Fit-Curve(s): easy Fit mode - eFit

eFit mode of the fitting interface is aimed to simplify standard fitting procedures, when the fitting function is prepared for the "easy" fitting procedure in advance. For example, in this presentation the form factor of the cylinder is shown. This form factor has many parameters, but by default only three is fittable (adjustable): length, diameter and volume fraction of cylinders. Additionally, many different fitting options could be set in advance on the level of the function compilation…

Two ways of **eFit** usage:

a) via **Fit.Curve(s)** interface:

1. Select **Data Range** of the active curve in active Graph;
2. Select Function in the **Fit.Curve(s)** interface;

3.a Push Button "**eFit**" in the **Fit.Curve(s)** interface;
3.b Push Button "**eFit+++**" in the **Fit.Curve(s)** interface.

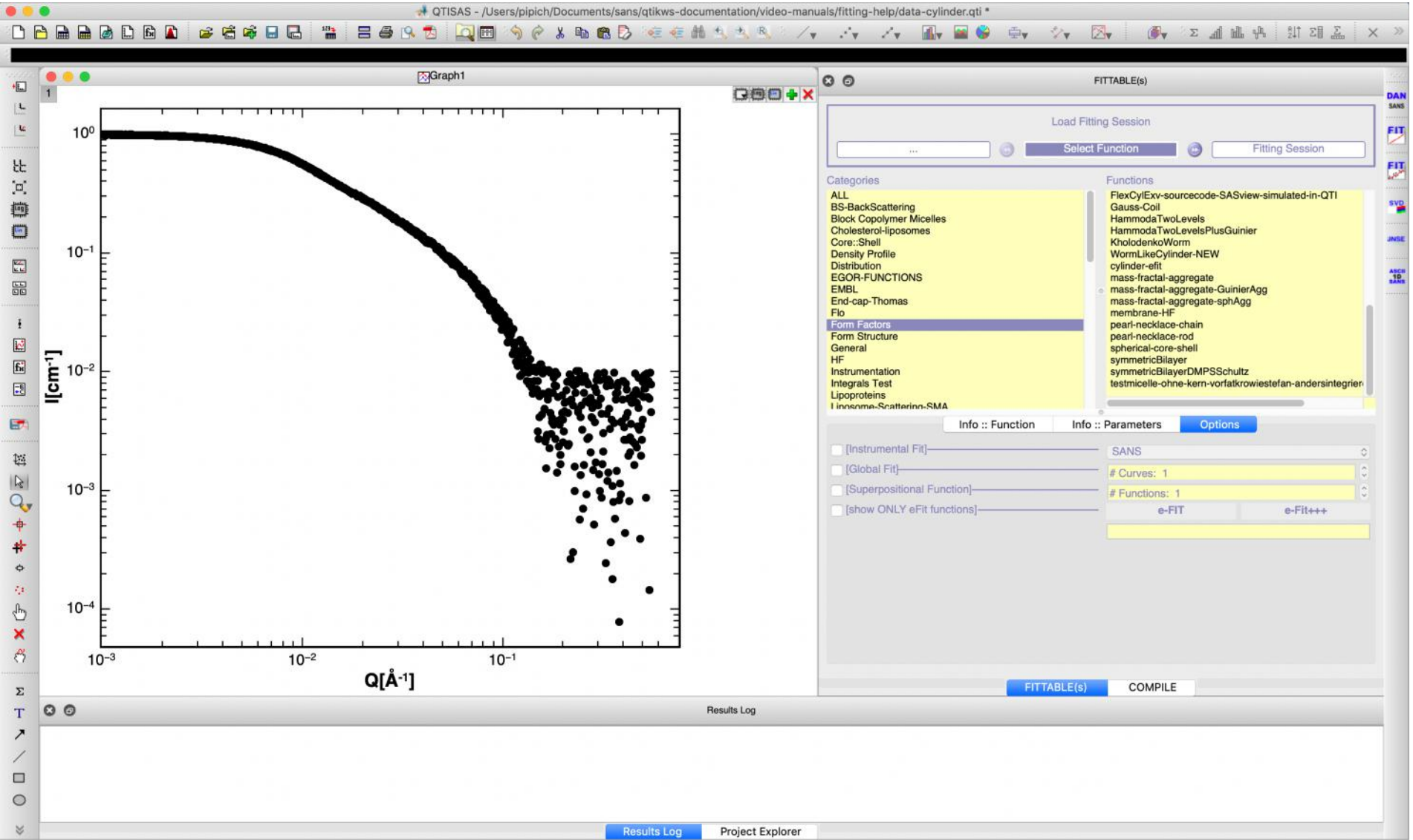
b) Via **Analysis|eFit** Menu:

1. Select Data Range of the active curve in active Graph;
2. Select eFit function in **Analysis|eFit** Menu of **QtiSAS.**

eFit via **Fit.Curve(s)** interface

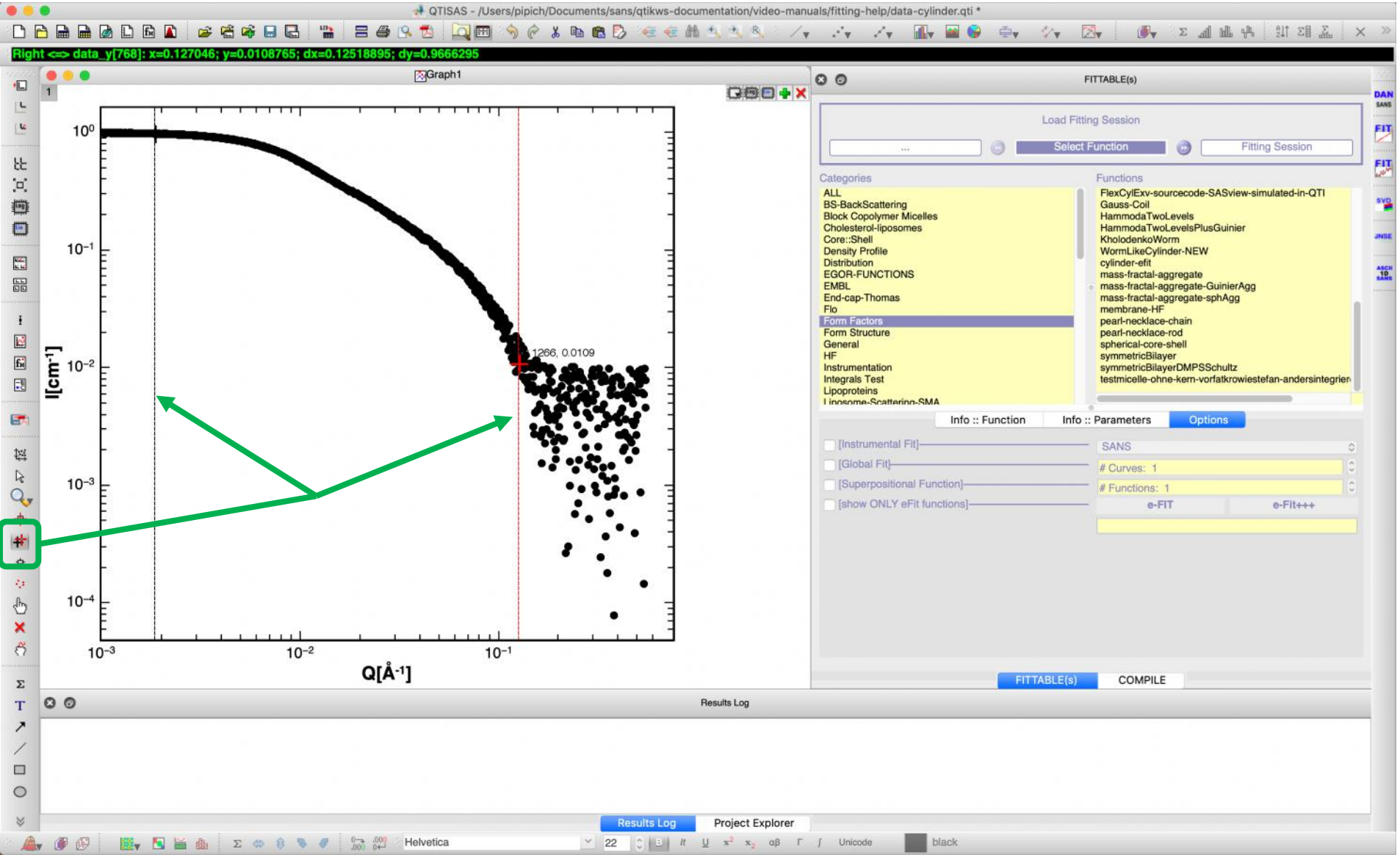
via **Fit.Curve(s)** interface:

Data **is plotted** in the Graph; Fit.Curve(s): **Options** tab activated



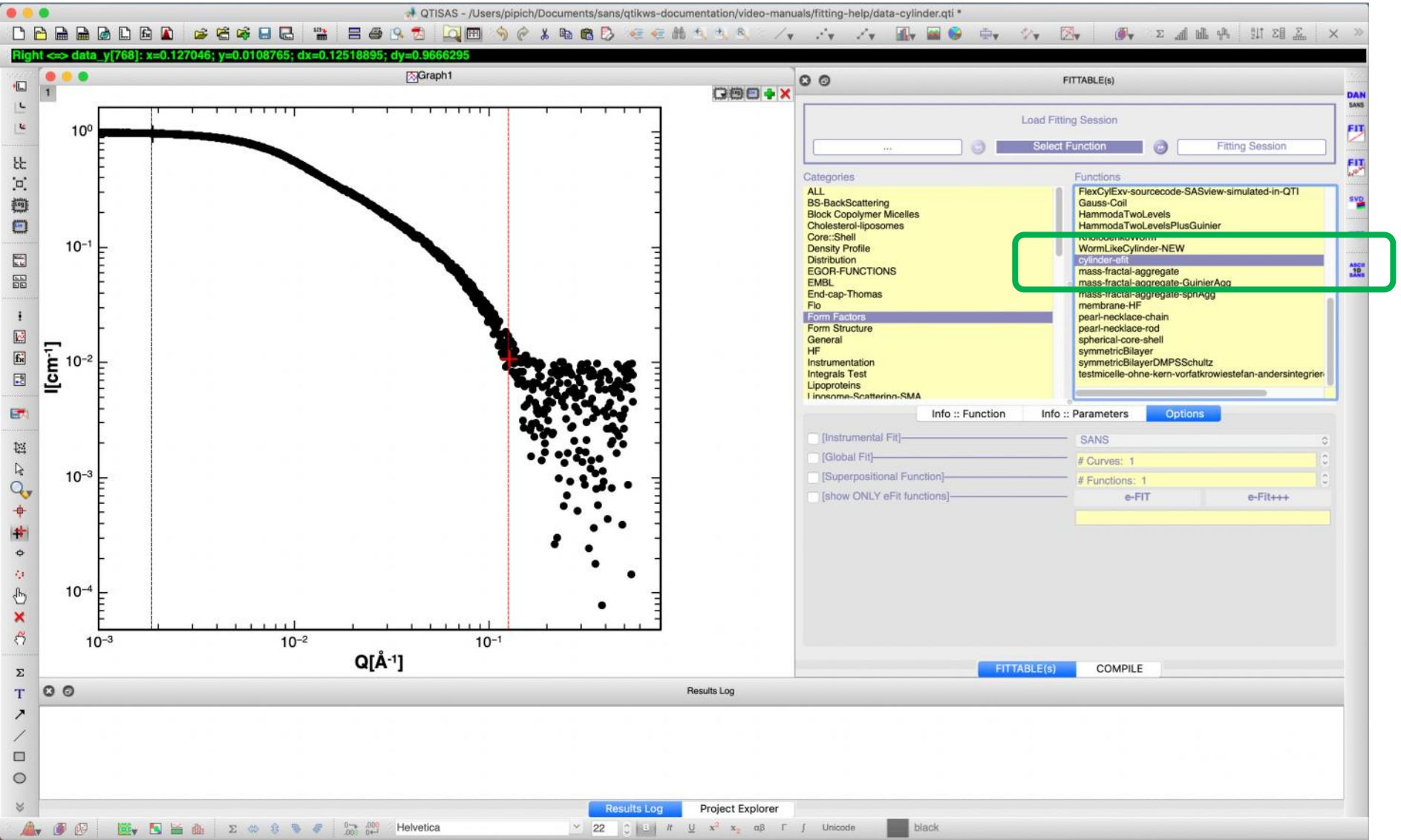
via **Fit.Curve(s)** interface:

Step.1 Select **Data Range** of the active curve in active Graph



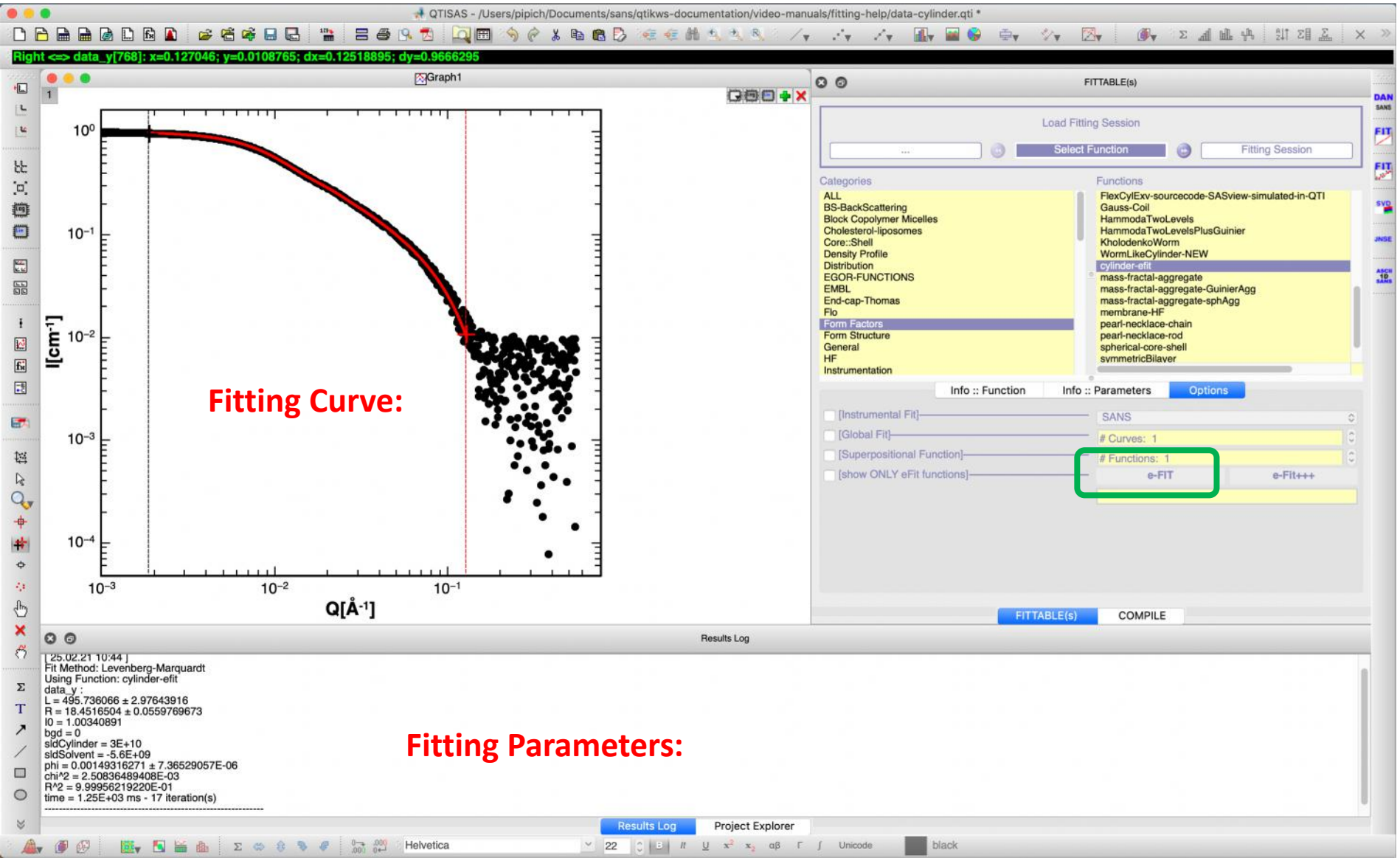
via **Fit.Curve(s)** interface:

Step.2 Select **Function** in the Fit.Curve(s) interface;



via **Fit.Curve(s)** interface:

Step.3a Push Button "**eFit**" in the Fit.Curve(s) interface

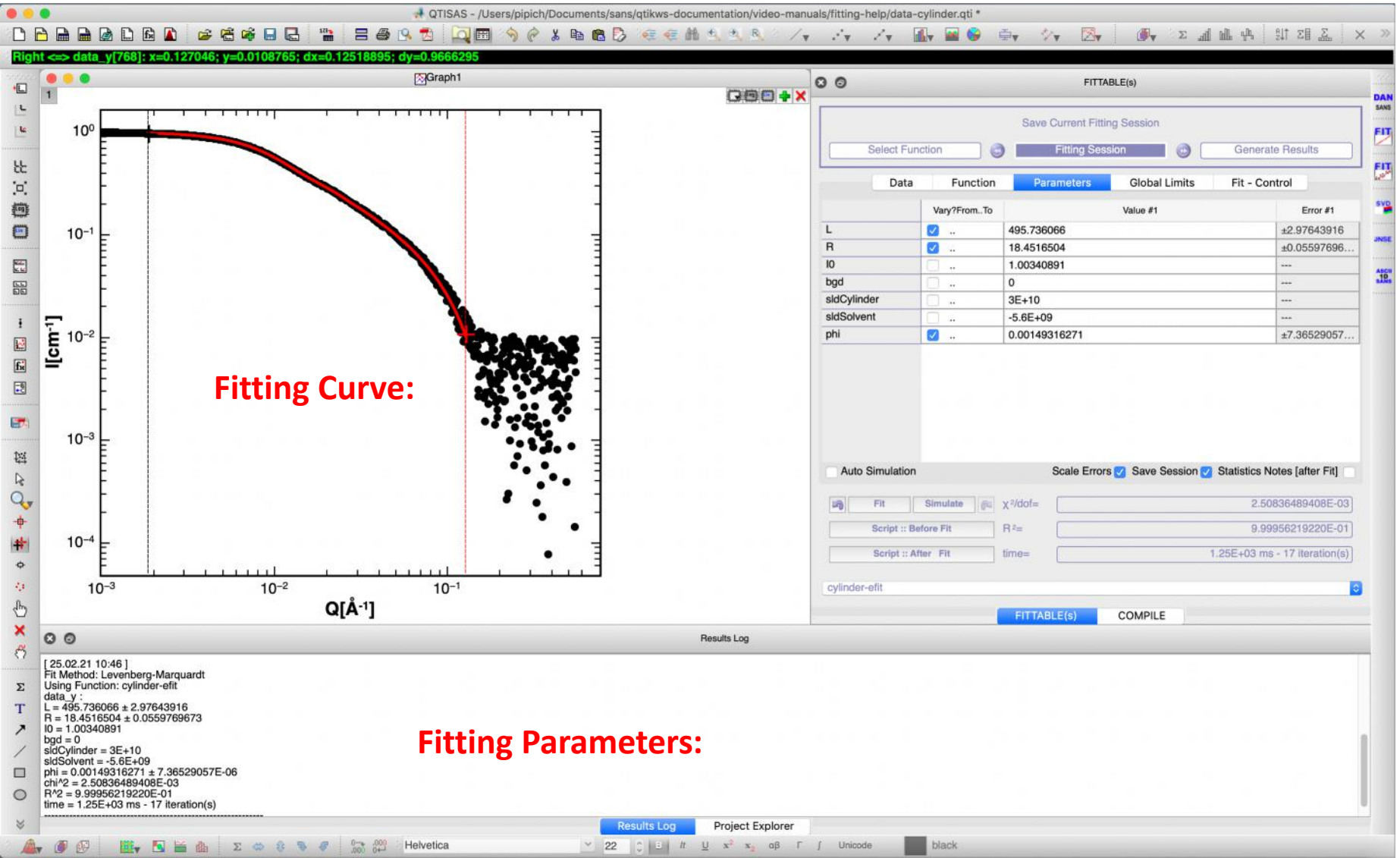


Fitting Parameters:
- Shown in "Results Log"

Fitting Curve:
- Shown in the Graph

via **Fit.Curve(s)** interface:

Step.3b Push Button "**eFit+++**" in the Fit.Curve(s) interface



Fitting Parameters:
- Shown in "Results Log"

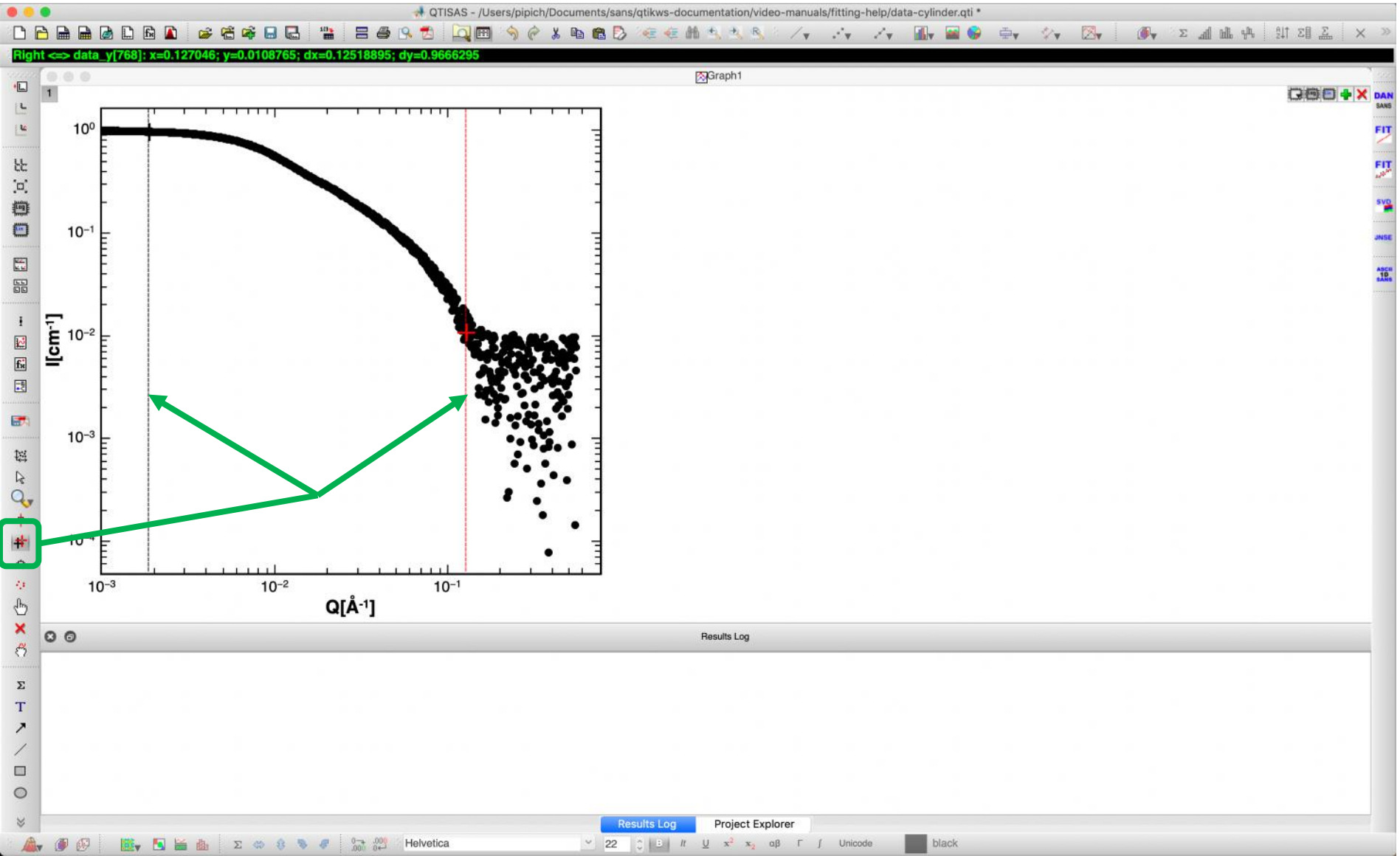
Fitting Curve:
- Shown in the Graph

Fit.Curve(s) interface is ready for next fitting actions

eFit via **Analysis|eFit** Menu

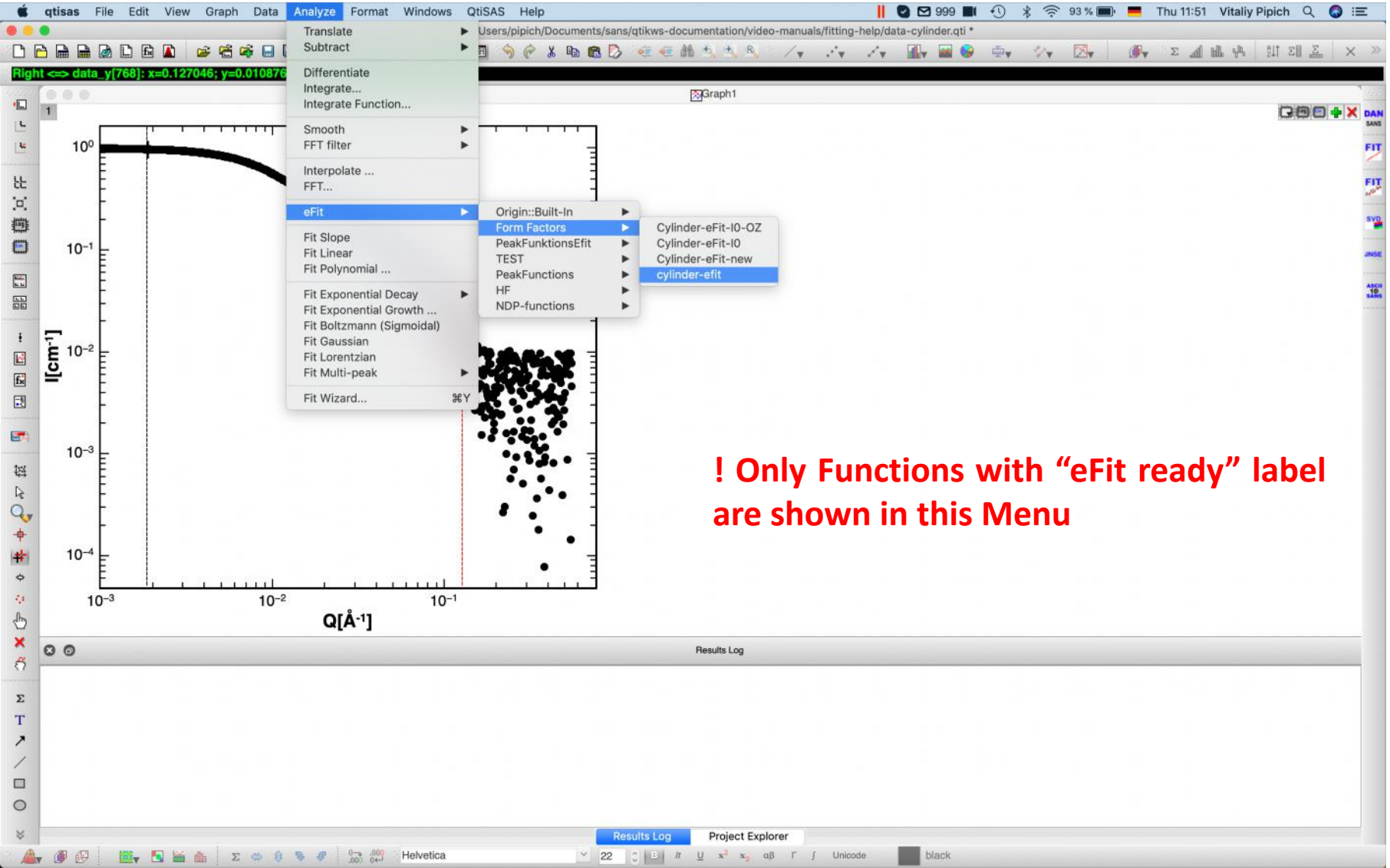
eFit via **Analysis|eFit** Menu

Step.1 Select **Data Range** of the active curve in active Graph



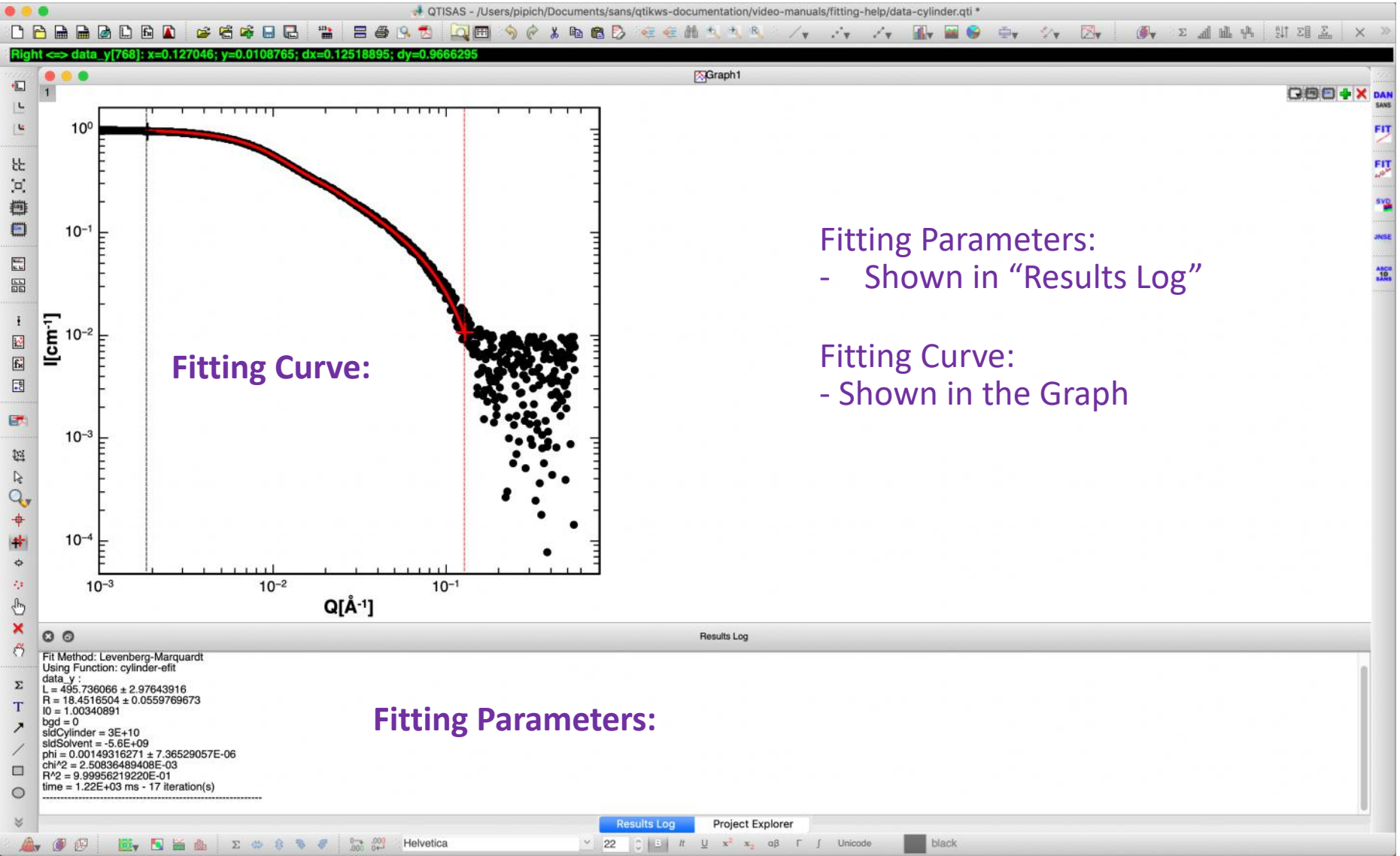
eFit via **Analysis|eFit** Menu

Step.2 Select eFit function in **Analysis|eFit** Menu of **QtiSAS**.



! Only Functions with “eFit ready” label are shown in this Menu

eFit via **Analysis|eFit** Menu



Fitting Parameters:
- Shown in “Results Log”

Fitting Curve:
- Shown in the Graph

eFit Logic

4-steps in the background:

e-FIT | e-Fit+++

default eFit procedure:

[1] Script :: Before Fit

"Before Fit"; to skip it: write here "no-before"

[2] Fit

"Fit"; to skip it: write here "no-fit"

"color=color_name"; select color of the fitting curve

[3] Script :: After Fit

"After Fit"; to skip it: write here "no-after"

[4] Simulate

"Simulate"; by default after fit fitting curve is calculated and plotted in the plot;

name of the default table "fitCurve-FUNCTION-NAME";

if you want to have "unique" name write here "name=TABLE-NAME"

In case of "no-fit": if you want just to simulate data select option "yes-simulate"

[5] Results of the fit is shown in Res-Log:

"no-reslog": to skip it

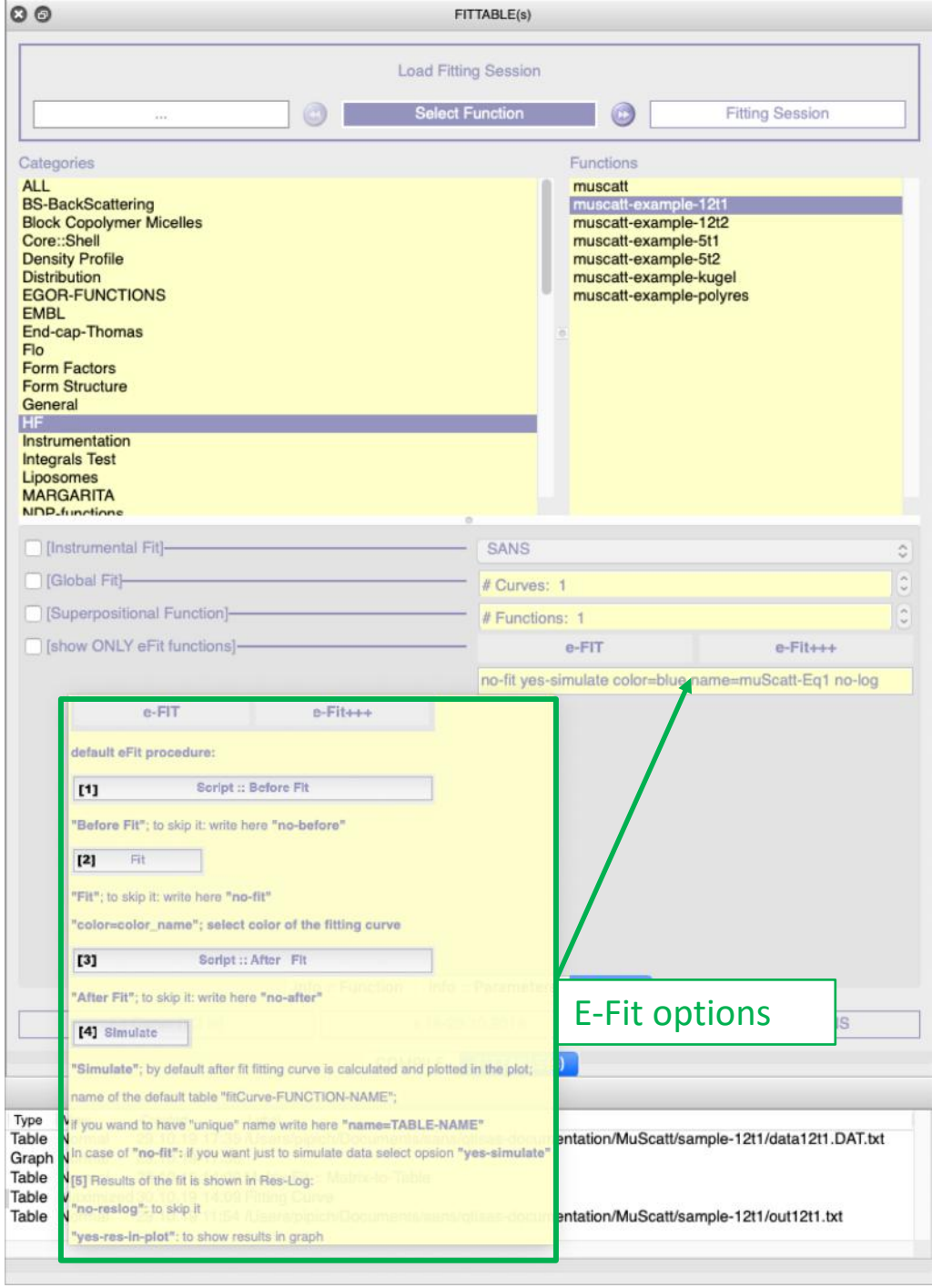
"yes-res-in-plot": to show results in graph

eFit Options

eFit mode options

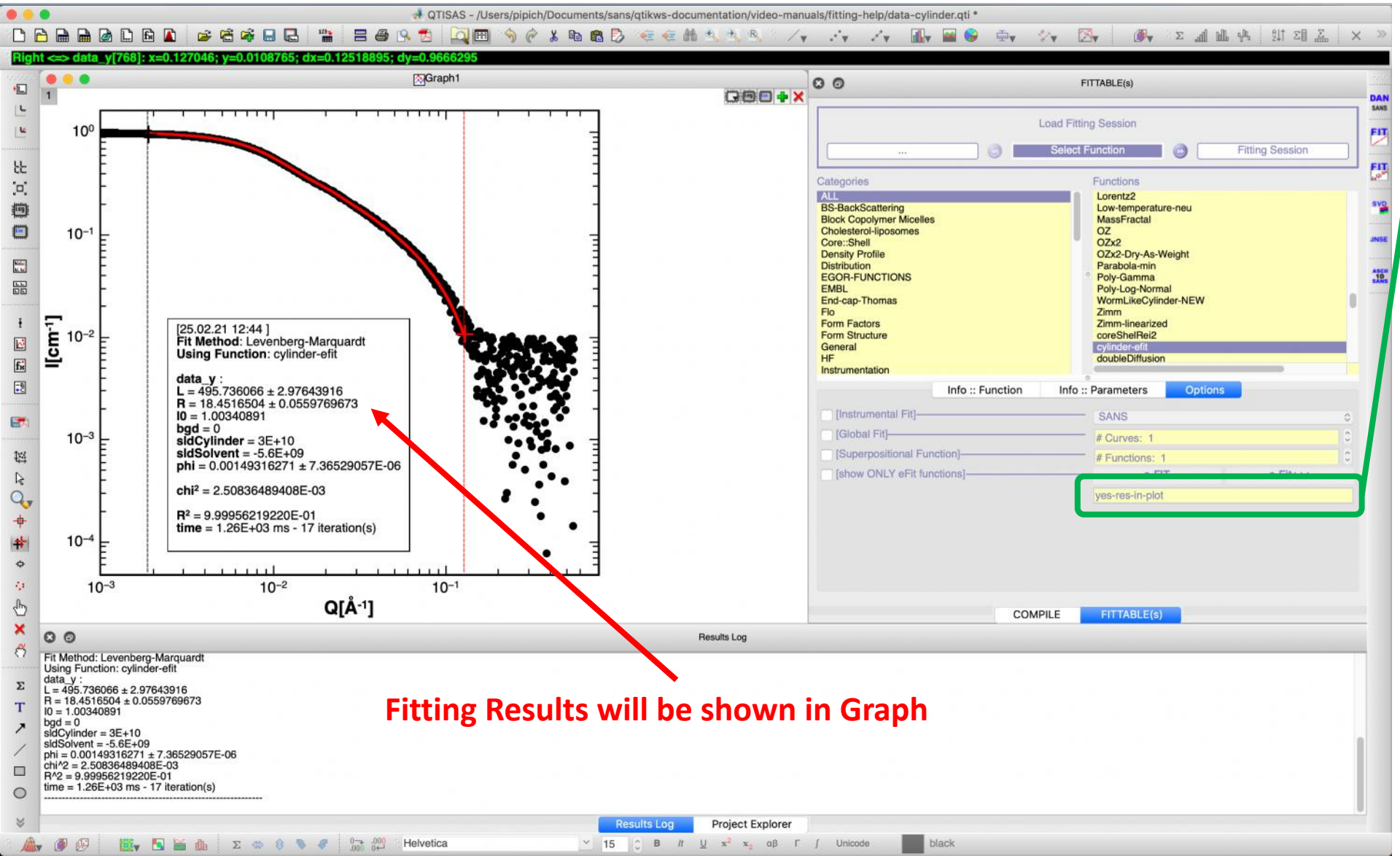
e-Fit Options:

- „no-fit“ : we use just Fitting interface for calculations;
- “yes-simulate“: we calculate & plot active dataset;
- „color=blue“: just selection of color;
- „name=miScatt-Eq1“: instead of classical name of fitting curve we use given name;
- “no-log“: we show no output in log window



eFit Option: "yes-res-in-plot"

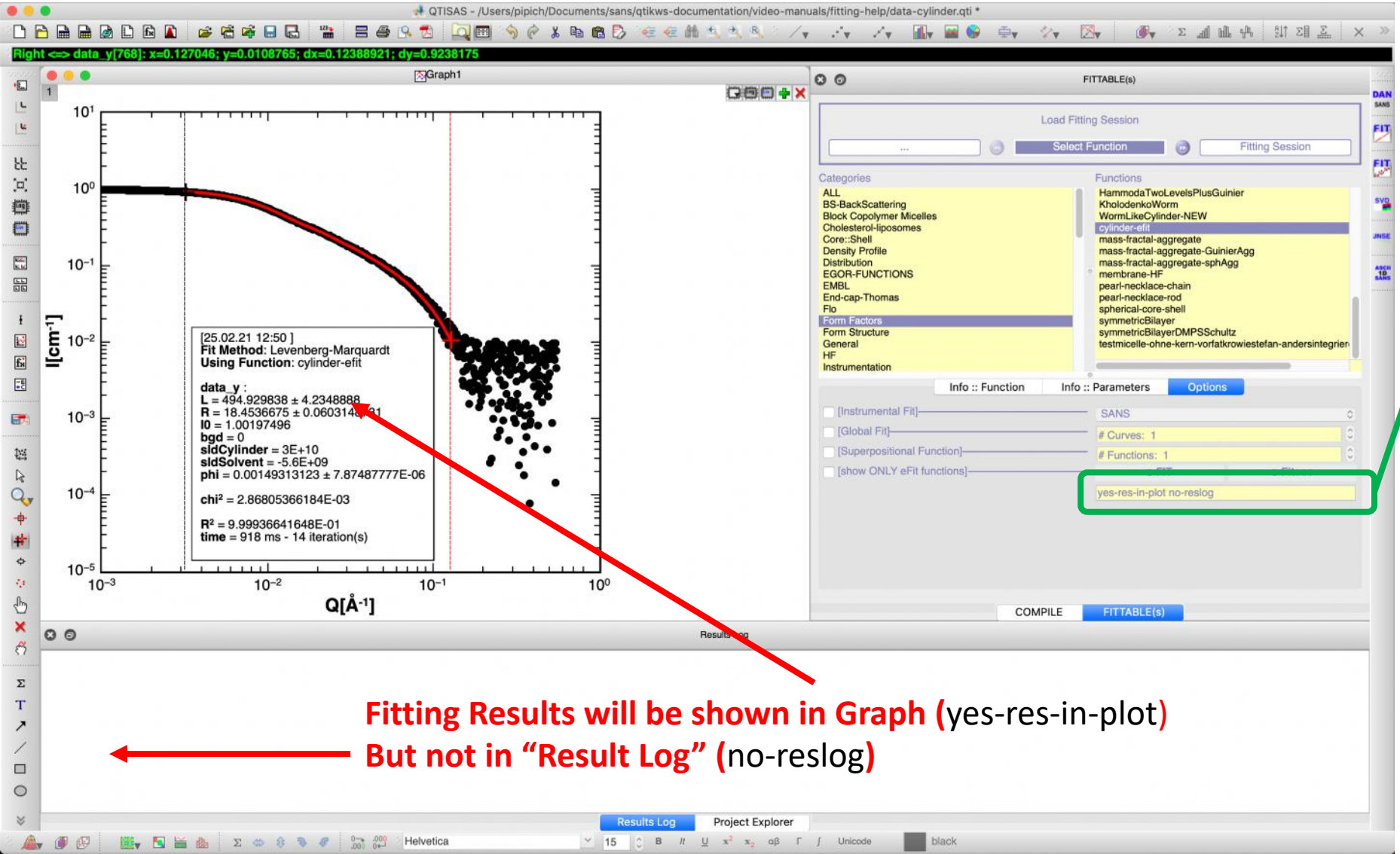
yes-res-in-plot



Fitting Results will be shown in Graph

eFit Options: “yes-res-in-plot” + “no-reslog”

yes-res-in-plot no-reslog

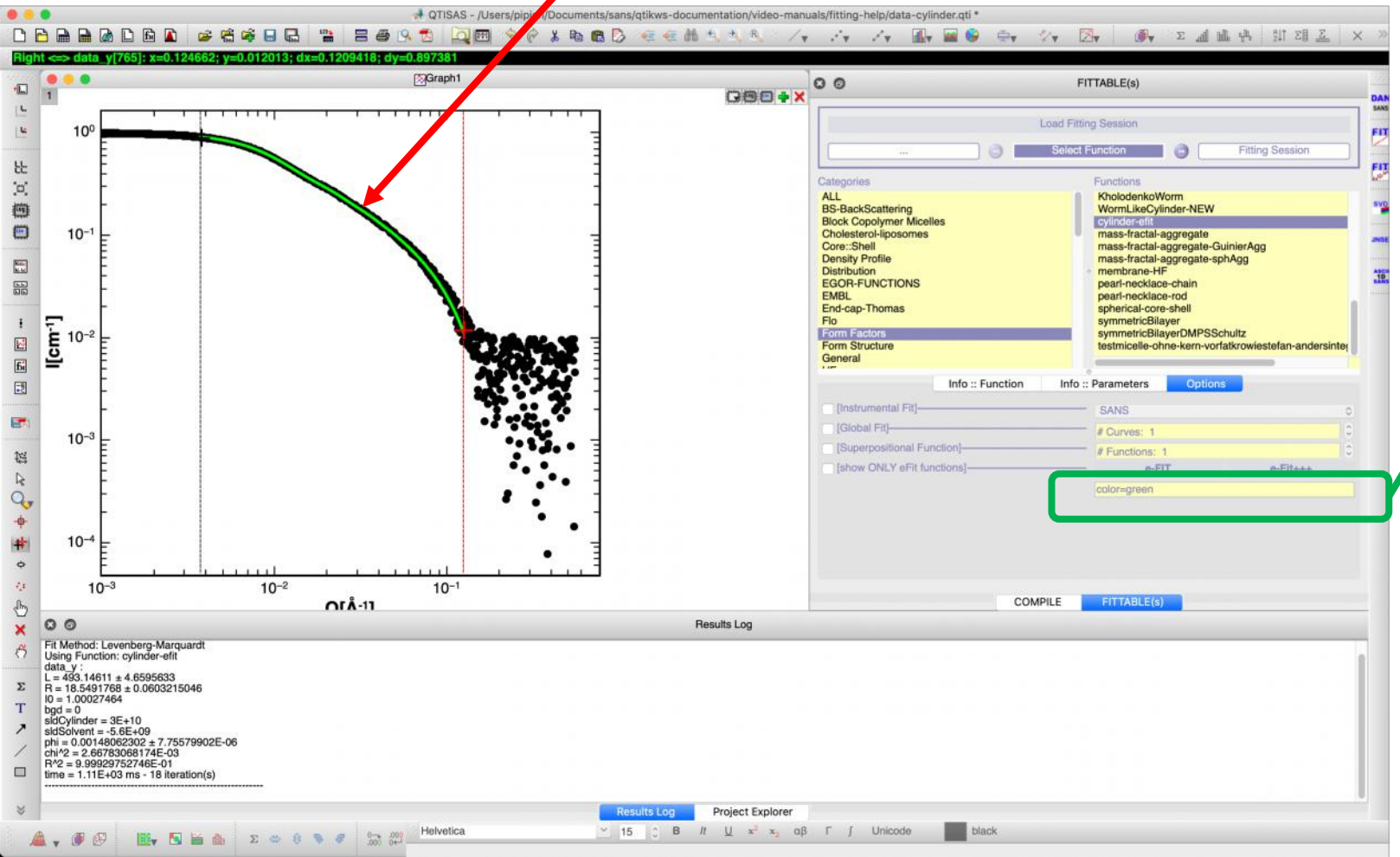


Fitting Results will be shown in Graph (yes-res-in-plot**)**

But not in “Result Log” (no-reslog**)**

eFit Options: “color=color_name”

Color of the fitting curve could be pre-defined



eFit Options: “no-fit”