

Structure Factor Check

1JGC

Title: THE 2.6 A STRUCTURE RESOLUTION OF RHODOBACTER CAPSULATUS
BACTERIOFERRITIN WITH METAL-FREE DINUCLEAR SITE AND HEME IR
CRYSTALLOGRAPHIC SPECIAL POSITION

Date: 24-JUN-01

PDB code: 1JGC

Crystal

Cell parameters:

a: 142.37 A b: 142.37 A c: 140.88 A
 α : 90.00 β : 90.00 γ : 90.00

Space group: I 4 2 2

Structure Factors

Input

Nominal resolution range: 21.4 - 2.59 A
 Reflections in file: 22679
 Unique reflections above 0: 22679
 above 1 σ : 22315
 above 3 σ : 19828

SF CHECK

Nominal resolution range: 21.4 - 2.60 A
 \05max. from input data, min. from author\05
 Used reflections: 22525
 Reflections out of resolution: 154
 Completeness: 100.0 %
 R_{stand}(F) = $\langle \sigma(F) \rangle / \langle F \rangle$: 0.027
 Anisotropic distribution of Structure Factors
 ratio of eigen values: 1.0000 1.0000 0.7325
 B_{overall} (by Patterson): 36.A²
 Optical resolution: 1.89 A
 Estimated minimal error: 0.028 A

Model

3981 atoms (21 water molecules)

Number of chains: 9

Volume not occupied by model: 53.6 %

$\langle B \rangle$ (for atomic model): 26.2 A²

$\sigma(B)$: 5.83 A²

Matthews coefficient: 3.20

Corresponding solvent % : 61.29

Model vs. Structure Factors

R-factor for all reflections: 0.267
 Correlation factor: 0.865
 R-factor: 0.269
 for $F > 2.0 \sigma$
 nom. resolution range: 21.44 - 2.60A
 reflections used: 22162

R_{free}: 0.286
 N_{free}: 1078
 R-factor without free-refl.: 0.268
 Non free-reflections: 21084
 $\langle u \rangle$ (error in coords by Luzzati plot): 0.371 A
 Estimated maximal error: 0.219 A
 DPI: 0.263 A

Scaling

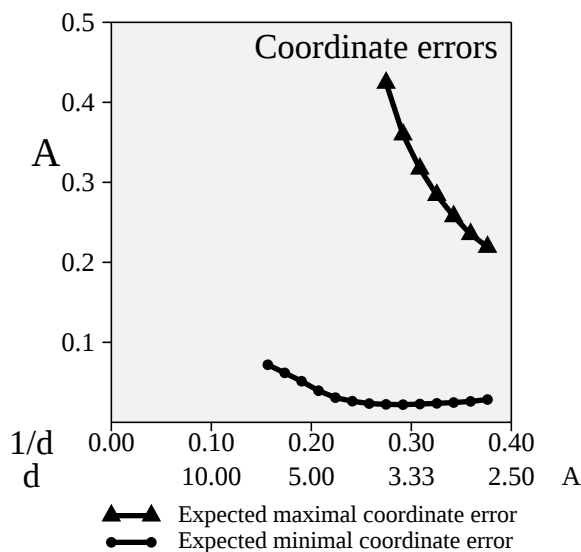
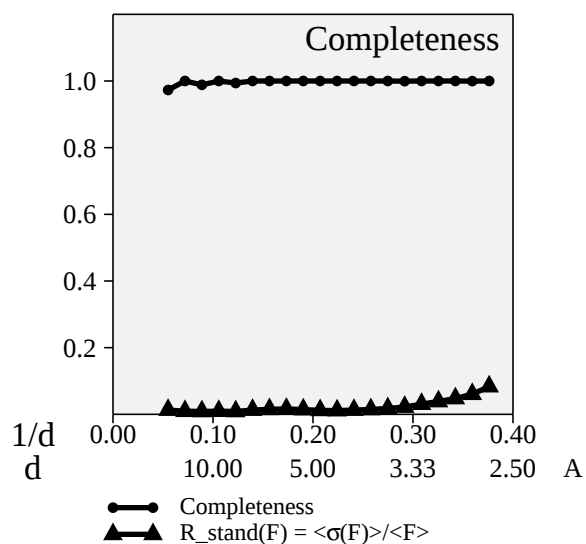
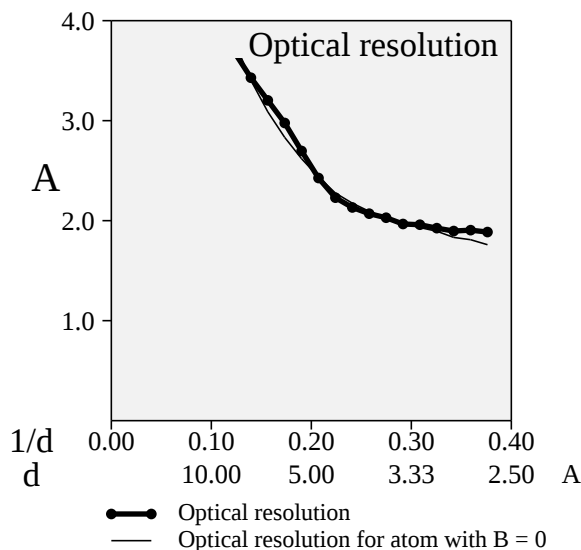
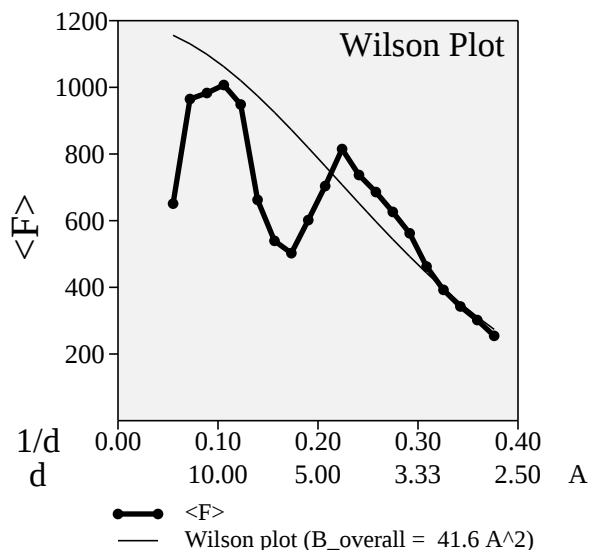
Scale: 0.422
 B_{diff}: -3.54
 Anisothermal Scaling (Beta):
 1.0648 1.0648 -1.4513 0.0000 0.0000 0.0000
 Solvent correction - K_s,B_s: 0.649 250.006

Refinement

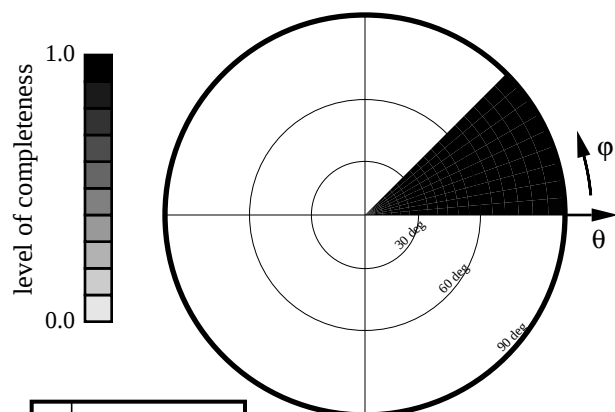
Program: CNS
 Nominal resolution range: 21.4 - 2.60 A
 Reported R-factor: 0.225
 Number of reflections used: 22526
 Reported R_{free}: 0.24
 Sigma cut-off: N.A.

Structure Factor Check

1JGC

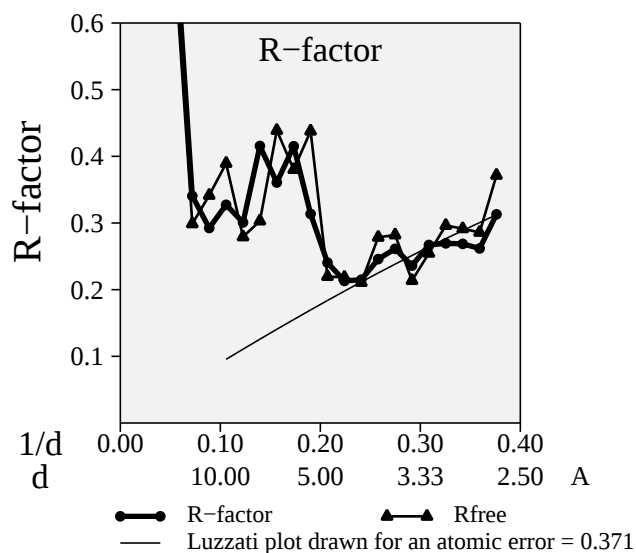


Stereographic projection of the averaged radial completeness



	θ	ϕ
h	90.00	0.00
k	90.00	90.00
l	0.00	0.00

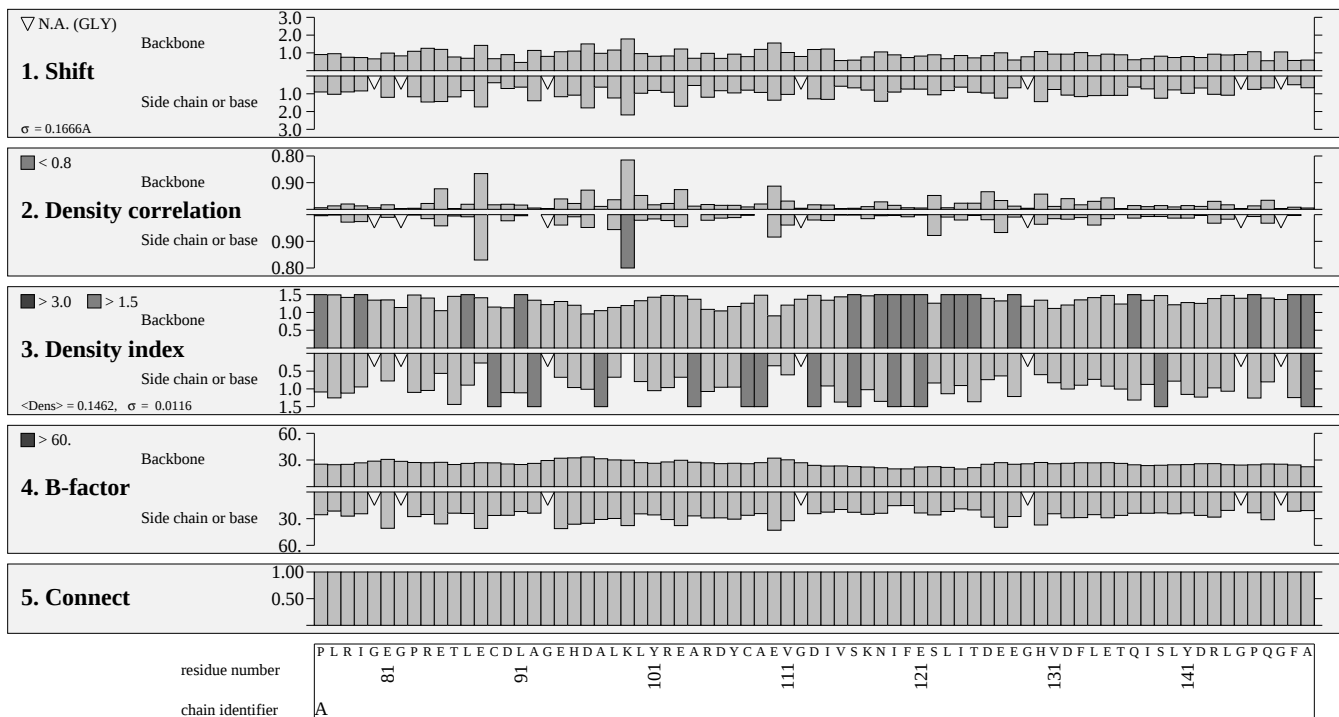
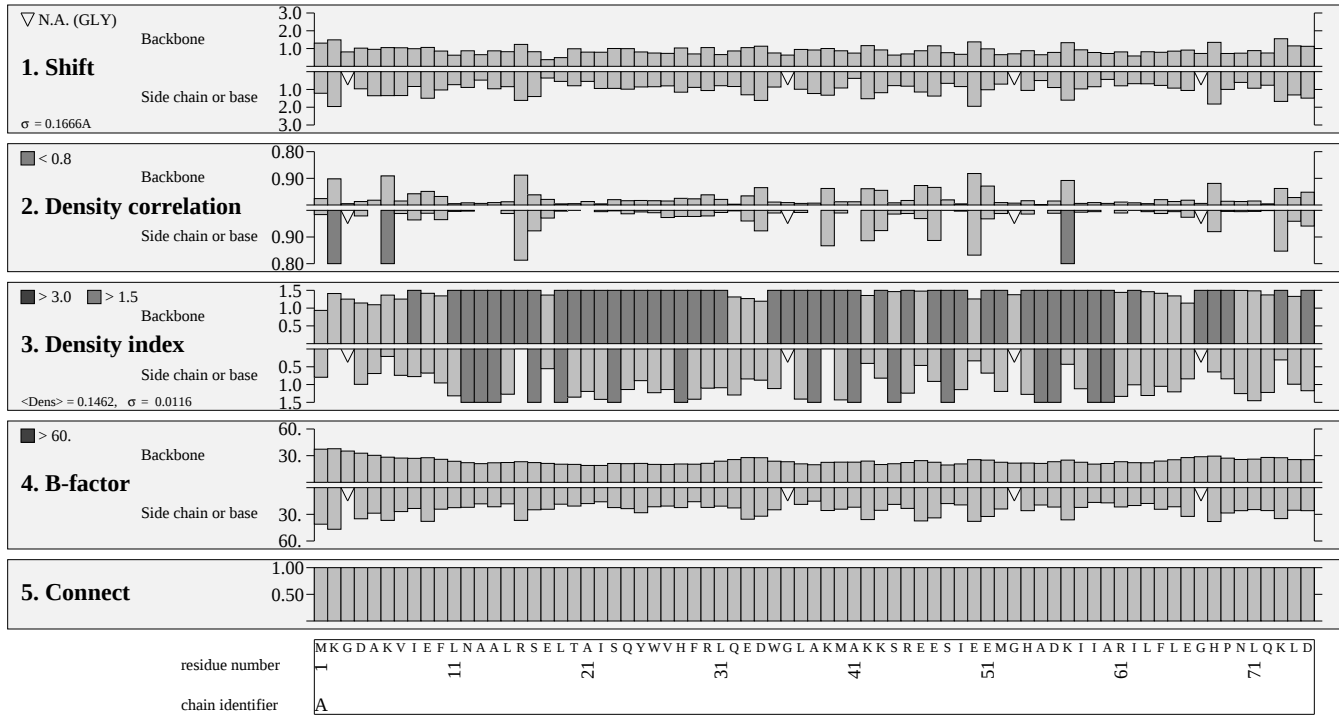
polar coordinates of the crystallographical axes



Structure Factor Check

1JGC

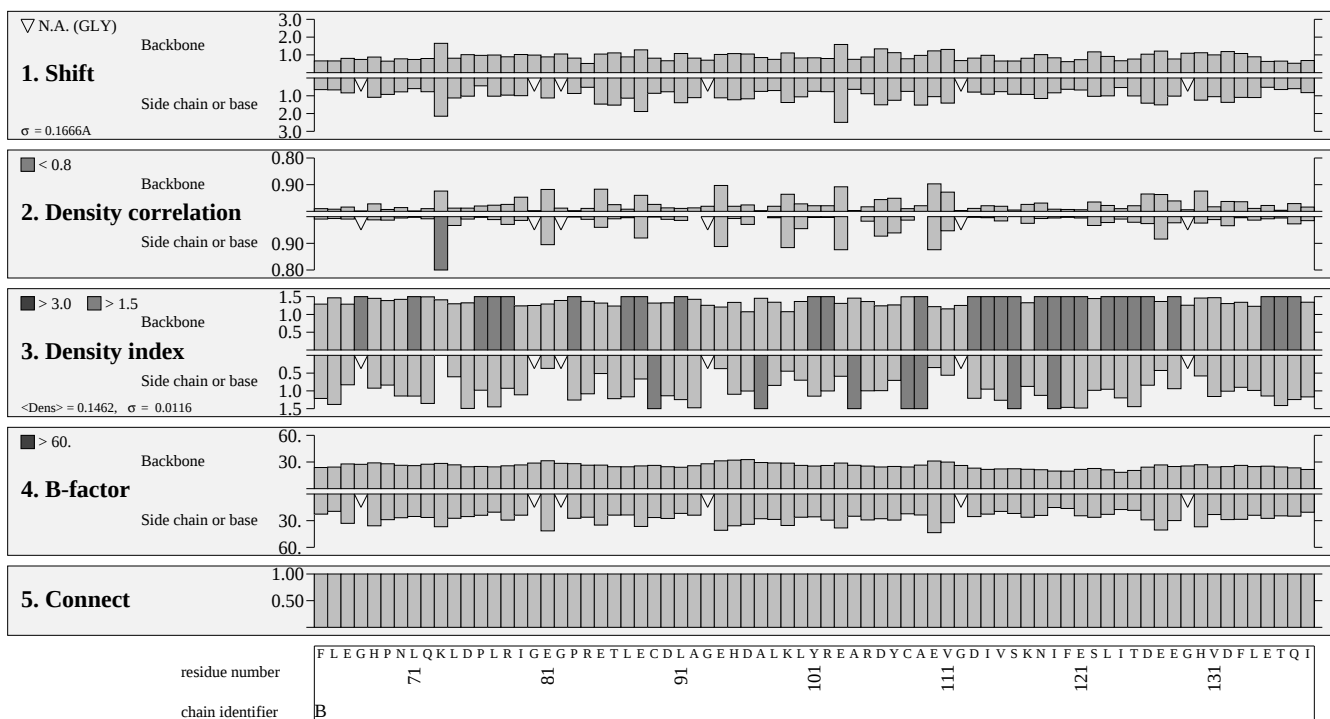
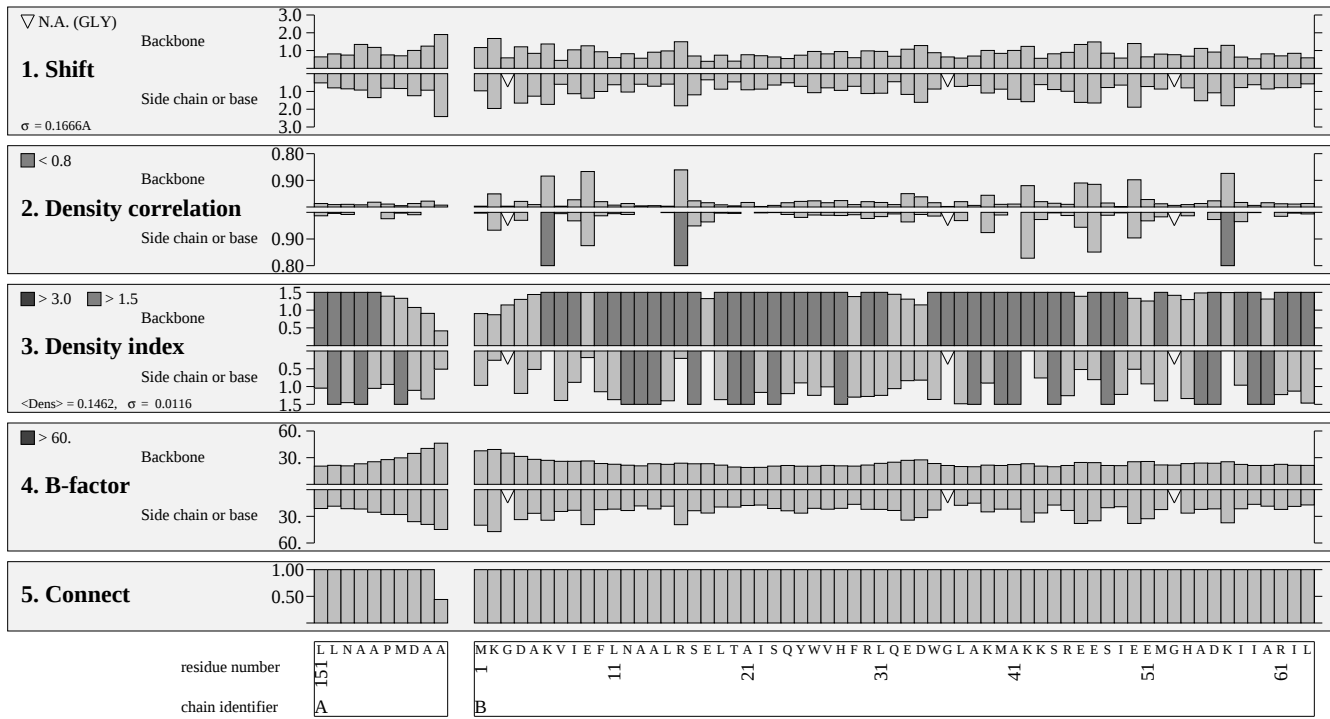
Local estimation



Structure Factor Check

1JGC

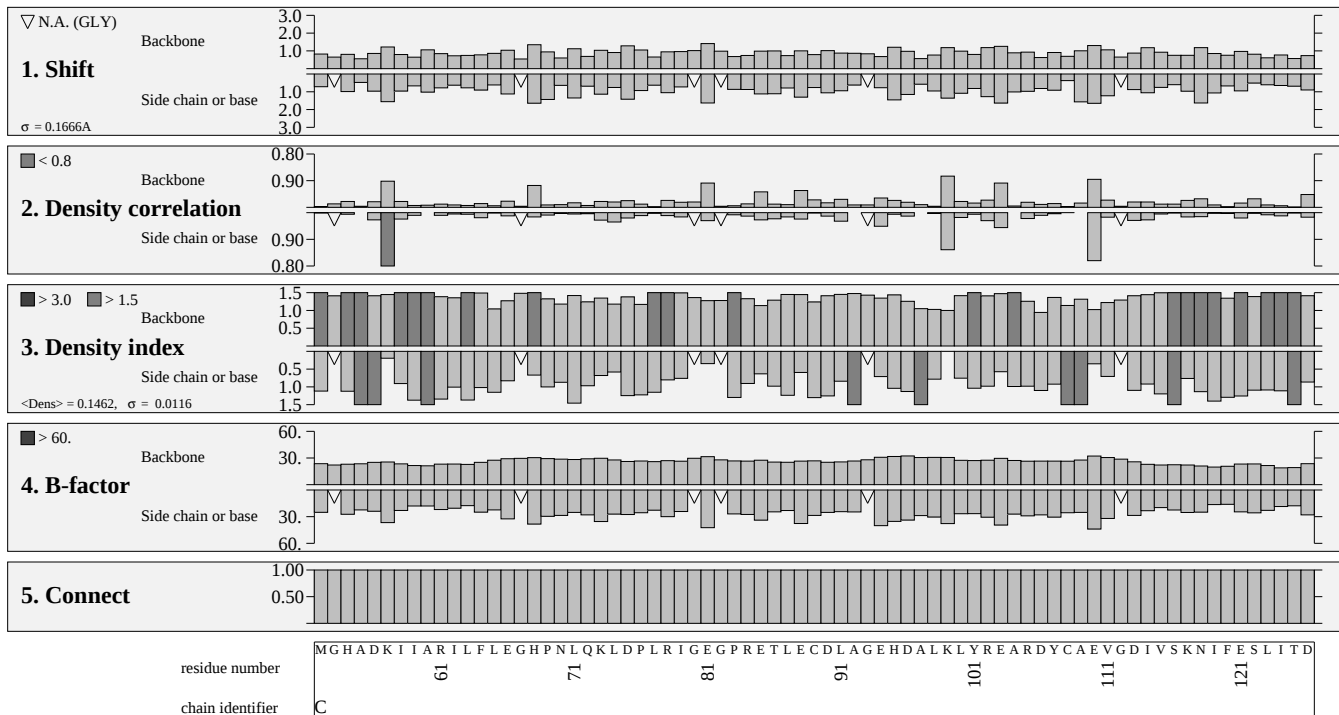
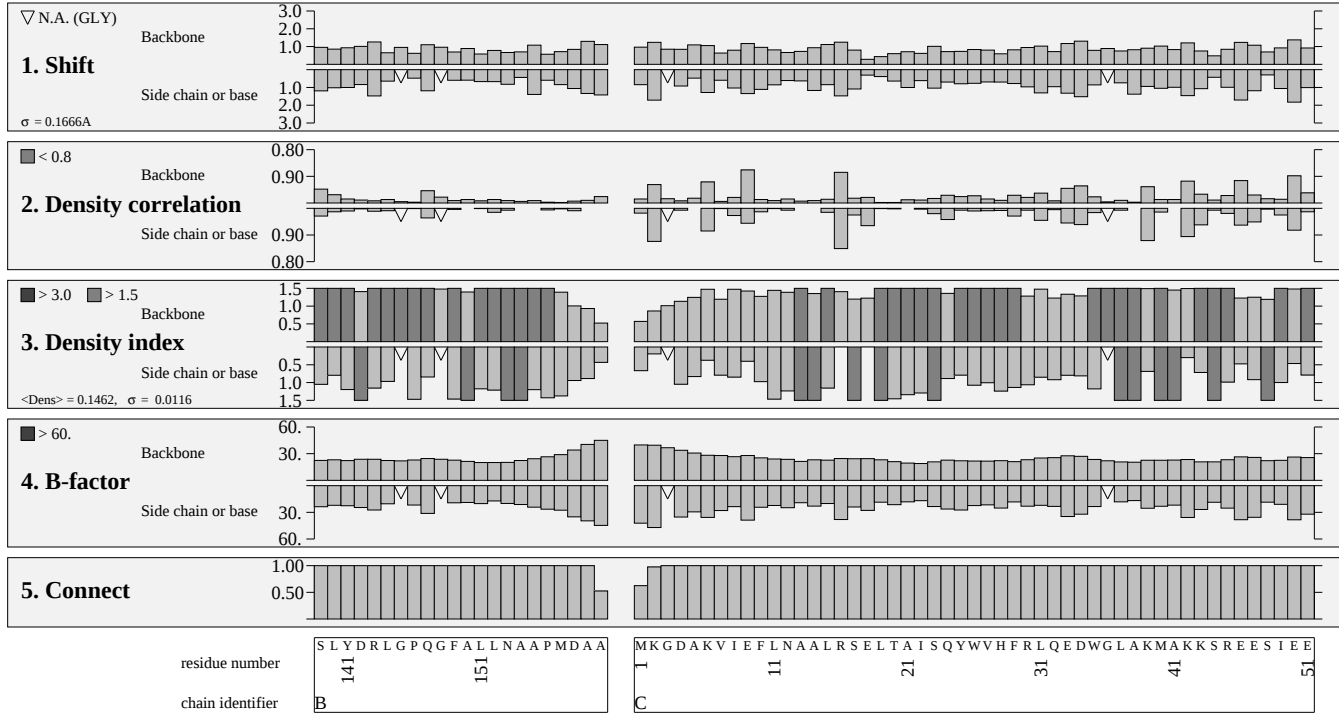
Local estimation (2)



Structure Factor Check

1JGC

Local estimation (3)



Structure Factor Check

1JGC

Local estimation (4)

