

## Bead 1701

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

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

Frame size : 10 pixels

Coordinates : -152  $\mu\text{m}$  (x), 19.9  $\mu\text{m}$  (y), 38.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

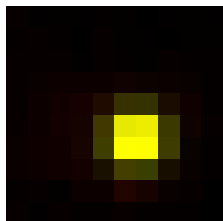
FWHM	Non corrected	Corrected	Theoretical
min	425 nm	439 nm	223 nm
max	434 nm	449 nm	223 nm
z	1.37 $\mu\text{m}$	1.38 $\mu\text{m}$	885 nm
Asymmetry	0.978		
Theta	17.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1659.449 (brightness)

B = 137.044 (background)

a = 0.715 px

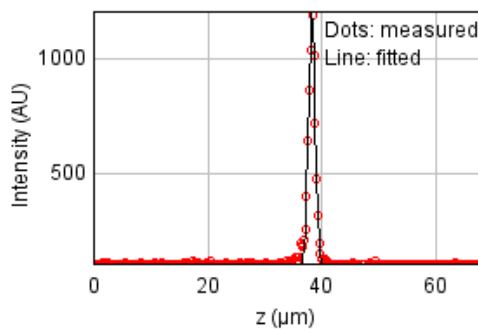
b = 0.009 px

c = 0.741 px

$x_c = 5.500$  px

$y_c = 5.553$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 45333.6517

Standard deviation: 12.15182

$R^2$ : 0.99172

Parameters:

a = 112.49047

b = 1204.79663

c = 38.33341

d = 0.58246

## Bead 1702

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

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

Frame size : 10 pixels

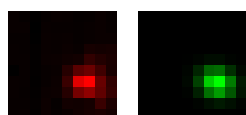
Coordinates : 57.6  $\mu\text{m}$  (x), 20.2  $\mu\text{m}$  (y), 38.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

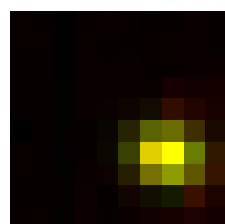
FWHM	Non corrected	Corrected	Theoretical
min	438 nm	453 nm	223 nm
max	546 nm	565 nm	223 nm
z	1.27 $\mu\text{m}$	1.28 $\mu\text{m}$	885 nm
Asymmetry	0.802		
Theta	-15.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 848.750 (brightness)

B = 123.027 (background)

a = 0.468 px

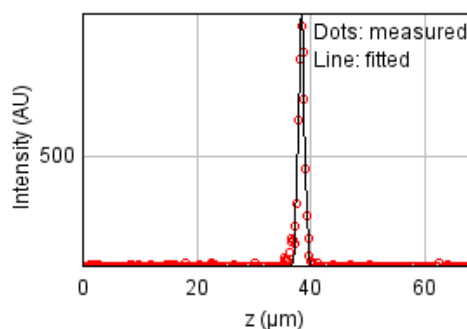
b = -0.065 px

c = 0.681 px

xc = 6.744 px

yc = 6.113 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 50370.3256

Standard deviation: 12.80909

$R^2$ : 0.98524

Parameters:

a = 114.08127

b = 1004.82779

c = 38.42186

d = 0.54114

## Bead 1703

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

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

Frame size : 10 pixels

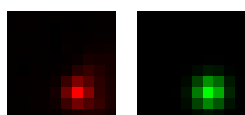
Coordinates : 68.2  $\mu\text{m}$  (x), 15.4  $\mu\text{m}$  (y), 38.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

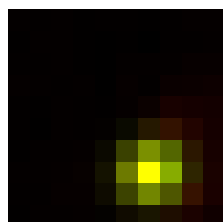
FWHM	Non corrected	Corrected	Theoretical
min	465 nm	481 nm	223 nm
max	490 nm	507 nm	223 nm
z	1.52 $\mu\text{m}$	1.52 $\mu\text{m}$	885 nm
Asymmetry	0.949		
Theta	25.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1066.764$  (brightness)

$B = 130.545$  (background)

$a = 0.570$  px

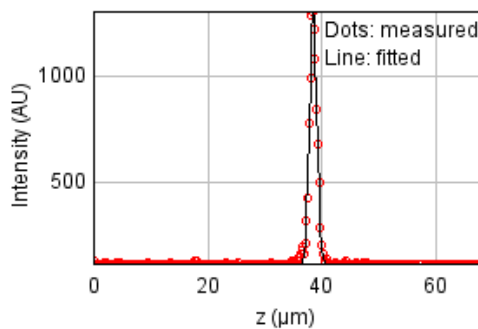
$b = 0.024$  px

$c = 0.608$  px

$x_c = 6.153$  px

$y_c = 6.964$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 59712.6529

Standard deviation: 13.94646

$R^2: 0.99181$

Parameters:

$a = 113.67399$

$b = 1313.65129$

$c = 38.56132$

$d = 0.64491$

## Bead 1704

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

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

Frame size : 10 pixels

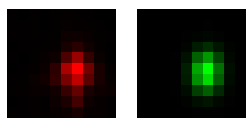
Coordinates : -28.2  $\mu\text{m}$  (x), -91.4  $\mu\text{m}$  (y), 37.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

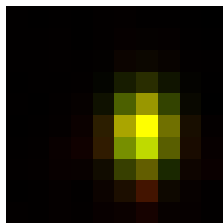
FWHM	Non corrected	Corrected	Theoretical
min	461 nm	477 nm	223 nm
max	626 nm	647 nm	223 nm
z	1.33 $\mu\text{m}$	1.33 $\mu\text{m}$	885 nm
Asymmetry	0.736		
Theta	88.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1450.456 (brightness)

B = 129.785 (background)

a = 0.631 px

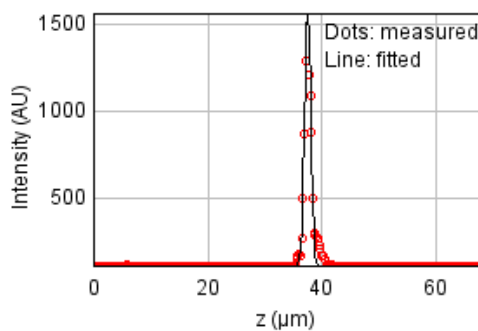
b = 0.008 px

c = 0.343 px

xc = 5.841 px

yc = 5.271 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 200603.188

Standard deviation: 25.56229

$R^2$ : 0.97878

Parameters:

a = 116.10463

b = 1564.75663

c = 37.58361

d = 0.56404

## Bead 1705 (Rejected)

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

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

Frame size : 10 pixels

Coordinates : 153 um (x), 96.1 um (y), 37.3 um (z)

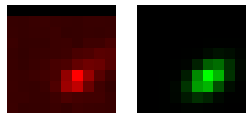
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

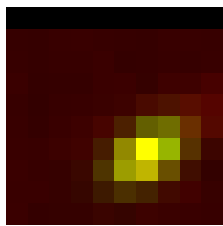
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	415 nm	223 nm
max	650 nm	671 nm	223 nm
z	1.33 um	1.34 um	885 nm
Asymmetry	0.618		
Theta	34.7°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.733$



Parameters:

A = 374.661 (brightness)

B = 99.453 (background)

a = 0.485 px

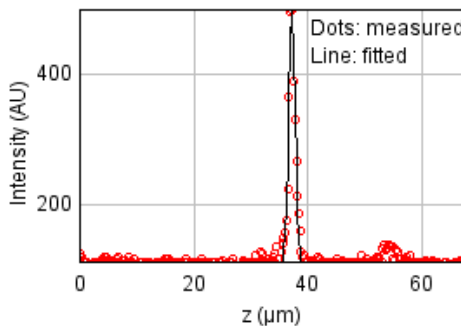
b = 0.241 px

c = 0.666 px

xc = 6.029 px

yc = 6.230 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28902.2428

Standard deviation: 9.70279

$R^2$ : 0.95899

Parameters:

a = 112.47913

b = 503.43743

c = 37.27062

d = 0.56559

## Bead 1706

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

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

Frame size : 10 pixels

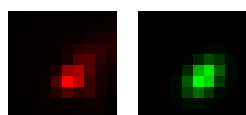
Coordinates : 116 um (x), 78.0 um (y), 38.3 um (z)

Corresponding bead : Not found

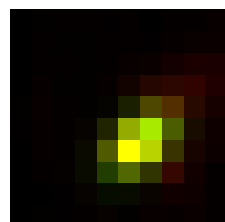
FWHM	Non corrected	Corrected	Theoretical
min	390 nm	403 nm	223 nm
max	596 nm	616 nm	223 nm
z	1.65 um	1.66 um	885 nm
Asymmetry	0.653		
Theta	42.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 828.597 (brightness)

B = 127.323 (background)

a = 0.612 px

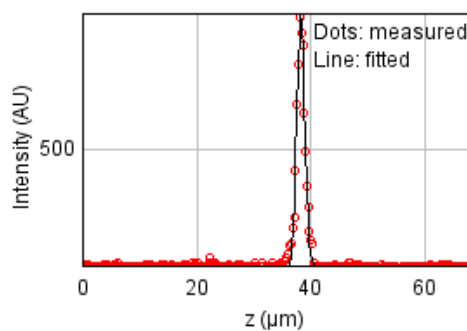
b = 0.253 px

c = 0.649 px

xc = 5.502 px

yc = 5.613 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 43673.3698

Standard deviation: 11.92722

$R^2$ : 0.98852

Parameters:

a = 113.98594

b = 944.59536

c = 38.31487

d = 0.70219

## Bead 1707

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

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

Frame size : 10 pixels

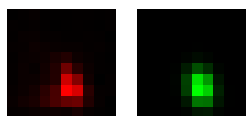
Coordinates : -75.6  $\mu\text{m}$  (x), 75.3  $\mu\text{m}$  (y), 38.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

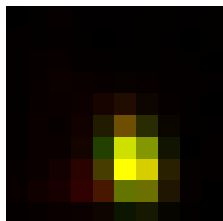
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	412 nm	223 nm
max	553 nm	572 nm	223 nm
z	1.24 $\mu\text{m}$	1.24 $\mu\text{m}$	885 nm
Asymmetry	0.722		
Theta	-77.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1213.465 (brightness)

B = 135.445 (background)

a = 0.823 px

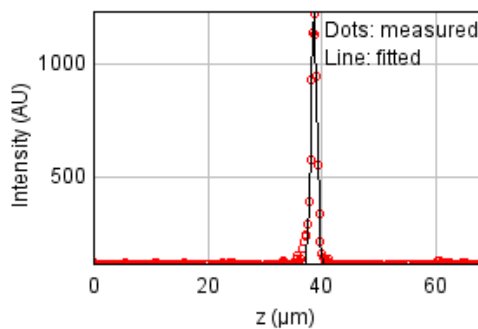
b = -0.088 px

c = 0.459 px

$x_c = 5.338$  px

$y_c = 6.710$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 74865.1645

Standard deviation: 15.61603

$R^2$ : 0.98562

Parameters:

a = 116.73980

b = 1233.04717

c = 38.70740

d = 0.52545

## Bead 1708 (Rejected)

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

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

Frame size : 10 pixels

Coordinates : 76.0 um (x), 53.0 um (y), 38.6 um (z)

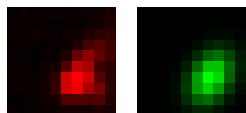
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

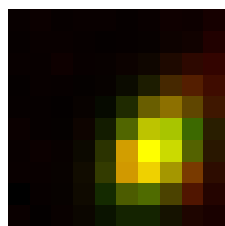
FWHM	Non corrected	Corrected	Theoretical
min	601 nm	621 nm	223 nm
max	855 nm	884 nm	223 nm
z	1.73 um	1.73 um	885 nm
Asymmetry	0.703		
Theta	58.7°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.896$



Parameters:

A = 521.461 (brightness)

B = 119.147 (background)

a = 0.321 px

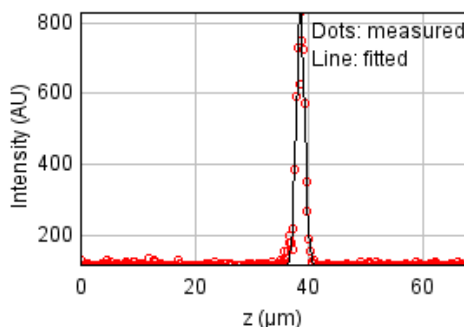
b = 0.083 px

c = 0.234 px

xc = 6.259 px

yc = 5.979 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 116886.430

Standard deviation: 19.51250

$R^2$ : 0.96193

Parameters:

a = 113.91178

b = 835.29965

c = 38.60131

d = 0.73256



## Bead 1709

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

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

Frame size : 10 pixels

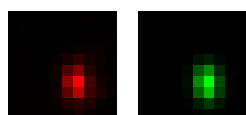
Coordinates : 7.22  $\mu\text{m}$  (x), 26.4  $\mu\text{m}$  (y), 38.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

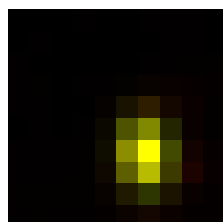
FWHM	Non corrected	Corrected	Theoretical
min	380 nm	393 nm	223 nm
max	539 nm	557 nm	223 nm
z	1.13 $\mu\text{m}$	1.14 $\mu\text{m}$	885 nm
Asymmetry	0.706		
Theta	-84.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1705.934 (brightness)

B = 126.878 (background)

a = 0.924 px

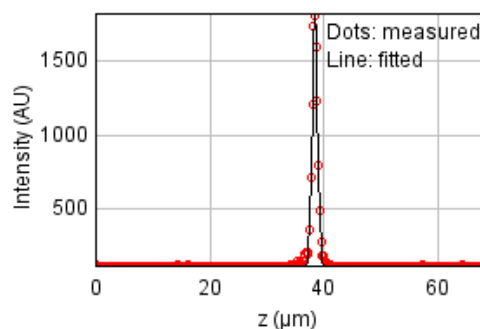
b = -0.043 px

c = 0.467 px

xc = 5.828 px

yc = 6.152 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 76636.8858

Standard deviation: 15.79973

$R^2$ : 0.99303

Parameters:

a = 115.98377

b = 1814.80163

c = 38.50706

d = 0.48140

## Bead 1710

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

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

Frame size : 10 pixels

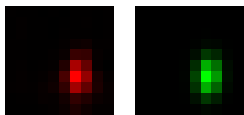
Coordinates : -20.0  $\mu\text{m}$  (x), 15.8  $\mu\text{m}$  (y), 38.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

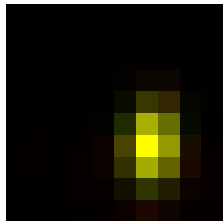
FWHM	Non corrected	Corrected	Theoretical
min	380 nm	393 nm	223 nm
max	590 nm	610 nm	223 nm
z	1.16 $\mu\text{m}$	1.16 $\mu\text{m}$	885 nm
Asymmetry	0.644		
Theta	87.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1967.850 (brightness)

B = 127.128 (background)

a = 0.926 px

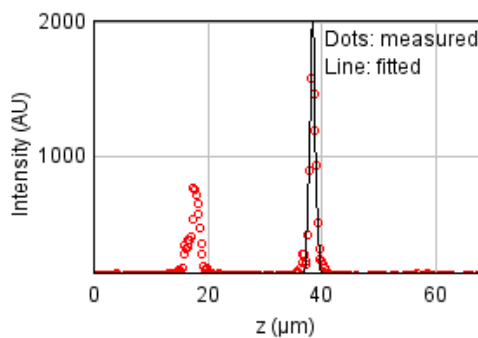
b = 0.029 px

c = 0.387 px

xc = 6.224 px

yc = 5.976 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 3072662.87

Standard deviation: 100.04336

$R^2$ : 0.81629

Parameters:

a = 140.14477

b = 2019.33334

c = 38.44664

d = 0.49257

## Bead 1711

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

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

Frame size : 10 pixels

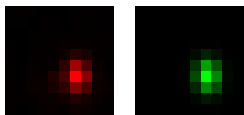
Coordinates : -44.2  $\mu\text{m}$  (x), 8.6  $\mu\text{m}$  (y), 38.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

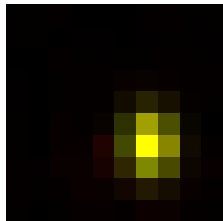
FWHM	Non corrected	Corrected	Theoretical
min	374 nm	387 nm	223 nm
max	496 nm	512 nm	223 nm
z	1.17 $\mu\text{m}$	1.17 $\mu\text{m}$	885 nm
Asymmetry	0.755		
Theta	-86.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1399.748 (brightness)

B = 127.657 (background)

a = 0.957 px

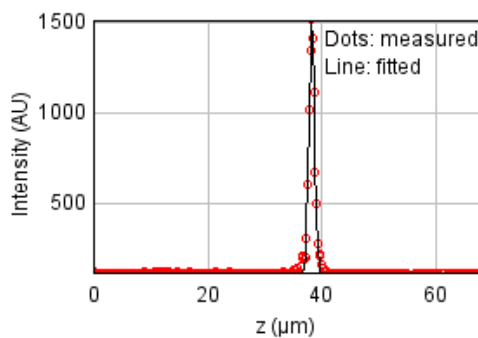
b = -0.023 px

c = 0.548 px

xc = 6.155 px

yc = 5.926 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 65480.9721

Standard deviation: 14.60456

$R^2$ : 0.99145

Parameters:

a = 115.07994

b = 1511.71280

c = 38.31776

d = 0.49622

## Bead 1712

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

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

Frame size : 10 pixels

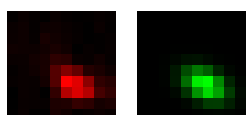
Coordinates : 157 um (x), -9.09 um (y), 38.0 um (z)

Corresponding bead : Not found

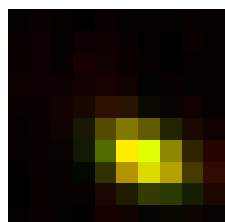
FWHM	Non corrected	Corrected	Theoretical
min	447 nm	462 nm	223 nm
max	704 nm	727 nm	223 nm
z	1.57 um	1.58 um	885 nm
Asymmetry	0.636		
Theta	-27.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 494.483 (brightness)

B = 115.954 (background)

a = 0.356 px

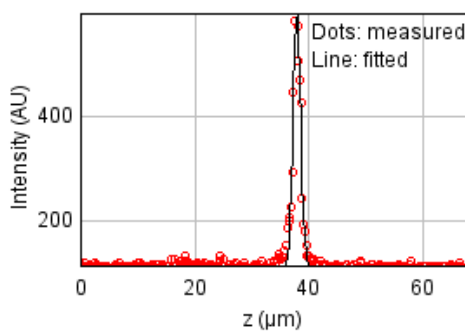
b = -0.163 px

c = 0.586 px

xc = 5.740 px

yc = 6.296 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 45442.1932

Standard deviation: 12.16635

$R^2$ : 0.96499

Parameters:

a = 111.55962

b = 602.39314

c = 37.98177

d = 0.66869

## Bead 1713

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

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

Frame size : 10 pixels

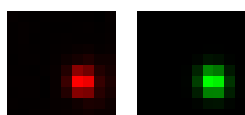
Coordinates : 87.4  $\mu\text{m}$  (x), -35.6  $\mu\text{m}$  (y), 38.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

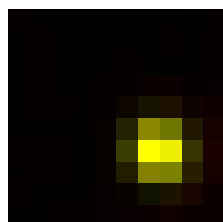
FWHM	Non corrected	Corrected	Theoretical
min	423 nm	437 nm	223 nm
max	455 nm	470 nm	223 nm
z	1.38 $\mu\text{m}$	1.38 $\mu\text{m}$	885 nm
Asymmetry	0.929		
Theta	-69.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1714.848 (brightness)

B = 126.724 (background)

a = 0.737 px

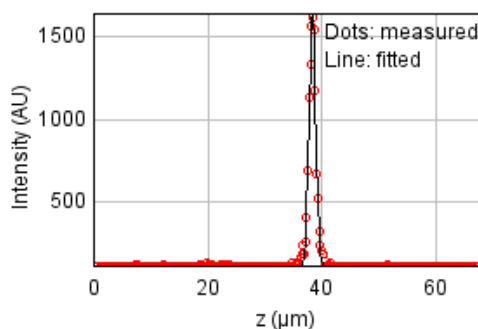
b = -0.034 px

c = 0.661 px

xc = 6.457 px

yc = 6.008 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 88818.5147

Standard deviation: 17.00915

$R^2$ : 0.99182

Parameters:

a = 115.01355

b = 1650.05474

c = 38.42100

d = 0.58524

## Bead 1714

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

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

Frame size : 10 pixels

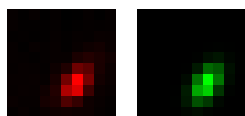
Coordinates : -151  $\mu\text{m}$  (x), -55.5  $\mu\text{m}$  (y), 37.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

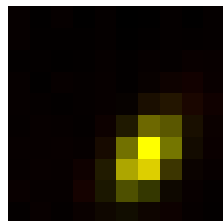
FWHM	Non corrected	Corrected	Theoretical
min	367 nm	379 nm	223 nm
max	614 nm	634 nm	223 nm
z	1.15 $\mu\text{m}$	1.15 $\mu\text{m}$	885 nm
Asymmetry	0.598		
Theta	55.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1058.276$  (brightness)

$B = 124.236$  (background)

$a = 0.795$  px

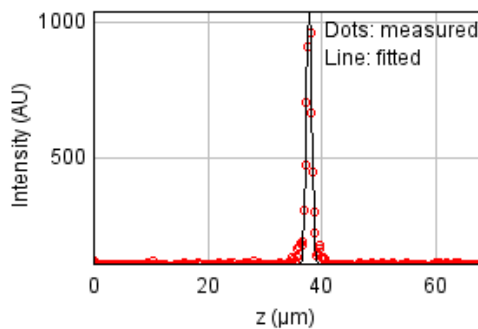
$b = 0.298$  px

$c = 0.558$  px

$x_c = 5.874$  px

$y_c = 6.378$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 54720.9846

Standard deviation: 13.35081

$R^2: 0.98359$

Parameters:

$a = 113.43846$

$b = 1039.52014$

$c = 37.83652$

$d = 0.48722$

## Bead 1715

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

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

Frame size : 10 pixels

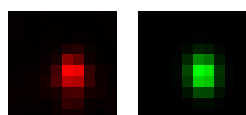
Coordinates : -28.5  $\mu\text{m}$  (x), -70.2  $\mu\text{m}$  (y), 38.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

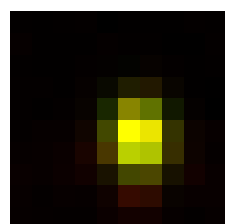
FWHM	Non corrected	Corrected	Theoretical
min	440 nm	454 nm	223 nm
max	560 nm	579 nm	223 nm
z	1.15 $\mu\text{m}$	1.16 $\mu\text{m}$	885 nm
Asymmetry	0.785		
Theta	-84.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1353.745 (brightness)

B = 129.958 (background)

a = 0.693 px

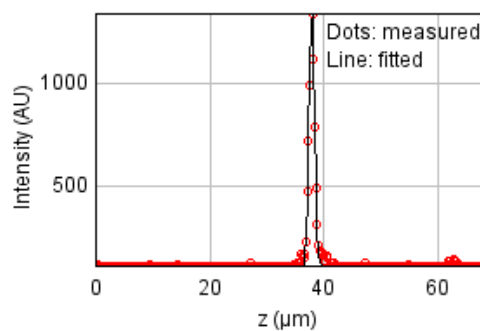
b = -0.024 px

c = 0.430 px

$x_c = 5.429$  px

$y_c = 5.282$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 64850.4148

Standard deviation: 14.53407

$R^2$ : 0.98911

Parameters:

a = 116.07414

b = 1352.93146

c = 37.97757

d = 0.49042

## Bead 1716

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

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

Frame size : 10 pixels

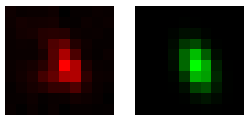
Coordinates : -104  $\mu\text{m}$  (x), 89.1  $\mu\text{m}$  (y), 38.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

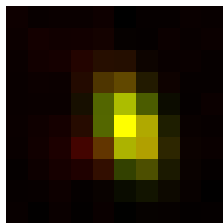
FWHM	Non corrected	Corrected	Theoretical
min	431 nm	446 nm	223 nm
max	704 nm	728 nm	223 nm
z	1.36 $\mu\text{m}$	1.37 $\mu\text{m}$	885 nm
Asymmetry	0.613		
Theta	-68.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 528.700 (brightness)

B = 126.950 (background)

a = 0.662 px

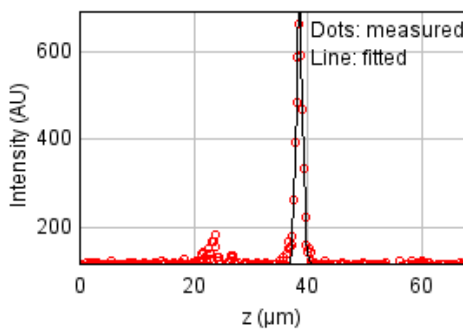
b = -0.151 px

c = 0.329 px

xc = 5.200 px

yc = 5.054 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 46719.0207

Standard deviation: 12.33609

$R^2$ : 0.97024

Parameters:

a = 115.37321

b = 696.02501

c = 38.58931

d = 0.57832



## Bead 1717

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

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

Frame size : 10 pixels

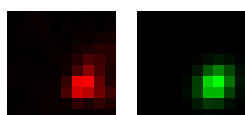
Coordinates : 94.3  $\mu\text{m}$  (x), 76.9  $\mu\text{m}$  (y), 38.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

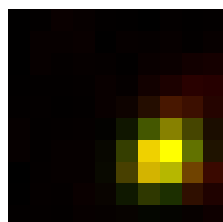
FWHM	Non corrected	Corrected	Theoretical
min	472 nm	488 nm	223 nm
max	567 nm	586 nm	223 nm
z	2.0 $\mu\text{m}$	2.01 $\mu\text{m}$	885 nm
Asymmetry	0.832		
Theta	43.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 737.715$  (brightness)

$B = 125.414$  (background)

$a = 0.506$  px

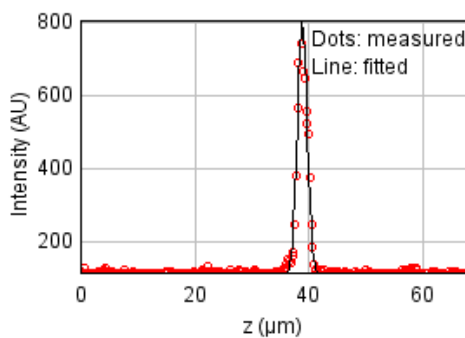
$b = 0.092$  px

$c = 0.513$  px

$x_c = 6.657$  px

$y_c = 6.233$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 98531.9620

Standard deviation: 17.91511

$R^2: 0.96938$

Parameters:

$a = 113.03316$

$b = 804.21296$

$c = 38.90876$

$d = 0.84821$

## Bead 1718

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

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

Frame size : 10 pixels

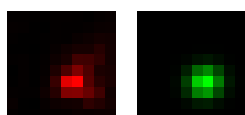
Coordinates : 69.2  $\mu\text{m}$  (x), 49.7  $\mu\text{m}$  (y), 39.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

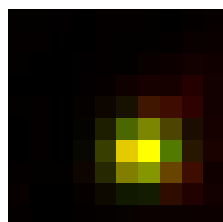
FWHM	Non corrected	Corrected	Theoretical
min	477 nm	493 nm	223 nm
max	530 nm	548 nm	223 nm
z	1.43 $\mu\text{m}$	1.44 $\mu\text{m}$	885 nm
Asymmetry	0.901		
Theta	12.6°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.904$



Parameters:

A = 877.895 (brightness)

B = 133.454 (background)

a = 0.483 px

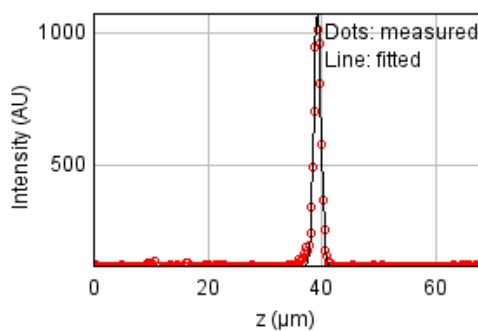
b = 0.024 px

c = 0.584 px

xc = 5.734 px

yc = 6.062 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 40784.0003

Standard deviation: 11.52592

$R^2$ : 0.99088

Parameters:

a = 114.08573

b = 1081.27012

c = 39.29692

d = 0.60759

## Bead 1719

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

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

Frame size : 10 pixels

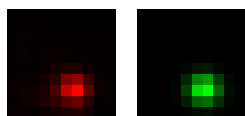
Coordinates : -101  $\mu\text{m}$  (x), 2.23  $\mu\text{m}$  (y), 38.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

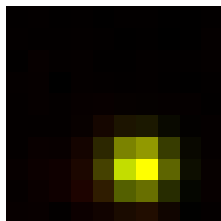
FWHM	Non corrected	Corrected	Theoretical
min	446 nm	461 nm	223 nm
max	500 nm	517 nm	223 nm
z	1.64 $\mu\text{m}$	1.64 $\mu\text{m}$	885 nm
Asymmetry	0.893		
Theta	0.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1245.364$  (brightness)

$B = 129.360$  (background)

$a = 0.537$  px

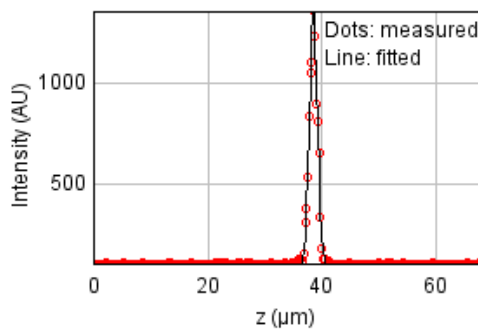
$b = 0.001$  px

$c = 0.674$  px

$x_c = 5.638$  px

$y_c = 6.884$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 82573.2843

Standard deviation: 16.40025

$R^2: 0.99032$

Parameters:

$a = 111.26994$

$b = 1362.59294$

$c = 38.60500$

$d = 0.69458$

## Bead 1720

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

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

Frame size : 10 pixels

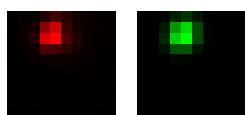
Coordinates : 94.5  $\mu\text{m}$  (x), 2.93  $\mu\text{m}$  (y), 59.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	413 nm	427 nm	223 nm
max	474 nm	490 nm	223 nm
z	1.16 $\mu\text{m}$	1.16 $\mu\text{m}$	885 nm
Asymmetry	0.872		
Theta	60.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1779.839$  (brightness)

$B = 124.953$  (background)

$a = 0.739$  px

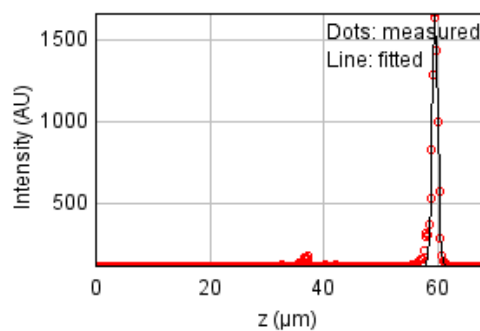
$b = 0.081$  px

$c = 0.643$  px

$x_c = 3.675$  px

$y_c = 1.660$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 159176.024

Standard deviation: 22.77035

$R^2: 0.98335$

Parameters:

$a = 117.65907$

$b = 1679.71370$

$c = 59.53534$

$d = 0.49091$

## Bead 1721

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

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

Frame size : 10 pixels

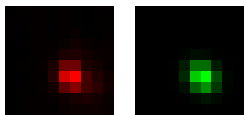
Coordinates : 46.3  $\mu\text{m}$  (x), -10.1  $\mu\text{m}$  (y), 38.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

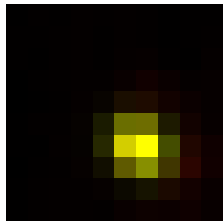
FWHM	Non corrected	Corrected	Theoretical
min	401 nm	415 nm	223 nm
max	474 nm	490 nm	223 nm
z	1.23 $\mu\text{m}$	1.24 $\mu\text{m}$	885 nm
Asymmetry	0.846		
Theta	-43.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1479.223$  (brightness)

$B = 133.133$  (background)

$a = 0.711$  px

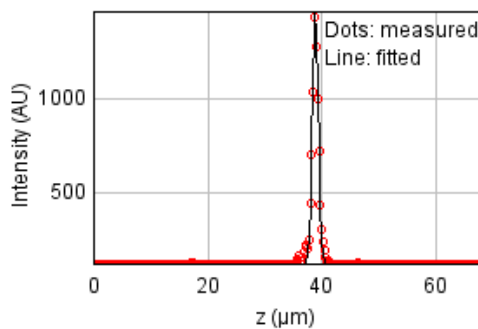
$b = -0.118$  px

$c = 0.721$  px

$x_c = 5.660$  px

$y_c = 6.039$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 67859.8892

Standard deviation: 14.86748

$R^2: 0.99099$

Parameters:

$a = 115.10648$

$b = 1462.87898$

$c = 38.92831$

$d = 0.52410$

## Bead 1722

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

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

Frame size : 10 pixels

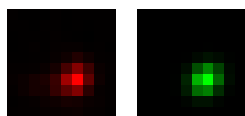
Coordinates : -82.3  $\mu\text{m}$  (x), -33.4  $\mu\text{m}$  (y), 38.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	423 nm	437 nm	223 nm
max	492 nm	508 nm	223 nm
z	1.41 $\mu\text{m}$	1.42 $\mu\text{m}$	885 nm
Asymmetry	0.861		
Theta	39.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1609.737$  (brightness)

$B = 130.403$  (background)

$a = 0.632$  px

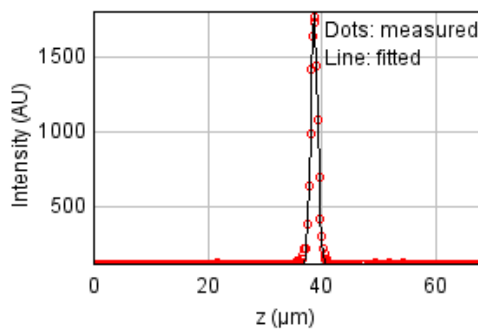
$b = 0.095$  px

$c = 0.673$  px

$x_c = 5.785$  px

$y_c = 6.012$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 43243.1760

Standard deviation: 11.86833

$R^2: 0.99676$

Parameters:

$a = 112.89345$

$b = 1797.87077$

$c = 38.74112$

$d = 0.60067$

## Bead 1723

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

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

Frame size : 10 pixels

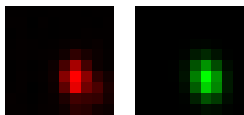
Coordinates : 29.9  $\mu\text{m}$  (x), -38.6  $\mu\text{m}$  (y), 38.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

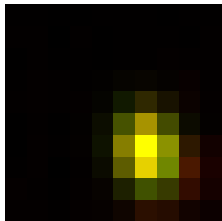
FWHM	Non corrected	Corrected	Theoretical
min	456 nm	472 nm	223 nm
max	607 nm	628 nm	223 nm
z	1.34 $\mu\text{m}$	1.35 $\mu\text{m}$	885 nm
Asymmetry	0.751		
Theta	-77.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1510.697 (brightness)

B = 127.172 (background)

a = 0.632 px

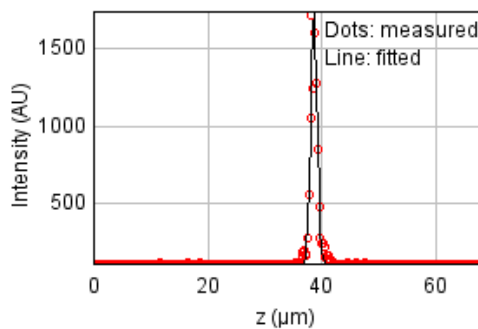
b = -0.058 px

c = 0.377 px

xc = 6.081 px

yc = 6.245 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 494501.821

Standard deviation: 40.13421

$R^2$ : 0.95920

Parameters:

a = 115.75949

b = 1731.75966

c = 38.69693

d = 0.56951

## Bead 1724

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

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

Frame size : 10 pixels

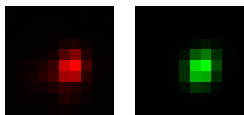
Coordinates : -74.5  $\mu\text{m}$  (x), -38.5  $\mu\text{m}$  (y), 38.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

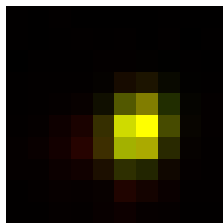
FWHM	Non corrected	Corrected	Theoretical
min	425 nm	439 nm	223 nm
max	514 nm	531 nm	223 nm
z	1.34 $\mu\text{m}$	1.34 $\mu\text{m}$	885 nm
Asymmetry	0.827		
Theta	61.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 2013.110 (brightness)

B = 139.736 (background)

a = 0.690 px

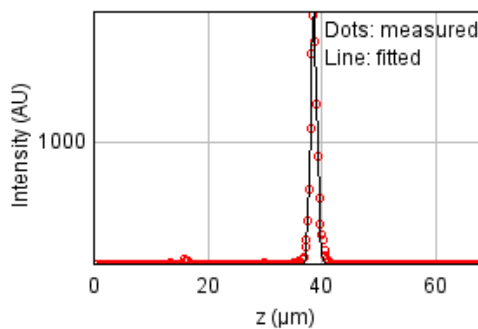
b = 0.099 px

c = 0.562 px

$x_c = 5.583$  px

$y_c = 5.210$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 119554.178

Standard deviation: 19.73391

$R^2$ : 0.99209

Parameters:

a = 115.96341

b = 1954.83127

c = 38.66352

d = 0.56751



## Bead 1725

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

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

Frame size : 10 pixels

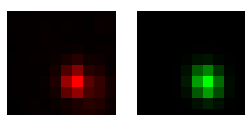
Coordinates : 40.2  $\mu\text{m}$  (x), -45.8  $\mu\text{m}$  (y), 38.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

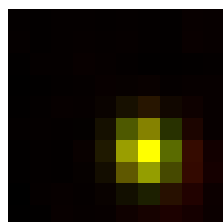
FWHM	Non corrected	Corrected	Theoretical
min	439 nm	454 nm	223 nm
max	491 nm	507 nm	223 nm
z	1.24 $\mu\text{m}$	1.24 $\mu\text{m}$	885 nm
Asymmetry	0.894		
Theta	-66.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 840.075$  (brightness)

$B = 124.999$  (background)

$a = 0.674$  px

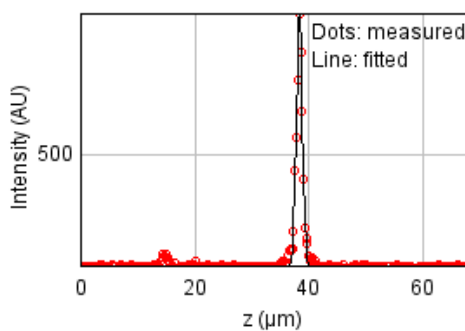
$b = -0.051$  px

$c = 0.579$  px

$x_c = 5.859$  px

$y_c = 6.070$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 52567.0275

Standard deviation: 13.08542

$R^2$ : 0.98386

Parameters:

$a = 116.92133$

$b = 998.72428$

$c = 38.41576$

$d = 0.52585$

## Bead 1726

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

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

Frame size : 10 pixels

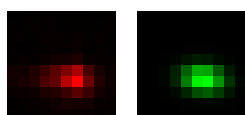
Coordinates : -82.8  $\mu\text{m}$  (x), -82.7  $\mu\text{m}$  (y), 38.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

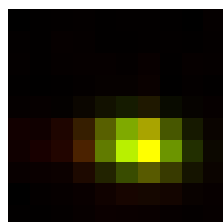
FWHM	Non corrected	Corrected	Theoretical
min	422 nm	437 nm	223 nm
max	673 nm	696 nm	223 nm
z	1.35 $\mu\text{m}$	1.35 $\mu\text{m}$	885 nm
Asymmetry	0.627		
Theta	-6.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 840.752$  (brightness)

$B = 125.738$  (background)

$a = 0.301$  px

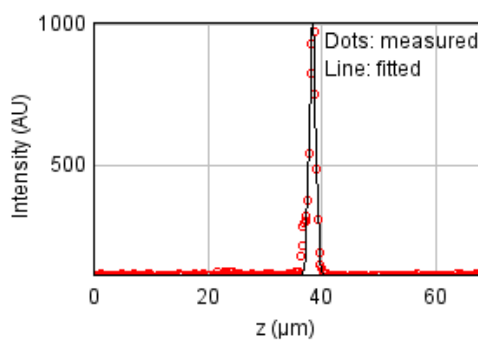
$b = -0.050$  px

$c = 0.747$  px

$x_c = 5.568$  px

$y_c = 5.769$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 118882.768

Standard deviation: 19.67842

$R^2: 0.96773$

Parameters:

$a = 115.52521$

$b = 1007.95413$

$c = 38.45152$

$d = 0.57279$

## Bead 1727

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

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

Frame size : 10 pixels

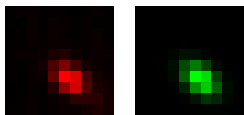
Coordinates : 142  $\mu\text{m}$  (x), -90.9  $\mu\text{m}$  (y), 38.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

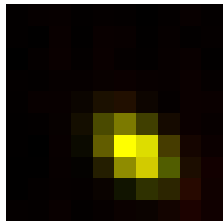
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	402 nm	223 nm
max	608 nm	629 nm	223 nm
z	1.63 $\mu\text{m}$	1.64 $\mu\text{m}$	885 nm
Asymmetry	0.638		
Theta	-40.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 657.404$  (brightness)

$B = 116.067$  (background)

$a = 0.581$  px

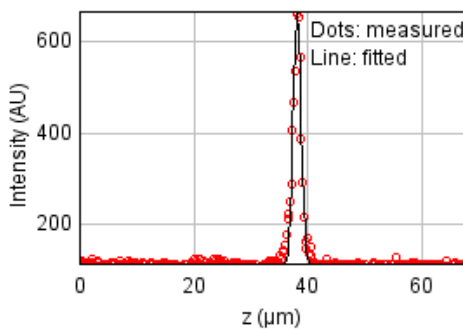
$b = -0.260$  px

$c = 0.671$  px

$x_c = 5.481$  px

$y_c = 6.236$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 42599.1143

Standard deviation: 11.77962

$R^2: 0.97532$

Parameters:

$a = 110.91562$

$b = 670.05053$

$c = 38.19953$

$d = 0.69349$

## Bead 1728 (Rejected)

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

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

Frame size : 10 pixels

Coordinates : -37.5  $\mu\text{m}$  (x), 77.6  $\mu\text{m}$  (y), 62.3  $\mu\text{m}$  (z)

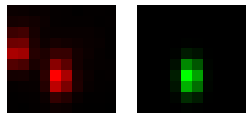
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

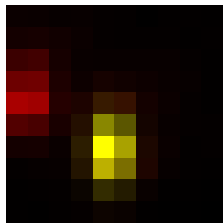
FWHM	Non corrected	Corrected	Theoretical
min	319 nm	330 nm	223 nm
max	514 nm	532 nm	223 nm
z	1.32 $\mu\text{m}$	1.33 $\mu\text{m}$	885 nm
Asymmetry	0.62		
Theta	89.7°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.615$



Parameters:

A = 1816.070 (brightness)

B = 218.140 (background)

a = 1.319 px

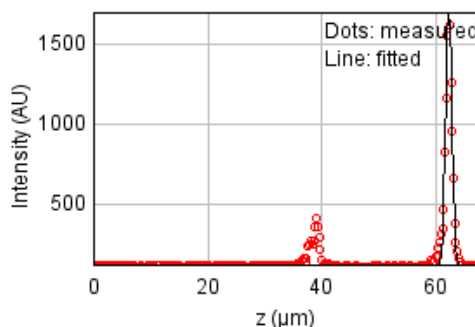
b = 0.005 px

c = 0.508 px

xc = 4.325 px

yc = 6.129 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 502491.044

Standard deviation: 40.45712

$R^2$ : 0.95577

Parameters:

a = 125.19294

b = 1696.78862

c = 62.29935

d = 0.56218

## Bead 1729

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

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

Frame size : 10 pixels

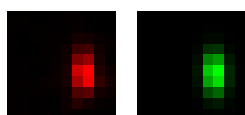
Coordinates : -13.3  $\mu\text{m}$  (x), 69.7  $\mu\text{m}$  (y), 38.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

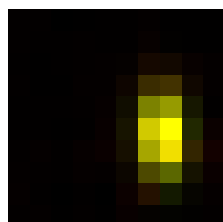
FWHM	Non corrected	Corrected	Theoretical
min	358 nm	370 nm	223 nm
max	651 nm	673 nm	223 nm
z	1.05 $\mu\text{m}$	1.05 $\mu\text{m}$	885 nm
Asymmetry	0.55		
Theta	-87.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1413.830 (brightness)

B = 121.011 (background)

a = 1.045 px

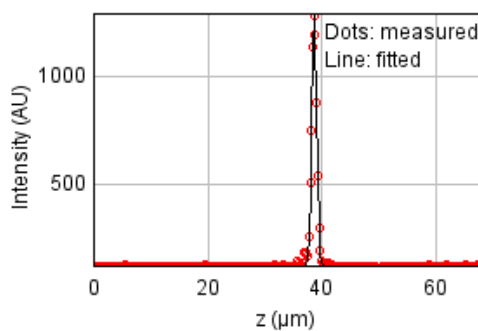
b = -0.029 px

c = 0.318 px

xc = 6.619 px

yc = 5.250 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 29789.6815

Standard deviation: 9.85062

$R^2$ : 0.99397

Parameters:

a = 114.86558

b = 1298.14441

c = 38.74801

d = 0.44603

## Bead 1730

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

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

Frame size : 10 pixels

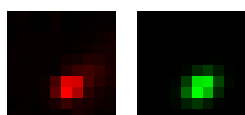
Coordinates : 140  $\mu\text{m}$  (x), 52.0  $\mu\text{m}$  (y), 38.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

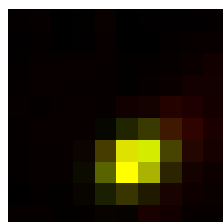
FWHM	Non corrected	Corrected	Theoretical
min	373 nm	385 nm	223 nm
max	506 nm	523 nm	223 nm
z	1.47 $\mu\text{m}$	1.48 $\mu\text{m}$	885 nm
Asymmetry	0.736		
Theta	31.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 825.237$  (brightness)

$B = 122.939$  (background)

$a = 0.645$  px

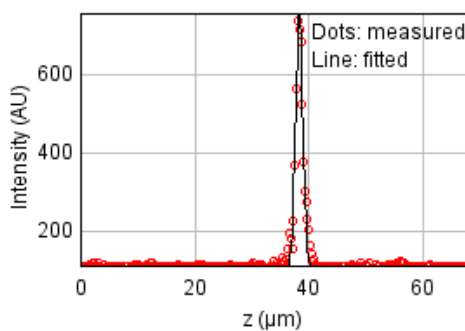
$b = 0.197$  px

$c = 0.847$  px

$x_c = 5.385$  px

$y_c = 6.483$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 61229.4011

Standard deviation: 14.12248

$R^2: 0.97101$

Parameters:

$a = 111.94347$

$b = 760.95853$

$c = 38.39963$

$d = 0.62483$

## Bead 1731

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

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

Frame size : 10 pixels

Coordinates : 123  $\mu\text{m}$  (x), 43.7  $\mu\text{m}$  (y), 52.7  $\mu\text{m}$  (z)

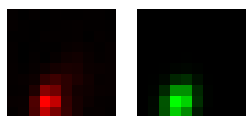
Corresponding bead : Not found



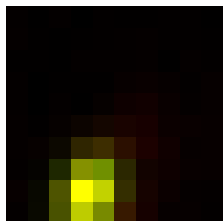
FWHM	Non corrected	Corrected	Theoretical
min	442 nm	457 nm	223 nm
max	608 nm	628 nm	223 nm
z	1.49 $\mu\text{m}$	1.5 $\mu\text{m}$	885 nm
Asymmetry	0.727		
Theta	71.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 953.778$  (brightness)

$B = 126.138$  (background)

$a = 0.655$  px

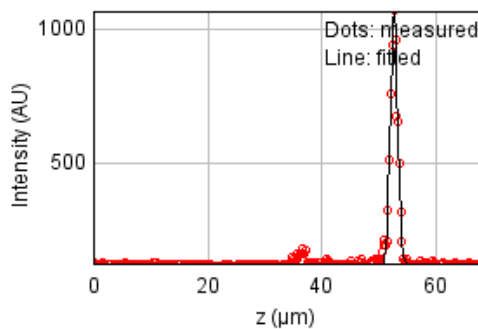
$b = 0.096$  px

$c = 0.395$  px

$x_c = 3.328$  px

$y_c = 8.137$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 87117.2547

Standard deviation: 16.84546

$R^2: 0.98112$

Parameters:

$a = 116.41065$

$b = 1074.53868$

$c = 52.72817$

$d = 0.63312$

## Bead 1732

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

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

Frame size : 10 pixels

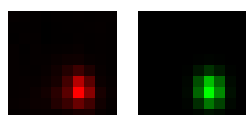
Coordinates : -71.9  $\mu\text{m}$  (x), 33.9  $\mu\text{m}$  (y), 39.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

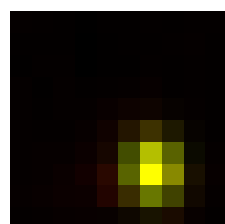
FWHM	Non corrected	Corrected	Theoretical
min	413 nm	427 nm	223 nm
max	503 nm	520 nm	223 nm
z	1.23 $\mu\text{m}$	1.23 $\mu\text{m}$	885 nm
Asymmetry	0.82		
Theta	-85.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1797.012$  (brightness)

$B = 136.319$  (background)

$a = 0.785$  px

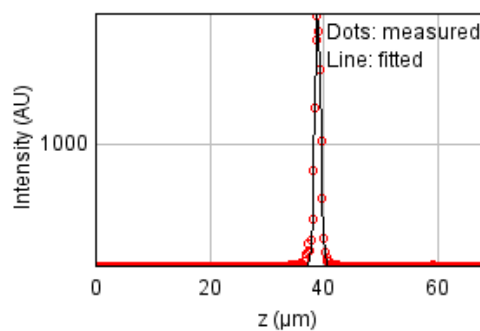
$b = -0.020$  px

$c = 0.531$  px

$x_c = 6.095$  px

$y_c = 6.780$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 80794.2155

Standard deviation: 16.22262

$R^2: 0.99425$

Parameters:

$a = 116.72509$

$b = 1967.62416$

$c = 38.98976$

$d = 0.52022$



## Bead 1733 (Rejected)

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

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

Frame size : 10 pixels

Coordinates : 52.1  $\mu\text{m}$  (x), 25.3  $\mu\text{m}$  (y), 47.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	223 nm
max	0	0	223 nm
z	1.41 $\mu\text{m}$	1.42 $\mu\text{m}$	885 nm
Asymmetry	0.0		
Theta	0.0°		

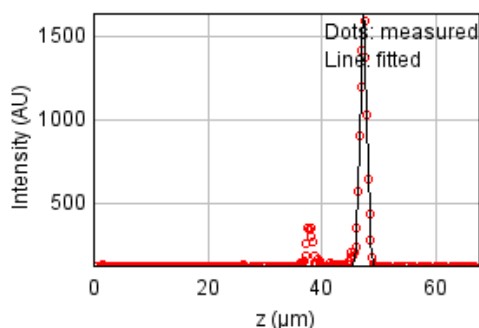
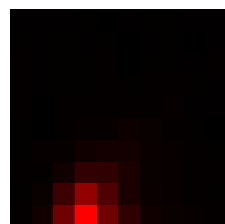
### XY profile & fitting parameters :

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



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

### Z profile & fitting parameters:



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

Sum of residuals squared: 313691.094

Standard deviation: 31.96553

R<sup>2</sup>: 0.97176

Parameters:

a = 121.01544

b = 1639.95135

c = 47.35029

d = 0.59945

## Bead 1734

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

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

Frame size : 10 pixels

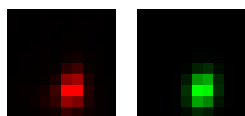
Coordinates : -35.1  $\mu\text{m}$  (x), -5.27  $\mu\text{m}$  (y), 39.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

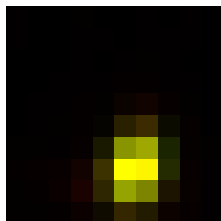
FWHM	Non corrected	Corrected	Theoretical
min	395 nm	409 nm	223 nm
max	533 nm	551 nm	223 nm
z	1.12 $\mu\text{m}$	1.12 $\mu\text{m}$	885 nm
Asymmetry	0.742		
Theta	76.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 2271.457$  (brightness)

$B = 125.988$  (background)

$a = 0.839$  px

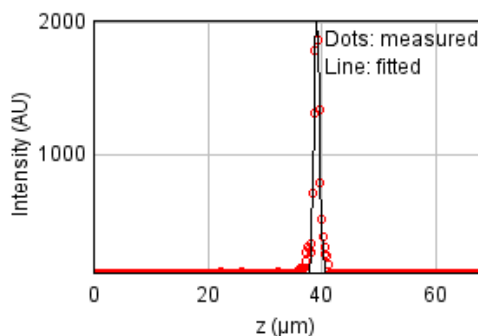
$b = 0.086$  px

$c = 0.493$  px

$x_c = 5.474$  px

$y_c = 6.969$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 233722.727

Standard deviation: 27.59188

$R^2: 0.98284$

Parameters:

$a = 118.80048$

$b = 2012.15924$

$c = 39.18164$

$d = 0.47544$

## Bead 1735

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

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

Frame size : 10 pixels

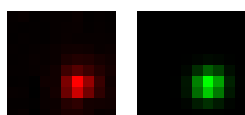
Coordinates : 112  $\mu\text{m}$  (x), -21.2  $\mu\text{m}$  (y), 39.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

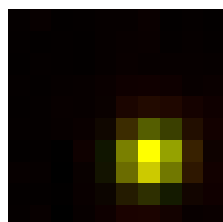
FWHM	Non corrected	Corrected	Theoretical
min	460 nm	476 nm	223 nm
max	491 nm	507 nm	223 nm
z	1.33 $\mu\text{m}$	1.34 $\mu\text{m}$	885 nm
Asymmetry	0.938		
Theta	27.4°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 778.812$  (brightness)

$B = 122.201$  (background)

$a = 0.574$  px

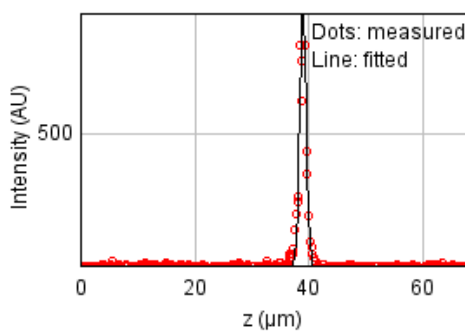
$b = 0.031$  px

$c = 0.617$  px

$x_c = 6.084$  px

$y_c = 6.307$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 193467.787

Standard deviation: 25.10355

$R^2: 0.92877$

Parameters:

$a = 112.51805$

$b = 867.33342$

$c = 39.03731$

$d = 0.56632$

## Bead 1736

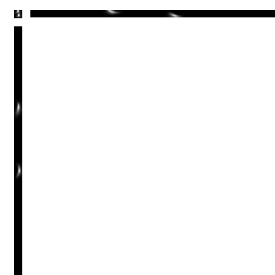
Date : Mon Oct 17 13:29:12 PDT 2022

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

Frame size : 10 pixels

Coordinates : 30.7  $\mu\text{m}$  (x), -45.4  $\mu\text{m}$  (y), 38.8  $\mu\text{m}$  (z)

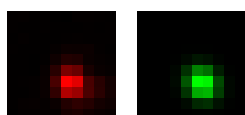
Corresponding bead : Not found



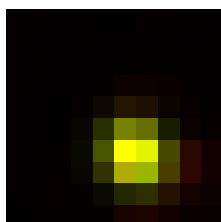
FWHM	Non corrected	Corrected	Theoretical
min	466 nm	482 nm	223 nm
max	518 nm	536 nm	223 nm
z	1.46 $\mu\text{m}$	1.47 $\mu\text{m}$	885 nm
Asymmetry	0.9		
Theta	-52.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1351.118$  (brightness)

$B = 127.832$  (background)

$a = 0.574$  px

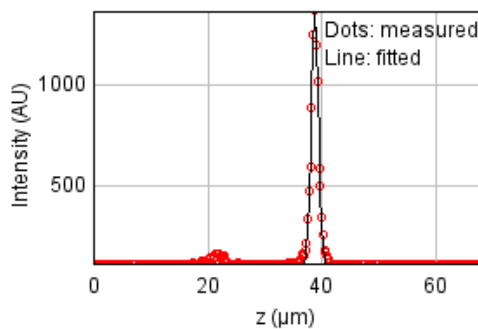
$b = -0.056$  px

$c = 0.543$  px

$x_c = 5.472$  px

$y_c = 6.182$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 95621.0700

Standard deviation: 17.64849

$R^2: 0.98768$

Parameters:

$a = 117.99854$

$b = 1377.42914$

$c = 38.84342$

$d = 0.61991$

## Bead 1737

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

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

Frame size : 10 pixels

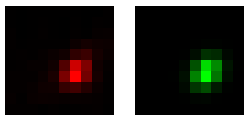
Coordinates : -154  $\mu\text{m}$  (x), -47.9  $\mu\text{m}$  (y), 39.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

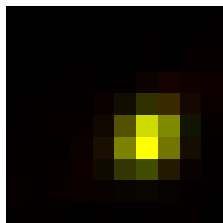
FWHM	Non corrected	Corrected	Theoretical
min	394 nm	407 nm	223 nm
max	496 nm	512 nm	223 nm
z	1.39 $\mu\text{m}$	1.4 $\mu\text{m}$	885 nm
Asymmetry	0.795		
Theta	48.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1678.215 (brightness)

B = 130.014 (background)

a = 0.727 px

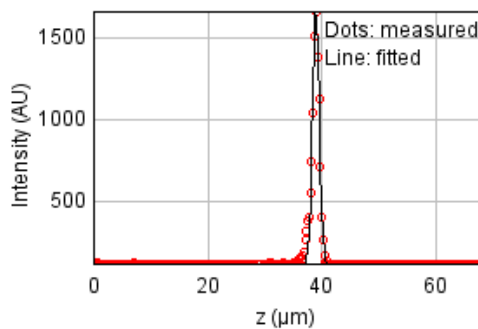
b = 0.158 px

c = 0.684 px

xc = 6.051 px

yc = 5.601 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 150142.987

Standard deviation: 22.11482

$R^2$ : 0.98692

Parameters:

a = 112.03108

b = 1677.57779

c = 39.02123

d = 0.59187

## Bead 1738

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

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

Frame size : 10 pixels

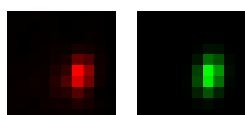
Coordinates : -103  $\mu\text{m}$  (x), -48.5  $\mu\text{m}$  (y), 38.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

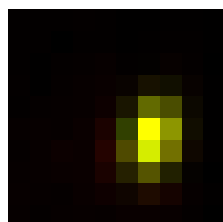
FWHM	Non corrected	Corrected	Theoretical
min	369 nm	381 nm	223 nm
max	543 nm	561 nm	223 nm
z	1.06 $\mu\text{m}$	1.06 $\mu\text{m}$	885 nm
Asymmetry	0.68		
Theta	77.7°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1229.579$  (brightness)

$B = 132.575$  (background)

$a = 0.962$  px

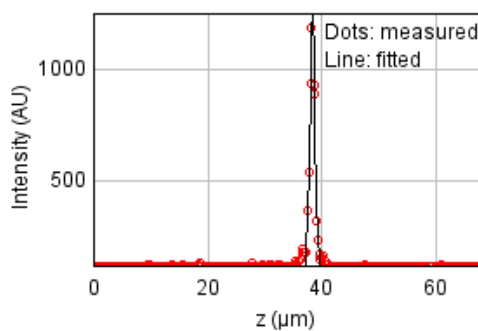
$b = 0.110$  px

$c = 0.480$  px

$x_c = 6.179$  px

$y_c = 5.381$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 95665.5806

Standard deviation: 17.65260

$R^2: 0.97972$

Parameters:

$a = 115.44925$

$b = 1257.74548$

$c = 38.43668$

$d = 0.45030$

## Bead 1739

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

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

Frame size : 10 pixels

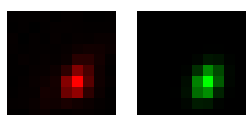
Coordinates : -150  $\mu\text{m}$  (x), -61.8  $\mu\text{m}$  (y), 38.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

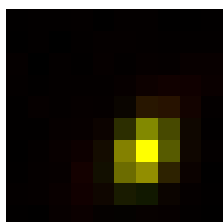
FWHM	Non corrected	Corrected	Theoretical
min	372 nm	384 nm	223 nm
max	522 nm	539 nm	223 nm
z	1.3 $\mu\text{m}$	1.3 $\mu\text{m}$	885 nm
Asymmetry	0.713		
Theta	61.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 961.286 (brightness)

B = 122.486 (background)

a = 0.859 px

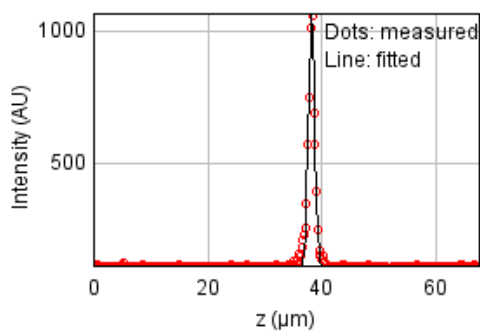
b = 0.202 px

c = 0.605 px

$x_c = 5.885$  px

$y_c = 6.053$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 56639.6046

Standard deviation: 13.58285

$R^2$ : 0.98588

Parameters:

a = 111.43357

b = 1069.06231

c = 38.27688

d = 0.55123

## Bead 1740

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

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

Frame size : 10 pixels

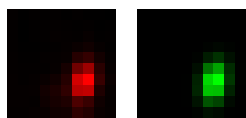
Coordinates : -81.7  $\mu\text{m}$  (x), -73.5  $\mu\text{m}$  (y), 38.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

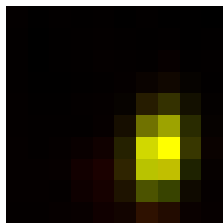
FWHM	Non corrected	Corrected	Theoretical
min	393 nm	407 nm	223 nm
max	616 nm	637 nm	223 nm
z	1.09 $\mu\text{m}$	1.09 $\mu\text{m}$	885 nm
Asymmetry	0.638		
Theta	79.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1528.969 (brightness)

B = 134.581 (background)

a = 0.849 px

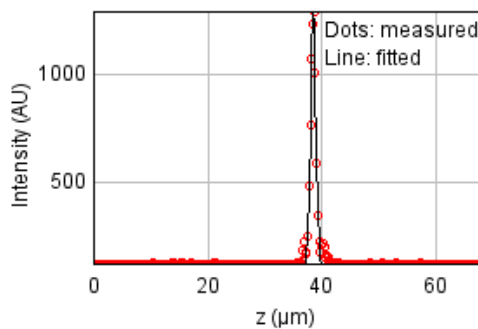
b = 0.095 px

c = 0.372 px

xc = 6.576 px

yc = 6.213 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 79991.9717

Standard deviation: 16.14188

$R^2$ : 0.98452

Parameters:

a = 116.56317

b = 1301.63863

c = 38.56981

d = 0.46077



## Bead 1741

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

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

Frame size : 10 pixels

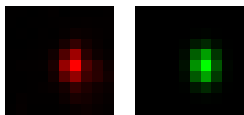
Coordinates : 32.7  $\mu\text{m}$  (x), -79.9  $\mu\text{m}$  (y), 38.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

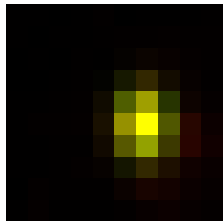
FWHM	Non corrected	Corrected	Theoretical
min	403 nm	417 nm	223 nm
max	537 nm	555 nm	223 nm
z	1.2 $\mu\text{m}$	1.21 $\mu\text{m}$	885 nm
Asymmetry	0.752		
Theta	-86.9°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1839.268 (brightness)

B = 136.934 (background)

a = 0.824 px

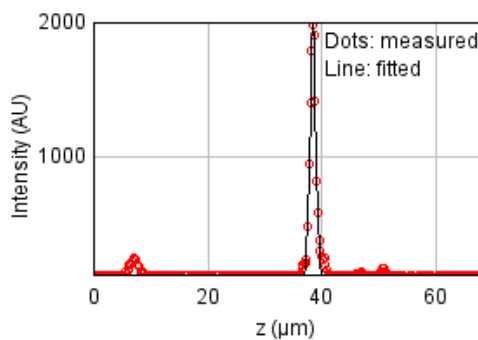
b = -0.020 px

c = 0.467 px

xc = 5.844 px

yc = 5.005 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 266098.220

Standard deviation: 29.44095

$R^2$ : 0.98150

Parameters:

a = 124.51825

b = 2001.31300

c = 38.50789

d = 0.51101

## Bead 1742

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

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

Frame size : 10 pixels

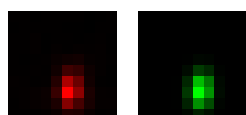
Coordinates : -19.3  $\mu\text{m}$  (x), 43.4  $\mu\text{m}$  (y), 39.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

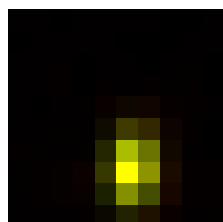
FWHM	Non corrected	Corrected	Theoretical
min	358 nm	370 nm	223 nm
max	554 nm	572 nm	223 nm
z	1.15 $\mu\text{m}$	1.16 $\mu\text{m}$	885 nm
Asymmetry	0.647		
Theta	86.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 2037.904 (brightness)

B = 127.915 (background)

a = 1.045 px

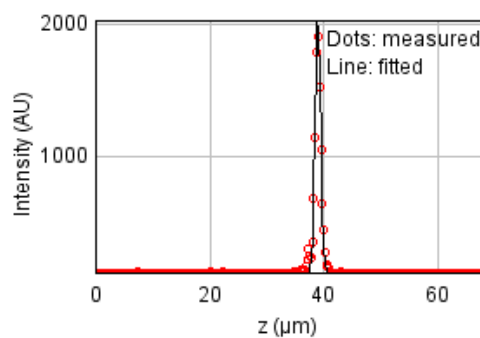
b = 0.036 px

c = 0.440 px

xc = 5.244 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: 144976.816

Standard deviation: 21.73102

$R^2$ : 0.99007

Parameters:

a = 117.52869

b = 2055.50834

c = 39.01914

d = 0.49039

## Bead 1743

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

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

Frame size : 10 pixels

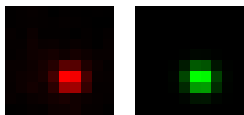
Coordinates : -156  $\mu\text{m}$  (x), 30.3  $\mu\text{m}$  (y), 38.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

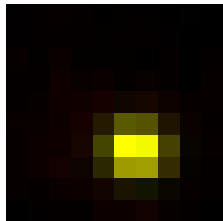
FWHM	Non corrected	Corrected	Theoretical
min	414 nm	428 nm	223 nm
max	453 nm	468 nm	223 nm
z	1.54 $\mu\text{m}$	1.55 $\mu\text{m}$	885 nm
Asymmetry	0.914		
Theta	-11.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1004.881$  (brightness)

$B = 126.165$  (background)

$a = 0.660$  px

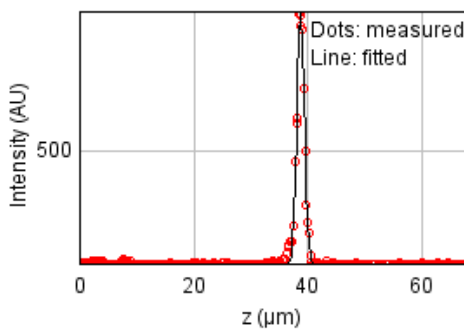
$b = -0.026$  px

$c = 0.779$  px

$x_c = 5.487$  px

$y_c = 6.192$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 69105.2971

Standard deviation: 15.00329

$R^2: 0.98255$

Parameters:

$a = 112.78362$

$b = 986.15363$

$c = 38.80545$

$d = 0.65568$

## Bead 1744

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

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

Frame size : 10 pixels

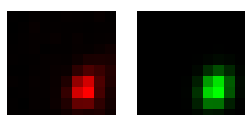
Coordinates : 112 um (x), 29.1 um (y), 39.2 um (z)

Corresponding bead : Not found

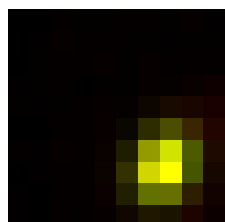
FWHM	Non corrected	Corrected	Theoretical
min	441 nm	456 nm	223 nm
max	558 nm	577 nm	223 nm
z	917 nm	920 nm	885 nm
Asymmetry	0.79		
Theta	65.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 942.280 (brightness)

B = 118.991 (background)

a = 0.645 px

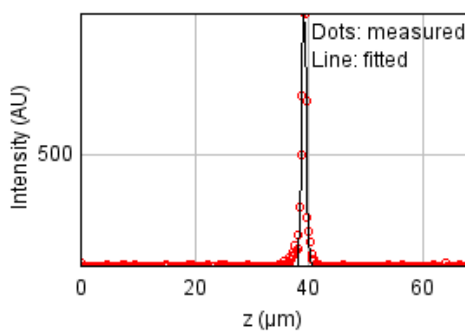
b = 0.097 px

c = 0.474 px

xc = 6.689 px

yc = 6.691 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 66623.3959

Standard deviation: 14.73141

$R^2$ : 0.97317

Parameters:

a = 113.38656

b = 1000.24372

c = 39.22767

d = 0.38922

## Bead 1745

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

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

Frame size : 10 pixels

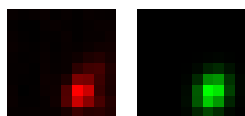
Coordinates : 85.9  $\mu\text{m}$  (x), 25.5  $\mu\text{m}$  (y), 39.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

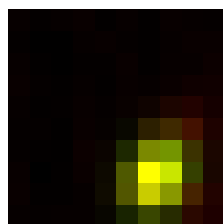
FWHM	Non corrected	Corrected	Theoretical
min	462 nm	478 nm	223 nm
max	594 nm	614 nm	223 nm
z	1.87 $\mu\text{m}$	1.87 $\mu\text{m}$	885 nm
Asymmetry	0.779		
Theta	65.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 719.900$  (brightness)

$B = 122.207$  (background)

$a = 0.583$  px

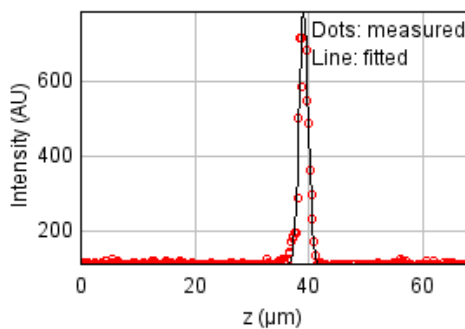
$b = 0.095$  px

$c = 0.425$  px

$x_c = 6.384$  px

$y_c = 7.149$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 83881.7525

Standard deviation: 16.52968

$R^2: 0.97050$

Parameters:

$a = 113.77038$

$b = 785.17895$

$c = 39.16527$

$d = 0.79279$

## Bead 1746

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

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

Frame size : 10 pixels

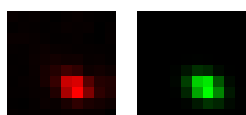
Coordinates : 161  $\mu\text{m}$  (x), 14.4  $\mu\text{m}$  (y), 38.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

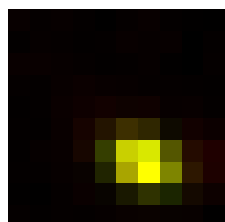
FWHM	Non corrected	Corrected	Theoretical
min	379 nm	392 nm	223 nm
max	530 nm	548 nm	223 nm
z	1.55 $\mu\text{m}$	1.56 $\mu\text{m}$	885 nm
Asymmetry	0.715		
Theta	-23.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 885.882 (brightness)

B = 120.207 (background)

a = 0.548 px

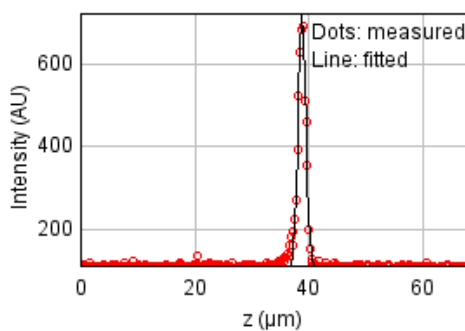
b = -0.165 px

c = 0.861 px

$x_c = 5.753$  px

$y_c = 6.510$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30324.1249

Standard deviation: 9.93859

$R^2$ : 0.98458

Parameters:

a = 111.34534

b = 726.05086

c = 38.86434

d = 0.65873

## Bead 1747

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

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

Frame size : 10 pixels

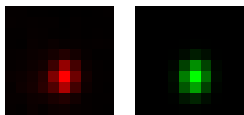
Coordinates : -119  $\mu\text{m}$  (x), 10.1  $\mu\text{m}$  (y), 39.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

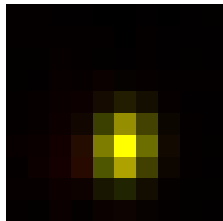
FWHM	Non corrected	Corrected	Theoretical
min	413 nm	427 nm	223 nm
max	509 nm	527 nm	223 nm
z	1.32 $\mu\text{m}$	1.32 $\mu\text{m}$	885 nm
Asymmetry	0.81		
Theta	81.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1277.124$  (brightness)

$B = 127.664$  (background)

$a = 0.782$  px

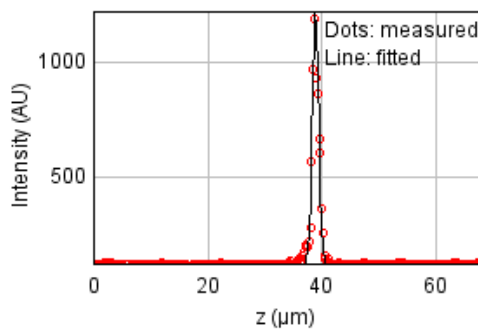
$b = 0.041$  px

$c = 0.523$  px

$x_c = 4.955$  px

$y_c = 6.068$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 184000.333

Standard deviation: 24.48162

$R^2: 0.96722$

Parameters:

$a = 112.81493$

$b = 1226.94745$

$c = 38.96105$

$d = 0.55931$

## Bead 1748

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

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

Frame size : 10 pixels

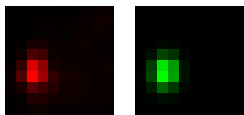
Coordinates : 2.04  $\mu\text{m}$  (x), 4.49  $\mu\text{m}$  (y), 39.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

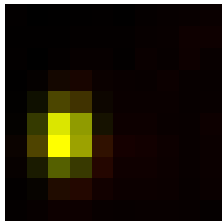
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	401 nm	223 nm
max	498 nm	515 nm	223 nm
z	1.24 $\mu\text{m}$	1.25 $\mu\text{m}$	885 nm
Asymmetry	0.779		
Theta	84.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1806.978 (brightness)

B = 159.669 (background)

a = 0.888 px

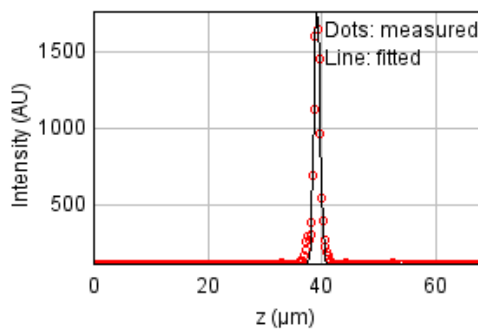
b = 0.033 px

c = 0.544 px

xc = 2.258 px

yc = 5.583 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 143219.523

Standard deviation: 21.59891

$R^2$ : 0.98764

Parameters:

a = 116.37546

b = 1778.55375

c = 39.22775

d = 0.52863



## Bead 1749

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

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

Frame size : 10 pixels

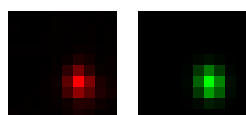
Coordinates : 1.34  $\mu\text{m}$  (x), -10.4  $\mu\text{m}$  (y), 38.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

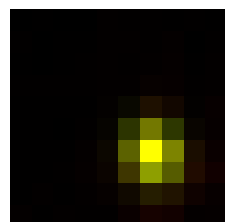
FWHM	Non corrected	Corrected	Theoretical
min	403 nm	416 nm	223 nm
max	474 nm	490 nm	223 nm
z	1.25 $\mu\text{m}$	1.25 $\mu\text{m}$	885 nm
Asymmetry	0.85		
Theta	-74.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1475.014$  (brightness)

$B = 124.743$  (background)

$a = 0.811$  px

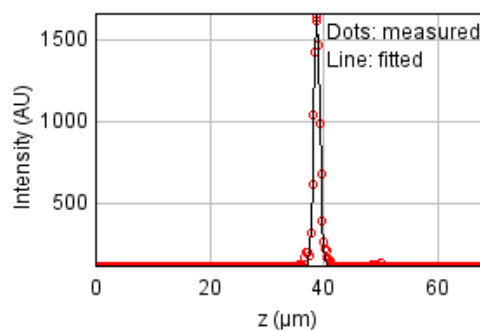
$b = -0.060$  px

$c = 0.615$  px

$x_c = 6.099$  px

$y_c = 6.125$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 67266.9945

Standard deviation: 14.80239

$R^2: 0.99353$

Parameters:

$a = 114.39662$

$b = 1691.82115$

$c = 38.84008$

$d = 0.53013$

## Bead 1750

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

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

Frame size : 10 pixels

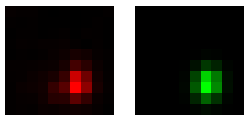
Coordinates : -104  $\mu\text{m}$  (x), -11.4  $\mu\text{m}$  (y), 39.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

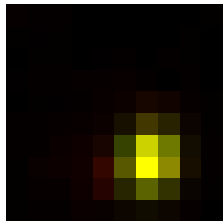
FWHM	Non corrected	Corrected	Theoretical
min	397 nm	411 nm	223 nm
max	485 nm	501 nm	223 nm
z	1.32 $\mu\text{m}$	1.32 $\mu\text{m}$	885 nm
Asymmetry	0.82		
Theta	82.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1316.761 (brightness)

B = 129.360 (background)

a = 0.845 px

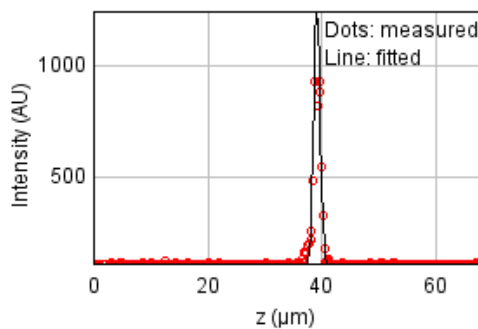
b = 0.037 px

c = 0.576 px

xc = 6.147 px

yc = 6.662 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 305668.881

Standard deviation: 31.55415

$R^2$ : 0.94815

Parameters:

a = 113.68436

b = 1244.83265

c = 39.20180

d = 0.55852

## Bead 1751

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

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

Frame size : 10 pixels

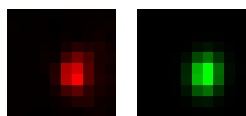
Coordinates : 87.5  $\mu\text{m}$  (x), -13.5  $\mu\text{m}$  (y), 39.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

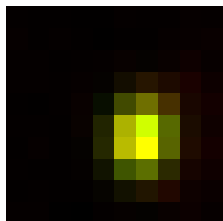
FWHM	Non corrected	Corrected	Theoretical
min	463 nm	478 nm	223 nm
max	569 nm	589 nm	223 nm
z	1.35 $\mu\text{m}$	1.36 $\mu\text{m}$	885 nm
Asymmetry	0.812		
Theta	83.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1067.835 (brightness)

B = 122.013 (background)

a = 0.624 px

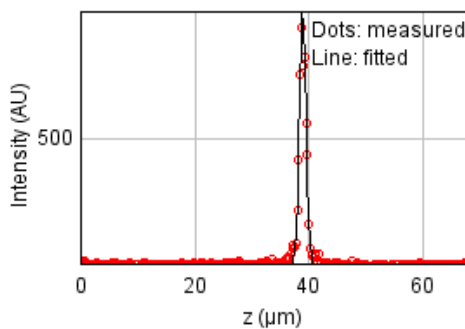
b = 0.026 px

c = 0.417 px

xc = 5.769 px

yc = 5.512 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 55014.9808

Standard deviation: 13.38663

$R^2$ : 0.98024

Parameters:

a = 113.51121

b = 894.07866

c = 38.98928

d = 0.57328

## Bead 1752

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

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

Frame size : 10 pixels

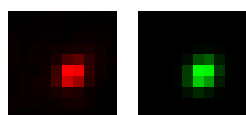
Coordinates : -152  $\mu\text{m}$  (x), -24.9  $\mu\text{m}$  (y), 39.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

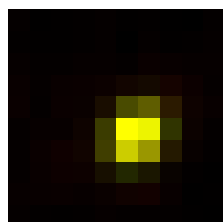
FWHM	Non corrected	Corrected	Theoretical
min	393 nm	407 nm	223 nm
max	471 nm	487 nm	223 nm
z	1.39 $\mu\text{m}$	1.39 $\mu\text{m}$	885 nm
Asymmetry	0.836		
Theta	48.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1410.804$  (brightness)

$B = 129.184$  (background)

$a = 0.751$  px

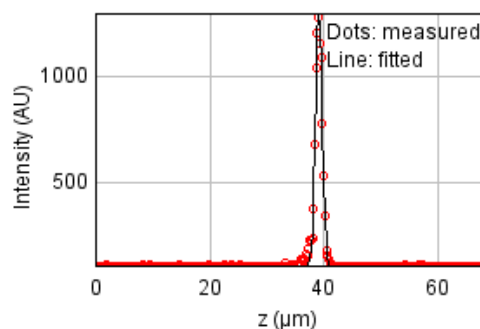
$b = 0.130$  px

$c = 0.722$  px

$x_c = 5.422$  px

$y_c = 5.270$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 65472.7388

Standard deviation: 14.60364

$R^2: 0.98994$

Parameters:

$a = 112.57234$

$b = 1296.45268$

$c = 39.19532$

$d = 0.58869$

## Bead 1753

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

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

Frame size : 10 pixels

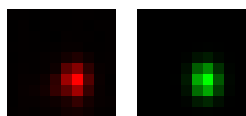
Coordinates : -61.2  $\mu\text{m}$  (x), -43.6  $\mu\text{m}$  (y), 38.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

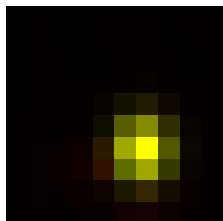
FWHM	Non corrected	Corrected	Theoretical
min	424 nm	439 nm	223 nm
max	508 nm	526 nm	223 nm
z	1.33 $\mu\text{m}$	1.33 $\mu\text{m}$	885 nm
Asymmetry	0.834		
Theta	-88.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1631.279 (brightness)

B = 128.986 (background)

a = 0.745 px

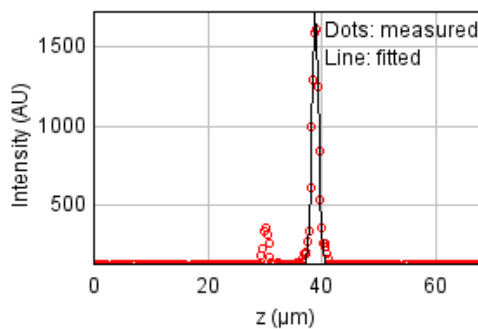
b = -0.007 px

c = 0.519 px

$x_c = 5.783$  px

$y_c = 6.086$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 310133.879

Standard deviation: 31.78377

$R^2$ : 0.97348

Parameters:

a = 120.23573

b = 1727.88379

c = 38.91948

d = 0.56332

## Bead 1754 (Rejected)

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

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

Frame size : 10 pixels

Coordinates : 116  $\mu\text{m}$  (x), -43.1  $\mu\text{m}$  (y), 57.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	223 nm
max	0	0	223 nm
z	1.45 $\mu\text{m}$	1.45 $\mu\text{m}$	885 nm
Asymmetry	0.0		
Theta	0.0°		

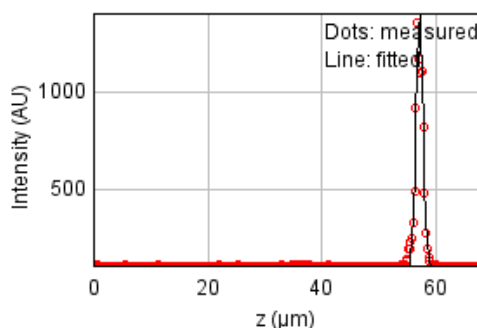
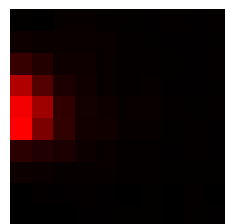
### XY profile & fitting parameters :

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



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

### Z profile & fitting parameters:



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

Sum of residuals squared: 317309.495

Standard deviation: 32.14936

$R^2$ : 0.96192

Parameters:

$a = 111.74102$

$b = 1404.78252$

$c = 57.18196$

$d = 0.61481$

## Bead 1755

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

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

Frame size : 10 pixels

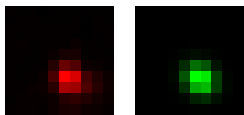
Coordinates : 17.9  $\mu\text{m}$  (x), -46.9  $\mu\text{m}$  (y), 39.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

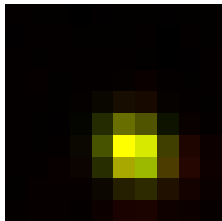
FWHM	Non corrected	Corrected	Theoretical
min	433 nm	448 nm	223 nm
max	506 nm	523 nm	223 nm
z	1.48 $\mu\text{m}$	1.49 $\mu\text{m}$	885 nm
Asymmetry	0.856		
Theta	-41.0°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1142.573$  (brightness)

$B = 124.901$  (background)

$a = 0.606$  px

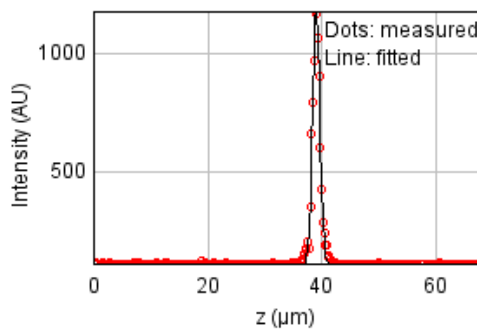
$b = -0.095$  px

$c = 0.633$  px

$x_c = 5.460$  px

$y_c = 6.238$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 50278.3397

Standard deviation: 12.79739

$R^2: 0.99112$

Parameters:

$a = 114.81968$

$b = 1185.34806$

$c = 39.08456$

$d = 0.62846$

## Bead 1756

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

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

Frame size : 10 pixels

Coordinates : 107  $\mu\text{m}$  (x), -48.8  $\mu\text{m}$  (y), 38.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	432 nm	447 nm	223 nm
max	470 nm	486 nm	223 nm
z	1.29 $\mu\text{m}$	1.29 $\mu\text{m}$	885 nm
Asymmetry	0.92		
Theta	21.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1271.482$  (brightness)

$B = 123.163$  (background)

$a = 0.624$  px

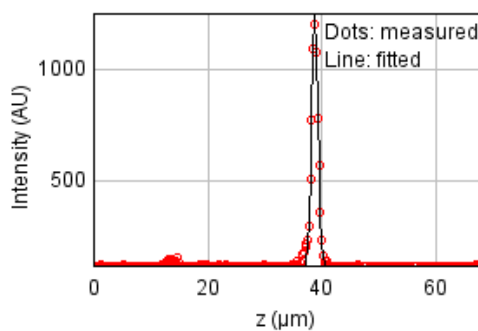
$b = 0.038$  px

$c = 0.704$  px

$x_c = 5.542$  px

$y_c = 6.928$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 53935.3539

Standard deviation: 13.25463

$R^2: 0.99073$

Parameters:

$a = 114.71864$

$b = 1274.68352$

$c = 38.83627$

$d = 0.54733$



## Bead 1757

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

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

Frame size : 10 pixels

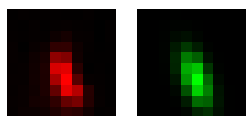
Coordinates : -68.2  $\mu\text{m}$  (x), -59.2  $\mu\text{m}$  (y), 38.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

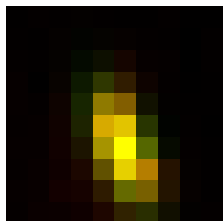
FWHM	Non corrected	Corrected	Theoretical
min	410 nm	424 nm	223 nm
max	908 nm	938 nm	223 nm
z	1.02 $\mu\text{m}$	1.03 $\mu\text{m}$	885 nm
Asymmetry	0.452		
Theta	-70.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1458.831$  (brightness)

$B = 127.979$  (background)

$a = 0.725$  px

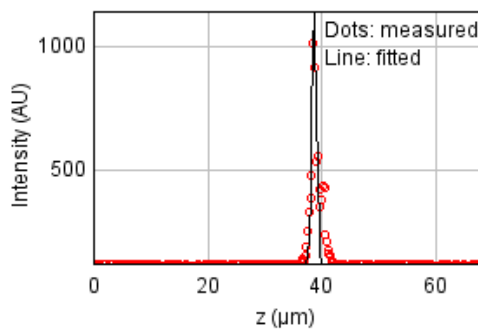
$b = -0.202$  px

$c = 0.235$  px

$x_c = 4.860$  px

$y_c = 5.943$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 635923.410

Standard deviation: 45.51276

$R^2: 0.84998$

Parameters:

$a = 119.40901$

$b = 1145.36803$

$c = 38.74535$

$d = 0.43475$

## Bead 1758

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

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

Frame size : 10 pixels

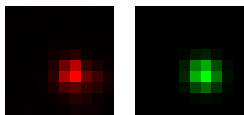
Coordinates : 26.1  $\mu\text{m}$  (x), -60.0  $\mu\text{m}$  (y), 39.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

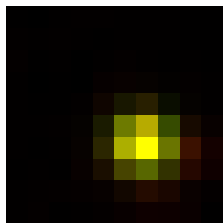
FWHM	Non corrected	Corrected	Theoretical
min	451 nm	466 nm	223 nm
max	484 nm	500 nm	223 nm
z	1.32 $\mu\text{m}$	1.32 $\mu\text{m}$	885 nm
Asymmetry	0.932		
Theta	-15.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1510.368 (brightness)

B = 128.051 (background)

a = 0.579 px

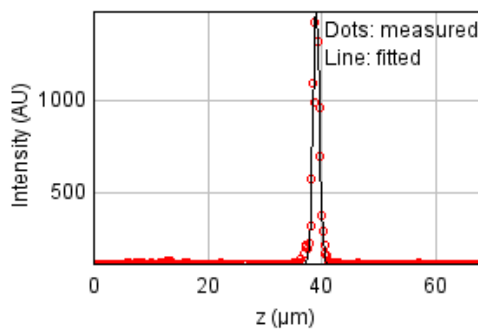
b = -0.022 px

c = 0.654 px

xc = 5.820 px

yc = 5.802 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 163447.712

Standard deviation: 23.07386

$R^2$ : 0.98064

Parameters:

a = 116.51065

b = 1490.90025

c = 39.08918

d = 0.56035

## Bead 1759

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

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

Frame size : 10 pixels

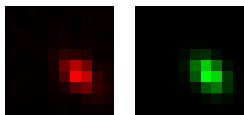
Coordinates : 141 um (x), -71.7 um (y), 38.6 um (z)

Corresponding bead : Not found

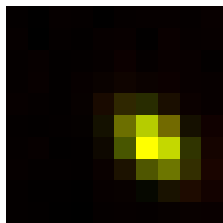
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	401 nm	223 nm
max	579 nm	599 nm	223 nm
z	1.4 um	1.41 um	885 nm
Asymmetry	0.67		
Theta	-43.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 718.791 (brightness)

B = 119.236 (background)

a = 0.631 px

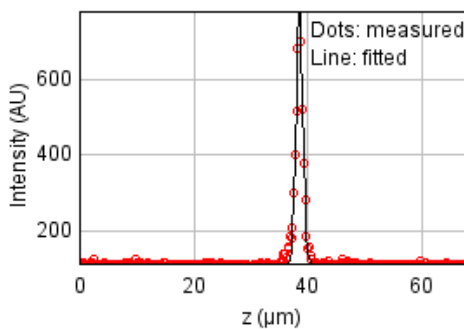
b = -0.245 px

c = 0.660 px

xc = 6.280 px

yc = 5.775 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 26316.6879

Standard deviation: 9.25862

$R^2$ : 0.98782

Parameters:

a = 110.90370

b = 788.60422

c = 38.60187

d = 0.59543

## Bead 1760

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

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

Frame size : 10 pixels

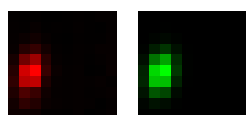
Coordinates : -81.7  $\mu\text{m}$  (x), -73.5  $\mu\text{m}$  (y), 38.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	393 nm	407 nm	223 nm
max	620 nm	641 nm	223 nm
z	1.09 $\mu\text{m}$	1.09 $\mu\text{m}$	885 nm
Asymmetry	0.634		
Theta	79.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1530.645 (brightness)

B = 131.400 (background)

a = 0.850 px

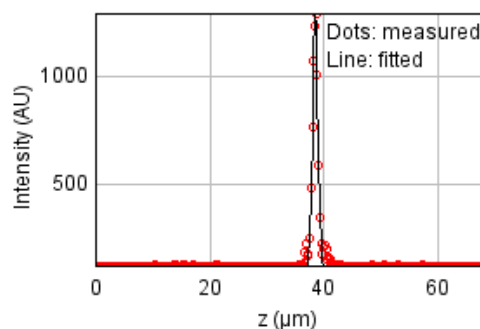
b = 0.094 px

c = 0.367 px

xc = 1.577 px

yc = 5.213 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 79991.9717

Standard deviation: 16.14188

$R^2$ : 0.98452

Parameters:

a = 116.56317

b = 1301.63863

c = 38.56981

d = 0.46077

## Bead 1761 (Rejected)

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

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

Frame size : 10 pixels

Coordinates : 52.4 um (x), 92.8 um (y), 39.6 um (z)

Corresponding bead : Not found

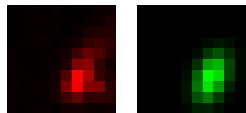
Reason of rejection : R or C parameter off limits.



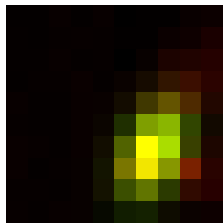
FWHM	Non corrected	Corrected	Theoretical
min	471 nm	486 nm	223 nm
max	766 nm	792 nm	223 nm
z	1.64 um	1.65 um	885 nm
Asymmetry	0.614		
Theta	66.4°		

### XY profile & fitting parameters :

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



Fitted on  $i(x,y) = A * \exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B$   
 $R^2 = 0.892$



Parameters:

A = 658.309 (brightness)

B = 128.842 (background)

a = 0.546 px

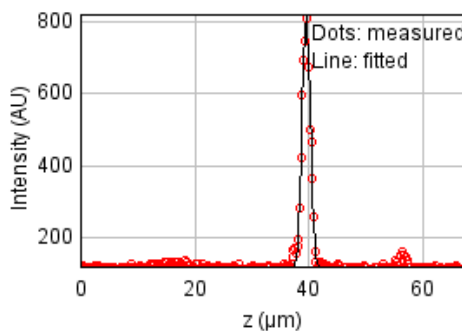
b = 0.138 px

c = 0.289 px

xc = 6.326 px

yc = 6.164 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 47434.3591

Standard deviation: 12.43018

$R^2$ : 0.98268

Parameters:

a = 116.43379

b = 821.18843

c = 39.61245

d = 0.69795

## Bead 1762

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

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

Frame size : 10 pixels

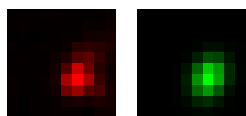
Coordinates : 94.6  $\mu\text{m}$  (x), 67.4  $\mu\text{m}$  (y), 39.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

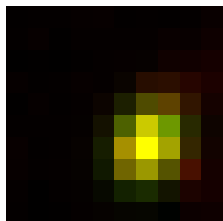
FWHM	Non corrected	Corrected	Theoretical
min	495 nm	512 nm	223 nm
max	630 nm	651 nm	223 nm
z	1.6 $\mu\text{m}$	1.6 $\mu\text{m}$	885 nm
Asymmetry	0.786		
Theta	64.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 790.159 (brightness)

B = 124.501 (background)

a = 0.510 px

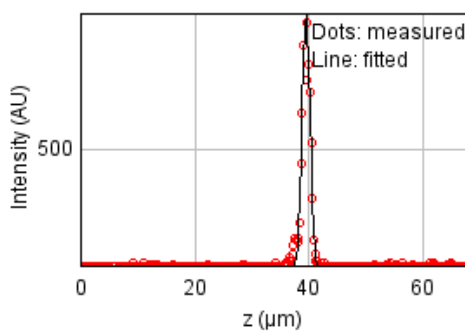
b = 0.080 px

c = 0.376 px

xc = 6.092 px

yc = 5.793 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 97280.0943

Standard deviation: 17.80093

$R^2$ : 0.97404

Parameters:

a = 114.39009

b = 946.58806

c = 39.59077

d = 0.67812

## Bead 1763

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

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

Frame size : 10 pixels

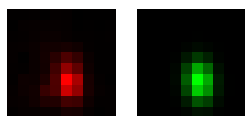
Coordinates : -71.0  $\mu\text{m}$  (x), 63.3  $\mu\text{m}$  (y), 39.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

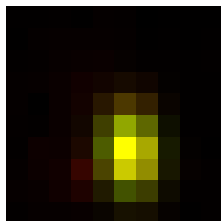
FWHM	Non corrected	Corrected	Theoretical
min	430 nm	444 nm	223 nm
max	638 nm	659 nm	223 nm
z	1.14 $\mu\text{m}$	1.14 $\mu\text{m}$	885 nm
Asymmetry	0.674		
Theta	-85.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1392.133 (brightness)

B = 135.608 (background)

a = 0.724 px

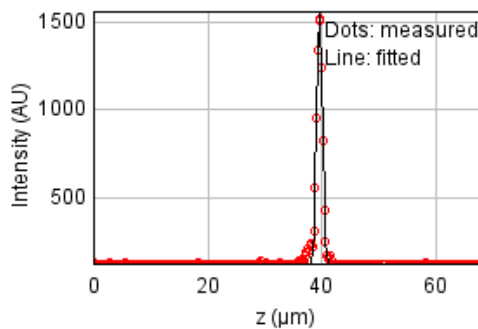
b = -0.031 px

c = 0.332 px

$x_c = 5.217$  px

$y_c = 6.165$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 78268.7598

Standard deviation: 15.96706

$R^2$ : 0.99048

Parameters:

a = 116.13064

b = 1580.70967

c = 39.67444

d = 0.48353

## Bead 1764

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

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

Frame size : 10 pixels

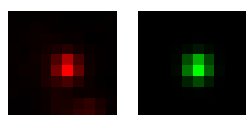
Coordinates : -145  $\mu\text{m}$  (x), 50.7  $\mu\text{m}$  (y), 40.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

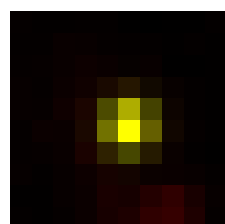
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	399 nm	223 nm
max	402 nm	416 nm	223 nm
z	1.34 $\mu\text{m}$	1.34 $\mu\text{m}$	885 nm
Asymmetry	0.96		
Theta	78.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 944.338 (brightness)

B = 140.722 (background)

a = 0.898 px

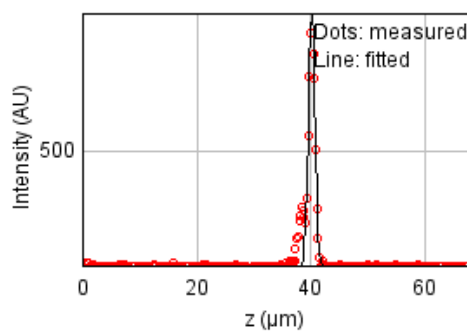
b = 0.014 px

c = 0.833 px

xc = 4.954 px

yc = 4.736 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 182740.886

Standard deviation: 24.39769

$R^2$ : 0.94590

Parameters:

a = 114.02652

b = 961.82694

c = 40.22303

d = 0.56864



## Bead 1765

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

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

Frame size : 10 pixels

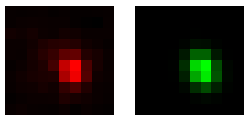
Coordinates : -162  $\mu\text{m}$  (x), 43.3  $\mu\text{m}$  (y), 38.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

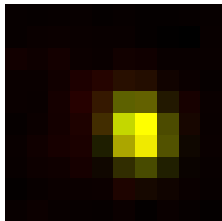
FWHM	Non corrected	Corrected	Theoretical
min	429 nm	443 nm	223 nm
max	522 nm	540 nm	223 nm
z	1.42 $\mu\text{m}$	1.42 $\mu\text{m}$	885 nm
Asymmetry	0.821		
Theta	-67.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 644.436 (brightness)

B = 125.908 (background)

a = 0.696 px

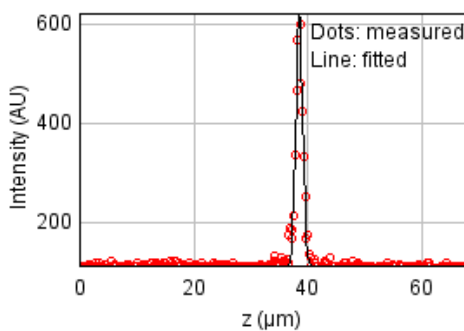
b = -0.084 px

c = 0.527 px

xc = 5.669 px

yc = 5.365 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 34449.9041

Standard deviation: 10.59314

$R^2$ : 0.97306

Parameters:

a = 111.92366

b = 626.77290

c = 38.57547

d = 0.60168

## Bead 1766

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

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

Frame size : 10 pixels

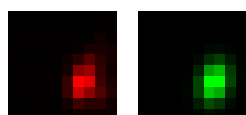
Coordinates : 32.2  $\mu\text{m}$  (x), 38.9  $\mu\text{m}$  (y), 39.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

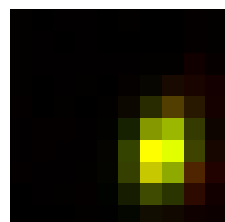
FWHM	Non corrected	Corrected	Theoretical
min	441 nm	456 nm	223 nm
max	620 nm	641 nm	223 nm
z	1.55 $\mu\text{m}$	1.55 $\mu\text{m}$	885 nm
Asymmetry	0.711		
Theta	74.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1276.116 (brightness)

B = 124.673 (background)

a = 0.665 px

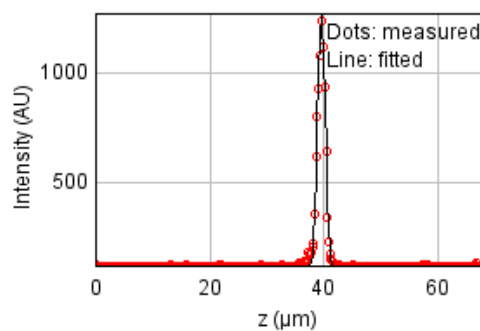
b = 0.089 px

c = 0.374 px

$x_c = 6.496$  px

$y_c = 6.064$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 66931.4483

Standard deviation: 14.76542

$R^2$ : 0.99038

Parameters:

a = 113.65382

b = 1274.79664

c = 39.65064

d = 0.65690

## Bead 1767

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

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

Frame size : 10 pixels

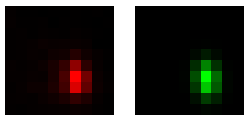
Coordinates : -129  $\mu\text{m}$  (x), 21.5  $\mu\text{m}$  (y), 39.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

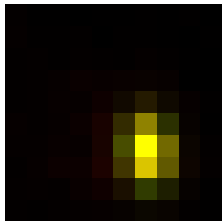
FWHM	Non corrected	Corrected	Theoretical
min	357 nm	369 nm	223 nm
max	536 nm	554 nm	223 nm
z	1.47 $\mu\text{m}$	1.47 $\mu\text{m}$	885 nm
Asymmetry	0.666		
Theta	-85.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1288.733 (brightness)

B = 129.302 (background)

a = 1.049 px

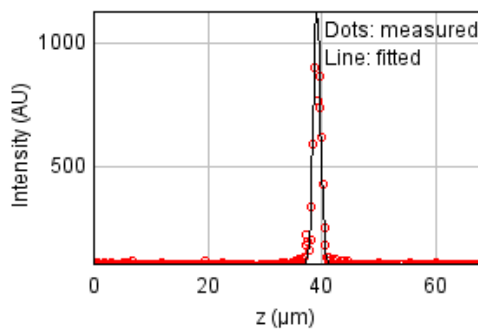
b = -0.051 px

c = 0.471 px

xc = 6.084 px

yc = 6.232 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 246514.295

Standard deviation: 28.33687

$R^2$ : 0.95312

Parameters:

a = 111.84474

b = 1127.55482

c = 39.20284

d = 0.62334

## Bead 1768

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

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

Frame size : 10 pixels

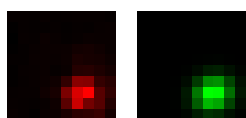
Coordinates : 72.3  $\mu\text{m}$  (x), 6.13  $\mu\text{m}$  (y), 39.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	517 nm	535 nm	223 nm
max	591 nm	611 nm	223 nm
z	1.07 $\mu\text{m}$	1.08 $\mu\text{m}$	885 nm
Asymmetry	0.874		
Theta	21.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 817.478 (brightness)

B = 120.263 (background)

a = 0.400 px

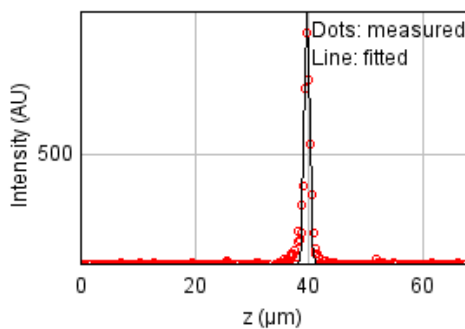
b = 0.041 px

c = 0.486 px

xc = 6.459 px

yc = 7.122 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 156638.915

Standard deviation: 22.58815

$R^2$ : 0.94853

Parameters:

a = 116.27224

b = 1013.22962

c = 39.73299

d = 0.45619

## Bead 1769

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

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

Frame size : 10 pixels

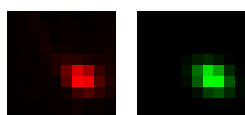
Coordinates : 138  $\mu\text{m}$  (x), -33.6  $\mu\text{m}$  (y), 38.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

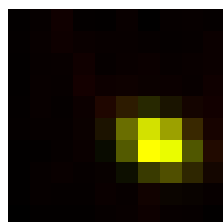
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	404 nm	223 nm
max	546 nm	564 nm	223 nm
z	1.48 $\mu\text{m}$	1.48 $\mu\text{m}$	885 nm
Asymmetry	0.716		
Theta	-24.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 683.363 (brightness)

B = 117.626 (background)

a = 0.525 px

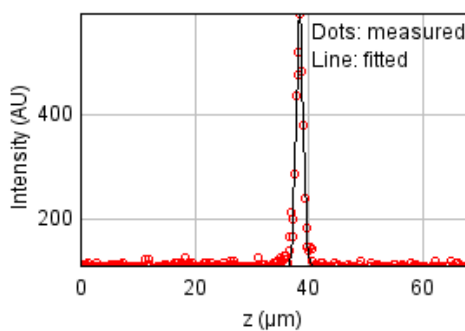
b = -0.163 px

c = 0.804 px

xc = 6.381 px

yc = 5.655 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 32993.0406

Standard deviation: 10.36673

$R^2$ : 0.97170

Parameters:

a = 111.14818

b = 592.30097

c = 38.47720

d = 0.62792

## Bead 1770

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

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

Frame size : 10 pixels

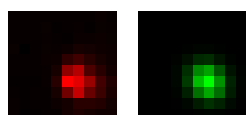
Coordinates : 85.8  $\mu\text{m}$  (x), -42.9  $\mu\text{m}$  (y), 39.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

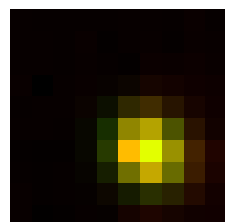
FWHM	Non corrected	Corrected	Theoretical
min	523 nm	540 nm	223 nm
max	594 nm	614 nm	223 nm
z	1.49 $\mu\text{m}$	1.49 $\mu\text{m}$	885 nm
Asymmetry	0.88		
Theta	-45.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1085.099 (brightness)

B = 121.403 (background)

a = 0.437 px

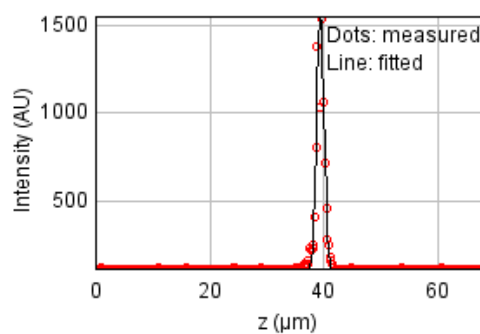
b = -0.055 px

c = 0.434 px

xc = 5.851 px

yc = 5.999 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 497023.050

Standard deviation: 40.23640

$R^2$ : 0.95392

Parameters:

a = 113.75129

b = 1559.24066

c = 39.46276

d = 0.63217

## Bead 1771

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

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

Frame size : 10 pixels

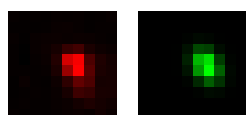
Coordinates : 109  $\mu\text{m}$  (x), -66.3  $\mu\text{m}$  (y), 39.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

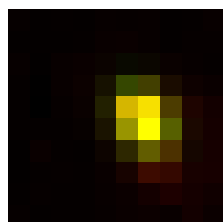
FWHM	Non corrected	Corrected	Theoretical
min	395 nm	409 nm	223 nm
max	531 nm	549 nm	223 nm
z	1.01 $\mu\text{m}$	1.02 $\mu\text{m}$	885 nm
Asymmetry	0.745		
Theta	-59.9°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1391.224$  (brightness)

$B = 131.198$  (background)

$a = 0.762$  px

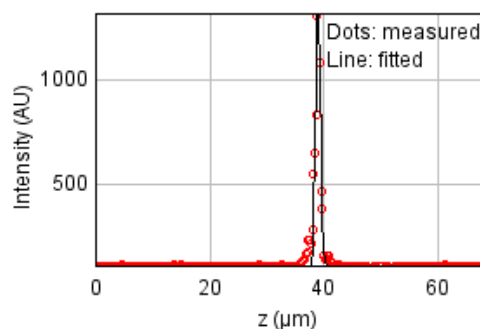
$b = -0.166$  px

$c = 0.572$  px

$x_c = 5.757$  px

$y_c = 4.546$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 222929.164

Standard deviation: 26.94724

$R^2: 0.95847$

Parameters:

$a = 114.70715$

$b = 1347.97508$

$c = 39.04865$

$d = 0.42950$

## Bead 1772

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

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

Frame size : 10 pixels

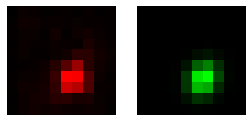
Coordinates : -145  $\mu\text{m}$  (x), -69.3  $\mu\text{m}$  (y), 38.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

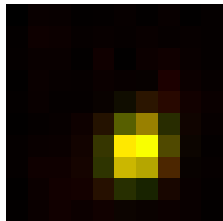
FWHM	Non corrected	Corrected	Theoretical
min	428 nm	442 nm	223 nm
max	515 nm	532 nm	223 nm
z	1.38 $\mu\text{m}$	1.38 $\mu\text{m}$	885 nm
Asymmetry	0.831		
Theta	60.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 594.222 (brightness)

B = 119.890 (background)

a = 0.678 px

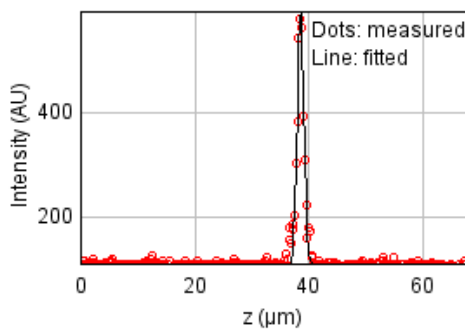
b = 0.098 px

c = 0.563 px

xc = 5.543 px

yc = 6.194 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 30422.8279

Standard deviation: 9.95476

$R^2$ : 0.97240

Parameters:

a = 111.76116

b = 596.03435

c = 38.62383

d = 0.58531



## Bead 1773

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

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

Frame size : 10 pixels

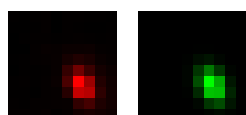
Coordinates : 90.1  $\mu\text{m}$  (x), -71.4  $\mu\text{m}$  (y), 39.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

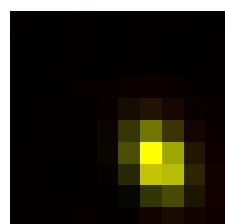
FWHM	Non corrected	Corrected	Theoretical
min	385 nm	398 nm	223 nm
max	565 nm	584 nm	223 nm
z	1.16 $\mu\text{m}$	1.17 $\mu\text{m}$	885 nm
Asymmetry	0.682		
Theta	-63.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1723.858 (brightness)

B = 128.948 (background)

a = 0.808 px

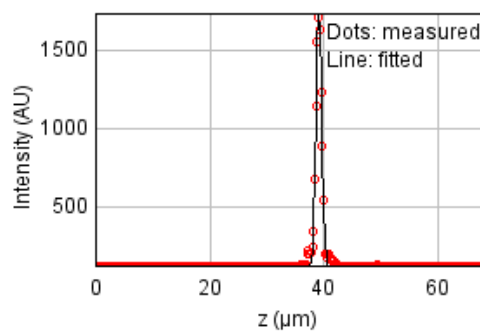
b = -0.193 px

c = 0.518 px

xc = 6.326 px

yc = 6.361 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 71975.8235

Standard deviation: 15.31173

$R^2$ : 0.99306

Parameters:

a = 113.92947

b = 1744.68851

c = 39.20137

d = 0.49368

## Bead 1774

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

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

Frame size : 10 pixels

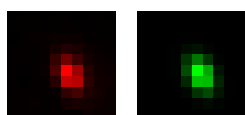
Coordinates : 90.1  $\mu\text{m}$  (x), -71.4  $\mu\text{m}$  (y), 39.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

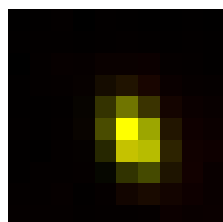
FWHM	Non corrected	Corrected	Theoretical
min	382 nm	394 nm	223 nm
max	559 nm	578 nm	223 nm
z	1.16 $\mu\text{m}$	1.17 $\mu\text{m}$	885 nm
Asymmetry	0.682		
Theta	-63.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1726.225 (brightness)

B = 136.048 (background)

a = 0.823 px

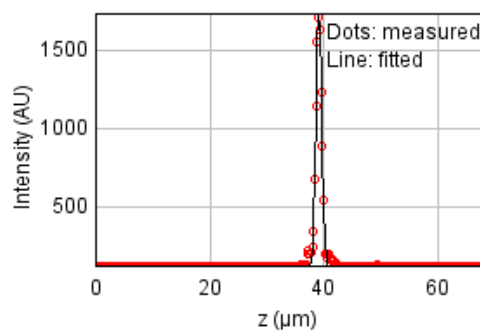
b = -0.197 px

c = 0.528 px

$x_c = 5.325$  px

$y_c = 5.362$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 71975.8235

Standard deviation: 15.31173

$R^2$ : 0.99306

Parameters:

a = 113.92947

b = 1744.68851

c = 39.20137

d = 0.49368

## Bead 1775

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

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

Frame size : 10 pixels

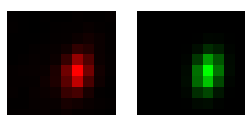
Coordinates : -107  $\mu\text{m}$  (x), -81.9  $\mu\text{m}$  (y), 38.8  $\mu\text{m}$  (z)

Corresponding bead : Not found

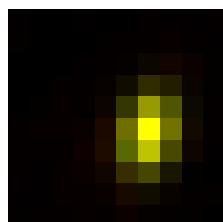
FWHM	Non corrected	Corrected	Theoretical
min	398 nm	412 nm	223 nm
max	610 nm	630 nm	223 nm
z	1.13 $\mu\text{m}$	1.13 $\mu\text{m}$	885 nm
Asymmetry	0.653		
Theta	77.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1395.671$  (brightness)

$B = 129.280$  (background)

$a = 0.823$  px

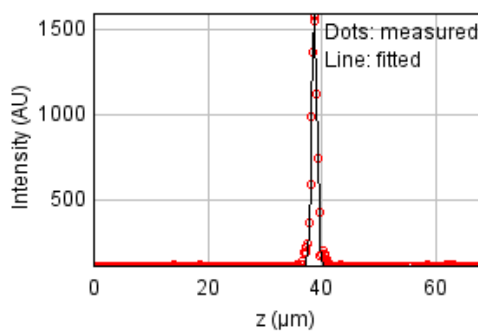
$b = 0.100$  px

$c = 0.383$  px

$x_c = 5.990$  px

$y_c = 5.154$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 75045.6871

Standard deviation: 15.63485

$R^2: 0.99098$

Parameters:

$a = 115.19991$

$b = 1595.66552$

$c = 38.76323$

$d = 0.47868$

## Bead 1776

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

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

Frame size : 10 pixels

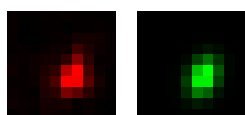
Coordinates : -129  $\mu\text{m}$  (x), -88.1  $\mu\text{m}$  (y), 39.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

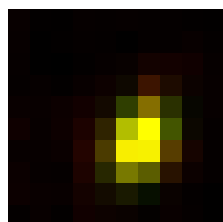
FWHM	Non corrected	Corrected	Theoretical
min	420 nm	434 nm	223 nm
max	589 nm	609 nm	223 nm
z	1.53 $\mu\text{m}$	1.53 $\mu\text{m}$	885 nm
Asymmetry	0.712		
Theta	65.6°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 823.032 (brightness)

B = 124.446 (background)

a = 0.697 px

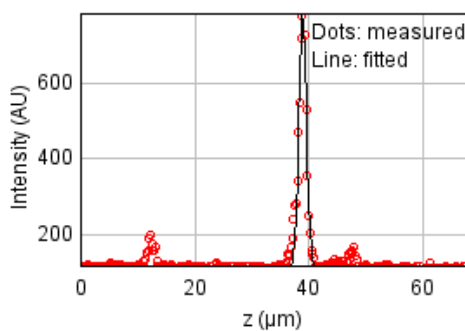
b = 0.141 px

c = 0.450 px

xc = 5.598 px

yc = 5.563 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 98442.3867

Standard deviation: 17.90696

$R^2$ : 0.95786

Parameters:

a = 117.48649

b = 783.19800

c = 38.98610

d = 0.64867

## Bead 1777

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

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

Frame size : 10 pixels

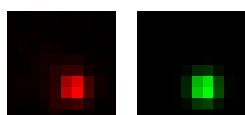
Coordinates : -151  $\mu\text{m}$  (x), 60.6  $\mu\text{m}$  (y), 39.6  $\mu\text{m}$  (z)

Corresponding bead : Not found

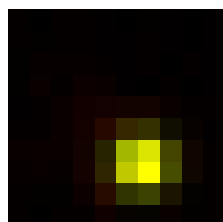
FWHM	Non corrected	Corrected	Theoretical
min	429 nm	443 nm	223 nm
max	432 nm	447 nm	223 nm
z	1.41 $\mu\text{m}$	1.41 $\mu\text{m}$	885 nm
Asymmetry	0.992		
Theta	-36.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1260.964$  (brightness)

$B = 126.325$  (background)

$a = 0.722$  px

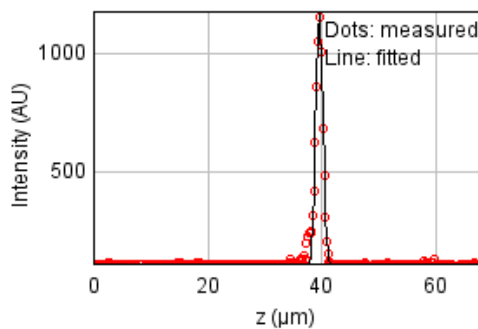
$b = -0.006$  px

$c = 0.725$  px

$x_c = 5.664$  px

$y_c = 6.573$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 77113.5973

Standard deviation: 15.84880

$R^2: 0.98552$

Parameters:

$a = 114.11812$

$b = 1174.89037$

$c = 39.63825$

$d = 0.59768$

## Bead 1778

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

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

Frame size : 10 pixels

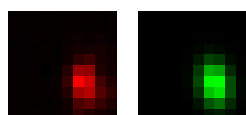
Coordinates : 17.9  $\mu\text{m}$  (x), 54.7  $\mu\text{m}$  (y), 39.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

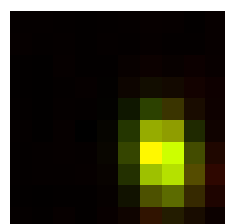
FWHM	Non corrected	Corrected	Theoretical
min	460 nm	475 nm	223 nm
max	673 nm	696 nm	223 nm
z	1.14 $\mu\text{m}$	1.15 $\mu\text{m}$	885 nm
Asymmetry	0.683		
Theta	-79.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 863.460 (brightness)

B = 120.288 (background)

a = 0.624 px

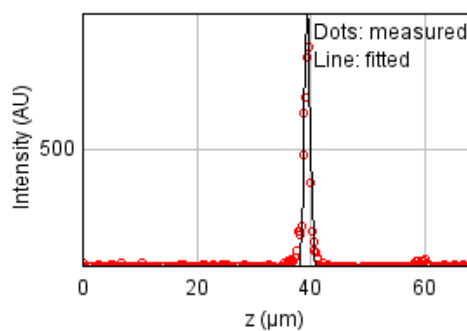
b = -0.061 px

c = 0.308 px

$x_c = 6.544$  px

$y_c = 6.204$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 183188.481

Standard deviation: 24.42755

$R^2$ : 0.93602

Parameters:

a = 116.08074

b = 954.16692

c = 39.45732

d = 0.48593

## Bead 1779

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

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

Frame size : 10 pixels

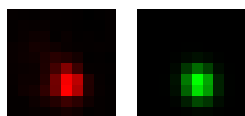
Coordinates : -132  $\mu\text{m}$  (x), 42.8  $\mu\text{m}$  (y), 39.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

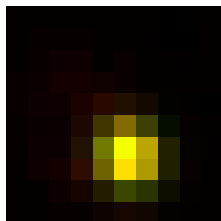
FWHM	Non corrected	Corrected	Theoretical
min	470 nm	486 nm	223 nm
max	522 nm	539 nm	223 nm
z	1.39 $\mu\text{m}$	1.39 $\mu\text{m}$	885 nm
Asymmetry	0.902		
Theta	-71.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 886.060 (brightness)

B = 125.878 (background)

a = 0.595 px

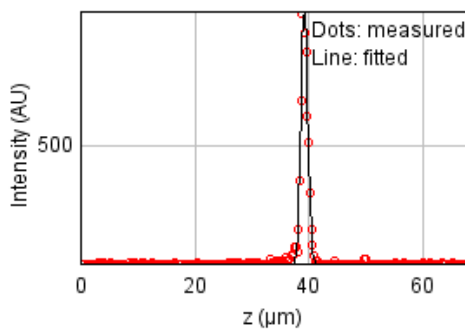
b = -0.034 px

c = 0.504 px

xc = 5.152 px

yc = 6.374 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 137958.120

Standard deviation: 21.19847

$R^2$ : 0.95902

Parameters:

a = 112.73823

b = 950.67792

c = 39.28270

d = 0.58882

## Bead 1780

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

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

Frame size : 10 pixels

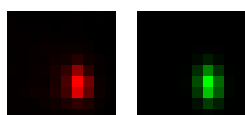
Coordinates : -129  $\mu\text{m}$  (x), 21.5  $\mu\text{m}$  (y), 39.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

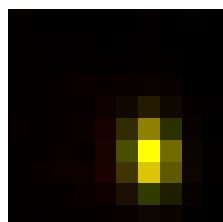
FWHM	Non corrected	Corrected	Theoretical
min	357 nm	369 nm	223 nm
max	536 nm	554 nm	223 nm
z	1.47 $\mu\text{m}$	1.47 $\mu\text{m}$	885 nm
Asymmetry	0.666		
Theta	-85.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1288.733 (brightness)

B = 129.302 (background)

a = 1.049 px

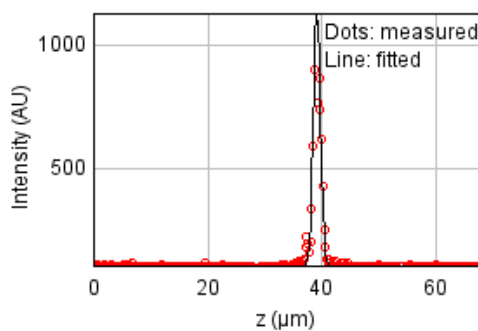
b = -0.051 px

c = 0.471 px

xc = 6.084 px

yc = 6.232 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 246514.295

Standard deviation: 28.33687

$R^2$ : 0.95312

Parameters:

a = 111.84474

b = 1127.55482

c = 39.20284

d = 0.62334



## Bead 1781

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

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

Frame size : 10 pixels

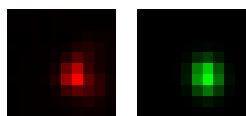
Coordinates : 42.9  $\mu\text{m}$  (x), 17.0  $\mu\text{m}$  (y), 39.9  $\mu\text{m}$  (z)

Corresponding bead : Not found

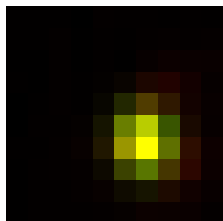
FWHM	Non corrected	Corrected	Theoretical
min	443 nm	458 nm	223 nm
max	519 nm	537 nm	223 nm
z	1.23 $\mu\text{m}$	1.23 $\mu\text{m}$	885 nm
Asymmetry	0.853		
Theta	-82.3°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1347.685$  (brightness)

$B = 133.699$  (background)

$a = 0.680$  px

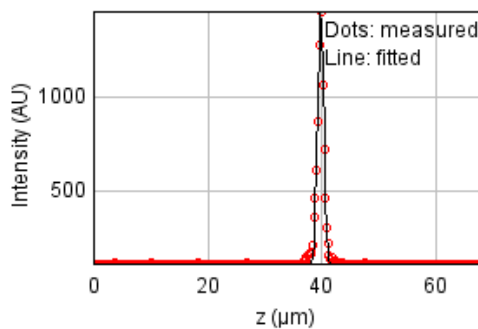
$b = -0.025$  px

$c = 0.501$  px

$x_c = 5.881$  px

$y_c = 5.718$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 89543.0043

Standard deviation: 17.07838

$R^2: 0.98799$

Parameters:

$a = 115.37960$

$b = 1457.10340$

$c = 39.86334$

$d = 0.52227$

## Bead 1782

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

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

Frame size : 10 pixels

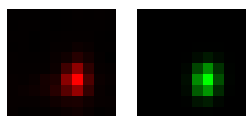
Coordinates : -50.9  $\mu\text{m}$  (x), 10.6  $\mu\text{m}$  (y), 39.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

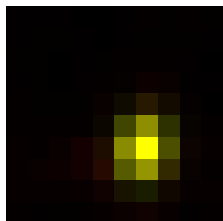
FWHM	Non corrected	Corrected	Theoretical
min	386 nm	399 nm	223 nm
max	491 nm	508 nm	223 nm
z	1.24 $\mu\text{m}$	1.24 $\mu\text{m}$	885 nm
Asymmetry	0.786		
Theta	80.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1414.045 (brightness)

B = 127.301 (background)

a = 0.891 px

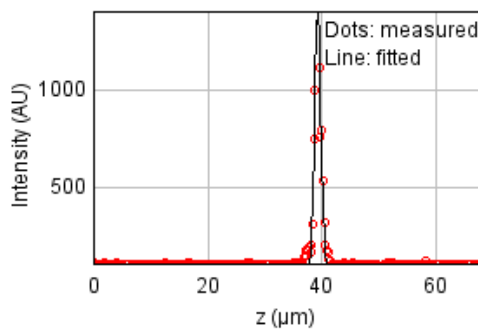
b = 0.057 px

c = 0.566 px

xc = 5.840 px

yc = 6.037 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 220927.777

Standard deviation: 26.82600

$R^2$ : 0.96830

Parameters:

a = 115.51922

b = 1394.55424

c = 39.35923

d = 0.52653

## Bead 1783

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

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

Frame size : 10 pixels

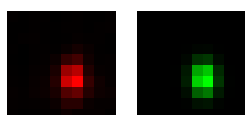
Coordinates : -16.8  $\mu\text{m}$  (x), -16.7  $\mu\text{m}$  (y), 39.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	389 nm	403 nm	223 nm
max	513 nm	531 nm	223 nm
z	1.22 $\mu\text{m}$	1.23 $\mu\text{m}$	885 nm
Asymmetry	0.758		
Theta	-88.6°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1513.339$  (brightness)

$B = 127.878$  (background)

$a = 0.885$  px

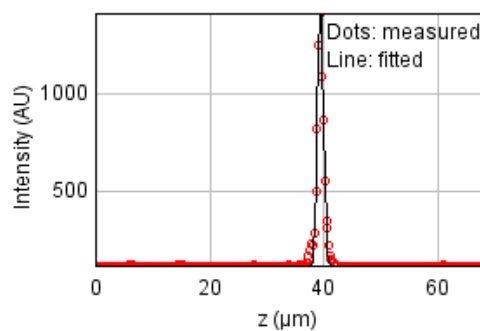
$b = -0.009$  px

$c = 0.509$  px

$x_c = 5.611$  px

$y_c = 5.742$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 93860.8960

Standard deviation: 17.48530

$R^2: 0.98713$

Parameters:

$a = 114.78210$

$b = 1443.92597$

$c = 39.48837$

$d = 0.52015$

## Bead 1784

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

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

Frame size : 10 pixels

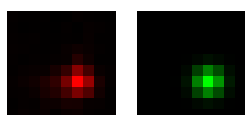
Coordinates : -94.6  $\mu\text{m}$  (x), -75.0  $\mu\text{m}$  (y), 39.3  $\mu\text{m}$  (z)

Corresponding bead : Not found

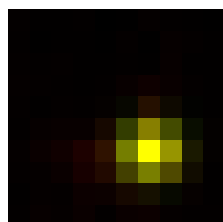
FWHM	Non corrected	Corrected	Theoretical
min	438 nm	452 nm	223 nm
max	464 nm	479 nm	223 nm
z	1.33 $\mu\text{m}$	1.34 $\mu\text{m}$	885 nm
Asymmetry	0.944		
Theta	8.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1107.526 (brightness)

B = 126.909 (background)

a = 0.626 px

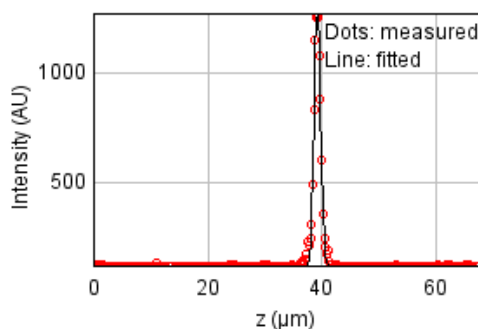
b = 0.011 px

c = 0.699 px

xc = 6.066 px

yc = 6.000 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 53687.5337

Standard deviation: 13.22414

$R^2$ : 0.99121

Parameters:

a = 114.47497

b = 1283.54059

c = 39.28483

d = 0.56634

## Bead 1785

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

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

Frame size : 10 pixels

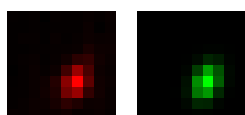
Coordinates : -131  $\mu\text{m}$  (x), -75.5  $\mu\text{m}$  (y), 39.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

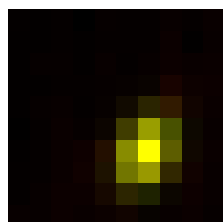
FWHM	Non corrected	Corrected	Theoretical
min	389 nm	402 nm	223 nm
max	565 nm	584 nm	223 nm
z	1.33 $\mu\text{m}$	1.34 $\mu\text{m}$	885 nm
Asymmetry	0.689		
Theta	66.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 955.100 (brightness)

B = 123.137 (background)

a = 0.809 px

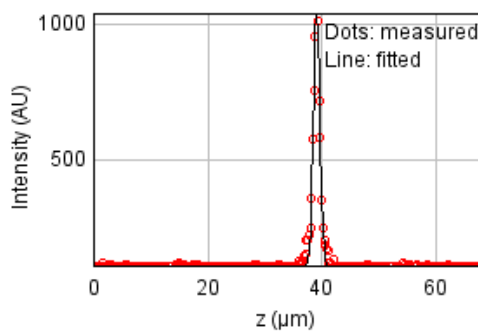
b = 0.173 px

c = 0.498 px

xc = 5.866 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: 60470.2641

Standard deviation: 14.03466

$R^2$ : 0.98432

Parameters:

a = 113.10748

b = 1039.87468

c = 39.15773

d = 0.56536

## Bead 1786

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

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

Frame size : 10 pixels

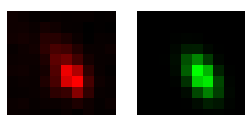
Coordinates : -133  $\mu\text{m}$  (x), 89.4  $\mu\text{m}$  (y), 39.4  $\mu\text{m}$  (z)

Corresponding bead : Not found

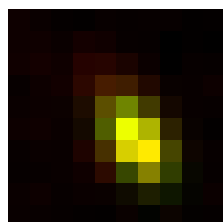
FWHM	Non corrected	Corrected	Theoretical
min	404 nm	418 nm	223 nm
max	683 nm	706 nm	223 nm
z	1.98 $\mu\text{m}$	1.99 $\mu\text{m}$	885 nm
Asymmetry	0.592		
Theta	-58.7°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 655.563 (brightness)

B = 126.435 (background)

a = 0.676 px

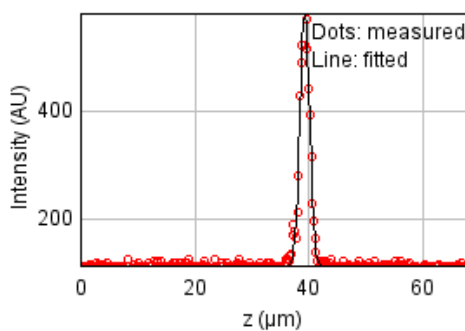
b = -0.237 px

c = 0.432 px

$x_c = 5.408$  px

$y_c = 5.482$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28026.0723

Standard deviation: 9.55459

$R^2$ : 0.98094

Parameters:

a = 110.98064

b = 582.34984

c = 39.35924

d = 0.84290

## Bead 1787

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

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

Frame size : 10 pixels

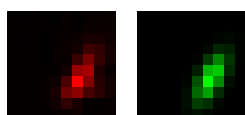
Coordinates : 10.2 um (x), 86.8 um (y), 40.1 um (z)

Corresponding bead : Not found

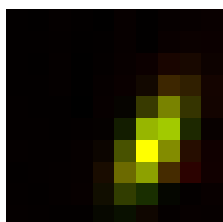
FWHM	Non corrected	Corrected	Theoretical
min	356 nm	368 nm	223 nm
max	801 nm	828 nm	223 nm
z	1.42 um	1.42 um	885 nm
Asymmetry	0.444		
Theta	61.6°		

### 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 = 1143.223 (brightness)

B = 125.635 (background)

a = 0.868 px

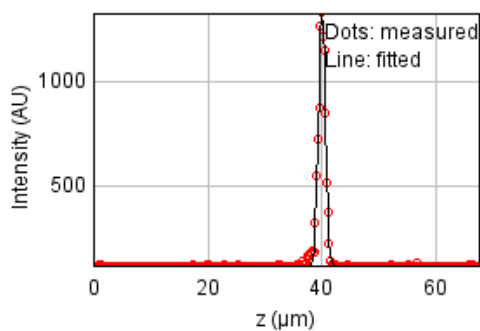
b = 0.356 px

c = 0.401 px

xc = 6.285 px

yc = 5.674 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 59502.3354

Standard deviation: 13.92188

$R^2$ : 0.99147

Parameters:

a = 115.01506

b = 1329.42934

c = 40.08322

d = 0.60103

## Bead 1788

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

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

Frame size : 10 pixels

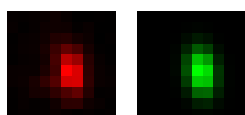
Coordinates : -79.1  $\mu\text{m}$  (x), 66.4  $\mu\text{m}$  (y), 39.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

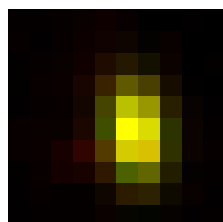
FWHM	Non corrected	Corrected	Theoretical
min	451 nm	466 nm	223 nm
max	740 nm	765 nm	223 nm
z	1.66 $\mu\text{m}$	1.67 $\mu\text{m}$	885 nm
Asymmetry	0.609		
Theta	-83.0°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 798.667 (brightness)

B = 128.609 (background)

a = 0.654 px

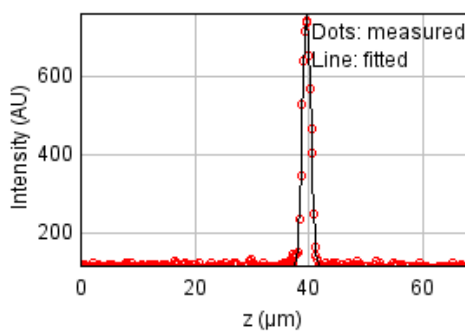
b = -0.050 px

c = 0.251 px

xc = 5.392 px

yc = 5.123 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 28339.6891

Standard deviation: 9.60790

$R^2$ : 0.98793

Parameters:

a = 114.01268

b = 764.92624

c = 39.68419

d = 0.70588



## Bead 1789

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

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

Frame size : 10 pixels

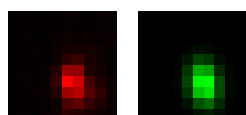
Coordinates : 17.9  $\mu\text{m}$  (x), 54.7  $\mu\text{m}$  (y), 39.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

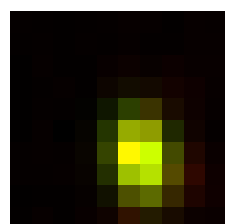
FWHM	Non corrected	Corrected	Theoretical
min	457 nm	472 nm	223 nm
max	669 nm	692 nm	223 nm
z	1.14 $\mu\text{m}$	1.15 $\mu\text{m}$	885 nm
Asymmetry	0.683		
Theta	-79.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 864.043 (brightness)

B = 122.523 (background)

a = 0.631 px

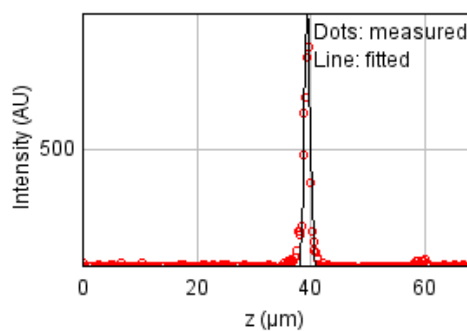
b = -0.062 px

c = 0.312 px

xc = 5.543 px

yc = 6.203 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 183188.481

Standard deviation: 24.42755

$R^2$ : 0.93602

Parameters:

a = 116.08074

b = 954.16692

c = 39.45732

d = 0.48593

## Bead 1790

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

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

Frame size : 10 pixels

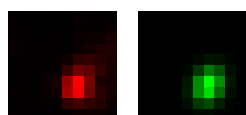
Coordinates : 105 um (x), 45.9 um (y), 39.9 um (z)

Corresponding bead : Not found

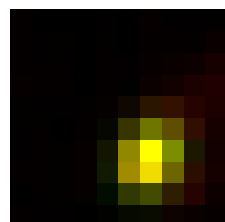
FWHM	Non corrected	Corrected	Theoretical
min	453 nm	468 nm	223 nm
max	564 nm	583 nm	223 nm
z	1.46 um	1.47 um	885 nm
Asymmetry	0.803		
Theta	64.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 978.309 (brightness)

B = 124.226 (background)

a = 0.612 px

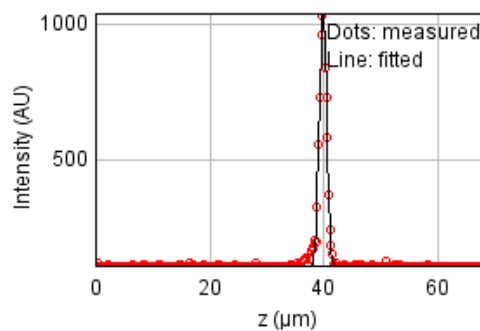
b = 0.089 px

c = 0.464 px

xc = 5.969 px

yc = 6.343 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 43954.0889

Standard deviation: 11.96549

$R^2$ : 0.98984

Parameters:

a = 112.54610

b = 1054.04199

c = 39.92745

d = 0.61990

## Bead 1791

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

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

Frame size : 10 pixels

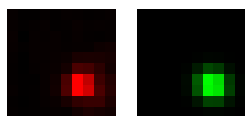
Coordinates : 79.9  $\mu\text{m}$  (x), 12.4  $\mu\text{m}$  (y), 40.1  $\mu\text{m}$  (z)

Corresponding bead : Not found

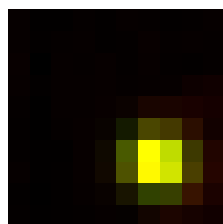
FWHM	Non corrected	Corrected	Theoretical
min	446 nm	462 nm	223 nm
max	478 nm	494 nm	223 nm
z	1.73 $\mu\text{m}$	1.73 $\mu\text{m}$	885 nm
Asymmetry	0.934		
Theta	-22.8°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1001.595$  (brightness)

$B = 123.238$  (background)

$a = 0.600$  px

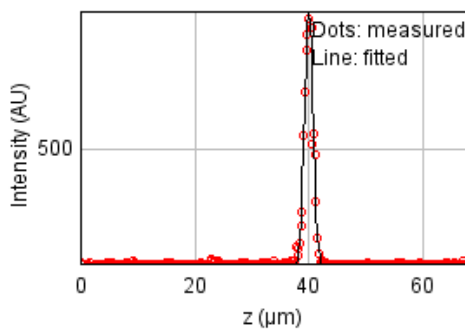
$b = -0.031$  px

$c = 0.660$  px

$x_c = 6.400$  px

$y_c = 6.497$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 85110.0989

Standard deviation: 16.65027

$R^2: 0.97980$

Parameters:

$a = 113.42376$

$b = 965.93297$

$c = 40.06175$

$d = 0.73307$

## Bead 1792

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

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

Frame size : 10 pixels

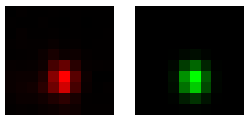
Coordinates : -105  $\mu\text{m}$  (x), -8.87  $\mu\text{m}$  (y), 39.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

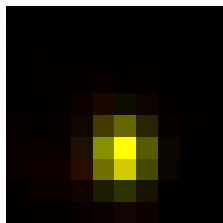
FWHM	Non corrected	Corrected	Theoretical
min	407 nm	421 nm	223 nm
max	484 nm	501 nm	223 nm
z	1.31 $\mu\text{m}$	1.31 $\mu\text{m}$	885 nm
Asymmetry	0.841		
Theta	-87.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1249.208$  (brightness)

$B = 125.520$  (background)

$a = 0.809$  px

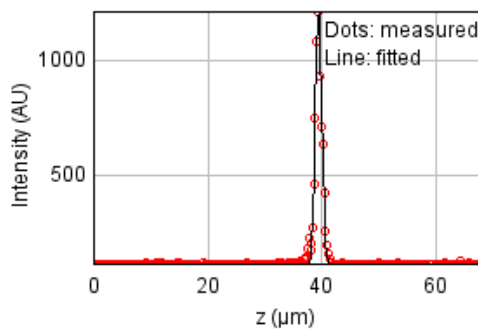
$b = -0.010$  px

$c = 0.573$  px

$x_c = 4.855$  px

$y_c = 6.297$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 97779.3537

Standard deviation: 17.84655

$R^2: 0.98227$

Parameters:

$a = 113.30871$

$b = 1230.75574$

$c = 39.50771$

$d = 0.55458$

## Bead 1793

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

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

Frame size : 10 pixels

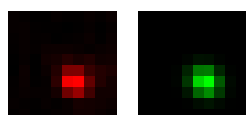
Coordinates : 133  $\mu\text{m}$  (x), -8.8  $\mu\text{m}$  (y), 39.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

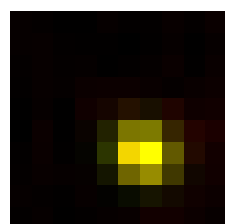
FWHM	Non corrected	Corrected	Theoretical
min	432 nm	447 nm	223 nm
max	487 nm	504 nm	223 nm
z	1.47 $\mu\text{m}$	1.47 $\mu\text{m}$	885 nm
Asymmetry	0.886		
Theta	-34.1°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 607.856 (brightness)

B = 118.783 (background)

a = 0.613 px

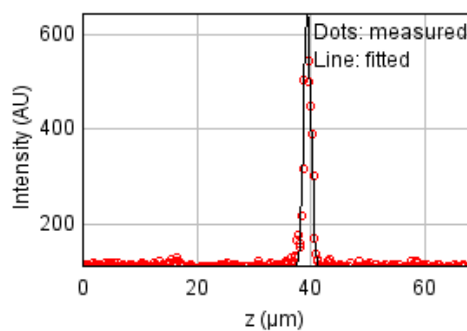
b = -0.072 px

c = 0.671 px

xc = 5.645 px

yc = 6.012 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 73377.1508

Standard deviation: 15.46006

$R^2$ : 0.94997

Parameters:

a = 111.94733

b = 647.63455

c = 39.45451

d = 0.62296

## Bead 1794

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

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

Frame size : 10 pixels

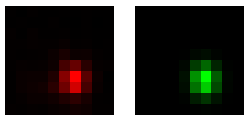
Coordinates : -105  $\mu\text{m}$  (x), -8.87  $\mu\text{m}$  (y), 39.5  $\mu\text{m}$  (z)

Corresponding bead : Not found

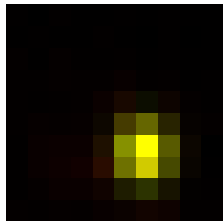
FWHM	Non corrected	Corrected	Theoretical
min	407 nm	421 nm	223 nm
max	484 nm	500 nm	223 nm
z	1.31 $\mu\text{m}$	1.31 $\mu\text{m}$	885 nm
Asymmetry	0.841		
Theta	-87.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 1249.248$  (brightness)

$B = 125.855$  (background)

$a = 0.810$  px

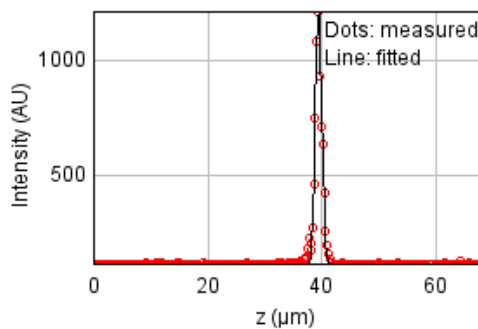
$b = -0.010$  px

$c = 0.573$  px

$x_c = 5.855$  px

$y_c = 6.297$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 97779.3537

Standard deviation: 17.84655

$R^2: 0.98227$

Parameters:

$a = 113.30871$

$b = 1230.75574$

$c = 39.50771$

$d = 0.55458$

## Bead 1795

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

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

Frame size : 10 pixels

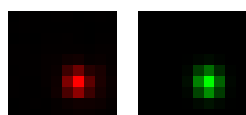
Coordinates : 114  $\mu\text{m}$  (x), -34.3  $\mu\text{m}$  (y), 40.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

FWHM	Non corrected	Corrected	Theoretical
min	402 nm	416 nm	223 nm
max	434 nm	449 nm	223 nm
z	1.13 $\mu\text{m}$	1.14 $\mu\text{m}$	885 nm
Asymmetry	0.925		
Theta	-76.3°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1796.854 (brightness)

B = 128.259 (background)

a = 0.824 px

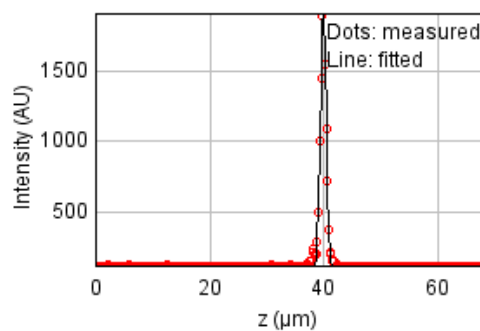
b = -0.027 px

c = 0.718 px

$x_c = 5.918$  px

$y_c = 6.092$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 68745.6846

Standard deviation: 14.96420

$R^2$ : 0.99448

Parameters:

a = 113.58539

b = 1925.79225

c = 39.96160

d = 0.48057

## Bead 1796

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

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

Frame size : 10 pixels

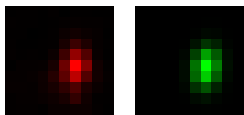
Coordinates : -47.1  $\mu\text{m}$  (x), -84.1  $\mu\text{m}$  (y), 39.2  $\mu\text{m}$  (z)

Corresponding bead : Not found

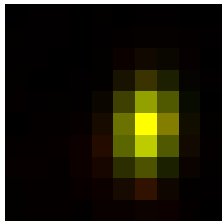
FWHM	Non corrected	Corrected	Theoretical
min	418 nm	432 nm	223 nm
max	632 nm	653 nm	223 nm
z	1.25 $\mu\text{m}$	1.26 $\mu\text{m}$	885 nm
Asymmetry	0.662		
Theta	82.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1454.419 (brightness)

B = 129.120 (background)

a = 0.760 px

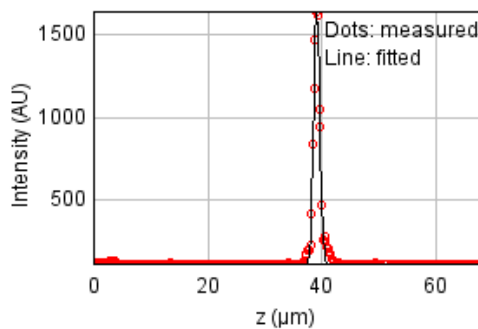
b = 0.058 px

c = 0.344 px

xc = 6.020 px

yc = 5.168 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 148006.263

Standard deviation: 21.95689

$R^2$ : 0.98494

Parameters:

a = 115.31122

b = 1640.51546

c = 39.17346

d = 0.53109



## Bead 1797

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

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

Frame size : 10 pixels

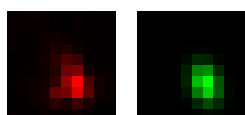
Coordinates : -120  $\mu\text{m}$  (x), 95.2  $\mu\text{m}$  (y), 39.7  $\mu\text{m}$  (z)

Corresponding bead : Not found

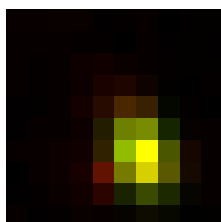
FWHM	Non corrected	Corrected	Theoretical
min	427 nm	442 nm	223 nm
max	604 nm	625 nm	223 nm
z	1.46 $\mu\text{m}$	1.47 $\mu\text{m}$	885 nm
Asymmetry	0.707		
Theta	-71.2°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 579.865$  (brightness)

$B = 126.720$  (background)

$a = 0.697$  px

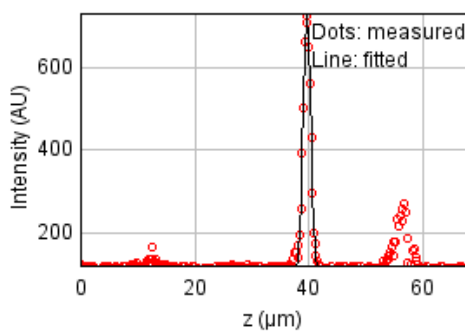
$b = -0.112$  px

$c = 0.406$  px

$x_c = 5.749$  px

$y_c = 6.180$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 180634.232

Standard deviation: 24.25665

$R^2: 0.91022$

Parameters:

$a = 119.98791$

$b = 735.61863$

$c = 39.73653$

$d = 0.61983$

## Bead 1798 (Rejected)

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

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

Frame size : 10 pixels

Coordinates : -143  $\mu\text{m}$  (x), 90.2  $\mu\text{m}$  (y), 24.6  $\mu\text{m}$  (z)

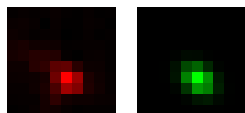
Corresponding bead : Not found

Reason of rejection : R or C parameter off limits.

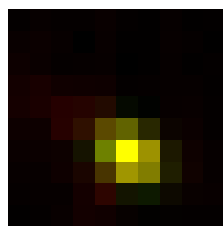
FWHM	Non corrected	Corrected	Theoretical
min	391 nm	404 nm	223 nm
max	528 nm	546 nm	223 nm
z	1.51 $\mu\text{m}$	1.52 $\mu\text{m}$	885 nm
Asymmetry	0.74		
Theta	-36.4°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 710.806 (brightness)

B = 125.023 (background)

a = 0.621 px

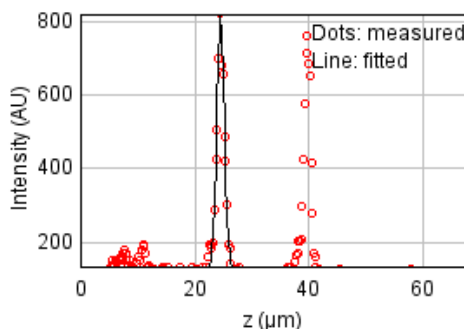
b = -0.190 px

c = 0.738 px

xc = 5.099 px

yc = 6.166 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 1936625.81

Standard deviation: 79.42435

$R^2$ : 0.54983

Parameters:

a = 132.56157

b = 819.79116

c = 24.60175

d = 0.64329

## Bead 1799

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

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

Frame size : 10 pixels

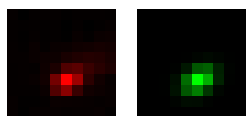
Coordinates : 157 um (x), 75.2 um (y), 39.7 um (z)

Corresponding bead : Not found

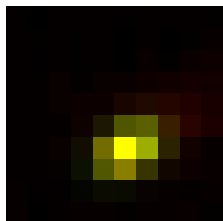
FWHM	Non corrected	Corrected	Theoretical
min	359 nm	371 nm	223 nm
max	530 nm	548 nm	223 nm
z	1.41 um	1.41 um	885 nm
Asymmetry	0.677		
Theta	30.5°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 767.078 (brightness)

B = 120.296 (background)

a = 0.623 px

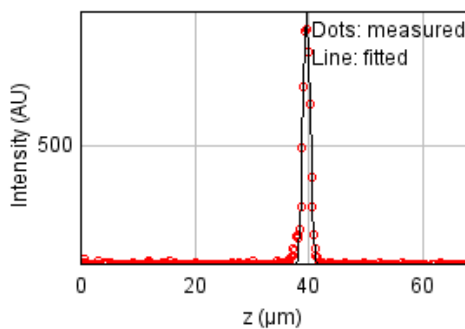
b = 0.246 px

c = 0.896 px

xc = 5.165 px

yc = 6.060 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 42909.8321

Standard deviation: 11.82250

$R^2$ : 0.98719

Parameters:

a = 110.25371

b = 952.41418

c = 39.67265

d = 0.59756

## Bead 1800

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

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

Frame size : 10 pixels

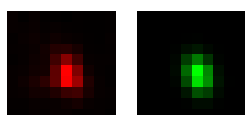
Coordinates : -78.5  $\mu\text{m}$  (x), 68.6  $\mu\text{m}$  (y), 40.0  $\mu\text{m}$  (z)

Corresponding bead : Not found

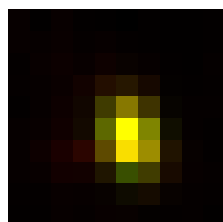
FWHM	Non corrected	Corrected	Theoretical
min	408 nm	422 nm	223 nm
max	563 nm	582 nm	223 nm
z	1.31 $\mu\text{m}$	1.32 $\mu\text{m}$	885 nm
Asymmetry	0.725		
Theta	-74.5°		

### XY profile & fitting parameters :

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



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



Parameters:

$A = 985.061$  (brightness)

$B = 125.656$  (background)

$a = 0.778$  px

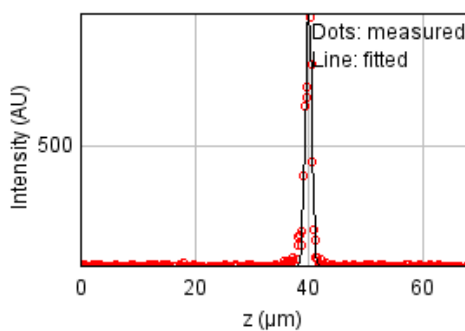
$b = -0.098$  px

$c = 0.450$  px

$x_c = 5.127$  px

$y_c = 5.373$  px

### Z profile & fitting parameters:



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

Sum of residuals squared: 115470.284

Standard deviation: 19.39393

$R^2: 0.96085$

Parameters:

$a = 113.90334$

$b = 919.97031$

$c = 40.02272$

$d = 0.55768$