

## Bead 1401

Date : Mon Oct 17 13:52:12 PDT 2022

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

Frame size : 12 pixels

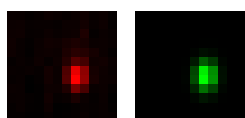
Coordinates : -46.2  $\mu\text{m}$  (x), -14.8  $\mu\text{m}$  (y), 27.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

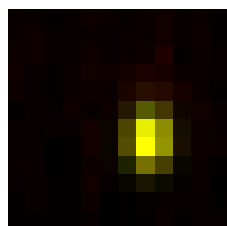
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	407 nm	270 nm
max	548 nm	571 nm	270 nm
z	2.33 $\mu\text{m}$	2.34 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.713		
Theta	88.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 560.765 (brightness)

B = 122.532 (background)

a = 0.877 px

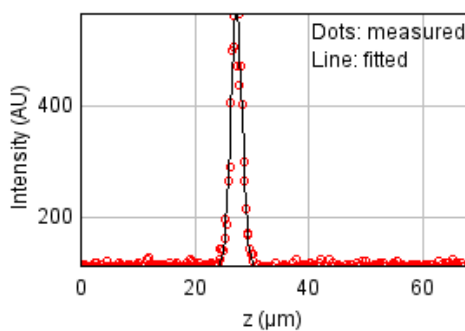
b = 0.014 px

c = 0.447 px

xc = 7.195 px

yc = 6.575 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47890.4319

Standard deviation: 12.48979

$R^2$ : 0.97020

Parameters:

a = 112.77465

b = 567.02168

c = 27.37091

d = 0.98915

## Bead 1402

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

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

Frame size : 12 pixels

Coordinates : 4.67  $\mu\text{m}$  (x), -70.1  $\mu\text{m}$  (y), 27.6  $\mu\text{m}$  (z)

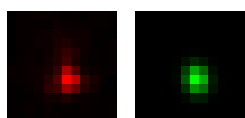
Corresponding bead : Not found



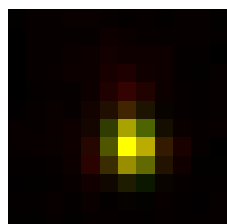
FWHM	Non corrected	Corrected	Theoretical
min	423 nm	441 nm	270 nm
max	512 nm	534 nm	270 nm
z	2.11 $\mu\text{m}$	2.12 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.826		
Theta	-78.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 697.127$  (brightness)

$B = 126.987$  (background)

$a = 0.740$  px

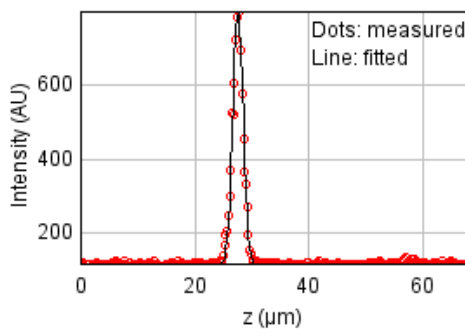
$b = -0.047$  px

$c = 0.521$  px

$x_c = 6.231$  px

$y_c = 6.955$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47004.0963

Standard deviation: 12.37367

$R^2: 0.98570$

Parameters:

$a = 115.04658$

$b = 801.69867$

$c = 27.64718$

$d = 0.89456$

## Bead 1403

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

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

Frame size : 12 pixels

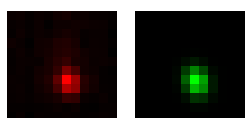
Coordinates : 114  $\mu\text{m}$  (x), -73.9  $\mu\text{m}$  (y), 27.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

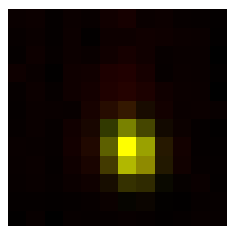
FWHM	Non corrected	Corrected	Theoretical
min	423 nm	441 nm	270 nm
max	531 nm	553 nm	270 nm
z	1.96 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.797		
Theta	-71.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 503.876 (brightness)

B = 120.009 (background)

a = 0.722 px

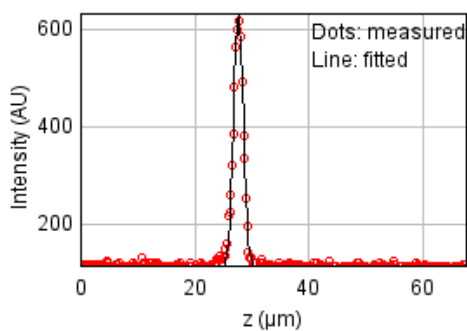
b = -0.082 px

c = 0.503 px

xc = 6.206 px

yc = 7.209 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20249.6960

Standard deviation: 8.12157

$R^2$ : 0.98851

Parameters:

a = 112.45328

b = 633.83699

c = 27.71960

d = 0.83131

## Bead 1404

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

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

Frame size : 12 pixels

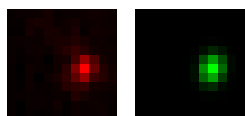
Coordinates : 143  $\mu\text{m}$  (x), -74.7  $\mu\text{m}$  (y), 24.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

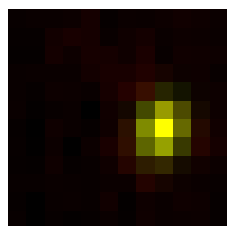
FWHM	Non corrected	Corrected	Theoretical
min	419 nm	436 nm	270 nm
max	539 nm	561 nm	270 nm
z	1.39 $\mu\text{m}$	1.39 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.777		
Theta	75.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 359.167 (brightness)

B = 117.600 (background)

a = 0.746 px

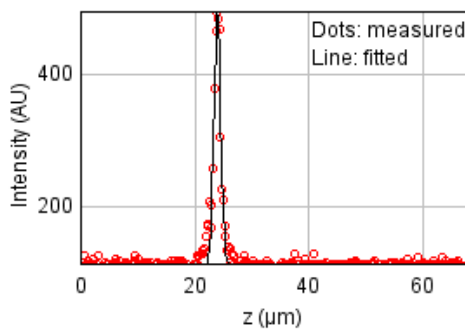
b = 0.072 px

c = 0.481 px

xc = 7.904 px

yc = 6.032 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 38889.1572

Standard deviation: 11.25499

$R^2$ : 0.94688

Parameters:

a = 111.41961

b = 499.61447

c = 24.05008

d = 0.58914

## Bead 1405

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

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

Frame size : 12 pixels

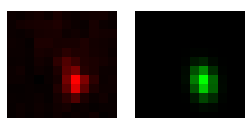
Coordinates : 33.2  $\mu\text{m}$  (x), 95.5  $\mu\text{m}$  (y), 27.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

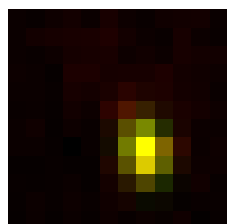
FWHM	Non corrected	Corrected	Theoretical
min	396 nm	412 nm	270 nm
max	576 nm	600 nm	270 nm
z	1.94 $\mu\text{m}$	1.94 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.687		
Theta	-78.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 387.673$  (brightness)

$B = 122.173$  (background)

$a = 0.838$  px

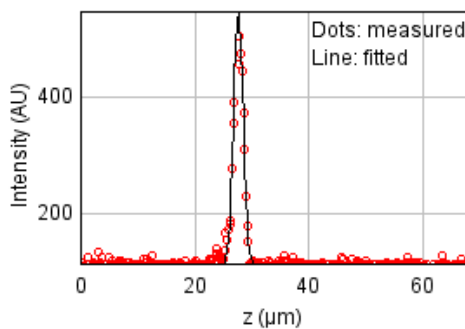
$b = -0.090$  px

$c = 0.423$  px

$x_c = 6.962$  px

$y_c = 7.225$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37082.5020

Standard deviation: 10.99045

$R^2: 0.96964$

Parameters:

$a = 113.30033$

$b = 545.50593$

$c = 27.71313$

$d = 0.82233$

## Bead 1406

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

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

Frame size : 12 pixels

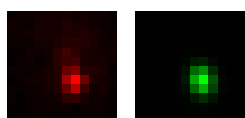
Coordinates : 66.2  $\mu\text{m}$  (x), 58.0  $\mu\text{m}$  (y), 27.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

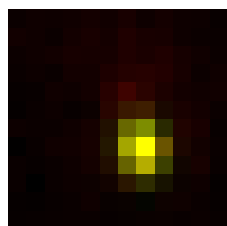
FWHM	Non corrected	Corrected	Theoretical
min	412 nm	429 nm	270 nm
max	530 nm	552 nm	270 nm
z	1.86 $\mu\text{m}$	1.86 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.778		
Theta	-78.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 403.896$  (brightness)

$B = 122.445$  (background)

$a = 0.776$  px

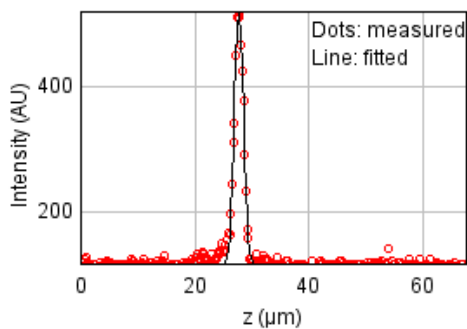
$b = -0.063$  px

$c = 0.492$  px

$xc = 6.786$  px

$yc = 7.074$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20673.5327

Standard deviation: 8.20613

$R^2: 0.98005$

Parameters:

$a = 114.92683$

$b = 523.26087$

$c = 27.80134$

$d = 0.78852$

## Bead 1407

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

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

Frame size : 12 pixels

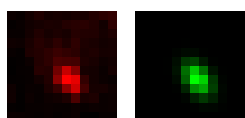
Coordinates : 129 um (x), 47.4 um (y), 27.6 um (z)

Corresponding bead : Not found

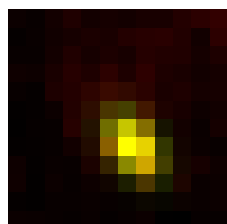
FWHM	Non corrected	Corrected	Theoretical
min	432 nm	450 nm	270 nm
max	664 nm	691 nm	270 nm
z	1.96 um	1.97 um	1.3 um
Asymmetry	0.651		
Theta	-55.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.901$



Parameters:

A = 341.487 (brightness)

B = 126.718 (background)

a = 0.586 px

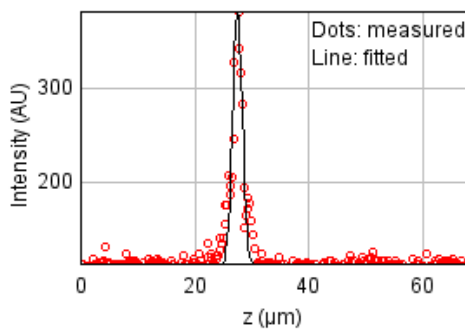
b = -0.193 px

c = 0.438 px

xc = 6.307 px

yc = 6.922 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47569.8359

Standard deviation: 12.44792

$R^2$ : 0.90821

Parameters:

a = 112.55986

b = 383.29444

c = 27.55559

d = 0.83333

## Bead 1408 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 108  $\mu\text{m}$  (x), 32.3  $\mu\text{m}$  (y), 25.2  $\mu\text{m}$  (z)

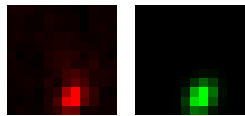
Corresponding bead : Not found

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

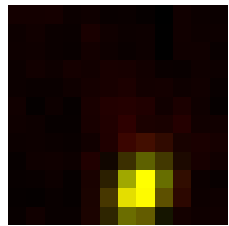
FWHM	Non corrected	Corrected	Theoretical
min	430 nm	448 nm	270 nm
max	581 nm	605 nm	270 nm
z	3.34 $\mu\text{m}$	3.35 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.74		
Theta	57.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 351.526 (brightness)

B = 120.692 (background)

a = 0.632 px

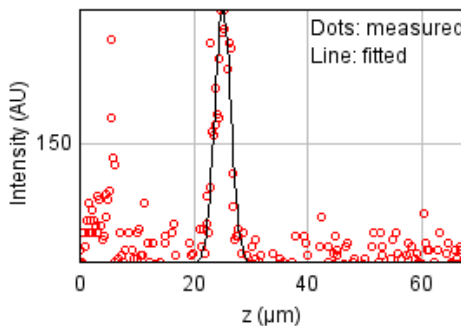
b = 0.149 px

c = 0.493 px

xc = 6.698 px

yc = 9.572 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28138.5204

Standard deviation: 9.57374

$R^2$ : 0.69031

Parameters:

a = 113.82204

b = 190.84626

c = 25.18227

d = 1.41730



## Bead 1409 (Rejected)

Date : Mon Oct 17 13:52:14 PDT 2022

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

Frame size : 12 pixels

Coordinates : -7.5  $\mu\text{m}$  (x), 25.7  $\mu\text{m}$  (y), 20.1  $\mu\text{m}$  (z)

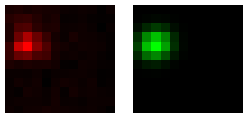
Corresponding bead : Not found

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

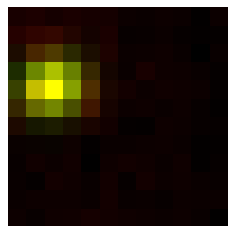
FWHM	Non corrected	Corrected	Theoretical
min	534 nm	556 nm	270 nm
max	597 nm	622 nm	270 nm
z	3.63 $\mu\text{m}$	3.65 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.894		
Theta	17.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 307.034 (brightness)

B = 120.841 (background)

a = 0.384 px

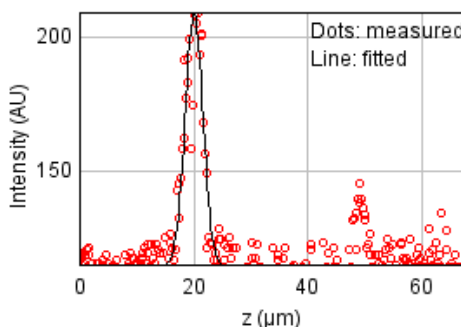
b = 0.027 px

c = 0.462 px

xc = 1.903 px

yc = 3.808 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22210.7201

Standard deviation: 8.50574

$R^2$ : 0.82197

Parameters:

a = 114.92438

b = 209.65877

c = 20.13474

d = 1.54282

## Bead 1410

Date : Mon Oct 17 13:52:14 PDT 2022

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

Frame size : 12 pixels

Coordinates : -52.1  $\mu\text{m}$  (x), 9.15  $\mu\text{m}$  (y), 27.9  $\mu\text{m}$  (z)

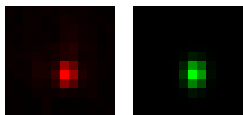
Corresponding bead : Not found



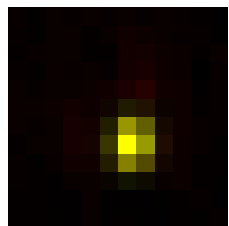
FWHM	Non corrected	Corrected	Theoretical
min	360 nm	375 nm	270 nm
max	469 nm	489 nm	270 nm
z	2.01 $\mu\text{m}$	2.02 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.768		
Theta	86.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 693.126 (brightness)

B = 129.001 (background)

a = 1.031 px

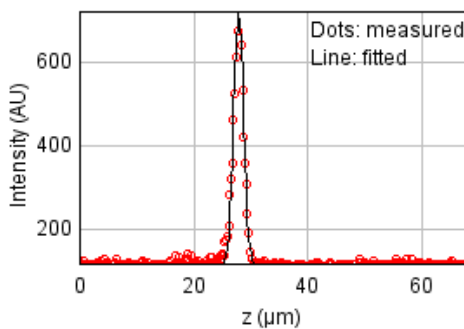
b = 0.025 px

c = 0.611 px

xc = 6.255 px

yc = 6.926 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40189.5728

Standard deviation: 11.44162

$R^2$ : 0.98359

Parameters:

a = 116.08128

b = 721.47118

c = 27.93034

d = 0.85405

## Bead 1411

Date : Mon Oct 17 13:52:14 PDT 2022

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

Frame size : 12 pixels

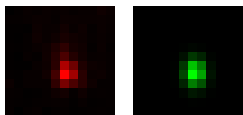
Coordinates : 50.7  $\mu\text{m}$  (x), 3.24  $\mu\text{m}$  (y), 27.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

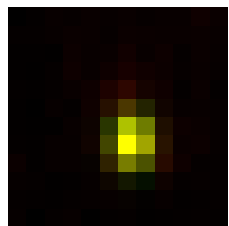
FWHM	Non corrected	Corrected	Theoretical
min	394 nm	411 nm	270 nm
max	522 nm	543 nm	270 nm
z	2.05 $\mu\text{m}$	2.06 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.756		
Theta	-89.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 721.931$  (brightness)

$B = 125.967$  (background)

$a = 0.862$  px

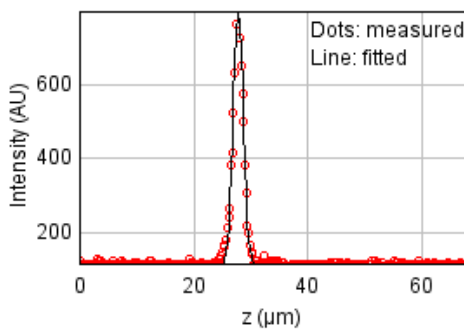
$b = -0.007$  px

$c = 0.493$  px

$x_c = 6.246$  px

$y_c = 6.782$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35165.8657

Standard deviation: 10.70265

$R^2: 0.98901$

Parameters:

$a = 114.48595$

$b = 801.60394$

$c = 27.85879$

$d = 0.87156$

## Bead 1412 (Rejected)

Date : Mon Oct 17 13:52:14 PDT 2022

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

Frame size : 12 pixels

Coordinates : -73.6  $\mu\text{m}$  (x), -14.7  $\mu\text{m}$  (y), 24.2  $\mu\text{m}$  (z)

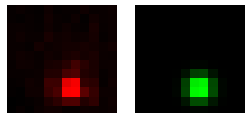
Corresponding bead : Not found

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

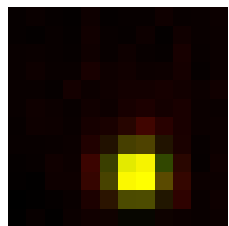
FWHM	Non corrected	Corrected	Theoretical
min	459 nm	478 nm	270 nm
max	463 nm	482 nm	270 nm
z	4.02 $\mu\text{m}$	4.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.99		
Theta	66.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 535.229 (brightness)

B = 123.932 (background)

a = 0.636 px

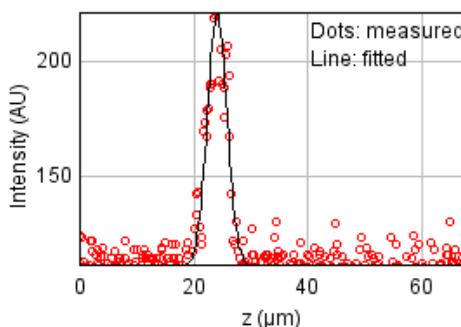
b = 0.005 px

c = 0.628 px

xc = 6.528 px

yc = 8.542 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19602.7172

Standard deviation: 7.99078

$R^2$ : 0.88287

Parameters:

a = 112.00152

b = 220.61811

c = 24.19009

d = 1.70702

## Bead 1413 (Rejected)

Date : Mon Oct 17 13:52:14 PDT 2022

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

Frame size : 12 pixels

Coordinates : -76.3  $\mu\text{m}$  (x), -44.2  $\mu\text{m}$  (y), 24.6  $\mu\text{m}$  (z)

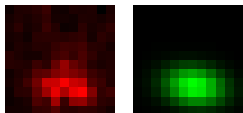
Corresponding bead : Not found

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

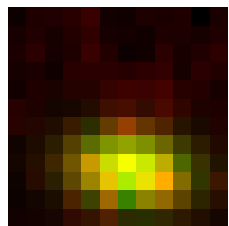
FWHM	Non corrected	Corrected	Theoretical
min	715 nm	745 nm	270 nm
max	1.12 $\mu\text{m}$	1.17 $\mu\text{m}$	270 nm
z	2.66 $\mu\text{m}$	2.67 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.639		
Theta	-8.2°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.861$



Parameters:

A = 167.643 (brightness)

B = 120.154 (background)

a = 0.110 px

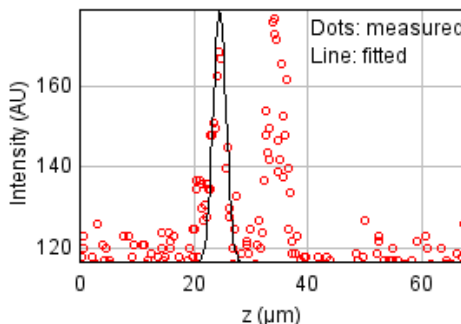
b = -0.022 px

c = 0.259 px

xc = 6.194 px

yc = 8.369 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 51516.3602

Standard deviation: 12.95399

$R^2$ : 0.39363

Parameters:

a = 116.51376

b = 178.97614

c = 24.61027

d = 1.13079

## Bead 1414

Date : Mon Oct 17 13:52:14 PDT 2022

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

Frame size : 12 pixels

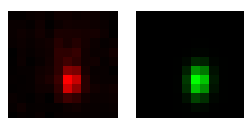
Coordinates : 138  $\mu\text{m}$  (x), -53.4  $\mu\text{m}$  (y), 27.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

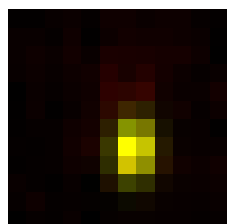
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	404 nm	270 nm
max	574 nm	598 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.675		
Theta	87.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 467.346 (brightness)

B = 121.395 (background)

a = 0.893 px

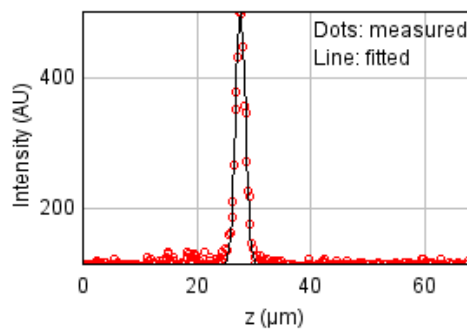
b = 0.024 px

c = 0.408 px

xc = 6.347 px

yc = 7.150 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20576.6864

Standard deviation: 8.18688

$R^2$ : 0.97990

Parameters:

a = 112.32911

b = 503.87538

c = 27.72871

d = 0.85014

## Bead 1415

Date : Mon Oct 17 13:52:14 PDT 2022

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

Frame size : 12 pixels

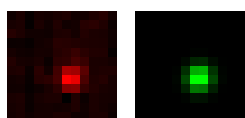
Coordinates : 161  $\mu\text{m}$  (x), -91.8  $\mu\text{m}$  (y), 26.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

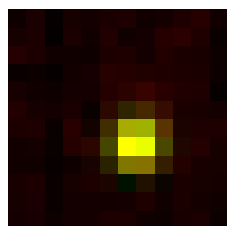
FWHM	Non corrected	Corrected	Theoretical
min	455 nm	474 nm	270 nm
max	484 nm	504 nm	270 nm
z	2.71 $\mu\text{m}$	2.72 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.94		
Theta	76.2°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.922$



Parameters:

A = 210.588 (brightness)

B = 112.838 (background)

a = 0.643 px

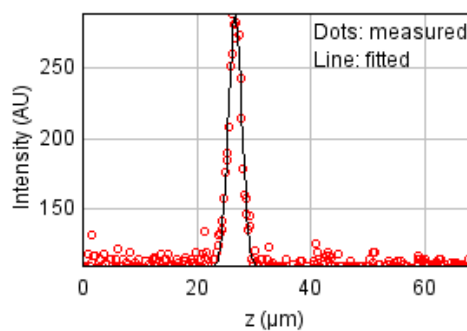
b = 0.017 px

c = 0.576 px

xc = 6.505 px

yc = 6.823 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 13464.1354

Standard deviation: 6.62247

$R^2$ : 0.95354

Parameters:

a = 110.08034

b = 288.22504

c = 26.80105

d = 1.15003

## Bead 1416

Date : Mon Oct 17 13:52:15 PDT 2022

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

Frame size : 12 pixels

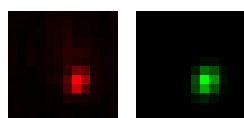
Coordinates : -82.9  $\mu\text{m}$  (x), 64.1  $\mu\text{m}$  (y), 28.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

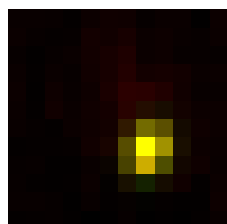
FWHM	Non corrected	Corrected	Theoretical
min	380 nm	395 nm	270 nm
max	482 nm	502 nm	270 nm
z	1.78 $\mu\text{m}$	1.79 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.788		
Theta	67.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 543.741 (brightness)

B = 126.889 (background)

a = 0.881 px

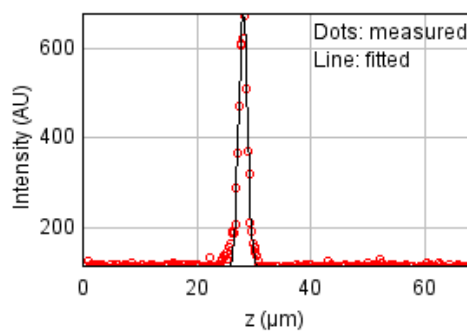
b = 0.124 px

c = 0.629 px

$x_c = 7.162$  px

$y_c = 7.159$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 45180.2140

Standard deviation: 12.13123

$R^2$ : 0.97640

Parameters:

a = 113.92100

b = 678.74002

c = 28.20406

d = 0.75742



## Bead 1417

Date : Mon Oct 17 13:52:15 PDT 2022

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

Frame size : 12 pixels

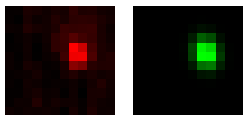
Coordinates : 119 um (x), 37.8 um (y), 21.0 um (z)

Corresponding bead : Not found

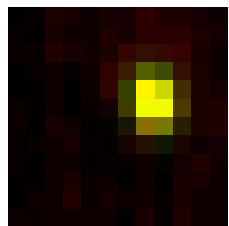
FWHM	Non corrected	Corrected	Theoretical
min	429 nm	447 nm	270 nm
max	556 nm	579 nm	270 nm
z	2.48 um	2.49 um	1.3 um
Asymmetry	0.772		
Theta	-79.3°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.914$



Parameters:

A = 321.205 (brightness)

B = 121.664 (background)

a = 0.719 px

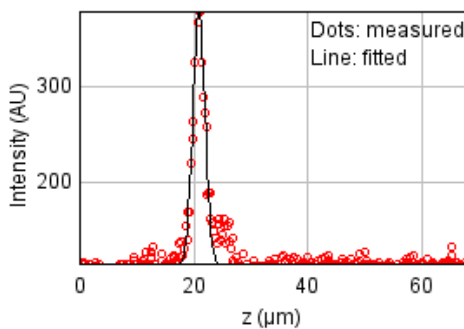
b = -0.054 px

c = 0.445 px

xc = 7.460 px

yc = 4.610 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 36105.5810

Standard deviation: 10.84471

$R^2$ : 0.93920

Parameters:

a = 115.13260

b = 378.80655

c = 20.98996

d = 1.05390

## Bead 1418

Date : Mon Oct 17 13:52:15 PDT 2022

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

Frame size : 12 pixels

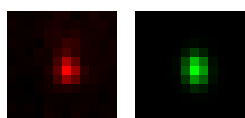
Coordinates : 87.6  $\mu\text{m}$  (x), 30.9  $\mu\text{m}$  (y), 27.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

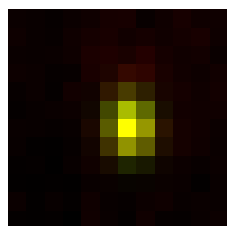
FWHM	Non corrected	Corrected	Theoretical
min	416 nm	434 nm	270 nm
max	561 nm	584 nm	270 nm
z	2.19 $\mu\text{m}$	2.2 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.742		
Theta	-85.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 372.835$  (brightness)

$B = 119.034$  (background)

$a = 0.772$  px

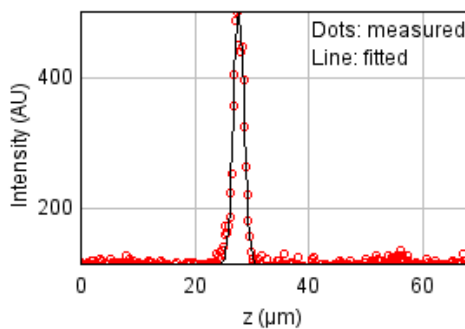
$b = -0.029$  px

$c = 0.429$  px

$x_c = 6.157$  px

$y_c = 5.866$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 24293.2911

Standard deviation: 8.89557

$R^2: 0.97767$

Parameters:

$a = 114.69108$

$b = 500.64969$

$c = 27.77290$

$d = 0.93169$

## Bead 1419

Date : Mon Oct 17 13:52:15 PDT 2022

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

Frame size : 12 pixels

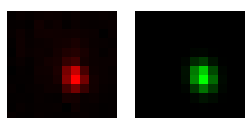
Coordinates : -22.0  $\mu\text{m}$  (x), 11.2  $\mu\text{m}$  (y), 27.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

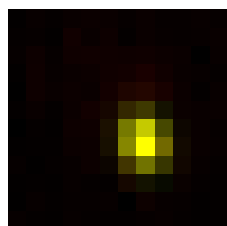
FWHM	Non corrected	Corrected	Theoretical
min	414 nm	431 nm	270 nm
max	519 nm	540 nm	270 nm
z	1.88 $\mu\text{m}$	1.89 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.798		
Theta	-75.4°		

### 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:

$A = 577.576$  (brightness)

$B = 123.707$  (background)

$a = 0.765$  px

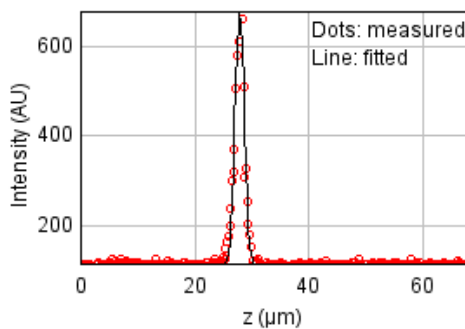
$b = -0.069$  px

$c = 0.517$  px

$x_c = 6.891$  px

$y_c = 6.712$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 43427.0464

Standard deviation: 11.89354

$R^2: 0.97823$

Parameters:

$a = 113.36012$

$b = 675.98767$

$c = 27.93999$

$d = 0.79855$

## Bead 1420

Date : Mon Oct 17 13:52:15 PDT 2022

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

Frame size : 12 pixels

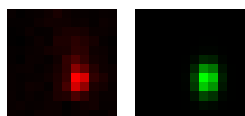
Coordinates : 105 um (x), 9.09 um (y), 28.1 um (z)

Corresponding bead : Not found

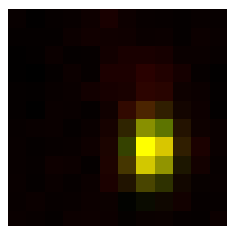
FWHM	Non corrected	Corrected	Theoretical
min	408 nm	424 nm	270 nm
max	573 nm	597 nm	270 nm
z	2.11 um	2.12 um	1.3 um
Asymmetry	0.711		
Theta	87.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 476.324 (brightness)

B = 124.216 (background)

a = 0.807 px

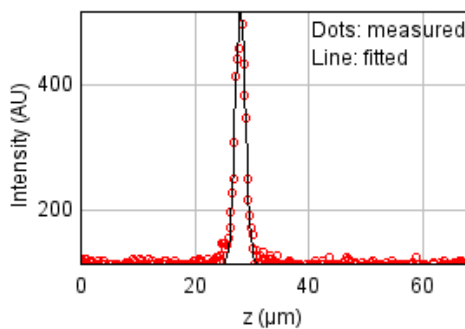
b = 0.020 px

c = 0.409 px

xc = 7.335 px

yc = 7.181 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22515.3872

Standard deviation: 8.56388

$R^2$ : 0.98064

Parameters:

a = 113.30499

b = 520.55436

c = 28.05471

d = 0.89547

## Bead 1421 (Rejected)

Date : Mon Oct 17 13:52:15 PDT 2022

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

Frame size : 12 pixels

Coordinates : -147  $\mu\text{m}$  (x), 2.49  $\mu\text{m}$  (y), 26.3  $\mu\text{m}$  (z)

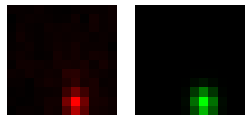
Corresponding bead : Not found

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

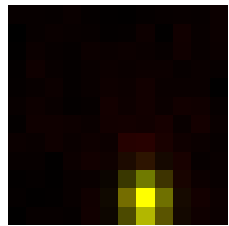
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	417 nm	270 nm
max	501 nm	522 nm	270 nm
z	3.46 $\mu\text{m}$	3.48 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.799		
Theta	-84.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 400.231 (brightness)

B = 118.257 (background)

a = 0.834 px

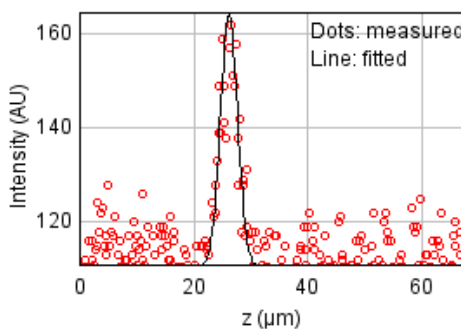
b = -0.027 px

c = 0.537 px

xc = 7.014 px

yc = 10.187 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 13611.6740

Standard deviation: 6.65866

$R^2$ : 0.69887

Parameters:

a = 110.63202

b = 164.38692

c = 26.26019

d = 1.47001

## Bead 1422

Date : Mon Oct 17 13:52:15 PDT 2022

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

Frame size : 12 pixels

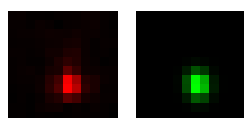
Coordinates : -18.2  $\mu\text{m}$  (x), -63.8  $\mu\text{m}$  (y), 28.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

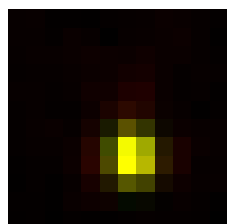
FWHM	Non corrected	Corrected	Theoretical
min	411 nm	429 nm	270 nm
max	495 nm	516 nm	270 nm
z	2.13 $\mu\text{m}$	2.14 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.831		
Theta	-83.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 872.601$  (brightness)

$B = 130.635$  (background)

$a = 0.789$  px

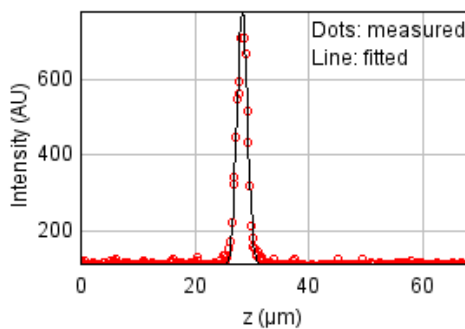
$b = -0.028$  px

$c = 0.550$  px

$x_c = 6.273$  px

$y_c = 7.536$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 50910.6889

Standard deviation: 12.87761

$R^2: 0.98372$

Parameters:

$a = 112.74017$

$b = 778.02553$

$c = 28.39262$

$d = 0.90553$

## Bead 1423

Date : Mon Oct 17 13:52:16 PDT 2022

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

Frame size : 12 pixels

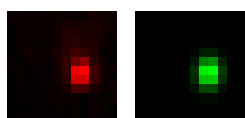
Coordinates : -3.18  $\mu\text{m}$  (x), 85.2  $\mu\text{m}$  (y), 28.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

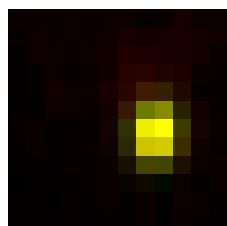
FWHM	Non corrected	Corrected	Theoretical
min	418 nm	435 nm	270 nm
max	562 nm	585 nm	270 nm
z	2.15 $\mu\text{m}$	2.16 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.744		
Theta	87.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 568.740 (brightness)

B = 124.996 (background)

a = 0.768 px

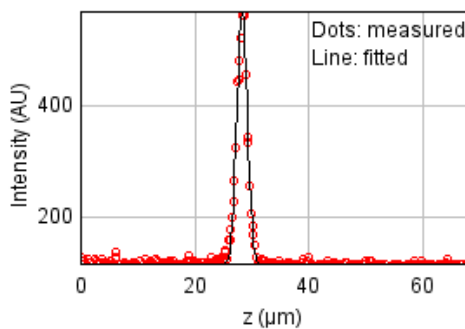
b = 0.017 px

c = 0.426 px

xc = 7.541 px

yc = 6.246 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28520.6210

Standard deviation: 9.63852

$R^2$ : 0.98079

Parameters:

a = 114.30261

b = 570.07612

c = 28.36948

d = 0.91369

## Bead 1424

Date : Mon Oct 17 13:52:16 PDT 2022

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

Frame size : 12 pixels

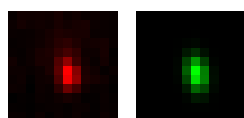
Coordinates : 55.5  $\mu\text{m}$  (x), 72.6  $\mu\text{m}$  (y), 28.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

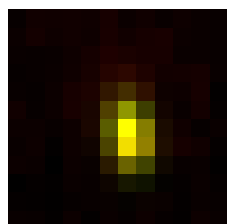
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	408 nm	270 nm
max	647 nm	673 nm	270 nm
z	1.94 $\mu\text{m}$	1.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.605		
Theta	-81.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 441.141 (brightness)

B = 122.826 (background)

a = 0.864 px

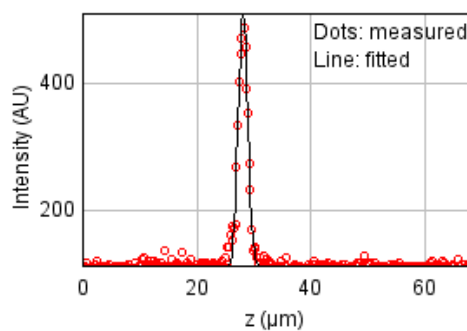
b = -0.083 px

c = 0.334 px

xc = 6.117 px

yc = 6.321 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20063.4068

Standard deviation: 8.08413

$R^2$ : 0.98000

Parameters:

a = 114.14840

b = 507.67810

c = 28.17876

d = 0.82325



## Bead 1425 (Rejected)

Date : Mon Oct 17 13:52:16 PDT 2022

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

Frame size : 12 pixels

Coordinates : -2.96  $\mu\text{m}$  (x), 52.4  $\mu\text{m}$  (y), 25.9  $\mu\text{m}$  (z)

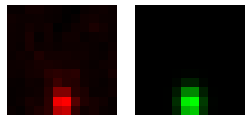
Corresponding bead : Not found

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

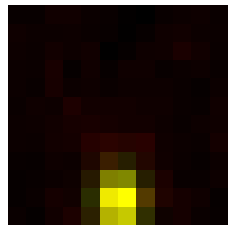
FWHM	Non corrected	Corrected	Theoretical
min	414 nm	431 nm	270 nm
max	555 nm	578 nm	270 nm
z	3.07 $\mu\text{m}$	3.08 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.745		
Theta	-87.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 461.836 (brightness)

B = 123.708 (background)

a = 0.783 px

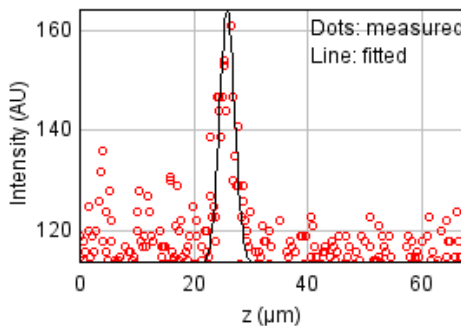
b = -0.018 px

c = 0.436 px

xc = 5.562 px

yc = 10.208 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15401.8897

Standard deviation: 7.08301

$R^2$ : 0.61761

Parameters:

a = 113.61246

b = 164.05901

c = 25.93992

d = 1.30201

## Bead 1426 (Rejected)

Date : Mon Oct 17 13:52:16 PDT 2022

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

Frame size : 12 pixels

Coordinates : 108  $\mu\text{m}$  (x), 32.3  $\mu\text{m}$  (y), 25.2  $\mu\text{m}$  (z)

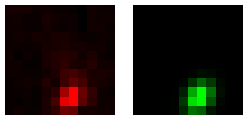
Corresponding bead : Not found

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

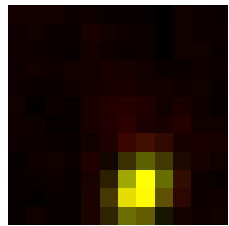
FWHM	Non corrected	Corrected	Theoretical
min	430 nm	448 nm	270 nm
max	581 nm	605 nm	270 nm
z	3.34 $\mu\text{m}$	3.35 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.74		
Theta	57.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 351.526 (brightness)

B = 120.692 (background)

a = 0.632 px

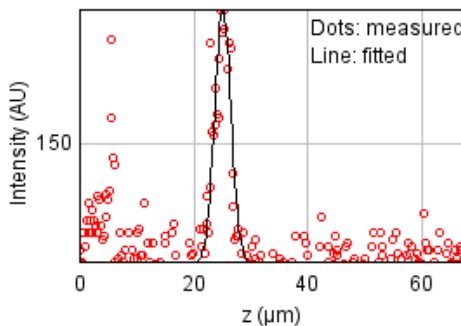
b = 0.149 px

c = 0.493 px

xc = 6.698 px

yc = 9.572 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28138.5204

Standard deviation: 9.57374

$R^2$ : 0.69031

Parameters:

a = 113.82204

b = 190.84626

c = 25.18227

d = 1.41730

## Bead 1427

Date : Mon Oct 17 13:52:16 PDT 2022

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

Frame size : 12 pixels

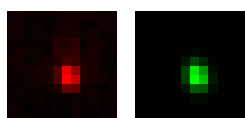
Coordinates : -138  $\mu\text{m}$  (x), 24.0  $\mu\text{m}$  (y), 28.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

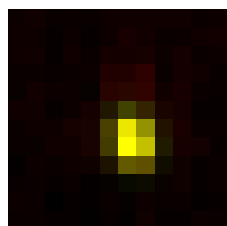
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	493 nm	514 nm	270 nm
z	2.22 $\mu\text{m}$	2.23 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.785		
Theta	-74.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 475.076$  (brightness)

$B = 120.418$  (background)

$a = 0.871$  px

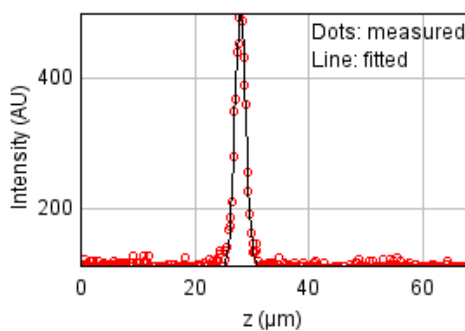
$b = -0.087$  px

$c = 0.575$  px

$x_c = 6.299$  px

$y_c = 6.632$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18778.3750

Standard deviation: 7.82096

$R^2: 0.98301$

Parameters:

$a = 111.89352$

$b = 499.98325$

$c = 28.06285$

$d = 0.94188$

## Bead 1428 (Rejected)

Date : Mon Oct 17 13:52:16 PDT 2022

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

Frame size : 12 pixels

Coordinates : -9.52  $\mu\text{m}$  (x), 14.7  $\mu\text{m}$  (y), 24.8  $\mu\text{m}$  (z)

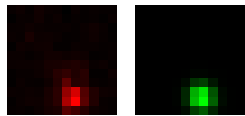
Corresponding bead : Not found

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

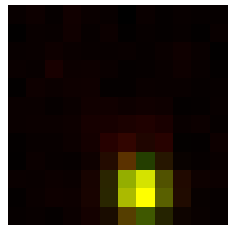
FWHM	Non corrected	Corrected	Theoretical
min	453 nm	472 nm	270 nm
max	480 nm	500 nm	270 nm
z	3.05 $\mu\text{m}$	3.07 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.945		
Theta	-69.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 448.129 (brightness)

B = 124.344 (background)

a = 0.644 px

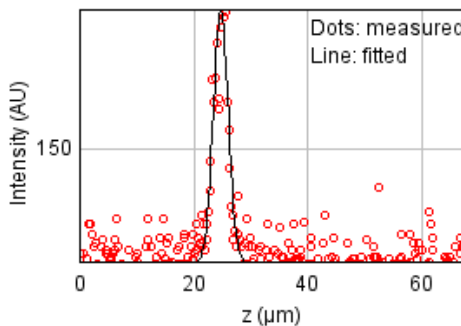
b = -0.023 px

c = 0.591 px

xc = 6.729 px

yc = 9.589 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15144.1342

Standard deviation: 7.02349

$R^2$ : 0.80612

Parameters:

a = 113.79218

b = 194.20457

c = 24.80835

d = 1.29667

## Bead 1429

Date : Mon Oct 17 13:52:16 PDT 2022

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

Frame size : 12 pixels

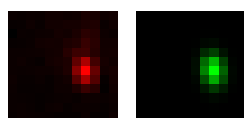
Coordinates : 86.2  $\mu\text{m}$  (x), -14.6  $\mu\text{m}$  (y), 28.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

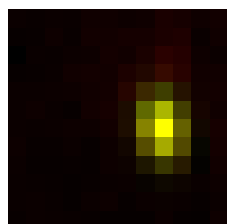
FWHM	Non corrected	Corrected	Theoretical
min	403 nm	420 nm	270 nm
max	606 nm	631 nm	270 nm
z	3.02 $\mu\text{m}$	3.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.666		
Theta	-82.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 476.723$  (brightness)

$B = 121.605$  (background)

$a = 0.817$  px

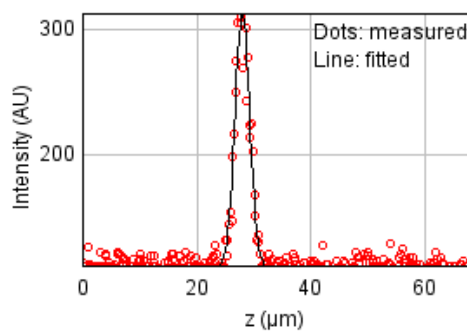
$b = -0.060$  px

$c = 0.373$  px

$x_c = 7.905$  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: 20968.3050

Standard deviation: 8.26442

$R^2: 0.94858$

Parameters:

$a = 112.04010$

$b = 312.40773$

$c = 28.05357$

$d = 1.28196$

## Bead 1430 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : -82.8  $\mu\text{m}$  (x), -26.0  $\mu\text{m}$  (y), 24.7  $\mu\text{m}$  (z)

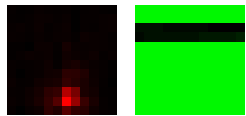
Corresponding bead : Not found

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

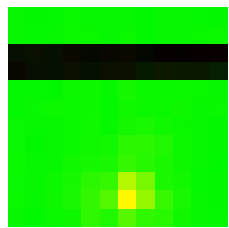
FWHM	Non corrected	Corrected	Theoretical
min	132 nm	138 nm	270 nm
max	35.8 $\mu\text{m}$	37.3 $\mu\text{m}$	270 nm
z	3.28 $\mu\text{m}$	3.29 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.004		
Theta	0.0°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.053$



Parameters:

A = -200.283 (brightness)

B = 149.975 (background)

a = -0.000 px

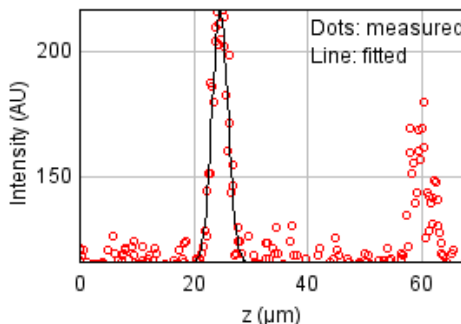
b = 0.007 px

c = 7.683 px

xc = 4.410 px

yc = 2.498 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47554.1269

Standard deviation: 12.44586

$R^2$ : 0.68729

Parameters:

a = 116.09634

b = 216.39300

c = 24.67377

d = 1.39078

## Bead 1431

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

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

Frame size : 12 pixels

Coordinates : -140  $\mu\text{m}$  (x), -31.2  $\mu\text{m}$  (y), 27.9  $\mu\text{m}$  (z)

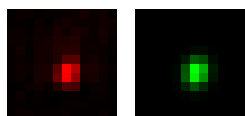
Corresponding bead : Not found



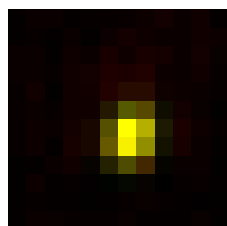
FWHM	Non corrected	Corrected	Theoretical
min	413 nm	430 nm	270 nm
max	506 nm	527 nm	270 nm
z	2.22 $\mu\text{m}$	2.23 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.815		
Theta	72.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 427.015$  (brightness)

$B = 118.512$  (background)

$a = 0.763$  px

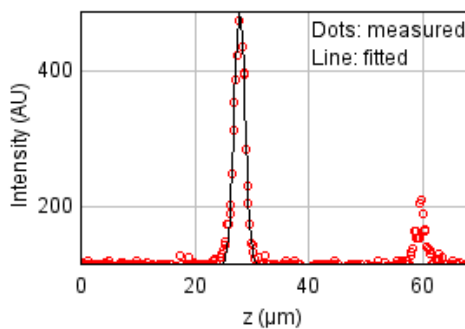
$b = 0.076$  px

$c = 0.548$  px

$x_c = 6.211$  px

$y_c = 6.420$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 62938.0967

Standard deviation: 14.31817

$R^2: 0.94065$

Parameters:

$a = 114.53097$

$b = 485.86681$

$c = 27.93045$

$d = 0.94459$

## Bead 1432 (Rejected)

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

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

Frame size : 12 pixels

Coordinates : 47.9  $\mu\text{m}$  (x), -33.3  $\mu\text{m}$  (y), 24.4  $\mu\text{m}$  (z)

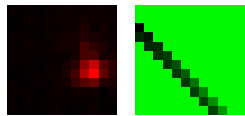
Corresponding bead : Not found

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

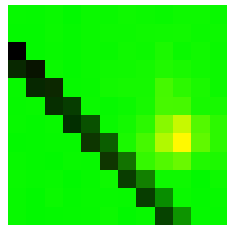
FWHM	Non corrected	Corrected	Theoretical
min	118 nm	123 nm	270 nm
max	21.9 $\mu\text{m}$	22.8 $\mu\text{m}$	270 nm
z	3.96 $\mu\text{m}$	3.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.005		
Theta	-45.3°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.076$



Parameters:

A = -409.876 (brightness)

B = 147.687 (background)

a = 4.855 px

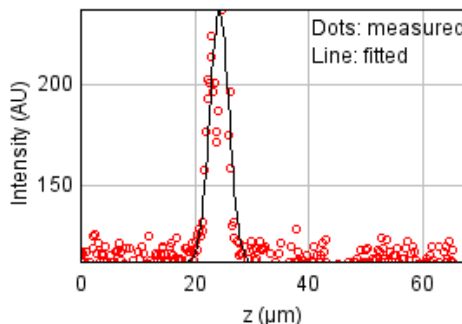
b = -4.810 px

c = 4.767 px

xc = -48.169 px

yc = -46.130 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34401.7921

Standard deviation: 10.58574

$R^2$ : 0.84615

Parameters:

a = 112.51418

b = 236.31349

c = 24.39204

d = 1.67995



## Bead 1433

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

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

Frame size : 12 pixels

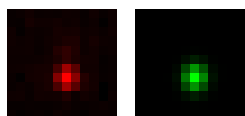
Coordinates : -90.4  $\mu\text{m}$  (x), -47.4  $\mu\text{m}$  (y), 28.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

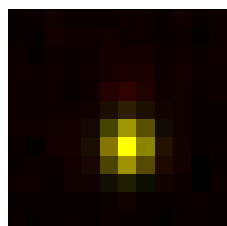
FWHM	Non corrected	Corrected	Theoretical
min	433 nm	451 nm	270 nm
max	494 nm	515 nm	270 nm
z	2.16 $\mu\text{m}$	2.17 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.876		
Theta	86.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 446.045 (brightness)

B = 120.021 (background)

a = 0.716 px

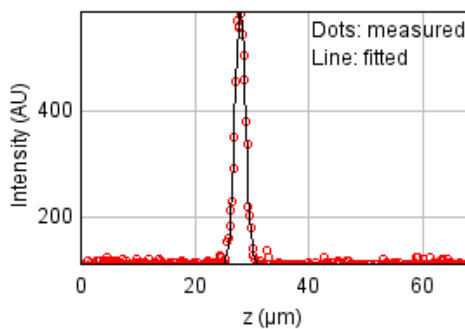
b = 0.010 px

c = 0.550 px

xc = 6.041 px

yc = 6.982 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19564.2185

Standard deviation: 7.98293

$R^2$ : 0.98781

Parameters:

a = 112.53227

b = 586.99217

c = 28.04615

d = 0.91827

## Bead 1434

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

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

Frame size : 12 pixels

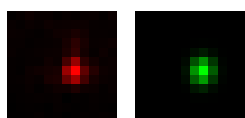
Coordinates : -103  $\mu\text{m}$  (x), -55.1  $\mu\text{m}$  (y), 28.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

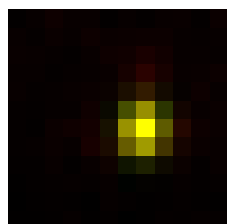
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	426 nm	270 nm
max	499 nm	520 nm	270 nm
z	2.1 $\mu\text{m}$	2.11 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.82		
Theta	85.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 626.625 (brightness)

B = 124.056 (background)

a = 0.799 px

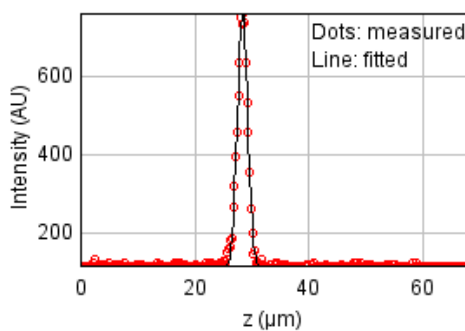
b = 0.021 px

c = 0.540 px

xc = 6.849 px

yc = 6.041 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20553.0008

Standard deviation: 8.18217

$R^2$ : 0.99294

Parameters:

a = 112.94193

b = 763.05610

c = 28.45040

d = 0.89073

## Bead 1435

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

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

Frame size : 12 pixels

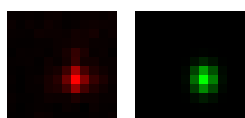
Coordinates : 4.41  $\mu\text{m}$  (x), -84.6  $\mu\text{m}$  (y), 28.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

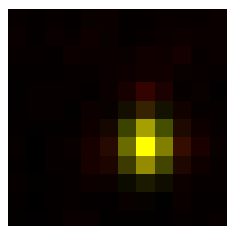
FWHM	Non corrected	Corrected	Theoretical
min	413 nm	430 nm	270 nm
max	498 nm	519 nm	270 nm
z	1.91 $\mu\text{m}$	1.92 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.829		
Theta	89.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 603.840 (brightness)

B = 124.370 (background)

a = 0.788 px

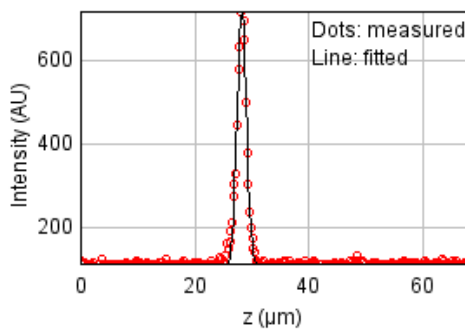
b = 0.001 px

c = 0.541 px

xc = 7.055 px

yc = 6.937 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31527.8981

Standard deviation: 10.13394

$R^2$ : 0.98630

Parameters:

a = 114.85121

b = 717.03666

c = 28.31270

d = 0.81121

## Bead 1436

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

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

Frame size : 12 pixels

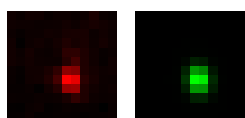
Coordinates : -76.5  $\mu\text{m}$  (x), 93.4  $\mu\text{m}$  (y), 28.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

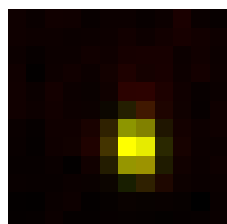
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	416 nm	270 nm
max	502 nm	523 nm	270 nm
z	2.29 $\mu\text{m}$	2.29 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.794		
Theta	-83.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 501.371 (brightness)

B = 121.481 (background)

a = 0.839 px

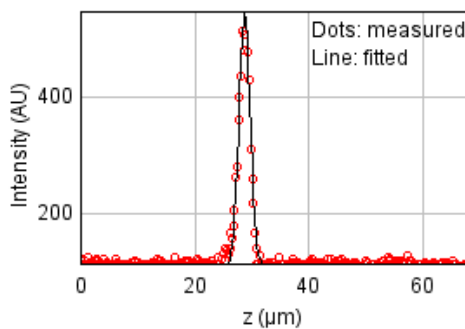
b = -0.034 px

c = 0.535 px

xc = 6.452 px

yc = 7.029 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28909.8277

Standard deviation: 9.70406

$R^2$ : 0.97973

Parameters:

a = 112.53520

b = 546.43144

c = 28.80417

d = 0.97036

## Bead 1437

Date : Mon Oct 17 13:52:18 PDT 2022

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

Frame size : 12 pixels

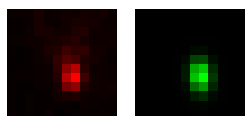
Coordinates : 24.3  $\mu\text{m}$  (x), 66.6  $\mu\text{m}$  (y), 28.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

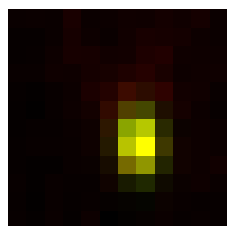
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	588 nm	612 nm	270 nm
z	2.02 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.658		
Theta	-85.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 512.887$  (brightness)

$B = 125.284$  (background)

$a = 0.894$  px

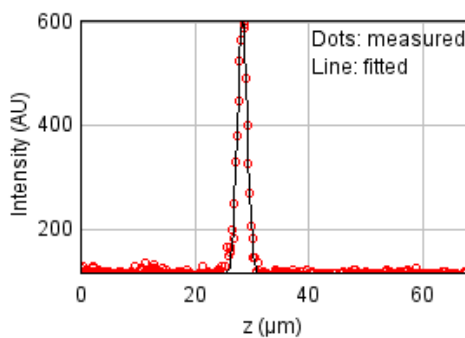
$b = -0.039$  px

$c = 0.391$  px

$x_c = 6.640$  px

$y_c = 6.779$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 21754.0906

Standard deviation: 8.41785

$R^2: 0.98648$

Parameters:

$a = 114.30673$

$b = 605.00198$

$c = 28.41972$

$d = 0.85667$

## Bead 1438

Date : Mon Oct 17 13:52:18 PDT 2022

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

Frame size : 12 pixels

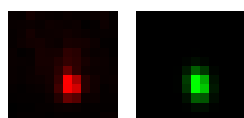
Coordinates : -6.31  $\mu\text{m}$  (x), 55.2  $\mu\text{m}$  (y), 28.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

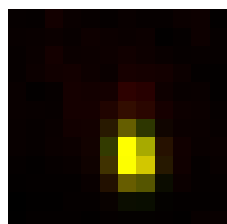
FWHM	Non corrected	Corrected	Theoretical
min	376 nm	391 nm	270 nm
max	525 nm	547 nm	270 nm
z	1.99 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.715		
Theta	-79.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 714.459 (brightness)

B = 128.219 (background)

a = 0.936 px

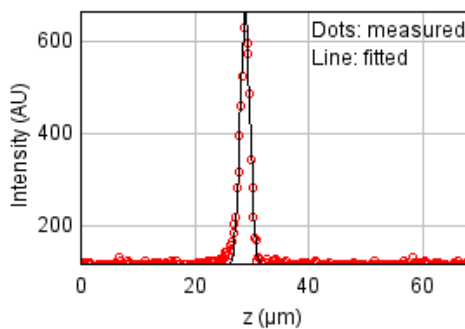
b = -0.080 px

c = 0.500 px

xc = 6.330 px

yc = 7.548 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28686.9958

Standard deviation: 9.66659

$R^2$ : 0.98562

Parameters:

a = 115.11463

b = 665.15203

c = 28.89511

d = 0.84374

## Bead 1439

Date : Mon Oct 17 13:52:18 PDT 2022

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

Frame size : 12 pixels

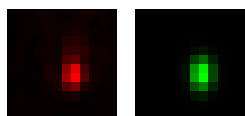
Coordinates : 65.3  $\mu\text{m}$  (x), 32.8  $\mu\text{m}$  (y), 28.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

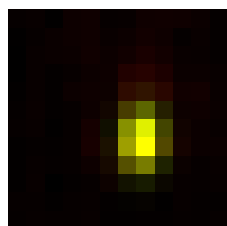
FWHM	Non corrected	Corrected	Theoretical
min	392 nm	409 nm	270 nm
max	585 nm	609 nm	270 nm
z	1.97 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.671		
Theta	88.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 664.585 (brightness)

B = 125.507 (background)

a = 0.871 px

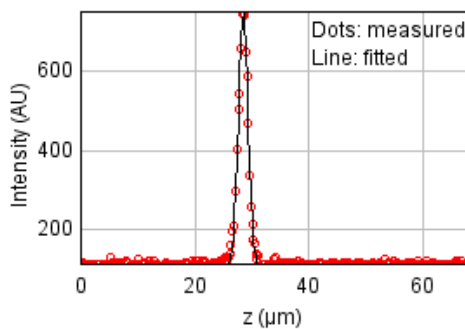
b = 0.015 px

c = 0.393 px

xc = 6.779 px

yc = 6.589 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22989.5053

Standard deviation: 8.65358

$R^2$ : 0.99131

Parameters:

a = 113.33321

b = 751.79815

c = 28.57278

d = 0.83461

## Bead 1440

Date : Mon Oct 17 13:52:18 PDT 2022

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

Frame size : 12 pixels

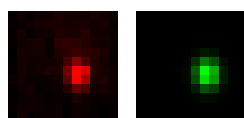
Coordinates : 131  $\mu\text{m}$  (x), 13.5  $\mu\text{m}$  (y), 27.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

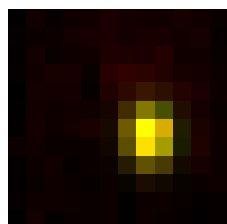
FWHM	Non corrected	Corrected	Theoretical
min	434 nm	452 nm	270 nm
max	551 nm	574 nm	270 nm
z	2.23 $\mu\text{m}$	2.24 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.787		
Theta	-87.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 338.763$  (brightness)

$B = 116.319$  (background)

$a = 0.713$  px

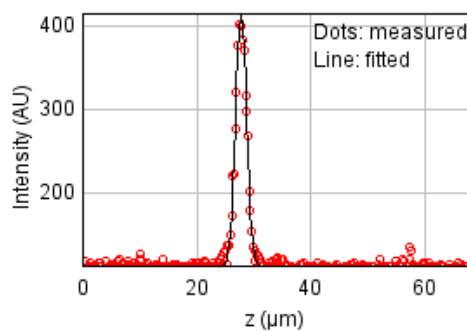
$b = -0.012$  px

$c = 0.443$  px

$x_c = 7.235$  px

$y_c = 6.362$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 11467.7467

Standard deviation: 6.11181

$R^2: 0.98330$

Parameters:

$a = 111.27123$

$b = 416.22415$

$c = 27.84151$

$d = 0.94817$



## Bead 1441

Date : Mon Oct 17 13:52:18 PDT 2022

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

Frame size : 12 pixels

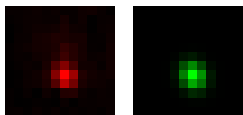
Coordinates : 67.6  $\mu\text{m}$  (x), -41.7  $\mu\text{m}$  (y), 28.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

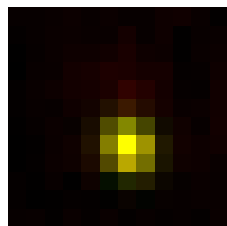
FWHM	Non corrected	Corrected	Theoretical
min	451 nm	470 nm	270 nm
max	520 nm	541 nm	270 nm
z	1.94 $\mu\text{m}$	1.95 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.867		
Theta	-64.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 458.180 (brightness)

B = 121.960 (background)

a = 0.630 px

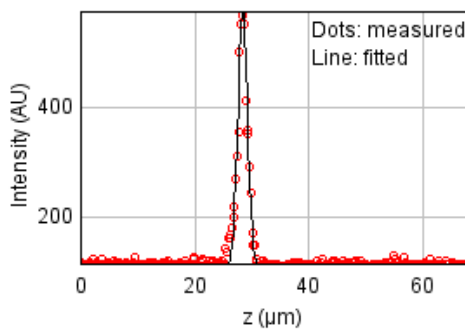
b = -0.063 px

c = 0.526 px

xc = 6.071 px

yc = 7.111 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 39234.3758

Standard deviation: 11.30483

$R^2$ : 0.97237

Parameters:

a = 113.37048

b = 579.18767

c = 28.48464

d = 0.82562

## Bead 1442

Date : Mon Oct 17 13:52:18 PDT 2022

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

Frame size : 12 pixels

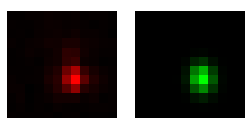
Coordinates : 8.54  $\mu\text{m}$  (x), -45.2  $\mu\text{m}$  (y), 28.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

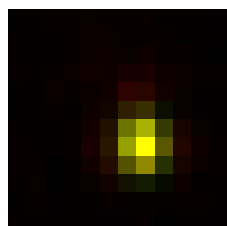
FWHM	Non corrected	Corrected	Theoretical
min	416 nm	434 nm	270 nm
max	521 nm	543 nm	270 nm
z	1.9 $\mu\text{m}$	1.91 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.799		
Theta	-85.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 753.983 (brightness)

B = 126.061 (background)

a = 0.773 px

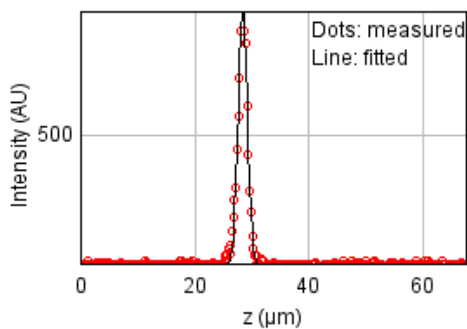
b = -0.022 px

c = 0.496 px

xc = 6.798 px

yc = 6.855 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 32231.9325

Standard deviation: 10.24646

$R^2$ : 0.99109

Parameters:

a = 114.96090

b = 873.65740

c = 28.49450

d = 0.80735

## Bead 1443 (Rejected)

Date : Mon Oct 17 13:52:19 PDT 2022

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

Frame size : 12 pixels

Coordinates : 5.49  $\mu\text{m}$  (x), -49.8  $\mu\text{m}$  (y), 24.8  $\mu\text{m}$  (z)

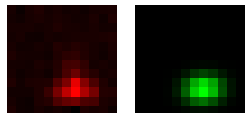
Corresponding bead : Not found

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

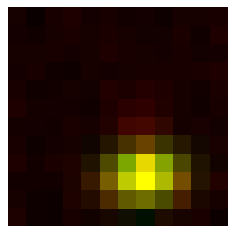
FWHM	Non corrected	Corrected	Theoretical
min	512 nm	533 nm	270 nm
max	701 nm	730 nm	270 nm
z	3.25 $\mu\text{m}$	3.27 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.73		
Theta	4.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 334.707 (brightness)

B = 123.745 (background)

a = 0.275 px

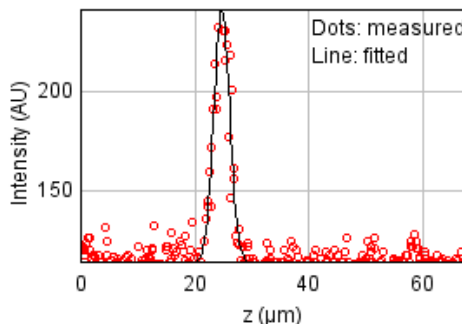
b = 0.019 px

c = 0.510 px

xc = 6.934 px

yc = 8.665 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19387.0085

Standard deviation: 7.94669

$R^2$ : 0.89720

Parameters:

a = 113.63967

b = 241.64093

c = 24.80706

d = 1.38162

## Bead 1444

Date : Mon Oct 17 13:52:19 PDT 2022

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

Frame size : 12 pixels

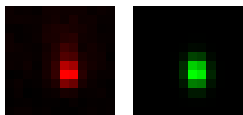
Coordinates : 125 µm (x), -55.3 µm (y), 28.7 µm (z)

Corresponding bead : Not found

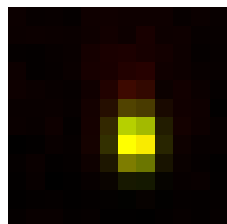
FWHM	Non corrected	Corrected	Theoretical
min	390 nm	406 nm	270 nm
max	540 nm	563 nm	270 nm
z	2.31 µm	2.32 µm	1.3 µm
Asymmetry	0.722		
Theta	-88.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 535.215 (brightness)

B = 120.101 (background)

a = 0.883 px

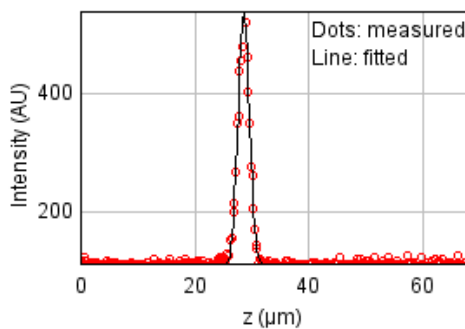
b = -0.013 px

c = 0.460 px

xc = 6.449 px

yc = 6.736 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18281.1668

Standard deviation: 7.71672

$R^2$ : 0.98694

Parameters:

a = 111.11677

b = 540.54810

c = 28.66281

d = 0.97981

## Bead 1445

Date : Mon Oct 17 13:52:19 PDT 2022

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

Frame size : 12 pixels

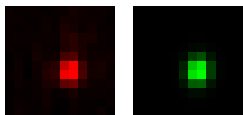
Coordinates : -112  $\mu\text{m}$  (x), -68.0  $\mu\text{m}$  (y), 28.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

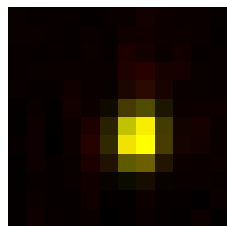
FWHM	Non corrected	Corrected	Theoretical
min	411 nm	428 nm	270 nm
max	505 nm	526 nm	270 nm
z	2.23 $\mu\text{m}$	2.24 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.814		
Theta	82.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 563.977$  (brightness)

$B = 120.239$  (background)

$a = 0.789$  px

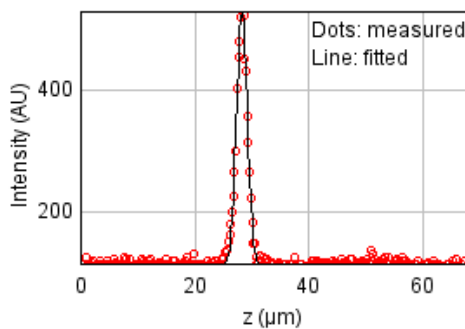
$b = 0.037$  px

$c = 0.532$  px

$x_c = 6.597$  px

$y_c = 6.598$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17925.6812

Standard deviation: 7.64132

$R^2: 0.98576$

Parameters:

$a = 114.16302$

$b = 528.25287$

$c = 28.34136$

$d = 0.94526$

## Bead 1446

Date : Mon Oct 17 13:52:19 PDT 2022

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

Frame size : 12 pixels

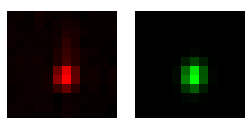
Coordinates : -116  $\mu\text{m}$  (x), -84.3  $\mu\text{m}$  (y), 28.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

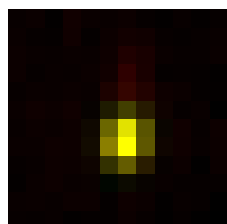
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	486 nm	506 nm	270 nm
z	2.29 $\mu\text{m}$	2.3 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.797		
Theta	82.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 467.011$  (brightness)

$B = 117.836$  (background)

$a = 0.888$  px

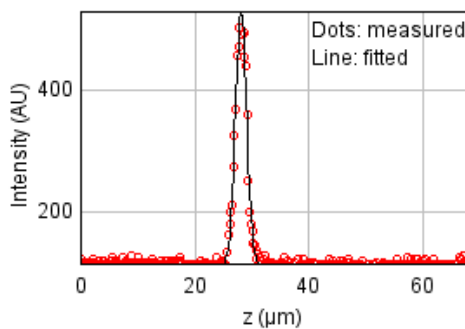
$b = 0.045$  px

$c = 0.575$  px

$x_c = 5.913$  px

$y_c = 6.612$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19941.7101

Standard deviation: 8.05957

$R^2: 0.98485$

Parameters:

$a = 112.32879$

$b = 529.67468$

$c = 28.18517$

$d = 0.97363$

## Bead 1447

Date : Mon Oct 17 13:52:19 PDT 2022

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

Frame size : 12 pixels

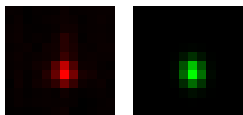
Coordinates : -50.4  $\mu\text{m}$  (x), -94.0  $\mu\text{m}$  (y), 28.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

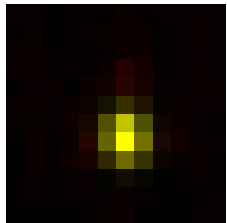
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	407 nm	270 nm
max	482 nm	502 nm	270 nm
z	2.16 $\mu\text{m}$	2.17 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.81		
Theta	-85.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 701.623$  (brightness)

$B = 123.344$  (background)

$a = 0.878$  px

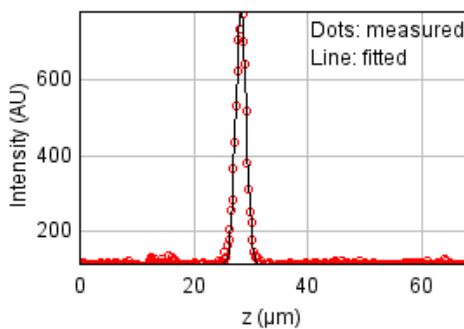
$b = -0.022$  px

$c = 0.578$  px

$x_c = 6.021$  px

$y_c = 6.738$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22986.3513

Standard deviation: 8.65298

$R^2: 0.99266$

Parameters:

$a = 113.84071$

$b = 778.39662$

$c = 28.34889$

$d = 0.91815$

## Bead 1448 (Rejected)

Date : Mon Oct 17 13:52:19 PDT 2022

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

Frame size : 12 pixels

Coordinates : -89.6  $\mu\text{m}$  (x), 88.8  $\mu\text{m}$  (y), 26.2  $\mu\text{m}$  (z)

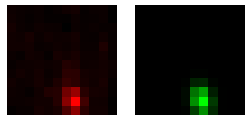
Corresponding bead : Not found

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

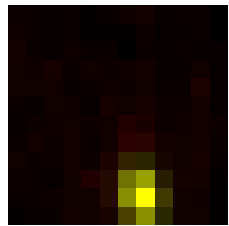
FWHM	Non corrected	Corrected	Theoretical
min	355 nm	370 nm	270 nm
max	522 nm	544 nm	270 nm
z	3.36 $\mu\text{m}$	3.38 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.68		
Theta	-78.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 405.695 (brightness)

B = 121.592 (background)

a = 1.037 px

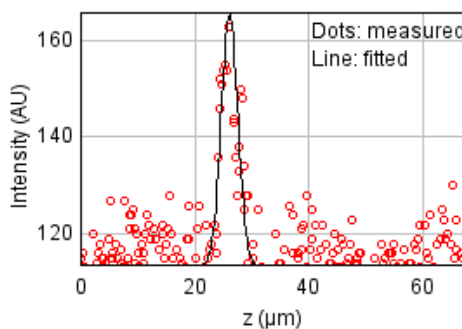
b = -0.116 px

c = 0.517 px

xc = 6.766 px

yc = 9.889 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15112.2013

Standard deviation: 7.01608

$R^2$ : 0.65727

Parameters:

a = 113.43122

b = 165.59440

c = 26.17766

d = 1.42880



## Bead 1449

Date : Mon Oct 17 13:52:20 PDT 2022

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

Frame size : 12 pixels

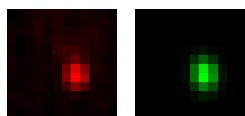
Coordinates : 49.1  $\mu\text{m}$  (x), 86.2  $\mu\text{m}$  (y), 28.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

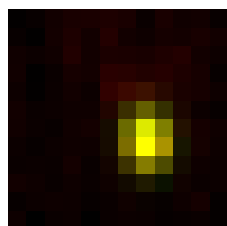
FWHM	Non corrected	Corrected	Theoretical
min	437 nm	455 nm	270 nm
max	576 nm	600 nm	270 nm
z	1.96 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.759		
Theta	-84.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 369.945$  (brightness)

$B = 120.545$  (background)

$a = 0.699$  px

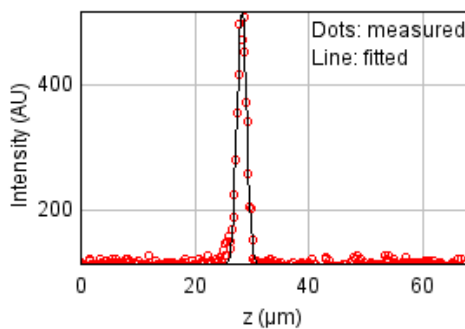
$b = -0.031$  px

$c = 0.407$  px

$x_c = 7.090$  px

$y_c = 6.615$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 21226.5389

Standard deviation: 8.31516

$R^2: 0.97987$

Parameters:

$a = 114.07027$

$b = 515.64398$

$c = 28.32372$

$d = 0.83126$

## Bead 1450

Date : Mon Oct 17 13:52:20 PDT 2022

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

Frame size : 12 pixels

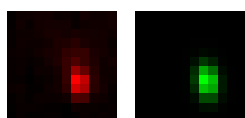
Coordinates : 52.4  $\mu\text{m}$  (x), 86.3  $\mu\text{m}$  (y), 28.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

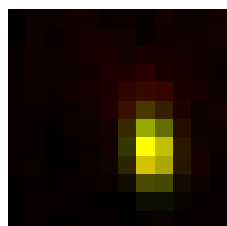
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	400 nm	270 nm
max	627 nm	653 nm	270 nm
z	2.23 $\mu\text{m}$	2.24 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.613		
Theta	-83.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 560.857 (brightness)

B = 126.214 (background)

a = 0.903 px

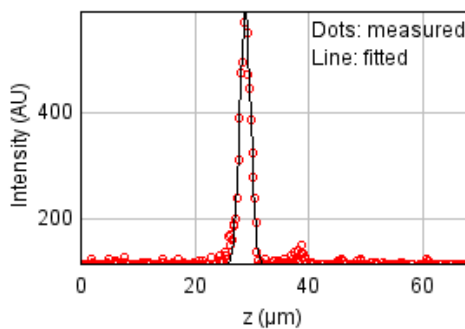
b = -0.068 px

c = 0.350 px

$x_c = 7.352$  px

$y_c = 7.174$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 31600.9472

Standard deviation: 10.14567

$R^2$ : 0.98121

Parameters:

a = 114.80397

b = 592.00729

c = 28.91986

d = 0.94615

## Bead 1451

Date : Mon Oct 17 13:52:20 PDT 2022

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

Frame size : 12 pixels

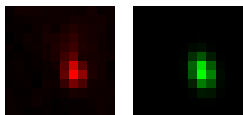
Coordinates : 64.3  $\mu\text{m}$  (x), 67.9  $\mu\text{m}$  (y), 29.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

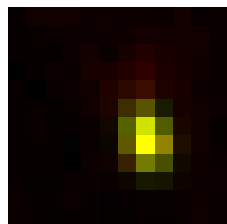
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	402 nm	270 nm
max	576 nm	600 nm	270 nm
z	2.09 $\mu\text{m}$	2.1 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.671		
Theta	-76.1°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 549.921$  (brightness)

$B = 124.942$  (background)

$a = 0.870$  px

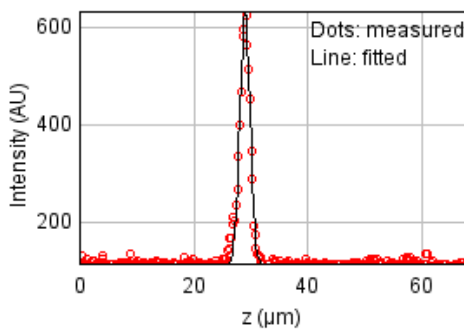
$b = -0.115$  px

$c = 0.433$  px

$x_c = 7.069$  px

$y_c = 6.663$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35625.9406

Standard deviation: 10.77244

$R^2: 0.98084$

Parameters:

$a = 115.20738$

$b = 632.37871$

$c = 29.05226$

$d = 0.88759$

## Bead 1452 (Rejected)

Date : Mon Oct 17 13:52:20 PDT 2022

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

Frame size : 12 pixels

Coordinates : 107  $\mu\text{m}$  (x), 62.5  $\mu\text{m}$  (y), 28.2  $\mu\text{m}$  (z)

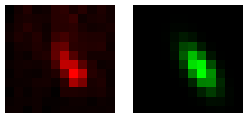
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

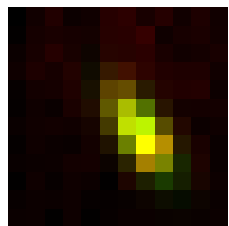
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	418 nm	270 nm
max	890 nm	927 nm	270 nm
z	2.56 $\mu\text{m}$	2.57 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.451		
Theta	-57.1°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.887$



Parameters:

A = 286.952 (brightness)

B = 121.218 (background)

a = 0.636 px

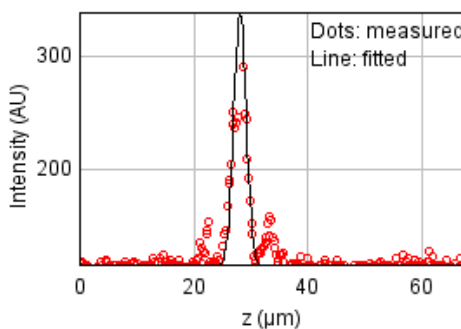
b = -0.302 px

c = 0.365 px

xc = 6.727 px

yc = 6.330 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47193.2455

Standard deviation: 12.39855

$R^2$ : 0.89723

Parameters:

a = 114.90960

b = 338.42845

c = 28.17422

d = 1.08526

## Bead 1453

Date : Mon Oct 17 13:52:20 PDT 2022

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

Frame size : 12 pixels

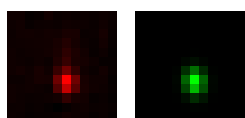
Coordinates : -101  $\mu\text{m}$  (x), 44.7  $\mu\text{m}$  (y), 28.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

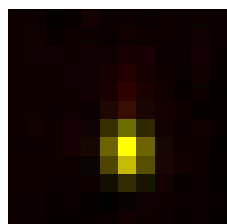
FWHM	Non corrected	Corrected	Theoretical
min	376 nm	391 nm	270 nm
max	480 nm	500 nm	270 nm
z	2.04 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.782		
Theta	-83.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 551.545 (brightness)

B = 123.480 (background)

a = 0.947 px

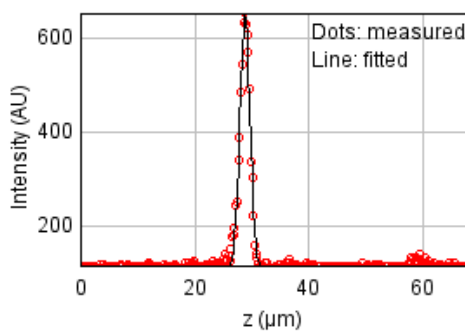
b = -0.041 px

c = 0.586 px

xc = 6.009 px

yc = 7.230 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27786.9902

Standard deviation: 9.51375

$R^2$ : 0.98586

Parameters:

a = 113.76988

b = 652.35551

c = 28.87891

d = 0.86822

## Bead 1454

Date : Mon Oct 17 13:52:20 PDT 2022

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

Frame size : 12 pixels

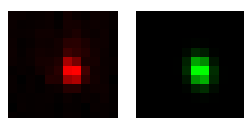
Coordinates : -44.8  $\mu\text{m}$  (x), 11.3  $\mu\text{m}$  (y), 28.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

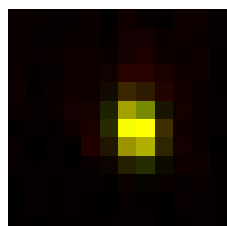
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	404 nm	270 nm
max	531 nm	553 nm	270 nm
z	2.21 $\mu\text{m}$	2.22 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.73		
Theta	-78.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 675.681 (brightness)

B = 123.600 (background)

a = 0.876 px

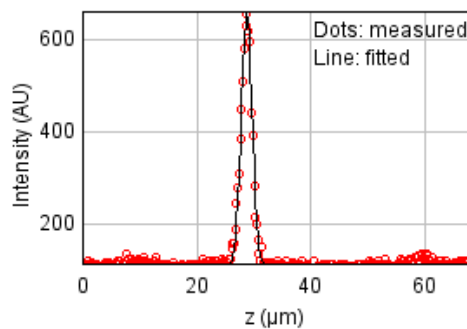
b = -0.085 px

c = 0.494 px

xc = 6.510 px

yc = 6.038 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 37666.0088

Standard deviation: 11.07658

$R^2$ : 0.98266

Parameters:

a = 115.34373

b = 660.34331

c = 28.82744

d = 0.93809

## Bead 1455 (Rejected)

Date : Mon Oct 17 13:52:20 PDT 2022

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

Frame size : 12 pixels

Coordinates : -7.53  $\mu\text{m}$  (x), -9.83  $\mu\text{m}$  (y), 30.6  $\mu\text{m}$  (z)

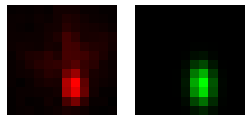
Corresponding bead : Not found

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

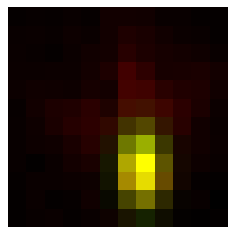
FWHM	Non corrected	Corrected	Theoretical
min	418 nm	435 nm	270 nm
max	716 nm	746 nm	270 nm
z	4.96 $\mu\text{m}$	4.98 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.583		
Theta	-87.7°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.891$



Parameters:

A = 493.191 (brightness)

B = 136.742 (background)

a = 0.769 px

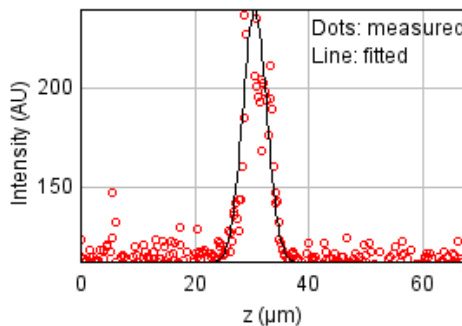
b = -0.021 px

c = 0.263 px

xc = 6.781 px

yc = 8.199 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 36018.3084

Standard deviation: 10.83160

$R^2$ : 0.86842

Parameters:

a = 113.09303

b = 238.55459

c = 30.58097

d = 2.10660

## Bead 1456

Date : Mon Oct 17 13:52:21 PDT 2022

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

Frame size : 12 pixels

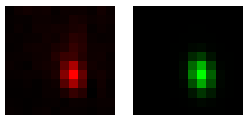
Coordinates : 86.2  $\mu\text{m}$  (x), -14.6  $\mu\text{m}$  (y), 28.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

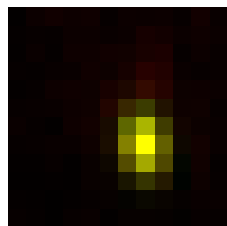
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	417 nm	270 nm
max	600 nm	625 nm	270 nm
z	3.02 $\mu\text{m}$	3.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.667		
Theta	-82.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 477.012 (brightness)

B = 123.481 (background)

a = 0.829 px

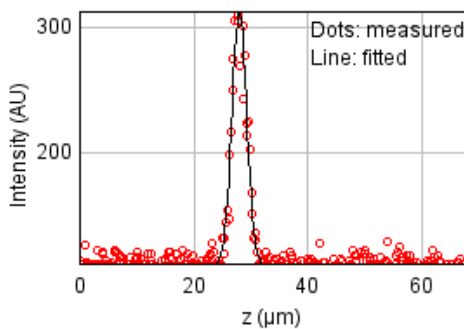
b = -0.061 px

c = 0.381 px

xc = 6.905 px

yc = 6.939 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20968.3050

Standard deviation: 8.26442

$R^2$ : 0.94858

Parameters:

a = 112.04010

b = 312.40773

c = 28.05357

d = 1.28196



## Bead 1457 (Rejected)

Date : Mon Oct 17 13:52:21 PDT 2022

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

Frame size : 12 pixels

Coordinates : -164  $\mu\text{m}$  (x), -34.1  $\mu\text{m}$  (y), 27.9  $\mu\text{m}$  (z)

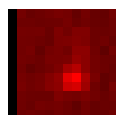
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	270 nm
max	0	0	270 nm
z	2.35 $\mu\text{m}$	2.36 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

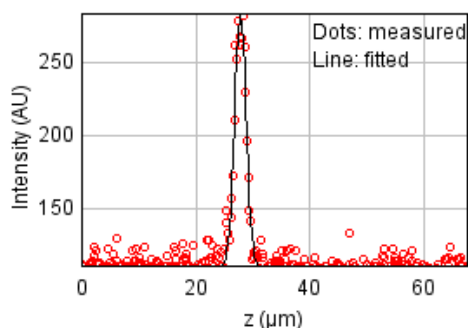
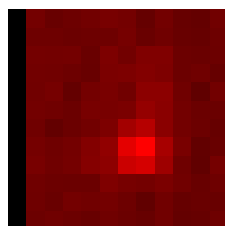
### XY profile & fitting parameters :

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



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

### Z profile & fitting parameters:



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

Sum of residuals squared: 17823.3824

Standard deviation: 7.61949

R<sup>2</sup>: 0.92711

Parameters:

a = 111.01265

b = 283.58729

c = 27.88524

d = 0.99686

## Bead 1458

Date : Mon Oct 17 13:52:21 PDT 2022

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

Frame size : 12 pixels

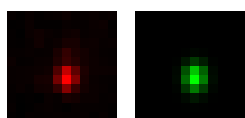
Coordinates : -91.5  $\mu\text{m}$  (x), -74.4  $\mu\text{m}$  (y), 28.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

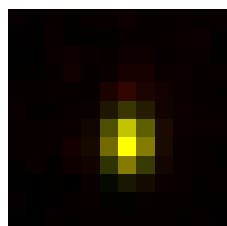
FWHM	Non corrected	Corrected	Theoretical
min	407 nm	424 nm	270 nm
max	517 nm	539 nm	270 nm
z	2.22 $\mu\text{m}$	2.23 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.787		
Theta	88.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 588.810 (brightness)

B = 121.438 (background)

a = 0.810 px

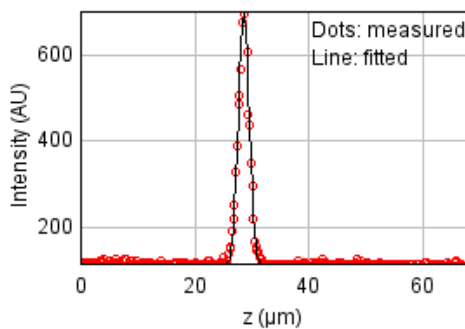
b = 0.008 px

c = 0.502 px

xc = 6.050 px

yc = 6.767 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27859.7104

Standard deviation: 9.52619

$R^2$ : 0.98899

Parameters:

a = 113.20563

b = 701.74275

c = 28.67191

d = 0.94333

## Bead 1459

Date : Mon Oct 17 13:52:21 PDT 2022

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

Frame size : 12 pixels

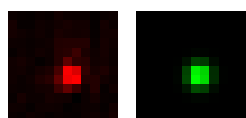
Coordinates : -114  $\mu\text{m}$  (x), -95.5  $\mu\text{m}$  (y), 28.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

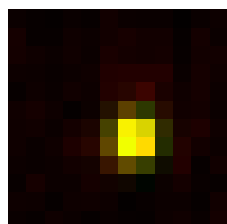
FWHM	Non corrected	Corrected	Theoretical
min	432 nm	450 nm	270 nm
max	459 nm	478 nm	270 nm
z	2.29 $\mu\text{m}$	2.3 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.941		
Theta	83.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 428.961$  (brightness)

$B = 121.617$  (background)

$a = 0.718$  px

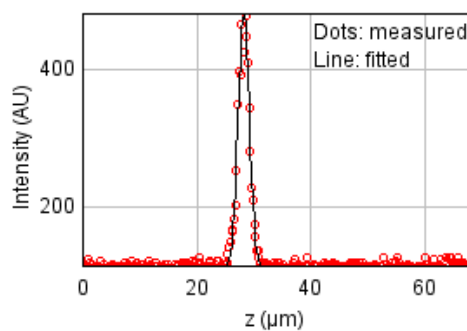
$b = 0.010$  px

$c = 0.638$  px

$x_c = 6.397$  px

$y_c = 6.535$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18782.0257

Standard deviation: 7.82172

$R^2: 0.98208$

Parameters:

$a = 111.79142$

$b = 483.67452$

$c = 28.31437$

$d = 0.97359$

## Bead 1460

Date : Mon Oct 17 13:52:21 PDT 2022

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

Frame size : 12 pixels

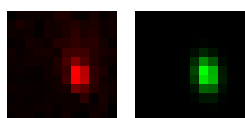
Coordinates : 115 um (x), 95.7 um (y), 28.3 um (z)

Corresponding bead : Not found

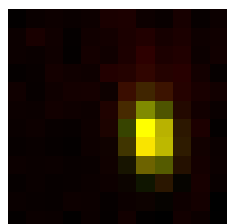
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	413 nm	270 nm
max	618 nm	644 nm	270 nm
z	2.17 um	2.18 um	1.3 um
Asymmetry	0.642		
Theta	-81.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 308.290 (brightness)

B = 118.844 (background)

a = 0.843 px

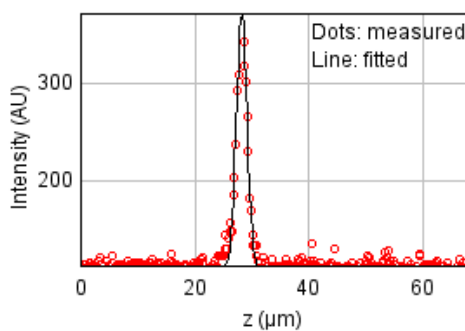
b = -0.071 px

c = 0.361 px

xc = 7.321 px

yc = 6.404 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15361.8262

Standard deviation: 7.07379

$R^2$ : 0.96902

Parameters:

a = 111.96773

b = 372.86304

c = 28.29770

d = 0.92039

## Bead 1461

Date : Mon Oct 17 13:52:21 PDT 2022

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

Frame size : 12 pixels

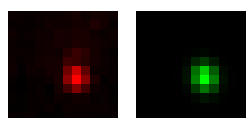
Coordinates : -75.0  $\mu\text{m}$  (x), 83.1  $\mu\text{m}$  (y), 28.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

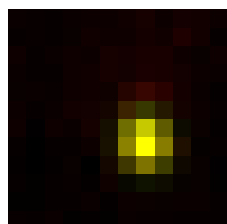
FWHM	Non corrected	Corrected	Theoretical
min	437 nm	455 nm	270 nm
max	514 nm	535 nm	270 nm
z	2.11 $\mu\text{m}$	2.11 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.85		
Theta	-77.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 447.698 (brightness)

B = 122.121 (background)

a = 0.695 px

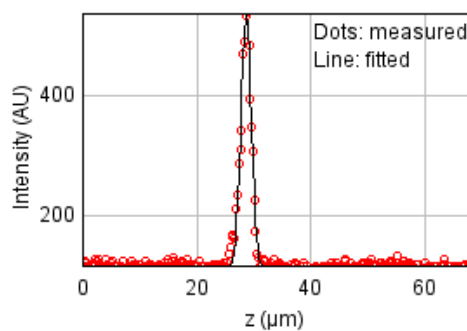
b = -0.040 px

c = 0.517 px

xc = 6.967 px

yc = 6.727 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28706.2939

Standard deviation: 9.66984

$R^2$ : 0.97742

Parameters:

a = 114.91966

b = 540.39373

c = 28.73667

d = 0.89397

## Bead 1462

Date : Mon Oct 17 13:52:22 PDT 2022

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

Frame size : 12 pixels

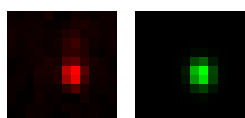
Coordinates : -121  $\mu\text{m}$  (x), 60.3  $\mu\text{m}$  (y), 28.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

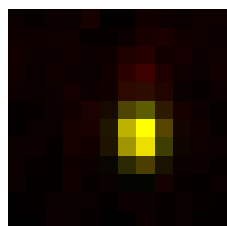
FWHM	Non corrected	Corrected	Theoretical
min	398 nm	415 nm	270 nm
max	485 nm	505 nm	270 nm
z	2.23 $\mu\text{m}$	2.24 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.821		
Theta	-85.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 422.127$  (brightness)

$B = 120.366$  (background)

$a = 0.844$  px

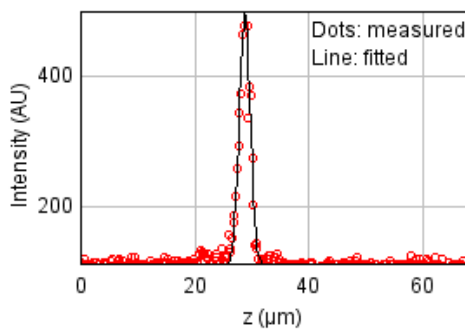
$b = -0.021$  px

$c = 0.572$  px

$x_c = 6.722$  px

$y_c = 6.372$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35712.3718

Standard deviation: 10.78550

$R^2: 0.96797$

Parameters:

$a = 112.79180$

$b = 498.24770$

$c = 28.84310$

$d = 0.94862$

## Bead 1463 (Rejected)

Date : Mon Oct 17 13:52:22 PDT 2022

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

Frame size : 12 pixels

Coordinates : 160  $\mu\text{m}$  (x), 50.6  $\mu\text{m}$  (y), 29.0  $\mu\text{m}$  (z)

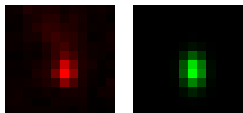
Corresponding bead : Not found

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

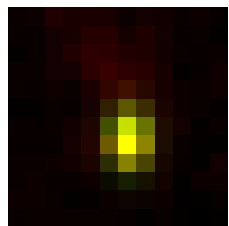
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	417 nm	270 nm
max	581 nm	606 nm	270 nm
z	3.35 $\mu\text{m}$	3.36 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.688		
Theta	-89.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 348.671 (brightness)

B = 121.537 (background)

a = 0.838 px

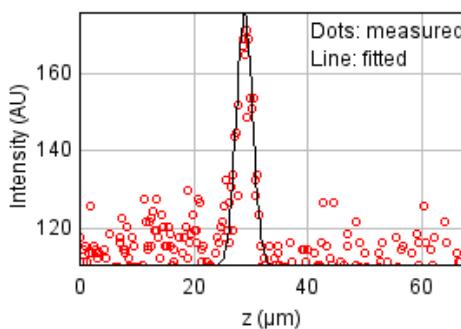
b = -0.004 px

c = 0.397 px

xc = 6.109 px

yc = 6.666 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18311.6148

Standard deviation: 7.72314

$R^2$ : 0.70754

Parameters:

a = 110.84058

b = 175.48078

c = 28.95983

d = 1.42174

## Bead 1464 (Rejected)

Date : Mon Oct 17 13:52:22 PDT 2022

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

Frame size : 12 pixels

Coordinates : 131 um (x), 48.8 um (y), 28.5 um (z)

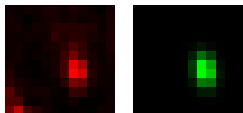
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

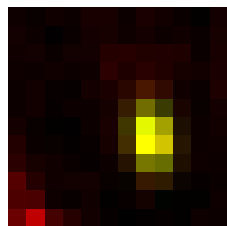
FWHM	Non corrected	Corrected	Theoretical
min	369 nm	384 nm	270 nm
max	592 nm	617 nm	270 nm
z	2.28 um	2.29 um	1.3 um
Asymmetry	0.623		
Theta	-81.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.729$



Parameters:

A = 326.054 (brightness)

B = 127.557 (background)

a = 0.974 px

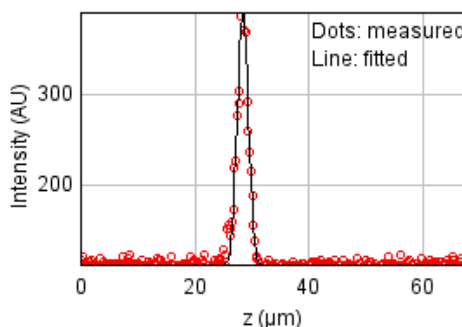
b = -0.088 px

c = 0.396 px

xc = 7.332 px

yc = 6.608 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 17402.2519

Standard deviation: 7.52893

$R^2$ : 0.97078

Parameters:

a = 111.68295

b = 390.81482

c = 28.50233

d = 0.97022



## Bead 1465

Date : Mon Oct 17 13:52:22 PDT 2022

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

Frame size : 12 pixels

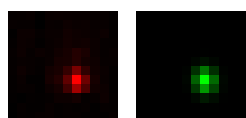
Coordinates : -88.7  $\mu\text{m}$  (x), 24.7  $\mu\text{m}$  (y), 29.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

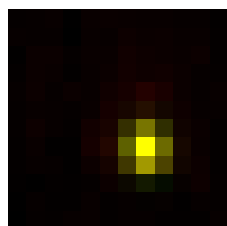
FWHM	Non corrected	Corrected	Theoretical
min	380 nm	395 nm	270 nm
max	456 nm	475 nm	270 nm
z	2.04 $\mu\text{m}$	2.05 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.833		
Theta	-84.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 841.783 (brightness)

B = 125.035 (background)

a = 0.928 px

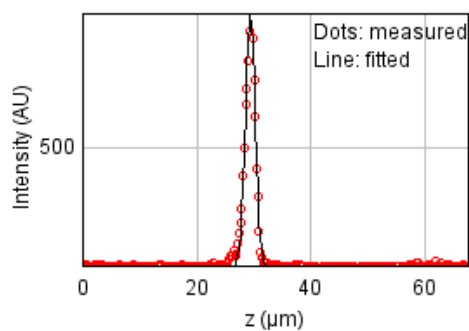
b = -0.030 px

c = 0.649 px

xc = 7.028 px

yc = 7.104 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 44007.2093

Standard deviation: 11.97272

$R^2$ : 0.99039

Parameters:

a = 113.40807

b = 938.95755

c = 29.44809

d = 0.86543

## Bead 1466

Date : Mon Oct 17 13:52:22 PDT 2022

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

Frame size : 12 pixels

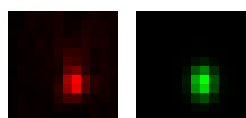
Coordinates : 64.0  $\mu\text{m}$  (x), 22.5  $\mu\text{m}$  (y), 29.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

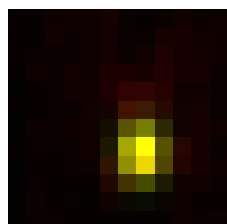
FWHM	Non corrected	Corrected	Theoretical
min	415 nm	433 nm	270 nm
max	555 nm	578 nm	270 nm
z	1.98 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.749		
Theta	89.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 547.795$  (brightness)

$B = 125.422$  (background)

$a = 0.777$  px

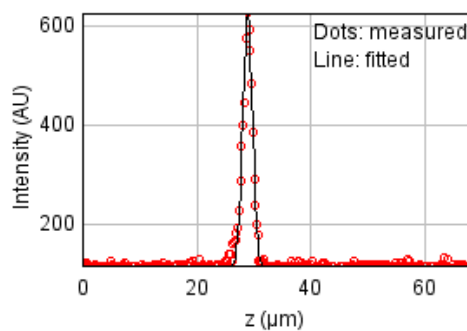
$b = 0.001$  px

$c = 0.436$  px

$x_c = 6.772$  px

$y_c = 7.307$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26665.0546

Standard deviation: 9.31970

$R^2 = 0.98457$

Parameters:

$a = 114.17575$

$b = 626.40479$

$c = 28.99020$

$d = 0.84196$

## Bead 1467

Date : Mon Oct 17 13:52:22 PDT 2022

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

Frame size : 12 pixels

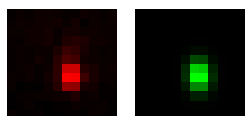
Coordinates : 11.5  $\mu\text{m}$  (x), 13.6  $\mu\text{m}$  (y), 29.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

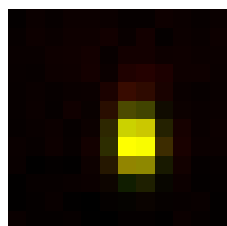
FWHM	Non corrected	Corrected	Theoretical
min	393 nm	409 nm	270 nm
max	562 nm	585 nm	270 nm
z	2.28 $\mu\text{m}$	2.29 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.699		
Theta	-87.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 541.655 (brightness)

B = 123.102 (background)

a = 0.870 px

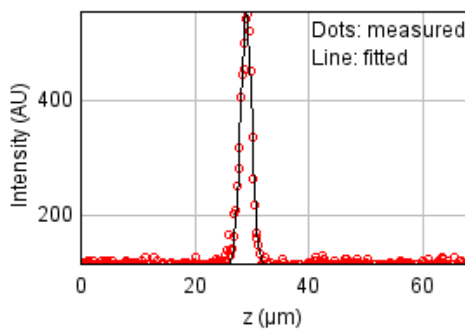
b = -0.018 px

c = 0.426 px

xc = 6.487 px

yc = 6.752 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30435.1724

Standard deviation: 9.95678

$R^2$ : 0.97910

Parameters:

a = 115.30336

b = 554.34664

c = 29.08335

d = 0.96706

## Bead 1468

Date : Mon Oct 17 13:52:23 PDT 2022

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

Frame size : 12 pixels

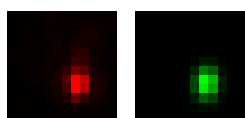
Coordinates : 30.9  $\mu\text{m}$  (x), -30.3  $\mu\text{m}$  (y), 29.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

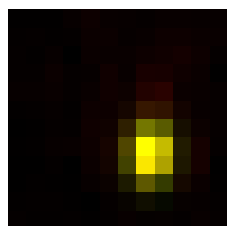
FWHM	Non corrected	Corrected	Theoretical
min	408 nm	425 nm	270 nm
max	557 nm	580 nm	270 nm
z	2.07 $\mu\text{m}$	2.08 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.732		
Theta	86.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 820.917$  (brightness)

$B = 128.350$  (background)

$a = 0.806$  px

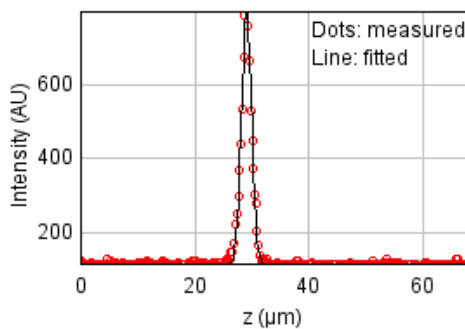
$b = 0.021$  px

$c = 0.434$  px

$x_c = 7.297$  px

$y_c = 7.368$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29070.5689

Standard deviation: 9.73100

$R^2: 0.99097$

Parameters:

$a = 113.44887$

$b = 800.50657$

$c = 29.14747$

$d = 0.87884$

## Bead 1469

Date : Mon Oct 17 13:52:23 PDT 2022

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

Frame size : 12 pixels

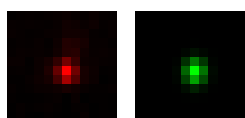
Coordinates : -75.2  $\mu\text{m}$  (x), -33.6  $\mu\text{m}$  (y), 29.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

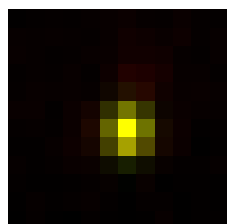
FWHM	Non corrected	Corrected	Theoretical
min	394 nm	410 nm	270 nm
max	465 nm	484 nm	270 nm
z	2.12 $\mu\text{m}$	2.12 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.847		
Theta	-89.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 682.274$  (brightness)

$B = 124.286$  (background)

$a = 0.864$  px

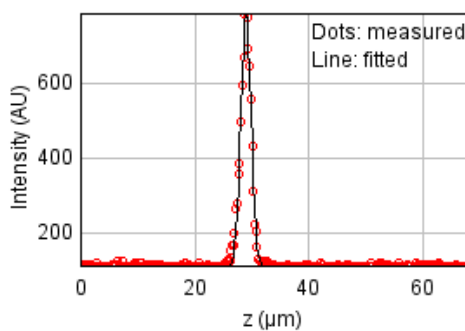
$b = -0.002$  px

$c = 0.620$  px

$x_c = 6.037$  px

$y_c = 6.128$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29433.3272

Standard deviation: 9.79153

$R^2: 0.99064$

Parameters:

$a = 114.19767$

$b = 786.39657$

$c = 29.04837$

$d = 0.89819$

## Bead 1470

Date : Mon Oct 17 13:52:23 PDT 2022

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

Frame size : 12 pixels

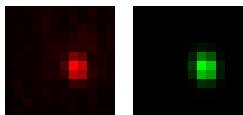
Coordinates : -162  $\mu\text{m}$  (x), -53.8  $\mu\text{m}$  (y), 28.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

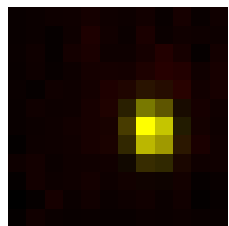
FWHM	Non corrected	Corrected	Theoretical
min	394 nm	411 nm	270 nm
max	500 nm	521 nm	270 nm
z	2.08 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.788		
Theta	-82.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 377.389$  (brightness)

$B = 117.667$  (background)

$a = 0.856$  px

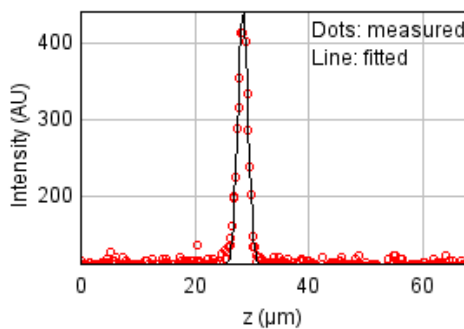
$b = -0.045$  px

$c = 0.543$  px

$x_c = 7.358$  px

$y_c = 6.220$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16660.6352

Standard deviation: 7.36676

$R^2: 0.97799$

Parameters:

$a = 111.00356$

$b = 441.30371$

$c = 28.51934$

$d = 0.88323$

## Bead 1471 (Rejected)

Date : Mon Oct 17 13:52:23 PDT 2022

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

Frame size : 12 pixels

Coordinates : -122  $\mu\text{m}$  (x), 63.2  $\mu\text{m}$  (y), 26.9  $\mu\text{m}$  (z)

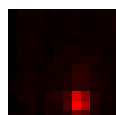
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	270 nm
max	0	0	270 nm
z	2.99 $\mu\text{m}$	3.0 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

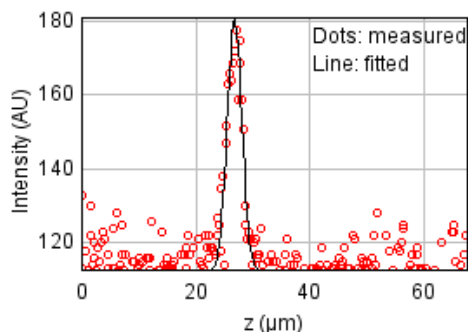
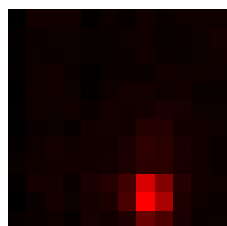
### XY profile & fitting parameters :

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



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

### Z profile & fitting parameters:



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

Sum of residuals squared: 12626.2101

Standard deviation: 6.41309

R<sup>2</sup>: 0.78030

Parameters:

a = 112.39365

b = 180.95506

c = 26.87545

d = 1.26829

## Bead 1472 (Rejected)

Date : Mon Oct 17 13:52:23 PDT 2022

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

Frame size : 12 pixels

Coordinates : 96.6  $\mu\text{m}$  (x), 48.5  $\mu\text{m}$  (y), 26.1  $\mu\text{m}$  (z)

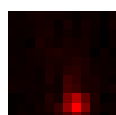
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	270 nm
max	0	0	270 nm
z	3.38 $\mu\text{m}$	3.39 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

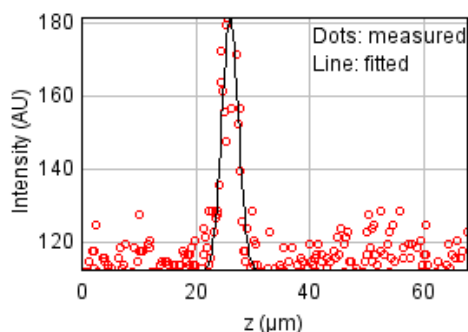
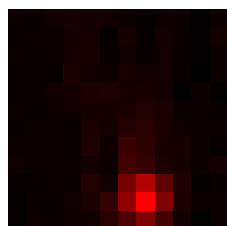
### XY profile & fitting parameters :

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



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

### Z profile & fitting parameters:



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

Sum of residuals squared: 15032.2079

Standard deviation: 6.99749

R<sup>2</sup>: 0.77295

Parameters:

a = 112.49360

b = 181.67719

c = 26.11924

d = 1.43476



## Bead 1473

Date : Mon Oct 17 13:52:23 PDT 2022

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

Frame size : 12 pixels

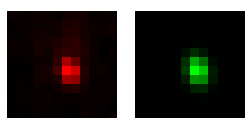
Coordinates : 20.3  $\mu\text{m}$  (x), 43.5  $\mu\text{m}$  (y), 29.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

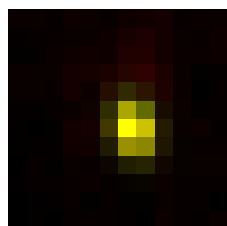
FWHM	Non corrected	Corrected	Theoretical
min	385 nm	400 nm	270 nm
max	533 nm	555 nm	270 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.721		
Theta	-76.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 478.110$  (brightness)

$B = 120.359$  (background)

$a = 0.882$  px

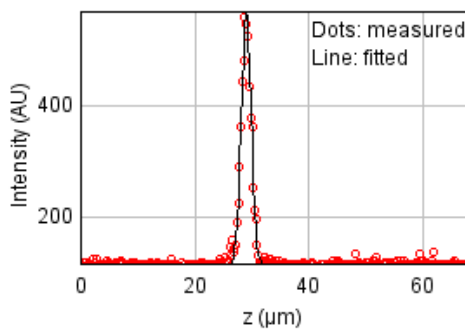
$b = -0.102$  px

$c = 0.497$  px

$x_c = 6.348$  px

$y_c = 5.996$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18217.9633

Standard deviation: 7.70337

$R^2: 0.98701$

Parameters:

$a = 113.12278$

$b = 572.74774$

$c = 29.09705$

$d = 0.85112$

## Bead 1474

Date : Mon Oct 17 13:52:23 PDT 2022

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

Frame size : 12 pixels

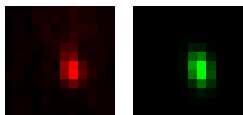
Coordinates : 134  $\mu\text{m}$  (x), 40.7  $\mu\text{m}$  (y), 28.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

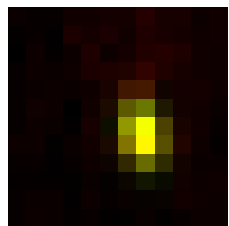
FWHM	Non corrected	Corrected	Theoretical
min	372 nm	387 nm	270 nm
max	597 nm	622 nm	270 nm
z	2.21 $\mu\text{m}$	2.22 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.623		
Theta	-78.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 330.459 (brightness)

B = 118.246 (background)

a = 0.947 px

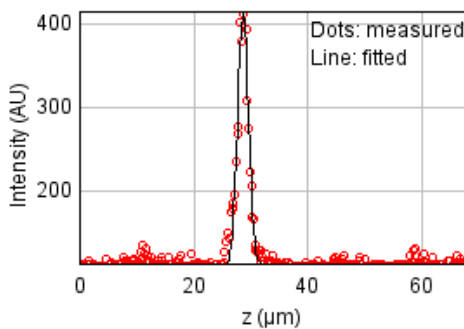
b = -0.117 px

c = 0.400 px

xc = 6.825 px

yc = 6.405 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 23958.8824

Standard deviation: 8.83414

$R^2$ : 0.96485

Parameters:

a = 113.08759

b = 415.71477

c = 28.71912

d = 0.93734

## Bead 1475 (Rejected)

Date : Mon Oct 17 13:52:24 PDT 2022

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

Frame size : 12 pixels

Coordinates : 28.2  $\mu\text{m}$  (x), 13.4  $\mu\text{m}$  (y), 25.1  $\mu\text{m}$  (z)

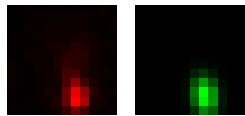
Corresponding bead : Not found

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

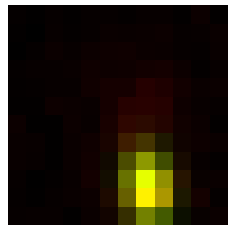
FWHM	Non corrected	Corrected	Theoretical
min	439 nm	457 nm	270 nm
max	697 nm	726 nm	270 nm
z	2.97 $\mu\text{m}$	2.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.629		
Theta	-82.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 504.611 (brightness)

B = 122.761 (background)

a = 0.691 px

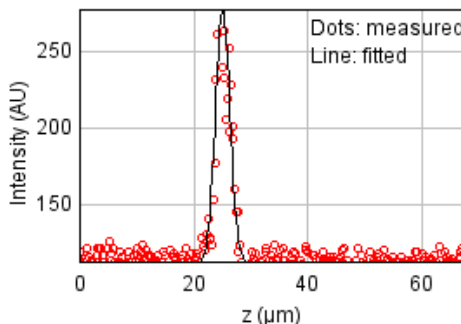
b = -0.054 px

c = 0.283 px

xc = 7.118 px

yc = 9.420 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 35707.9704

Standard deviation: 10.78483

$R^2$ : 0.87868

Parameters:

a = 112.78716

b = 277.77630

c = 25.14677

d = 1.26263

## Bead 1476

Date : Mon Oct 17 13:52:24 PDT 2022

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

Frame size : 12 pixels

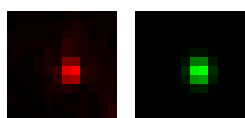
Coordinates : -28.7  $\mu\text{m}$  (x), -5.19  $\mu\text{m}$  (y), 29.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

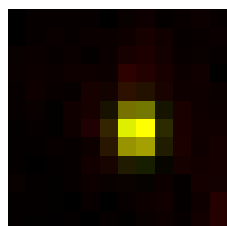
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	397 nm	270 nm
max	469 nm	489 nm	270 nm
z	2.13 $\mu\text{m}$	2.14 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.813		
Theta	-88.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 587.264$  (brightness)

$B = 130.266$  (background)

$a = 0.922$  px

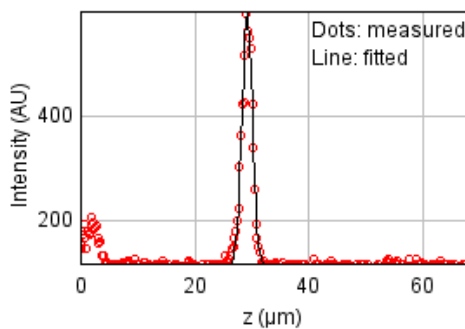
$b = -0.007$  px

$c = 0.610$  px

$x_c = 6.536$  px

$y_c = 6.112$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 94464.3691

Standard deviation: 17.54142

$R^2: 0.94464$

Parameters:

$a = 118.02697$

$b = 599.93278$

$c = 29.25719$

$d = 0.90438$

## Bead 1477

Date : Mon Oct 17 13:52:24 PDT 2022

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

Frame size : 12 pixels

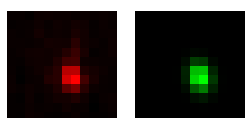
Coordinates : -15.5  $\mu\text{m}$  (x), -15.7  $\mu\text{m}$  (y), 29.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

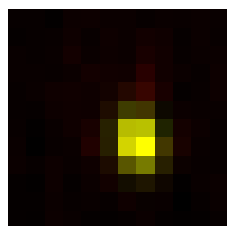
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	407 nm	270 nm
max	523 nm	545 nm	270 nm
z	2.11 $\mu\text{m}$	2.12 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.747		
Theta	-77.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 698.336 (brightness)

B = 124.655 (background)

a = 0.862 px

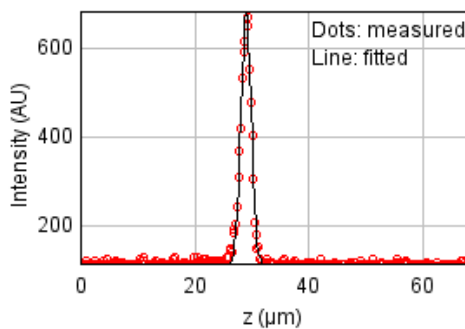
b = -0.081 px

c = 0.508 px

xc = 6.581 px

yc = 6.710 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28741.4475

Standard deviation: 9.67576

$R^2$ : 0.98729

Parameters:

a = 114.39648

b = 684.00587

c = 29.07026

d = 0.89598

## Bead 1478

Date : Mon Oct 17 13:52:24 PDT 2022

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

Frame size : 12 pixels

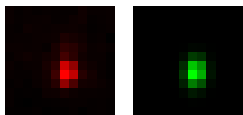
Coordinates : -21.5  $\mu\text{m}$  (x), -19.6  $\mu\text{m}$  (y), 29.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

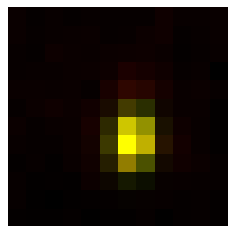
FWHM	Non corrected	Corrected	Theoretical
min	378 nm	393 nm	270 nm
max	529 nm	551 nm	270 nm
z	2.13 $\mu\text{m}$	2.14 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.714		
Theta	86.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 854.655 (brightness)

B = 127.688 (background)

a = 0.940 px

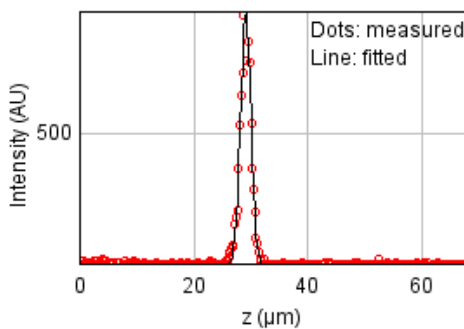
b = 0.030 px

c = 0.482 px

xc = 6.310 px

yc = 6.743 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40164.4293

Standard deviation: 11.43804

$R^2$ : 0.98968

Parameters:

a = 114.26620

b = 858.62236

c = 29.17746

d = 0.90602

## Bead 1479

Date : Mon Oct 17 13:52:24 PDT 2022

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

Frame size : 12 pixels

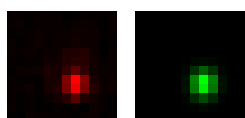
Coordinates : -38.7  $\mu\text{m}$  (x), -20.4  $\mu\text{m}$  (y), 29.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

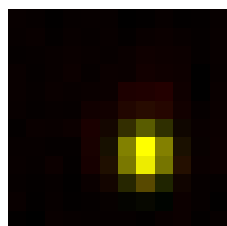
FWHM	Non corrected	Corrected	Theoretical
min	441 nm	460 nm	270 nm
max	495 nm	515 nm	270 nm
z	2.03 $\mu\text{m}$	2.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.892		
Theta	87.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 583.695 (brightness)

B = 124.446 (background)

a = 0.689 px

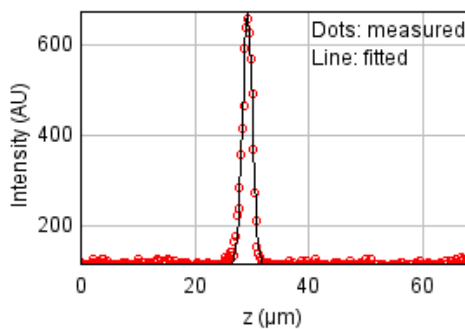
b = 0.006 px

c = 0.548 px

xc = 6.993 px

yc = 7.428 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 25543.6181

Standard deviation: 9.12162

$R^2$ : 0.98783

Parameters:

a = 114.26758

b = 673.08195

c = 29.30065

d = 0.86298

## Bead 1480

Date : Mon Oct 17 13:52:24 PDT 2022

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

Frame size : 12 pixels

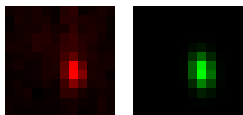
Coordinates : 139  $\mu\text{m}$  (x), -22.0  $\mu\text{m}$  (y), 28.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

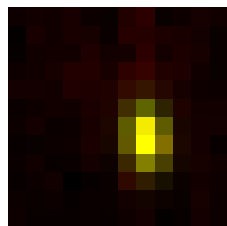
FWHM	Non corrected	Corrected	Theoretical
min	375 nm	390 nm	270 nm
max	595 nm	620 nm	270 nm
z	2.17 $\mu\text{m}$	2.18 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.63		
Theta	-83.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 298.432 (brightness)

B = 117.078 (background)

a = 0.948 px

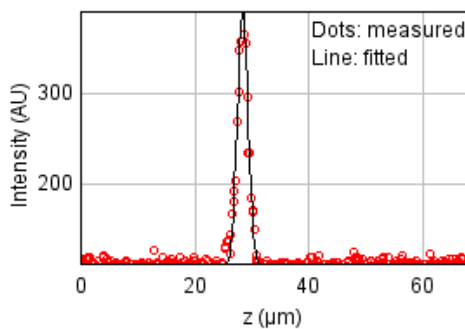
b = -0.062 px

c = 0.386 px

xc = 7.036 px

yc = 6.607 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15994.0333

Standard deviation: 7.21788

$R^2$ : 0.97209

Parameters:

a = 110.70358

b = 391.43985

c = 28.48376

d = 0.92173



## Bead 1481

Date : Mon Oct 17 13:52:24 PDT 2022

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

Frame size : 12 pixels

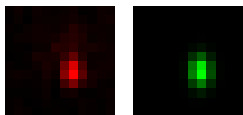
Coordinates : 130  $\mu\text{m}$  (x), -52.2  $\mu\text{m}$  (y), 28.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

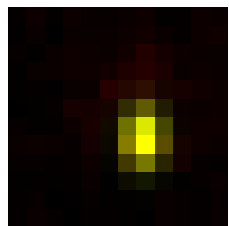
FWHM	Non corrected	Corrected	Theoretical
min	375 nm	390 nm	270 nm
max	562 nm	585 nm	270 nm
z	2.03 $\mu\text{m}$	2.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.667		
Theta	-89.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 395.466 (brightness)

B = 117.566 (background)

a = 0.955 px

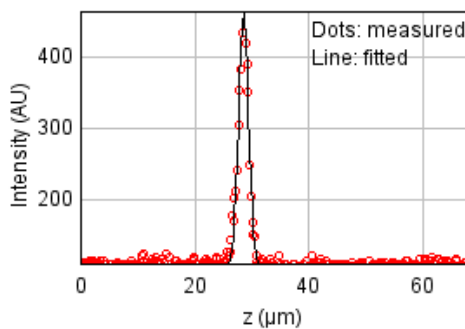
b = -0.003 px

c = 0.425 px

xc = 6.874 px

yc = 6.609 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 19008.4936

Standard deviation: 7.86873

$R^2$ : 0.97727

Parameters:

a = 110.81298

b = 462.01553

c = 28.63365

d = 0.86132

## Bead 1482

Date : Mon Oct 17 13:52:25 PDT 2022

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

Frame size : 12 pixels

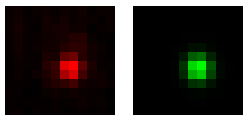
Coordinates : -29.8  $\mu\text{m}$  (x), -54.5  $\mu\text{m}$  (y), 29.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

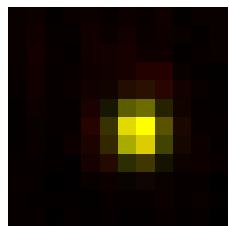
FWHM	Non corrected	Corrected	Theoretical
min	454 nm	473 nm	270 nm
max	497 nm	518 nm	270 nm
z	2.03 $\mu\text{m}$	2.03 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.913		
Theta	-86.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 560.349 (brightness)

B = 122.334 (background)

a = 0.650 px

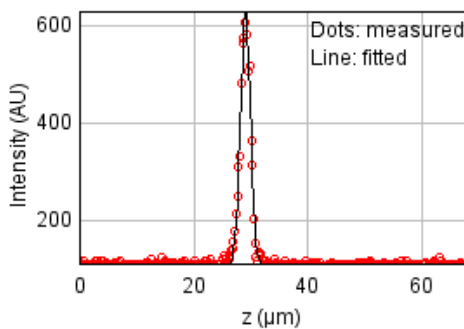
b = -0.006 px

c = 0.543 px

xc = 6.630 px

yc = 6.290 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27000.0827

Standard deviation: 9.37807

$R^2$ : 0.98499

Parameters:

a = 112.52241

b = 629.76579

c = 29.13277

d = 0.86065

## Bead 1483

Date : Mon Oct 17 13:52:25 PDT 2022

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

Frame size : 12 pixels

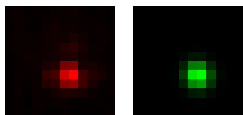
Coordinates : -30.0  $\mu\text{m}$  (x), -72.5  $\mu\text{m}$  (y), 29.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

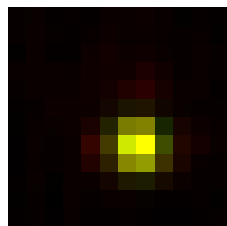
FWHM	Non corrected	Corrected	Theoretical
min	453 nm	472 nm	270 nm
max	482 nm	502 nm	270 nm
z	1.95 $\mu\text{m}$	1.96 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.941		
Theta	-68.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 670.630 (brightness)

B = 125.610 (background)

a = 0.642 px

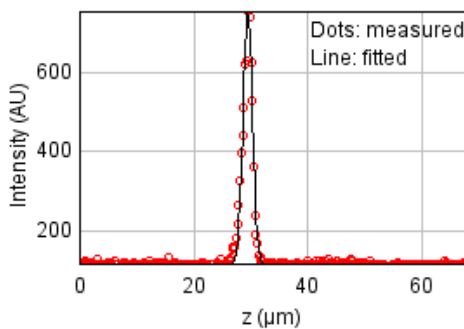
b = -0.026 px

c = 0.588 px

xc = 6.573 px

yc = 7.063 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 56465.5025

Standard deviation: 13.56196

$R^2$ : 0.97892

Parameters:

a = 114.23529

b = 754.70801

c = 29.52445

d = 0.82955

## Bead 1484

Date : Mon Oct 17 13:52:25 PDT 2022

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

Frame size : 12 pixels

Coordinates : -38.9  $\mu\text{m}$  (x), -92.4  $\mu\text{m}$  (y), 29.0  $\mu\text{m}$  (z)

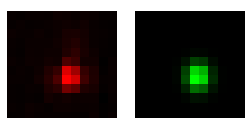
Corresponding bead : Not found



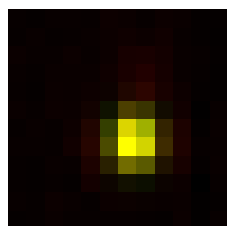
FWHM	Non corrected	Corrected	Theoretical
min	437 nm	455 nm	270 nm
max	508 nm	529 nm	270 nm
z	2.22 $\mu\text{m}$	2.22 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.859		
Theta	-89.8°		

### 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:

$A = 787.583$  (brightness)

$B = 125.992$  (background)

$a = 0.704$  px

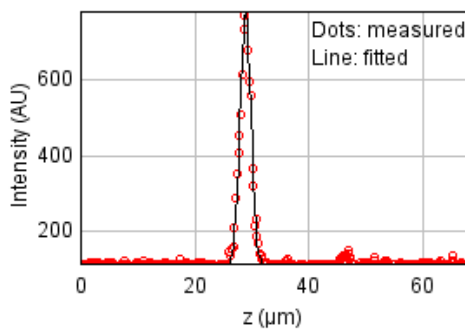
$b = -0.001$  px

$c = 0.520$  px

$x_c = 6.365$  px

$y_c = 6.675$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 41993.5956

Standard deviation: 11.69560

$R^2: 0.98693$

Parameters:

$a = 114.90311$

$b = 778.22633$

$c = 28.97331$

$d = 0.94074$

## Bead 1485 (Rejected)

Date : Mon Oct 17 13:52:25 PDT 2022

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

Frame size : 12 pixels

Coordinates : -135  $\mu\text{m}$  (x), -93.4  $\mu\text{m}$  (y), 26.5  $\mu\text{m}$  (z)

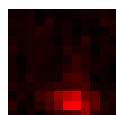
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	270 nm
max	0	0	270 nm
z	3.08 $\mu\text{m}$	3.1 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.0		
Theta	0.0°		

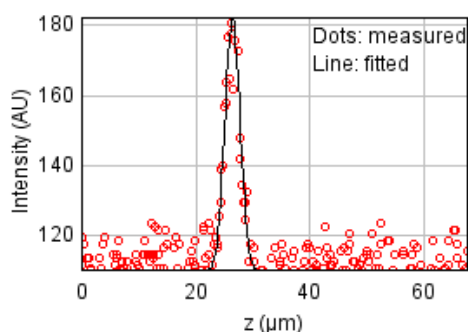
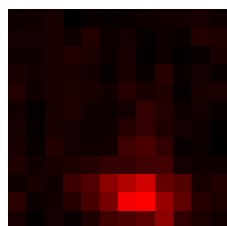
### XY profile & fitting parameters :

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



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

### Z profile & fitting parameters:



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

Sum of residuals squared: 11612.8074

Standard deviation: 6.15034

R<sup>2</sup>: 0.81439

Parameters:

a = 110.27856

b = 182.29349

c = 26.51238

d = 1.30917

## Bead 1486 (Rejected)

Date : Mon Oct 17 13:52:25 PDT 2022

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

Frame size : 12 pixels

Coordinates : -164  $\mu\text{m}$  (x), 79.4  $\mu\text{m}$  (y), 28.3  $\mu\text{m}$  (z)

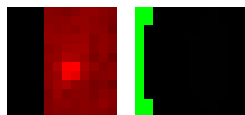
Corresponding bead : Not found

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

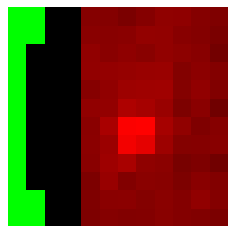
FWHM	Non corrected	Corrected	Theoretical
min	2.0 $\mu\text{m}$	2.09 $\mu\text{m}$	270 nm
max	5.36 $\mu\text{m}$	5.58 $\mu\text{m}$	270 nm
z	2.11 $\mu\text{m}$	2.11 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.373		
Theta	89.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.808$



Parameters:

A = 196.226 (brightness)

B = -41.719 (background)

a = 0.033 px

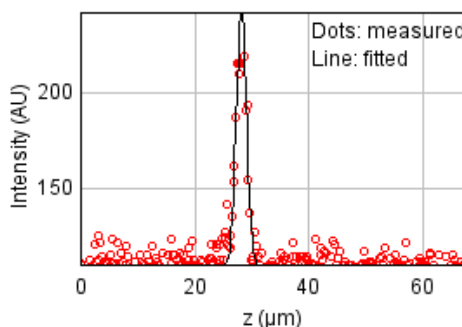
b = 0.000 px

c = 0.005 px

xc = 7.676 px

yc = 5.471 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 14402.3754

Standard deviation: 6.84933

$R^2$ : 0.89318

Parameters:

a = 109.88637

b = 242.33008

c = 28.25108

d = 0.89395

## Bead 1487 (Rejected)

Date : Mon Oct 17 13:52:25 PDT 2022

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

Frame size : 12 pixels

Coordinates : -5.67  $\mu\text{m}$  (x), 58.4  $\mu\text{m}$  (y), 49.7  $\mu\text{m}$  (z)

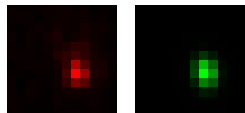
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

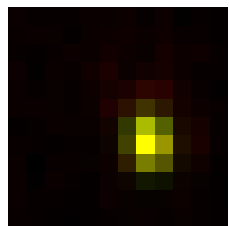
FWHM	Non corrected	Corrected	Theoretical
min	376 nm	391 nm	270 nm
max	520 nm	541 nm	270 nm
z	1.9 $\mu\text{m}$	1.9 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.723		
Theta	-81.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 533.998 (brightness)

B = 122.493 (background)

a = 0.942 px

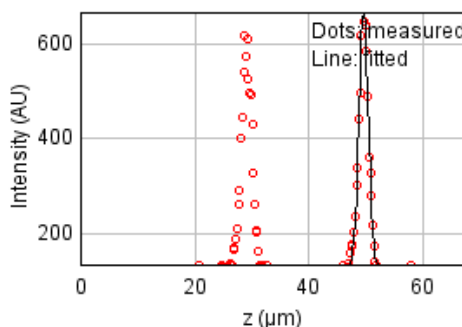
b = -0.065 px

c = 0.506 px

xc = 7.206 px

yc = 6.829 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 1755539.56

Standard deviation: 75.61990

$R^2$ : 0.50363

Parameters:

a = 132.72337

b = 668.07728

c = 49.66542

d = 0.80532

## Bead 1488

Date : Mon Oct 17 13:52:26 PDT 2022

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

Frame size : 12 pixels

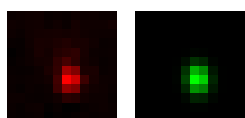
Coordinates : 14.8  $\mu\text{m}$  (x), 14.9  $\mu\text{m}$  (y), 29.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

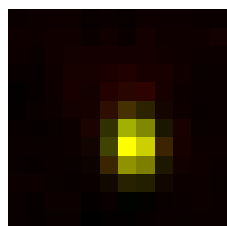
FWHM	Non corrected	Corrected	Theoretical
min	417 nm	434 nm	270 nm
max	538 nm	561 nm	270 nm
z	2.18 $\mu\text{m}$	2.19 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.775		
Theta	-84.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 575.883$  (brightness)

$B = 127.251$  (background)

$a = 0.769$  px

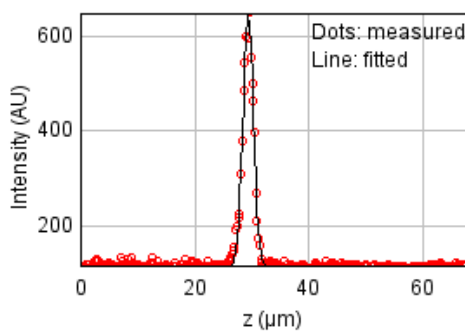
$b = -0.028$  px

$c = 0.466$  px

$x_c = 6.361$  px

$y_c = 6.922$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27502.2777

Standard deviation: 9.46488

$R^2 = 0.98661$

Parameters:

$a = 113.99872$

$b = 648.36788$

$c = 29.43499$

$d = 0.92542$



## Bead 1489 (Rejected)

Date : Mon Oct 17 13:52:26 PDT 2022

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

Frame size : 12 pixels

Coordinates : -164  $\mu\text{m}$  (x), 11.4  $\mu\text{m}$  (y), 28.4  $\mu\text{m}$  (z)

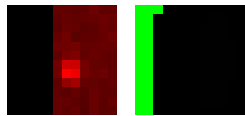
Corresponding bead : Not found

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

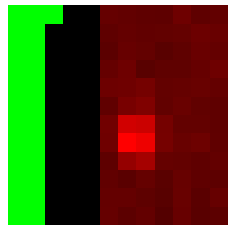
FWHM	Non corrected	Corrected	Theoretical
min	1.58 $\mu\text{m}$	1.65 $\mu\text{m}$	270 nm
max	4.06 $\mu\text{m}$	4.22 $\mu\text{m}$	270 nm
z	2.37 $\mu\text{m}$	2.38 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.39		
Theta	87.5°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.741$



Parameters:

A = 183.463 (brightness)

B = -18.141 (background)

a = 0.054 px

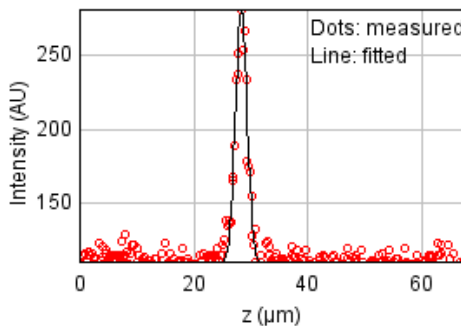
b = 0.002 px

c = 0.008 px

xc = 8.072 px

yc = 5.762 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 16670.9975

Standard deviation: 7.36905

$R^2$ : 0.93078

Parameters:

a = 110.20821

b = 281.18676

c = 28.40947

d = 1.00451

## Bead 1490

Date : Mon Oct 17 13:52:26 PDT 2022

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

Frame size : 12 pixels

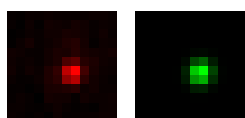
Coordinates : -113  $\mu\text{m}$  (x), -12.7  $\mu\text{m}$  (y), 29.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

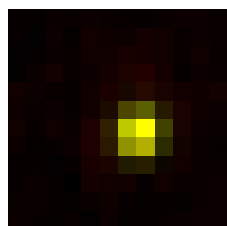
FWHM	Non corrected	Corrected	Theoretical
min	408 nm	425 nm	270 nm
max	444 nm	462 nm	270 nm
z	1.96 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.919		
Theta	75.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 465.431 (brightness)

B = 118.504 (background)

a = 0.798 px

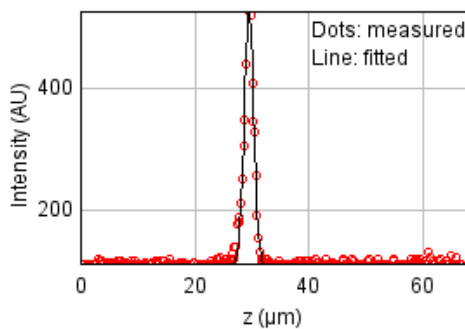
b = 0.031 px

c = 0.689 px

xc = 6.643 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: 30341.0625

Standard deviation: 9.94137

$R^2$ : 0.97310

Parameters:

a = 113.18989

b = 527.02889

c = 29.56900

d = 0.83168

## Bead 1491

Date : Mon Oct 17 13:52:26 PDT 2022

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

Frame size : 12 pixels

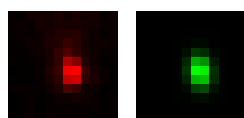
Coordinates : 77.5  $\mu\text{m}$  (x), -13.3  $\mu\text{m}$  (y), 29.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

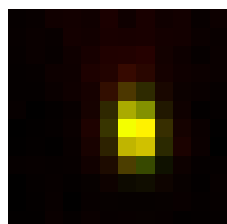
FWHM	Non corrected	Corrected	Theoretical
min	405 nm	422 nm	270 nm
max	608 nm	633 nm	270 nm
z	2.12 $\mu\text{m}$	2.12 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.666		
Theta	-82.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 549.920 (brightness)

B = 122.434 (background)

a = 0.811 px

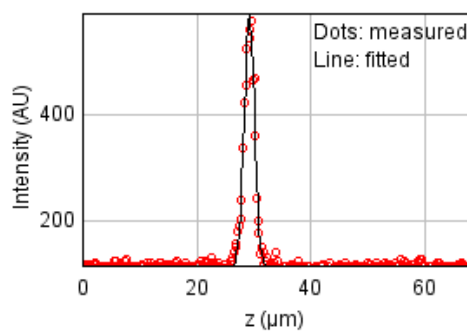
b = -0.057 px

c = 0.370 px

$x_c = 6.475$  px

$y_c = 6.111$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 27020.8383

Standard deviation: 9.38167

$R^2$ : 0.98298

Parameters:

a = 113.49735

b = 589.10398

c = 29.28284

d = 0.89866

## Bead 1492

Date : Mon Oct 17 13:52:26 PDT 2022

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

Frame size : 12 pixels

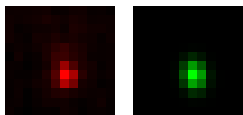
Coordinates : 135  $\mu\text{m}$  (x), -30.3  $\mu\text{m}$  (y), 29.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

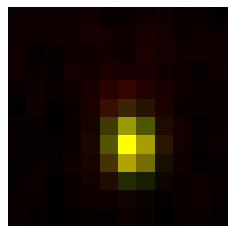
FWHM	Non corrected	Corrected	Theoretical
min	412 nm	429 nm	270 nm
max	537 nm	559 nm	270 nm
z	2.03 $\mu\text{m}$	2.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.766		
Theta	-82.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 461.876 (brightness)

B = 118.760 (background)

a = 0.787 px

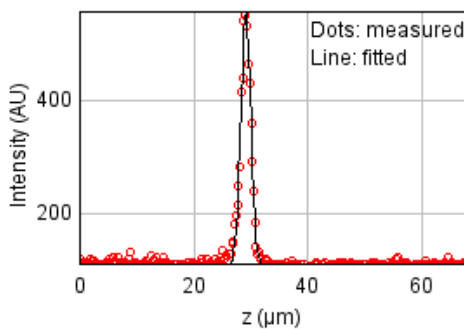
b = -0.043 px

c = 0.471 px

xc = 6.191 px

yc = 7.045 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 20383.0269

Standard deviation: 8.14827

$R^2$ : 0.98476

Parameters:

a = 112.18925

b = 557.40194

c = 29.19661

d = 0.86399

## Bead 1493

Date : Mon Oct 17 13:52:27 PDT 2022

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

Frame size : 12 pixels

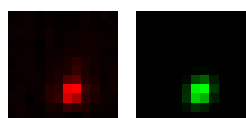
Coordinates : -66.8  $\mu\text{m}$  (x), -36.9  $\mu\text{m}$  (y), 24.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

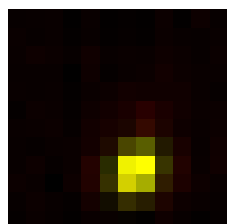
FWHM	Non corrected	Corrected	Theoretical
min	387 nm	403 nm	270 nm
max	465 nm	484 nm	270 nm
z	2.28 $\mu\text{m}$	2.29 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.833		
Theta	58.9°		

### 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 = 650.763 (brightness)

B = 124.869 (background)

a = 0.822 px

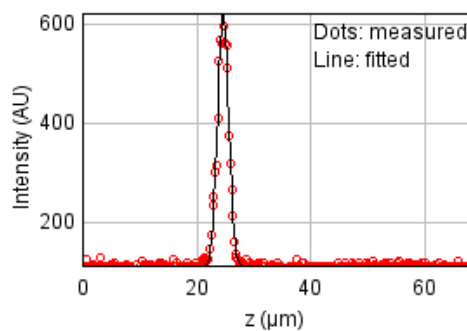
b = 0.121 px

c = 0.694 px

xc = 6.489 px

yc = 8.307 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 22852.2695

Standard deviation: 8.62771

$R^2$ : 0.98822

Parameters:

a = 112.54424

b = 621.03931

c = 24.69600

d = 0.96940

## Bead 1494

Date : Mon Oct 17 13:52:27 PDT 2022

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

Frame size : 12 pixels

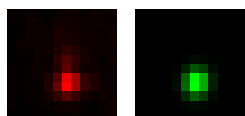
Coordinates : 110  $\mu\text{m}$  (x), -57.9  $\mu\text{m}$  (y), 29.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

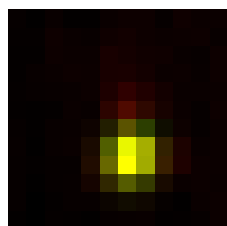
FWHM	Non corrected	Corrected	Theoretical
min	452 nm	471 nm	270 nm
max	507 nm	528 nm	270 nm
z	2.03 $\mu\text{m}$	2.04 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.892		
Theta	78.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 658.015 (brightness)

B = 126.021 (background)

a = 0.651 px

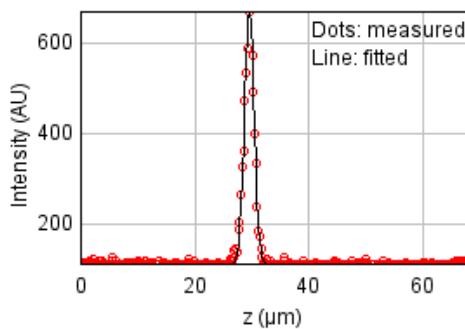
b = 0.026 px

c = 0.527 px

xc = 6.209 px

yc = 7.521 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 18638.0694

Standard deviation: 7.79168

$R^2$ : 0.99119

Parameters:

a = 111.51078

b = 673.82380

c = 29.62029

d = 0.86215

## Bead 1495

Date : Mon Oct 17 13:52:27 PDT 2022

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

Frame size : 12 pixels

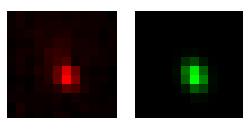
Coordinates : 150  $\mu\text{m}$  (x), -62.7  $\mu\text{m}$  (y), 28.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

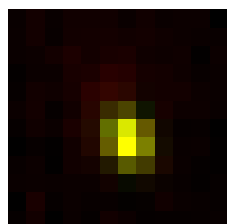
FWHM	Non corrected	Corrected	Theoretical
min	385 nm	401 nm	270 nm
max	511 nm	532 nm	270 nm
z	2.12 $\mu\text{m}$	2.13 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.754		
Theta	-68.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 368.687 (brightness)

B = 118.024 (background)

a = 0.849 px

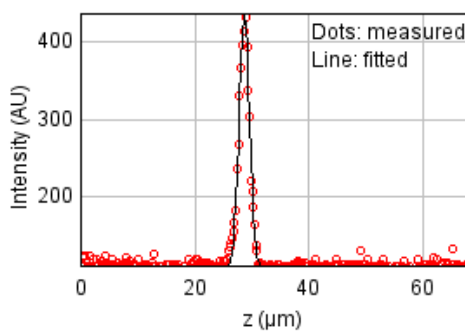
b = -0.135 px

c = 0.568 px

xc = 6.028 px

yc = 6.589 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15092.8068

Standard deviation: 7.01158

$R^2$ : 0.97999

Parameters:

a = 110.69640

b = 437.38423

c = 28.75923

d = 0.90202

## Bead 1496

Date : Mon Oct 17 13:52:27 PDT 2022

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

Frame size : 12 pixels

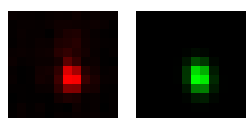
Coordinates : 98.9  $\mu\text{m}$  (x), -72.4  $\mu\text{m}$  (y), 29.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

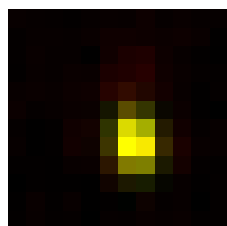
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	416 nm	270 nm
max	554 nm	577 nm	270 nm
z	2.23 $\mu\text{m}$	2.24 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.721		
Theta	-80.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 640.858$  (brightness)

$B = 124.636$  (background)

$a = 0.828$  px

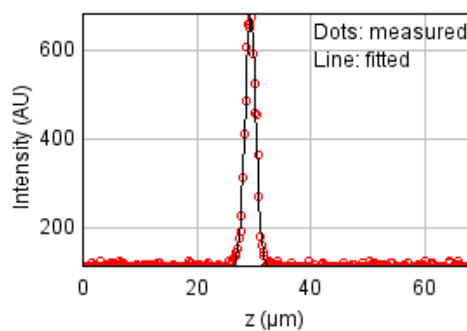
$b = -0.066$  px

$c = 0.448$  px

$x_c = 6.423$  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: 24974.1238

Standard deviation: 9.01936

$R^2: 0.98947$

Parameters:

$a = 112.04043$

$b = 680.51262$

$c = 29.46854$

$d = 0.94836$



## Bead 1497

Date : Mon Oct 17 13:52:27 PDT 2022

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

Frame size : 12 pixels

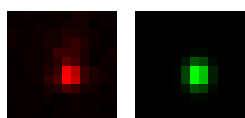
Coordinates : 103  $\mu\text{m}$  (x), -77.4  $\mu\text{m}$  (y), 29.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

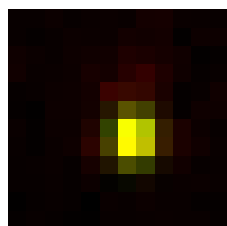
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	426 nm	270 nm
max	484 nm	504 nm	270 nm
z	1.96 $\mu\text{m}$	1.97 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.846		
Theta	89.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 501.570$  (brightness)

$B = 123.581$  (background)

$a = 0.802$  px

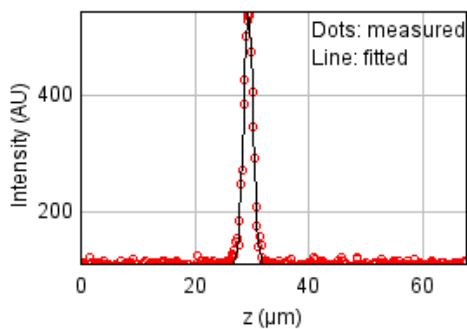
$b = 0.002$  px

$c = 0.574$  px

$x_c = 6.333$  px

$y_c = 6.480$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 15838.2340

Standard deviation: 7.18264

$R^2: 0.98691$

Parameters:

$a = 111.40223$

$b = 543.11208$

$c = 29.44456$

$d = 0.83173$

## Bead 1498

Date : Mon Oct 17 13:52:27 PDT 2022

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

Frame size : 12 pixels

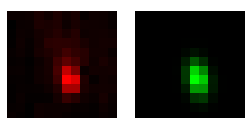
Coordinates : 83.5  $\mu\text{m}$  (x), 84.2  $\mu\text{m}$  (y), 29.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

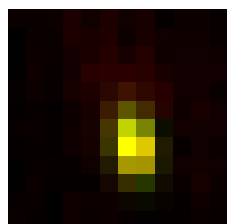
FWHM	Non corrected	Corrected	Theoretical
min	380 nm	396 nm	270 nm
max	635 nm	662 nm	270 nm
z	2.08 $\mu\text{m}$	2.09 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.599		
Theta	-79.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 415.959 (brightness)

B = 125.740 (background)

a = 0.906 px

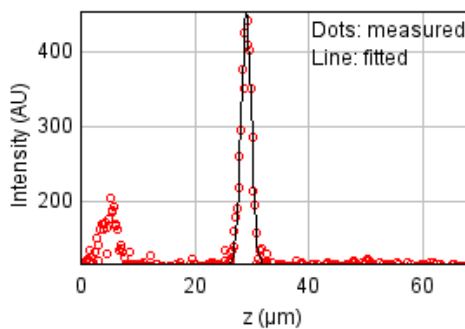
b = -0.111 px

c = 0.354 px

xc = 6.352 px

yc = 6.879 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 82572.2414

Standard deviation: 16.40015

$R^2$ : 0.90297

Parameters:

a = 117.49451

b = 453.91184

c = 29.09513

d = 0.88355

## Bead 1499

Date : Mon Oct 17 13:52:27 PDT 2022

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

Frame size : 12 pixels

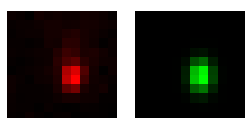
Coordinates : 89.9  $\mu\text{m}$  (x), 73.9  $\mu\text{m}$  (y), 29.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

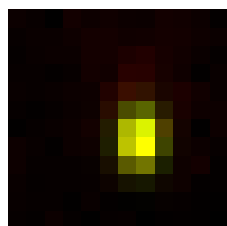
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	426 nm	270 nm
max	569 nm	593 nm	270 nm
z	2.06 $\mu\text{m}$	2.07 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.719		
Theta	89.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 437.037$  (brightness)

$B = 123.075$  (background)

$a = 0.801$  px

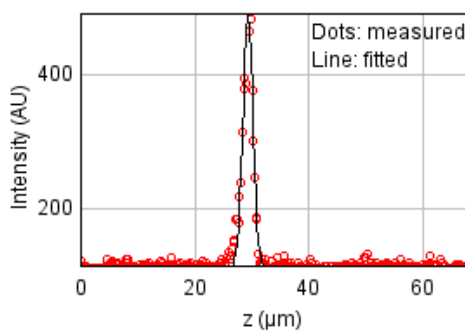
$b = 0.002$  px

$c = 0.414$  px

$x_c = 6.671$  px

$y_c = 6.563$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 33210.2689

Standard deviation: 10.40081

$R^2: 0.96659$

Parameters:

$a = 113.62056$

$b = 491.76301$

$c = 29.38940$

$d = 0.87406$

## Bead 1500

Date : Mon Oct 17 13:52:27 PDT 2022

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

Frame size : 12 pixels

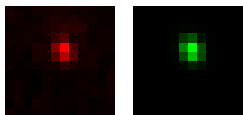
Coordinates : -107  $\mu\text{m}$  (x), 44.5  $\mu\text{m}$  (y), 18.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

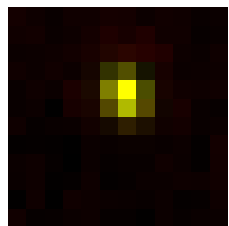
FWHM	Non corrected	Corrected	Theoretical
min	364 nm	379 nm	270 nm
max	442 nm	460 nm	270 nm
z	1.99 $\mu\text{m}$	1.99 $\mu\text{m}$	1.3 $\mu\text{m}$
Asymmetry	0.824		
Theta	-64.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 354.111 (brightness)

B = 118.040 (background)

a = 0.953 px

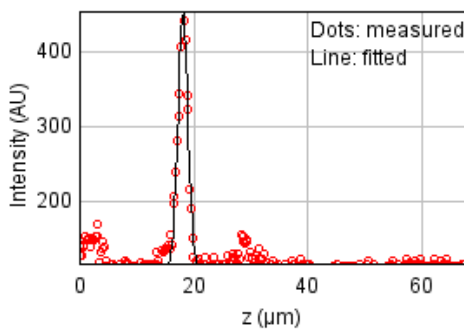
b = -0.125 px

c = 0.747 px

xc = 5.904 px

yc = 4.272 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 54569.8430

Standard deviation: 13.33236

$R^2$ : 0.93057

Parameters:

a = 117.86079

b = 453.41537

c = 18.18523

d = 0.84350