Date: Mon Oct 17 13:53:57 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

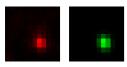
Coordinates: 64.9 um (x), 71.1 um (y), 57.8 um (z)

Corresponding bead: Not found

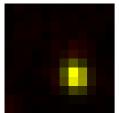
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 396 nm | 413 nm | 270 nm |
| max | 486 nm | 506 nm | 270 nm |
| Z | 1.92 um | 1.93 um | 1.3 um |
| Asymmetry | 0.815 | | |
| Theta | -76.2° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 708.982 (brightness)

B = 133.728 (background)

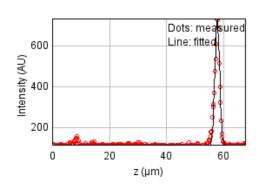
a = 0.838 px

b = -0.066 px

c = 0.584 px

xc = 7.210 pxyc = 7.432 px

Z profile & fitting parameters:



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

Sum of residuals squared: 50682.9190

Standard deviation: 12.84877

R^2: 0.97927 Parameters: a = 115.63871 b = 732.22430 c = 57.79698

Bead 3102 (Rejected)

Date: Mon Oct 17 13:53:58 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: 52.8 um (x), 70.1 um (y), 57.5 um (z)

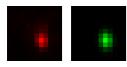
Corresponding bead: Not found

Reason of rejection: R or C parameter off limits.

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 412 nm | 429 nm | 270 nm |
| max | 584 nm | 608 nm | 270 nm |
| Z | 2.16 um | 2.16 um | 1.3 um |
| Asymmetry | 0.706 | | |
| Theta | -83.5° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 748.819 (brightness) B = 130.218 (background)

a = 0.786 px

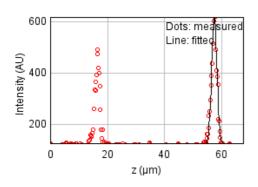
b = -0.045 px

υ – -0.0-13 μλ

c = 0.399 px

xc = 7.115 pxyc = 7.001 px

Z profile & fitting parameters:



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

Sum of residuals squared: 812993.395

Standard deviation: 51.46054

R^2: 0.67552 Parameters:

a = 125.60330

b = 616.50860

c = 57.47933

Bead 3103 (Rejected)

Date: Mon Oct 17 13:53:58 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: 16.8 um (x), 69.9 um (y), 58.0 um (z)

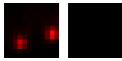
Corresponding bead: Not found

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

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 758 nm | 790 nm | 270 nm |
| max | 2.9 um | 3.02 um | 270 nm |
| Z | 1.89 um | 1.9 um | 1.3 um |
| Asymmetry | 0.262 | | |
| Theta | 0.0° | | |

XY profile & fitting parameters :

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



Fitted on
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.078$$



Parameters:

A = -82.104 (brightness)

B = 229.785 (background)

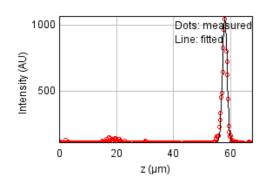
a = 0.168 px

b = -0.110 px

c = 0.049 px

xc = 5.346 pxyc = 5.640 px

Z profile & fitting parameters:



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

Sum of residuals squared: 84214.9249

Standard deviation: 16.56248

R^2: 0.98531 Parameters:

a = 116.99202

b = 1071.12871

c = 57.99491

Date: Mon Oct 17 13:53:58 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

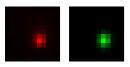
Coordinates: 33.3 um (x), 69.2 um (y), 57.9 um (z)

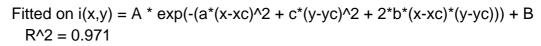
Corresponding bead: Not found

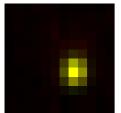
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 398 nm | 415 nm | 270 nm |
| max | 498 nm | 519 nm | 270 nm |
| Z | 1.91 um | 1.92 um | 1.3 um |
| Asymmetry | 0.799 | | |
| Theta | 87.7° | | |

XY profile & fitting parameters :

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







Parameters:

A = 703.626 (brightness)

B = 125.831 (background)

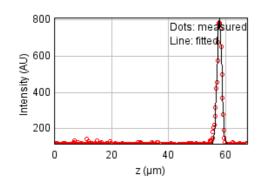
a = 0.845 px

b = 0.012 px

c = 0.541 px

xc = 7.169 pxyc = 6.876 px

Z profile & fitting parameters:



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

Sum of residuals squared: 37313.9365

Standard deviation: 11.02469

R^2: 0.98792 Parameters:

a = 113.71890

b = 811.58739

c = 57.86117

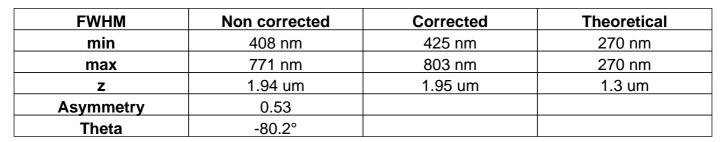
Date: Mon Oct 17 13:53:58 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: 163 um (x), 68.8 um (y), 57.0 um (z)

Corresponding bead: Not found



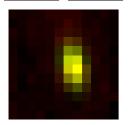
XY profile & fitting parameters :

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





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



Parameters:

A = 270.114 (brightness)

B = 115.740 (background)

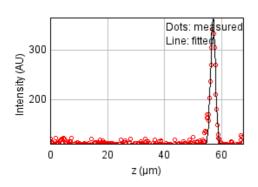
a = 0.788 px

b = -0.097 px

c = 0.243 px

xc = 6.610 pxyc = 5.637 px

Z profile & fitting parameters:



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

Sum of residuals squared: 20118.3155

Standard deviation: 8.09518

R^2: 0.95400 Parameters: a = 109.99860

b = 366.24067

c = 57.03481

Date: Mon Oct 17 13:53:58 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

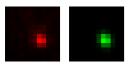
Coordinates: 53.8 um (x), 67.5 um (y), 57.9 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 396 nm | 412 nm | 270 nm |
| max | 490 nm | 510 nm | 270 nm |
| Z | 2.02 um | 2.03 um | 1.3 um |
| Asymmetry | 0.808 | | |
| Theta | -66.2° | | |

XY profile & fitting parameters :

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



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



A = 756.334 (brightness)

B = 126.450 (background)

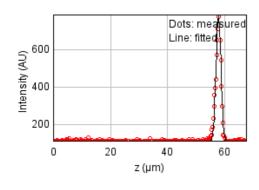
a = 0.808 px

b = -0.110 px

c = 0.608 px

xc = 7.337 pxyc = 6.838 px

Z profile & fitting parameters:



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

Sum of residuals squared: 44164.7237

Standard deviation: 11.99413

R^2: 0.98550 Parameters:

a = 113.88563

b = 787.94662

c = 57.89609

Date: Mon Oct 17 13:53:58 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

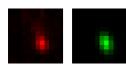
Coordinates: 146 um (x), 61.5 um (y), 57.3 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 410 nm | 427 nm | 270 nm |
| max | 642 nm | 669 nm | 270 nm |
| Z | 1.86 um | 1.87 um | 1.3 um |
| Asymmetry | 0.638 | | |
| Theta | -74.3° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 391.740 (brightness)

B = 118.563 (background)

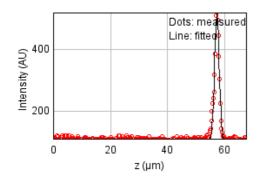
a = 0.765 px

b = -0.123 px

c = 0.360 px

xc = 6.842 pxyc = 7.039 px

Z profile & fitting parameters:



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

Sum of residuals squared: 23789.6701

Standard deviation: 8.80288

R^2: 0.97736 Parameters: a = 111.26487 b = 521.42896

c = 57.33432

Bead 3108 (Rejected)

Date: Mon Oct 17 13:53:59 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: 105 um (x), 60.8 um (y), 57.6 um (z)

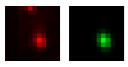
Corresponding bead: Not found

Reason of rejection: R or C parameter off limits.

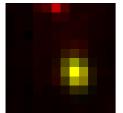
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 408 nm | 425 nm | 270 nm |
| max | 548 nm | 571 nm | 270 nm |
| Z | 1.95 um | 1.96 um | 1.3 um |
| Asymmetry | 0.745 | | |
| Theta | -71.8° | | |

XY profile & fitting parameters :

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



Fitted on
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.751$$



A = 524.050 (brightness)

B = 131.027 (background)

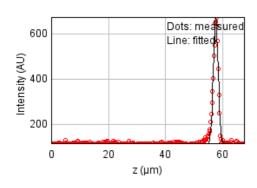
a = 0.771 px

b = -0.106 px

c = 0.482 px

xc = 7.159 pxyc = 7.075 px

Z profile & fitting parameters:



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

Sum of residuals squared: 36687.7186

Standard deviation: 10.93179

R^2: 0.98201 Parameters:

a = 113.24229

b = 673.60199

c = 57.64893

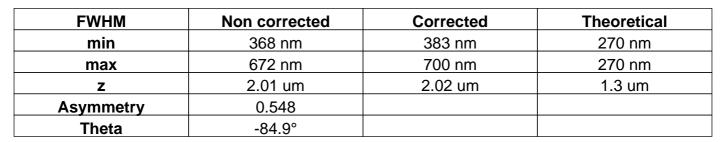
Date: Mon Oct 17 13:53:59 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

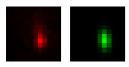
Coordinates: 128 um (x), 59.8 um (y), 57.4 um (z)

Corresponding bead: Not found

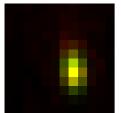


XY profile & fitting parameters :

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



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



Parameters:

A = 459.848 (brightness)

B = 122.056 (background)

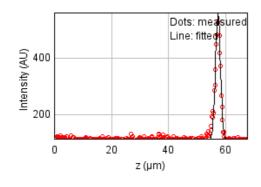
a = 0.986 px

b = -0.061 px

c = 0.303 px

xc = 7.048 pxyc = 6.821 px

Z profile & fitting parameters:



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

Sum of residuals squared: 32502.3993

Standard deviation: 10.28936

R^2: 0.97628 Parameters: a = 112.52226 b = 563.59803

c = 57.36952

Date: Mon Oct 17 13:53:59 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

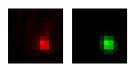
Coordinates: 69.2 um (x), 59.4 um (y), 57.9 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 411 nm | 428 nm | 270 nm |
| max | 504 nm | 525 nm | 270 nm |
| Z | 1.88 um | 1.89 um | 1.3 um |
| Asymmetry | 0.815 | | |
| Theta | -76.0° | | |

XY profile & fitting parameters :

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



Fitted on
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.937$$



A = 606.125 (brightness)

B = 129.953 (background)

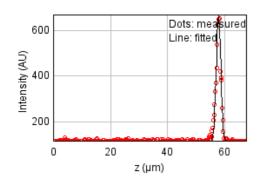
a = 0.779 px

b = -0.063 px

c = 0.543 px

xc = 7.364 pxyc = 7.299 px

Z profile & fitting parameters:



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

Sum of residuals squared: 61474.9062

Standard deviation: 14.15076

R^2: 0.96863 Parameters: a = 114.15126

b = 669.40207

c = 57.90145

Bead 3111 (Rejected)

Date: Mon Oct 17 13:53:59 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: 61.9 um (x), 59.0 um (y), 57.1 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 | 401 nm | 418 nm | 270 nm |
| max | 703 nm | 732 nm | 270 nm |
| Z | 3.68 um | 3.69 um | 1.3 um |
| Asymmetry | 0.571 | | |
| Theta | -87.0° | | |

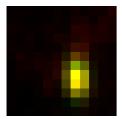
XY profile & fitting parameters :

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





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



xc = 7.224 px

yc = 7.326 px

Parameters:

A = 500.671 (brightness)

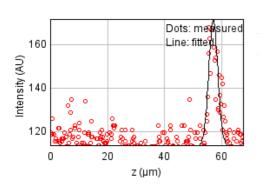
B = 133.454 (background)

a = 0.831 px

b = -0.029 px

c = 0.273 px

Z profile & fitting parameters:



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

Sum of residuals squared: 16856.4261

Standard deviation: 7.40992

R^2: 0.69685 Parameters:

a = 113.62537

b = 171.53882

c = 57.12581

Date: Mon Oct 17 13:53:59 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

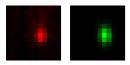
Coordinates: 116 um (x), 56.9 um (y), 57.6 um (z)

Corresponding bead: Not found

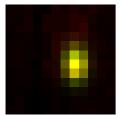
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 412 nm | 429 nm | 270 nm |
| max | 640 nm | 667 nm | 270 nm |
| Z | 1.94 um | 1.95 um | 1.3 um |
| Asymmetry | 0.643 | | |
| Theta | -88.5° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 375.902 (brightness)

B = 120.725 (background)

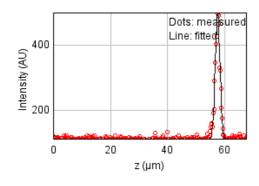
a = 0.792 px

b = -0.013 px

c = 0.328 px

xc = 7.152 pxyc = 5.974 px

Z profile & fitting parameters:



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

Sum of residuals squared: 19963.3218

Standard deviation: 8.06394

R^2: 0.97969 Parameters:

a = 111.15278

b = 500.14870

c = 57.59406

Date: Mon Oct 17 13:54:00 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

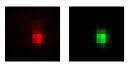
Coordinates: 74.9 um (x), 55.5 um (y), 58.0 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 378 nm | 394 nm | 270 nm |
| max | 499 nm | 519 nm | 270 nm |
| Z | 1.99 um | 2.0 um | 1.3 um |
| Asymmetry | 0.758 | | |
| Theta | -83.6° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 701.560 (brightness)

B = 127.785 (background)

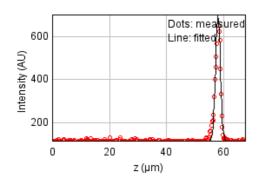
a = 0.934 px

b = -0.044 px

c = 0.544 px

xc = 6.646 pxyc = 6.298 px

Z profile & fitting parameters:



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

Sum of residuals squared: 41391.6046

Standard deviation: 11.61146

R^2: 0.98187 Parameters: a = 114.28087 b = 701.18211 c = 58.04255

Date: Mon Oct 17 13:54:00 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

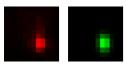
Coordinates: 97.5 um (x), 51.5 um (y), 58.0 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 396 nm | 412 nm | 270 nm |
| max | 571 nm | 595 nm | 270 nm |
| Z | 1.93 um | 1.94 um | 1.3 um |
| Asymmetry | 0.693 | | |
| Theta | -87.4° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 642.737 (brightness)

B = 125.963 (background)

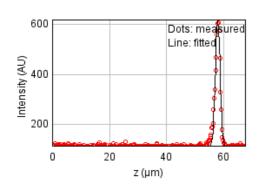
a = 0.856 px

b = -0.020 px

c = 0.412 px

xc = 7.339 pxyc = 7.498 px

Z profile & fitting parameters:



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

Sum of residuals squared: 35665.9191

Standard deviation: 10.77848

R^2: 0.97858 Parameters:

a = 113.64607

b = 621.14026

c = 57.97733

Date: Mon Oct 17 13:54:00 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

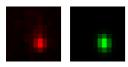
Coordinates: 106 um (x), 50.6 um (y), 57.9 um (z)

Corresponding bead : Not found

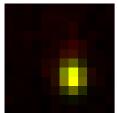
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 405 nm | 422 nm | 270 nm |
| max | 535 nm | 557 nm | 270 nm |
| Z | 2.12 um | 2.13 um | 1.3 um |
| Asymmetry | 0.756 | | |
| Theta | -84.0° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 439.743 (brightness)

B = 121.439 (background)

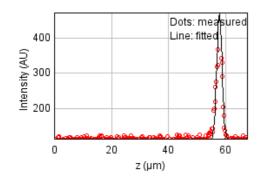
a = 0.815 px

b = -0.037 px

c = 0.472 px

xc = 6.904 pxyc = 7.507 px

Z profile & fitting parameters:



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

Sum of residuals squared: 41390.0996

Standard deviation: 11.61125

R^2: 0.95571 Parameters: a = 112.74457

b = 472.06742

c = 57.86694

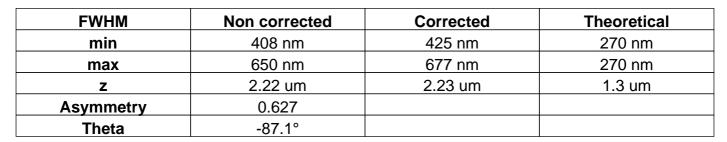
Date: Mon Oct 17 13:54:00 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

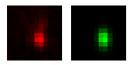
Coordinates: 117 um (x), 47.5 um (y), 57.7 um (z)

Corresponding bead: Not found



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 = 446.282 (brightness)

B = 123.343 (background)

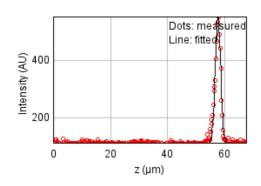
a = 0.805 px

b = -0.024 px

c = 0.318 px

xc = 6.611 pxyc = 6.753 px

Z profile & fitting parameters:



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

Sum of residuals squared: 33097.6213

Standard deviation: 10.38315

R^2: 0.97668 Parameters: a = 112.21688

b = 550.39125

c = 57.70806

Bead 3117 (Rejected)

Date: Mon Oct 17 13:54:00 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: 36.8 um (x), 42.1 um (y), 57.9 um (z)

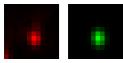
Corresponding bead: Not found

Reason of rejection: R or C parameter off limits.

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 437 nm | 456 nm | 270 nm |
| max | 573 nm | 596 nm | 270 nm |
| Z | 2.58 um | 2.59 um | 1.3 um |
| Asymmetry | 0.764 | | |
| Theta | -87.4° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 996.458 (brightness)

B = 154.211 (background)

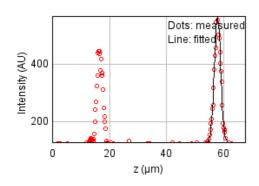
a = 0.701 px

b = -0.013 px

c = 0.410 px

xc = 6.190 pxyc = 6.961 px

Z profile & fitting parameters:



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

Sum of residuals squared: 937344.953

Standard deviation: 55.25614

R^2: 0.63170 Parameters:

a = 128.18586

b = 567.49034

c = 57.90970

Bead 3118 (Rejected)

Date: Mon Oct 17 13:54:00 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: 83.8 um (x), 41.6 um (y), 58.0 um (z)

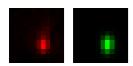
Corresponding bead: Not found

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

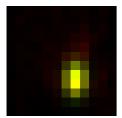
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 393 nm | 409 nm | 270 nm |
| max | 605 nm | 630 nm | 270 nm |
| Z | 3.33 um | 3.34 um | 1.3 um |
| Asymmetry | 0.65 | | |
| Theta | 88.1° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 698.363 (brightness)

B = 133.101 (background)

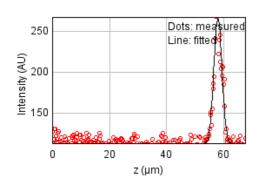
a = 0.869 px

b = 0.017 px

c = 0.368 px

xc = 7.031 pxyc = 7.476 px

Z profile & fitting parameters:



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

Sum of residuals squared: 20582.8698

Standard deviation: 8.18811

R^2: 0.92463 Parameters:

a = 112.17503

b = 266.96229

c = 58.04429

Bead 3119 (Rejected)

Date: Mon Oct 17 13:54:00 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: 154 um (x), 38.3 um (y), 57.7 um (z)

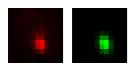
Corresponding bead: Not found

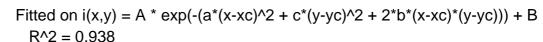
Reason of rejection: The fitted bead is likely to be a different bead from the center bead.

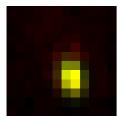
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 399 nm | 415 nm | 270 nm |
| max | 590 nm | 614 nm | 270 nm |
| Z | 3.21 um | 3.23 um | 1.3 um |
| Asymmetry | 0.676 | | |
| Theta | -78.2° | | |

XY profile & fitting parameters :

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







Parameters:

A = 448.314 (brightness) B = 122.572 (background)

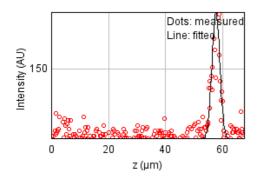
a = 0.826 px

b = -0.092 px

c = 0.405 px

xc = 6.605 pxyc = 7.304 px

Z profile & fitting parameters:



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

Sum of residuals squared: 12564.1581

Standard deviation: 6.39731

R^2: 0.81551 Parameters:

a = 109.12505

b = 182.89864

c = 57.69265

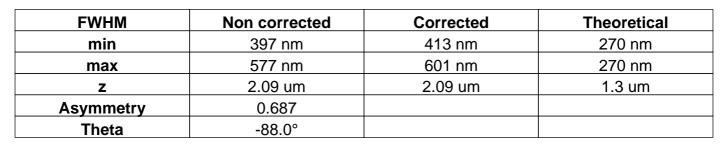
Date: Mon Oct 17 13:54:00 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

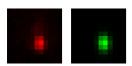
Coordinates: 133 um (x), 38.4 um (y), 57.9 um (z)

Corresponding bead: Not found

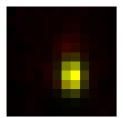


XY profile & fitting parameters :

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



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



Parameters:

A = 500.165 (brightness)

B = 122.444 (background)

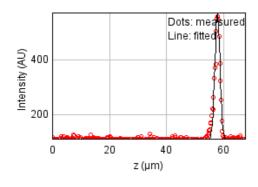
a = 0.852 px

b = -0.016 px

c = 0.403 px

xc = 6.667 pxyc = 7.050 px

Z profile & fitting parameters:



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

Sum of residuals squared: 32510.4335

Standard deviation: 10.29064

R^2: 0.97791 Parameters:

a = 112.24106

b = 572.04452

c = 57.86531

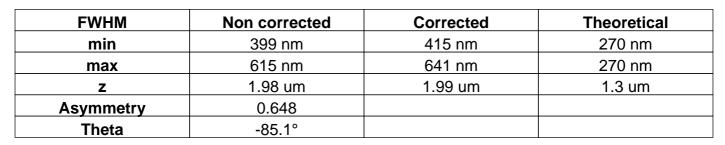
Date: Mon Oct 17 13:54:01 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

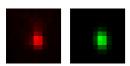
Coordinates: 135 um (x), 35.0 um (y), 57.9 um (z)

Corresponding bead: Not found



XY profile & fitting parameters :

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



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



A = 648.266 (brightness)

B = 125.774 (background)

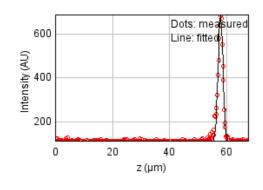
a = 0.840 px

b = -0.042 px

c = 0.358 px

xc = 6.395 pxyc = 6.390 px

Z profile & fitting parameters:



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

Sum of residuals squared: 36950.6579

Standard deviation: 10.97089

R^2: 0.98304 Parameters: a = 111.16209 b = 686.47609

c = 57.90819

Date: Mon Oct 17 13:54:01 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

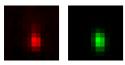
Coordinates: 147 um (x), 28.9 um (y), 57.9 um (z)

Corresponding bead: Not found

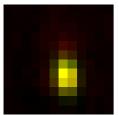
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 391 nm | 408 nm | 270 nm |
| max | 627 nm | 653 nm | 270 nm |
| Z | 2.07 um | 2.08 um | 1.3 um |
| Asymmetry | 0.624 | | |
| Theta | -84.5° | | |

XY profile & fitting parameters :

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



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



A = 534.142 (brightness)

B = 122.497 (background)

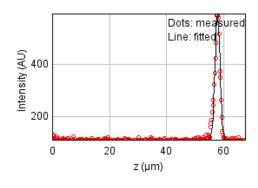
a = 0.871 px

b = -0.051 px

c = 0.347 px

xc = 6.329 pxyc = 7.263 px

Z profile & fitting parameters:



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

Sum of residuals squared: 31359.1156

Standard deviation: 10.10678

R^2: 0.98020 Parameters: a = 110.92988 b = 590.33278

c = 57.88907

Date: Mon Oct 17 13:54:01 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

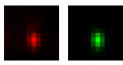
Coordinates: -128 um (x), 22.5 um (y), 57.5 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 397 nm | 414 nm | 270 nm |
| max | 579 nm | 603 nm | 270 nm |
| Z | 1.75 um | 1.76 um | 1.3 um |
| Asymmetry | 0.686 | | |
| Theta | -86.1° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 583.598 (brightness)

B = 127.229 (background)

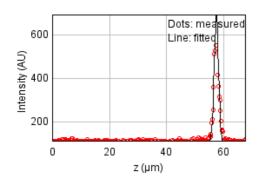
a = 0.849 px

b = -0.031 px

c = 0.403 px

xc = 5.991 pxyc = 7.080 px

Z profile & fitting parameters:



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

Sum of residuals squared: 79968.0214

Standard deviation: 16.13946

R^2: 0.96067 Parameters: a = 113.26893 b = 695.33186

c = 57.50132

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Date: Mon Oct 17 13:54:01 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

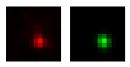
Coordinates: -88.9 um (x), 17.9 um (y), 57.9 um (z)

Corresponding bead : Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 402 nm | 419 nm | 270 nm |
| max | 463 nm | 482 nm | 270 nm |
| Z | 1.83 um | 1.84 um | 1.3 um |
| Asymmetry | 0.869 | | |
| Theta | -71.7° | | |

XY profile & fitting parameters :

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



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



A = 666.435 (brightness)

B = 122.363 (background)

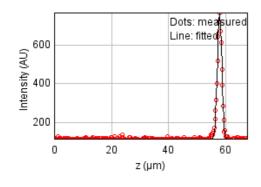
a = 0.809 px

b = -0.061 px

c = 0.647 px

xc = 6.817 pxyc = 7.176 px

Z profile & fitting parameters:



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

Sum of residuals squared: 19077.0027

Standard deviation: 7.88290

R^2: 0.99262 Parameters: a = 113.49502

b = 767.30736

c = 57.92623

Bead 3125 (Rejected)

Date: Mon Oct 17 13:54:01 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: -27.0 um (x), -7.4 um (y), 57.9 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 | 416 nm | 434 nm | 270 nm |
| max | 469 nm | 489 nm | 270 nm |
| Z | 3.44 um | 3.45 um | 1.3 um |
| Asymmetry | 0.887 | | |
| Theta | -78.4° | | |

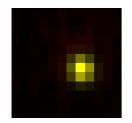
XY profile & fitting parameters :

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





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



Parameters:

A = 601.846 (brightness)

B = 124.884 (background)

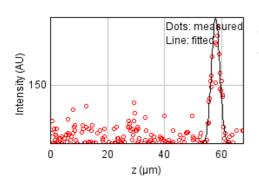
a = 0.768 px

b = -0.033 px

c = 0.616 px

xc = 7.148 pxyc = 6.149 px

Z profile & fitting parameters:



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

Sum of residuals squared: 17881.5281

Standard deviation: 7.63191

R^2: 0.79190 Parameters: a = 113.38638

b = 192.55318

c = 57.94983

Date: Mon Oct 17 13:54:01 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

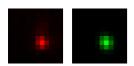
Coordinates: -81.2 um (x), -32.0 um (y), 57.9 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 415 nm | 432 nm | 270 nm |
| max | 481 nm | 501 nm | 270 nm |
| Z | 1.96 um | 1.97 um | 1.3 um |
| Asymmetry | 0.862 | | |
| Theta | -71.0° | | |

XY profile & fitting parameters :

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



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



A = 830.412 (brightness)

B = 128.038 (background)

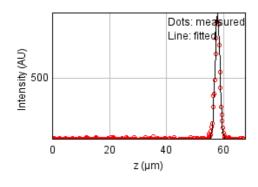
a = 0.758 px

b = -0.062 px

c = 0.600 px

xc = 6.912 pxyc = 6.939 px

Z profile & fitting parameters:



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

Sum of residuals squared: 44199.5960

Standard deviation: 11.99886

R^2: 0.98921 Parameters: a = 113.80870 b = 908.85917 c = 57.88887

Date: Mon Oct 17 13:54:01 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

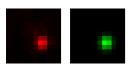
Coordinates: -43.7 um (x), -44.8 um (y), 58.0 um (z)

Corresponding bead: Not found

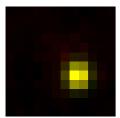
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 422 nm | 439 nm | 270 nm |
| max | 479 nm | 499 nm | 270 nm |
| Z | 2.22 um | 2.23 um | 1.3 um |
| Asymmetry | 0.881 | | |
| Theta | 85.1° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 644.017 (brightness)

B = 125.971 (background)

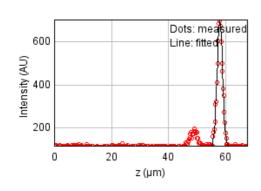
a = 0.753 px

b = 0.014 px

c = 0.586 px

xc = 7.389 pxyc = 7.008 px

Z profile & fitting parameters:



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

Sum of residuals squared: 78614.2645

Standard deviation: 16.00227

R^2: 0.96920 Parameters: a = 116.86856 b = 701.88875 c = 58.01154

Bead 3128 (Rejected)

Date: Mon Oct 17 13:54:01 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: -61.1 um (x), -61.3 um (y), 59.3 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 | 863 nm | 899 nm | 270 nm |
| max | 1.09 um | 1.13 um | 270 nm |
| Z | 1.3 um | 1.31 um | 1.3 um |
| Asymmetry | 0.794 | | |
| Theta | 68.9° | | |

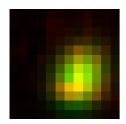
XY profile & fitting parameters :

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





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



Parameters:

A = 209.032 (brightness)

B = 120.144 (background)

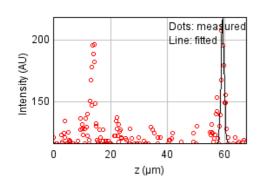
a = 0.172 px

b = 0.022 px

c = 0.122 px

xc = 7.176 pxyc = 6.974 px

Z profile & fitting parameters:



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

Sum of residuals squared: 55580.2675

Standard deviation: 13.45523

R^2: 0.44951 Parameters:

a = 116.49294

b = 218.93721

c = 59.34603

Date: Mon Oct 17 13:54:01 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

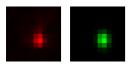
Coordinates: 133 um (x), -77.5 um (y), 57.6 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 404 nm | 421 nm | 270 nm |
| max | 541 nm | 563 nm | 270 nm |
| Z | 2.18 um | 2.19 um | 1.3 um |
| Asymmetry | 0.748 | | |
| Theta | -87.7° | | |

XY profile & fitting parameters :

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



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



A = 556.168 (brightness)

B = 120.257 (background)

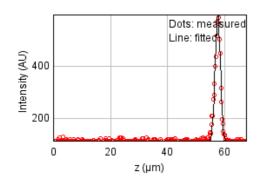
a = 0.820 px

b = -0.015 px

c = 0.460 px

xc = 6.726 pxyc = 6.798 px

Z profile & fitting parameters:



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

Sum of residuals squared: 32791.1614

Standard deviation: 10.33497

R^2: 0.98100 Parameters: a = 110.99214 b = 599.68993 c = 57.64574

Date: Mon Oct 17 13:54:01 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

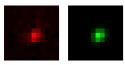
Coordinates: 147 um (x), -89.9 um (y), 57.2 um (z)

Corresponding bead: Not found

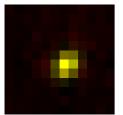
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 384 nm | 400 nm | 270 nm |
| max | 480 nm | 499 nm | 270 nm |
| Z | 2.16 um | 2.17 um | 1.3 um |
| Asymmetry | 0.8 | | |
| Theta | 54.8° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 289.628 (brightness)

B = 113.870 (background)

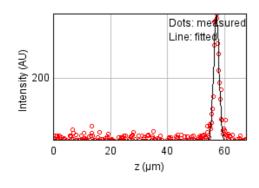
a = 0.802 px

b = 0.155 px

c = 0.693 px

xc = 6.265 pxyc = 6.077 px

Z profile & fitting parameters:



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

Sum of residuals squared: 19074.7851

Standard deviation: 7.88244

R^2: 0.92551 Parameters: a = 110.57051 b = 294.19511 c = 57.15642

Date: Mon Oct 17 13:54:01 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

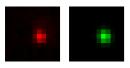
Coordinates: -75.4 um (x), -90.8 um (y), 57.9 um (z)

Corresponding bead: Not found

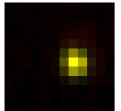
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 420 nm | 438 nm | 270 nm |
| max | 481 nm | 501 nm | 270 nm |
| Z | 2.05 um | 2.06 um | 1.3 um |
| Asymmetry | 0.874 | | |
| Theta | -75.3° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 601.269 (brightness)

B = 122.255 (background)

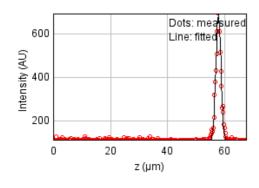
a = 0.749 px

b = -0.044 px

c = 0.592 px

xc = 7.236 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: 28216.9950

Standard deviation: 9.58708

R^2: 0.98750 Parameters: a = 113.56314 b = 690.02850

J = 000.0200

c = 57.86598

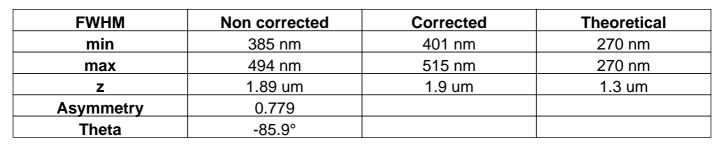
Date: Mon Oct 17 13:54:01 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

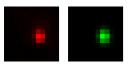
Coordinates: -46.8 um (x), 94.7 um (y), 57.9 um (z)

Corresponding bead: Not found

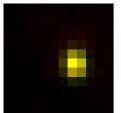


XY profile & fitting parameters :

(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 = 850.067 (brightness)

B = 122.870 (background)

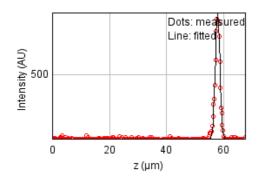
a = 0.904 px

b = -0.025 px

c = 0.551 px

xc = 7.323 pxyc = 6.060 px

Z profile & fitting parameters:



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

Sum of residuals squared: 29496.9836

Standard deviation: 9.80211

R^2: 0.99184 Parameters: a = 113.29815 b = 872.99968 c = 57.93198

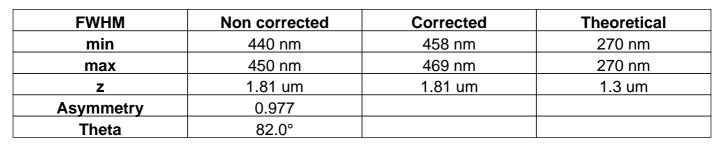
Date: Mon Oct 17 13:54:01 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

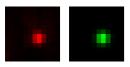
Coordinates: -32.6 um (x), 92.9 um (y), 58.0 um (z)

Corresponding bead: Not found

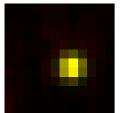


XY profile & fitting parameters :

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



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



A = 702.790 (brightness)

B = 129.017 (background)

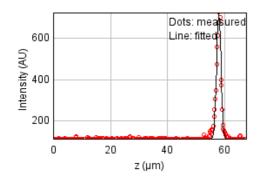
a = 0.693 px

b = 0.004 px

c = 0.663 px

xc = 6.830 pxyc = 6.429 px

Z profile & fitting parameters:



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

Sum of residuals squared: 60945.1193

Standard deviation: 14.08965

R^2: 0.97335 Parameters: a = 113.88658 b = 726.64360

c = 57.98889

Date: Mon Oct 17 13:54:01 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

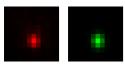
Coordinates: -27.5 um (x), 87.9 um (y), 57.9 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 401 nm | 417 nm | 270 nm |
| max | 495 nm | 515 nm | 270 nm |
| Z | 1.83 um | 1.84 um | 1.3 um |
| Asymmetry | 0.811 | | |
| Theta | -86.1° | | |

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 = 869.014 (brightness)

B = 126.764 (background)

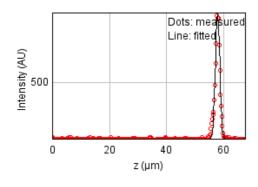
a = 0.834 px

b = -0.019 px

c = 0.550 px

xc = 6.045 pxyc = 7.038 px

Z profile & fitting parameters:



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

Sum of residuals squared: 51309.2042

Standard deviation: 12.92791

R^2: 0.98862 Parameters: a = 113.45319 b = 975.06848

c = 57.92503

Bead 3135 (Rejected)

Date: Mon Oct 17 13:54:01 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: -33.7 um (x), 78.7 um (y), 56.6 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 | 586 nm | 610 nm | 270 nm |
| max | 956 nm | 996 nm | 270 nm |
| Z | 2.25 um | 2.26 um | 1.3 um |
| Asymmetry | 0.613 | | |
| Theta | -80.2° | | |

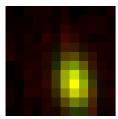
XY profile & fitting parameters :

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





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



Parameters:

A = 208.608 (brightness)

B = 125.882 (background)

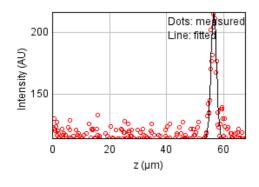
a = 0.384 px

b = -0.041 px

c = 0.154 px

xc = 6.986 pxyc = 7.855 px

Z profile & fitting parameters:



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

Sum of residuals squared: 19369.4265

Standard deviation: 7.94308

R^2: 0.79458 Parameters:

a = 114.66537

b = 215.95226

c = 56.58421

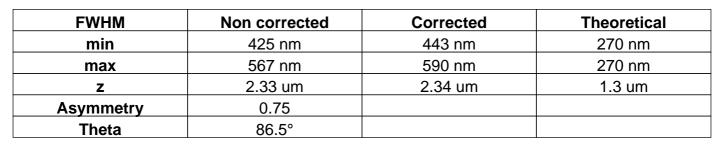
Date: Mon Oct 17 13:54:02 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

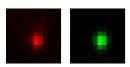
Coordinates: 57.5 um (x), 69.3 um (y), 57.7 um (z)

Corresponding bead: Not found

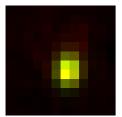


XY profile & fitting parameters :

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



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



A = 582.299 (brightness)

B = 128.024 (background)

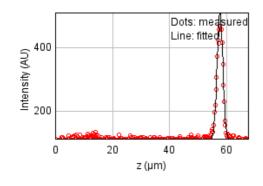
a = 0.740 px

b = 0.020 px

c = 0.419 px

xc = 6.344 pxyc = 6.543 px

Z profile & fitting parameters:



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

Sum of residuals squared: 30162.4547

Standard deviation: 9.91207

R^2: 0.97524 Parameters: a = 113.95413

b = 510.63598

c = 57.71493

Date: Mon Oct 17 13:54:02 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

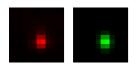
Coordinates: -31.6 um (x), 69.4 um (y), 58.4 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 392 nm | 408 nm | 270 nm |
| max | 494 nm | 514 nm | 270 nm |
| Z | 1.95 um | 1.96 um | 1.3 um |
| Asymmetry | 0.793 | | |
| Theta | -86.9° | | |

XY profile & fitting parameters :

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



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



A = 1054.235 (brightness)

B = 128.669 (background)

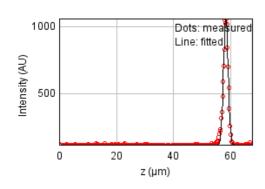
a = 0.874 px

b = -0.018 px

c = 0.552 px

xc = 6.535 pxyc = 6.973 px

Z profile & fitting parameters:



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

Sum of residuals squared: 49328.9985

Standard deviation: 12.67599

R^2: 0.99139 Parameters: a = 114.87353 b = 1058.91624 c = 58.36205

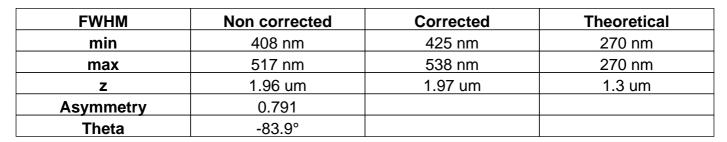
Date: Mon Oct 17 13:54:02 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

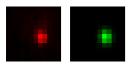
Coordinates: 34.6 um (x), 61.5 um (y), 58.1 um (z)

Corresponding bead: Not found



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 = 655.946 (brightness)

B = 122.685 (background)

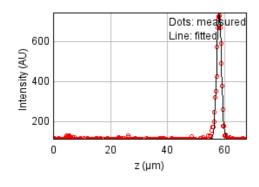
a = 0.801 px

b = -0.032 px

c = 0.506 px

xc = 7.271 pxyc = 6.173 px

Z profile & fitting parameters:



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

Sum of residuals squared: 31463.0404

Standard deviation: 10.12351

R^2: 0.98770 Parameters: a = 114.67991

b = 742.24825

c = 58.08203

Date: Mon Oct 17 13:54:02 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

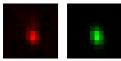
Coordinates: 95.1 um (x), 61.3 um (y), 57.7 um (z)

Corresponding bead: Not found

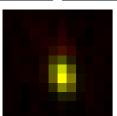
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 388 nm | 404 nm | 270 nm |
| max | 594 nm | 619 nm | 270 nm |
| Z | 2.06 um | 2.07 um | 1.3 um |
| Asymmetry | 0.652 | | |
| Theta | -76.9° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 427.674 (brightness)

B = 120.167 (background)

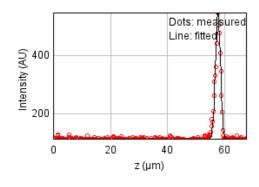
a = 0.866 px

b = -0.113 px

c = 0.406 px

xc = 6.053 pxyc = 6.716 px

Z profile & fitting parameters:



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

Sum of residuals squared: 23229.9324

Standard deviation: 8.69871

R^2: 0.98229 Parameters: a = 112.72076 b = 550.63114 c = 57.71862

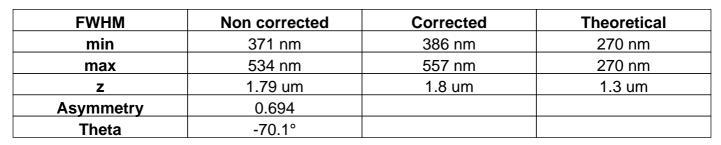
Date: Mon Oct 17 13:54:02 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

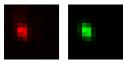
Coordinates: -26.1 um (x), 61.2 um (y), 12.1 um (z)

Corresponding bead: Not found

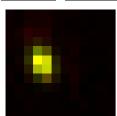


XY profile & fitting parameters :

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



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



A = 551.494 (brightness)

B = 120.378 (background)

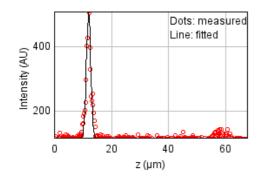
a = 0.916 px

b = -0.161 px

c = 0.528 px

xc = 3.473 pxyc = 5.313 px

Z profile & fitting parameters:



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

Sum of residuals squared: 55506.2052

Standard deviation: 13.44626

R^2: 0.94301 Parameters: a = 115.55834 b = 510.29895

c = 12.06563

Date: Mon Oct 17 13:54:02 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

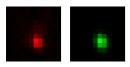
Coordinates: 51.6 um (x), 55.5 um (y), 58.2 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 392 nm | 408 nm | 270 nm |
| max | 515 nm | 537 nm | 270 nm |
| Z | 1.97 um | 1.97 um | 1.3 um |
| Asymmetry | 0.761 | | |
| Theta | -78.1° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 736.856 (brightness)

B = 135.617 (background)

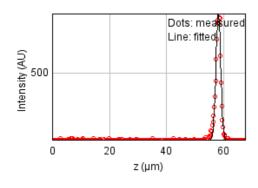
a = 0.857 px

b = -0.074 px

c = 0.521 px

xc = 6.334 pxyc = 7.246 px

Z profile & fitting parameters:



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

Sum of residuals squared: 50319.8050

Standard deviation: 12.80266

R^2: 0.98575 Parameters: a = 114.03155 b = 849.76620 c = 58.18279

Bead 3142 (Rejected)

Date: Mon Oct 17 13:54:02 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: 34.3 um (x), 54.2 um (y), 38.3 um (z)

Corresponding bead: Not found

Reason of rejection: R or C parameter off limits.

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 0 | 0 | 270 nm |
| max | 0 | 0 | 270 nm |
| Z | 3.51 um | 3.53 um | 1.3 um |
| Asymmetry | 0.0 | | |
| Theta | 0.0° | | |

XY profile & fitting parameters :

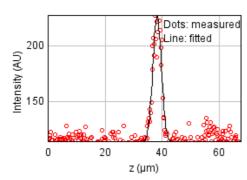
(red: the original data, green: the fit, yellow: the two merged)



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

Z profile & fitting parameters:





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

Sum of residuals squared: 17037.7494

Standard deviation: 7.44967

R^2: 0.89538 Parameters: a = 113.27047 b = 227.98920 c = 38.31217

d = 1.49164

Bead 3143 (Rejected)

Date: Mon Oct 17 13:54:02 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: -16.8 um (x), 51.5 um (y), 57.7 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 | 451 nm | 469 nm | 270 nm |
| max | 675 nm | 703 nm | 270 nm |
| Z | 2.96 um | 2.97 um | 1.3 um |
| Asymmetry | 0.668 | | |
| Theta | -81.1° | | |

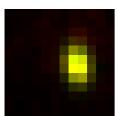
XY profile & fitting parameters :

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





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



Parameters:

A = 523.445 (brightness)

B = 127.672 (background)

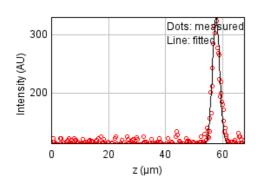
a = 0.652 px

b = -0.056 px

c = 0.304 px

xc = 7.462 pxyc = 5.596 px

Z profile & fitting parameters:



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

Sum of residuals squared: 24457.5167

Standard deviation: 8.92559

R^2: 0.94790 Parameters:

a = 113.76381

b = 330.71587

c = 57.74362

d = 1.25602

Date: Mon Oct 17 13:54:02 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

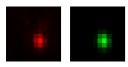
Coordinates: 8.54 um (x), 51.8 um (y), 58.4 um (z)

Corresponding bead: Not found

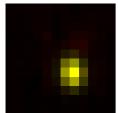
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 399 nm | 416 nm | 270 nm |
| max | 523 nm | 545 nm | 270 nm |
| Z | 1.82 um | 1.82 um | 1.3 um |
| Asymmetry | 0.762 | | |
| Theta | -83.9° | | |

XY profile & fitting parameters :

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



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



A = 987.927 (brightness)

B = 131.640 (background)

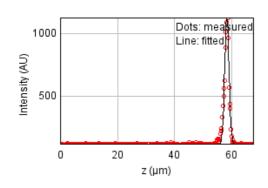
a = 0.838 px

b = -0.037 px

c = 0.494 px

xc = 6.797 pxyc = 7.034 px

Z profile & fitting parameters:



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

Sum of residuals squared: 142374.621

Standard deviation: 21.53511

R^2: 0.97742 Parameters: a = 116.40989 b = 1132.79053

c = 58.36908

Date: Mon Oct 17 13:54:02 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

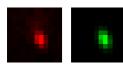
Coordinates: 139 um (x), 48.9 um (y), 57.4 um (z)

Corresponding bead : Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 380 nm | 396 nm | 270 nm |
| max | 617 nm | 643 nm | 270 nm |
| Z | 2.1 um | 2.11 um | 1.3 um |
| Asymmetry | 0.616 | | |
| Theta | -71.1° | | |

XY profile & fitting parameters :

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



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



A = 391.487 (brightness)

B = 120.552 (background)

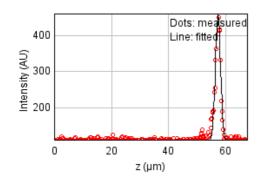
a = 0.869 px

b = -0.177 px

c = 0.413 px

xc = 6.742 pxyc = 6.419 px

Z profile & fitting parameters:



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

Sum of residuals squared: 29822.5403

Standard deviation: 9.85606

R^2: 0.96538 Parameters: a = 111.27158

b = 459.51781

c = 57.36254

Date: Mon Oct 17 13:54:03 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

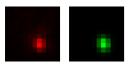
Coordinates: 45.3 um (x), 47.3 um (y), 58.4 um (z)

Corresponding bead: Not found

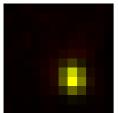
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 395 nm | 411 nm | 270 nm |
| max | 496 nm | 517 nm | 270 nm |
| Z | 1.94 um | 1.95 um | 1.3 um |
| Asymmetry | 0.796 | | |
| Theta | -79.8° | | |

XY profile & fitting parameters :

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



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



A = 803.657 (brightness)

B = 126.196 (background)

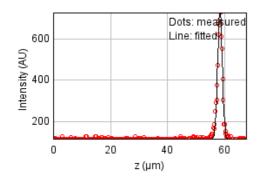
a = 0.850 px

b = -0.055 px

c = 0.555 px

xc = 7.067 pxyc = 7.681 px

Z profile & fitting parameters:



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

Sum of residuals squared: 34233.9896

Standard deviation: 10.55989

R^2: 0.98594 Parameters: a = 114.34619 b = 729.30734

c = 58.41553

Date: Mon Oct 17 13:54:03 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

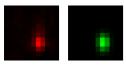
Coordinates: 90.0 um (x), 44.9 um (y), 58.1 um (z)

Corresponding bead: Not found

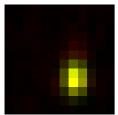
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 396 nm | 413 nm | 270 nm |
| max | 571 nm | 595 nm | 270 nm |
| Z | 1.96 um | 1.97 um | 1.3 um |
| Asymmetry | 0.694 | | |
| Theta | 89.6° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 643.811 (brightness)

B = 129.132 (background)

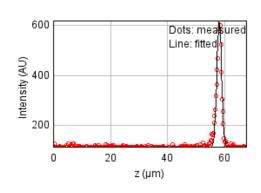
a = 0.855 px

b = 0.003 px

c = 0.412 px

xc = 7.190 pxyc = 7.588 px

Z profile & fitting parameters:



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

Sum of residuals squared: 35205.8627

Standard deviation: 10.70874

R^2: 0.97902 Parameters: a = 112.86883 b = 619.29133 c = 58.13639

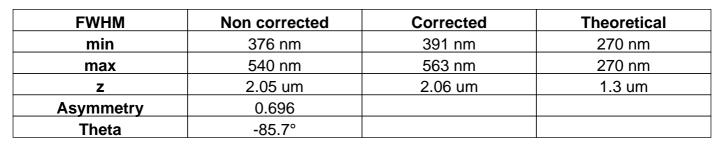
Date: Mon Oct 17 13:54:03 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

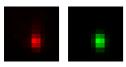
Coordinates: 63.0 um (x), 42.8 um (y), 58.4 um (z)

Corresponding bead: Not found



XY profile & fitting parameters :

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



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



A = 857.507 (brightness)

B = 131.014 (background)

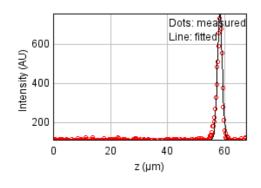
a = 0.947 px

b = -0.036 px

c = 0.463 px

xc = 6.421 pxyc = 7.141 px

Z profile & fitting parameters:



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

Sum of residuals squared: 66554.4467

Standard deviation: 14.72378

R^2: 0.97672 Parameters:

a = 113.44821

b = 758.67357

c = 58.36347

Bead 3149 (Rejected)

Date: Mon Oct 17 13:54:03 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: 138 um (x), 35.9 um (y), 58.0 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 | 444 nm | 463 nm | 270 nm |
| max | 596 nm | 621 nm | 270 nm |
| Z | 2.67 um | 2.68 um | 1.3 um |
| Asymmetry | 0.745 | | |
| Theta | -88.9° | | |

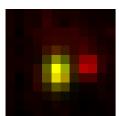
XY profile & fitting parameters :

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





Fitted on
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.606$$



Parameters:

A = 314.599 (brightness)

B = 135.274 (background)

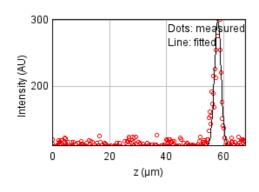
a = 0.680 px

b = -0.006 px

c = 0.378 px

xc = 5.213 pxyc = 6.295 px

Z profile & fitting parameters:



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

Sum of residuals squared: 30769.8741

Standard deviation: 10.01137

R^2: 0.91024 Parameters:

a = 110.59385

b = 301.13097

c = 58.00185

d = 1.13412

Date: Mon Oct 17 13:54:03 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

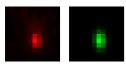
Coordinates: 162 um (x), 34.5 um (y), 57.5 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 383 nm | 398 nm | 270 nm |
| max | 619 nm | 645 nm | 270 nm |
| Z | 2.01 um | 2.01 um | 1.3 um |
| Asymmetry | 0.618 | | |
| Theta | -88.6° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 402.577 (brightness)

B = 118.565 (background)

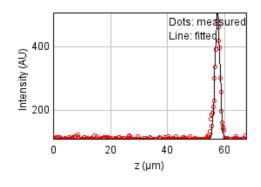
a = 0.917 px

b = -0.014 px

c = 0.351 px

xc = 6.260 pxyc = 6.888 px

Z profile & fitting parameters:



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

Sum of residuals squared: 25097.4242

Standard deviation: 9.04160

R^2: 0.97638 Parameters: a = 110.76493 b = 508.50841 c = 57.54447

Date: Mon Oct 17 13:54:03 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

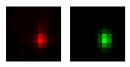
Coordinates: 88.0 um (x), 32.3 um (y), 58.3 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 384 nm | 400 nm | 270 nm |
| max | 568 nm | 591 nm | 270 nm |
| Z | 1.99 um | 2.0 um | 1.3 um |
| Asymmetry | 0.677 | | |
| Theta | -88.5° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 735.667 (brightness)

B = 127.986 (background)

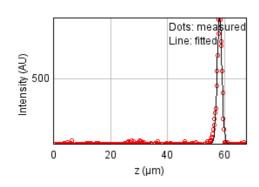
a = 0.909 px

b = -0.013 px

c = 0.417 px

xc = 7.151 pxyc = 6.785 px

Z profile & fitting parameters:



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

Sum of residuals squared: 48843.4833

Standard deviation: 12.61346

R^2: 0.98657 Parameters: a = 114.32003 b = 857.09282

c = 58.25506

- 00.2000

Date: Mon Oct 17 13:54:03 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

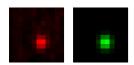
Coordinates: -161 um (x), 28.7 um (y), 54.6 um (z)

Corresponding bead: Not found

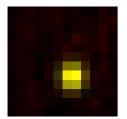
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 427 nm | 445 nm | 270 nm |
| max | 485 nm | 506 nm | 270 nm |
| Z | 1.9 um | 1.9 um | 1.3 um |
| Asymmetry | 0.88 | | |
| Theta | -89.4° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 248.114 (brightness)

B = 115.017 (background)

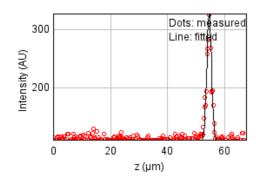
a = 0.735 px

b = -0.002 px

c = 0.569 px

xc = 6.561 pxyc = 7.146 px

Z profile & fitting parameters:



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

Sum of residuals squared: 21980.7860

Standard deviation: 8.46160

R^2: 0.93036 Parameters: a = 111.30327 b = 328.65955

c = 54.64889

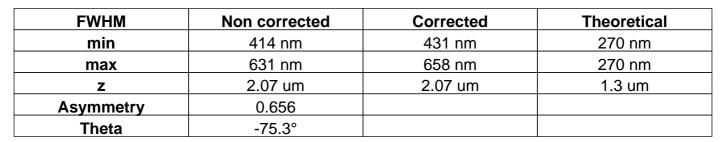
Date: Mon Oct 17 13:54:03 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

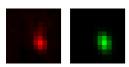
Coordinates: 140 um (x), 23.9 um (y), 57.9 um (z)

Corresponding bead: Not found



XY profile & fitting parameters :

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



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



A = 489.913 (brightness)

B = 127.174 (background)

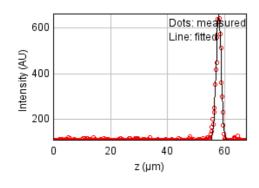
a = 0.754 px

b = -0.109 px

c = 0.365 px

xc = 6.939 pxyc = 6.917 px

Z profile & fitting parameters:



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

Sum of residuals squared: 27032.6669

Standard deviation: 9.38372

R^2: 0.98708 Parameters: a = 110.63210 b = 663.93738

c = 57.94206

Date: Mon Oct 17 13:54:03 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

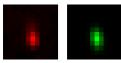
Coordinates: 153 um (x), 23.4 um (y), 57.9 um (z)

Corresponding bead: Not found

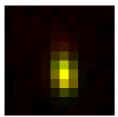
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 388 nm | 404 nm | 270 nm |
| max | 661 nm | 688 nm | 270 nm |
| Z | 2.09 um | 2.1 um | 1.3 um |
| Asymmetry | 0.587 | | |
| Theta | -82.4° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 496.892 (brightness)

B = 120.125 (background)

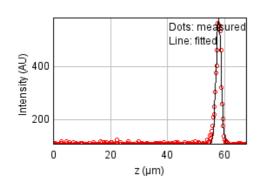
a = 0.881 px

b = -0.076 px

c = 0.317 px

xc = 5.996 pxyc = 6.963 px

Z profile & fitting parameters:



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

Sum of residuals squared: 27920.3428

Standard deviation: 9.53655

R^2: 0.98189 Parameters: a = 110.44583

a = 110.77000

b = 581.78721

c = 57.93815

Bead 3155 (Rejected)

Date: Mon Oct 17 13:54:03 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: 114 um (x), 22.2 um (y), 58.2 um (z)

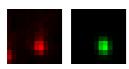
Corresponding bead: Not found

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

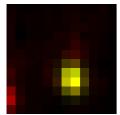
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 398 nm | 415 nm | 270 nm |
| max | 528 nm | 550 nm | 270 nm |
| Z | 3.34 um | 3.35 um | 1.3 um |
| Asymmetry | 0.754 | | |
| Theta | -82.3° | | |

XY profile & fitting parameters :

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



Fitted on
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.775$$



A = 621.974 (brightness)

B = 140.989 (background)

a = 0.841 px

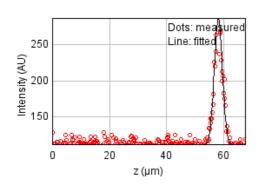
b = -0.049 px

c = 0.488 px

xc = 6.659 px

yc = 7.679 px

Z profile & fitting parameters:



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

Sum of residuals squared: 19063.7386

Standard deviation: 7.88016

R^2: 0.94461 Parameters:

a = 111.59514

b = 287.00833

c = 58.20770

d = 1.41633

Date: Mon Oct 17 13:54:03 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

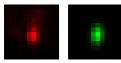
Coordinates: 82.2 um (x), 21.9 um (y), 57.8 um (z)

Corresponding bead: Not found

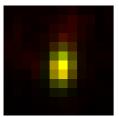
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 418 nm | 436 nm | 270 nm |
| max | 670 nm | 698 nm | 270 nm |
| Z | 3.52 um | 3.54 um | 1.3 um |
| Asymmetry | 0.624 | | |
| Theta | 84.4° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 513.833 (brightness)

B = 128.991 (background)

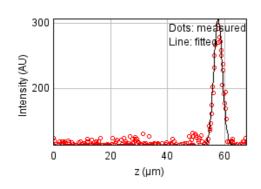
a = 0.762 px

b = 0.046 px

c = 0.303 px

xc = 5.848 pxyc = 6.140 px

Z profile & fitting parameters:



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

Sum of residuals squared: 23015.5196

Standard deviation: 8.65847

R^2: 0.94839 Parameters: a = 112.45455

u = 112.70700

b = 307.55456

c = 57.76346

d = 1.49623

Date: Mon Oct 17 13:54:03 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

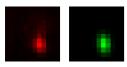
Coordinates: 128 um (x), 18.9 um (y), 58.0 um (z)

Corresponding bead : Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 406 nm | 423 nm | 270 nm |
| max | 629 nm | 655 nm | 270 nm |
| Z | 2.06 um | 2.07 um | 1.3 um |
| Asymmetry | 0.646 | | |
| Theta | -83.1° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 651.904 (brightness)

B = 132.562 (background)

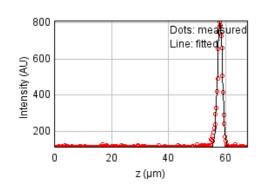
a = 0.808 px

b = -0.056 px

c = 0.346 px

xc = 7.117 pxyc = 7.662 px

Z profile & fitting parameters:



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

Sum of residuals squared: 31100.2104

Standard deviation: 10.06497

R^2: 0.99063 Parameters: a = 111.35648

b = 810.29060

c = 58.04927

Bead 3158 (Rejected)

Date: Mon Oct 17 13:54:03 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: 144 um (x), 14.7 um (y), 56.8 um (z)

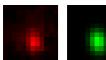
Corresponding bead: Not found

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

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 606 nm | 632 nm | 270 nm |
| max | 808 nm | 842 nm | 270 nm |
| Z | 2.32 um | 2.33 um | 1.3 um |
| Asymmetry | 0.751 | | |
| Theta | -79.9° | | |

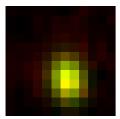
XY profile & fitting parameters :

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





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



Parameters:

A = 247.222 (brightness)

B = 127.613 (background)

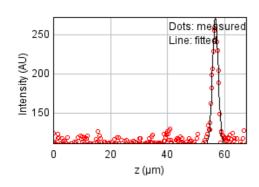
a = 0.360 px

b = -0.028 px

c = 0.210 px

xc = 6.255 pxyc = 7.466 px

Z profile & fitting parameters:



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

Sum of residuals squared: 16253.6143

Standard deviation: 7.27622

R^2: 0.92347 Parameters:

a = 111.24271

b = 272.69189

c = 56.80086

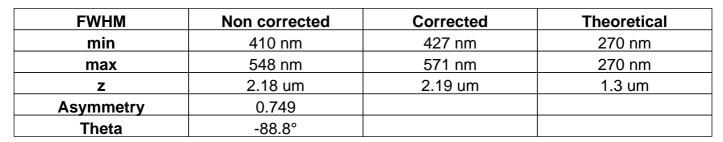
Date: Mon Oct 17 13:54:03 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

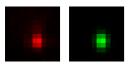
Coordinates: 111 um (x), 14.0 um (y), 58.4 um (z)

Corresponding bead: Not found

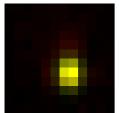


XY profile & fitting parameters :

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



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



A = 672.701 (brightness)

B = 129.089 (background)

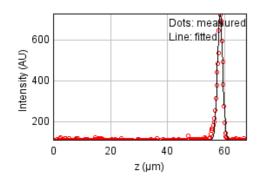
a = 0.796 px

b = -0.007 px

c = 0.447 px

xc = 6.582 pxyc = 7.075 px

Z profile & fitting parameters:



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

Sum of residuals squared: 48047.3124

Standard deviation: 12.51023

R^2: 0.98250 Parameters:

a = 112.35374

b = 728.89431

c = 58.44992

Date: Mon Oct 17 13:54:03 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

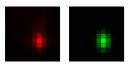
Coordinates: 127 um (x), -1.45 um (y), 58.6 um (z)

Corresponding bead: Not found

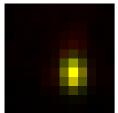
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 401 nm | 417 nm | 270 nm |
| max | 580 nm | 604 nm | 270 nm |
| Z | 2.06 um | 2.07 um | 1.3 um |
| Asymmetry | 0.691 | | |
| Theta | -87.0° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 818.839 (brightness)

B = 130.972 (background)

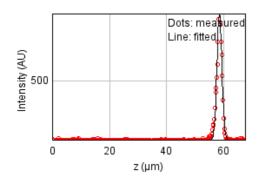
a = 0.834 px

b = -0.023 px

c = 0.400 px

xc = 7.006 pxyc = 7.111 px

Z profile & fitting parameters:



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

Sum of residuals squared: 63150.2793

Standard deviation: 14.34229

R^2: 0.98649 Parameters: a = 111.76373

b = 940.02528

c = 58.58158

Bead 3161 (Rejected)

Date: Mon Oct 17 13:54:03 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: -90.4 um (x), -2.87 um (y), 54.8 um (z)

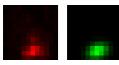
Corresponding bead: Not found

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

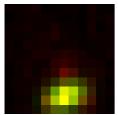
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 499 nm | 520 nm | 270 nm |
| max | 735 nm | 766 nm | 270 nm |
| Z | 3.07 um | 3.08 um | 1.3 um |
| Asymmetry | 0.679 | | |
| Theta | 19.2° | | |

XY profile & fitting parameters :

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



Fitted on
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.894$$



Parameters:

A = 266.891 (brightness)

B = 120.525 (background)

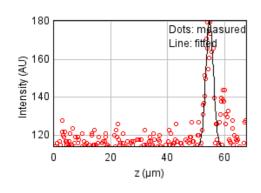
a = 0.280 px

b = 0.091 px

c = 0.508 px

xc = 6.138 pxyc = 9.542 px

Z profile & fitting parameters:



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

Sum of residuals squared: 19464.8360

Standard deviation: 7.96262

R^2: 0.69003 Parameters:

a = 113.95060

b = 180.49730

c = 54.79396

d = 1.30334

Date: Mon Oct 17 13:54:03 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

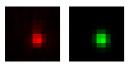
Coordinates: -147 um (x), -17.9 um (y), 58.3 um (z)

Corresponding bead: Not found

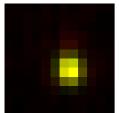
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 439 nm | 457 nm | 270 nm |
| max | 522 nm | 544 nm | 270 nm |
| Z | 2.05 um | 2.06 um | 1.3 um |
| Asymmetry | 0.84 | | |
| Theta | -81.3° | | |

XY profile & fitting parameters :

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



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



A = 631.456 (brightness)

B = 123.694 (background)

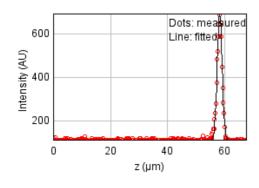
a = 0.693 px

b = -0.031 px

c = 0.497 px

xc = 6.602 pxyc = 6.695 px

Z profile & fitting parameters:



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

Sum of residuals squared: 21447.5393

Standard deviation: 8.35833

R^2: 0.99054 Parameters: a = 111.67297

b = 690.62373

c = 58.31196

Date: Mon Oct 17 13:54:04 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

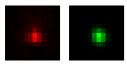
Coordinates: 134 um (x), -47.0 um (y), 58.0 um (z)

Corresponding bead: Not found

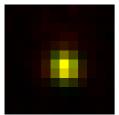
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 462 nm | 482 nm | 270 nm |
| max | 517 nm | 538 nm | 270 nm |
| Z | 2.02 um | 2.03 um | 1.3 um |
| Asymmetry | 0.895 | | |
| Theta | -76.0° | | |

XY profile & fitting parameters :

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



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



A = 608.587 (brightness)

B = 119.650 (background)

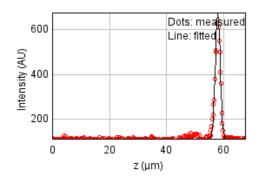
a = 0.620 px

b = -0.029 px

c = 0.510 px

xc = 6.076 pxyc = 6.303 px

Z profile & fitting parameters:



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

Sum of residuals squared: 34344.1435

Standard deviation: 10.57687

R^2: 0.98383 Parameters: a = 112.99243 b = 675.93508

c = 57.98150

Date: Mon Oct 17 13:54:04 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

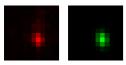
Coordinates: 112 um (x), -48.3 um (y), 57.5 um (z)

Corresponding bead: Not found

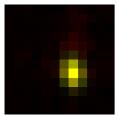
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 363 nm | 378 nm | 270 nm |
| max | 524 nm | 545 nm | 270 nm |
| Z | 2.08 um | 2.09 um | 1.3 um |
| Asymmetry | 0.693 | | |
| Theta | -81.3° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 469.573 (brightness)

B = 120.573 (background)

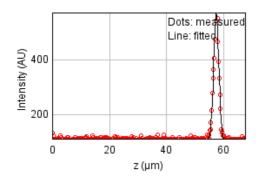
a = 1.007 px

b = -0.079 px

c = 0.502 px

xc = 6.949 pxyc = 6.913 px

Z profile & fitting parameters:



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

Sum of residuals squared: 18459.3137

Standard deviation: 7.75423

R^2: 0.98741 Parameters: a = 111.95119 b = 573.47942

c = 57.46596

Date: Mon Oct 17 13:54:04 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

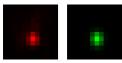
Coordinates: 98.4 um (x), -70.1 um (y), 58.3 um (z)

Corresponding bead: Not found

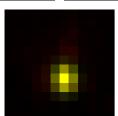
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 405 nm | 422 nm | 270 nm |
| max | 503 nm | 524 nm | 270 nm |
| Z | 2.0 um | 2.01 um | 1.3 um |
| Asymmetry | 0.806 | | |
| Theta | -87.6° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 792.064 (brightness)

B = 125.824 (background)

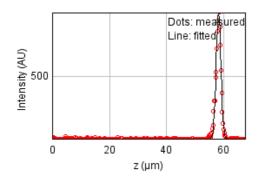
a = 0.816 px

b = -0.012 px

c = 0.531 px

xc = 6.068 pxyc = 7.042 px

Z profile & fitting parameters:



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

Sum of residuals squared: 43867.3895

Standard deviation: 11.95368

R^2: 0.98910 Parameters: a = 112.31615 b = 892.59246 c = 58.25908

Date: Mon Oct 17 13:54:04 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

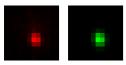
Coordinates: -78.0 um (x), 95.4 um (y), 58.1 um (z)

Corresponding bead: Not found

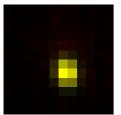
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 374 nm | 389 nm | 270 nm |
| max | 490 nm | 511 nm | 270 nm |
| Z | 2.04 um | 2.05 um | 1.3 um |
| Asymmetry | 0.763 | | |
| Theta | -80.0° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 975.943 (brightness)

B = 121.719 (background)

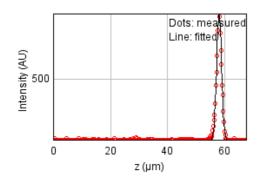
a = 0.948 px

b = -0.068 px

c = 0.571 px

xc = 6.382 pxyc = 6.877 px

Z profile & fitting parameters:



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

Sum of residuals squared: 26211.7638

Standard deviation: 9.24015

R^2: 0.99391 Parameters: a = 113.54020 b = 915.06665 c = 58.09878 d = 0.86610

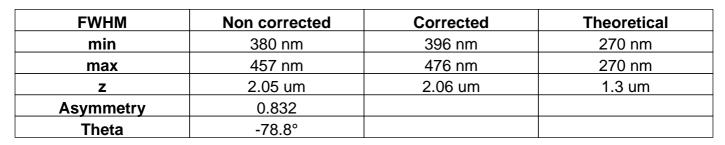
Date: Mon Oct 17 13:54:04 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

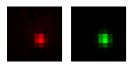
Coordinates: 1.27 um (x), 88.0 um (y), 57.8 um (z)

Corresponding bead: Not found

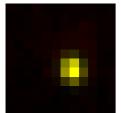


XY profile & fitting parameters :

(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 = 622.749 (brightness)

B = 122.081 (background)

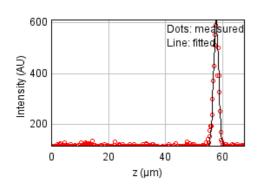
a = 0.918 px

b = -0.054 px

c = 0.653 px

xc = 6.782 pxyc = 6.690 px

Z profile & fitting parameters:



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

Sum of residuals squared: 45715.9454

Standard deviation: 12.20295

R^2: 0.97356 Parameters:

a = 113.78531

b = 615.19914

c = 57.76077

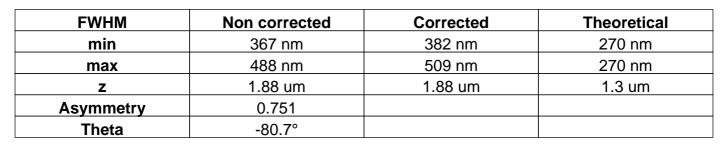
Date: Mon Oct 17 13:54:04 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

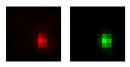
Coordinates: -91.4 um (x), 87.9 um (y), 58.3 um (z)

Corresponding bead: Not found



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 = 824.788 (brightness)

B = 123.484 (background)

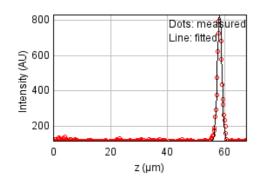
a = 0.987 px

b = -0.070 px

c = 0.574 px

xc = 7.323 pxyc = 7.068 px

Z profile & fitting parameters:



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

Sum of residuals squared: 44148.2668

Standard deviation: 11.99189

R^2: 0.98615 Parameters:

a = 114.82574

b = 829.68079

c = 58.28805

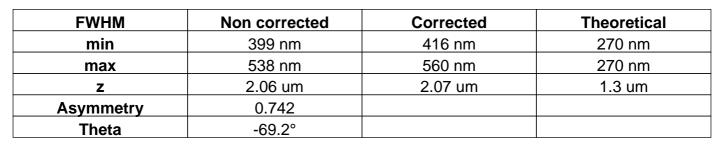
Date: Mon Oct 17 13:54:04 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

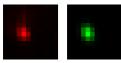
Coordinates: -62.0 um (x), 87.7 um (y), 26.5 um (z)

Corresponding bead: Not found

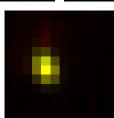


XY profile & fitting parameters :

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



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



A = 665.147 (brightness)

B = 124.633 (background)

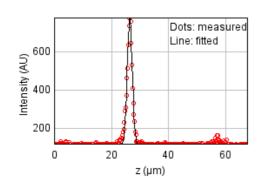
a = 0.794 px

b = -0.126 px

c = 0.512 px

xc = 3.973 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: 51217.7734

Standard deviation: 12.91639

R^2: 0.98313 Parameters: a = 115.92750

b = 782.57134

c = 26.47898

Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: -46.6 um (x), 84.0 um (y), 58.1 um (z)

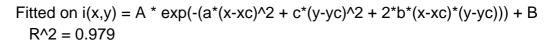
Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 371 nm | 386 nm | 270 nm |
| max | 475 nm | 495 nm | 270 nm |
| Z | 1.96 um | 1.97 um | 1.3 um |
| Asymmetry | 0.781 | | |
| Theta | -81.8° | | |

XY profile & fitting parameters :

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







A = 904.199 (brightness)

B = 120.503 (background)

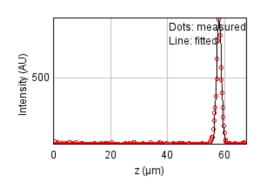
a = 0.967 px

b = -0.053 px

c = 0.603 px

xc = 7.271 pxyc = 6.778 px

Z profile & fitting parameters:



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

Sum of residuals squared: 48038.7757

Standard deviation: 12.50912

R^2: 0.98659 Parameters: a = 113.06862 b = 854.83564 c = 58.07434

Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

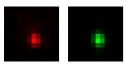
Coordinates: -54.9 um (x), 82.7 um (y), 58.2 um (z)

Corresponding bead: Not found

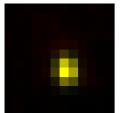
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 373 nm | 389 nm | 270 nm |
| max | 490 nm | 510 nm | 270 nm |
| Z | 1.94 um | 1.95 um | 1.3 um |
| Asymmetry | 0.762 | | |
| Theta | -81.1° | | |

XY profile & fitting parameters :

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



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



A = 929.160 (brightness)

B = 127.603 (background)

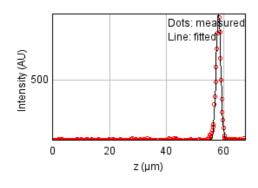
a = 0.954 px

b = -0.062 px

c = 0.569 px

xc = 6.246 pxyc = 6.771 px

Z profile & fitting parameters:



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

Sum of residuals squared: 33688.3096

Standard deviation: 10.47540

R^2: 0.99219 Parameters: a = 113.80798 b = 934.06431 c = 58.22273

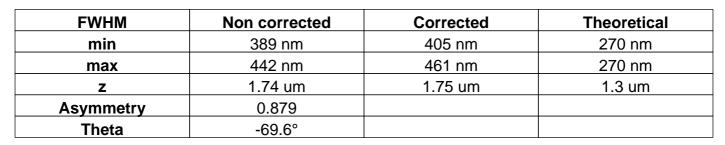
Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

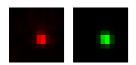
Coordinates: -66.7 um (x), 75.5 um (y), 58.6 um (z)

Corresponding bead: Not found



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 = 1059.750 (brightness)

B = 129.779 (background)

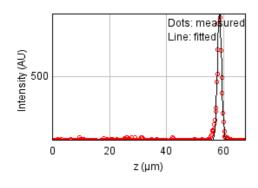
a = 0.863 px

b = -0.066 px

c = 0.711 px

xc = 6.640 pxyc = 6.456 px

Z profile & fitting parameters:



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

Sum of residuals squared: 53735.3560

Standard deviation: 13.23003

R^2: 0.98458 Parameters: a = 114.72305

u = 114.72000

b = 888.89583

c = 58.60031

Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

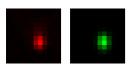
Coordinates: -923 nm (x), 69.2 um (y), 58.1 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 393 nm | 409 nm | 270 nm |
| max | 541 nm | 564 nm | 270 nm |
| Z | 1.97 um | 1.97 um | 1.3 um |
| Asymmetry | 0.725 | | |
| Theta | -89.2° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 668.063 (brightness)

B = 123.573 (background)

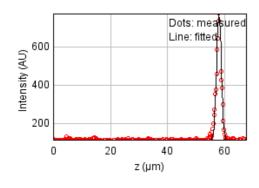
a = 0.870 px

b = -0.006 px

c = 0.458 px

xc = 6.805 pxyc = 6.764 px

Z profile & fitting parameters:



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

Sum of residuals squared: 63481.2679

Standard deviation: 14.37983

R^2: 0.97763 Parameters:

a = 114.25377

b = 770.89358

c = 58.05460

Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

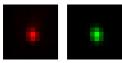
Coordinates: 1.53 um (x), 62.1 um (y), 58.2 um (z)

Corresponding bead: Not found

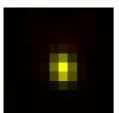
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 387 nm | 403 nm | 270 nm |
| max | 504 nm | 525 nm | 270 nm |
| Z | 1.83 um | 1.84 um | 1.3 um |
| Asymmetry | 0.768 | | |
| Theta | -79.8° | | |

XY profile & fitting parameters :

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



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



A = 958.449 (brightness)

B = 127.508 (background)

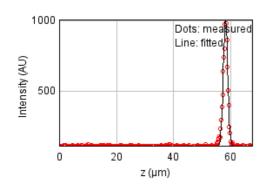
a = 0.884 px

b = -0.064 px

c = 0.539 px

xc = 5.972 pxyc = 6.139 px

Z profile & fitting parameters:



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

Sum of residuals squared: 48266.1680

Standard deviation: 12.53869

R^2: 0.99011 Parameters: a = 114.71124 b = 1011.56623 c = 58.23591

Bead 3175 (Rejected)

Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: -16.0 um (x), 60.6 um (y), 58.1 um (z)

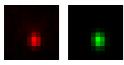
Corresponding bead: Not found

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

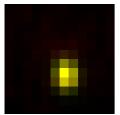
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 399 nm | 416 nm | 270 nm |
| max | 533 nm | 556 nm | 270 nm |
| Z | 5.39 um | 5.41 um | 1.3 um |
| Asymmetry | 0.748 | | |
| Theta | -86.0° | | |

XY profile & fitting parameters :

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



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



A = 846.182 (brightness)

B = 135.436 (background)

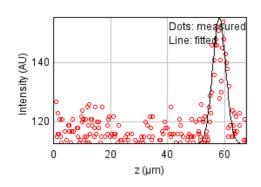
a = 0.841 px

b = -0.026 px

c = 0.473 px

xc = 6.218 pxyc = 7.222 px

Z profile & fitting parameters:



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

Sum of residuals squared: 15718.9699

Standard deviation: 7.15555

R^2: 0.65185 Parameters:

a = 112.62104

b = 155.19327

c = 58.14343

d = 2.28991

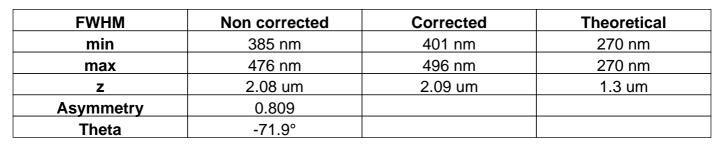
Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

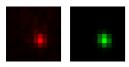
Coordinates: 66.7 um (x), 59.1 um (y), 58.0 um (z)

Corresponding bead: Not found

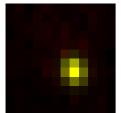


XY profile & fitting parameters :

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



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



A = 460.526 (brightness)

B = 124.687 (background)

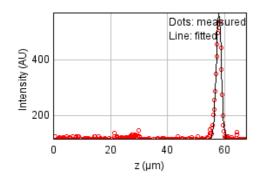
a = 0.874 px

b = -0.092 px

c = 0.622 px

xc = 6.969 pxyc = 6.824 px

Z profile & fitting parameters:



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

Sum of residuals squared: 36516.0010

Standard deviation: 10.90617

R^2: 0.97485 Parameters:

a = 115.48012

b = 572.40765

c = 57.99226

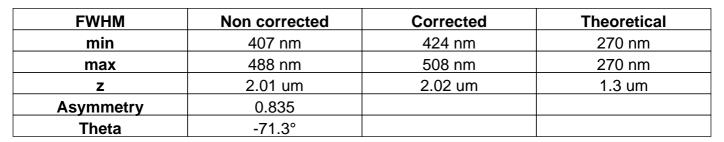
Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

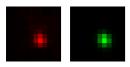
Coordinates: -13.4 um (x), 53.2 um (y), 58.4 um (z)

Corresponding bead: Not found



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 = 984.694 (brightness)

B = 130.175 (background)

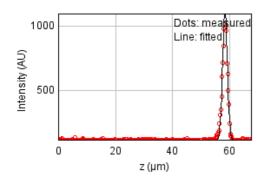
a = 0.784 px

b = -0.075 px

c = 0.590 px

xc = 6.968 pxyc = 6.806 px

Z profile & fitting parameters:



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

Sum of residuals squared: 57002.5239

Standard deviation: 13.62630

R^2: 0.99111 Parameters: a = 114.88864

b = 1097.91304

c = 58.42615

Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

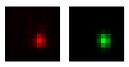
Coordinates: 51.5 um (x), 53.1 um (y), 58.2 um (z)

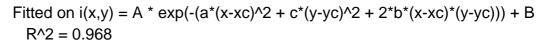
Corresponding bead: Not found

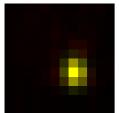
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 377 nm | 393 nm | 270 nm |
| max | 493 nm | 513 nm | 270 nm |
| Z | 1.89 um | 1.9 um | 1.3 um |
| Asymmetry | 0.766 | | |
| Theta | -85.5° | | |

XY profile & fitting parameters :

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







Parameters:

A = 812.370 (brightness)

B = 126.915 (background)

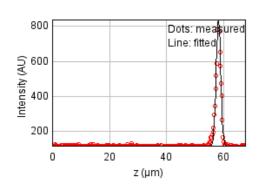
a = 0.939 px

b = -0.030 px

c = 0.555 px

xc = 7.176 pxyc = 7.006 px

Z profile & fitting parameters:



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

Sum of residuals squared: 45656.6695

Standard deviation: 12.19503

R^2: 0.98625 Parameters:

a = 114.27750

b = 840.86547

c = 58.21477

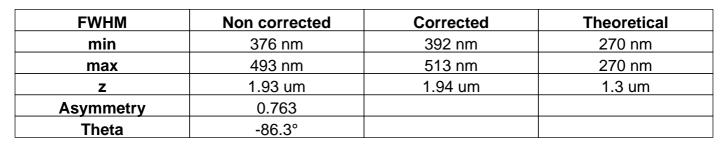
Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

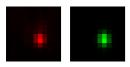
Coordinates: 32.8 um (x), 52.5 um (y), 58.3 um (z)

Corresponding bead: Not found

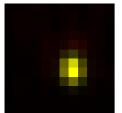


XY profile & fitting parameters :

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



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



A = 959.617 (brightness)

B = 129.580 (background)

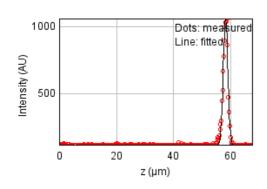
a = 0.947 px

b = -0.026 px

c = 0.554 px

xc = 6.911 pxyc = 6.671 px

Z profile & fitting parameters:



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

Sum of residuals squared: 102248.710

Standard deviation: 18.24987

R^2: 0.98227 Parameters:

a = 114.36680

b = 1061.64877

c = 58.25706

Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

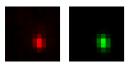
Coordinates: 3.3 um (x), 48.9 um (y), 58.5 um (z)

Corresponding bead: Not found

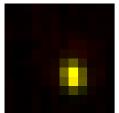
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 366 nm | 381 nm | 270 nm |
| max | 491 nm | 512 nm | 270 nm |
| Z | 1.88 um | 1.89 um | 1.3 um |
| Asymmetry | 0.744 | | |
| Theta | -79.5° | | |

XY profile & fitting parameters :

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



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



A = 685.177 (brightness)

B = 124.303 (background)

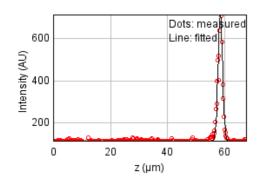
a = 0.990 px

b = -0.080 px

c = 0.571 px

xc = 6.980 pxyc = 7.407 px

Z profile & fitting parameters:



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

Sum of residuals squared: 86303.6969

Standard deviation: 16.76662

R^2: 0.96237 Parameters: a = 113.93810 b = 711.98079 c = 58.54284

Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

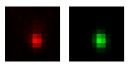
Coordinates: 21.4 um (x), 45.7 um (y), 58.4 um (z)

Corresponding bead: Not found

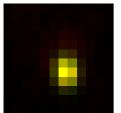
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 399 nm | 416 nm | 270 nm |
| max | 544 nm | 566 nm | 270 nm |
| Z | 2.11 um | 2.11 um | 1.3 um |
| Asymmetry | 0.734 | | |
| Theta | -85.8° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 799.718 (brightness)

B = 126.850 (background)

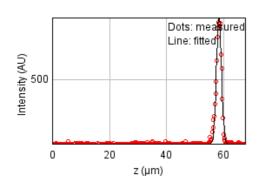
a = 0.840 px

b = -0.028 px

c = 0.456 px

xc = 6.347 pxyc = 6.923 px

Z profile & fitting parameters:



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

Sum of residuals squared: 53757.4421

Standard deviation: 13.23275

R^2: 0.98656 Parameters: a = 114.25190 b = 872.40380

c = 58.40541

Bead 3182 (Rejected)

Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: 11.9 um (x), 45.0 um (y), 33.8 um (z)

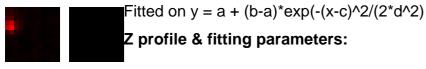
Corresponding bead: Not found

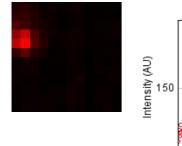
Reason of rejection: R or C parameter off limits.

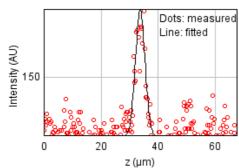
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 0 | 0 | 270 nm |
| max | 0 | 0 | 270 nm |
| Z | 3.92 um | 3.94 um | 1.3 um |
| Asymmetry | 0.0 | | |
| Theta | 0.0° | | |

XY profile & fitting parameters :

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







Fitted on $y = a + (b-a)^* exp(-(x-c)^2/(2^*d^2))$ Sum of residuals squared: 23887.1043

Standard deviation: 8.82089

R^2: 0.75421 Parameters: a = 114.40129 b = 191.78152 c = 33.78340 d = 1.66438

Bead 3183 (Rejected)

Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: 14.9 um (x), 43.2 um (y), 58.6 um (z)

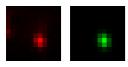
Corresponding bead: Not found

Reason of rejection: R or C parameter off limits.

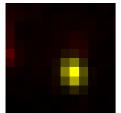
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 376 nm | 391 nm | 270 nm |
| max | 493 nm | 513 nm | 270 nm |
| Z | 1.95 um | 1.96 um | 1.3 um |
| Asymmetry | 0.763 | | |
| Theta | -77.0° | | |

XY profile & fitting parameters :

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



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



A = 717.334 (brightness)

B = 135.771 (background)

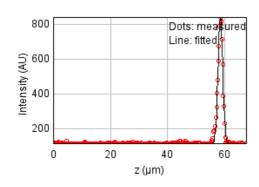
a = 0.930 px

b = -0.087 px

c = 0.573 px

xc = 6.878 pxyc = 7.108 px

Z profile & fitting parameters:



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

Sum of residuals squared: 40973.7785

Standard deviation: 11.55271

R^2: 0.98792 Parameters:

a = 115.19866

b = 839.54035

c = 58.57309

Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

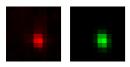
Coordinates: 89.7 um (x), 42.6 um (y), 58.2 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 399 nm | 415 nm | 270 nm |
| max | 540 nm | 562 nm | 270 nm |
| Z | 2.22 um | 2.23 um | 1.3 um |
| Asymmetry | 0.739 | | |
| Theta | -80.2° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 459.420 (brightness)

B = 123.589 (background)

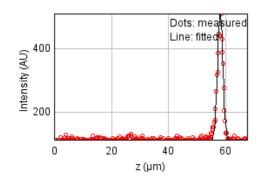
a = 0.833 px

b = -0.064 px

c = 0.472 px

xc = 6.600 pxyc = 6.933 px

Z profile & fitting parameters:



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

Sum of residuals squared: 24745.7835

Standard deviation: 8.97804

R^2: 0.97893 Parameters: a = 113.17058 b = 512.16371

c = 58.15119

Bead 3185 (Rejected)

Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: 84.7 um (x), 40.8 um (y), 58.1 um (z)

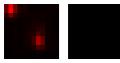
Corresponding bead: Not found

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

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 1.17 um | 1.22 um | 270 nm |
| max | 3.53 um | 3.67 um | 270 nm |
| Z | 2.05 um | 2.06 um | 1.3 um |
| Asymmetry | 0.332 | | |
| Theta | 0.0° | | |

XY profile & fitting parameters :

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



Fitted on $i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.102$



Parameters:

A = -73.649 (brightness)

B = 212.344 (background)

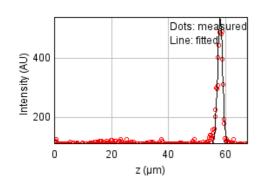
a = 0.042 px

b = 0.054 px

c = 0.045 px

xc = 5.165 pxyc = 3.919 px

Z profile & fitting parameters:



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

Sum of residuals squared: 37545.6440

Standard deviation: 11.05887

R^2: 0.96942 Parameters:

a = 113.86741

b = 535.30278

c = 58.10706

Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

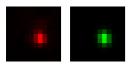
Coordinates: 6.59 um (x), 40.1 um (y), 58.7 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 401 nm | 417 nm | 270 nm |
| max | 492 nm | 513 nm | 270 nm |
| Z | 1.9 um | 1.9 um | 1.3 um |
| Asymmetry | 0.814 | | |
| Theta | -78.2° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 1052.958 (brightness)

B = 129.986 (background)

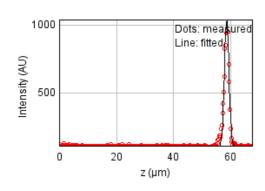
a = 0.823 px

b = -0.056 px

c = 0.566 px

xc = 6.965 pxyc = 6.440 px

Z profile & fitting parameters:



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

Sum of residuals squared: 96986.0127

Standard deviation: 17.77401

R^2: 0.98213 Parameters: a = 114.19782

a = 114.13702

b = 1040.36072

c = 58.67310

Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

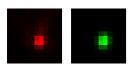
Coordinates: 60.0 um (x), 38.5 um (y), 58.4 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 394 nm | 410 nm | 270 nm |
| max | 502 nm | 523 nm | 270 nm |
| Z | 2.09 um | 2.09 um | 1.3 um |
| Asymmetry | 0.784 | | |
| Theta | 82.6° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 862.736 (brightness)

B = 129.001 (background)

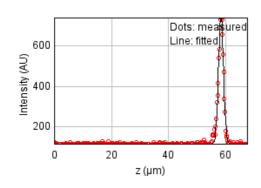
a = 0.860 px

b = 0.042 px

c = 0.537 px

xc = 6.595 pxyc = 6.611 px

Z profile & fitting parameters:



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

Sum of residuals squared: 28782.2013

Standard deviation: 9.68262

R^2: 0.98946 Parameters: a = 113.28888 b = 743.37594 c = 58.41983

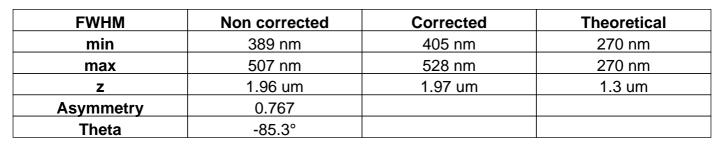
Date: Mon Oct 17 13:54:05 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

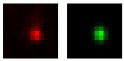
Coordinates: 116 um (x), 37.0 um (y), 58.1 um (z)

Corresponding bead: Not found

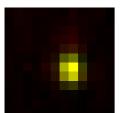


XY profile & fitting parameters :

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



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



Parameters:

A = 464.734 (brightness)

B = 122.787 (background)

a = 0.885 px

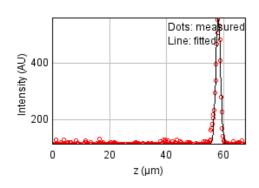
b = -0.030 px

c = 0.525 px

xc = 6.714 px

yc = 6.240 px

Z profile & fitting parameters:



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

Sum of residuals squared: 30620.8538

Standard deviation: 9.98710

R^2: 0.97657 Parameters:

a = 113.47669

b = 559.42525

c = 58.12765

Date: Mon Oct 17 13:54:06 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

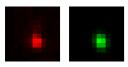
Coordinates: 97.6 um (x), 36.4 um (y), 58.3 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 407 nm | 424 nm | 270 nm |
| max | 521 nm | 542 nm | 270 nm |
| Z | 2.15 um | 2.16 um | 1.3 um |
| Asymmetry | 0.782 | | |
| Theta | -77.2° | | |

XY profile & fitting parameters :

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



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



A = 530.700 (brightness)

B = 125.851 (background)

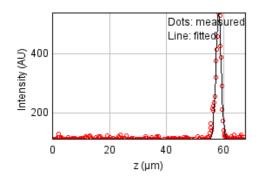
a = 0.793 px

b = -0.068 px

c = 0.510 px

xc = 6.424 pxyc = 7.192 px

Z profile & fitting parameters:



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

Sum of residuals squared: 37303.6243

Standard deviation: 11.02317

R^2: 0.97140 Parameters: a = 112.79930 b = 538.31278

c = 58.25444

Date: Mon Oct 17 13:54:06 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

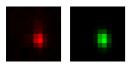
Coordinates: 97.8 um (x), 33.0 um (y), 58.1 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 390 nm | 406 nm | 270 nm |
| max | 566 nm | 589 nm | 270 nm |
| Z | 2.13 um | 2.14 um | 1.3 um |
| Asymmetry | 0.69 | | |
| Theta | -85.2° | | |

XY profile & fitting parameters :

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



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



A = 698.841 (brightness)

B = 126.878 (background)

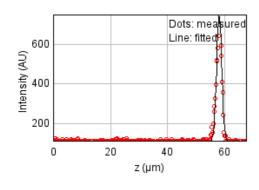
a = 0.878 px

b = -0.038 px

c = 0.422 px

xc = 6.709 pxyc = 6.705 px

Z profile & fitting parameters:



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

Sum of residuals squared: 60071.0229

Standard deviation: 13.98825

R^2: 0.97904 Parameters: a = 113.07640

b = 748.71320

c = 58.13196

Date: Mon Oct 17 13:54:06 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

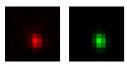
Coordinates: -28.1 um (x), 32.9 um (y), 58.2 um (z)

Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 388 nm | 405 nm | 270 nm |
| max | 515 nm | 537 nm | 270 nm |
| Z | 1.91 um | 1.91 um | 1.3 um |
| Asymmetry | 0.754 | | |
| Theta | -78.4° | | |

XY profile & fitting parameters :

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



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



A = 869.880 (brightness)

B = 127.775 (background)

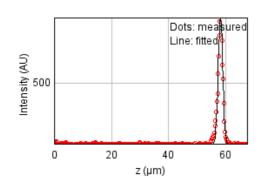
a = 0.874 px

b = -0.076 px

c = 0.521 px

xc = 6.251 pxyc = 7.100 px

Z profile & fitting parameters:



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

Sum of residuals squared: 51160.6568

Standard deviation: 12.90919

R^2: 0.98736 Parameters: a = 113.52119 b = 913.25535

c = 58.23348

Bead 3192 (Rejected)

Date: Mon Oct 17 13:54:06 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: 137 um (x), 32.0 um (y), 54.4 um (z)

Corresponding bead: Not found

Reason of rejection: R or C parameter off limits.

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 0 | 0 | 270 nm |
| max | 0 | 0 | 270 nm |
| Z | 3.97 um | 3.99 um | 1.3 um |
| Asymmetry | 0.0 | | |
| Theta | 0.0° | | |

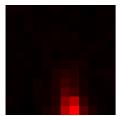
XY profile & fitting parameters :

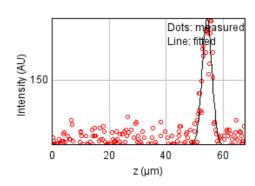
(red: the original data, green: the fit, yellow: the two merged)



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

Z profile & fitting parameters:





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

Sum of residuals squared: 17626.1788

Standard deviation: 7.57722

R^2: 0.81814 Parameters: a = 109.24973 b = 189.22236 c = 54.39624

d = 1.68800

Date: Mon Oct 17 13:54:06 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

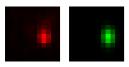
Coordinates: 48.9 um (x), 31.8 um (y), 58.3 um (z)

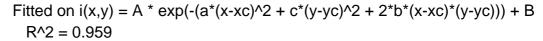
Corresponding bead: Not found

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 420 nm | 438 nm | 270 nm |
| max | 621 nm | 647 nm | 270 nm |
| Z | 3.01 um | 3.02 um | 1.3 um |
| Asymmetry | 0.677 | | |
| Theta | -89.5° | | |

XY profile & fitting parameters :

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







Parameters:

A = 657.557 (brightness)

B = 126.015 (background)

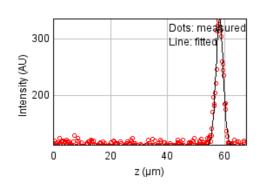
a = 0.759 px

b = -0.004 px

c = 0.348 px

xc = 8.076 pxyc = 6.142 px

Z profile & fitting parameters:



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

Sum of residuals squared: 20076.2578

Standard deviation: 8.08672

R^2: 0.95951 Parameters:

a = 112.68944

b = 335.19368

c = 58.28529

d = 1.27828

Date: Mon Oct 17 13:54:07 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

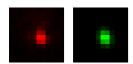
Coordinates: 95.1 um (x), 30.9 um (y), 58.3 um (z)

Corresponding bead: Not found

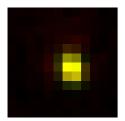
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 399 nm | 416 nm | 270 nm |
| max | 523 nm | 545 nm | 270 nm |
| Z | 2.2 um | 2.21 um | 1.3 um |
| Asymmetry | 0.763 | | |
| Theta | -76.1° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 570.818 (brightness)

B = 125.505 (background)

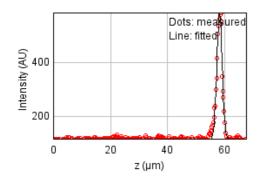
a = 0.822 px

b = -0.082 px

c = 0.511 px

xc = 6.499 pxyc = 6.118 px

Z profile & fitting parameters:



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

Sum of residuals squared: 38345.1660

Standard deviation: 11.17599

R^2: 0.97678 Parameters:

a = 113.66537

b = 587.93296

c = 58.25613

Date: Mon Oct 17 13:54:07 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

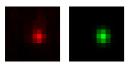
Coordinates: 71.0 um (x), 29.6 um (y), 58.4 um (z)

Corresponding bead: Not found

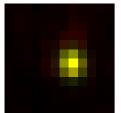
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 419 nm | 436 nm | 270 nm |
| max | 505 nm | 526 nm | 270 nm |
| Z | 1.96 um | 1.97 um | 1.3 um |
| Asymmetry | 0.829 | | |
| Theta | -83.8° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 617.275 (brightness)

B = 126.145 (background)

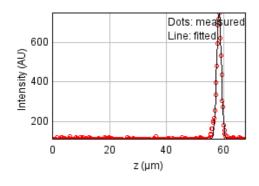
a = 0.762 px

b = -0.026 px

c = 0.529 px

xc = 6.847 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: 33187.4412

Standard deviation: 10.39723

R^2: 0.98735 Parameters: a = 113.76545 b = 749.27436 c = 58.43747

Date: Mon Oct 17 13:54:07 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

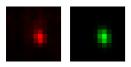
Coordinates: 110 um (x), 29.8 um (y), 58.2 um (z)

Corresponding bead: Not found

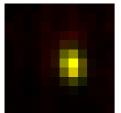
| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 389 nm | 405 nm | 270 nm |
| max | 560 nm | 583 nm | 270 nm |
| Z | 2.1 um | 2.1 um | 1.3 um |
| Asymmetry | 0.695 | | |
| Theta | -78.4° | | |

XY profile & fitting parameters :

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



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



Parameters:

A = 415.222 (brightness)

B = 118.903 (background)

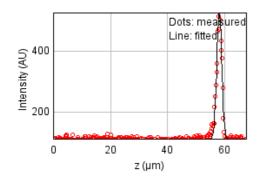
a = 0.869 px

b = -0.090 px

c = 0.447 px

xc = 6.841 pxyc = 6.170 px

Z profile & fitting parameters:



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

Sum of residuals squared: 30573.2571

Standard deviation: 9.97934

R^2: 0.97465 Parameters:

a = 112.05302

b = 526.68493

c = 58.16786

Bead 3197 (Rejected)

Date: Mon Oct 17 13:54:07 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: 38.8 um (x), 23.8 um (y), 57.6 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 | 504 nm | 525 nm | 270 nm |
| max | 772 nm | 804 nm | 270 nm |
| Z | 2.42 um | 2.43 um | 1.3 um |
| Asymmetry | 0.653 | | |
| Theta | -85.1° | | |

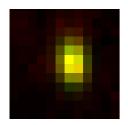
XY profile & fitting parameters :

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





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



Parameters:

A = 310.382 (brightness)

B = 133.037 (background)

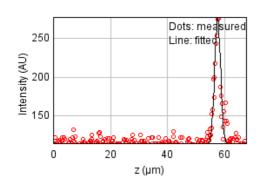
a = 0.525 px

b = -0.026 px

c = 0.227 px

xc = 6.378 pxyc = 5.293 px

Z profile & fitting parameters:



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

Sum of residuals squared: 27417.5053

Standard deviation: 9.45028

R^2: 0.88444

Parameters:

a = 113.97812

b = 277.75689

c = 57.59157

d = 1.02609

Bead 3198 (Rejected)

Date: Mon Oct 17 13:54:07 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: 112 um (x), 21.7 um (y), 58.1 um (z)

Corresponding bead: Not found

Reason of rejection: R or C parameter off limits.

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 366 nm | 382 nm | 270 nm |
| max | 600 nm | 625 nm | 270 nm |
| Z | 2.21 um | 2.22 um | 1.3 um |
| Asymmetry | 0.61 | | |
| Theta | -86.1° | | |

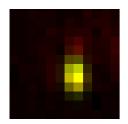
XY profile & fitting parameters :

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





Fitted on
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.886$$



Parameters:

A = 377.736 (brightness)

B = 125.625 (background)

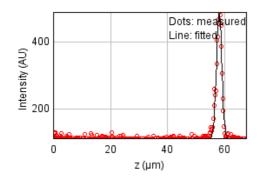
a = 0.997 px

b = -0.043 px

c = 0.375 px

xc = 6.655 pxyc = 6.739 px

Z profile & fitting parameters:



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

Sum of residuals squared: 29317.5511

Standard deviation: 9.77225

R^2: 0.97178 Parameters:

a = 113.02095

b = 487.48218

c = 58.11430

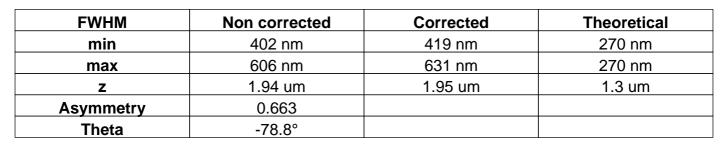
Date: Mon Oct 17 13:54:07 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

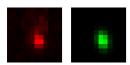
Coordinates: 145 um (x), 21.7 um (y), 57.8 um (z)

Corresponding bead: Not found

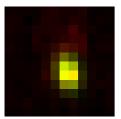


XY profile & fitting parameters :

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



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



Parameters:

A = 359.662 (brightness)

B = 118.149 (background)

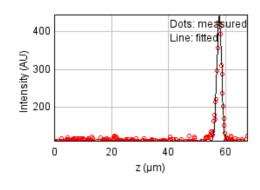
a = 0.813 px

b = -0.088 px

c = 0.383 px

xc = 6.416 pxyc = 6.703 px

Z profile & fitting parameters:



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

Sum of residuals squared: 21453.9077

Standard deviation: 8.35957

R^2: 0.97058 Parameters: a = 111.14433b = 444.63284

c = 57.80260

Bead 3200 (Rejected)

Date: Mon Oct 17 13:54:08 PDT 2022

Origin: data_traditional.tif (Nikon 40x0.95 air)

Frame size: 12 pixels

Coordinates: -21.3 um (x), 21.9 um (y), 59.2 um (z)

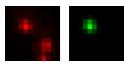
Corresponding bead: Not found

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

| FWHM | Non corrected | Corrected | Theoretical |
|-----------|---------------|-----------|-------------|
| min | 381 nm | 397 nm | 270 nm |
| max | 425 nm | 443 nm | 270 nm |
| Z | 2.47 um | 2.48 um | 1.3 um |
| Asymmetry | 0.896 | | |
| Theta | -63.9° | | |

XY profile & fitting parameters :

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



Fitted on
$$i(x,y) = A * exp(-(a*(x-xc)^2 + c*(y-yc)^2 + 2*b*(x-xc)*(y-yc))) + B R^2 = 0.568$$



Parameters:

A = 1043.161 (brightness) B = 198.092 (background)

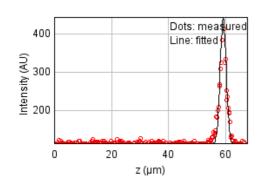
a = 0.889 px

b = -0.072 px

c = 0.778 px

xc = 4.030 pxyc = 3.850 px

Z profile & fitting parameters:



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

Sum of residuals squared: 45759.4079

Standard deviation: 12.20874

R^2: 0.94917 Parameters:

a = 115.22676

b = 442.10746

c = 59.18744

d = 1.05041