m}$	885 nm
Asymmetry	0.74		
Theta	87.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1639.683 (brightness)

B = 127.080 (background)

a = 0.957 px

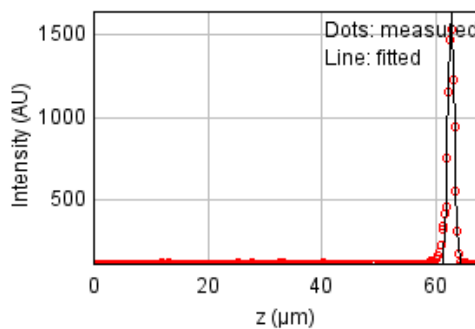
b = 0.020 px

c = 0.526 px

xc = 6.112 px

yc = 5.624 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 134492.228

Standard deviation: 20.93049

$R^2$ : 0.98691

Parameters:

a = 114.33074

b = 1639.96149

c = 62.72535

d = 0.55711

## Bead 2972

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

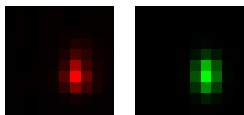
Coordinates : -102  $\mu\text{m}$  (x), 75.9  $\mu\text{m}$  (y), 62.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

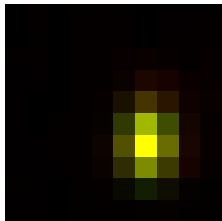
FWHM	Non corrected	Corrected	Theoretical
min	366 nm	378 nm	223 nm
max	532 nm	550 nm	223 nm
z	1.24 $\mu\text{m}$	1.24 $\mu\text{m}$	885 nm
Asymmetry	0.688		
Theta	89.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1490.979 (brightness)

B = 127.802 (background)

a = 1.001 px

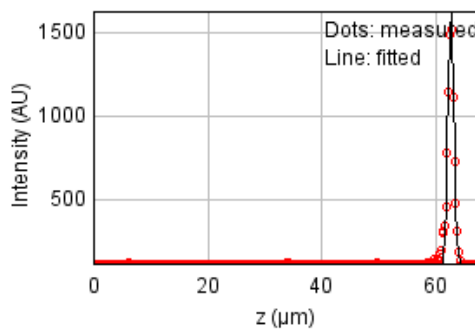
b = 0.001 px

c = 0.474 px

xc = 6.072 px

yc = 5.847 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 90949.9916

Standard deviation: 17.21203

$R^2$ : 0.99039

Parameters:

a = 114.54264

b = 1622.28362

c = 62.69002

d = 0.52628



## Bead 2973

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

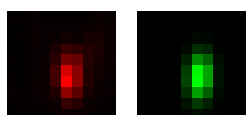
Coordinates : -26.3  $\mu\text{m}$  (x), 74.5  $\mu\text{m}$  (y), 62.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

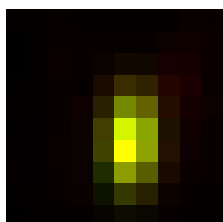
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	400 nm	223 nm
max	709 nm	733 nm	223 nm
z	1.27 $\mu\text{m}$	1.27 $\mu\text{m}$	885 nm
Asymmetry	0.546		
Theta	87.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1041.133 (brightness)

B = 130.064 (background)

a = 0.893 px

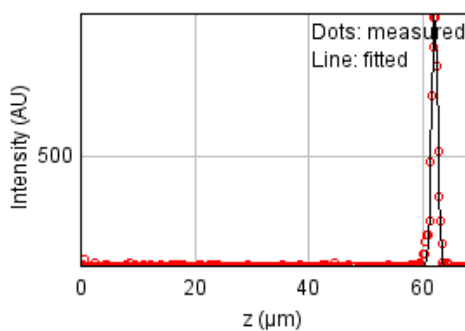
b = 0.031 px

c = 0.268 px

xc = 5.256 px

yc = 5.553 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37547.0849

Standard deviation: 11.05908

$R^2$ : 0.98882

Parameters:

a = 113.87949

b = 1002.42083

c = 62.08652

d = 0.53726

## Bead 2974

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

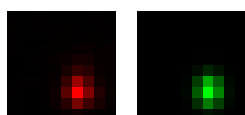
Coordinates : -83.8  $\mu\text{m}$  (x), 65.2  $\mu\text{m}$  (y), 62.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

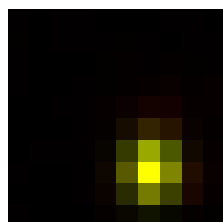
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	411 nm	223 nm
max	483 nm	499 nm	223 nm
z	1.19 $\mu\text{m}$	1.19 $\mu\text{m}$	885 nm
Asymmetry	0.823		
Theta	89.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 2083.655 (brightness)

B = 132.269 (background)

a = 0.850 px

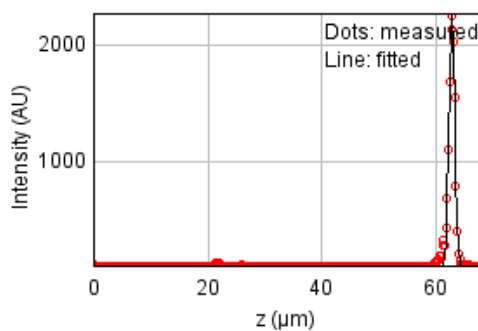
b = 0.004 px

c = 0.576 px

$x_c = 6.114$  px

$y_c = 6.858$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 173000.972

Standard deviation: 23.73860

$R^2$ : 0.99071

Parameters:

a = 116.07250

b = 2275.59671

c = 62.86795

d = 0.50415

## Bead 2975 (Rejected)

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

Coordinates : -52.6  $\mu\text{m}$  (x), 65.6  $\mu\text{m}$  (y), 58.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	223 nm
max	0	0	223 nm
z	1.42 $\mu\text{m}$	1.42 $\mu\text{m}$	885 nm
Asymmetry	0.0		
Theta	0.0°		

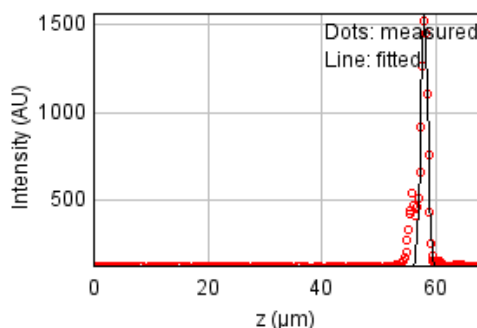
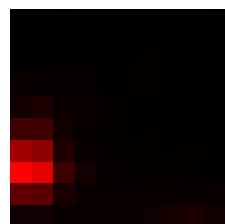
### XY profile & fitting parameters :

(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: 811846.762

Standard deviation: 51.42424

$R^2$ : 0.92423

Parameters:

$a = 122.77018$

$b = 1575.96486$

$c = 57.99503$

$d = 0.60093$

## Bead 2976

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

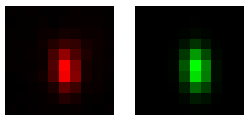
Coordinates : -153  $\mu\text{m}$  (x), 62.6  $\mu\text{m}$  (y), 62.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

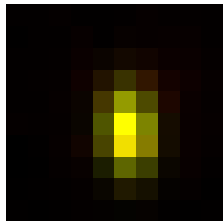
FWHM	Non corrected	Corrected	Theoretical
min	389 nm	402 nm	223 nm
max	651 nm	673 nm	223 nm
z	1.25 $\mu\text{m}$	1.25 $\mu\text{m}$	885 nm
Asymmetry	0.598		
Theta	-86.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1367.697$  (brightness)

$B = 131.365$  (background)

$a = 0.884$  px

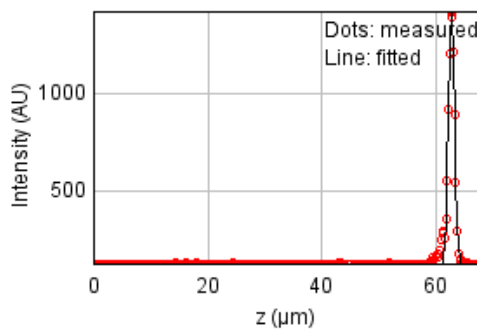
$b = -0.039$  px

$c = 0.320$  px

$x_c = 5.139$  px

$y_c = 5.299$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 98935.9418

Standard deviation: 17.95179

$R^2: 0.98687$

Parameters:

$a = 114.03148$

$b = 1453.22071$

$c = 62.79648$

$d = 0.52950$

## Bead 2977

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

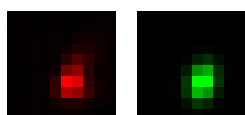
Coordinates : -11.6  $\mu\text{m}$  (x), 57.2  $\mu\text{m}$  (y), 62.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

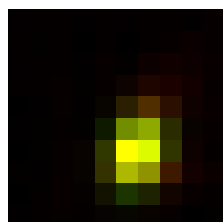
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	424 nm	223 nm
max	559 nm	578 nm	223 nm
z	1.4 $\mu\text{m}$	1.4 $\mu\text{m}$	885 nm
Asymmetry	0.733		
Theta	72.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1197.575$  (brightness)

$B = 127.873$  (background)

$a = 0.767$  px

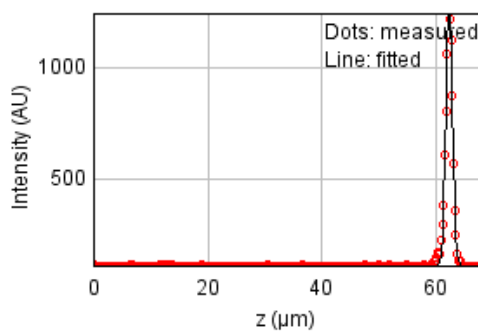
$b = 0.104$  px

$c = 0.461$  px

$x_c = 5.482$  px

$y_c = 6.036$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 32434.6820

Standard deviation: 10.27864

$R^2: 0.99470$

Parameters:

$a = 114.36468$

$b = 1260.59967$

$c = 62.37196$

$d = 0.59309$

## Bead 2978

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

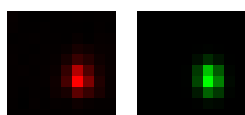
Coordinates : -152  $\mu\text{m}$  (x), 56.4  $\mu\text{m}$  (y), 63.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

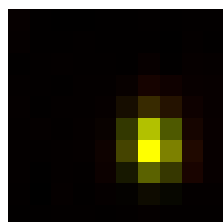
FWHM	Non corrected	Corrected	Theoretical
min	364 nm	376 nm	223 nm
max	468 nm	484 nm	223 nm
z	1.26 $\mu\text{m}$	1.26 $\mu\text{m}$	885 nm
Asymmetry	0.778		
Theta	-83.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1772.386 (brightness)

B = 128.670 (background)

a = 1.006 px

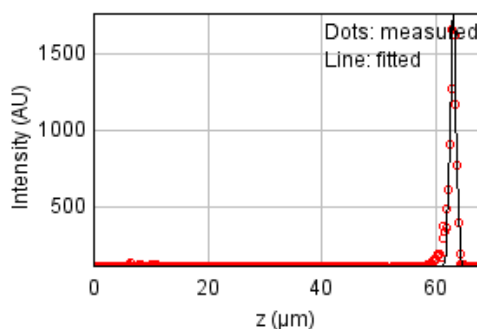
b = -0.048 px

c = 0.619 px

$x_c = 6.149$  px

$y_c = 5.740$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 276902.095

Standard deviation: 30.03267

$R^2$ : 0.97645

Parameters:

a = 115.76070

b = 1771.75948

c = 63.08665

d = 0.53459

## Bead 2979

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

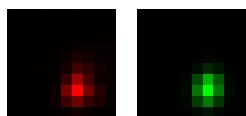
Coordinates : -26.4  $\mu\text{m}$  (x), 53.5  $\mu\text{m}$  (y), 62.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

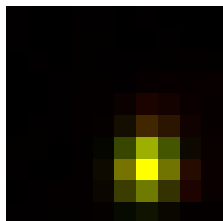
FWHM	Non corrected	Corrected	Theoretical
min	408 nm	422 nm	223 nm
max	494 nm	511 nm	223 nm
z	1.26 $\mu\text{m}$	1.26 $\mu\text{m}$	885 nm
Asymmetry	0.826		
Theta	79.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1846.491$  (brightness)

$B = 132.598$  (background)

$a = 0.797$  px

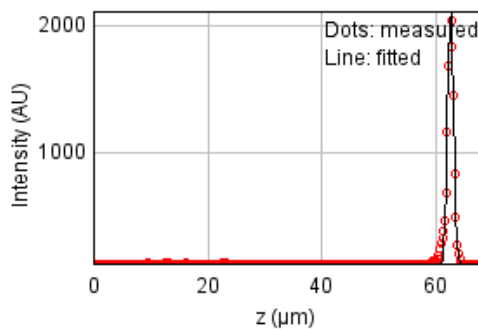
$b = 0.048$  px

$c = 0.559$  px

$x_c = 6.013$  px

$y_c = 6.839$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 150635.504

Standard deviation: 22.15106

$R^2: 0.99118$

Parameters:

$a = 116.75618$

$b = 2127.60743$

$c = 62.62573$

$d = 0.53450$

## Bead 2980

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

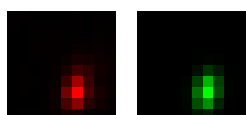
Coordinates : -43.1  $\mu\text{m}$  (x), 51.5  $\mu\text{m}$  (y), 62.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

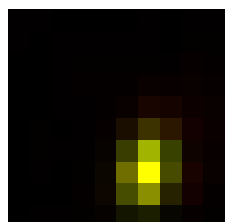
FWHM	Non corrected	Corrected	Theoretical
min	356 nm	368 nm	223 nm
max	548 nm	567 nm	223 nm
z	1.13 $\mu\text{m}$	1.13 $\mu\text{m}$	885 nm
Asymmetry	0.65		
Theta	79.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 2164.214 (brightness)

B = 139.152 (background)

a = 1.036 px

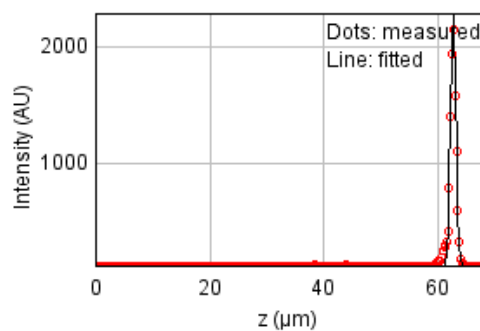
b = 0.109 px

c = 0.467 px

$x_c = 5.917$  px

$y_c = 6.896$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 120874.138

Standard deviation: 19.84255

$R^2$ : 0.99332

Parameters:

a = 115.67730

b = 2300.51283

c = 62.74700

d = 0.47918



## Bead 2981

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

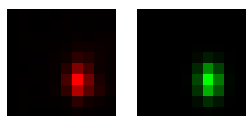
Coordinates : -31.2  $\mu\text{m}$  (x), 47.1  $\mu\text{m}$  (y), 62.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

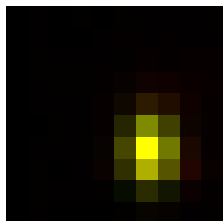
FWHM	Non corrected	Corrected	Theoretical
min	362 nm	375 nm	223 nm
max	518 nm	536 nm	223 nm
z	1.19 $\mu\text{m}$	1.19 $\mu\text{m}$	885 nm
Asymmetry	0.699		
Theta	-89.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1755.802 (brightness)

B = 132.354 (background)

a = 1.021 px

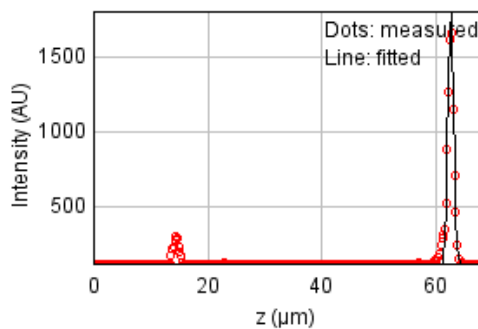
b = -0.007 px

c = 0.500 px

$x_c = 6.136$  px

$y_c = 6.123$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 284251.997

Standard deviation: 30.42864

$R^2$ : 0.97519

Parameters:

a = 121.10620

b = 1801.42555

c = 62.66924

d = 0.50453

## Bead 2982

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

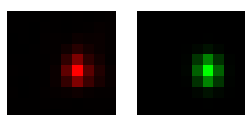
Coordinates : -75.7  $\mu\text{m}$  (x), 47.3  $\mu\text{m}$  (y), 63.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

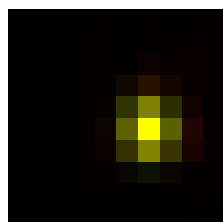
FWHM	Non corrected	Corrected	Theoretical
min	371 nm	384 nm	223 nm
max	449 nm	465 nm	223 nm
z	1.52 $\mu\text{m}$	1.52 $\mu\text{m}$	885 nm
Asymmetry	0.826		
Theta	-86.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 2494.038 (brightness)

B = 135.444 (background)

a = 0.972 px

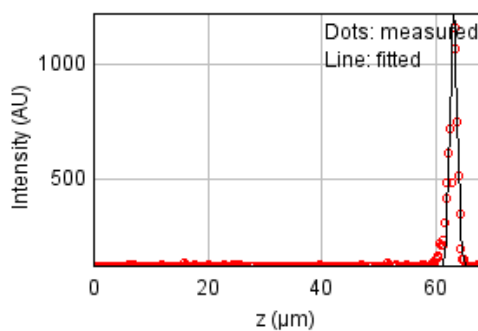
b = -0.020 px

c = 0.666 px

$x_c = 6.003$  px

$y_c = 5.001$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 438363.683

Standard deviation: 37.78749

$R^2$ : 0.93384

Parameters:

a = 114.89103

b = 1225.19026

c = 63.16131

d = 0.64468

## Bead 2983

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

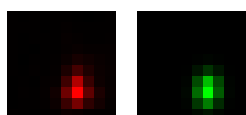
Coordinates : -113  $\mu\text{m}$  (x), 45.1  $\mu\text{m}$  (y), 63.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

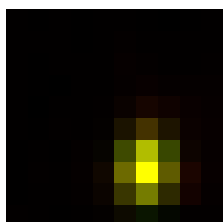
FWHM	Non corrected	Corrected	Theoretical
min	374 nm	387 nm	223 nm
max	511 nm	528 nm	223 nm
z	1.21 $\mu\text{m}$	1.22 $\mu\text{m}$	885 nm
Asymmetry	0.732		
Theta	86.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 2066.020 (brightness)

B = 131.119 (background)

a = 0.958 px

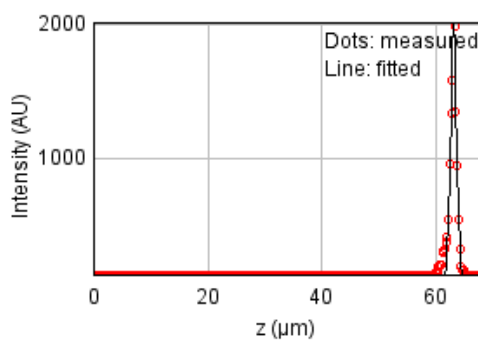
b = 0.028 px

c = 0.516 px

$x_c = 5.964$  px

$y_c = 6.796$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 316544.960

Standard deviation: 32.11061

$R^2$ : 0.97877

Parameters:

a = 115.59742

b = 2018.54976

c = 63.15471

d = 0.51407

## Bead 2984

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

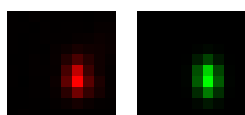
Coordinates : -31.0  $\mu\text{m}$  (x), 44.1  $\mu\text{m}$  (y), 62.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

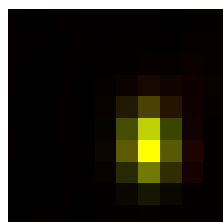
FWHM	Non corrected	Corrected	Theoretical
min	358 nm	370 nm	223 nm
max	535 nm	553 nm	223 nm
z	1.15 $\mu\text{m}$	1.16 $\mu\text{m}$	885 nm
Asymmetry	0.67		
Theta	-87.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 2123.266 (brightness)

B = 135.958 (background)

a = 1.044 px

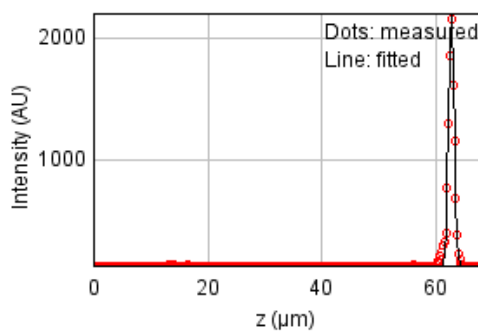
b = -0.027 px

c = 0.470 px

$x_c = 5.991$  px

$y_c = 5.717$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 124433.293

Standard deviation: 20.13256

$R^2$ : 0.99281

Parameters:

a = 117.29478

b = 2230.11830

c = 62.77485

d = 0.49014

## Bead 2985 (Rejected)

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

Coordinates : -69.4  $\mu\text{m}$  (x), 43.1  $\mu\text{m}$  (y), 63.4  $\mu\text{m}$  (z)

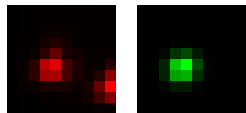
Corresponding bead : Not found

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

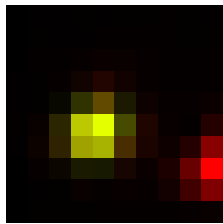
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	413 nm	223 nm
max	442 nm	457 nm	223 nm
z	263 nm	264 nm	885 nm
Asymmetry	0.903		
Theta	33.3°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.539$



Parameters:

A = 1905.854 (brightness)

B = 205.626 (background)

a = 0.733 px

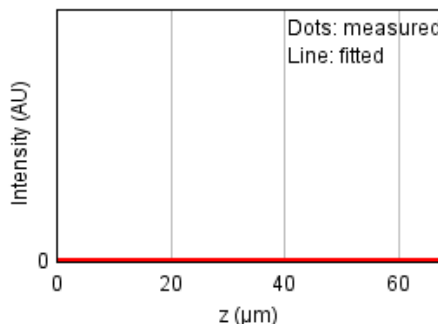
b = 0.071 px

c = 0.794 px

xc = 3.634 px

yc = 5.305 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 2986

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

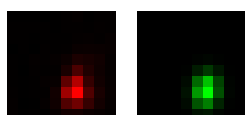
Coordinates : -22.0  $\mu\text{m}$  (x), 40.5  $\mu\text{m}$  (y), 62.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	398 nm	411 nm	223 nm
max	525 nm	543 nm	223 nm
z	1.15 $\mu\text{m}$	1.16 $\mu\text{m}$	885 nm
Asymmetry	0.758		
Theta	81.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1477.684 (brightness)

B = 125.903 (background)

a = 0.840 px

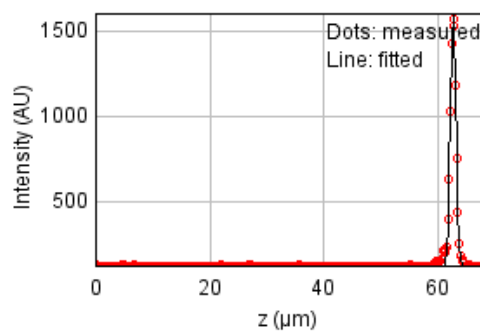
b = 0.051 px

c = 0.494 px

$x_c = 5.821$  px

$y_c = 6.796$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 46181.3033

Standard deviation: 12.26490

$R^2$ : 0.99466

Parameters:

a = 115.69200

b = 1610.43149

c = 62.73606

d = 0.49017

## Bead 2987

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

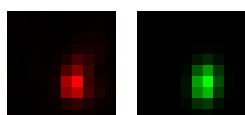
Coordinates : 12.3  $\mu\text{m}$  (x), 38.9  $\mu\text{m}$  (y), 62.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

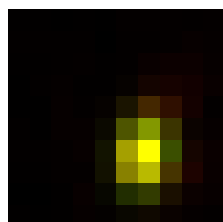
FWHM	Non corrected	Corrected	Theoretical
min	403 nm	416 nm	223 nm
max	571 nm	590 nm	223 nm
z	1.11 $\mu\text{m}$	1.12 $\mu\text{m}$	885 nm
Asymmetry	0.706		
Theta	82.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1244.671 (brightness)

B = 126.158 (background)

a = 0.821 px

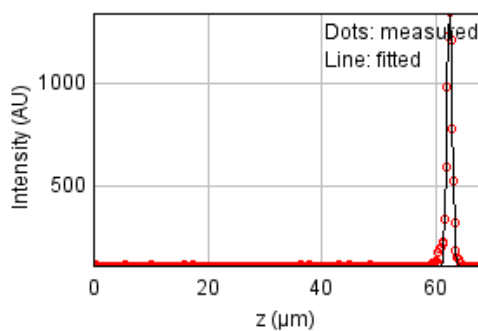
b = 0.053 px

c = 0.419 px

$x_c = 5.776$  px

$y_c = 6.150$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 52062.8450

Standard deviation: 13.02251

$R^2$ : 0.99066

Parameters:

a = 115.25797

b = 1335.25753

c = 62.44422

d = 0.47233

## Bead 2988

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

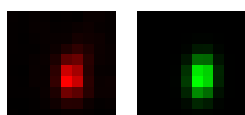
Coordinates : 23.8  $\mu\text{m}$  (x), 37.5  $\mu\text{m}$  (y), 62.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

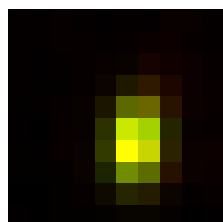
FWHM	Non corrected	Corrected	Theoretical
min	401 nm	415 nm	223 nm
max	622 nm	643 nm	223 nm
z	1.27 $\mu\text{m}$	1.27 $\mu\text{m}$	885 nm
Asymmetry	0.645		
Theta	85.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1135.742 (brightness)

B = 129.291 (background)

a = 0.830 px

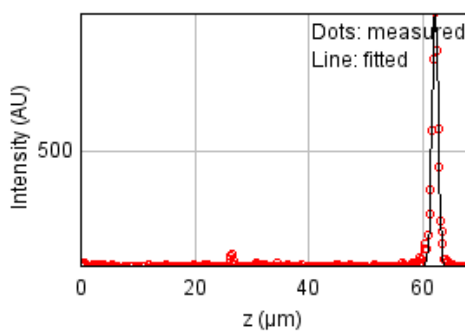
b = 0.040 px

c = 0.350 px

xc = 5.409 px

yc = 5.593 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 48532.7484

Standard deviation: 12.57327

$R^2$ : 0.98445

Parameters:

a = 115.82457

b = 969.70090

c = 62.16474

d = 0.53840



## Bead 2989

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

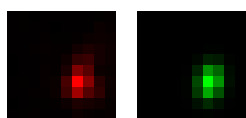
Coordinates : -9.42  $\mu\text{m}$  (x), 35.4  $\mu\text{m}$  (y), 62.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

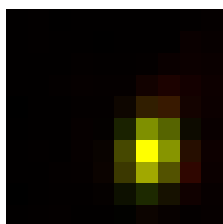
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	394 nm	223 nm
max	529 nm	546 nm	223 nm
z	1.29 $\mu\text{m}$	1.3 $\mu\text{m}$	885 nm
Asymmetry	0.72		
Theta	78.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1676.282 (brightness)

B = 136.905 (background)

a = 0.908 px

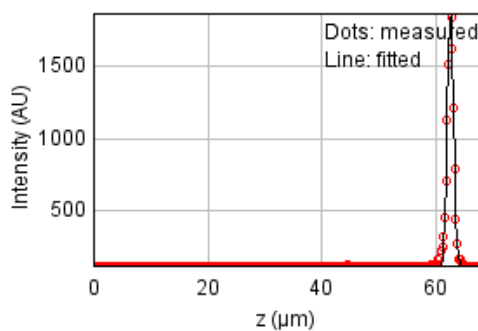
b = 0.087 px

c = 0.498 px

$x_c = 6.197$  px

$y_c = 6.041$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 55714.7513

Standard deviation: 13.47150

$R^2$ : 0.99589

Parameters:

a = 114.79439

b = 1888.31936

c = 62.60521

d = 0.54779

## Bead 2990

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

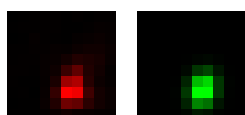
Coordinates : -5.39  $\mu\text{m}$  (x), 35.5  $\mu\text{m}$  (y), 62.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

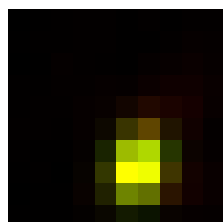
FWHM	Non corrected	Corrected	Theoretical
min	411 nm	425 nm	223 nm
max	535 nm	553 nm	223 nm
z	1.56 $\mu\text{m}$	1.57 $\mu\text{m}$	885 nm
Asymmetry	0.769		
Theta	76.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1721.181$  (brightness)

$B = 134.416$  (background)

$a = 0.775$  px

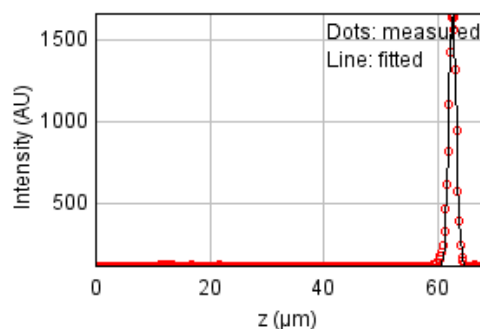
$b = 0.075$  px

$c = 0.488$  px

$x_c = 5.520$  px

$y_c = 6.739$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 69940.2203

Standard deviation: 15.09365

$R^2: 0.99447$

Parameters:

$a = 114.51269$

$b = 1676.88171$

$c = 62.62046$

$d = 0.66249$

## Bead 2991

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

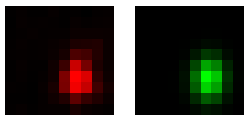
Coordinates : -16.7  $\mu\text{m}$  (x), 34.5  $\mu\text{m}$  (y), 62.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

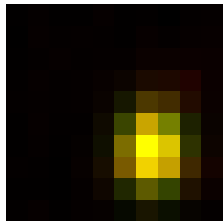
FWHM	Non corrected	Corrected	Theoretical
min	490 nm	507 nm	223 nm
max	647 nm	669 nm	223 nm
z	1.38 $\mu\text{m}$	1.39 $\mu\text{m}$	885 nm
Asymmetry	0.757		
Theta	88.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1259.434 (brightness)

B = 122.165 (background)

a = 0.558 px

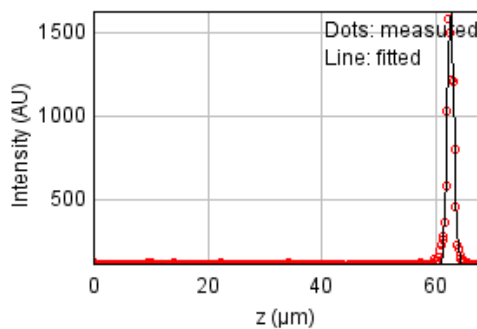
b = 0.006 px

c = 0.320 px

$x_c = 6.266$  px

$y_c = 6.184$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 427383.362

Standard deviation: 37.31123

$R^2$ : 0.96128

Parameters:

a = 114.11674

b = 1635.50639

c = 62.64047

d = 0.58699

## Bead 2992

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

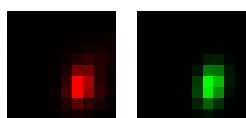
Coordinates : -21.1  $\mu\text{m}$  (x), 33.6  $\mu\text{m}$  (y), 62.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

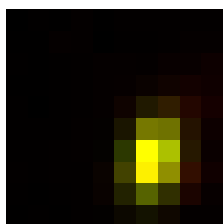
FWHM	Non corrected	Corrected	Theoretical
min	380 nm	393 nm	223 nm
max	591 nm	611 nm	223 nm
z	1.42 $\mu\text{m}$	1.42 $\mu\text{m}$	885 nm
Asymmetry	0.643		
Theta	77.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1807.041$  (brightness)

$B = 135.167$  (background)

$a = 0.904$  px

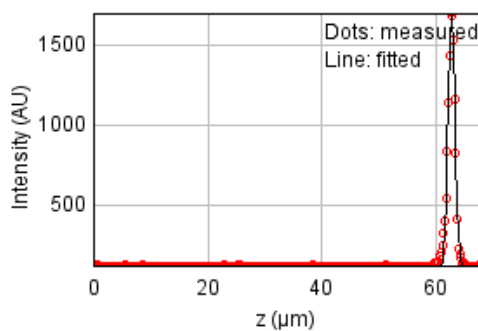
$b = 0.116$  px

$c = 0.411$  px

$x_c = 6.300$  px

$y_c = 6.339$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 84827.3436

Standard deviation: 16.62259

$R^2: 0.99305$

Parameters:

$a = 114.73274$

$b = 1722.43261$

$c = 62.79919$

$d = 0.60129$

## Bead 2993

Date : Mon Oct 17 13:30:09 PDT 2022

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

Frame size : 10 pixels

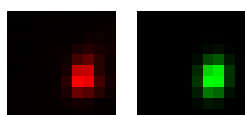
Coordinates : -25.0  $\mu\text{m}$  (x), 24.9  $\mu\text{m}$  (y), 62.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

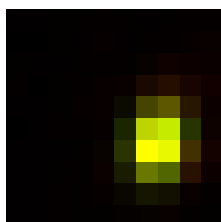
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	418 nm	223 nm
max	542 nm	560 nm	223 nm
z	1.41 $\mu\text{m}$	1.42 $\mu\text{m}$	885 nm
Asymmetry	0.745		
Theta	79.1°		

### 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 = 1900.961 (brightness)

B = 126.378 (background)

a = 0.809 px

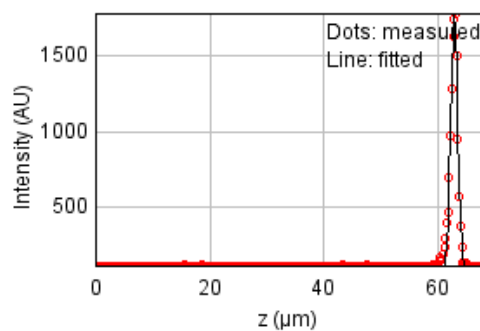
b = 0.068 px

c = 0.470 px

xc = 6.511 px

yc = 5.625 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 137528.973

Standard deviation: 21.16547

$R^2$ : 0.98945

Parameters:

a = 114.57543

b = 1773.80292

c = 62.92190

d = 0.60015

## Bead 2994

Date : Mon Oct 17 13:30:10 PDT 2022

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

Frame size : 10 pixels

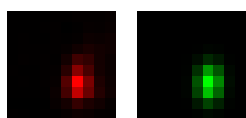
Coordinates : 22.9 um (x), 22.6 um (y), 62.5 um (z)

Corresponding bead : Not found

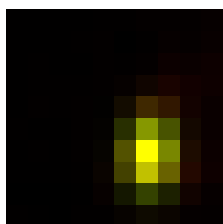
FWHM	Non corrected	Corrected	Theoretical
min	389 nm	402 nm	223 nm
max	579 nm	599 nm	223 nm
z	1.29 um	1.3 um	885 nm
Asymmetry	0.671		
Theta	87.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1735.841 (brightness)

B = 135.691 (background)

a = 0.887 px

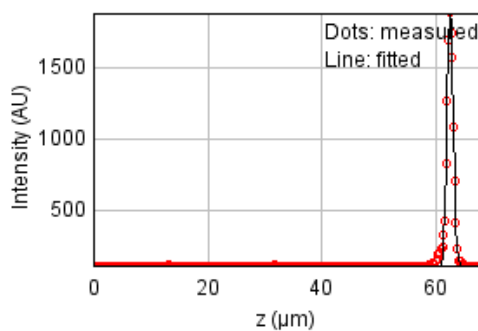
b = 0.018 px

c = 0.401 px

xc = 6.135 px

yc = 6.145 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 70429.6923

Standard deviation: 15.14638

$R^2$ : 0.99480

Parameters:

a = 116.10026

b = 1885.54318

c = 62.54877

d = 0.54989

## Bead 2995 (Rejected)

Date : Mon Oct 17 13:30:10 PDT 2022

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

Frame size : 10 pixels

Coordinates : 18.3  $\mu\text{m}$  (x), 17.4  $\mu\text{m}$  (y), 62.3  $\mu\text{m}$  (z)

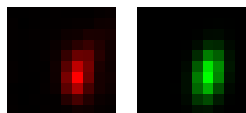
Corresponding bead : Not found

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

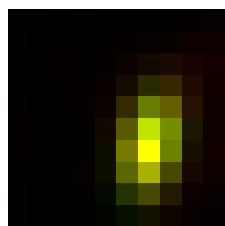
FWHM	Non corrected	Corrected	Theoretical
min	430 nm	445 nm	223 nm
max	772 nm	798 nm	223 nm
z	2.31 $\mu\text{m}$	2.32 $\mu\text{m}$	885 nm
Asymmetry	0.557		
Theta	78.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1391.582 (brightness)

B = 138.025 (background)

a = 0.705 px

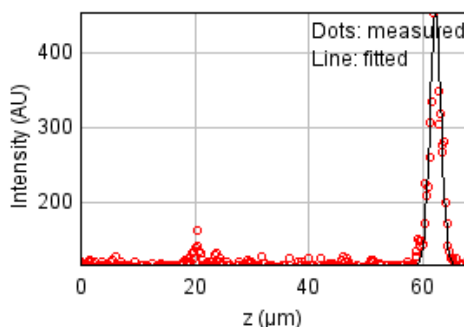
b = 0.097 px

c = 0.245 px

xc = 6.065 px

yc = 5.706 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 59275.3110

Standard deviation: 13.89529

$R^2$ : 0.93502

Parameters:

a = 115.15544

b = 452.42758

c = 62.26215

d = 0.98109

## Bead 2996

Date : Mon Oct 17 13:30:10 PDT 2022

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

Frame size : 10 pixels

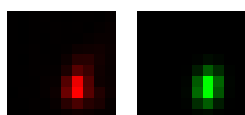
Coordinates : 15.2  $\mu\text{m}$  (x), 17.3  $\mu\text{m}$  (y), 62.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

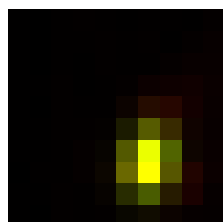
FWHM	Non corrected	Corrected	Theoretical
min	365 nm	377 nm	223 nm
max	517 nm	535 nm	223 nm
z	1.28 $\mu\text{m}$	1.29 $\mu\text{m}$	885 nm
Asymmetry	0.706		
Theta	81.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1954.378$  (brightness)

$B = 137.837$  (background)

$a = 0.995$  px

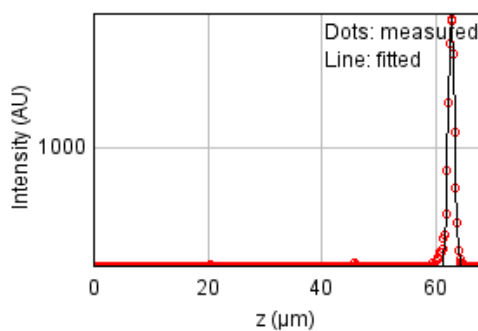
$b = 0.077$  px

$c = 0.513$  px

$x_c = 5.991$  px

$y_c = 6.507$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 97852.1813

Standard deviation: 17.85320

$R^2: 0.99366$

Parameters:

$a = 116.28901$

$b = 2013.34028$

$c = 62.77110$

$d = 0.54468$



## Bead 2997

Date : Mon Oct 17 13:30:10 PDT 2022

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

Frame size : 10 pixels

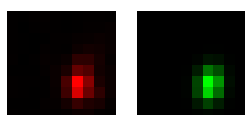
Coordinates : 62.7  $\mu\text{m}$  (x), 1.26  $\mu\text{m}$  (y), 62.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

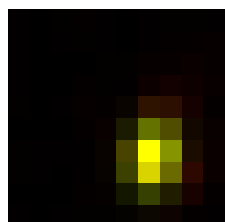
FWHM	Non corrected	Corrected	Theoretical
min	377 nm	389 nm	223 nm
max	525 nm	543 nm	223 nm
z	1.24 $\mu\text{m}$	1.25 $\mu\text{m}$	885 nm
Asymmetry	0.717		
Theta	81.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1600.292 (brightness)

B = 128.892 (background)

a = 0.935 px

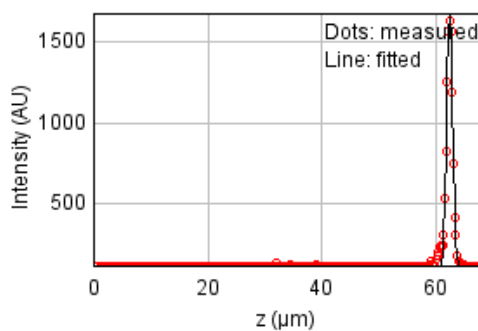
b = 0.070 px

c = 0.497 px

xc = 6.187 px

yc = 6.280 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 67985.5750

Standard deviation: 14.88124

$R^2$ : 0.99332

Parameters:

a = 114.82870

b = 1678.02766

c = 62.45710

d = 0.52832

## Bead 2998

Date : Mon Oct 17 13:30:10 PDT 2022

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

Frame size : 10 pixels

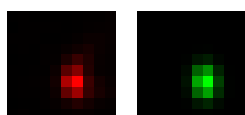
Coordinates : 45.0  $\mu\text{m}$  (x), -1.77  $\mu\text{m}$  (y), 62.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

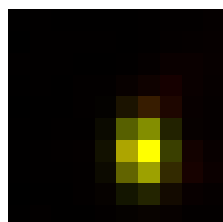
FWHM	Non corrected	Corrected	Theoretical
min	383 nm	396 nm	223 nm
max	506 nm	524 nm	223 nm
z	1.17 $\mu\text{m}$	1.17 $\mu\text{m}$	885 nm
Asymmetry	0.755		
Theta	-87.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1973.879 (brightness)

B = 132.089 (background)

a = 0.916 px

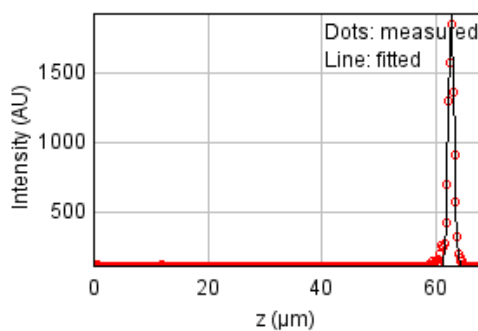
b = -0.019 px

c = 0.524 px

xc = 5.739 px

yc = 6.049 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 130213.630

Standard deviation: 20.59487

$R^2$ : 0.98997

Parameters:

a = 117.31410

b = 1934.01343

c = 62.74258

d = 0.49632

## Bead 2999

Date : Mon Oct 17 13:30:10 PDT 2022

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

Frame size : 10 pixels

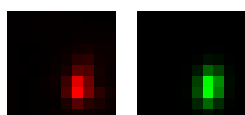
Coordinates : 53.1  $\mu\text{m}$  (x), -6.71  $\mu\text{m}$  (y), 62.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

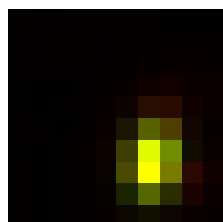
FWHM	Non corrected	Corrected	Theoretical
min	368 nm	380 nm	223 nm
max	547 nm	565 nm	223 nm
z	1.29 $\mu\text{m}$	1.3 $\mu\text{m}$	885 nm
Asymmetry	0.673		
Theta	81.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1382.451 (brightness)

B = 127.600 (background)

a = 0.980 px

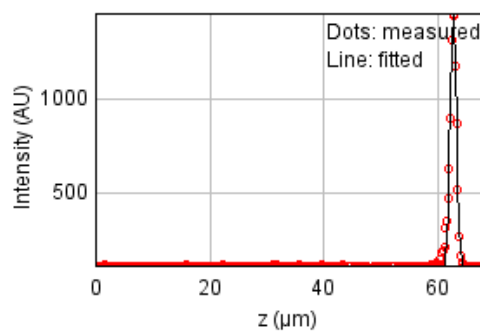
b = 0.076 px

c = 0.460 px

xc = 6.166 px

yc = 6.498 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 93778.7445

Standard deviation: 17.47765

$R^2$ : 0.98806

Parameters:

a = 114.03512

b = 1458.08765

c = 62.76172

d = 0.54880

## Bead 3000

Date : Mon Oct 17 13:30:11 PDT 2022

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

Frame size : 10 pixels

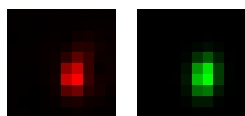
Coordinates : 80.7  $\mu\text{m}$  (x), -28.7  $\mu\text{m}$  (y), 62.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

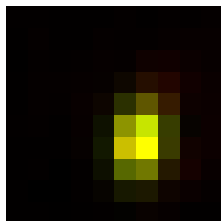
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	401 nm	223 nm
max	564 nm	583 nm	223 nm
z	1.09 $\mu\text{m}$	1.1 $\mu\text{m}$	885 nm
Asymmetry	0.688		
Theta	81.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1266.522$  (brightness)

$B = 128.235$  (background)

$a = 0.880$  px

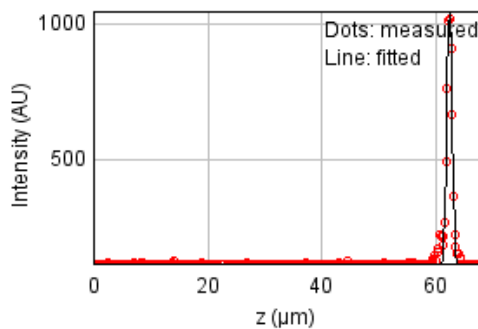
$b = 0.073$  px

$c = 0.434$  px

$x_c = 5.693$  px

$y_c = 5.678$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 52392.1262

Standard deviation: 13.06363

$R^2: 0.98379$

Parameters:

$a = 114.16130$

$b = 1048.36994$

$c = 62.42912$

$d = 0.46348$