

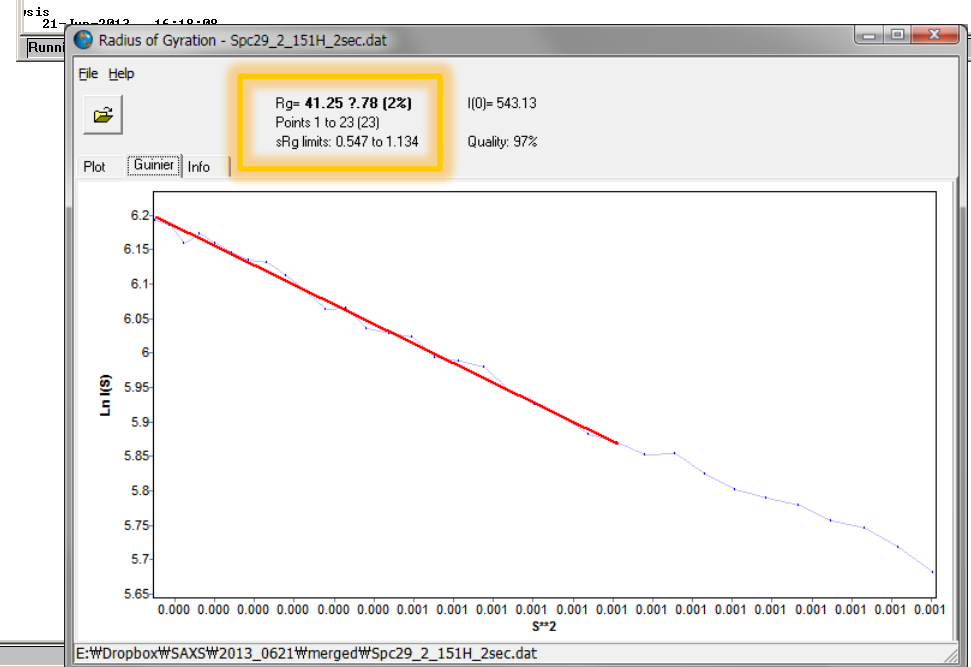
(1) Spc29 2-151 HEPES

2 sec exposure time / 20 repeats

-> Reduce the exposure time

(Two linear regions in Guinier plot)

MW: 18.2 kDa Int(H₂O) = 290, 15C



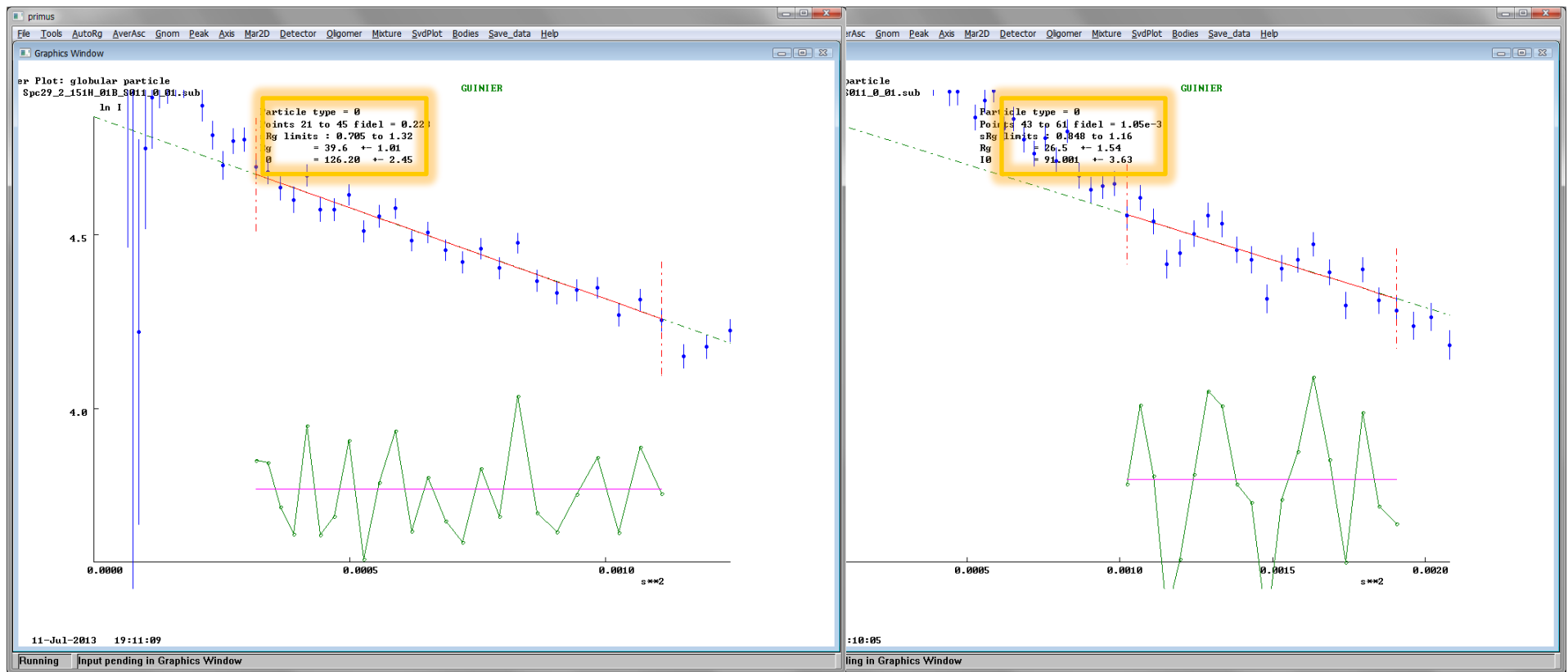
(1) Spc29 2-151 HEPES

50mM HEPES pH 7.6, 200mM SCN

Two linear Guinier regions ($R_g \sim 40 \text{ \AA}$ & 27 \AA)

-> Possibly a mixture of the monomer / dimer forms?

-> Radiation damage after frame #5

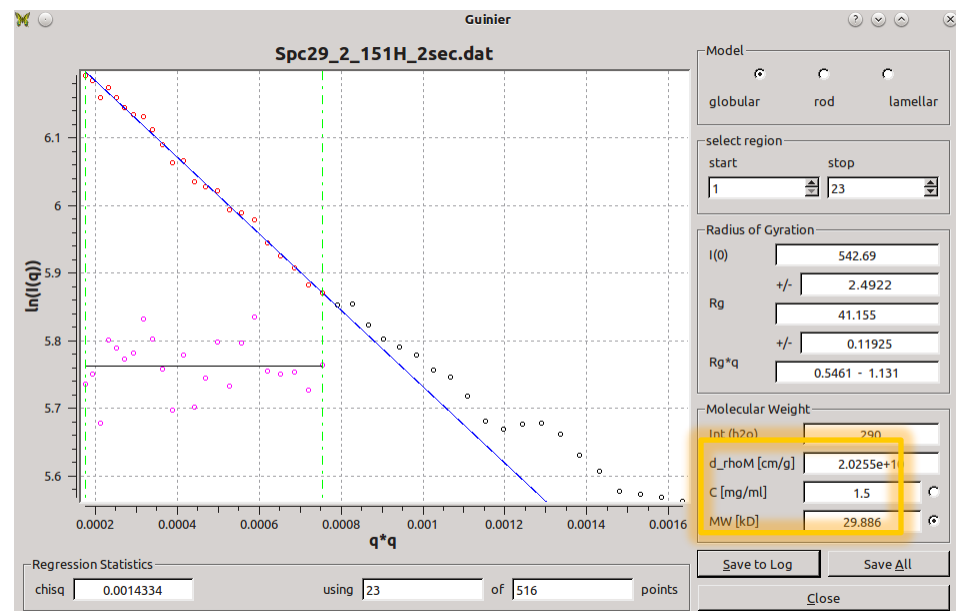
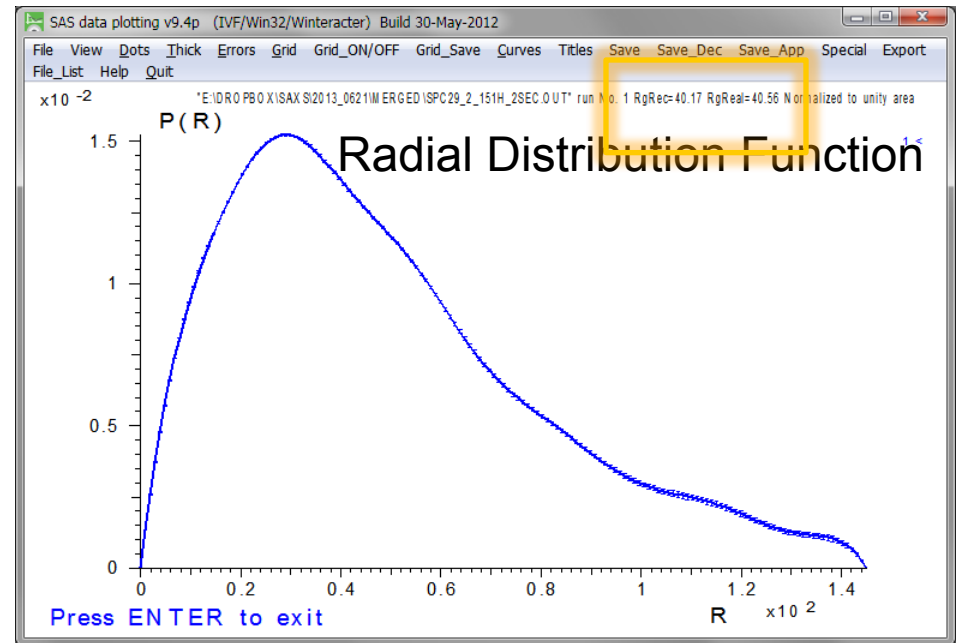
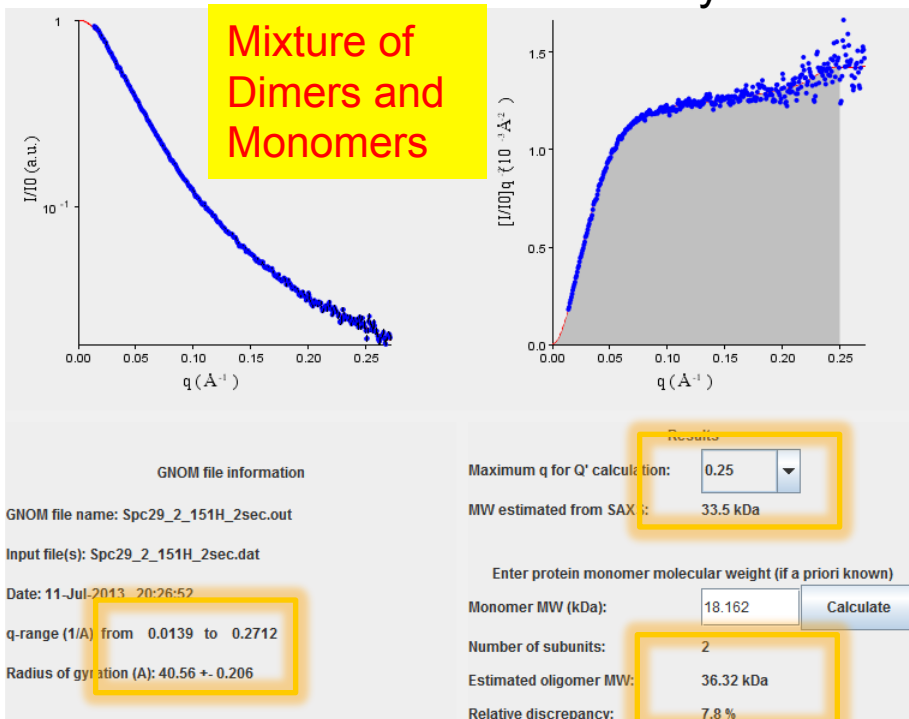


(1) Spc29 2-151 HEPES

50mM HEPES pH 7.6, 200mM SCN

-> Radiation damage after frame #5

Kratky Plot



2013/06/21

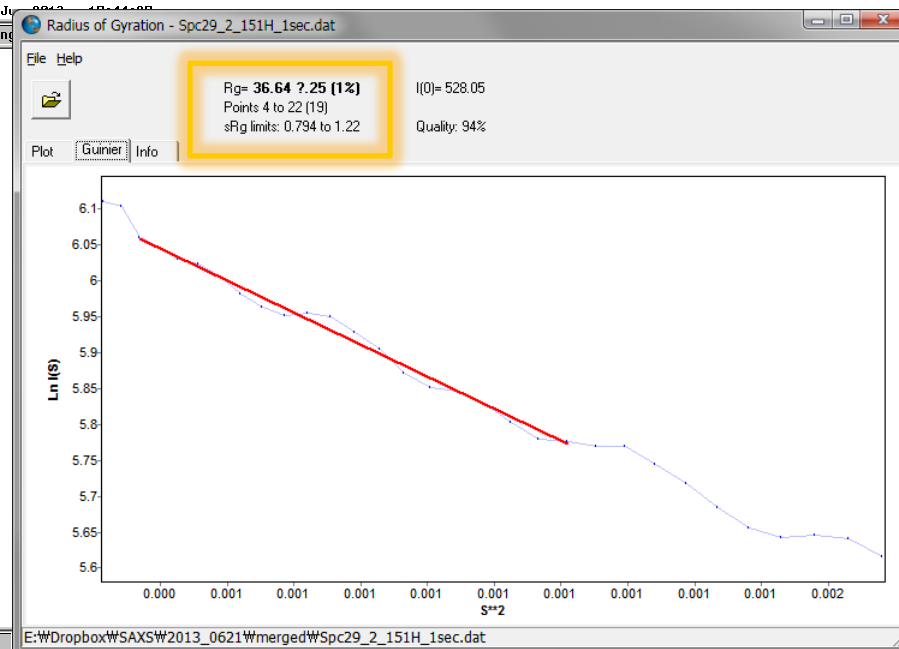
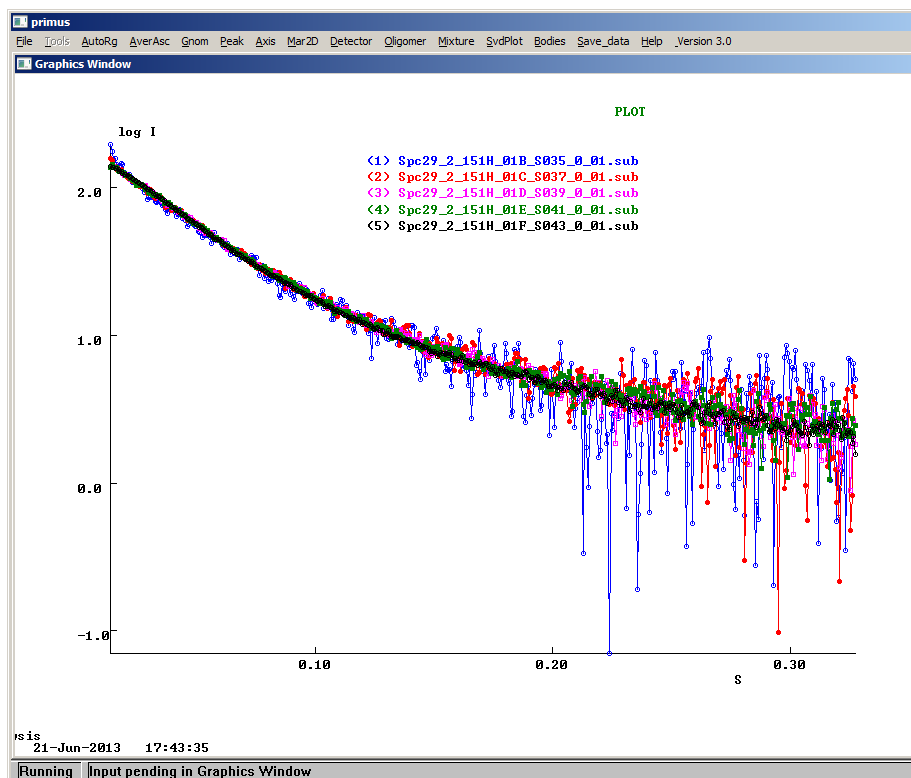
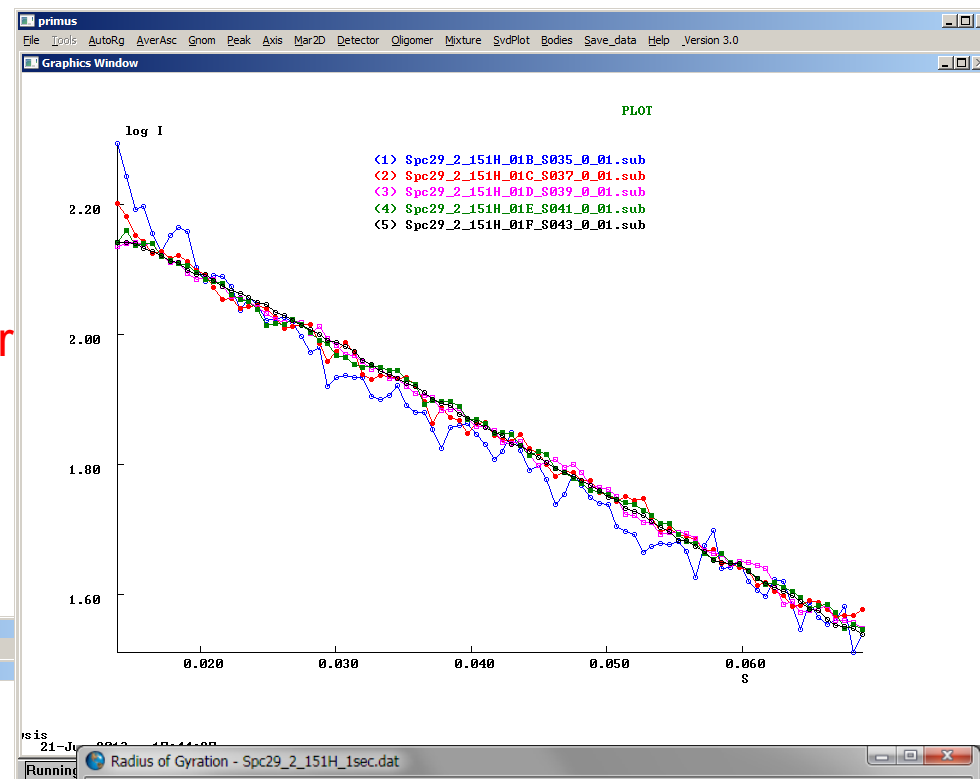
(1-2) Spc29 2-151 HEPES

50mM HEPES pH 7.6, 200mM SCN

1 sec exposure time / 10 repeats

-> Possibly a mixture of dimer / monomer
(Two linear regions (36A / 28A)
in Guinier plot)

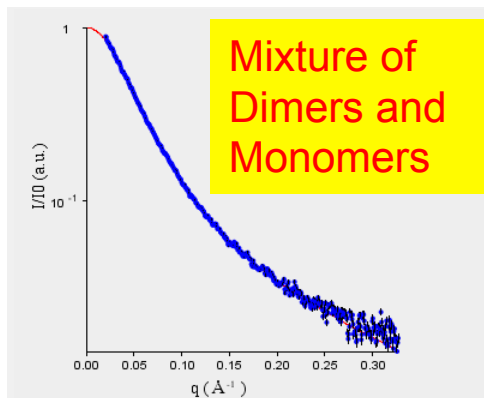
MW; 18.2 kDa Int(H₂O) = 290, 15C



(1-2) Spc29 2-151 HEPES

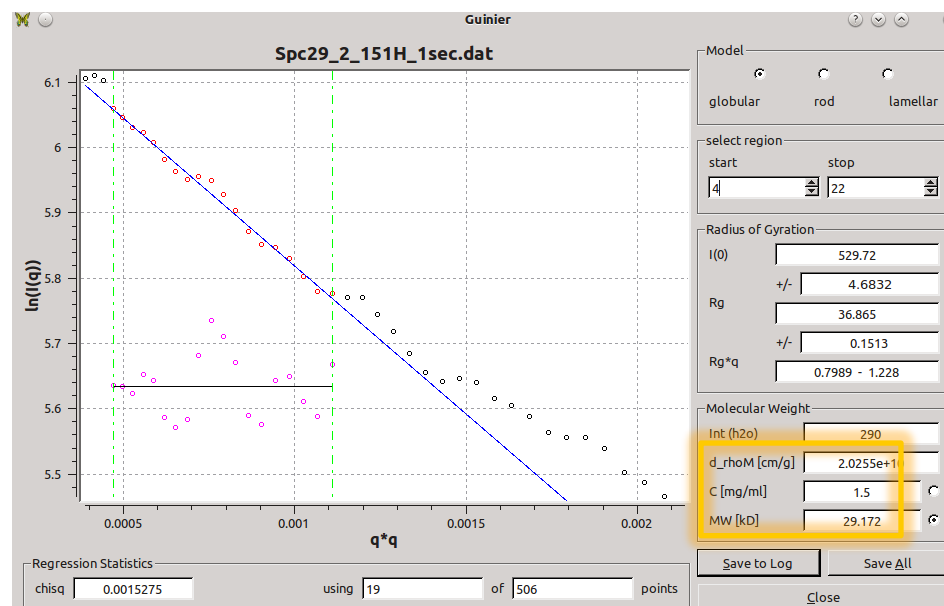
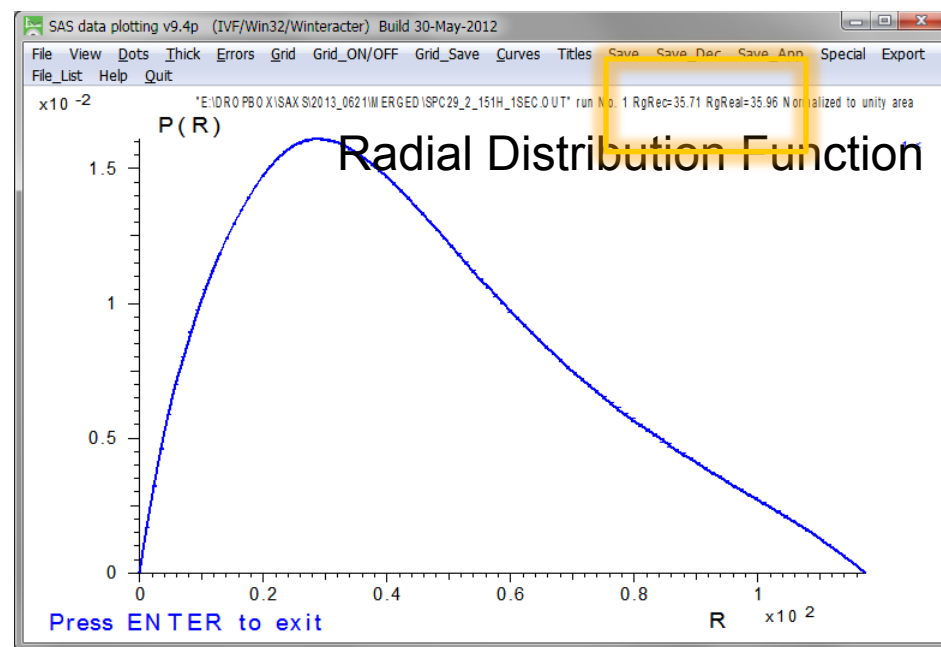
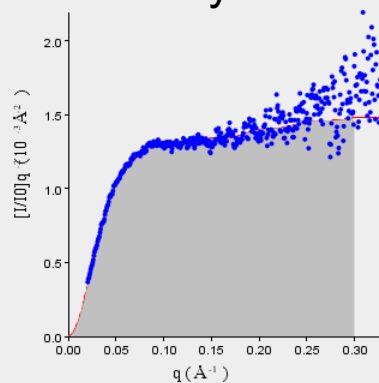
50mM HEPES pH 7.6, 200mM SCN

1 sec exposure time / 10 repeats



Mixture of
Dimers and
Monomers

Kratky Plot

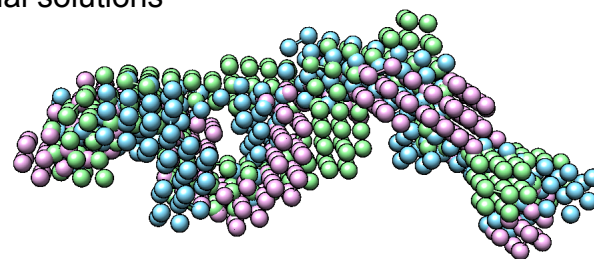


(1-2) Spc29 2-151 HEPES

50mM HEPES pH 7.6, 200mM SCN

1 sec exposure time / 10 repeats

Individual solutions



120 Å



120 Å



30 Å

Surface

Volume = 32.04e3

Area = 7849

Mean value of NSD : 1.034
Standard deviation of NSD : 0.025

2013/06/21

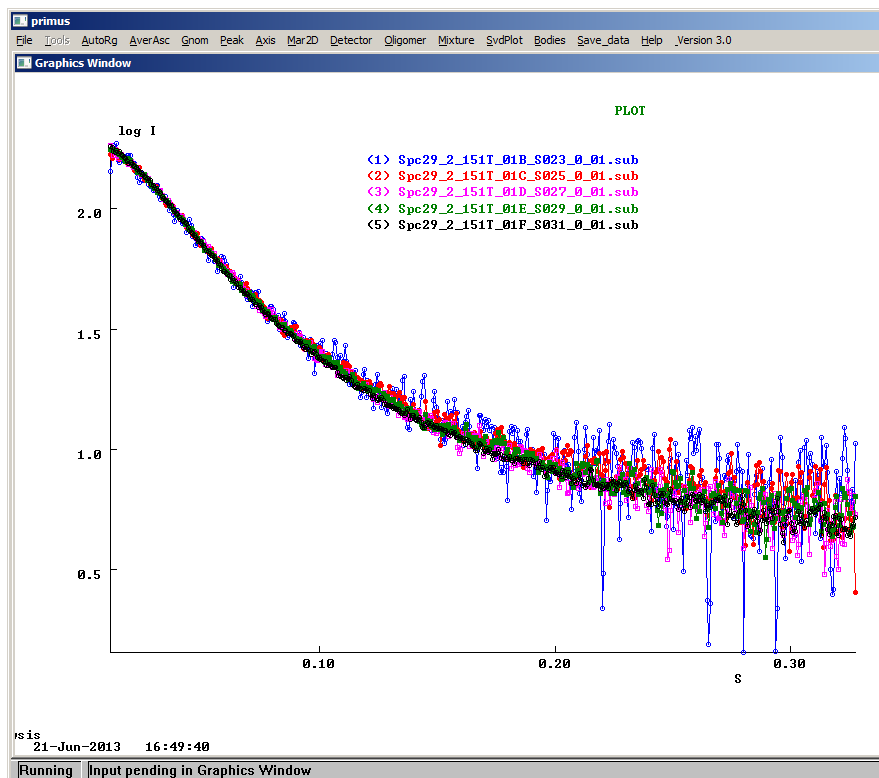
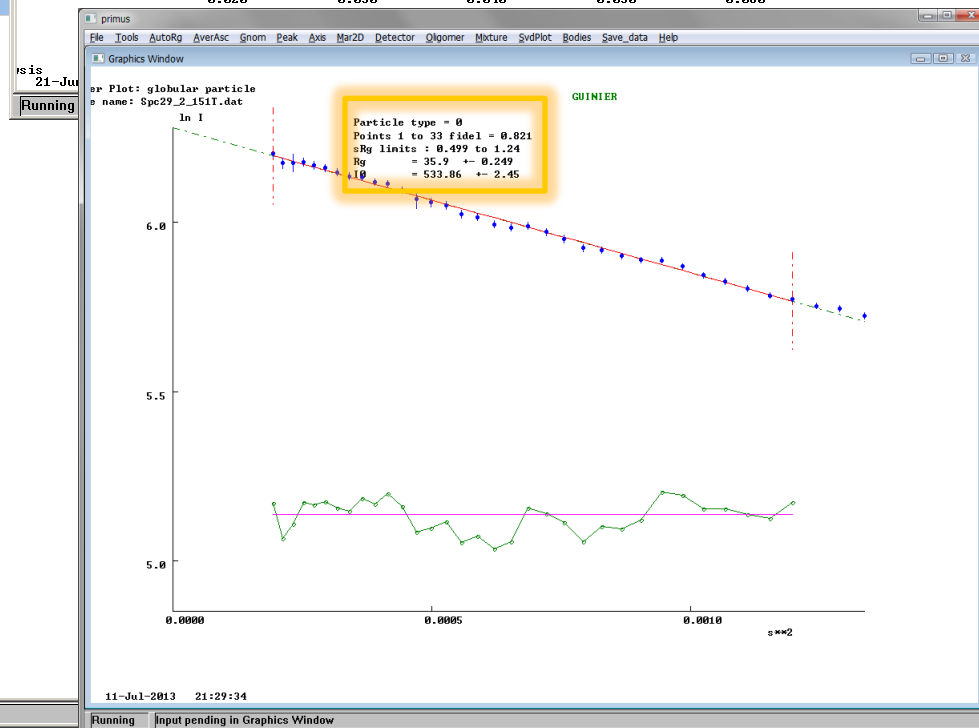
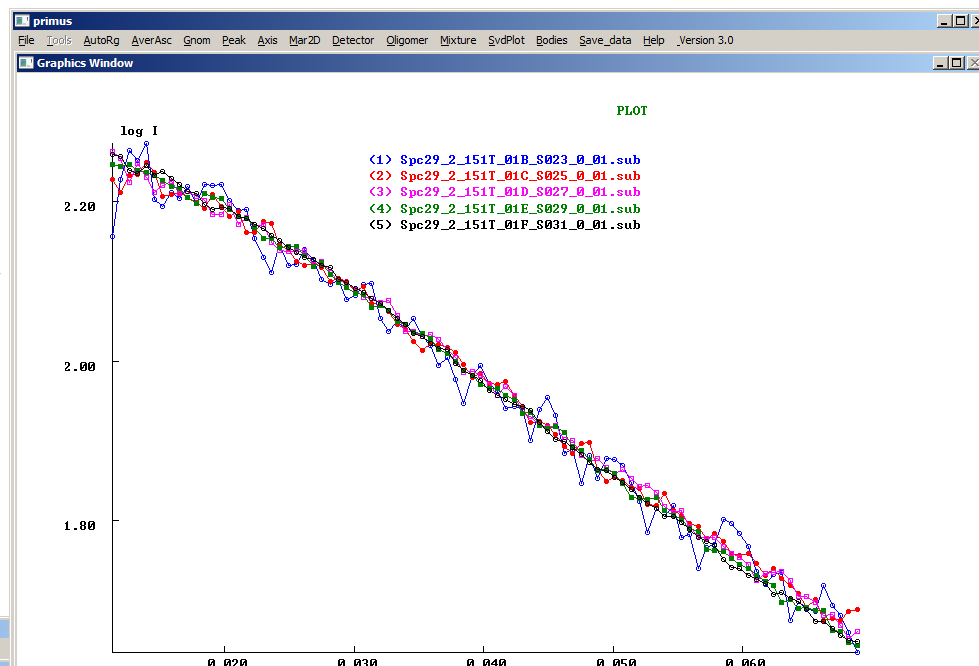
(2) Spc29 2-151 TRIS

500mM TRIS at pH 8.0 (4C)

1 sec exposure time / 10 repeats

-> **More monomeric than HEPES buffer**

MW; 18.2 kDa Int(H₂O) = 290, 15C

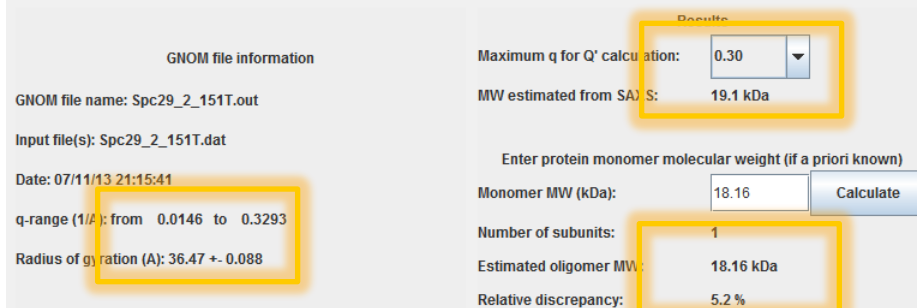
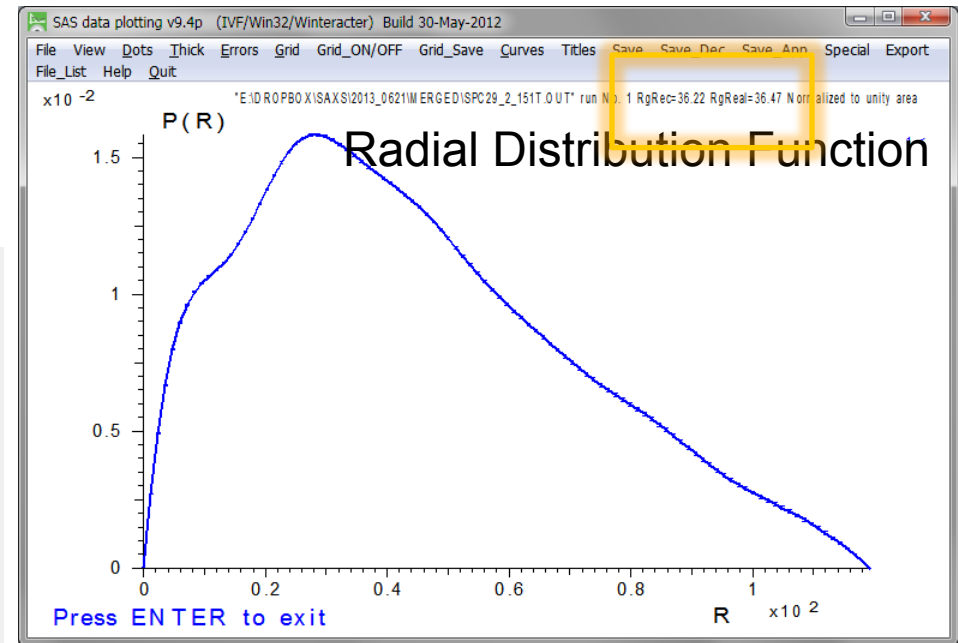
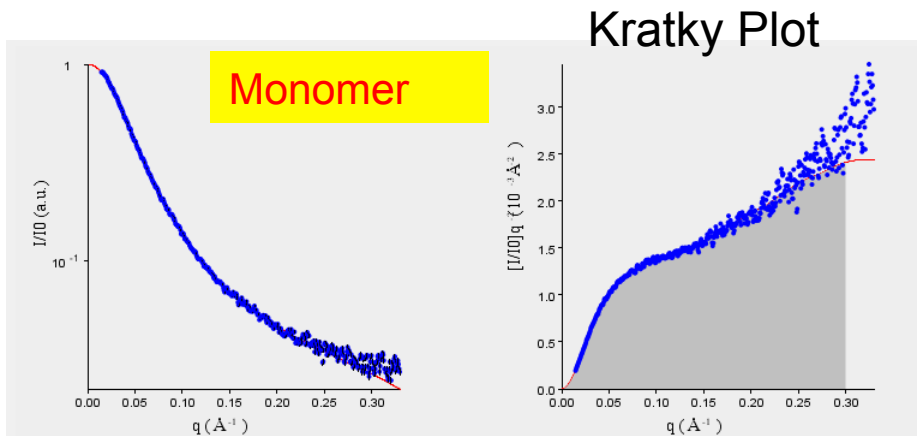


(2) Spc29 2-151 TRIS

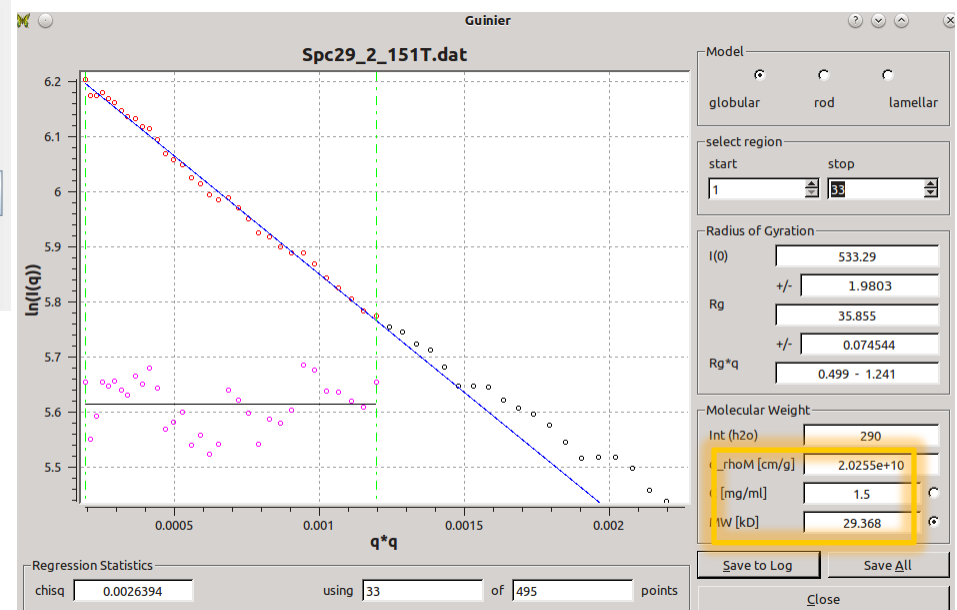
500mM TRIS at pH 8.0 (4C)

1 sec exposure time / 10 repeats

-> **More monomeric than HEPES buffer**



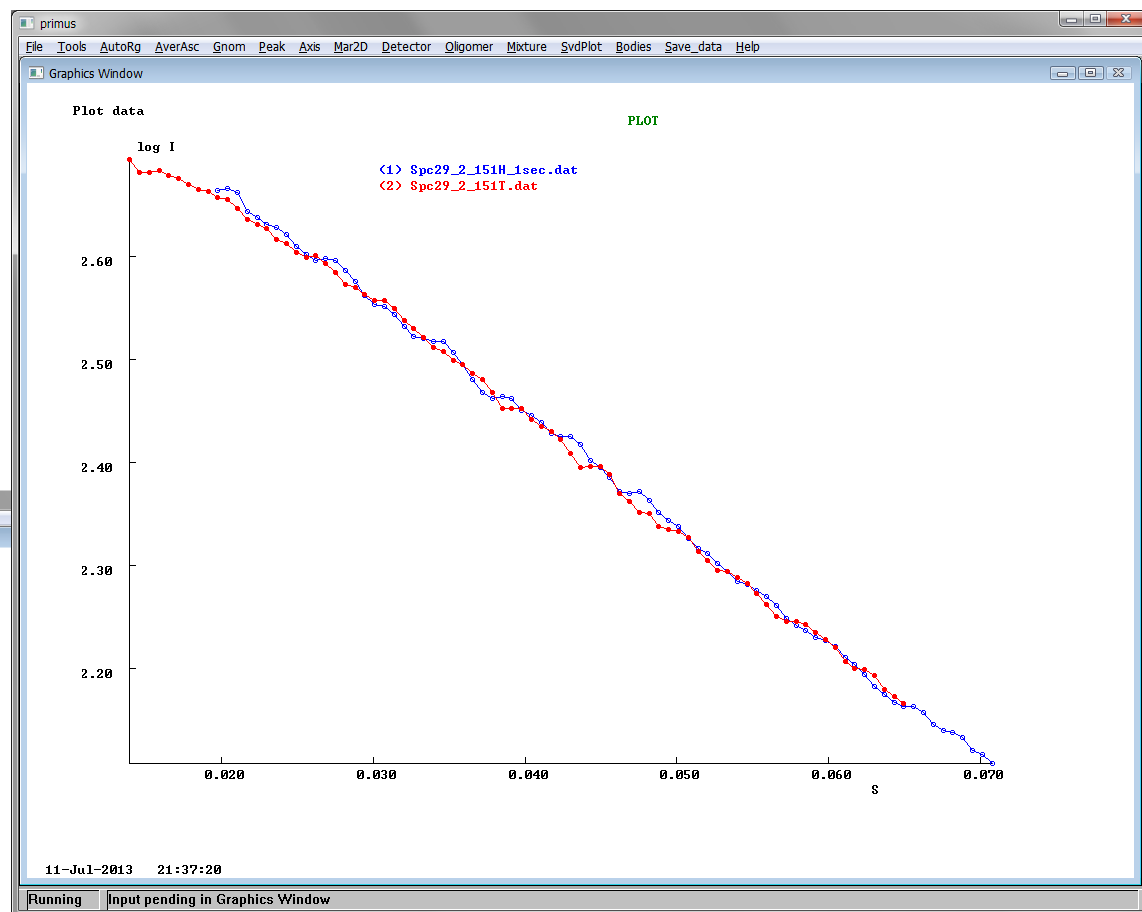
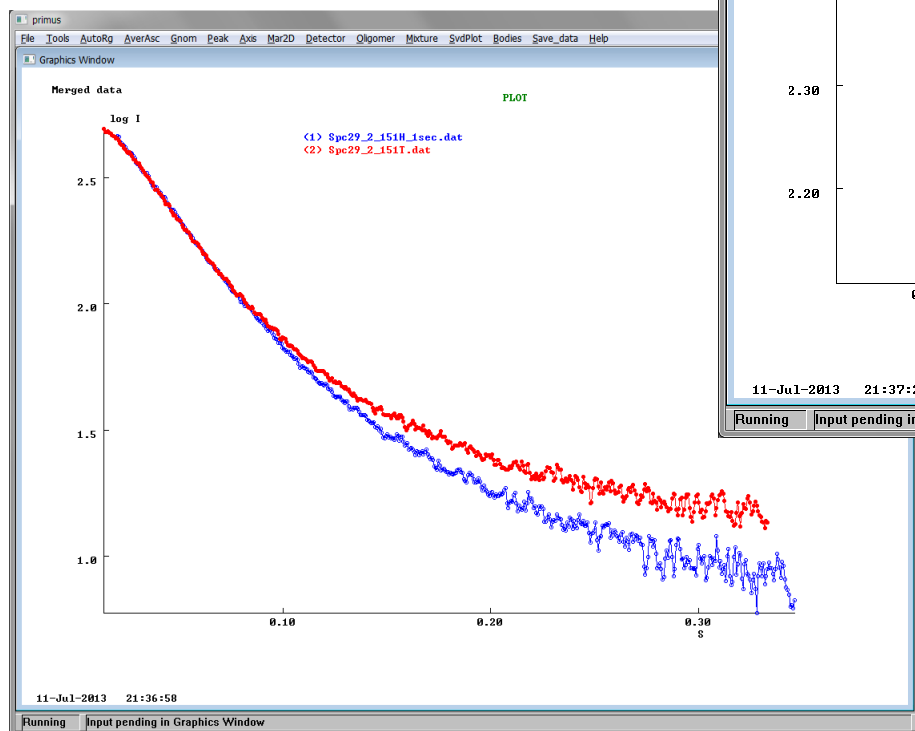
SAXS MOW (above) would be more reliable than the plot on the right



2013/06/21

(1 vs. 2) Spc29 2-151 HEPES vs. TRIS

More monomeric in TRIS buffer



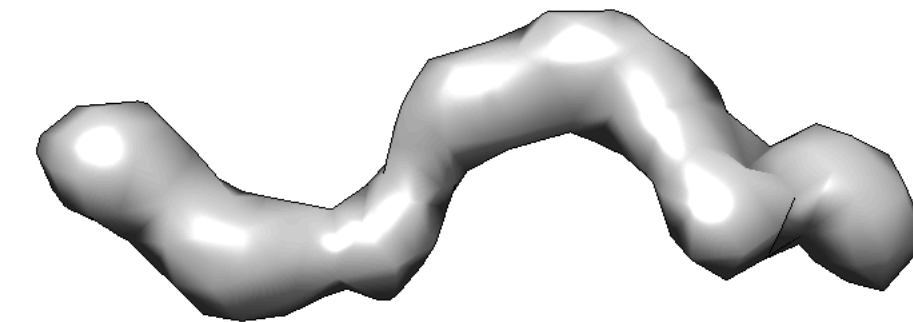
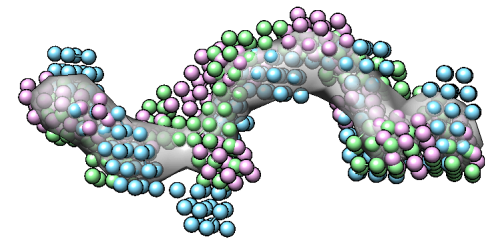
(2) Spc29 2-151 TRIS

500mM TRIS at pH 8.0 (4C)

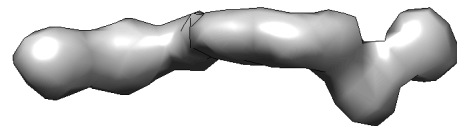
1 sec exposure time / 10 repeats

-> **More monomeric than HEPES buffer**

Individual solutions



.120 Å



.120 Å



.30 Å

Surface

Volume = 21.67e3

Area = 7053

Mean value of NSD : 1.124

Standard deviation of NSD : 0.038

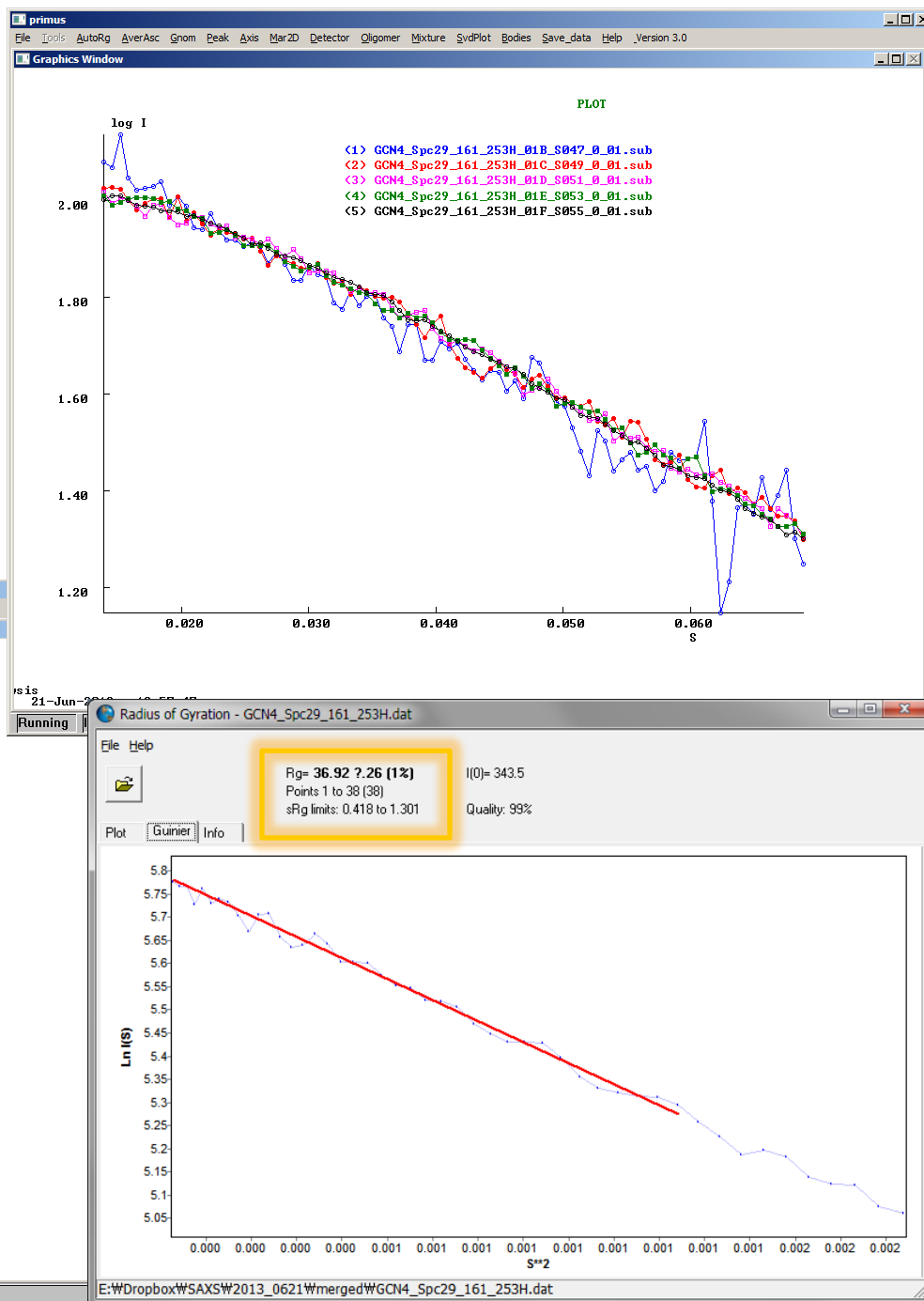
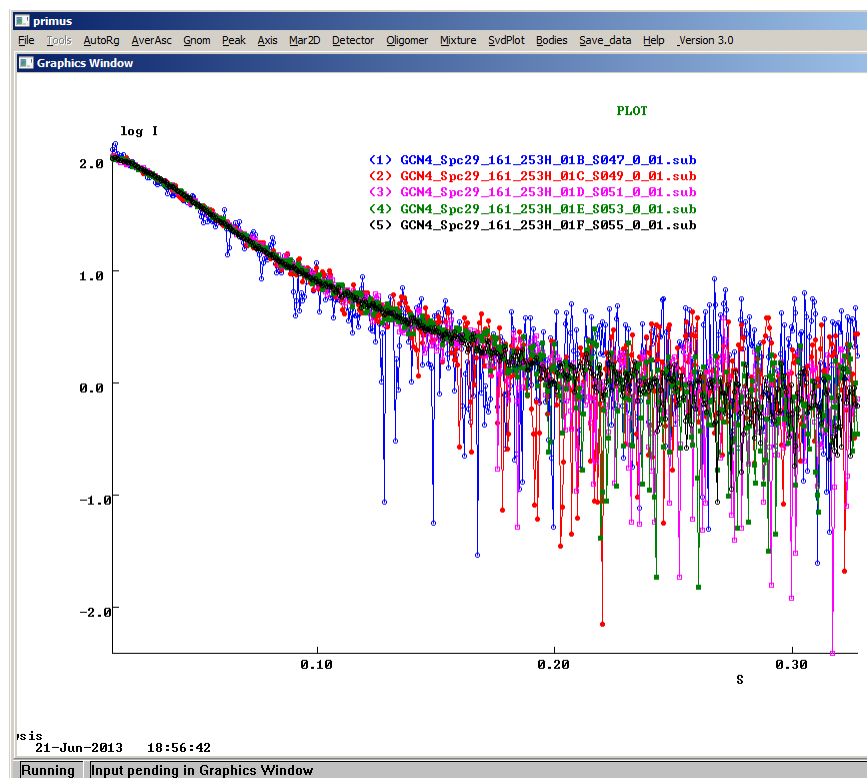
2013/06/21

(3) GCN4-Spc29 161-253 HEPES

50mM HEPES pH 7.6, 200mM SCN

1 sec exposure time / 10 repeats

MW; 14.4 kDa Int(H₂O) = 290, 15C

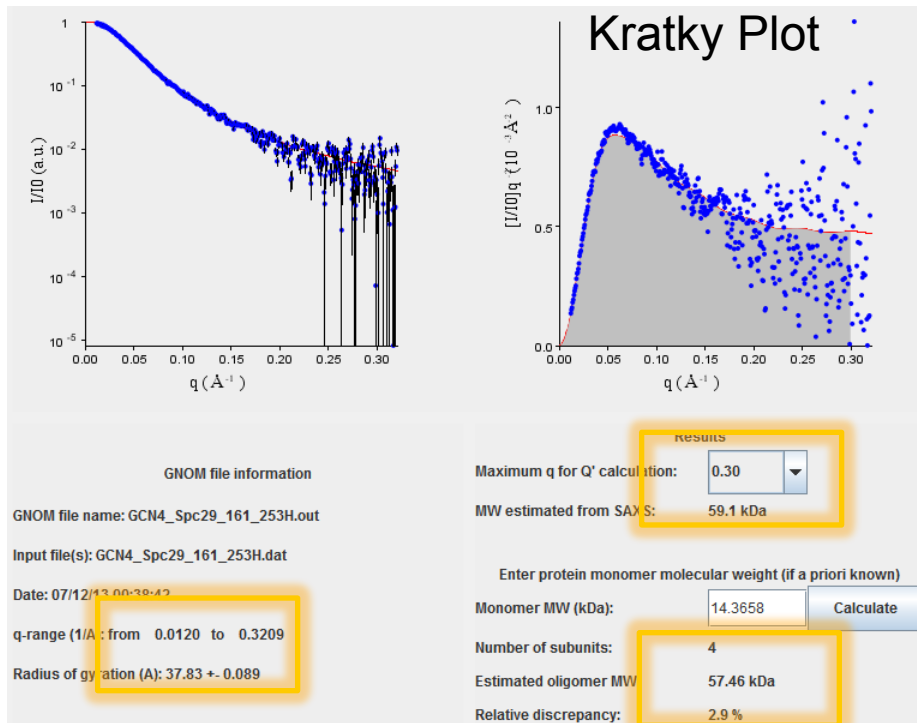


(3) GCN4-Spc29 161-253 HEPES

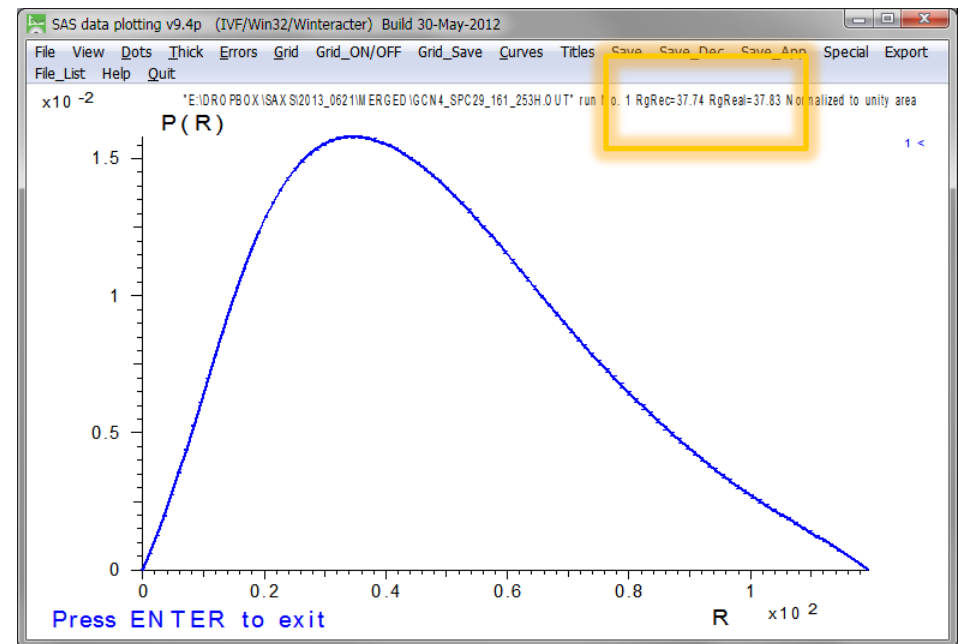
50mM HEPES pH 7.6, 200mM SCN

1 sec exposure time / 10 repeats

MW; 14.4 kDa Int(H₂O) = 290, 15C



Mixture of
Trimers and
Oligomers



Radial Distribution Function

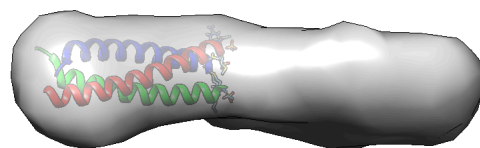
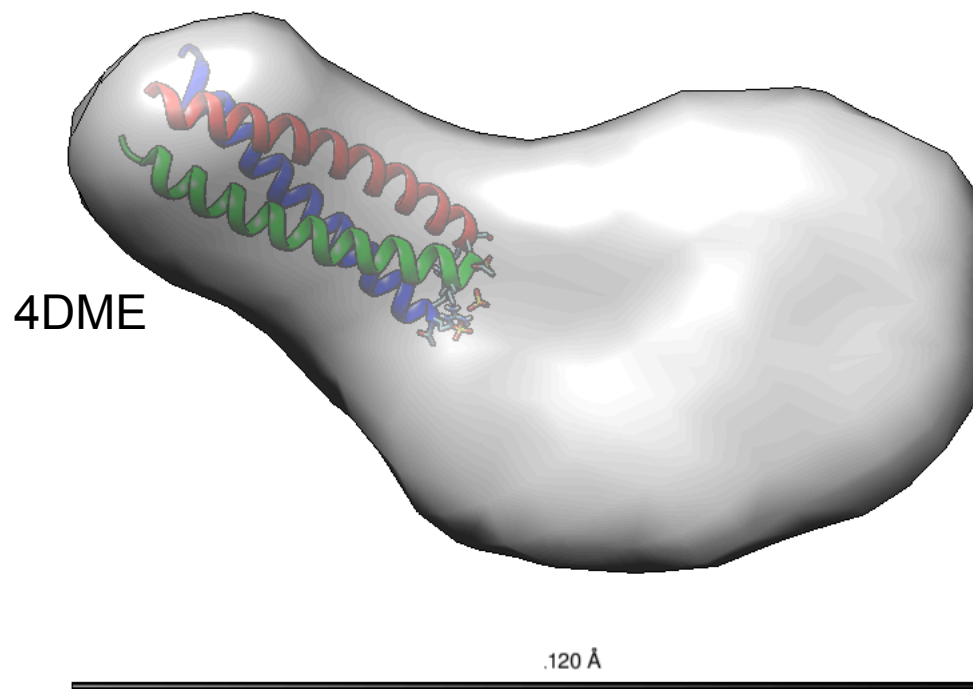
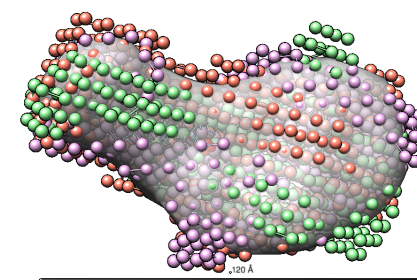
(3) GCN4-Spc29 161-253 HEPES

50mM HEPES pH 7.6, 200mM SCN

1 sec exposure time / 10 repeats

MW; 14.4 kDa Int(H₂O) = 290, 15C

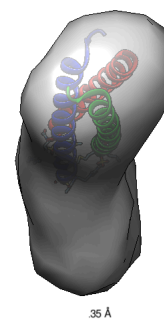
Individual solutions



Surface

Volume = 113.8e3

Area = 15.62e3



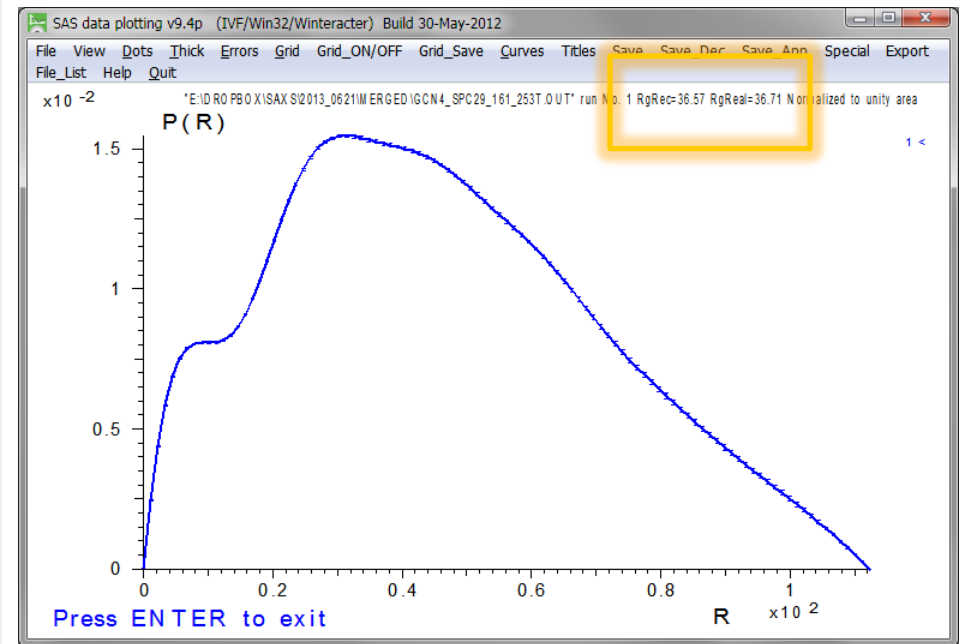
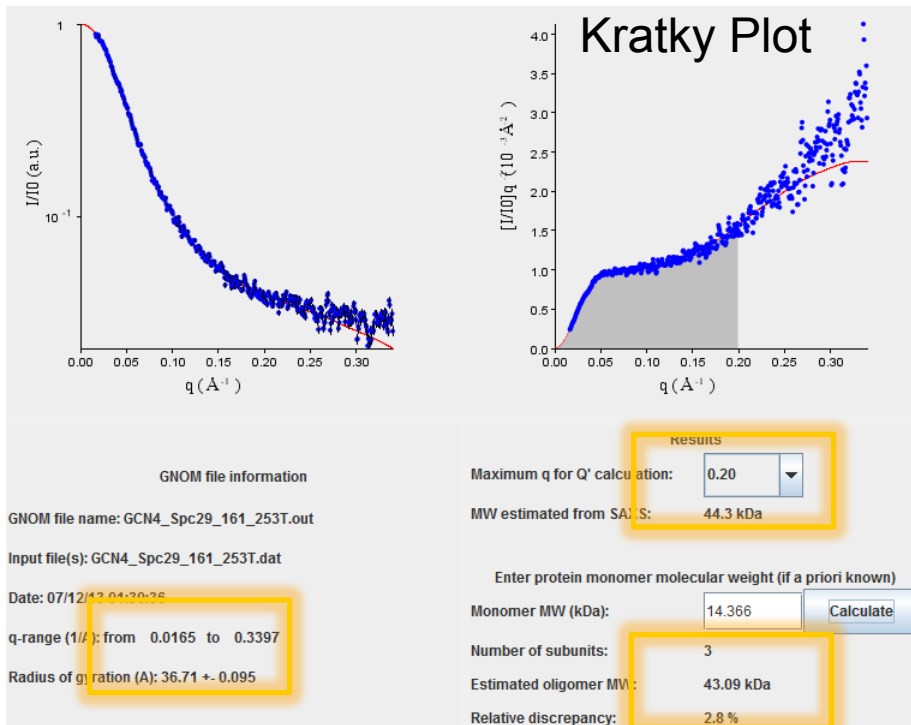
Mean value of NSD : 0.785
Standard deviation of NSD : 0.034

(4) GCN4-Spc29 161-253 TRIS

500mM TRIS at pH 8.0 (4C)

1 sec exposure time / 10 repeats

MW; 14.4 kDa Int(H₂O) = 290, 15C



Trimer

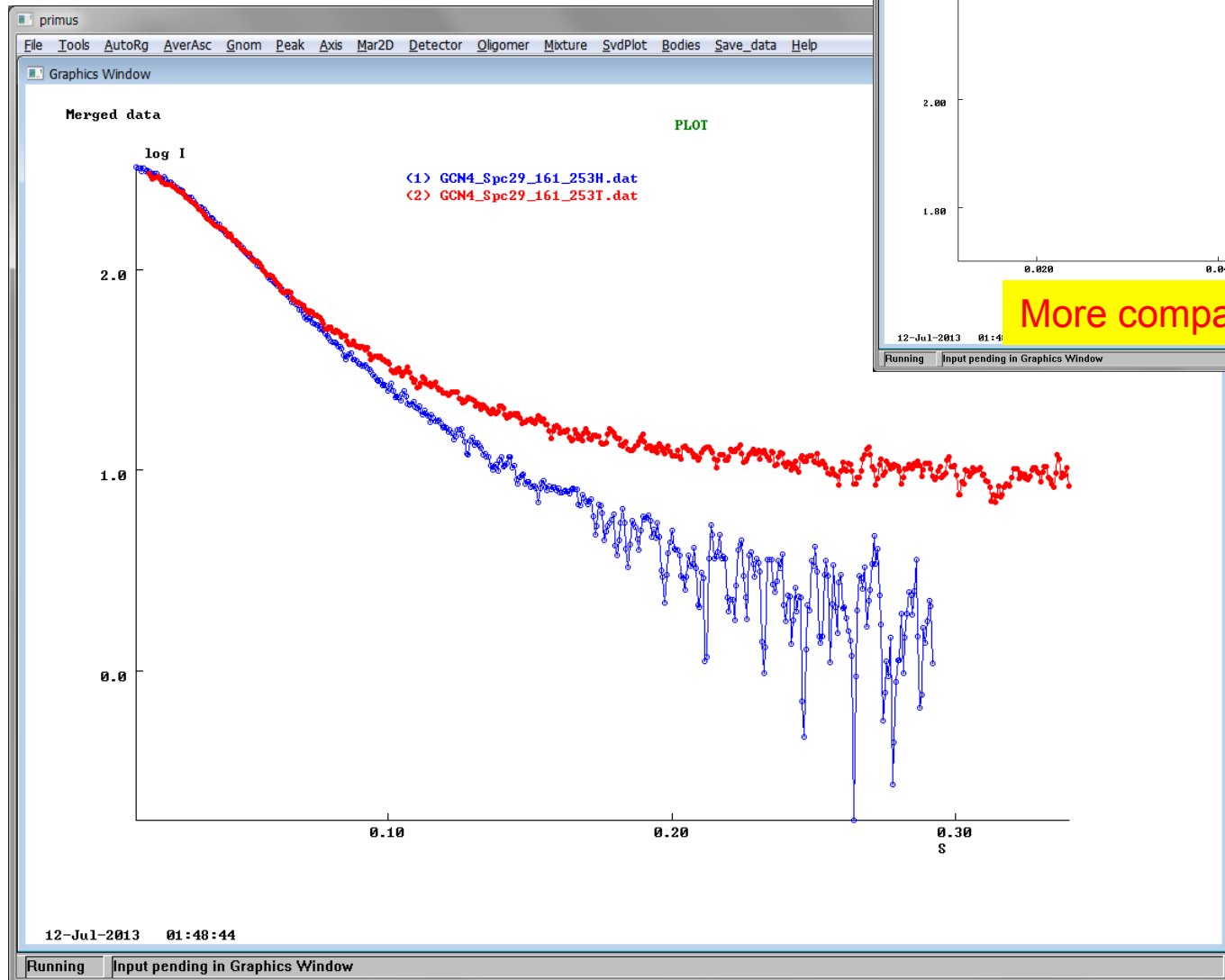
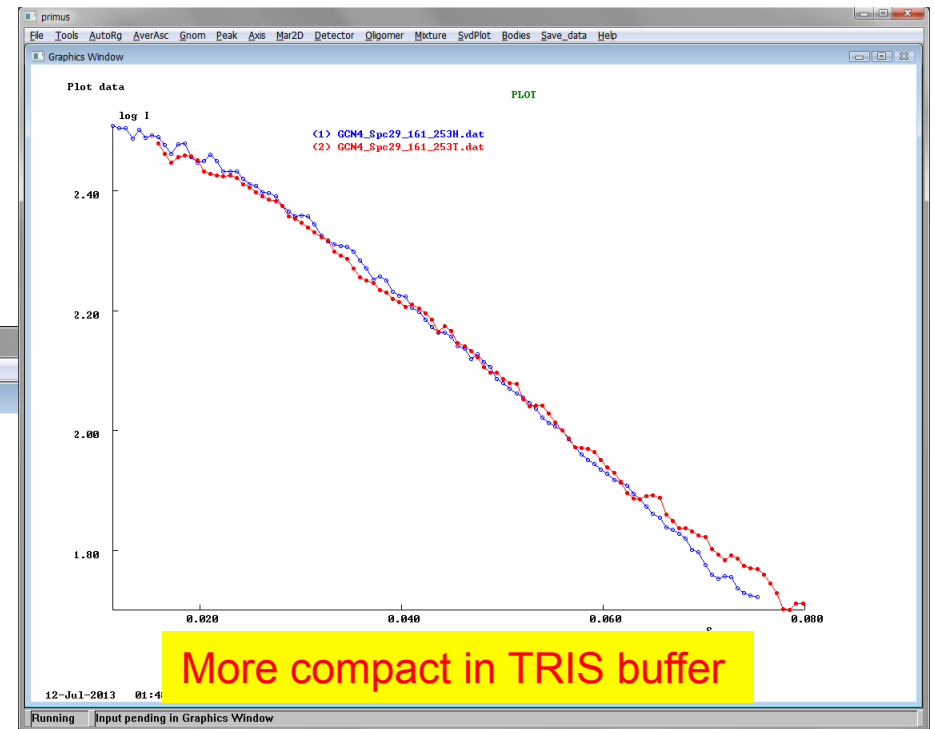
Slightly more **compact** in TRIS buffer, but more **flexible**?

-> possibly due to Minor Buffer Mismatch

2013/06/21

(3 vs. 4) GCN4-Spc29 161-253
HEPES vs. TRIS buffer

-> buffer mismatch...?

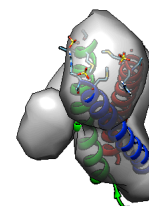
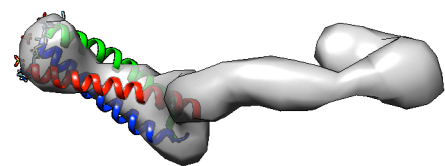
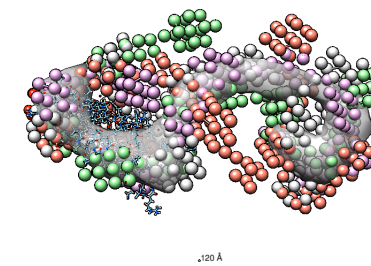
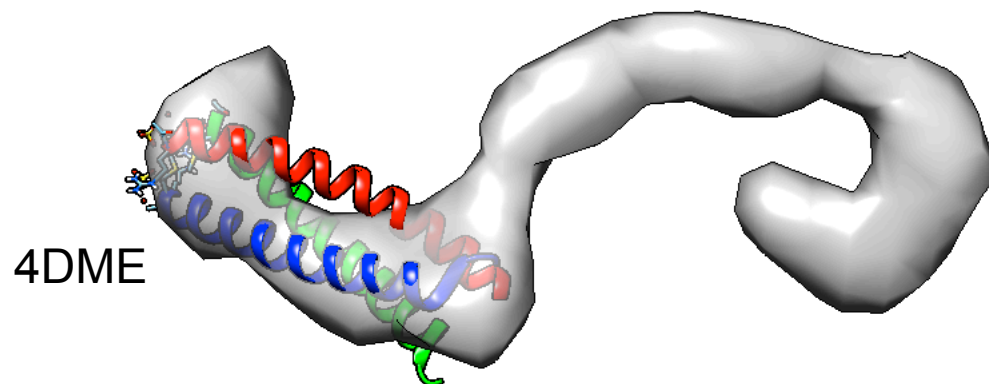


(4) GCN4-Spc29 161-253 TRIS

500mM TRIS at pH 8.0 (4C)

1 sec exposure time / 10 repeats

Individual solutions



Surface

Volume = 23.54e3

Area = 7860

