Date: Mon Oct 17 13:29:34 PDT 2022

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

Frame size: 10 pixels

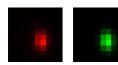
Coordinates: -137 um (x), 16.3 um (y), 48.5 um (z)

Corresponding bead: Not found

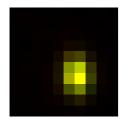
FWHM	Non corrected	Corrected	Theoretical
min	388 nm	401 nm	223 nm
max	548 nm	567 nm	223 nm
Z	1.22 um	1.23 um	885 nm
Asymmetry	0.708		
Theta	-85.3°		

### XY profile & fitting parameters :

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



Fitted 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 = 1397.466 (brightness)

B = 125.290 (background)

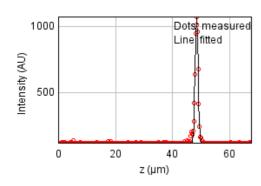
a = 0.887 px

b = -0.036 px

c = 0.449 px

xc = 5.714 pxyc = 5.717 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 42987.8394

Standard deviation: 11.83324

R^2: 0.98915 Parameters: a = 112.55018 b = 1094.74878 c = 48.51427

# Bead 2202 (Rejected)

Date: Mon Oct 17 13:29:34 PDT 2022

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

Frame size: 10 pixels

Coordinates: 3.74 um (x), 4.4 um (y), 41.4 um (z)

Corresponding bead: Not found

Reason of rejection: R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	223 nm
max	0	0	223 nm
Z	1.39 um	1.4 um	885 nm
Asymmetry	0.0		
Theta	0.0°		

### XY profile & fitting parameters :

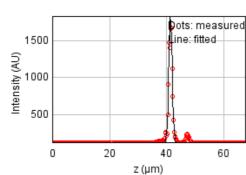
(red: the orignal data, green: the fit, yellow: the two merged)



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

# Z profile & fitting parameters:





Fitted on  $y = a + (b-a)^* \exp(-(x-c)^2/(2^*d^2))$ Sum of residuals squared: 517278.817

Standard deviation: 41.04811

R^2: 0.96351 Parameters: a = 117.80324 b = 1837.88595 c = 41.40483

Date: Mon Oct 17 13:29:34 PDT 2022

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

Frame size: 10 pixels

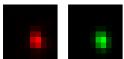
Coordinates: -10.2 um (x), -13.9 um (y), 48.6 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	387 nm	400 nm	223 nm
max	515 nm	532 nm	223 nm
Z	1.13 um	1.13 um	885 nm
Asymmetry	0.752		
Theta	-77.8°		

### XY profile & fitting parameters :

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





Fitted 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 = 2077.081 (brightness)

B = 126.402 (background)

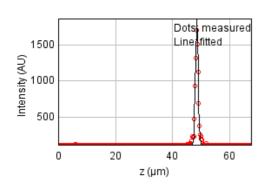
a = 0.877 px

b = -0.080 px

c = 0.523 px

xc = 5.687 pxyc = 6.172 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 123985.125

Standard deviation: 20.09628

R^2: 0.98938 Parameters: a = 115.67635

b = 1869.40969

c = 48.57108

Date: Mon Oct 17 13:29:34 PDT 2022

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

Frame size: 10 pixels

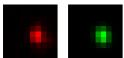
Coordinates: 16.9 um (x), -60.1 um (y), 48.5 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	415 nm	429 nm	223 nm
max	489 nm	505 nm	223 nm
Z	1.18 um	1.18 um	885 nm
Asymmetry	0.849		
Theta	-76.9°		

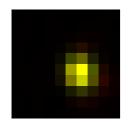
### XY profile & fitting parameters :

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





Fitted 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 = 2220.679 (brightness)

B = 134.755 (background)

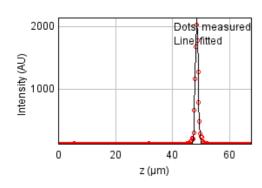
a = 0.767 px

b = -0.048 px

c = 0.573 px

xc = 5.827 pxyc = 5.300 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 96794.1419

Standard deviation: 17.75642

R^2: 0.99412 Parameters: a = 116.64272

b = 2157.55498

c = 48.54478

Date: Mon Oct 17 13:29:34 PDT 2022

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

Frame size: 10 pixels

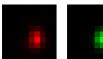
Coordinates: -61.0 um (x), -79.8 um (y), 48.7 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	390 nm	404 nm	223 nm
max	524 nm	542 nm	223 nm
Z	1.14 um	1.15 um	885 nm
Asymmetry	0.745		
Theta	85.9°		

### XY profile & fitting parameters :

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





Fitted on 
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.991$$



Parameters:

A = 2200.268 (brightness)

B = 130.741 (background)

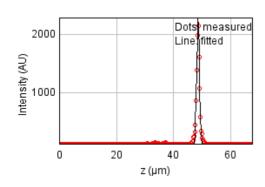
a = 0.879 px

b = 0.028 px

c = 0.491 px

xc = 5.850 pxyc = 5.875 px

# Z profile & fitting parameters:



Fitted on y = a +  $(b-a)*exp(-(x-c)^2/(2*d^2)$ Sum of residuals squared: 106263.743

Standard deviation: 18.60473

R^2: 0.99414

Parameters:

a = 117.14115

b = 2291.12732

c = 48.66218

Date: Mon Oct 17 13:29:34 PDT 2022

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

Frame size: 10 pixels

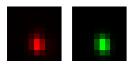
Coordinates: 130 um (x), -80.4 um (y), 48.6 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	391 nm	405 nm	223 nm
max	519 nm	537 nm	223 nm
Z	1.63 um	1.64 um	885 nm
Asymmetry	0.754		
Theta	-80.3°		

### XY profile & fitting parameters :

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



Fitted 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 = 1255.304 (brightness)

B = 124.142 (background)

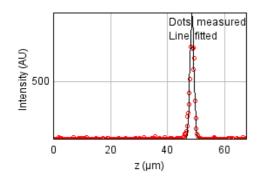
a = 0.865 px

b = -0.063 px

c = 0.508 px

xc = 5.156 pxyc = 6.537 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 222945.181

Standard deviation: 26.94821

R^2: 0.94579 Parameters: a = 112.13265 b = 962.31736 c = 48.63728

Date: Mon Oct 17 13:29:34 PDT 2022

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

Frame size: 10 pixels

Coordinates: -117 um (x), -81.7 um (y), 48.7 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	417 nm	431 nm	223 nm
max	518 nm	536 nm	223 nm
Z	1.4 um	1.4 um	885 nm
Asymmetry	0.805		
Theta	90.0°		

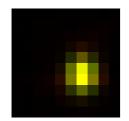
### XY profile & fitting parameters :

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





Fitted 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 = 1439.751 (brightness)

B = 127.911 (background)

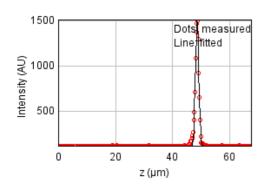
a = 0.771 px

b = 0.000 px

c = 0.500 px

xc = 6.002 pxyc = 5.559 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 58306.7485

Standard deviation: 13.78130

R^2: 0.99368 Parameters:

a = 112.97572

b = 1518.28566

c = 48.68294

Date: Mon Oct 17 13:29:35 PDT 2022

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

Frame size: 10 pixels

Coordinates: 87.9 um (x), 72.7 um (y), 49.1 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	477 nm	493 nm	223 nm
max	611 nm	632 nm	223 nm
Z	1.7 um	1.71 um	885 nm
Asymmetry	0.78		
Theta	66.5°		

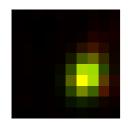
### XY profile & fitting parameters :

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





Fitted on 
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.918$$



Parameters:

A = 736.846 (brightness)

B = 120.637 (background)

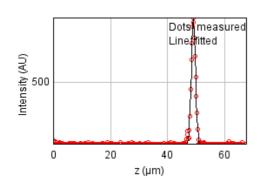
a = 0.554 px

b = 0.084 px

c = 0.396 px

xc = 6.410 pxyc = 5.613 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 29385.9688

Standard deviation: 9.78365

R^2: 0.99177 Parameters: a = 113.20979 b = 907.80755 c = 49.11895

Date: Mon Oct 17 13:29:35 PDT 2022

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

Frame size: 10 pixels

Coordinates: 7.68 um (x), 47.1 um (y), 49.1 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	378 nm	391 nm	223 nm
max	597 nm	618 nm	223 nm
Z	1.07 um	1.07 um	885 nm
Asymmetry	0.633		
Theta	77.7°		

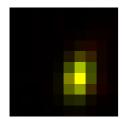
### XY profile & fitting parameters :

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





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



Parameters:

A = 1982.134 (brightness)

B = 133.763 (background)

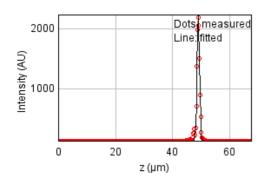
a = 0.913 px

b = 0.117 px

c = 0.401 px

xc = 5.887 pxyc = 5.897 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 126453.025

Standard deviation: 20.29530

R^2: 0.99223 Parameters: a = 115.20954 b = 2244.54797

c = 49.09062

Date: Mon Oct 17 13:29:35 PDT 2022

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

Frame size: 10 pixels

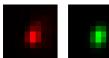
Coordinates: 122 um (x), 39.5 um (y), 48.6 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	402 nm	415 nm	223 nm
max	560 nm	579 nm	223 nm
Z	1.38 um	1.38 um	885 nm
Asymmetry	0.717		
Theta	73.4°		

### XY profile & fitting parameters :

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





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



A = 1014.047 (brightness)

B = 128.581 (background)

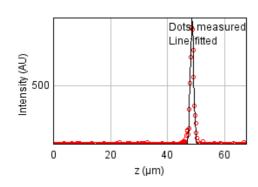
a = 0.799 px

b = 0.111 px

c = 0.461 px

xc = 5.166 pxyc = 5.388 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 49965.1401

Standard deviation: 12.75746

R^2: 0.98472 Parameters: a = 113.26347b = 953.11202

c = 48.64739

Date: Mon Oct 17 13:29:35 PDT 2022

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

Frame size: 10 pixels

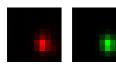
Coordinates: 31.5 um (x), 20.0 um (y), 49.2 um (z)

Corresponding bead: Not found

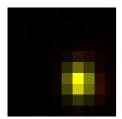
FWHM	Non corrected	Corrected	Theoretical
min	400 nm	414 nm	223 nm
max	499 nm	516 nm	223 nm
Z	1.29 um	1.29 um	885 nm
Asymmetry	0.802		
Theta	-86.0°		

### XY profile & fitting parameters :

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



Fitted 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 = 1997.263 (brightness)

B = 134.751 (background)

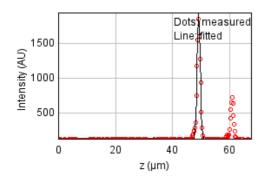
a = 0.835 px

b = -0.021 px

c = 0.540 px

xc = 6.112 pxyc = 6.286 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 1549686.26

Standard deviation: 71.04814

R^2: 0.90203 Parameters: a = 128.31787

a = 120.51707

b = 1953.14890

c = 49.20778

Date: Mon Oct 17 13:29:35 PDT 2022

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

Frame size: 10 pixels

Coordinates: -26.6 um (x), 17.6 um (y), 48.9 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	361 nm	373 nm	223 nm
max	569 nm	588 nm	223 nm
Z	1.12 um	1.13 um	885 nm
Asymmetry	0.635		
Theta	-82.6°		

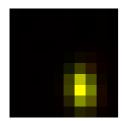
### XY profile & fitting parameters :

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





Fitted 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 = 2030.716 (brightness)

B = 127.889 (background)

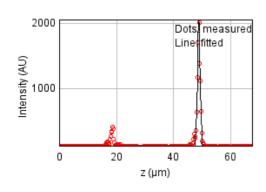
a = 1.019 px

b = -0.079 px

c = 0.425 px

xc = 6.156 pxyc = 6.869 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 514405.456

Standard deviation: 40.93394

R^2: 0.96521 Parameters: a = 124.29388 b = 2075.78840 c = 48.91872

Date: Mon Oct 17 13:29:35 PDT 2022

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

Frame size: 10 pixels

Coordinates: -106 um (x), -15.0 um (y), 48.6 um (z)

Corresponding bead: Not found

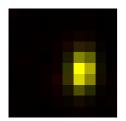
FWHM	Non corrected	Corrected	Theoretical
min	366 nm	379 nm	223 nm
max	572 nm	591 nm	223 nm
Z	1.11 um	1.11 um	885 nm
Asymmetry	0.64		
Theta	84.7°		

### XY profile & fitting parameters :

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



Fitted on 
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.991$$



A = 1314.330 (brightness)

B = 126.696 (background)

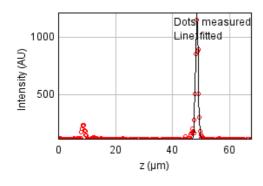
a = 0.996 px

b = 0.054 px

c = 0.415 px

xc = 6.291 pxyc = 5.249 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 175631.407

Standard deviation: 23.91839

R^2: 0.96156 Parameters: a = 117.97907 b = 1208.51071 c = 48.59990

## Bead 2214 (Rejected)

Date: Mon Oct 17 13:29:35 PDT 2022

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

Frame size: 10 pixels

Coordinates: 80.6 um (x), -25.9 um (y), 62.7 um (z)

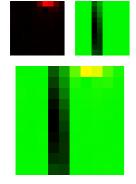
Corresponding bead: Not found

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

FWHM	Non corrected	Corrected	Theoretical
min	131 nm	135 nm	223 nm
max	2.69 um	2.78 um	223 nm
Z	1.58 um	1.59 um	885 nm
Asymmetry	0.049		
Theta	-89.7°		

### XY profile & fitting parameters :

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



 $R^2 = 0.026$ 

Parameters:

A = -230.266 (brightness) B = 137.268 (background)

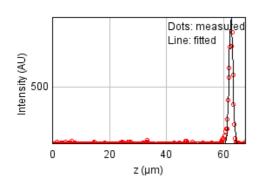
a = 7.865 px

b = -0.037 px

c = 0.019 px

xc = 3.486 pxyc = 5.904 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 152977.922

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

Standard deviation: 22.32262

R^2: 0.96241 Parameters:

a = 113.39053

b = 979.32959

c = 62.65030

Date: Mon Oct 17 13:29:35 PDT 2022

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

Frame size: 10 pixels

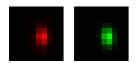
Coordinates: -58.1 um (x), -41.8 um (y), 48.7 um (z)

Corresponding bead: Not found

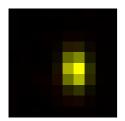
FWHM	Non corrected	Corrected	Theoretical
min	362 nm	374 nm	223 nm
max	534 nm	552 nm	223 nm
Z	1.18 um	1.18 um	885 nm
Asymmetry	0.678		
Theta	-85.1°		

### XY profile & fitting parameters :

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



Fitted on 
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.991$$



Parameters:

A = 1753.683 (brightness)

B = 126.359 (background)

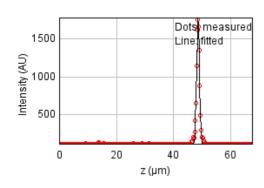
a = 1.019 px

b = -0.047 px

c = 0.474 px

xc = 5.690 pxyc = 5.120 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 62374.6531

Standard deviation: 14.25394

R^2: 0.99428 Parameters:

a = 115.54936

b = 1778.37557

c = 48.66450

Date: Mon Oct 17 13:29:36 PDT 2022

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

Frame size: 10 pixels

Coordinates: 66.5 um (x), -84.8 um (y), 48.4 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	367 nm	380 nm	223 nm
max	534 nm	552 nm	223 nm
Z	1.21 um	1.22 um	885 nm
Asymmetry	0.688		
Theta	-72.6°		

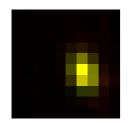
### XY profile & fitting parameters :

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





Fitted 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 = 1011.164 (brightness)

B = 121.578 (background)

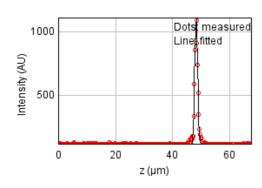
a = 0.948 px

b = -0.149 px

c = 0.517 px

xc = 6.173 pxyc = 5.282 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 50585.7268

Standard deviation: 12.83645

R^2: 0.98767 Parameters: a = 113.28357 b = 1115.00436 c = 48.35454

Date: Mon Oct 17 13:29:36 PDT 2022

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

Frame size: 10 pixels

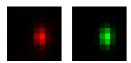
Coordinates: -92.4 um (x), -84.5 um (y), 48.7 um (z)

Corresponding bead: Not found

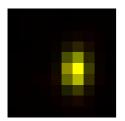
FWHM	Non corrected	Corrected	Theoretical
min	368 nm	380 nm	223 nm
max	552 nm	571 nm	223 nm
Z	1.2 um	1.21 um	885 nm
Asymmetry	0.666		
Theta	89.2°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1792.307 (brightness)

B = 131.922 (background)

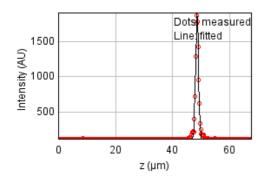
a = 0.993 px

b = 0.008 px

c = 0.440 px

xc = 5.803 pxyc = 5.142 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 87396.1392

Standard deviation: 16.87240

R^2: 0.99331 Parameters: a = 114.23191

b = 1915.81273

c = 48.66576

Date: Mon Oct 17 13:29:36 PDT 2022

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

Frame size: 10 pixels

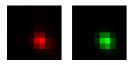
Coordinates: 139 um (x), -95.1 um (y), 48.8 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	413 nm	426 nm	223 nm
max	486 nm	503 nm	223 nm
Z	1.33 um	1.33 um	885 nm
Asymmetry	0.849		
Theta	-54.8°		

### XY profile & fitting parameters :

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



Fitted 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 = 989.647 (brightness)

B = 119.683 (background)

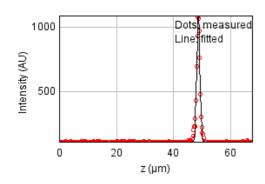
a = 0.715 px

b = -0.104 px

c = 0.641 px

xc = 5.711 pxyc = 6.076 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 38861.5560

Standard deviation: 11.25099

R^2: 0.99108 Parameters: a = 112.17599 b = 1101.95806 c = 48.75052

Date: Mon Oct 17 13:29:36 PDT 2022

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

Frame size: 10 pixels

Coordinates: 144 um (x), 29.5 um (y), 49.6 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	428 nm	442 nm	223 nm
max	487 nm	504 nm	223 nm
Z	1.38 um	1.38 um	885 nm
Asymmetry	0.878		
Theta	44.6°		

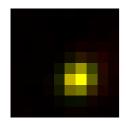
### XY profile & fitting parameters :

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





Fitted 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:

 $A = 1106.313 \quad (brightness)$ 

B = 122.438 (background)

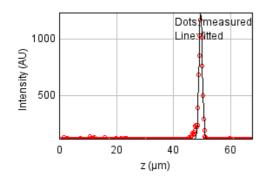
a = 0.649 px

b = 0.084 px

c = 0.651 px

xc = 5.767 pxyc = 5.949 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 202571.551

Standard deviation: 25.68739

R^2: 0.96604 Parameters: a = 113.34105 b = 1236.33988

c = 49.56289

Date: Mon Oct 17 13:29:36 PDT 2022

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

Frame size: 10 pixels

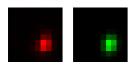
Coordinates: -69.9 um (x), 19.1 um (y), 49.0 um (z)

Corresponding bead: Not found

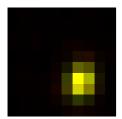
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	396 nm	223 nm
max	491 nm	507 nm	223 nm
Z	1.08 um	1.08 um	885 nm
Asymmetry	0.782		
Theta	78.1°		

### XY profile & fitting parameters :

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



Fitted 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 = 1296.671 (brightness)

B = 121.435 (background)

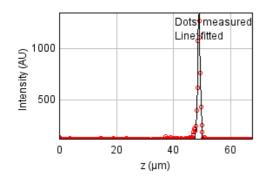
a = 0.897 px

b = 0.072 px

c = 0.573 px

xc = 6.268 pxyc = 6.294 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 66813.5601

Standard deviation: 14.75241

R^2: 0.98849 Parameters:

a = 115.56294

b = 1378.24057

c = 48.96617

Date: Mon Oct 17 13:29:36 PDT 2022

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

Frame size: 10 pixels

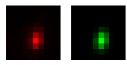
Coordinates: -95.5 um (x), -12.1 um (y), 48.7 um (z)

Corresponding bead: Not found

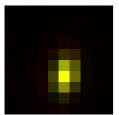
FWHM	Non corrected	Corrected	Theoretical
min	344 nm	356 nm	223 nm
max	536 nm	554 nm	223 nm
Z	1.07 um	1.07 um	885 nm
Asymmetry	0.643		
Theta	80.0°		

### XY profile & fitting parameters :

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



Fitted 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 = 1237.332 (brightness)

B = 122.936 (background)

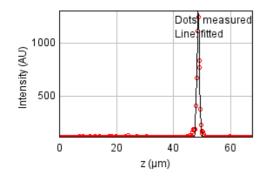
a = 1.112 px

b = 0.113 px

c = 0.488 px

xc = 5.114 pxyc = 5.883 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 93511.4941

Standard deviation: 17.45273

R^2: 0.98235 Parameters: a = 114.67681 b = 1324.17241 c = 48.70190

Date: Mon Oct 17 13:29:36 PDT 2022

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

Frame size: 10 pixels

Coordinates: 65.8 um (x), -25.5 um (y), 49.3 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	402 nm	416 nm	223 nm
max	531 nm	549 nm	223 nm
Z	1.3 um	1.3 um	885 nm
Asymmetry	0.758		
Theta	-56.3°		

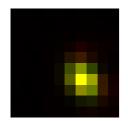
### XY profile & fitting parameters :

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





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



Parameters:

A = 1606.197 (brightness)

B = 131.272 (background)

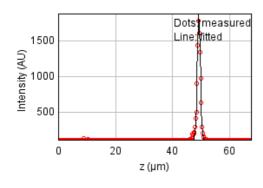
a = 0.720 px

b = -0.163 px

c = 0.585 px

xc = 6.199 pxyc = 6.030 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 166608.803

Standard deviation: 23.29592

R^2: 0.98774 Parameters: a = 114.49375b = 1880.17667c = 49.25913

Date: Mon Oct 17 13:29:37 PDT 2022

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

Frame size: 10 pixels

Coordinates: 11.5 um (x), -31.7 um (y), 49.3 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	433 nm	448 nm	223 nm
max	493 nm	510 nm	223 nm
Z	1.34 um	1.34 um	885 nm
Asymmetry	0.879		
Theta	-60.1°		

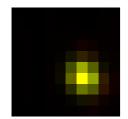
### XY profile & fitting parameters :

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





Fitted 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 = 1798.522 (brightness)

B = 127.314 (background)

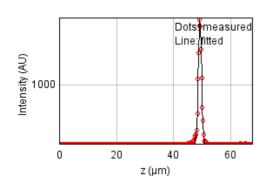
a = 0.674 px

b = -0.070 px

c = 0.592 px

xc = 6.167 pxyc = 5.867 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 65502.8399

Standard deviation: 14.60699

R^2: 0.99584 Parameters: a = 114.81506 b = 1996.01960 c = 49.29458

Date: Mon Oct 17 13:29:37 PDT 2022

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

Frame size: 10 pixels

Coordinates: 21.4 um (x), -32.8 um (y), 49.0 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	375 nm	387 nm	223 nm
max	520 nm	538 nm	223 nm
Z	1.28 um	1.28 um	885 nm
Asymmetry	0.72		
Theta	-86.8°		

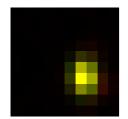
### XY profile & fitting parameters :

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





Fitted 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 = 1530.655 (brightness)

B = 127.680 (background)

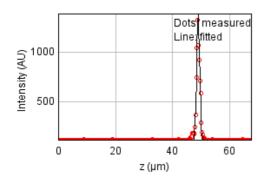
a = 0.955 px

b = -0.025 px

c = 0.497 px

xc = 6.294 pxyc = 5.870 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 144732.390

Standard deviation: 21.71269

R^2: 0.97943 Parameters: a = 115.31810b = 1389.29580

c = 49.04617

Date: Mon Oct 17 13:29:37 PDT 2022

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

Frame size: 10 pixels

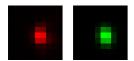
Coordinates: 48.1 um (x), -62.3 um (y), 48.8 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	403 nm	416 nm	223 nm
max	517 nm	534 nm	223 nm
Z	1.42 um	1.43 um	885 nm
Asymmetry	0.779		
Theta	-81.3°		

### XY profile & fitting parameters :

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



Fitted 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 = 1942.049 (brightness)

B = 133.510 (background)

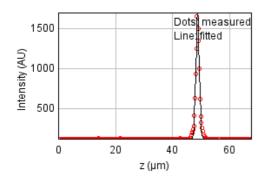
a = 0.820 px

b = -0.049 px

c = 0.510 px

xc = 5.481 pxyc = 5.160 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 89935.0073

Standard deviation: 17.11572

R^2: 0.99243 Parameters:

a = 114.42595

b = 1694.88735

c = 48.84836

Date: Mon Oct 17 13:29:37 PDT 2022

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

Frame size: 10 pixels

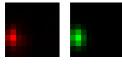
Coordinates: 32.7 um (x), -79.9 um (y), 38.5 um (z)

Corresponding bead: Not found

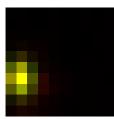
FWHM	Non corrected	Corrected	Theoretical
min	401 nm	414 nm	223 nm
max	539 nm	557 nm	223 nm
Z	1.2 um	1.21 um	885 nm
Asymmetry	0.744		
Theta	-86.7°		

### XY profile & fitting parameters :

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



Fitted 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 = 1844.419 (brightness)

B = 134.025 (background)

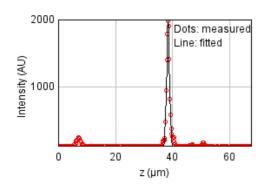
a = 0.834 px

b = -0.021 px

c = 0.463 px

xc = 0.847 pxyc = 6.004 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

# Bead 2227 (Rejected)

Date: Mon Oct 17 13:29:37 PDT 2022

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

Frame size: 10 pixels

Coordinates: 111 um (x), 89.6 um (y), 49.6 um (z)

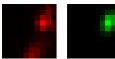
Corresponding bead: Not found

Reason of rejection: R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	383 nm	396 nm	223 nm
max	583 nm	602 nm	223 nm
Z	1.75 um	1.76 um	885 nm
Asymmetry	0.657		
Theta	67.7°		

### XY profile & fitting parameters :

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





Fitted on 
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.689$$



xc = 7.251 pxyc = 2.850 px

### Parameters:

A = 855.329 (brightness)

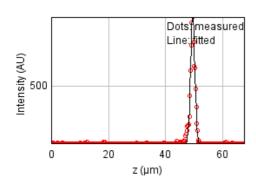
B = 162.991(background)

a = 0.841 px

b = 0.183 px

c = 0.470 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 69544.9517

Standard deviation: 15.05094

R^2: 0.98366

Parameters:

a = 112.99181

b = 966.13083

c = 49.58062

Date: Mon Oct 17 13:29:37 PDT 2022

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

Frame size: 10 pixels

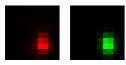
Coordinates: -43.9 um (x), 81.7 um (y), 49.5 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	389 nm	402 nm	223 nm
max	551 nm	569 nm	223 nm
Z	1.26 um	1.27 um	885 nm
Asymmetry	0.705		
Theta	-85.6°		

### XY profile & fitting parameters :

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



Fitted 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 = 1817.244 (brightness)

B = 129.656 (background)

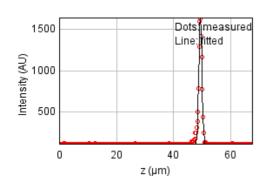
a = 0.886 px

b = -0.034 px

c = 0.445 px

xc = 6.454 pxyc = 6.688 px

### Z profile & fitting parameters:



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

Sum of residuals squared: 98777.7604

Standard deviation: 17.93744

R^2: 0.99003 Parameters: a = 115.84741 b = 1645.55968 c = 49.46243

Date: Mon Oct 17 13:29:37 PDT 2022

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

Frame size: 10 pixels

Coordinates: 40.9 um (x), 81.8 um (y), 60.0 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	434 nm	448 nm	223 nm
max	558 nm	577 nm	223 nm
Z	1.13 um	1.13 um	885 nm
Asymmetry	0.777		
Theta	79.2°		

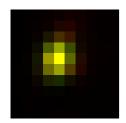
### XY profile & fitting parameters :

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





Fitted 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 = 1570.787 (brightness)

B = 131.457 (background)

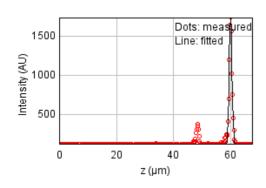
a = 0.704 px

b = 0.052 px

c = 0.441 px

xc = 3.867 pxyc = 3.989 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 345480.809

Standard deviation: 33.54616

R^2: 0.96584 Parameters: a = 121.58761 b = 1733.57869 c = 60.04650

Date: Mon Oct 17 13:29:38 PDT 2022

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

Frame size: 10 pixels

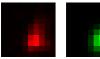
Coordinates: 40.7 um (x), 54.5 um (y), 50.0 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	509 nm	526 nm	223 nm
max	678 nm	701 nm	223 nm
Z	1.21 um	1.21 um	885 nm
Asymmetry	0.751		
Theta	70.8°		

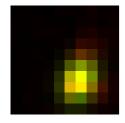
## XY profile & fitting parameters :

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





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



A = 810.715 (brightness)

B = 127.259 (background)

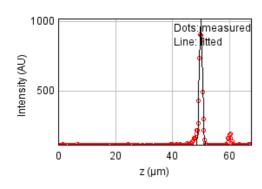
a = 0.493 px

b = 0.070 px

c = 0.316 px

xc = 5.833 pxyc = 6.383 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 98248.0392

Standard deviation: 17.88928

R^2: 0.97108 Parameters: a = 115.62304b = 1021.99945c = 49.98655

Date: Mon Oct 17 13:29:38 PDT 2022

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

Frame size: 10 pixels

Coordinates: -129 um (x), 26.2 um (y), 49.2 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	350 nm	362 nm	223 nm
max	496 nm	513 nm	223 nm
Z	1.47 um	1.48 um	885 nm
Asymmetry	0.705		
Theta	-41.9°		

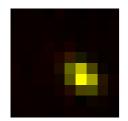
### XY profile & fitting parameters :

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





Fitted 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 = 864.119 (brightness)

B = 118.428 (background)

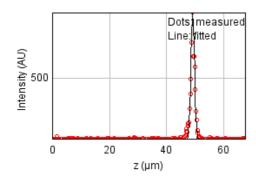
a = 0.790 px

b = -0.274 px

c = 0.851 px

xc = 6.117 pxyc = 5.730 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 196898.451

Standard deviation: 25.32515

R^2: 0.94068 Parameters: a = 113.25551 b = 914.27331 c = 49.22314

Date: Mon Oct 17 13:29:38 PDT 2022

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

Frame size: 10 pixels

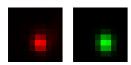
Coordinates: 145 um (x), 5.49 um (y), 49.1 um (z)

Corresponding bead: Not found

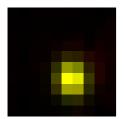
FWHM	Non corrected	Corrected	Theoretical
min	446 nm	461 nm	223 nm
max	529 nm	547 nm	223 nm
Z	1.33 um	1.34 um	885 nm
Asymmetry	0.844		
Theta	-82.3°		

### XY profile & fitting parameters :

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



Fitted 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 = 1068.308 (brightness)

B = 125.531 (background)

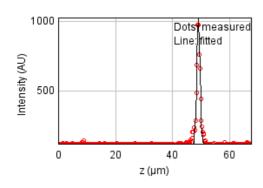
a = 0.671 px

b = -0.026 px

c = 0.483 px

xc = 5.435 pxyc = 6.050 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 90418.3631

Standard deviation: 17.16165

R^2: 0.97643 Parameters: a = 112.82391 b = 1032.13989 c = 49.12536

Date: Mon Oct 17 13:29:38 PDT 2022

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

Frame size: 10 pixels

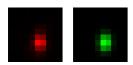
Coordinates: -49.0 um (x), -34.5 um (y), 49.4 um (z)

Corresponding bead: Not found

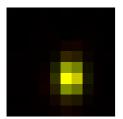
FWHM	Non corrected	Corrected	Theoretical
min	379 nm	392 nm	223 nm
max	512 nm	529 nm	223 nm
Z	1.18 um	1.19 um	885 nm
Asymmetry	0.74		
Theta	88.6°		

### XY profile & fitting parameters :

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



Fitted 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:

 $A = 1857.446 \quad (brightness)$ 

B = 126.571 (background)

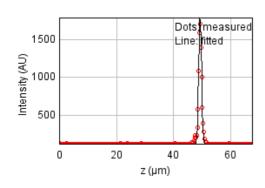
a = 0.935 px

b = 0.011 px

c = 0.513 px

xc = 5.372 pxyc = 5.944 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 83371.5045

Standard deviation: 16.47933

R^2: 0.99276 Parameters: a = 115.07561 b = 1817.14446 c = 49.36815

Date: Mon Oct 17 13:29:38 PDT 2022

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

Frame size: 10 pixels

Coordinates: -150 um (x), -72.4 um (y), 49.0 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	383 nm	396 nm	223 nm
max	514 nm	531 nm	223 nm
Z	1.28 um	1.29 um	885 nm
Asymmetry	0.745		
Theta	86.7°		

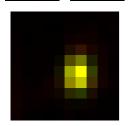
### XY profile & fitting parameters :

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





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



A = 1041.399 (brightness)

B = 125.253 (background)

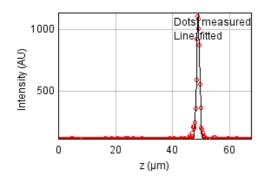
a = 0.914 px

b = 0.023 px

c = 0.509 px

xc = 5.722 pxyc = 5.254 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 52829.1931

Standard deviation: 13.11801

R^2: 0.98830 Parameters:

a = 111.96054

b = 1135.12438

c = 49.03578

Date: Mon Oct 17 13:29:38 PDT 2022

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

Frame size: 10 pixels

Coordinates: 89.8 um (x), 88.3 um (y), 49.5 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	450 nm	465 nm	223 nm
max	603 nm	623 nm	223 nm
Z	1.66 um	1.66 um	885 nm
Asymmetry	0.746		
Theta	62.9°		

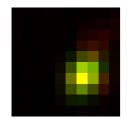
### XY profile & fitting parameters :

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





Fitted on 
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.907$$



Parameters:

A = 703.581 (brightness)

B = 128.316 (background)

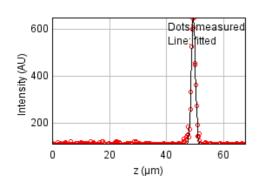
a = 0.602 px

b = 0.119 px

c = 0.431 px

xc = 6.226 pxyc = 5.690 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 38266.6036

Standard deviation: 11.16454

R^2: 0.97610 Parameters: a = 112.63816 b = 647.81738

c = 49.45630d = 0.70329

Date: Mon Oct 17 13:29:39 PDT 2022

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

Frame size: 10 pixels

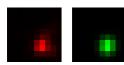
Coordinates: 46.4 um (x), 34.0 um (y), 50.0 um (z)

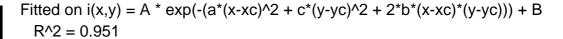
Corresponding bead: Not found

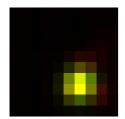
FWHM	Non corrected	Corrected	Theoretical
min	455 nm	471 nm	223 nm
max	495 nm	512 nm	223 nm
Z	1.36 um	1.36 um	885 nm
Asymmetry	0.919		
Theta	74.2°		

### XY profile & fitting parameters :

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







Parameters:

A = 1189.910 (brightness)

B = 131.932 (background)

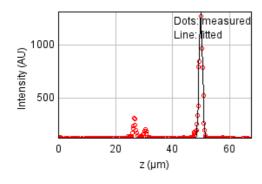
a = 0.640 px

b = 0.026 px

c = 0.554 px

xc = 5.964 pxyc = 6.566 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 250379.238

Standard deviation: 28.55814

R^2: 0.96268 Parameters: a = 120.61857 b = 1317.47643 c = 49.95160

Date: Mon Oct 17 13:29:39 PDT 2022

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

Frame size: 10 pixels

Coordinates: 158 um (x), 13.6 um (y), 49.9 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	436 nm	451 nm	223 nm
max	464 nm	480 nm	223 nm
Z	1.42 um	1.43 um	885 nm
Asymmetry	0.939		
Theta	68.8°		

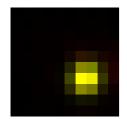
## XY profile & fitting parameters :

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





Fitted 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 = 1437.841 (brightness)

B = 123.107 (background)

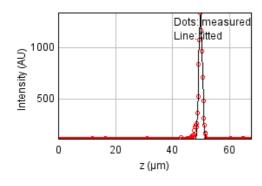
a = 0.695 px

b = 0.028 px

c = 0.633 px

xc = 6.442 pxyc = 5.980 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 74486.9943

Standard deviation: 15.57654

R^2: 0.98957 Parameters:

a = 111.58574

b = 1337.55843

c = 49.88937

Date: Mon Oct 17 13:29:39 PDT 2022

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

Frame size: 10 pixels

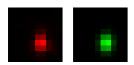
Coordinates: -21.0 um (x), 5.05 um (y), 49.9 um (z)

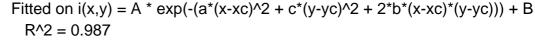
Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	402 nm	416 nm	223 nm
max	517 nm	535 nm	223 nm
Z	1.09 um	1.09 um	885 nm
Asymmetry	0.778		
Theta	88.1°		

#### XY profile & fitting parameters :

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







Parameters:

A = 2205.932 (brightness)

B = 129.469 (background)

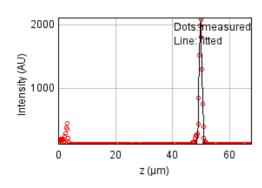
a = 0.828 px

b = 0.011 px

c = 0.502 px

xc = 5.578 pxyc = 6.046 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 467443.209

Standard deviation: 39.02072

R^2: 0.96870 Parameters: a = 123.59721 b = 2121.67945 c = 49.90449

Date: Mon Oct 17 13:29:39 PDT 2022

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

Frame size: 10 pixels

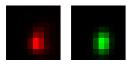
Coordinates: 66.3 um (x), -3.6 um (y), 50.2 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	421 nm	435 nm	223 nm
max	611 nm	632 nm	223 nm
Z	1.6 um	1.6 um	885 nm
Asymmetry	0.688		
Theta	85.7°		

#### XY profile & fitting parameters :

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



Fitted 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 = 2760.199 (brightness)

B = 151.555 (background)

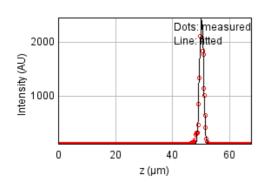
a = 0.755 px

b = 0.030 px

c = 0.361 px

xc = 5.272 pxyc = 6.346 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 571609.210

Standard deviation: 43.14996

R^2: 0.98071 Parameters:

a = 115.09578

b = 2462.94472

c = 50.20995

Date: Mon Oct 17 13:29:39 PDT 2022

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

Frame size: 10 pixels

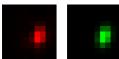
Coordinates: -131 um (x), -17.9 um (y), 49.0 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	364 nm	377 nm	223 nm
max	553 nm	572 nm	223 nm
Z	1.09 um	1.1 um	885 nm
Asymmetry	0.659		
Theta	76.2°		

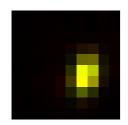
## XY profile & fitting parameters :

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





Fitted 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 = 1029.597 (brightness)

B = 121.547 (background)

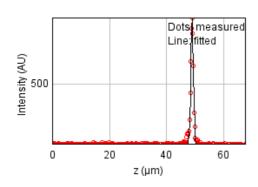
a = 0.979 px

b = 0.132 px

c = 0.471 px

xc = 6.324 pxyc = 5.389 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 33295.1987

Standard deviation: 10.41410

R^2: 0.98644 Parameters: a = 112.68394 b = 928.14045 c = 49.02317

Date: Mon Oct 17 13:29:39 PDT 2022

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

Frame size: 10 pixels

Coordinates: 19.2 um (x), -22.5 um (y), 49.7 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	417 nm	431 nm	223 nm
max	536 nm	554 nm	223 nm
Z	1.28 um	1.29 um	885 nm
Asymmetry	0.778		
Theta	-82.7°		

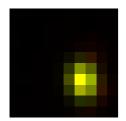
## XY profile & fitting parameters :

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





Fitted 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 = 1812.672 (brightness)

B = 127.284 (background)

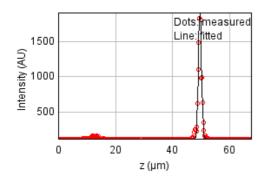
a = 0.768 px

b = -0.039 px

c = 0.473 px

xc = 6.268 pxyc = 6.104 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 253152.659

Standard deviation: 28.71588

R^2: 0.98181 Parameters:

a = 119.47427

b = 1910.71273

c = 49.67120

Date: Mon Oct 17 13:29:39 PDT 2022

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

Frame size: 10 pixels

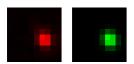
Coordinates: 145 um (x), -45.4 um (y), 49.2 um (z)

Corresponding bead: Not found

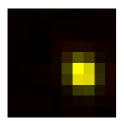
FWHM	Non corrected	Corrected	Theoretical
min	409 nm	423 nm	223 nm
max	475 nm	491 nm	223 nm
Z	1.16 um	1.17 um	885 nm
Asymmetry	0.861		
Theta	-62.5°		

## XY profile & fitting parameters :

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



Fitted 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 = 1058.344 (brightness)

B = 119.409 (background)

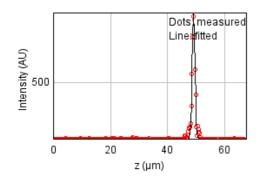
a = 0.756 px

b = -0.085 px

c = 0.638 px

xc = 6.414 pxyc = 5.437 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 48364.2758

Standard deviation: 12.55143

R^2: 0.98432 Parameters: a = 111.77979 b = 996.11186 c = 49.17850

Date: Mon Oct 17 13:29:40 PDT 2022

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

Frame size: 10 pixels

Coordinates: -116 um (x), -54.1 um (y), 49.3 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	378 nm	391 nm	223 nm
max	551 nm	570 nm	223 nm
Z	1.25 um	1.26 um	885 nm
Asymmetry	0.686		
Theta	87.7°		

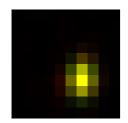
## XY profile & fitting parameters :

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





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



Parameters:

A = 1370.017 (brightness)

B = 122.769 (background)

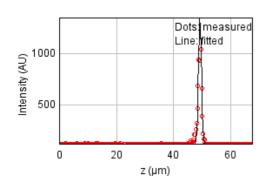
a = 0.938 px

b = 0.020 px

c = 0.442 px

xc = 5.991 pxyc = 5.894 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 194776.465

Standard deviation: 25.18831

R^2: 0.97032 Parameters: a = 114.09883

b = 1351.20771

c = 49.30760

Date: Mon Oct 17 13:29:40 PDT 2022

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

Frame size: 10 pixels

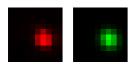
Coordinates: 147 um (x), -58.4 um (y), 49.4 um (z)

Corresponding bead: Not found

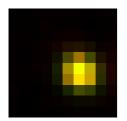
FWHM	Non corrected	Corrected	Theoretical
min	507 nm	524 nm	223 nm
max	555 nm	574 nm	223 nm
Z	1.37 um	1.37 um	885 nm
Asymmetry	0.913		
Theta	-50.8°		

#### XY profile & fitting parameters :

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



Fitted 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 = 986.872 (brightness)

B = 115.831 (background)

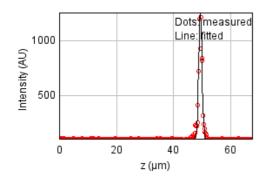
a = 0.488 px

b = -0.043 px

c = 0.470 px

xc = 6.129 pxyc = 5.356 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 277542.089

Standard deviation: 30.06736

R^2: 0.95514 Parameters:

a = 112.02962

b = 1252.95471

c = 49.44085

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

Frame size: 10 pixels

Coordinates: 37.8 um (x), -82.7 um (y), 49.7 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	466 nm	482 nm	223 nm
max	512 nm	529 nm	223 nm
Z	1.2 um	1.21 um	885 nm
Asymmetry	0.911		
Theta	-33.1°		

## XY profile & fitting parameters :

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





Fitted 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 = 1799.440 (brightness)

B = 128.375 (background)

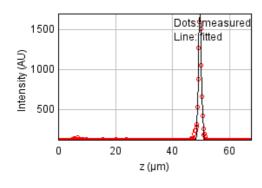
a = 0.544 px

b = -0.048 px

c = 0.586 px

xc = 6.647 pxyc = 5.765 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 82179.8725

Standard deviation: 16.36114

R^2: 0.99190 Parameters: a = 116.02382 b = 1702.04111 c = 49.66495

Date: Mon Oct 17 13:29:40 PDT 2022

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

Frame size: 10 pixels

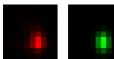
Coordinates: -102 um (x), 66.1 um (y), 49.8 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	392 nm	405 nm	223 nm
max	534 nm	552 nm	223 nm
Z	1.3 um	1.31 um	885 nm
Asymmetry	0.733		
Theta	-88.2°		

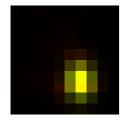
#### XY profile & fitting parameters :

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





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



Parameters:

A = 1519.483 (brightness)

B = 128.016 (background)

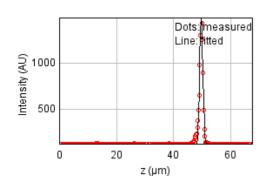
a = 0.875 px

b = -0.012 px

c = 0.470 px

xc = 5.911 pxyc = 6.444 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 100170.752

Standard deviation: 18.06347

R^2: 0.98806 Parameters: a = 115.27374

b = 1500.76942

c = 49.77669

Date: Mon Oct 17 13:29:40 PDT 2022

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

Frame size: 10 pixels

Coordinates: 13.4 um (x), 51.6 um (y), 50.0 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	428 nm	443 nm	223 nm
max	594 nm	615 nm	223 nm
Z	1.33 um	1.34 um	885 nm
Asymmetry	0.72		
Theta	82.1°		

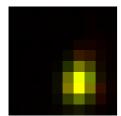
## XY profile & fitting parameters :

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





Fitted 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:

 $A = 1559.524 \quad (brightness)$ 

B = 130.687 (background)

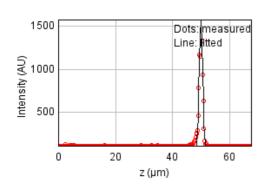
a = 0.726 px

b = 0.048 px

c = 0.386 px

xc = 6.032 pxyc = 6.470 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 147432.291

Standard deviation: 21.91428

R^2: 0.98465 Parameters: a = 114.47094 b = 1577.02017 c = 50.01075

Date: Mon Oct 17 13:29:40 PDT 2022

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

Frame size: 10 pixels

Coordinates: -12.1 um (x), 45.0 um (y), 49.7 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	382 nm	395 nm	223 nm
max	539 nm	557 nm	223 nm
Z	1.19 um	1.2 um	885 nm
Asymmetry	0.709		
Theta	-88.4°		

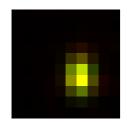
## XY profile & fitting parameters :

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





Fitted 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 = 1319.968 (brightness)

B = 122.944 (background)

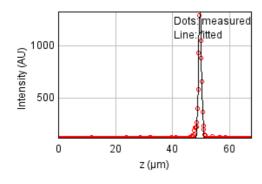
a = 0.919 px

b = -0.013 px

c = 0.463 px

xc = 5.820 pxyc = 5.643 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 94324.4672

Standard deviation: 17.52843

R^2: 0.98392 Parameters: a = 115.83152b = 1321.40238

c = 49.69603

Date: Mon Oct 17 13:29:40 PDT 2022

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

Frame size: 10 pixels

Coordinates: 82.3 um (x), 41.5 um (y), 50.1 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	578 nm	598 nm	223 nm
max	690 nm	714 nm	223 nm
Z	1.45 um	1.45 um	885 nm
Asymmetry	0.837		
Theta	68.9°		

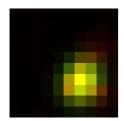
#### XY profile & fitting parameters :

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





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



Parameters:

A = 769.997 (brightness)

B = 121.136 (background)

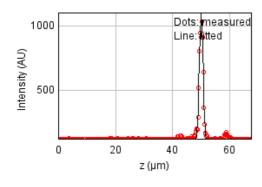
a = 0.386 px

b = 0.040 px

c = 0.297 px

xc = 6.152 pxyc = 6.166 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 107158.480

Standard deviation: 18.68289

R^2: 0.97770 Parameters: a = 116.39124 b = 1106.88152 c = 50.09471

Date: Mon Oct 17 13:29:40 PDT 2022

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

Frame size: 10 pixels

Coordinates: 153 um (x), 40.3 um (y), 50.6 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	431 nm	446 nm	223 nm
max	484 nm	500 nm	223 nm
Z	1.41 um	1.41 um	885 nm
Asymmetry	0.892		
Theta	42.9°		

## XY profile & fitting parameters :

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





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



Parameters:

A = 699.250 (brightness)

B = 130.227 (background)

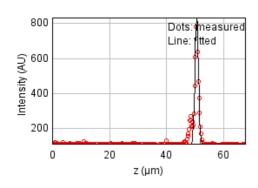
a = 0.642 px

b = 0.073 px

c = 0.653 px

xc = 6.208 pxyc = 5.033 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 133064.537

Standard deviation: 20.81910

R^2: 0.94784 Parameters: a = 113.09745b = 833.59290

c = 50.63907

Date: Mon Oct 17 13:29:40 PDT 2022

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

Frame size: 10 pixels

Coordinates: 114 um (x), 39.0 um (y), 49.9 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	441 nm	456 nm	223 nm
max	534 nm	552 nm	223 nm
Z	1.59 um	1.6 um	885 nm
Asymmetry	0.825		
Theta	70.4°		

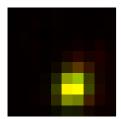
## XY profile & fitting parameters :

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





Fitted 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 = 1345.072 (brightness)

B = 127.812 (background)

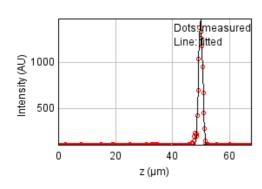
a = 0.666 px

b = 0.070 px

c = 0.495 px

xc = 5.554 pxyc = 6.849 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 122399.366

Standard deviation: 19.96735

R^2: 0.98752 Parameters: a = 112.19064b = 1469.51526c = 49.89535

Date: Mon Oct 17 13:29:41 PDT 2022

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

Frame size: 10 pixels

Coordinates: -29.3 um (x), 19.4 um (y), 49.8 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	384 nm	397 nm	223 nm
max	560 nm	579 nm	223 nm
Z	1.12 um	1.12 um	885 nm
Asymmetry	0.685		
Theta	80.3°		

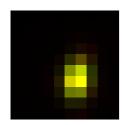
## XY profile & fitting parameters :

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





Fitted 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 = 2051.379 (brightness)

B = 129.950 (background)

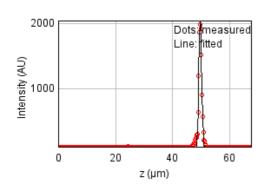
a = 0.896 px

b = 0.080 px

c = 0.441 px

xc = 5.644 pxyc = 5.783 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 132746.292

Standard deviation: 20.79419

R^2: 0.99054 Parameters: a = 116.28102b = 2047.54422c = 49.77691

Date: Mon Oct 17 13:29:41 PDT 2022

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

Frame size: 10 pixels

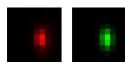
Coordinates: -28.4 um (x), -52.9 um (y), 49.5 um (z)

Corresponding bead: Not found

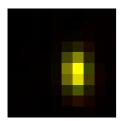
FWHM	Non corrected	Corrected	Theoretical
min	363 nm	375 nm	223 nm
max	579 nm	598 nm	223 nm
Z	1.11 um	1.11 um	885 nm
Asymmetry	0.627		
Theta	-88.2°		

#### XY profile & fitting parameters :

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



Fitted 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 = 1910.836 (brightness)

B = 127.860 (background)

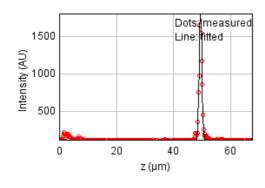
a = 1.019 px

b = -0.019 px

c = 0.401 px

xc = 5.854 pxyc = 5.296 px

#### Z profile & fitting parameters:



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

Sum of residuals squared: 223933.692

Standard deviation: 27.00788

R^2: 0.97901 Parameters: a = 121.86963 b = 1804.23374 c = 49.52446

Date: Mon Oct 17 13:29:41 PDT 2022

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

Frame size: 10 pixels

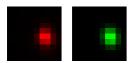
Coordinates: -24.3 um (x), -53.3 um (y), 49.6 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	440 nm	455 nm	223 nm
max	519 nm	536 nm	223 nm
Z	1.35 um	1.36 um	885 nm
Asymmetry	0.848		
Theta	-74.3°		

#### XY profile & fitting parameters :

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



Fitted on 
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.991$$



A = 2173.475 (brightness)

B = 128.655 (background)

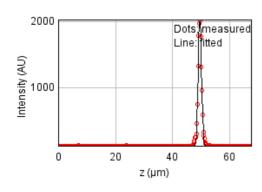
a = 0.680 px

b = -0.051 px

c = 0.513 px

xc = 6.532 pxyc = 5.170 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 84183.2485

Standard deviation: 16.55936

R^2: 0.99502 Parameters: a = 116.13672 b = 2054.08479 c = 49.63202

Date: Mon Oct 17 13:29:41 PDT 2022

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

Frame size: 10 pixels

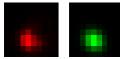
Coordinates: 35.4 um (x), -59.1 um (y), 52.4 um (z)

Corresponding bead: Not found

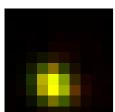
FWHM	Non corrected	Corrected	Theoretical
min	524 nm	542 nm	223 nm
max	605 nm	625 nm	223 nm
Z	1.48 um	1.49 um	885 nm
Asymmetry	0.867		
Theta	-46.8°		

#### XY profile & fitting parameters :

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



Fitted 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 = 1651.510 (brightness)

B = 129.656 (background)

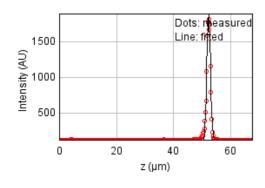
a = 0.431 px

b = -0.060 px

c = 0.423 px

xc = 4.008 pxyc = 6.513 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 192371.414

Standard deviation: 25.03232

R^2: 0.98775 Parameters: a = 114.67770 b = 1893.09955 c = 52.37672

Date: Mon Oct 17 13:29:41 PDT 2022

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

Frame size: 10 pixels

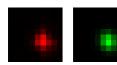
Coordinates: 3.07 um (x), -81.3 um (y), 49.7 um (z)

Corresponding bead: Not found

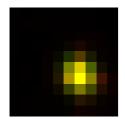
FWHM	Non corrected	Corrected	Theoretical
min	464 nm	480 nm	223 nm
max	534 nm	552 nm	223 nm
Z	1.4 um	1.41 um	885 nm
Asymmetry	0.87		
Theta	-70.7°		

#### XY profile & fitting parameters :

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



Fitted 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 = 1466.462 (brightness)

B = 124.346 (background)

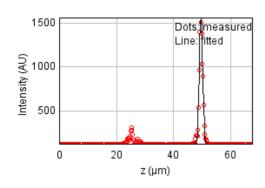
a = 0.606 px

b = -0.047 px

c = 0.488 px

xc = 5.934 pxyc = 5.727 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 474436.356

Standard deviation: 39.31152

R^2: 0.95301 Parameters: a = 119.87528 b = 1559.87769

c = 49.67741

Date: Mon Oct 17 13:29:41 PDT 2022

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

Frame size: 10 pixels

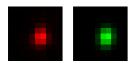
Coordinates: -72.5 um (x), -83.0 um (y), 49.5 um (z)

Corresponding bead: Not found

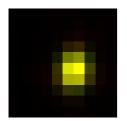
FWHM	Non corrected	Corrected	Theoretical
min	430 nm	445 nm	223 nm
max	546 nm	565 nm	223 nm
Z	1.24 um	1.24 um	885 nm
Asymmetry	0.787		
Theta	82.3°		

#### XY profile & fitting parameters :

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



Fitted 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 = 1645.678 (brightness)

B = 127.267 (background)

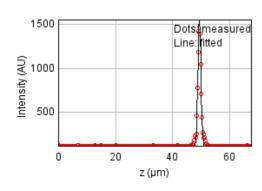
a = 0.720 px

b = 0.037 px

c = 0.455 px

xc = 5.572 pxyc = 5.155 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 70085.2124

Standard deviation: 15.10929

R^2: 0.99179 Parameters: a = 115.89787 b = 1550.70619 c = 49.47726

Date: Mon Oct 17 13:29:41 PDT 2022

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

Frame size: 10 pixels

Coordinates: -55.0 um (x), -86.0 um (y), 49.7 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	423 nm	437 nm	223 nm
max	507 nm	524 nm	223 nm
Z	1.25 um	1.25 um	885 nm
Asymmetry	0.834		
Theta	87.0°		

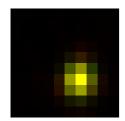
#### XY profile & fitting parameters :

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





Fitted 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 = 1965.648 (brightness)

B = 129.730 (background)

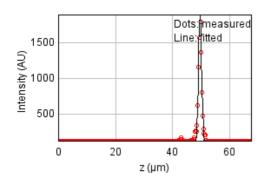
a = 0.749 px

b = 0.012 px

c = 0.522 px

xc = 5.834 pxyc = 6.057 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 271487.778

Standard deviation: 29.73760

R^2: 0.97974 Parameters: a = 115.99652 b = 1894.53033 c = 49.70834

Date: Mon Oct 17 13:29:41 PDT 2022

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

Frame size: 10 pixels

Coordinates: -40.4 um (x), 63.6 um (y), 50.1 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	385 nm	398 nm	223 nm
max	551 nm	569 nm	223 nm
Z	1.08 um	1.08 um	885 nm
Asymmetry	0.699		
Theta	-89.0°		

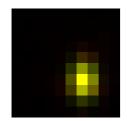
## XY profile & fitting parameters :

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





Fitted 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:

 $A = 1624.110 \quad (brightness)$ 

B = 127.391 (background)

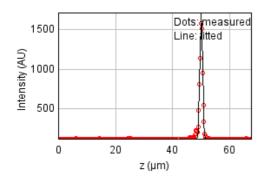
a = 0.907 px

b = -0.008 px

c = 0.443 px

xc = 6.139 pxyc = 6.099 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 88175.0994

Standard deviation: 16.94743

R^2: 0.99058 Parameters: a = 115.62762 b = 1720.21709

c = 50.10808d = 0.45797

Date: Mon Oct 17 13:29:41 PDT 2022

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

Frame size: 10 pixels

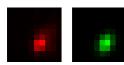
Coordinates: 130 um (x), 57.0 um (y), 49.7 um (z)

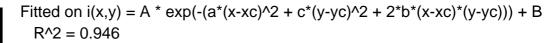
Corresponding bead: Not found

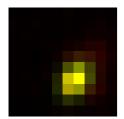
FWHM	Non corrected	Corrected	Theoretical
min	399 nm	412 nm	223 nm
max	554 nm	573 nm	223 nm
Z	1.87 um	1.87 um	885 nm
Asymmetry	0.719		
Theta	59.7°		

## XY profile & fitting parameters :

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







Parameters:

A = 778.745 (brightness)

B = 121.715 (background)

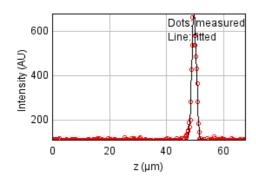
a = 0.741 px

b = 0.178 px

c = 0.541 px

xc = 5.661 pxyc = 6.107 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 37199.9159

Standard deviation: 11.00783

R^2: 0.98153 Parameters: a = 111.59563 b = 680.10664 c = 49.69695

Date: Mon Oct 17 13:29:42 PDT 2022

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

Frame size: 10 pixels

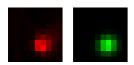
Coordinates: 159 um (x), 42.4 um (y), 49.8 um (z)

Corresponding bead: Not found

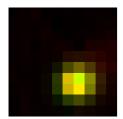
FWHM	Non corrected	Corrected	Theoretical
min	506 nm	523 nm	223 nm
max	542 nm	561 nm	223 nm
Z	1.51 um	1.52 um	885 nm
Asymmetry	0.932		
Theta	15.4°		

## XY profile & fitting parameters :

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



Fitted 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 = 520.014 (brightness)

B = 116.529 (background)

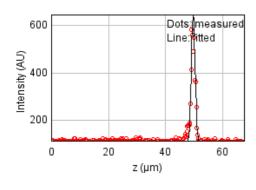
a = 0.461 px

b = 0.018 px

c = 0.520 px

xc = 5.813 pxyc = 6.411 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 101268.617

Standard deviation: 18.16219

R^2: 0.93397 Parameters:

a = 111.14272

b = 646.64836

c = 49.76675

# Bead 2262 (Rejected)

Date: Mon Oct 17 13:29:42 PDT 2022

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

Frame size: 10 pixels

Coordinates: 47.5 um (x), 41.6 um (y), 51.1 um (z)

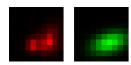
Corresponding bead: Not found

Reason of rejection: R or C parameter off limits.

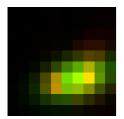
FWHM	Non corrected	Corrected	Theoretical
min	591 nm	611 nm	223 nm
max	1.09 um	1.12 um	223 nm
Z	1.37 um	1.37 um	885 nm
Asymmetry	0.544		
Theta	17.6°		

## XY profile & fitting parameters :

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



Fitted on 
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.845$$



A = 998.663 (brightness)

B = 118.338 (background)

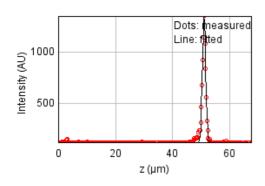
a = 0.139 px

b = 0.078 px

c = 0.360 px

xc = 5.989 pxyc = 6.075 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 75179.4109

Standard deviation: 15.64877

R^2: 0.98932 Parameters:

a = 117.54663

b = 1357.11029

c = 51.10158

Date: Mon Oct 17 13:29:42 PDT 2022

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

Frame size: 10 pixels

Coordinates: 127 um (x), 20.0 um (y), 49.7 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	417 nm	431 nm	223 nm
max	542 nm	560 nm	223 nm
Z	1.51 um	1.52 um	885 nm
Asymmetry	0.769		
Theta	72.3°		

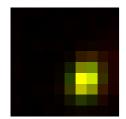
## XY profile & fitting parameters :

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





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



Parameters:

A = 872.475 (brightness)

B = 125.489 (background)

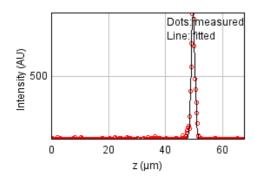
a = 0.744 px

b = 0.092 px

c = 0.486 px

xc = 6.421 pxyc = 6.130 px

# Z profile & fitting parameters:



Fitted on  $y = a + (b-a)^* \exp(-(x-c)^2/(2^*d^2))$ Sum of residuals squared: 46375.5294

•

Standard deviation: 12.29066

R^2: 0.98507 Parameters: a = 112.22382 b = 894.77202 c = 49.71794

Date: Mon Oct 17 13:29:42 PDT 2022

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

Frame size: 10 pixels

Coordinates: 75.9 um (x), 16.2 um (y), 50.4 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	414 nm	428 nm	223 nm
max	543 nm	562 nm	223 nm
Z	1.37 um	1.38 um	885 nm
Asymmetry	0.761		
Theta	79.5°		

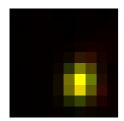
## XY profile & fitting parameters :

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





Fitted 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 = 1310.426 (brightness)

B = 128.954 (background)

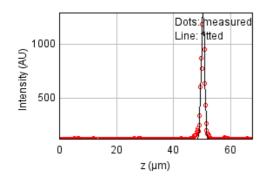
a = 0.773 px

b = 0.059 px

c = 0.465 px

xc = 6.008 pxyc = 6.286 px

# Z profile & fitting parameters:



Fitted on y = a +  $(b-a)*exp(-(x-c)^2/(2*d^2)$ Sum of residuals squared: 160683.633

Standard deviation: 22.87793

R^2: 0.97542 Parameters: a = 114.25362

b = 1297.10597

c = 50.35632

Date: Mon Oct 17 13:29:42 PDT 2022

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

Frame size: 10 pixels

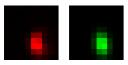
Coordinates: 12.0 um (x), -3.22 um (y), 50.5 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	409 nm	422 nm	223 nm
max	643 nm	665 nm	223 nm
Z	1.05 um	1.06 um	885 nm
Asymmetry	0.636		
Theta	-82.4°		

## XY profile & fitting parameters :

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



Fitted 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 = 2142.134 (brightness)

B = 127.708 (background)

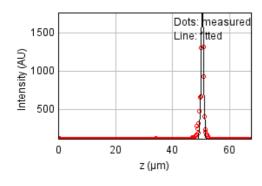
a = 0.795 px

b = -0.063 px

c = 0.333 px

xc = 5.538 pxyc = 6.631 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 289162.923

Standard deviation: 30.69037

R^2: 0.97198 Parameters: a = 118.22483 b = 1808.25884 c = 50.48909

Date: Mon Oct 17 13:29:42 PDT 2022

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

Frame size: 10 pixels

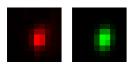
Coordinates: 95.8 um (x), -13.0 um (y), 49.8 um (z)

Corresponding bead: Not found

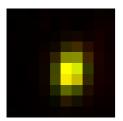
FWHM	Non corrected	Corrected	Theoretical
min	437 nm	451 nm	223 nm
max	627 nm	649 nm	223 nm
Z	1.27 um	1.28 um	885 nm
Asymmetry	0.696		
Theta	80.2°		

#### XY profile & fitting parameters :

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



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



A = 1016.430 (brightness)

B = 128.740 (background)

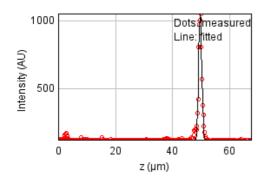
a = 0.694 px

b = 0.061 px

c = 0.351 px

xc = 5.410 pxyc = 5.295 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 77029.9224

Standard deviation: 15.84020

R^2: 0.97976 Parameters: a = 116.90081 b = 1056.01179 c = 49.76154

# Bead 2267 (Rejected)

Date: Mon Oct 17 13:29:42 PDT 2022

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

Frame size: 10 pixels

Coordinates: 21.8 um (x), -29.5 um (y), 61.1 um (z)

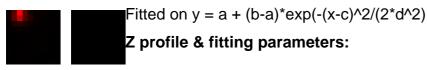
Corresponding bead: Not found

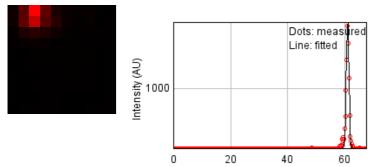
Reason of rejection: R or C parameter off limits.

FWHM	Non corrected	Corrected	Theoretical
min	0	0	223 nm
max	0	0	223 nm
Z	1.11 um	1.12 um	885 nm
Asymmetry	0.0		
Theta	0.0°		

## XY profile & fitting parameters :

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





z (µm)

Fitted on  $y = a + (b-a)^* \exp(-(x-c)^2/(2^*d^2))$ Sum of residuals squared: 129762.908

Standard deviation: 20.55919

R^2: 0.99033 Parameters: a = 115.86281 b = 2007.17456 c = 61.08107

Date: Mon Oct 17 13:29:43 PDT 2022

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

Frame size: 10 pixels

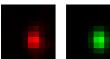
Coordinates: 30.3 um (x), -37.0 um (y), 50.0 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	442 nm	457 nm	223 nm
max	581 nm	600 nm	223 nm
Z	1.19 um	1.2 um	885 nm
Asymmetry	0.762		
Theta	-87.9°		

#### XY profile & fitting parameters :

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





Fitted 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 = 1477.172 (brightness)

B = 128.479 (background)

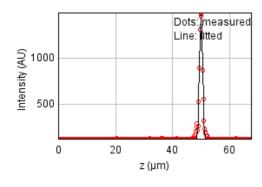
a = 0.686 px

b = -0.011 px

c = 0.399 px

xc = 5.631 pxyc = 6.107 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 86082.6584

Standard deviation: 16.74513

R^2: 0.98923 Parameters: a = 115.49099b = 1527.19110c = 50.04493

Date: Mon Oct 17 13:29:43 PDT 2022

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

Frame size: 10 pixels

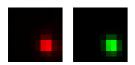
Coordinates: 99.8 um (x), -75.6 um (y), 50.0 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	419 nm	434 nm	223 nm
max	467 nm	483 nm	223 nm
Z	1.2 um	1.21 um	885 nm
Asymmetry	0.898		
Theta	-71.2°		

## XY profile & fitting parameters :

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



Fitted 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 = 1606.272 (brightness)

B = 124.362 (background)

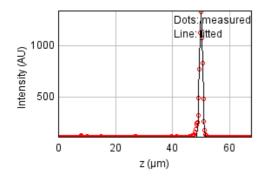
a = 0.747 px

b = -0.045 px

c = 0.630 px

xc = 6.597 pxyc = 6.495 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 60624.7705

Standard deviation: 14.05257

R^2: 0.99029 Parameters: a = 113.28982 b = 1356.57242 c = 50.04119

Date: Mon Oct 17 13:29:43 PDT 2022

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

Frame size: 10 pixels

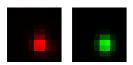
Coordinates: 57.3 um (x), -82.8 um (y), 49.9 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	434 nm	448 nm	223 nm
max	488 nm	504 nm	223 nm
Z	1.15 um	1.15 um	885 nm
Asymmetry	0.889		
Theta	-85.4°		

#### XY profile & fitting parameters :

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



Fitted 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 = 1577.924 (brightness)

B = 127.389 (background)

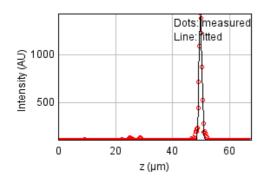
a = 0.713 px

b = -0.012 px

c = 0.565 px

xc = 5.573 pxyc = 6.326 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 73640.0477

Standard deviation: 15.48773

R^2: 0.98916 Parameters: a = 115.62743 b = 1440.54955 c = 49.86733

Date: Mon Oct 17 13:29:43 PDT 2022

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

Frame size: 10 pixels

Coordinates: -112 um (x), 74.6 um (y), 50.1 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	394 nm	407 nm	223 nm
max	478 nm	494 nm	223 nm
Z	1.22 um	1.22 um	885 nm
Asymmetry	0.825		
Theta	-86.5°		

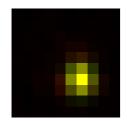
#### XY profile & fitting parameters :

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





Fitted 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 = 1131.628 (brightness)

B = 126.968 (background)

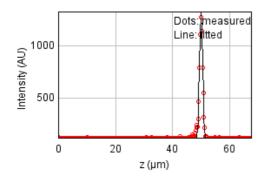
a = 0.864 px

b = -0.017 px

c = 0.589 px

xc = 5.865 pxyc = 5.982 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 53619.7710

Standard deviation: 13.21579

R^2: 0.99143 Parameters: a = 113.40044 b = 1350.49573

c = 50.05655

# Bead 2272 (Rejected)

Date: Mon Oct 17 13:29:43 PDT 2022

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

Frame size: 10 pixels

Coordinates: 77.9 um (x), 73.3 um (y), 48.5 um (z)

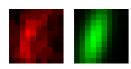
Corresponding bead: Not found

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

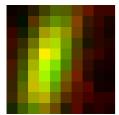
FWHM	Non corrected	Corrected	Theoretical
min	736 nm	761 nm	223 nm
max	1.94 um	2.01 um	223 nm
Z	1.15 um	1.16 um	885 nm
Asymmetry	0.379		
Theta	74.9°		

## XY profile & fitting parameters :

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



Fitted on 
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.772$$



Parameters:

A = 96.791 (brightness)

B = 129.391 (background)

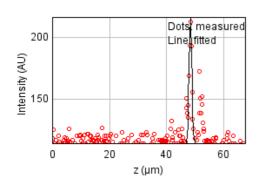
a = 0.233 px

b = 0.053 px

c = 0.050 px

xc = 3.271 pxyc = 4.891 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 22748.8342

Standard deviation: 8.60816

R^2: 0.64297 Parameters:

a = 113.58252

b = 216.88282

c = 48.45236

# Bead 2273 (Rejected)

Date: Mon Oct 17 13:29:43 PDT 2022

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

Frame size: 10 pixels

Coordinates: 77.9 um (x), 73.3 um (y), 48.5 um (z)

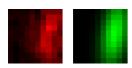
Corresponding bead: Not found

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

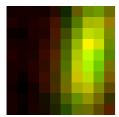
FWHM	Non corrected	Corrected	Theoretical
min	828 nm	856 nm	223 nm
max	2.1 um	2.17 um	223 nm
Z	1.15 um	1.16 um	885 nm
Asymmetry	0.394		
Theta	81.1°		

## XY profile & fitting parameters :

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



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



Parameters:

A = 116.161 (brightness) B = 110.811 (background)

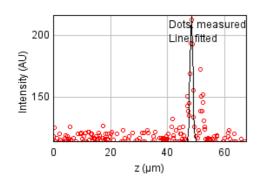
a = 0.192 px

b = 0.025 px

c = 0.034 px

xc = 7.139 pxyc = 3.975 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 22748.8342

Standard deviation: 8.60816

R^2: 0.64297 Parameters:

a = 113.58252

b = 216.88282

c = 48.45236

Date: Mon Oct 17 13:29:44 PDT 2022

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

Frame size: 10 pixels

Coordinates: 59.2 um (x), 71.8 um (y), 50.6 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	425 nm	439 nm	223 nm
max	586 nm	606 nm	223 nm
Z	1.41 um	1.42 um	885 nm
Asymmetry	0.725		
Theta	69.8°		

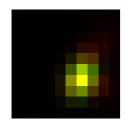
## XY profile & fitting parameters :

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





Fitted on 
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.909$$



Parameters:

A = 1173.388 (brightness)

B = 134.397 (background)

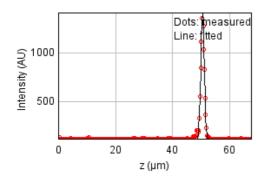
a = 0.702 px

b = 0.115 px

c = 0.433 px

xc = 5.958 pxyc = 5.807 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 42314.5453

Standard deviation: 11.74020

R^2: 0.99463 Parameters: a = 114.41705 b = 1408.34587 c = 50.58399

Date: Mon Oct 17 13:29:44 PDT 2022

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

Frame size: 10 pixels

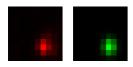
Coordinates: 77.7 um (x), 9.7 um (y), 50.1 um (z)

Corresponding bead: Not found

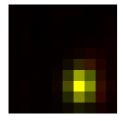
			1
FWHM	Non corrected	Corrected	Theoretical
min	390 nm	403 nm	223 nm
max	496 nm	513 nm	223 nm
Z	1.48 um	1.49 um	885 nm
Asymmetry	0.785		
Theta	88.5°		

## XY profile & fitting parameters :

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



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



A = 881.241 (brightness)

B = 123.493 (background)

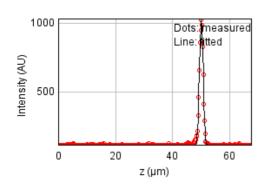
a = 0.884 px

b = 0.009 px

c = 0.545 px

xc = 6.183 pxyc = 6.902 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 22203.4311

Standard deviation: 8.50434

R^2: 0.99466 Parameters:

a = 113.89785

b = 1033.22074

c = 50.13839

Date: Mon Oct 17 13:29:44 PDT 2022

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

Frame size: 10 pixels

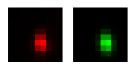
Coordinates: -21.4 um (x), 2.41 um (y), 50.2 um (z)

Corresponding bead: Not found

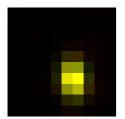
FWHM	Non corrected	Corrected	Theoretical
min	381 nm	394 nm	223 nm
max	553 nm	572 nm	223 nm
Z	1.17 um	1.18 um	885 nm
Asymmetry	0.69		
Theta	-83.8°		

### XY profile & fitting parameters :

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



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



Parameters:

A = 1817.613 (brightness)

B = 126.940 (background)

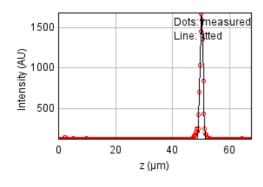
a = 0.916 px

b = -0.052 px

c = 0.444 px

xc = 5.572 pxyc = 6.059 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 93040.9133

Standard deviation: 17.40876

R^2: 0.99058 Parameters:

a = 115.46601

b = 1696.87115

c = 50.21155

Date: Mon Oct 17 13:29:44 PDT 2022

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

Frame size: 10 pixels

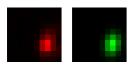
Coordinates: 57.4 um (x), 1.48 um (y), 50.4 um (z)

Corresponding bead: Not found

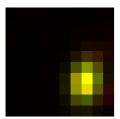
FWHM	Non corrected	Corrected	Theoretical
min	446 nm	461 nm	223 nm
max	634 nm	655 nm	223 nm
Z	1.77 um	1.78 um	885 nm
Asymmetry	0.703		
Theta	78.8°		

## XY profile & fitting parameters :

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



Fitted 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 = 1380.217 (brightness)

B = 127.401 (background)

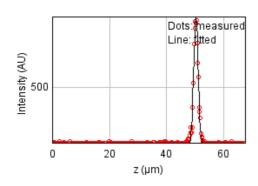
a = 0.662 px

b = 0.065 px

c = 0.347 px

xc = 6.870 pxyc = 6.288 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 69549.9343

Standard deviation: 15.05148

R^2: 0.98478 Parameters:

a = 113.86818

b = 992.49356

c = 50.36519

Date: Mon Oct 17 13:29:45 PDT 2022

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

Frame size: 10 pixels

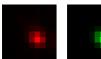
Coordinates: 164 um (x), -62.2 um (y), 49.8 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	400 nm	413 nm	223 nm
max	490 nm	506 nm	223 nm
Z	1.32 um	1.33 um	885 nm
Asymmetry	0.817		
Theta	-43.5°		

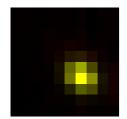
### XY profile & fitting parameters :

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





Fitted 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 = 831.165 (brightness)

B = 117.166 (background)

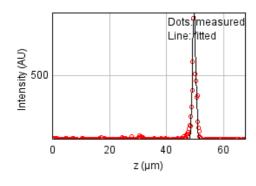
a = 0.692 px

b = -0.140 px

c = 0.707 px

xc = 6.041 pxyc = 5.801 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 126877.032

Standard deviation: 20.32929

R^2: 0.95395 Parameters: a = 112.50763b = 885.90815c = 49.75084

Date: Mon Oct 17 13:29:45 PDT 2022

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

Frame size: 10 pixels

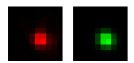
Coordinates: 77.1 um (x), -80.0 um (y), 50.2 um (z)

Corresponding bead: Not found

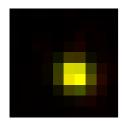
FWHM	Non corrected	Corrected	Theoretical
min	438 nm	453 nm	223 nm
max	478 nm	494 nm	223 nm
Z	1.25 um	1.26 um	885 nm
Asymmetry	0.917		
Theta	-37.5°		

### XY profile & fitting parameters :

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



Fitted 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 = 1523.372 (brightness)

B = 124.527 (background)

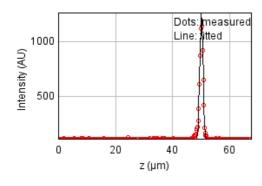
a = 0.629 px

b = -0.054 px

c = 0.657 px

xc = 5.552 pxyc = 5.600 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 50203.1647

Standard deviation: 12.78782

R^2: 0.99097 Parameters: a = 114.80991

b = 1265.87597

c = 50.16971

Date: Mon Oct 17 13:29:45 PDT 2022

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

Frame size: 10 pixels

Coordinates: -49.5 nm (x), -83.6 um (y), 50.2 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	454 nm	469 nm	223 nm
max	506 nm	523 nm	223 nm
Z	1.19 um	1.19 um	885 nm
Asymmetry	0.896		
Theta	-75.5°		

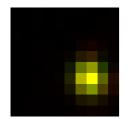
### XY profile & fitting parameters :

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





Fitted 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 = 1924.011 (brightness)

B = 128.197 (background)

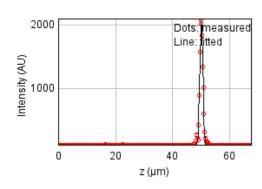
a = 0.644 px

b = -0.031 px

c = 0.531 px

xc = 6.775 pxyc = 5.977 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 170605.975

Standard deviation: 23.57371

R^2: 0.98912 Parameters: a = 115.52975 b = 2095.62348 c = 50.15306

Date: Mon Oct 17 13:29:45 PDT 2022

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

Frame size: 10 pixels

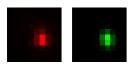
Coordinates: -162 um (x), 89.7 um (y), 50.1 um (z)

Corresponding bead: Not found

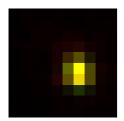
FWHM	Non corrected	Corrected	Theoretical
min	355 nm	367 nm	223 nm
max	448 nm	464 nm	223 nm
Z	1.39 um	1.4 um	885 nm
Asymmetry	0.791		
Theta	-81.7°		

## XY profile & fitting parameters :

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



Fitted 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 = 932.671 (brightness)

B = 119.615 (background)

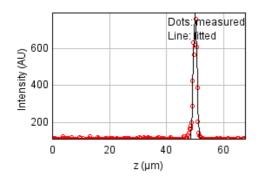
a = 1.058 px

b = -0.057 px

c = 0.676 px

xc = 5.943 pxyc = 5.369 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 108036.355

Standard deviation: 18.75926

R^2: 0.95286 Parameters:

a = 111.18167

b = 799.25155

c = 50.07085

Date: Mon Oct 17 13:29:45 PDT 2022

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

Frame size: 10 pixels

Coordinates: 108 um (x), 79.2 um (y), 50.4 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	402 nm	415 nm	223 nm
max	688 nm	711 nm	223 nm
Z	1.47 um	1.47 um	885 nm
Asymmetry	0.584		
Theta	67.3°		

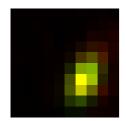
### XY profile & fitting parameters :

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





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



Parameters:

A = 989.749 (brightness)

B = 128.594 (background)

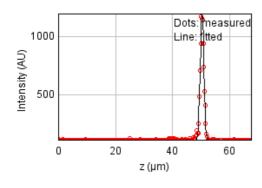
a = 0.751 px

b = 0.195 px

c = 0.365 px

xc = 6.319 pxyc = 5.966 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 39096.4781

Standard deviation: 11.28495

R^2: 0.99322 Parameters:

a = 111.97364

b = 1197.07467

c = 50.40502

Date: Mon Oct 17 13:29:45 PDT 2022

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

Frame size: 10 pixels

Coordinates: 91.0 um (x), 54.2 um (y), 50.6 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	418 nm	432 nm	223 nm
max	660 nm	682 nm	223 nm
Z	1.32 um	1.33 um	885 nm
Asymmetry	0.634		
Theta	69.0°		

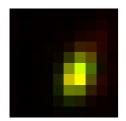
### XY profile & fitting parameters :

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





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



Parameters:

A = 1029.433 (brightness)

B = 131.008 (background)

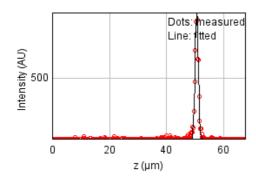
a = 0.709 px

b = 0.154 px

c = 0.368 px

xc = 5.789 pxyc = 5.569 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 47321.0335

Standard deviation: 12.41532

R^2: 0.98338 Parameters: a = 115.13993 b = 913.19508 c = 50.63343

Date: Mon Oct 17 13:29:45 PDT 2022

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

Frame size: 10 pixels

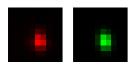
Coordinates: -76.5 um (x), 21.6 um (y), 50.5 um (z)

Corresponding bead: Not found

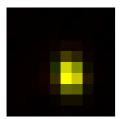
FWHM	Non corrected	Corrected	Theoretical
min	367 nm	379 nm	223 nm
max	502 nm	519 nm	223 nm
Z	1.18 um	1.18 um	885 nm
Asymmetry	0.73		
Theta	-79.7°		

### XY profile & fitting parameters :

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



Fitted 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:

 $A = 1752.371 \quad (brightness)$ 

B = 131.897 (background)

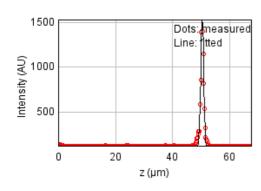
a = 0.984 px

b = -0.082 px

c = 0.548 px

xc = 5.354 pxyc = 5.715 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 108718.873

Standard deviation: 18.81843

R^2: 0.98658 Parameters: a = 116.08010

b = 1544.65545

c = 50.45130

Date: Mon Oct 17 13:29:46 PDT 2022

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

Frame size: 10 pixels

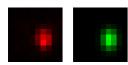
Coordinates: -157 um (x), 8.71 um (y), 50.4 um (z)

Corresponding bead: Not found

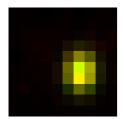
FWHM	Non corrected	Corrected	Theoretical
min	451 nm	467 nm	223 nm
max	594 nm	615 nm	223 nm
Z	1.3 um	1.3 um	885 nm
Asymmetry	0.759		
Theta	89.4°		

## XY profile & fitting parameters :

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



Fitted 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 = 649.858 (brightness)

B = 117.803 (background)

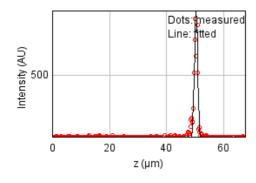
a = 0.659 px

b = 0.003 px

c = 0.380 px

xc = 6.179 pxyc = 5.402 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 210745.961

Standard deviation: 26.20055

R^2: 0.92711 Parameters: a = 111.37528 b = 900.48827 c = 50.39026 d = 0.55015

Date: Mon Oct 17 13:29:46 PDT 2022

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

Frame size: 10 pixels

Coordinates: 11.9 um (x), 3.66 um (y), 50.3 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	381 nm	394 nm	223 nm
max	560 nm	579 nm	223 nm
Z	1.32 um	1.32 um	885 nm
Asymmetry	0.68		
Theta	-88.0°		

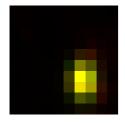
## XY profile & fitting parameters :

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





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



A = 1406.381 (brightness)

B = 125.218 (background)

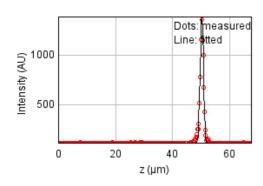
a = 0.924 px

b = -0.017 px

c = 0.429 px

xc = 6.297 pxyc = 6.357 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 68229.7805

Standard deviation: 14.90795

R^2: 0.99055 Parameters: a = 114.61347 b = 1392.84402 c = 50.31549

Date: Mon Oct 17 13:29:46 PDT 2022

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

Frame size: 10 pixels

Coordinates: 57.4 um (x), 1.48 um (y), 50.4 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	441 nm	456 nm	223 nm
max	625 nm	646 nm	223 nm
Z	1.77 um	1.78 um	885 nm
Asymmetry	0.705		
Theta	78.8°		

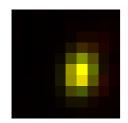
## XY profile & fitting parameters :

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





Fitted 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 = 1382.081 (brightness)

B = 135.066 (background)

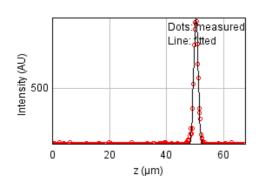
a = 0.677 px

b = 0.066 px

c = 0.357 px

xc = 5.868 pxyc = 5.290 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 69549.9343

Standard deviation: 15.05148

R^2: 0.98478 Parameters: a = 113.86818 b = 992.49356

c = 50.36519

Date: Mon Oct 17 13:29:46 PDT 2022

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

Frame size: 10 pixels

Coordinates: 29.9 um (x), -92.3 um (y), 50.1 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	423 nm	437 nm	223 nm
max	535 nm	553 nm	223 nm
Z	1.31 um	1.31 um	885 nm
Asymmetry	0.79		
Theta	-83.5°		

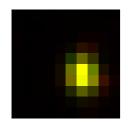
## XY profile & fitting parameters :

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





Fitted 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 = 1754.144 (brightness)

B = 129.048 (background)

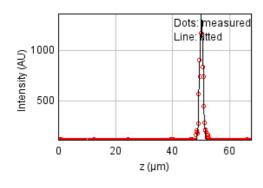
a = 0.748 px

b = -0.032 px

c = 0.472 px

xc = 6.059 pxyc = 5.477 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 376999.897

Standard deviation: 35.04301

R^2: 0.94730 Parameters: a = 115.02999 b = 1363.50559

c = 50.14116

Date: Mon Oct 17 13:29:46 PDT 2022

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

Frame size: 10 pixels

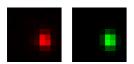
Coordinates: -155 um (x), 34.8 um (y), 50.5 um (z)

Corresponding bead: Not found

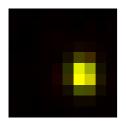
FWHM	Non corrected	Corrected	Theoretical
min	372 nm	385 nm	223 nm
max	473 nm	489 nm	223 nm
Z	1.06 um	1.06 um	885 nm
Asymmetry	0.787		
Theta	-81.6°		

### XY profile & fitting parameters :

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



Fitted 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 = 1350.644 (brightness)

B = 122.733 (background)

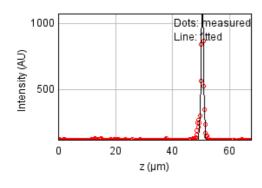
a = 0.961 px

b = -0.053 px

c = 0.608 px

xc = 6.364 pxyc = 5.599 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 80934.0312

Standard deviation: 16.23665

R^2: 0.97697 Parameters: a = 113.90834 b = 1100.22656 c = 50.49009

Date: Mon Oct 17 13:29:46 PDT 2022

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

Frame size: 10 pixels

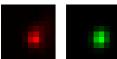
Coordinates: 138 um (x), 31.1 um (y), 50.4 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	431 nm	446 nm	223 nm
max	502 nm	519 nm	223 nm
Z	1.29 um	1.3 um	885 nm
Asymmetry	0.86		
Theta	75.7°		

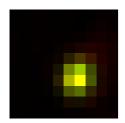
## XY profile & fitting parameters :

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





Fitted 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 = 864.202 (brightness)

B = 126.487 (background)

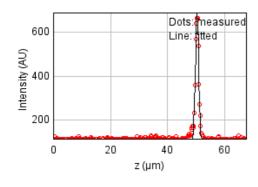
a = 0.710 px

b = 0.045 px

c = 0.545 px

xc = 5.762 pxyc = 5.744 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 29868.9285

Standard deviation: 9.86372

R^2: 0.97949 Parameters: a = 111.91436b = 688.24767

c = 50.38957d = 0.54874

Date: Mon Oct 17 13:29:46 PDT 2022

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

Frame size: 10 pixels

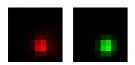
Coordinates: 119 um (x), -9.82 um (y), 50.8 um (z)

Corresponding bead: Not found

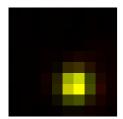
FWHM	Non corrected	Corrected	Theoretical
min	433 nm	447 nm	223 nm
max	454 nm	469 nm	223 nm
Z	1.13 um	1.13 um	885 nm
Asymmetry	0.953		
Theta	82.7°		

## XY profile & fitting parameters :

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



Fitted 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 = 1648.484 (brightness)

B = 131.420 (background)

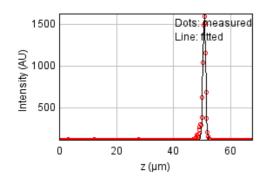
a = 0.716 px

b = 0.008 px

c = 0.653 px

xc = 5.668 pxyc = 6.630 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 110731.685

Standard deviation: 18.99183

R^2: 0.98729 Parameters: a = 114.32563 b = 1625.71417 c = 50.83302

Date: Mon Oct 17 13:29:47 PDT 2022

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

Frame size: 10 pixels

Coordinates: 24.0 um (x), -10.5 um (y), 51.0 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	422 nm	437 nm	223 nm
max	546 nm	565 nm	223 nm
Z	1.18 um	1.18 um	885 nm
Asymmetry	0.773		
Theta	89.5°		

### XY profile & fitting parameters :

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





Fitted 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 = 2026.086 (brightness)

B = 131.736 (background)

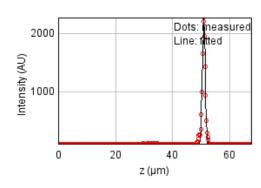
a = 0.752 px

b = 0.003 px

c = 0.449 px

xc = 5.971 pxyc = 6.953 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 118253.620

Standard deviation: 19.62628

R^2: 0.99351 Parameters: a = 118.30843 b = 2264.17826 c = 51.00408

Date: Mon Oct 17 13:29:47 PDT 2022

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

Frame size: 10 pixels

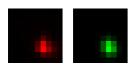
Coordinates: 93.3 um (x), -73.8 um (y), 50.6 um (z)

Corresponding bead: Not found

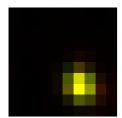
FWHM	Non corrected	Corrected	Theoretical
min	402 nm	416 nm	223 nm
max	476 nm	493 nm	223 nm
Z	1.41 um	1.41 um	885 nm
Asymmetry	0.844		
Theta	-68.1°		

## XY profile & fitting parameters :

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



Fitted 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 = 1434.796 (brightness)

B = 123.437 (background)

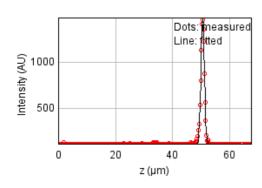
a = 0.797 px

b = -0.083 px

c = 0.624 px

xc = 6.142 pxyc = 6.650 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 50054.5453

Standard deviation: 12.76887

R^2: 0.99430 Parameters: a = 114.92758

b = 1482.15969

c = 50.61460

Date: Mon Oct 17 13:29:47 PDT 2022

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

Frame size: 10 pixels

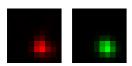
Coordinates: 55.6 um (x), -94.8 um (y), 51.0 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	458 nm	473 nm	223 nm
max	514 nm	531 nm	223 nm
Z	1.34 um	1.35 um	885 nm
Asymmetry	0.891		
Theta	-34.1°		

## XY profile & fitting parameters :

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



Fitted 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 = 2066.881 (brightness)

B = 129.917 (background)

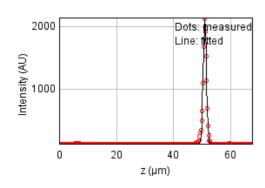
a = 0.550 px

b = -0.061 px

c = 0.599 px

xc = 5.817 pxyc = 6.714 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 106682.468

Standard deviation: 18.64135

R^2: 0.99418 Parameters: a = 115.87202 b = 2139.64536 c = 51.01989

Date: Mon Oct 17 13:29:47 PDT 2022

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

Frame size: 10 pixels

Coordinates: 64.3 um (x), 93.1 um (y), 51.2 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	432 nm	447 nm	223 nm
max	600 nm	620 nm	223 nm
Z	1.5 um	1.51 um	885 nm
Asymmetry	0.72		
Theta	70.1°		

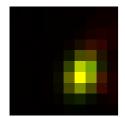
## XY profile & fitting parameters :

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





Fitted on 
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.924$$



Parameters:

A = 1282.802 (brightness)

B = 134.411 (background)

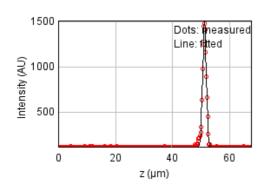
a = 0.679 px

b = 0.111 px

c = 0.413 px

xc = 6.207 pxyc = 5.709 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 54049.9210

Standard deviation: 13.26870

R^2: 0.99444 Parameters: a = 114.11971 b = 1509.51158 c = 51.24729

Date: Mon Oct 17 13:29:47 PDT 2022

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

Frame size: 10 pixels

Coordinates: 136 um (x), 83.4 um (y), 50.9 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	407 nm	421 nm	223 nm
max	549 nm	568 nm	223 nm
Z	1.49 um	1.5 um	885 nm
Asymmetry	0.742		
Theta	60.5°		

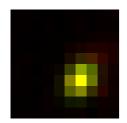
### XY profile & fitting parameters :

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





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



Parameters:

A = 878.475 (brightness)

B = 125.829 (background)

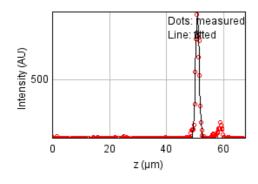
a = 0.721 px

b = 0.156 px

c = 0.533 px

xc = 5.990 pxyc = 5.907 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 153636.175

Standard deviation: 22.37060

R^2: 0.95739 Parameters:

a = 115.48877

b = 951.80383

c = 50.87132

Date: Mon Oct 17 13:29:47 PDT 2022

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

Frame size: 10 pixels

Coordinates: 46.7 um (x), 69.8 um (y), 51.3 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	383 nm	396 nm	223 nm
max	720 nm	744 nm	223 nm
Z	1.37 um	1.38 um	885 nm
Asymmetry	0.532		
Theta	69.1°		

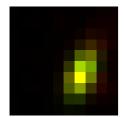
### XY profile & fitting parameters :

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





Fitted 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 = 1081.965 (brightness)

B = 130.503 (background)

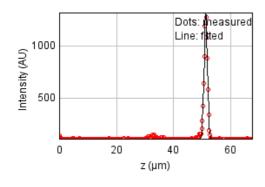
a = 0.832 px

b = 0.219 px

c = 0.342 px

xc = 6.164 pxyc = 5.652 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 46602.6766

Standard deviation: 12.32072

R^2: 0.99298 Parameters: a = 117.09832

b = 1320.65160

c = 51.33485

Date: Mon Oct 17 13:29:48 PDT 2022

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

Frame size: 10 pixels

Coordinates: 86.2 um (x), 63.4 um (y), 50.6 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	444 nm	459 nm	223 nm
max	622 nm	643 nm	223 nm
Z	1.27 um	1.27 um	885 nm
Asymmetry	0.713		
Theta	62.7°		

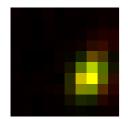
## XY profile & fitting parameters :

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





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



Parameters:

A = 547.755 (brightness)

B = 117.044 (background)

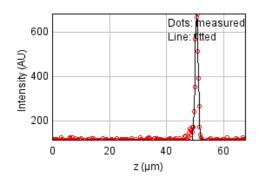
a = 0.611 px

b = 0.137 px

c = 0.417 px

xc = 6.791 pxyc = 5.818 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 32454.4659

Standard deviation: 10.28177

R^2: 0.97680 Parameters: a = 113.04703 b = 682.01590 c = 50.61577

Date: Mon Oct 17 13:29:48 PDT 2022

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

Frame size: 10 pixels

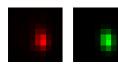
Coordinates: -116 um (x), 52.2 um (y), 50.7 um (z)

Corresponding bead: Not found

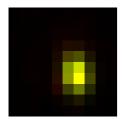
FWHM	Non corrected	Corrected	Theoretical
min	384 nm	397 nm	223 nm
max	559 nm	578 nm	223 nm
Z	1.28 um	1.29 um	885 nm
Asymmetry	0.687		
Theta	-82.5°		

## XY profile & fitting parameters :

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



Fitted 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 = 1254.131 (brightness)

B = 129.034 (background)

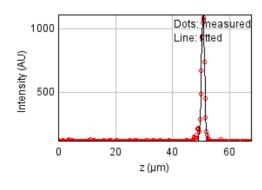
a = 0.901 px

b = -0.062 px

c = 0.438 px

xc = 5.770 pxyc = 5.617 px

## Z profile & fitting parameters:



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

Sum of residuals squared: 60435.2657

Standard deviation: 14.03059

R^2: 0.98623 Parameters: a = 114.13810 b = 1121.99275 c = 50.73521

Date: Mon Oct 17 13:29:48 PDT 2022

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

Frame size: 10 pixels

Coordinates: -161 um (x), 37.3 um (y), 50.7 um (z)

Corresponding bead: Not found

FWHM	Non corrected	Corrected	Theoretical
min	451 nm	467 nm	223 nm
max	666 nm	689 nm	223 nm
Z	1.45 um	1.46 um	885 nm
Asymmetry	0.678		
Theta	-84.5°		

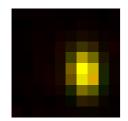
## XY profile & fitting parameters :

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





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



Parameters:

A = 674.618 (brightness)

B = 120.164 (background)

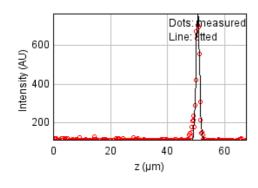
a = 0.655 px

b = -0.034 px

c = 0.306 px

xc = 6.262 pxyc = 5.322 px

# Z profile & fitting parameters:



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

Sum of residuals squared: 94885.7709

Standard deviation: 17.58051

R^2: 0.95552 Parameters: a = 112.69349 b = 764.19930

c = 50.66110