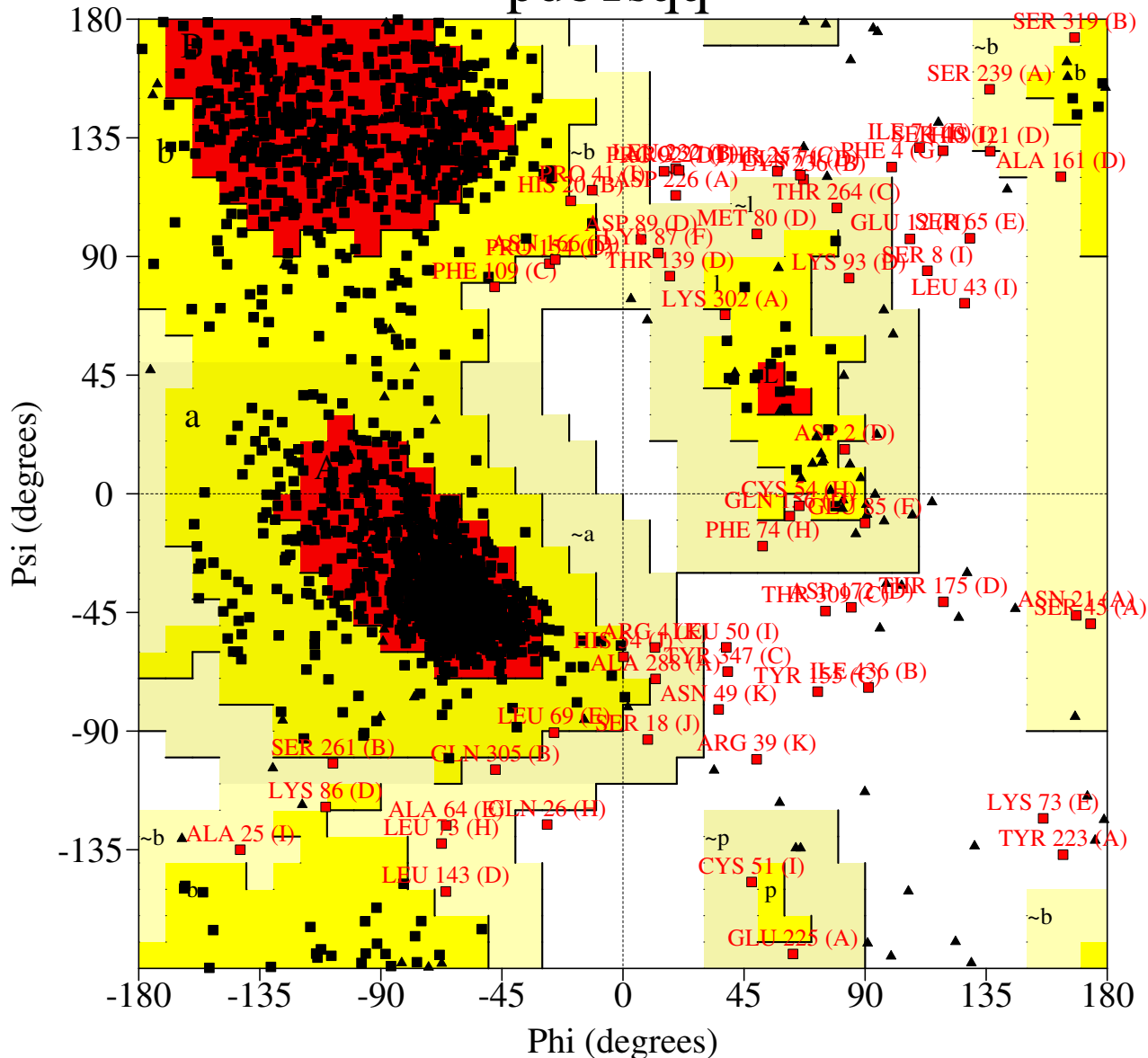


# Ramachandran Plot

pdb1sqq



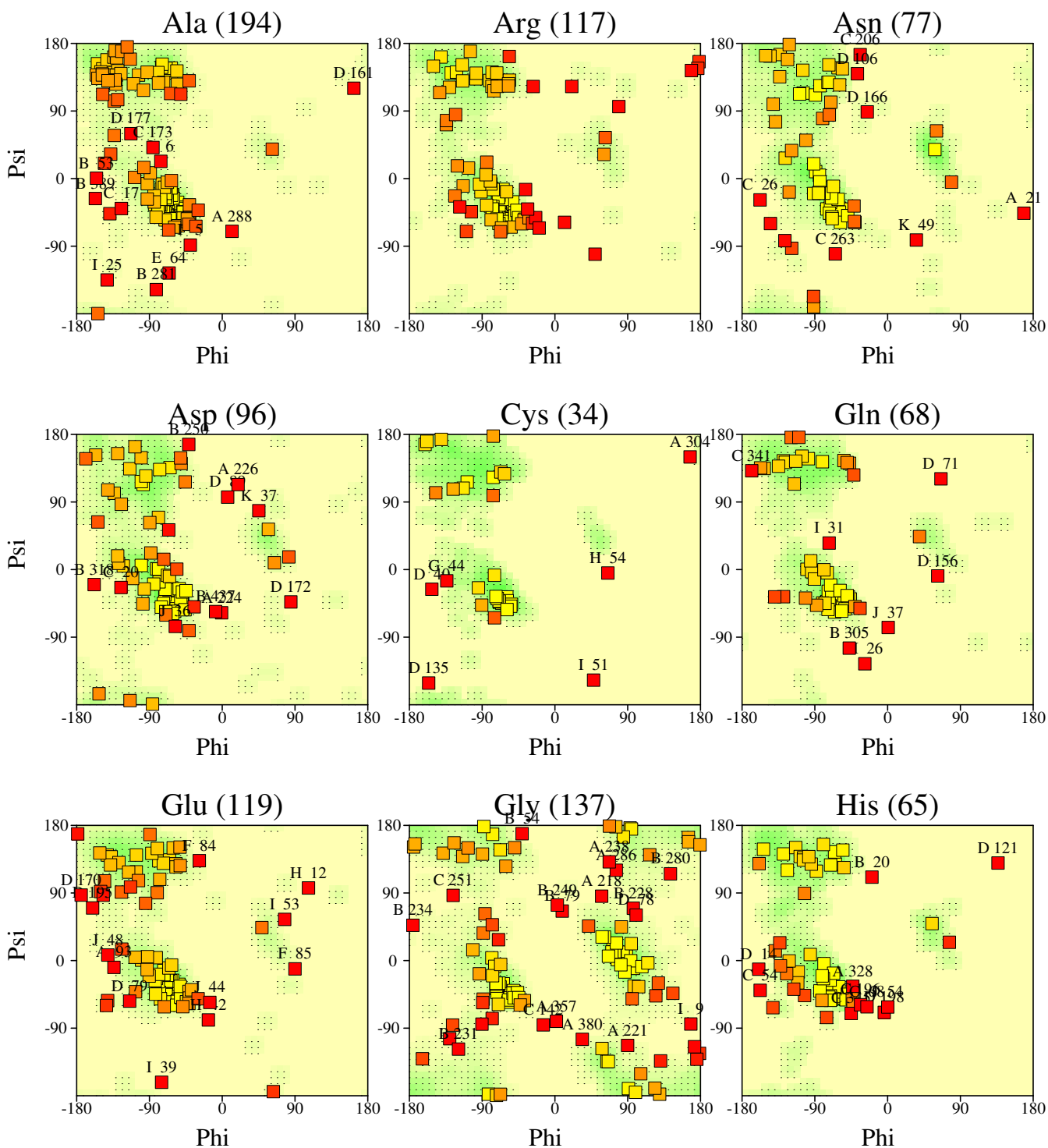
### Plot statistics

Residues in most favoured regions [A,B,L]	1526	83.1%
Residues in additional allowed regions [a,b,l,p]	251	13.7%
Residues in generously allowed regions [-a,-b,-l,-p]	35	1.9%
Residues in disallowed regions	25	1.4%
Number of non-glycine and non-proline residues	1837	100.0%
Number of end-residues (excl. Gly and Pro)	18	
Number of glycine residues (shown as triangles)	140	
Number of proline residues	109	
Total number of residues	2104	

Based on an analysis of 118 structures of resolution of at least 2.0 Angstroms and R-factor no greater than 20%, a good quality model would be expected to have over 90% in the most favoured regions.

# Ramachandran plots for all residue types

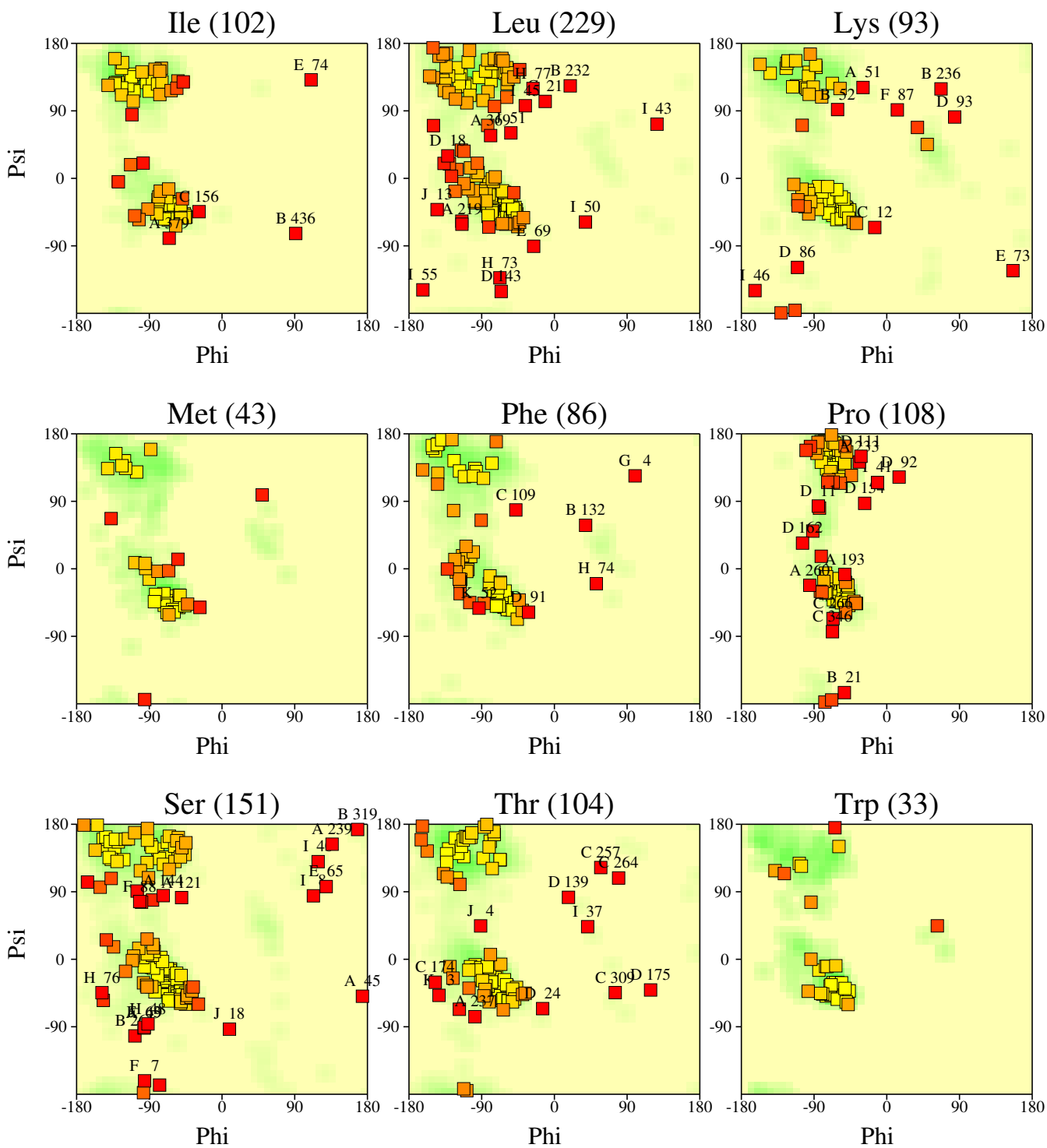
pdb1sqq



Numbers of residues are shown in brackets. Those in unfavourable conformations (score < -3.00) are labelled. Shading shows favourable conformations as obtained from an analysis of 163 structures at resolution 2.0A or better.

# Ramachandran plots for all residue types

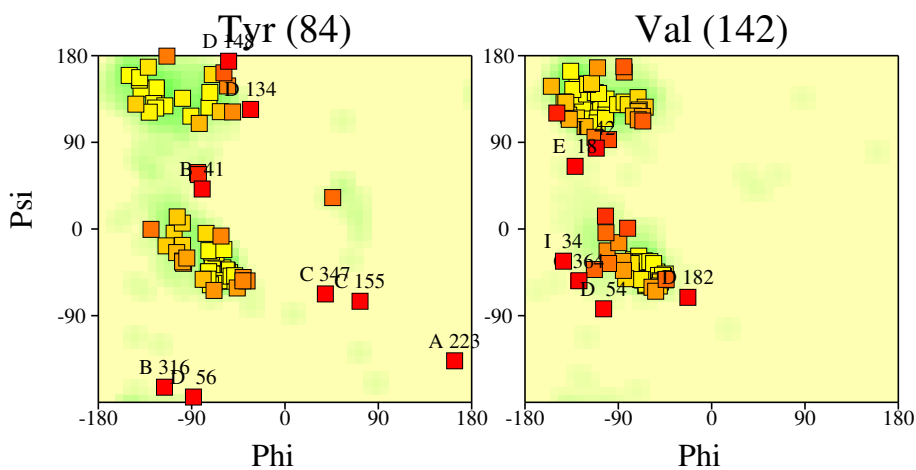
## pdb1sqq



Numbers of residues are shown in brackets. Those in unfavourable conformations (score < -3.00) are labelled. Shading shows favourable conformations as obtained from an analysis of 163 structures at resolution 2.0A or better.

# Ramachandran plots for all residue types

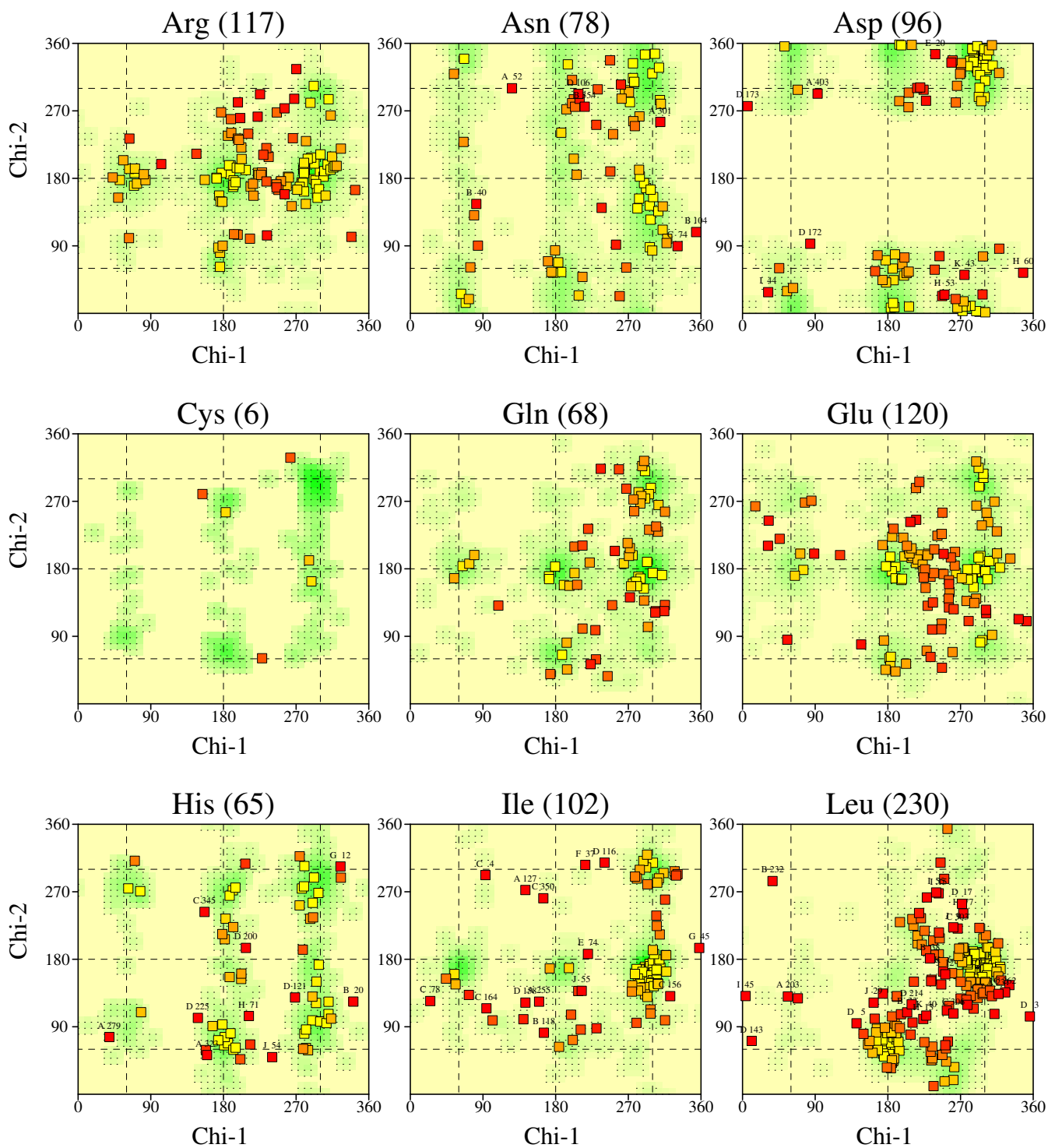
pdb1sqq



Numbers of residues are shown in brackets. Those in unfavourable conformations (score < -3.00) are labelled. Shading shows favourable conformations as obtained from an analysis of 163 structures at resolution 2.0A or better.

# Chi1-Chi2 plots

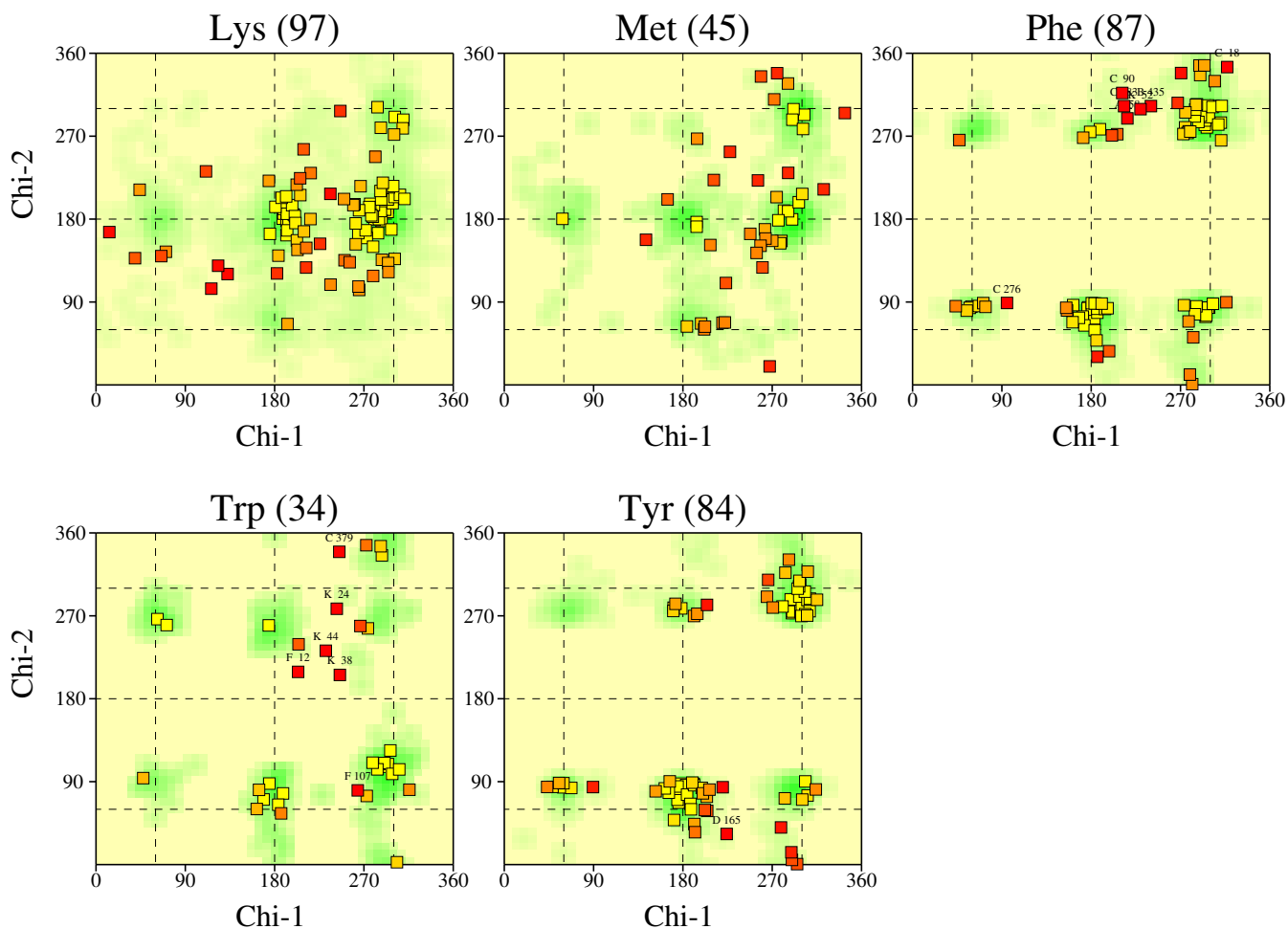
## pdb1sqq



Numbers of residues are shown in brackets. Those in unfavourable conformations (score < -3.00) are labelled. Shading shows favourable conformations as obtained from an analysis of 163 structures at resolution 2.0A or better.

# Chi1-Chi2 plots

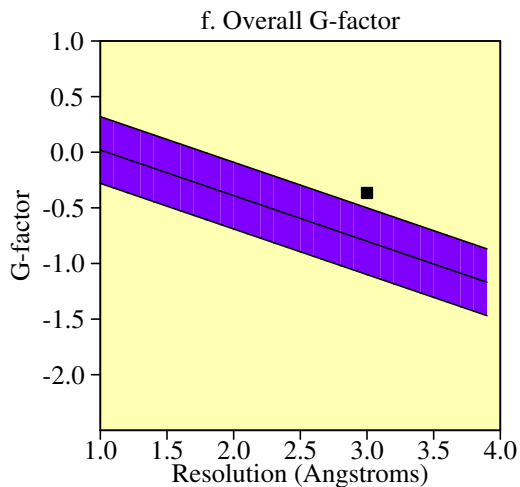
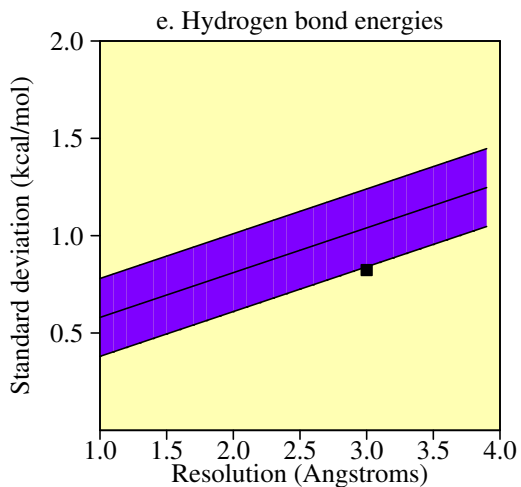
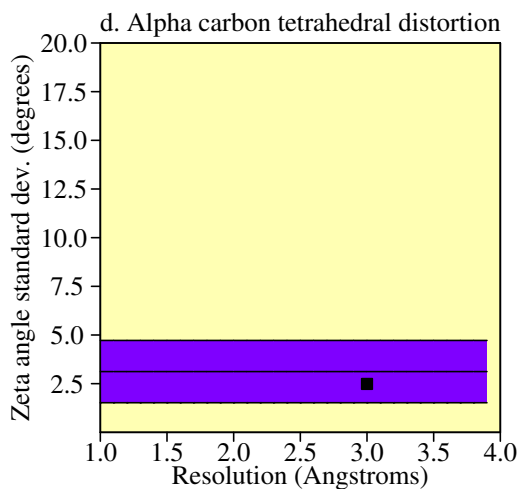
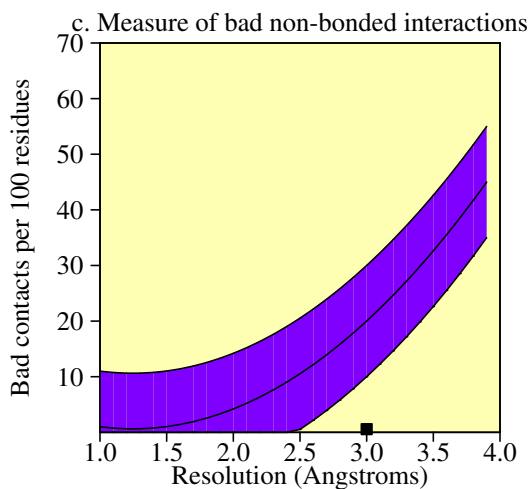
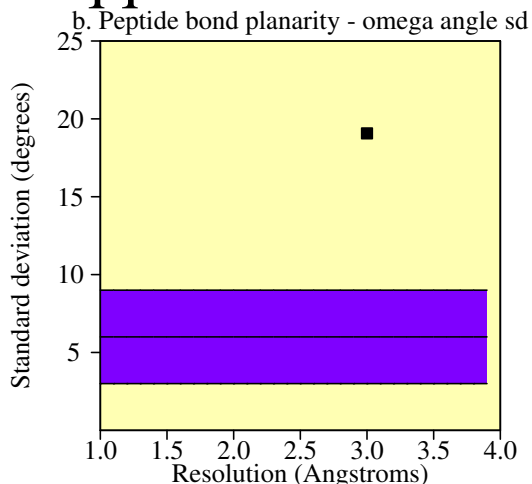
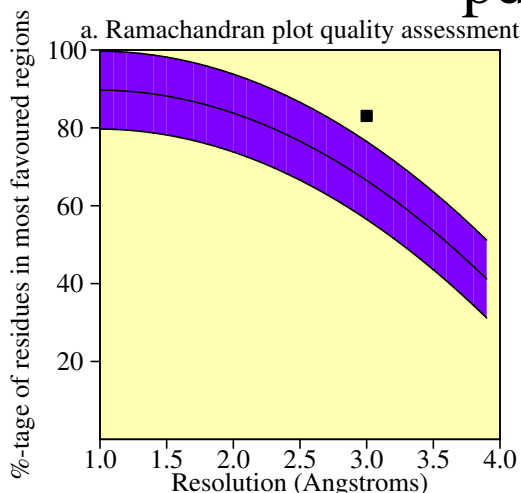
## pdb1sqq



Numbers of residues are shown in brackets. Those in unfavourable conformations (score < -3.00) are labelled. Shading shows favourable conformations as obtained from an analysis of 163 structures at resolution 2.0A or better.

# Main-chain parameters

## pdb1sqq

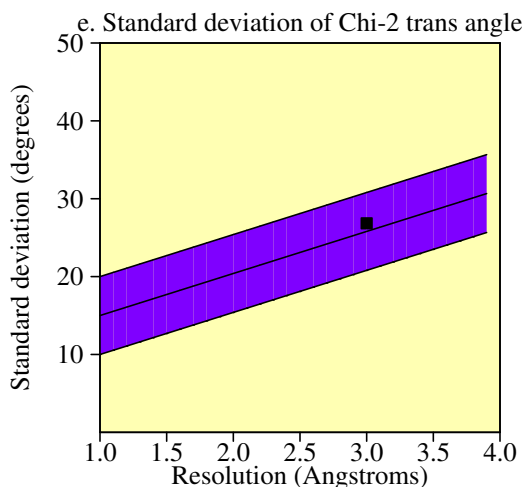
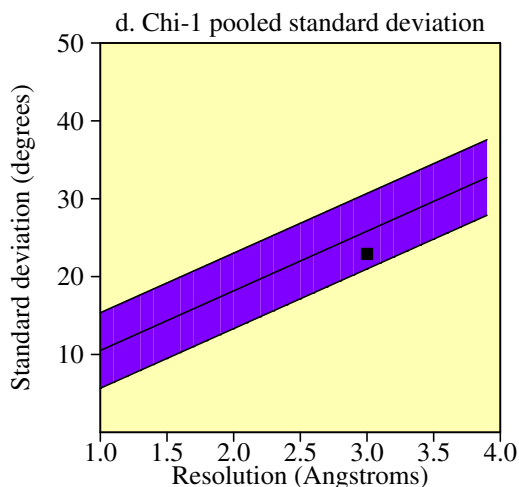
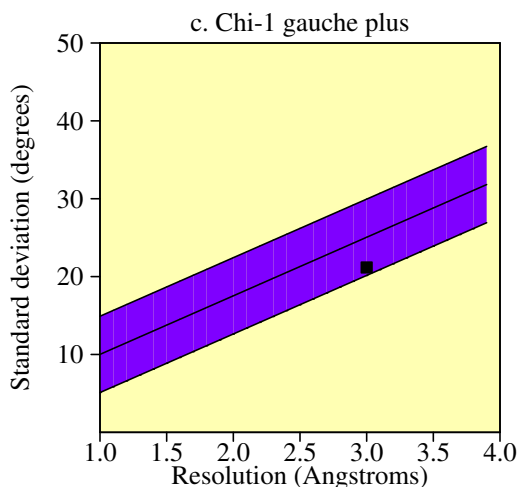
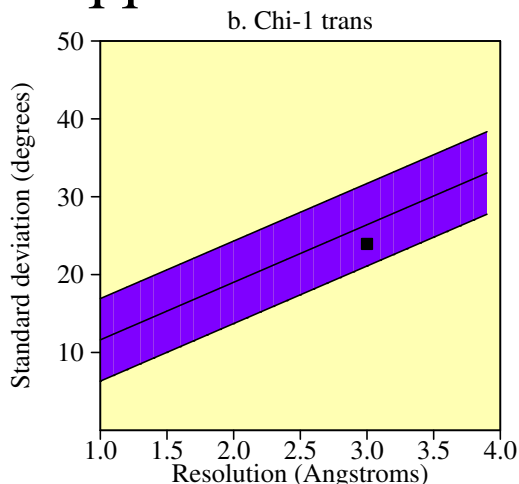
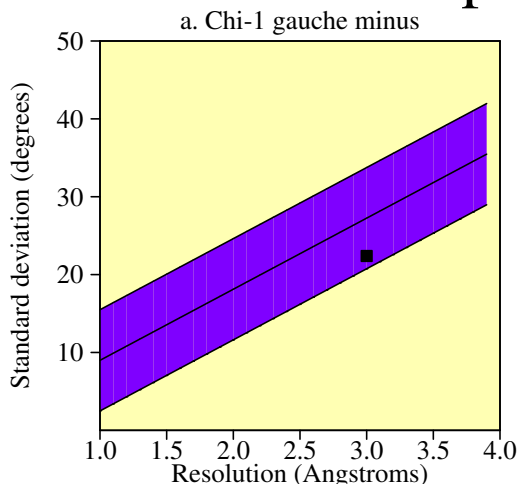


### Plot statistics

Stereochemical parameter	No. of data pts	Parameter value	Comparison values		No. of band widths from mean	
			Typical value	Band width		
a. %-tage residues in A, B, L	1837	83.1	66.5	10.0	1.7	BETTER
b. Omega angle st dev	2092	19.1	6.0	3.0	4.4	WORSE
c. Bad contacts / 100 residues	12	0.6	20.0	10.0	-1.9	BETTER
d. Zeta angle st dev	1964	2.5	3.1	1.6	-0.4	Inside
e. H-bond energy st dev	1372	0.8	1.0	0.2	-1.1	BETTER
f. Overall G-factor	2104	-0.4	-0.8	0.3	1.4	BETTER

# Side-chain parameters

## pdb1sqq



pdb1sqq

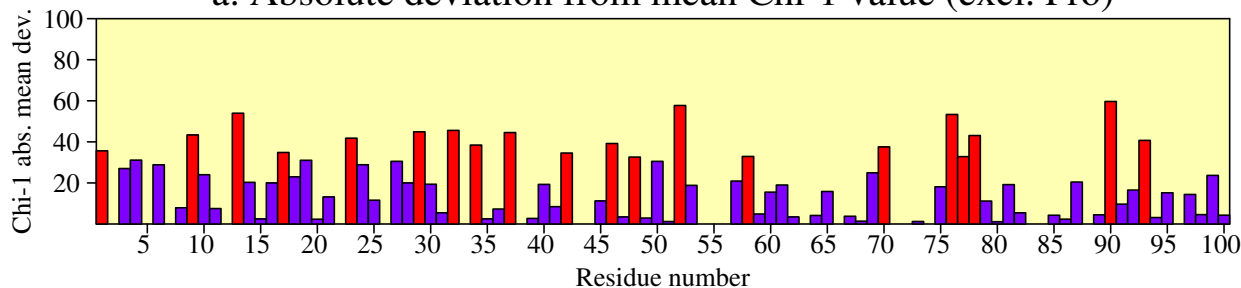
### Plot statistics

Stereochemical parameter	No. of data pts	Parameter value	Comparison values		No. of band widths from mean	
			Typical value	Band width		
a. Chi-1 gauche minus st dev	221	22.4	27.2	6.5	-0.7	Inside
b. Chi-1 trans st dev	615	23.9	26.4	5.3	-0.5	Inside
c. Chi-1 gauche plus st dev	824	21.2	25.0	4.9	-0.8	Inside
d. Chi-1 pooled st dev	1660	22.9	25.8	4.8	-0.6	Inside
e. Chi-2 trans st dev	536	26.8	25.8	5.0	0.2	Inside

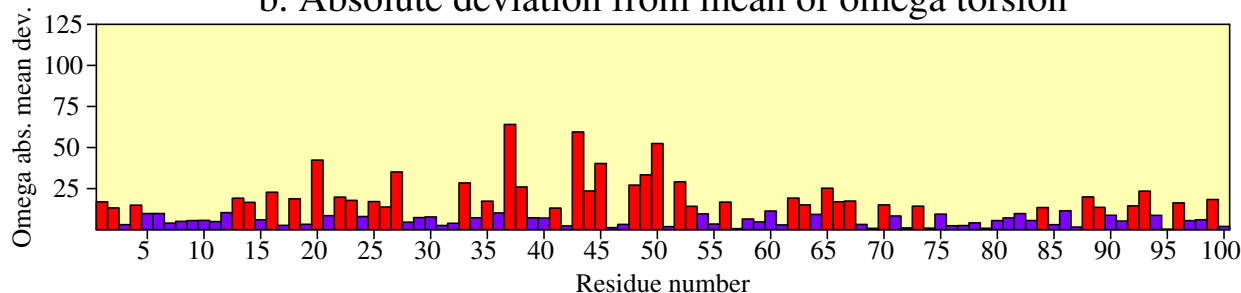


# Residue properties pdb1sqq

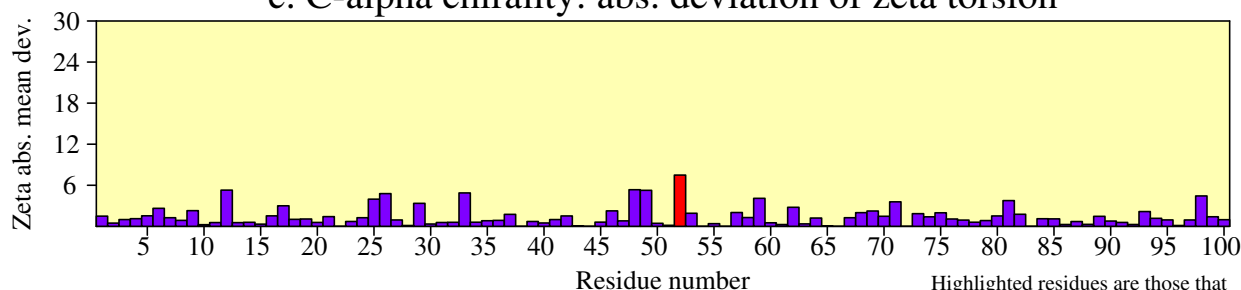
### a. Absolute deviation from mean Chi-1 value (excl. Pro)



### b. Absolute deviation from mean of omega torsion

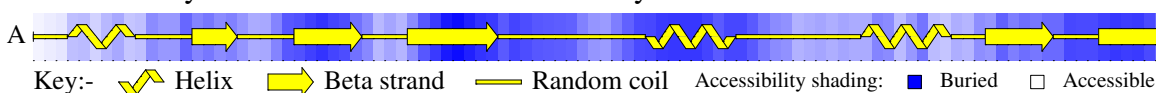


### c. C-alpha chirality: abs. deviation of zeta torsion



Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

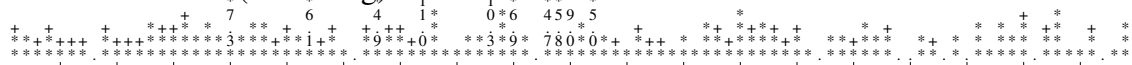
### d. Secondary structure & estimated accessibility



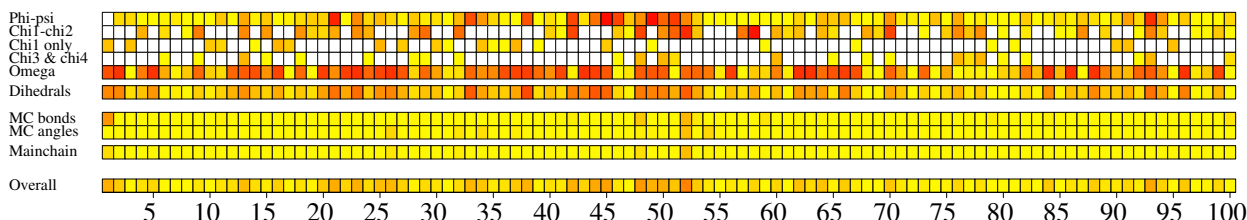
### e. Sequence & Ramachandran regions



### f. Max. deviation (see listing)

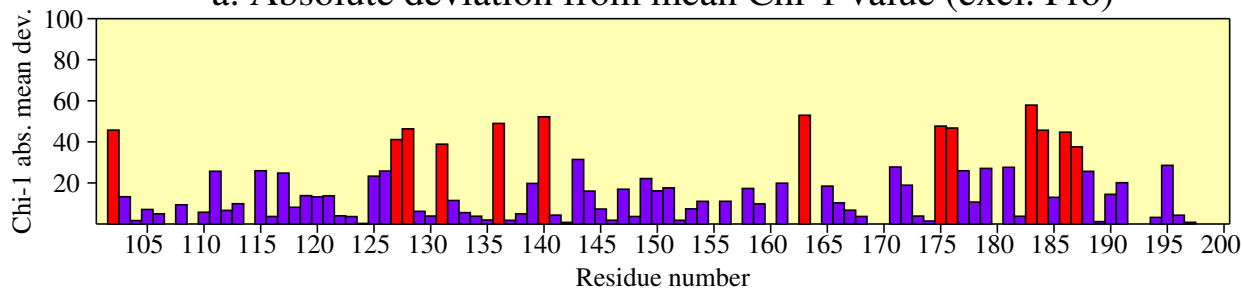


### g. G-factors

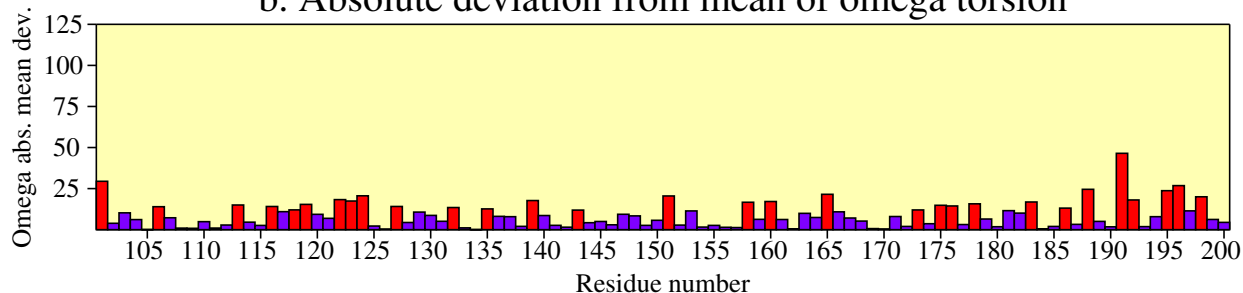


# Residue properties pdb1sqq

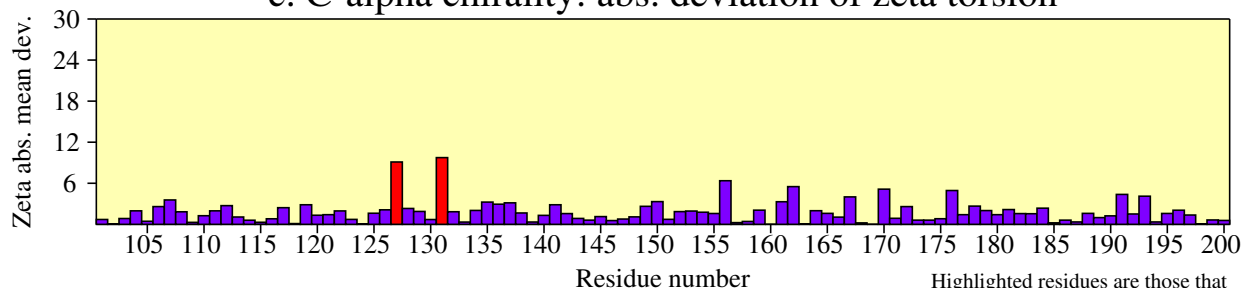
### a. Absolute deviation from mean Chi-1 value (excl. Pro)



### b. Absolute deviation from mean of omega torsion

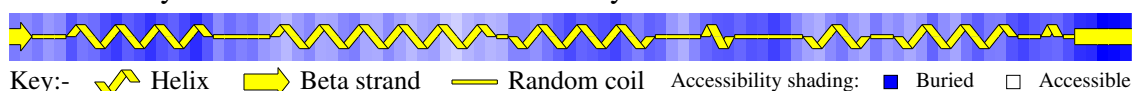


### c. C-alpha chirality: abs. deviation of zeta torsion



Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

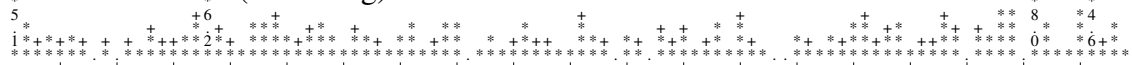
### d. Secondary structure & estimated accessibility



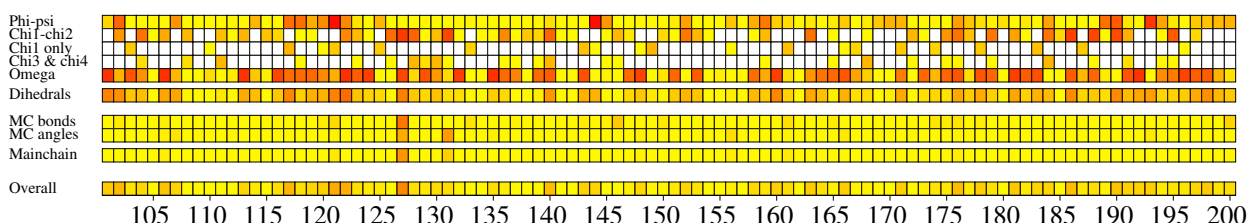
### e. Sequence & Ramachandran regions



### f. Max. deviation (see listing)

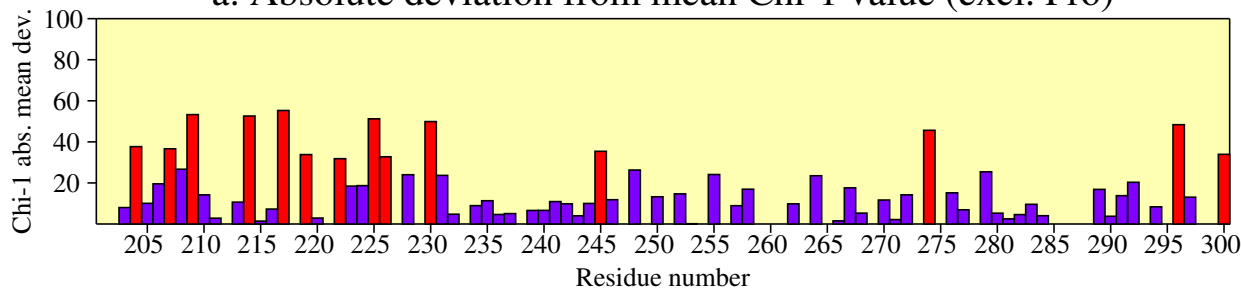


### g. G-factors

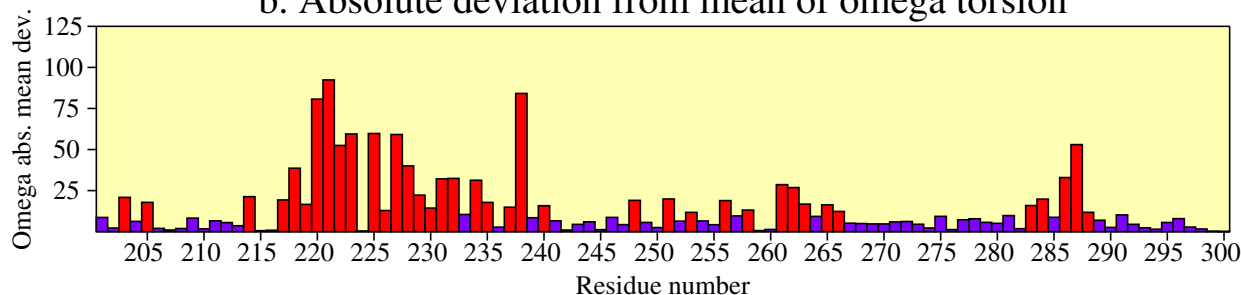


# Residue properties pdb1sqq

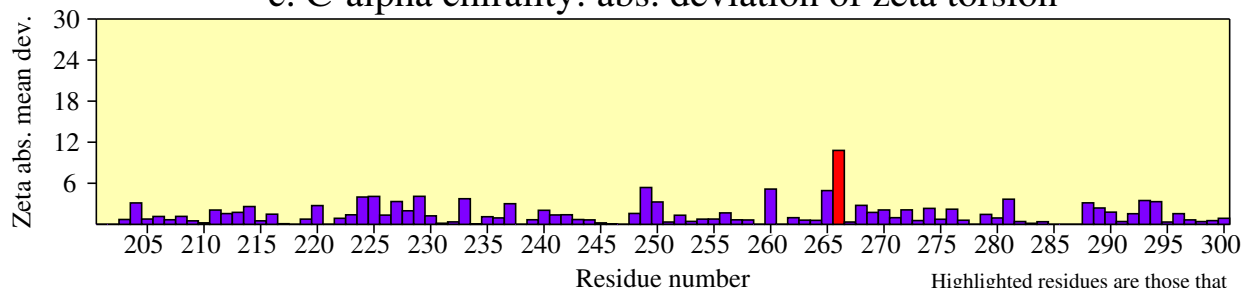
### a. Absolute deviation from mean Chi-1 value (excl. Pro)



### b. Absolute deviation from mean of omega torsion

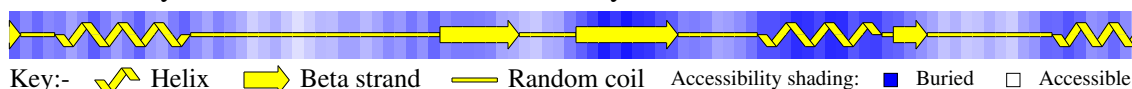


### c. C-alpha chirality: abs. deviation of zeta torsion



Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

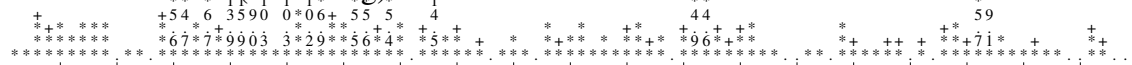
### d. Secondary structure & estimated accessibility



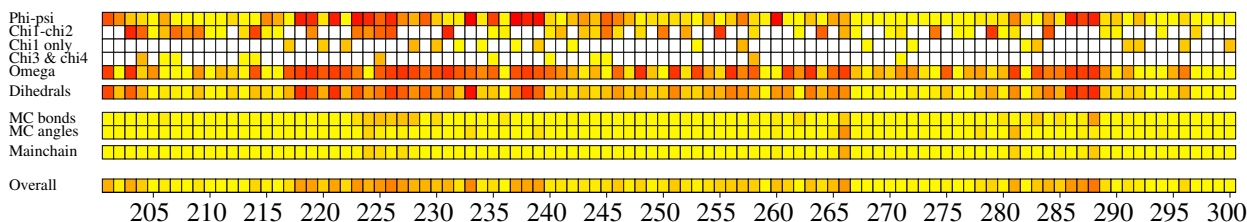
### e. Sequence & Ramachandran regions



### f. Max. deviation (see listing)



### g. G-factors

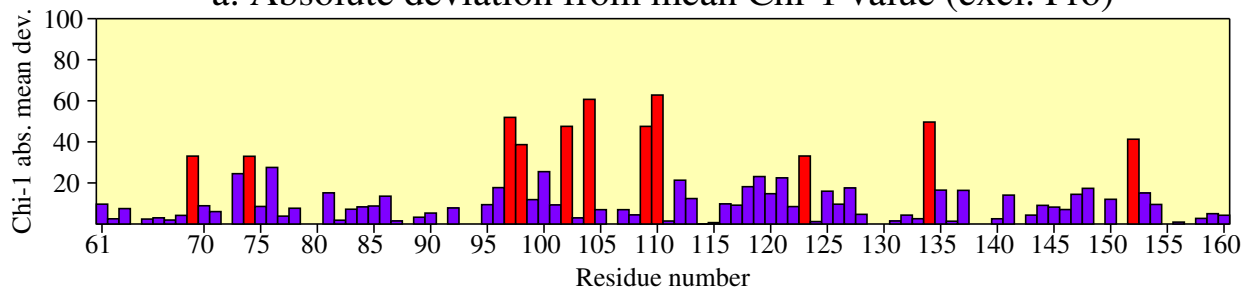




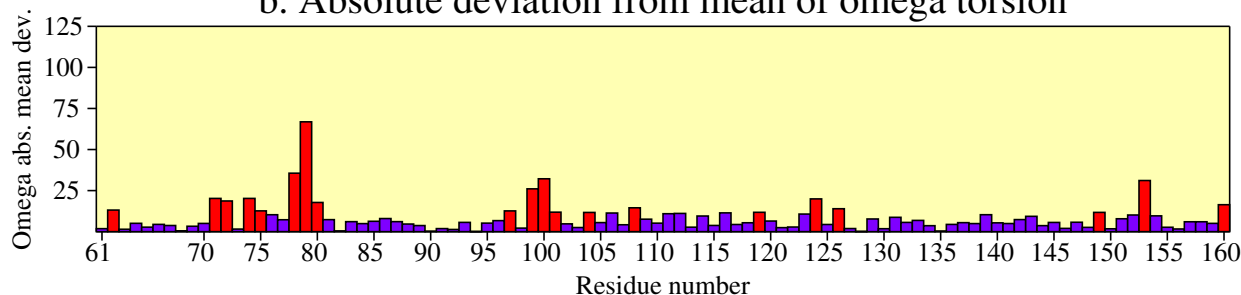


# Residue properties pdb1sqq

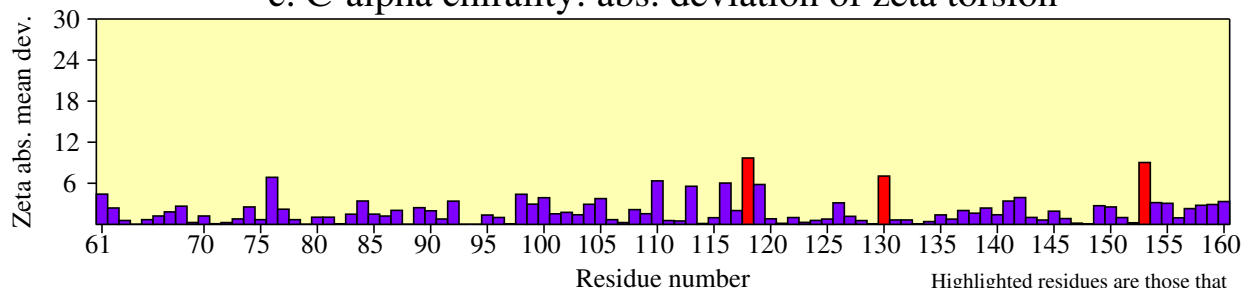
a. Absolute deviation from mean Chi-1 value (excl. Pro)



b. Absolute deviation from mean of omega torsion

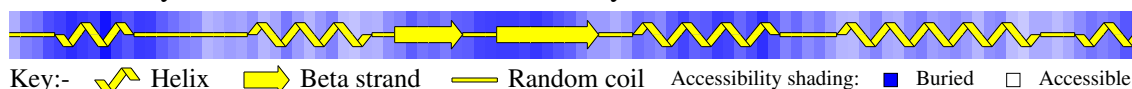


c. C-alpha chirality: abs. deviation of zeta torsion



Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

d. Secondary structure & estimated accessibility

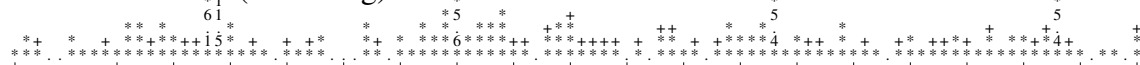


Key:- Helix Beta strand Random coil Accessibility shading: Buried Accessible

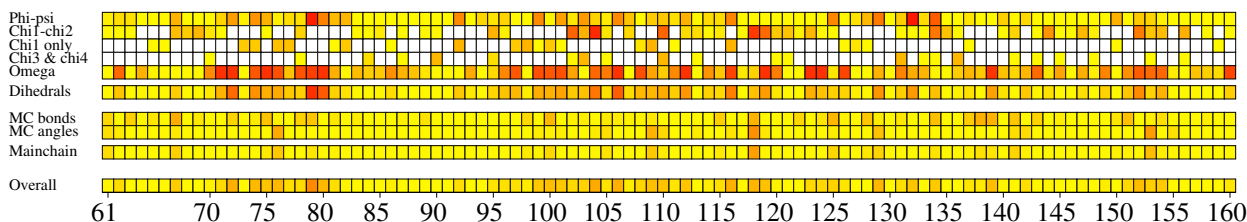
e. Sequence & Ramachandran regions Most favoured Allowed Generous Disallowed



f. Max. deviation (see listing)

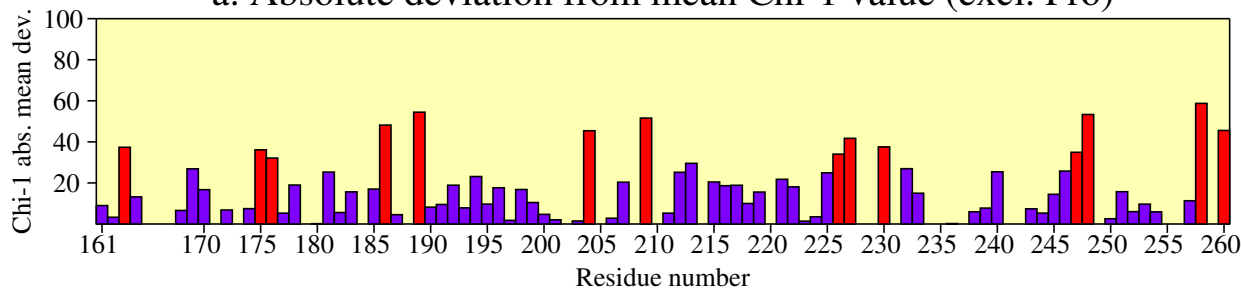


g. G-factors

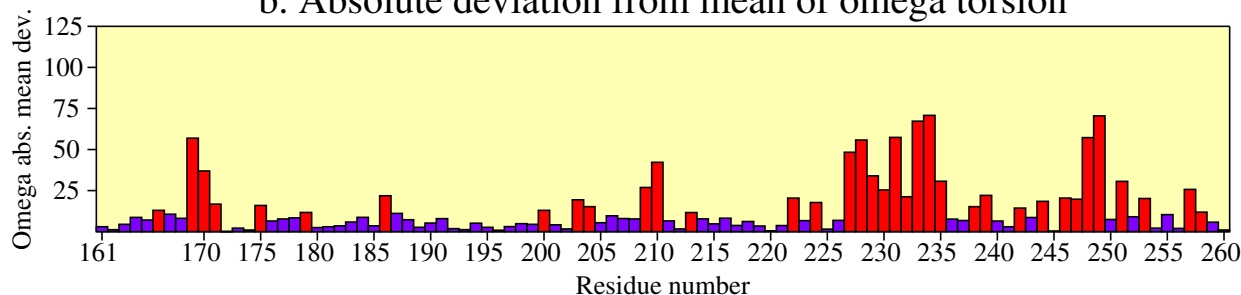


# Residue properties pdb1sqq

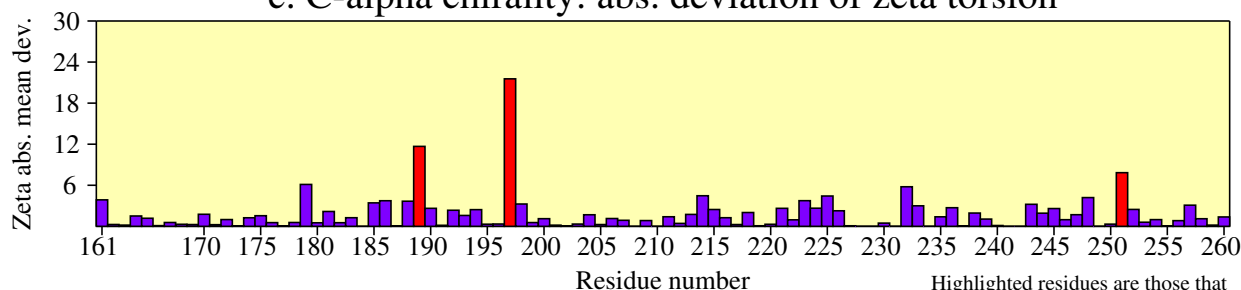
### a. Absolute deviation from mean Chi-1 value (excl. Pro)



### b. Absolute deviation from mean of omega torsion

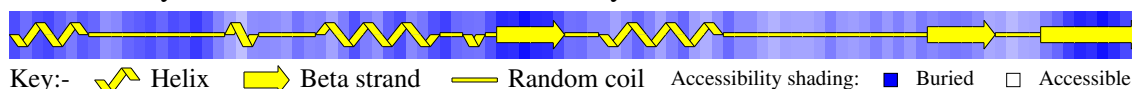


### c. C-alpha chirality: abs. deviation of zeta torsion



Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

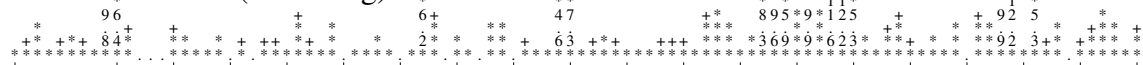
### d. Secondary structure & estimated accessibility



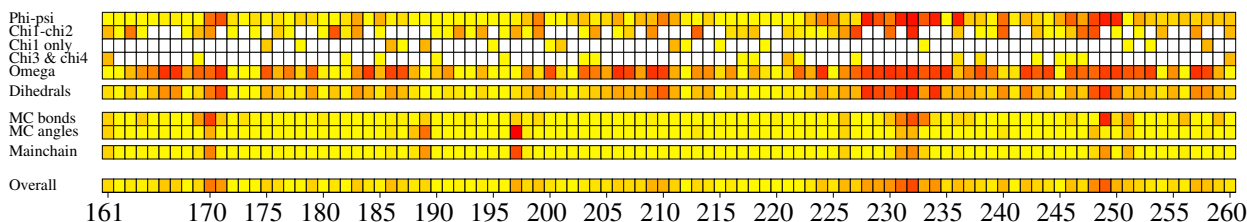
### e. Sequence & Ramachandran regions



### f. Max.\*deviation (see listing)

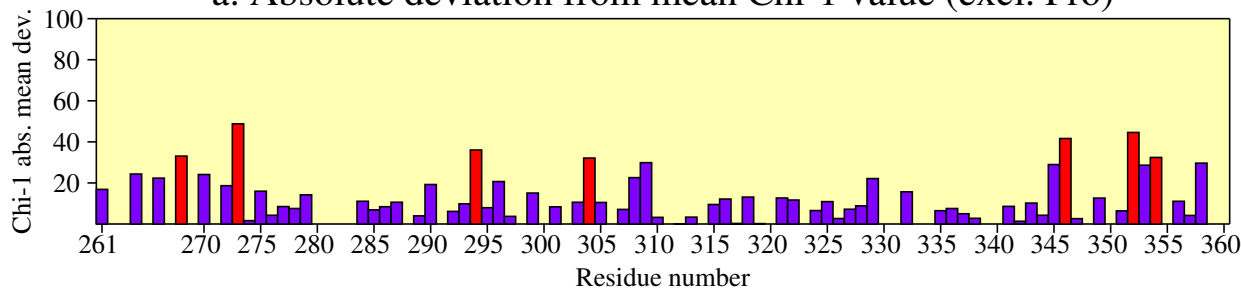


### g. G-factors

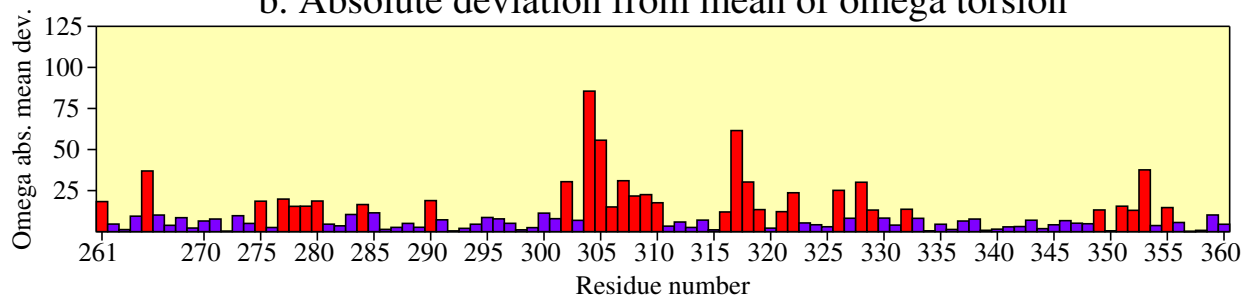


# Residue properties pdb1sqq

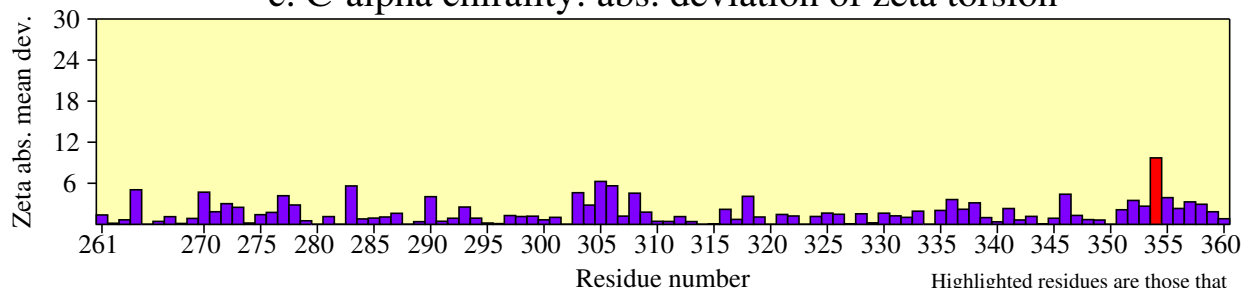
a. Absolute deviation from mean Chi-1 value (excl. Pro)



b. Absolute deviation from mean of omega torsion

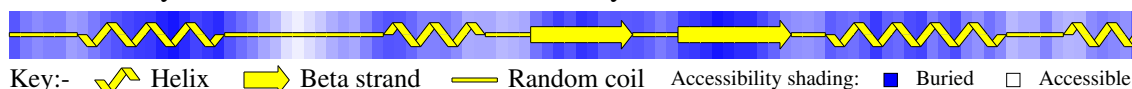


c. C-alpha chirality: abs. deviation of zeta torsion



Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

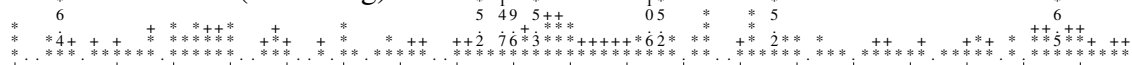
d. Secondary structure & estimated accessibility



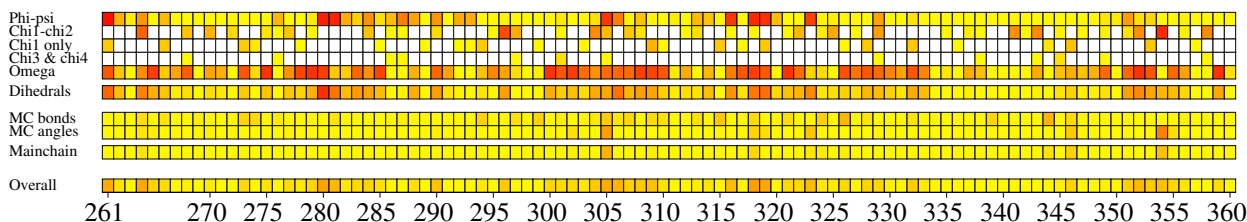
e. Sequence & Ramachandran regions



f. Max. deviation (see listing)



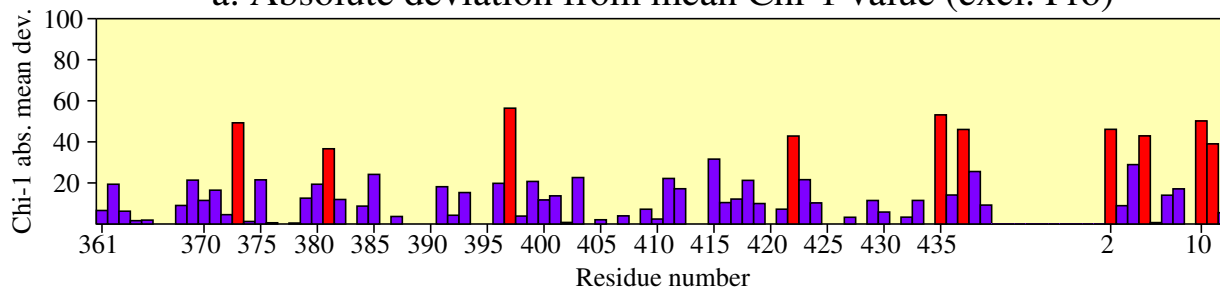
g. G-factors



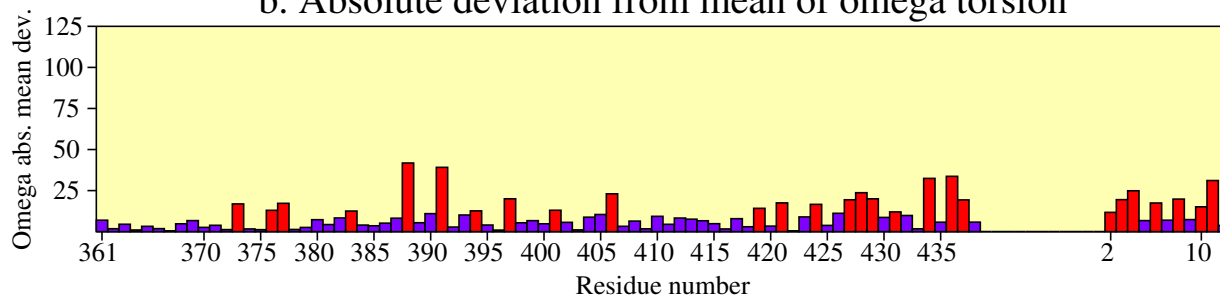


# Residue properties pdb1sqq

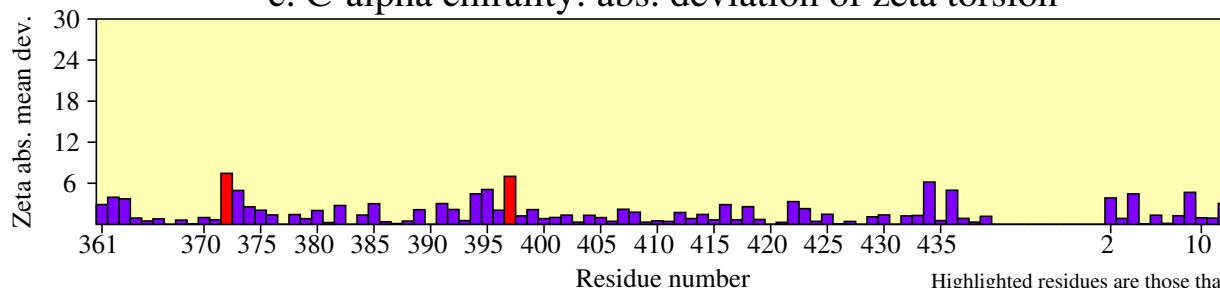
### a. Absolute deviation from mean Chi-1 value (excl. Pro)



### b. Absolute deviation from mean of omega torsion



### c. C-alpha chirality: abs. deviation of zeta torsion



Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

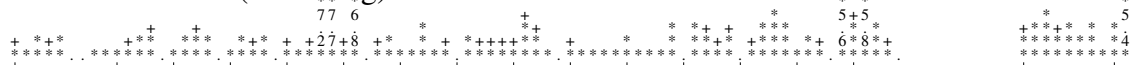
### d. Secondary structure & estimated accessibility



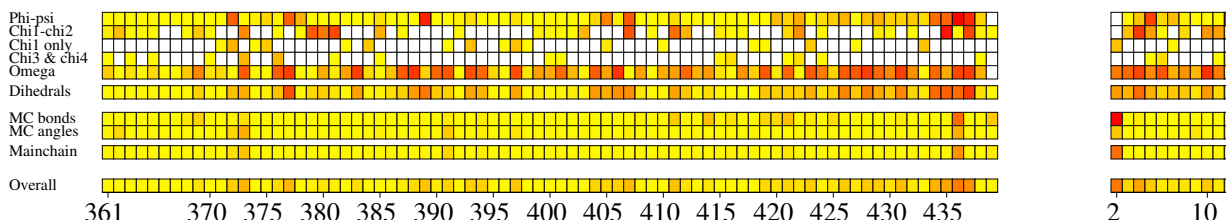
### e. Sequence & Ramachandran regions



### f. Max. deviation (see listing)

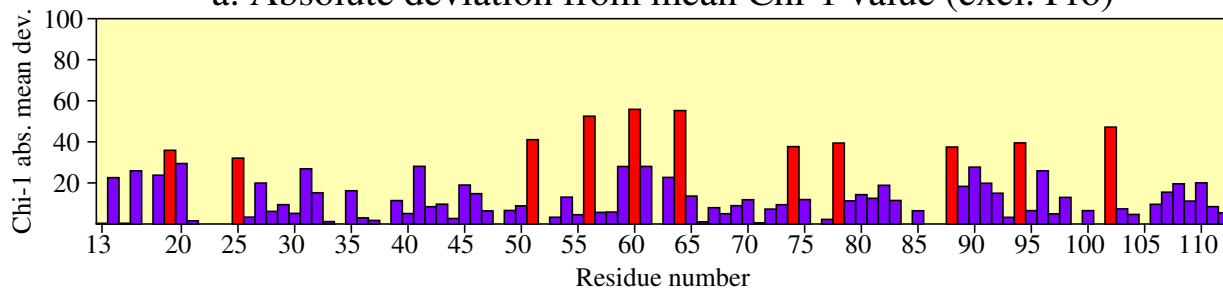


### g. G-factors

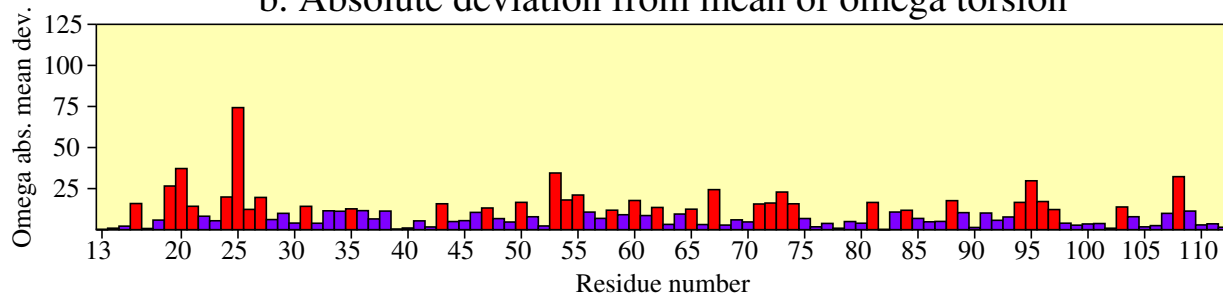


# Residue properties pdb1sqq

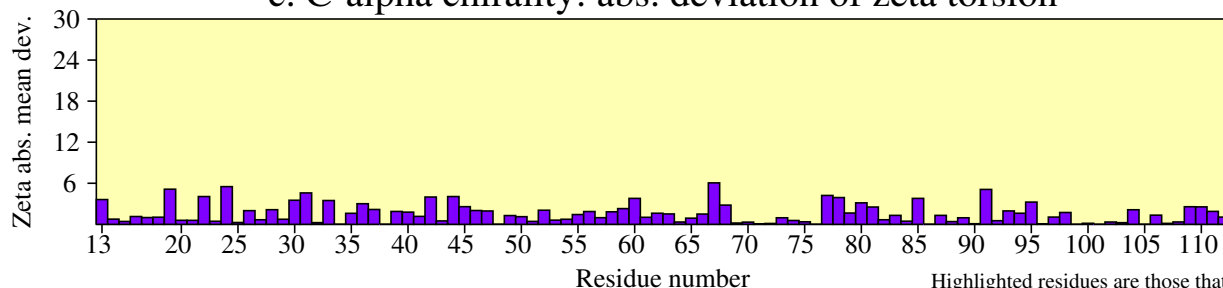
### a. Absolute deviation from mean Chi-1 value (excl. Pro)



### b. Absolute deviation from mean of omega torsion

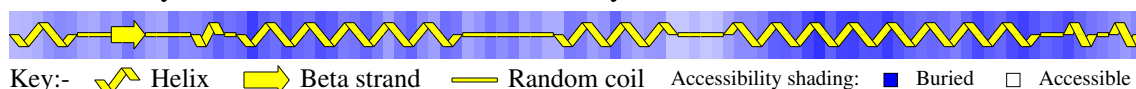


### c. C-alpha chirality: abs. deviation of zeta torsion



Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

### d. Secondary structure & estimated accessibility



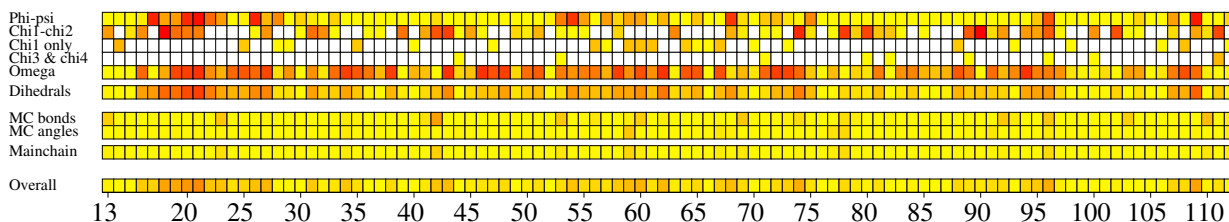
### e. Sequence & Ramachandran regions



### f. Max. deviation (see listing)

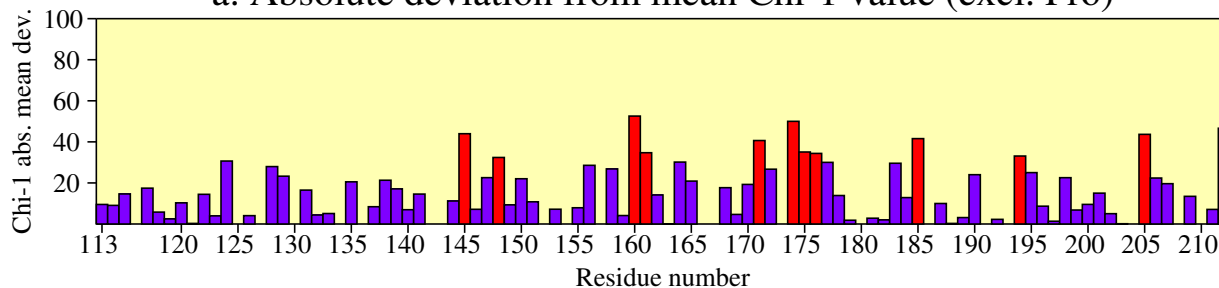


### g. G-factors

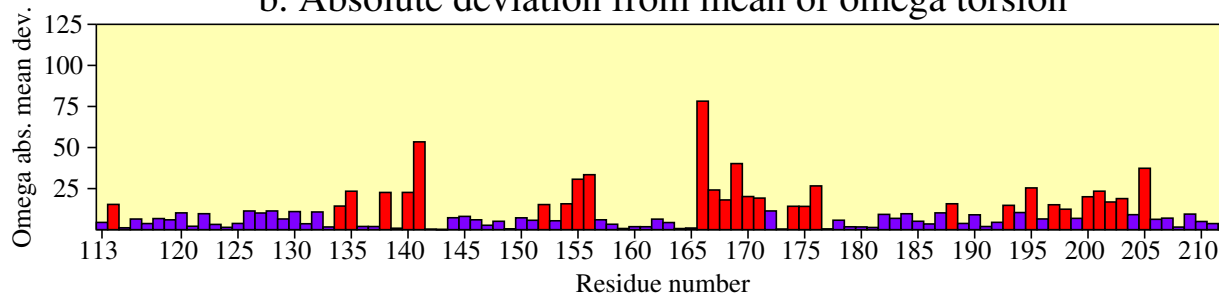


# Residue properties pdb1sqq

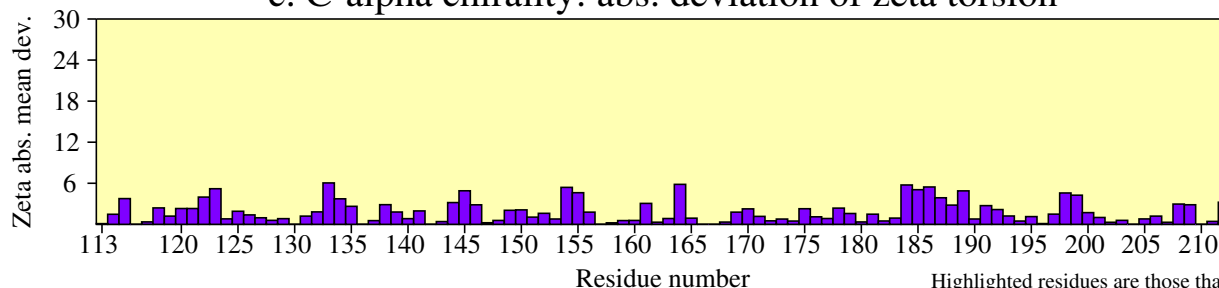
### a. Absolute deviation from mean Chi-1 value (excl. Pro)



### b. Absolute deviation from mean of omega torsion

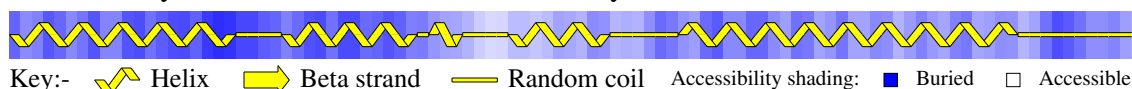


### c. C-alpha chirality: abs. deviation of zeta torsion



Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

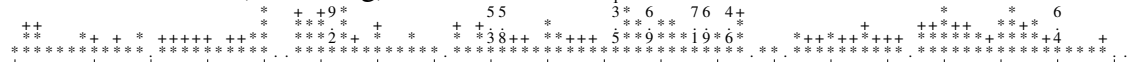
### d. Secondary structure & estimated accessibility



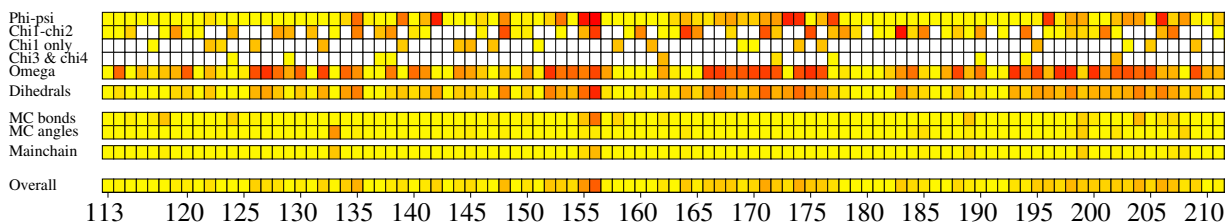
### e. Sequence & Ramachandran regions



### f. Max. deviation (see listing)

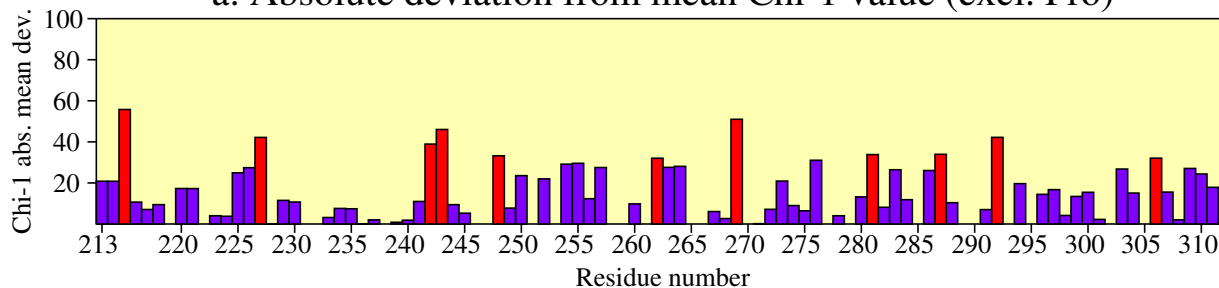


### g. G-factors

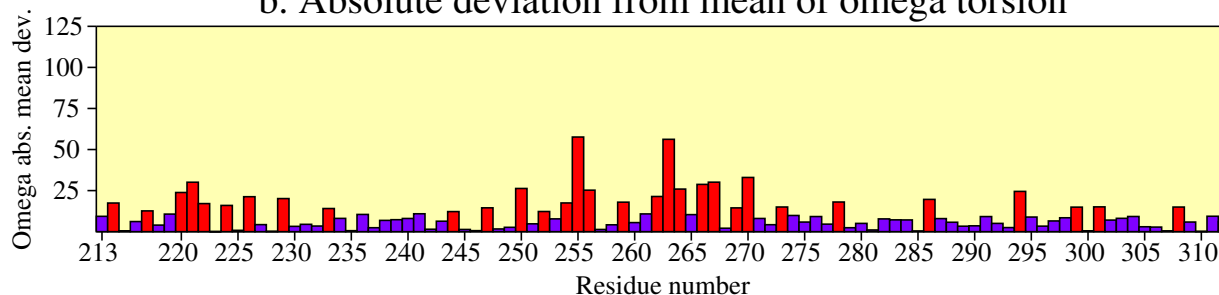


# Residue properties pdb1sqq

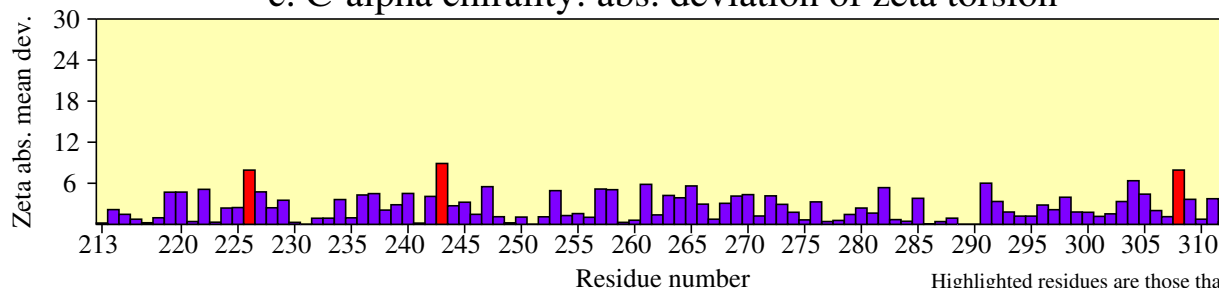
### a. Absolute deviation from mean Chi-1 value (excl. Pro)



### b. Absolute deviation from mean of omega torsion

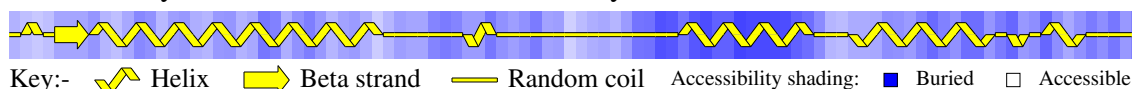


### c. C-alpha chirality: abs. deviation of zeta torsion



Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

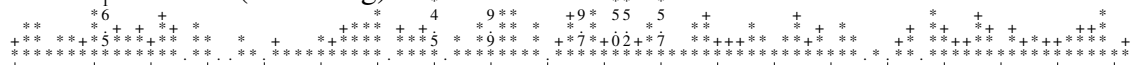
### d. Secondary structure & estimated accessibility



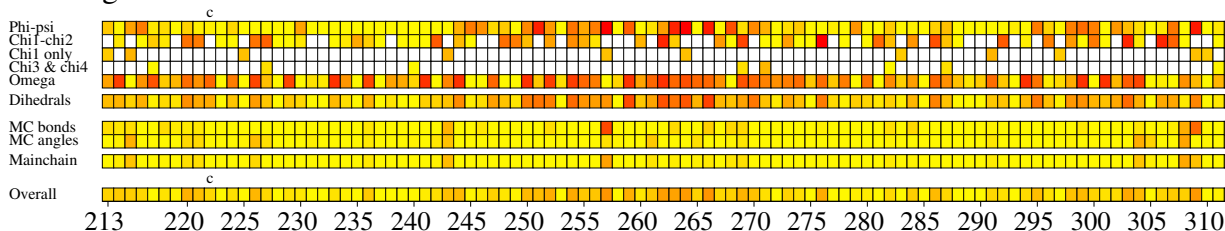
### e. Sequence & Ramachandran regions



### f. Max. deviation (see listing)



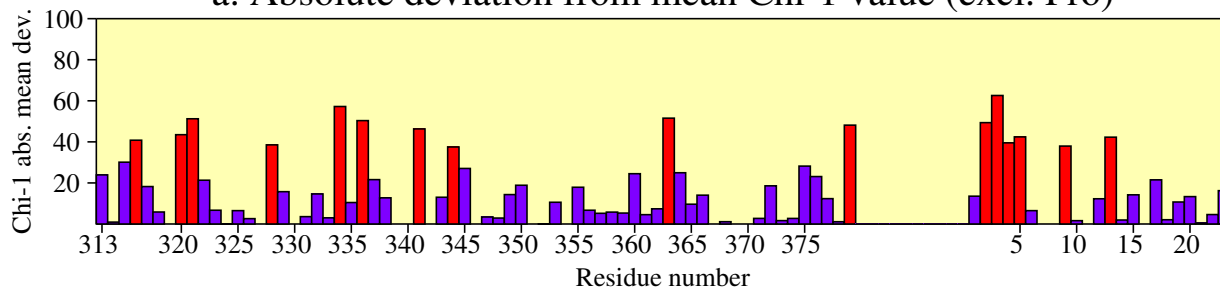
### g. G-factors



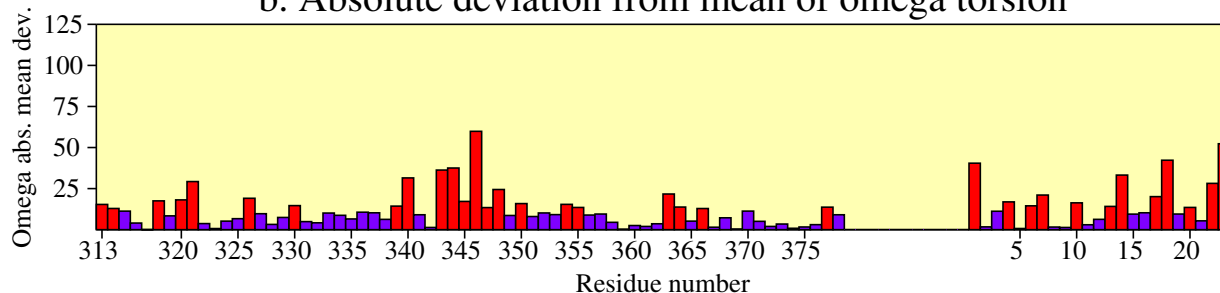
c = cis-peptide

# Residue properties pdb1sqq

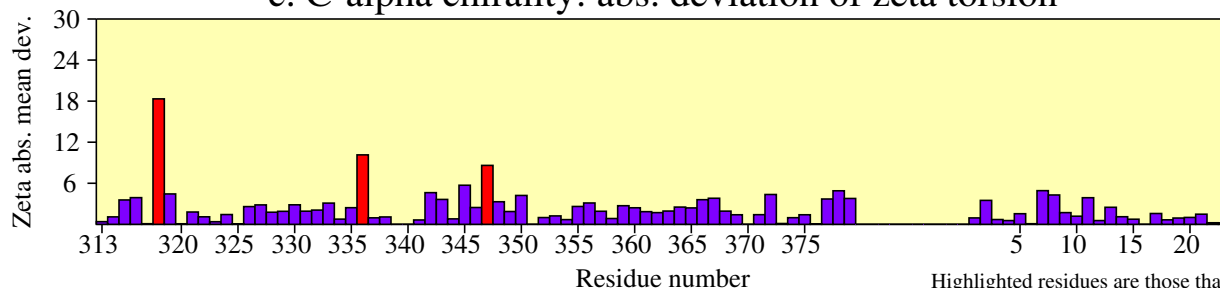
### a. Absolute deviation from mean Chi-1 value (excl. Pro)



### b. Absolute deviation from mean of omega torsion

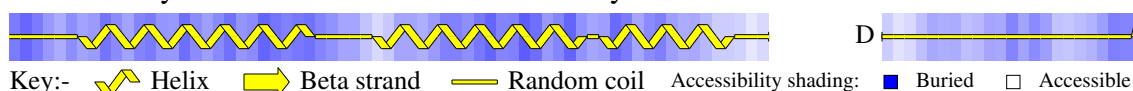


### c. C-alpha chirality: abs. deviation of zeta torsion



Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

### d. Secondary structure & estimated accessibility



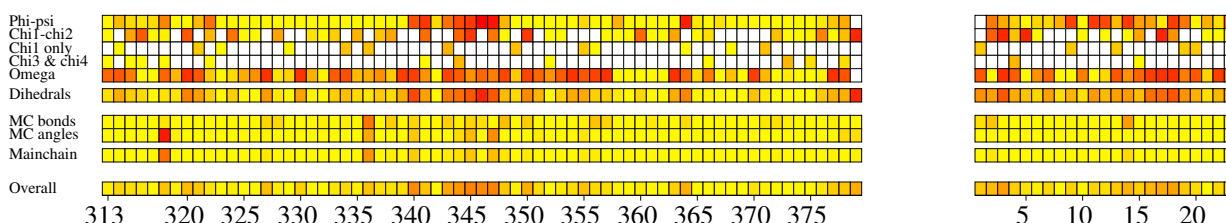
### e. Sequence & Ramachandran regions



### f. Max. deviation (see listing)\*

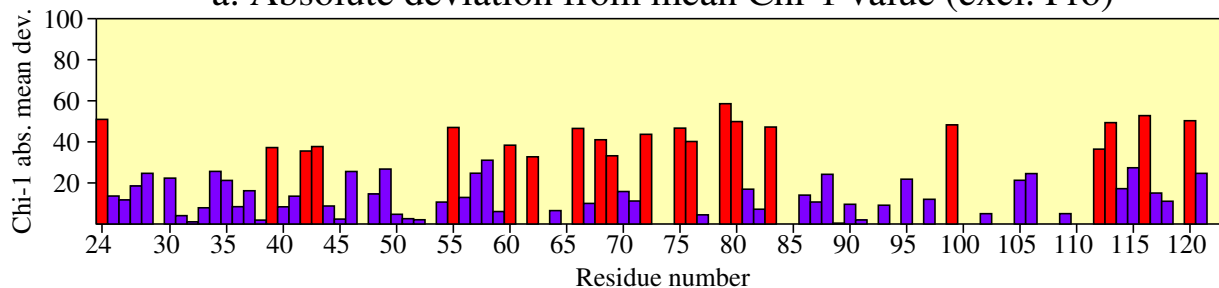


### g. G-factors

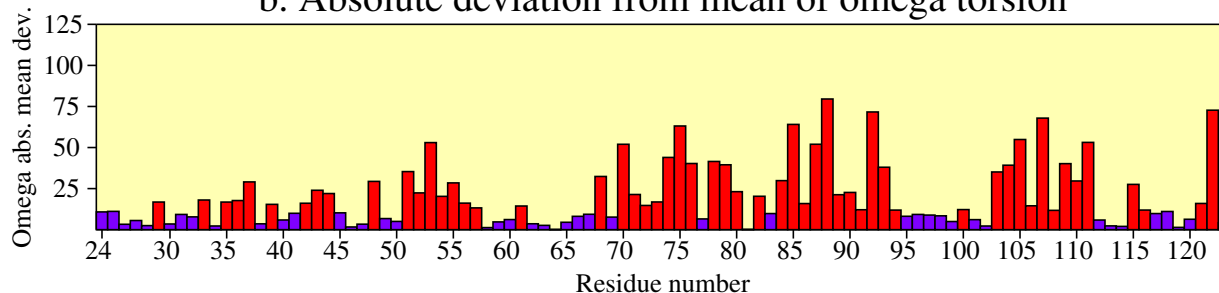


# Residue properties pdb1sqq

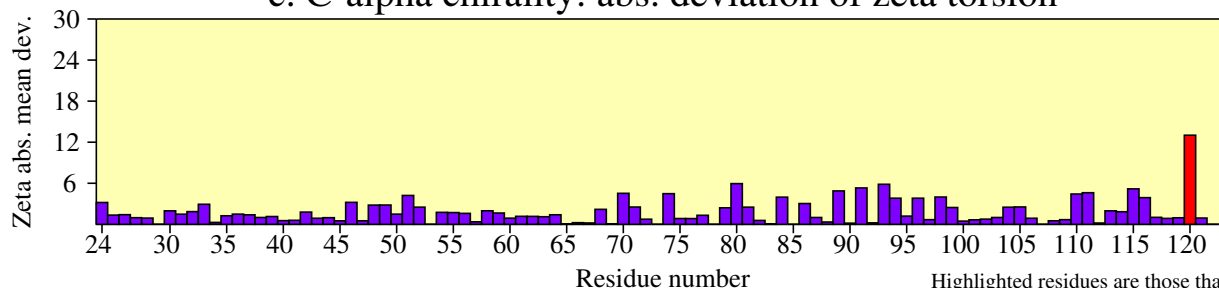
a. Absolute deviation from mean Chi-1 value (excl. Pro)



b. Absolute deviation from mean of omega torsion

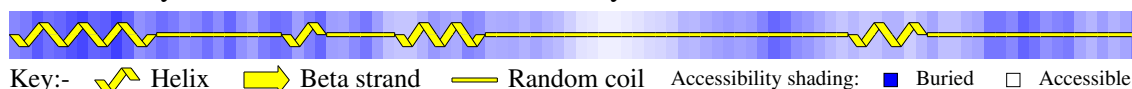


c. C-alpha chirality: abs. deviation of zeta torsion



Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

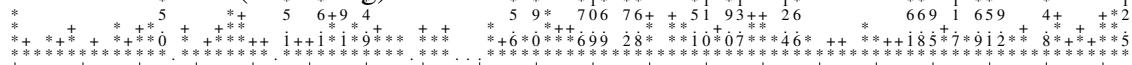
d. Secondary structure & estimated accessibility



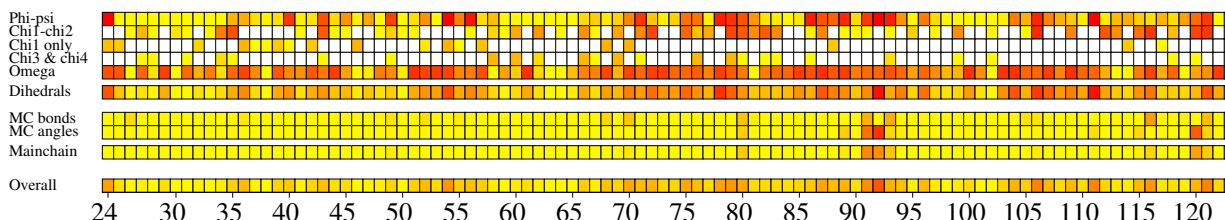
e. Sequence & Ramachandran regions



f. Max. deviation (see listing)

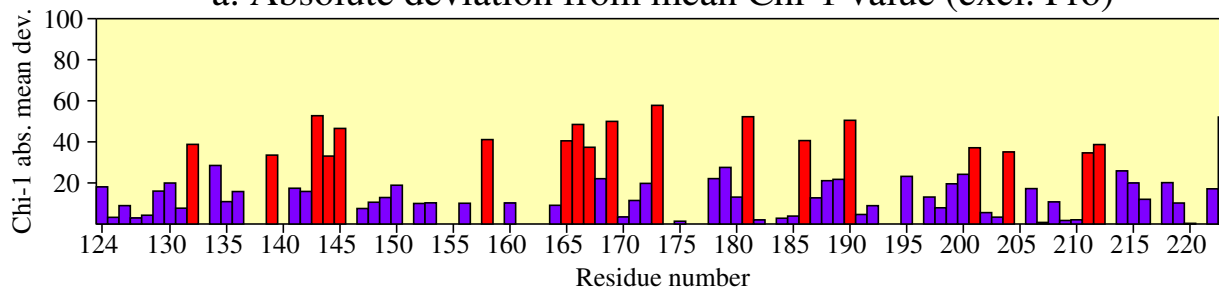


g. G-factors

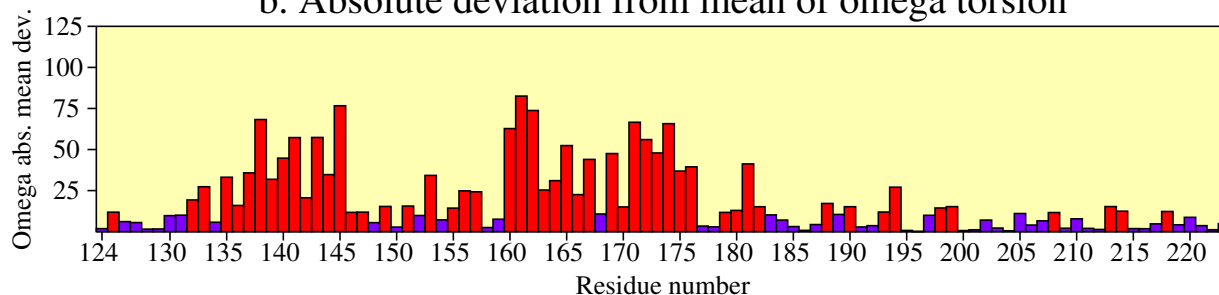


# Residue properties pdb1sqq

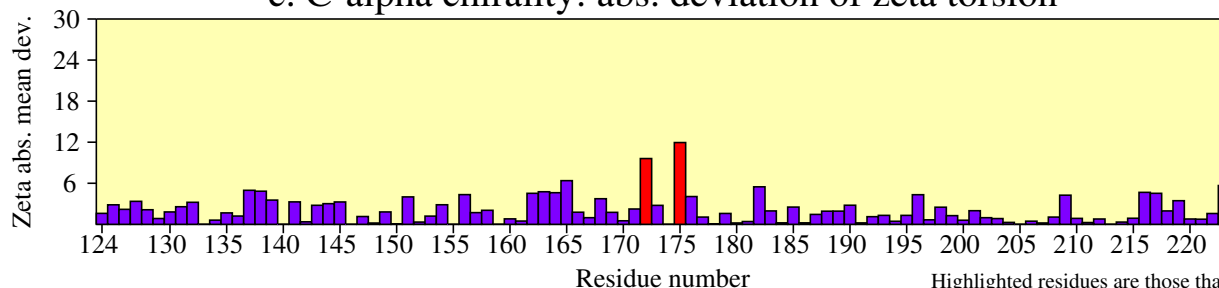
a. Absolute deviation from mean Chi-1 value (excl. Pro)



b. Absolute deviation from mean of omega torsion

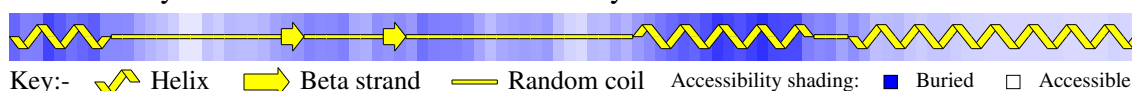


c. C-alpha chirality: abs. deviation of zeta torsion



Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

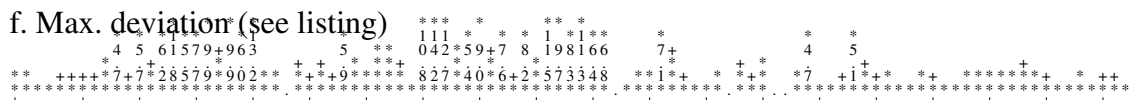
d. Secondary structure & estimated accessibility



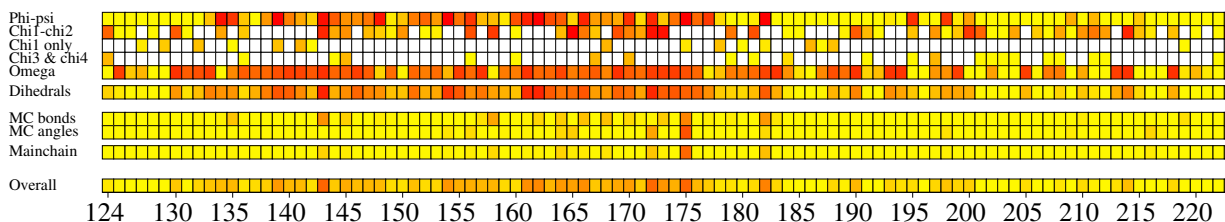
e. Sequence & Ramachandran regions Most favoured Allowed Generous Disallowed



f. Max. deviation\* (see listing)



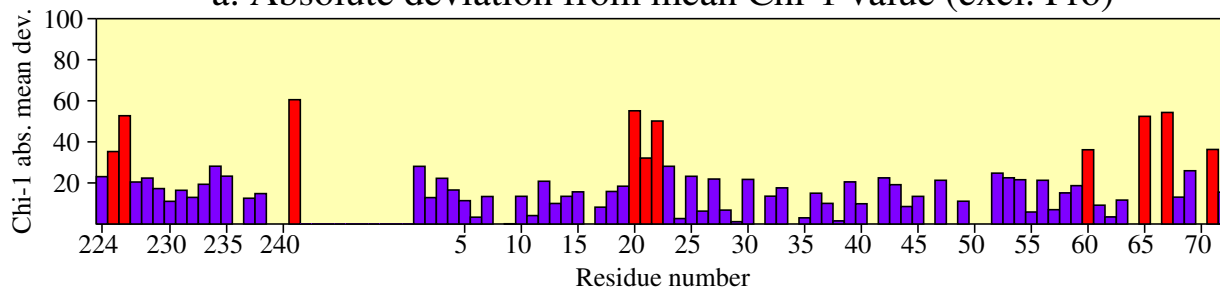
g. G-factors



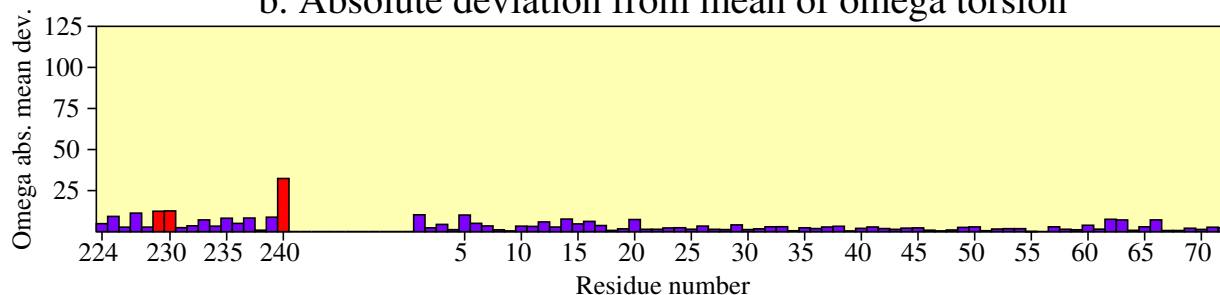
# Residue properties

## pdb1sqq

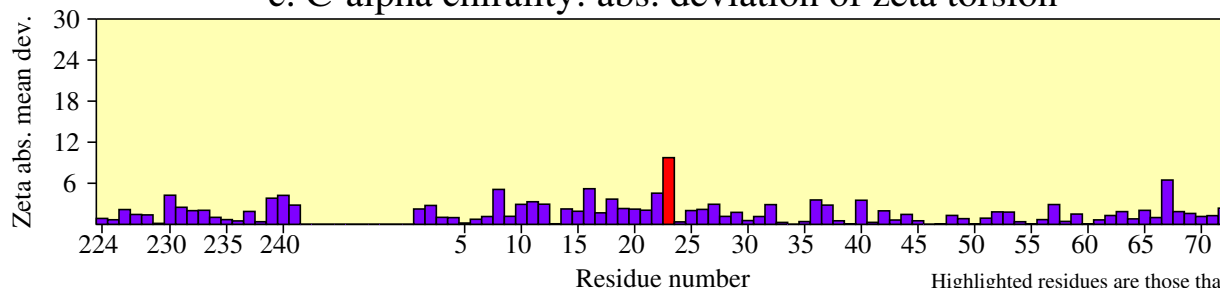
a. Absolute deviation from mean Chi-1 value (excl. Pro)



b. Absolute deviation from mean of omega torsion

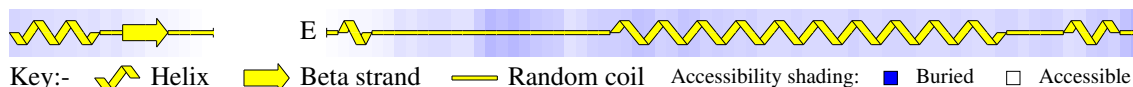


c. C-alpha chirality: abs. deviation of zeta torsion



Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

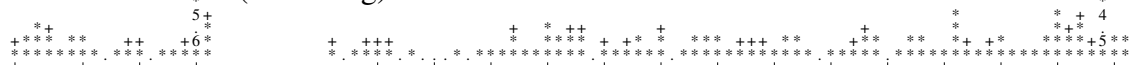
d. Secondary structure & estimated accessibility



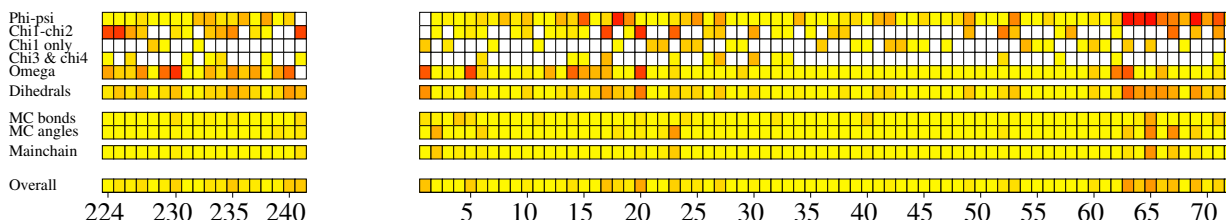
e. Sequence & Ramachandran regions



f. Max. deviation (see listing)



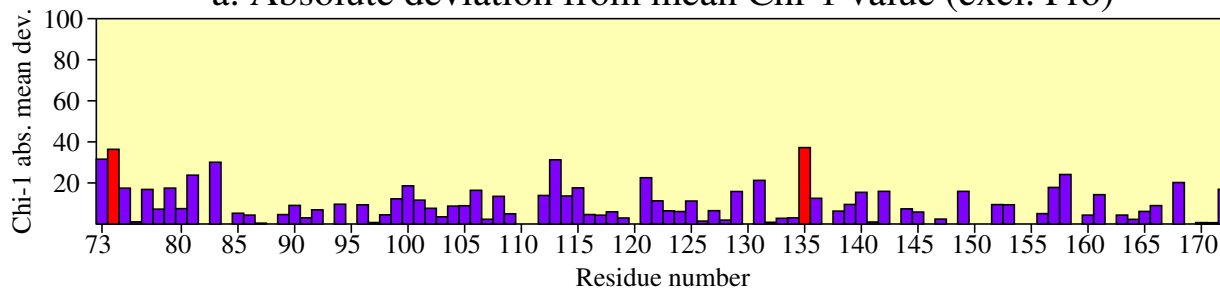
g. G-factors



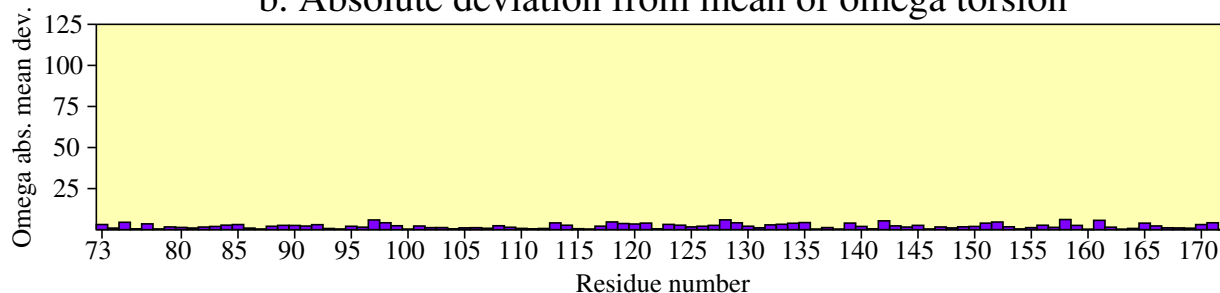


# Residue properties pdb1sqq

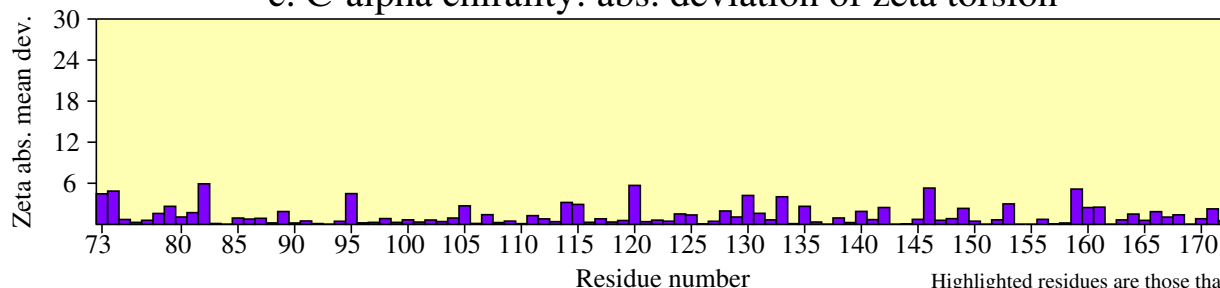
a. Absolute deviation from mean Chi-1 value (excl. Pro)



b. Absolute deviation from mean of omega torsion

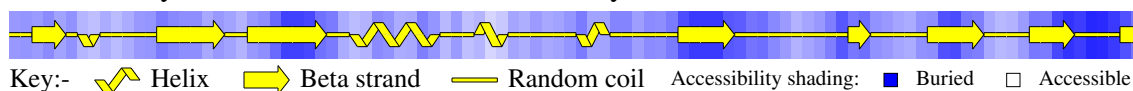


c. C-alpha chirality: abs. deviation of zeta torsion

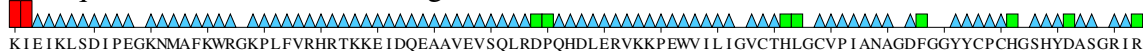


Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

d. Secondary structure & estimated accessibility



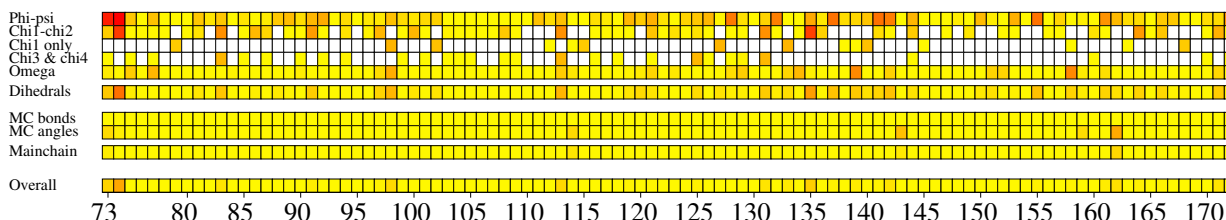
e. Sequence & Ramachandran regions Most favoured Allowed Generous Disallowed



f. Max. deviation (see listing)

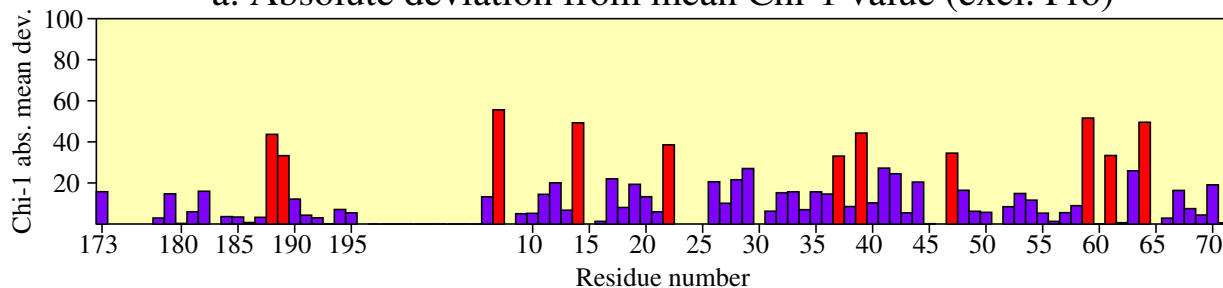


g. G-factors

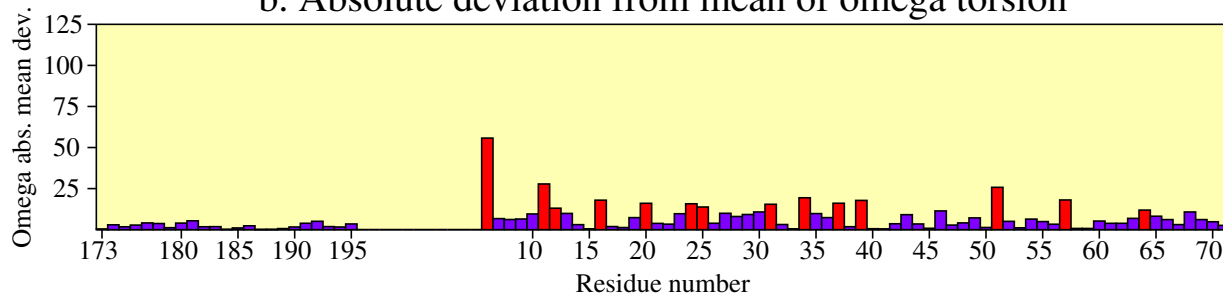


# Residue properties pdb1sqq

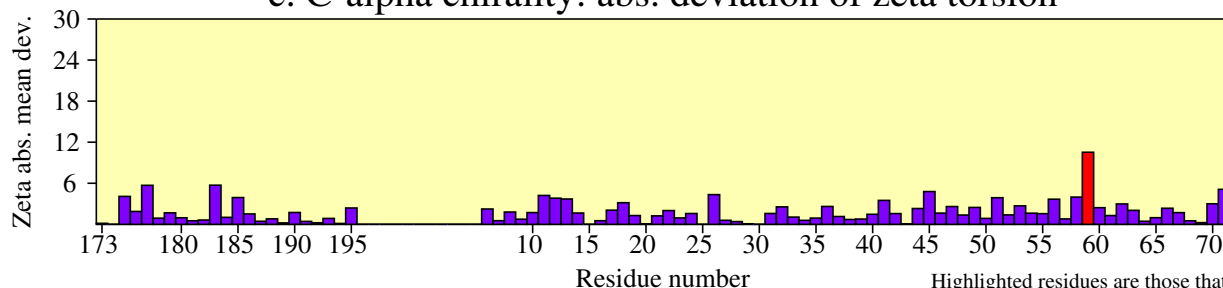
### a. Absolute deviation from mean Chi-1 value (excl. Pro)



### b. Absolute deviation from mean of omega torsion

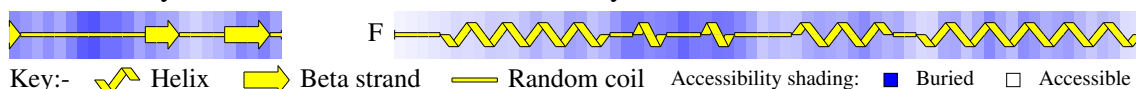


### c. C-alpha chirality: abs. deviation of zeta torsion



Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

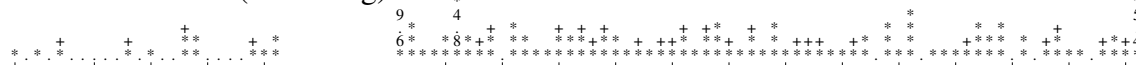
### d. Secondary structure & estimated accessibility



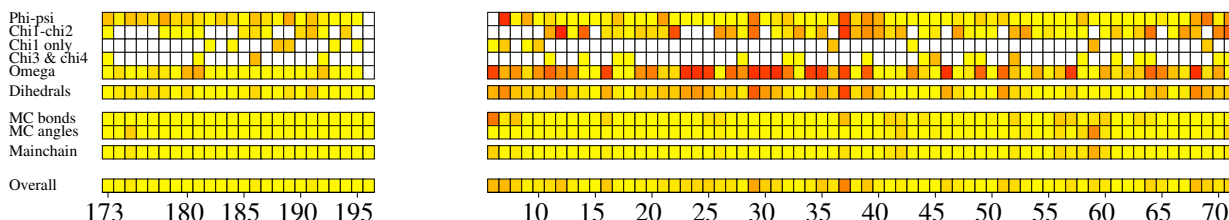
### e. Sequence & Ramachandran regions



### f. Max. deviation (see listing) \*



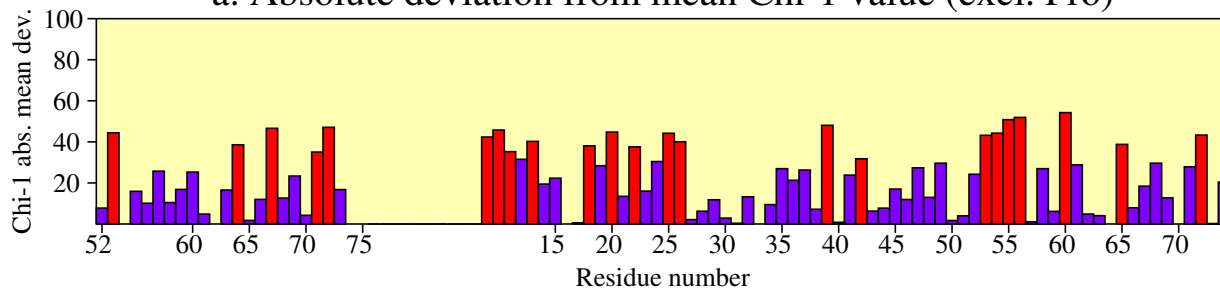
### g. G-factors



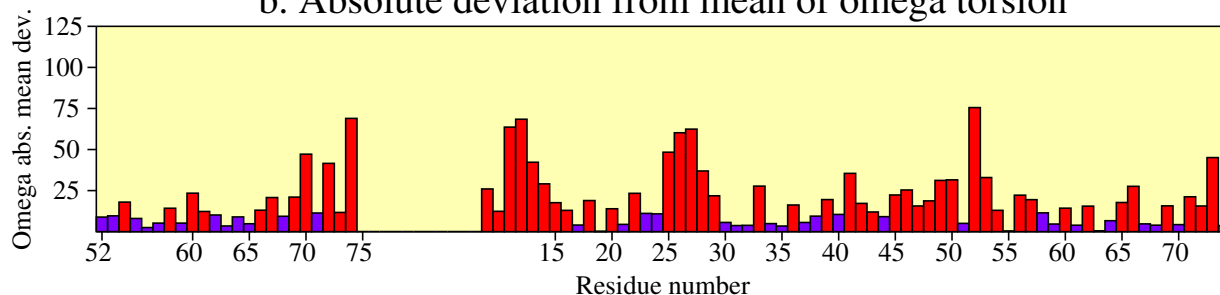


# Residue properties pdb1sqq

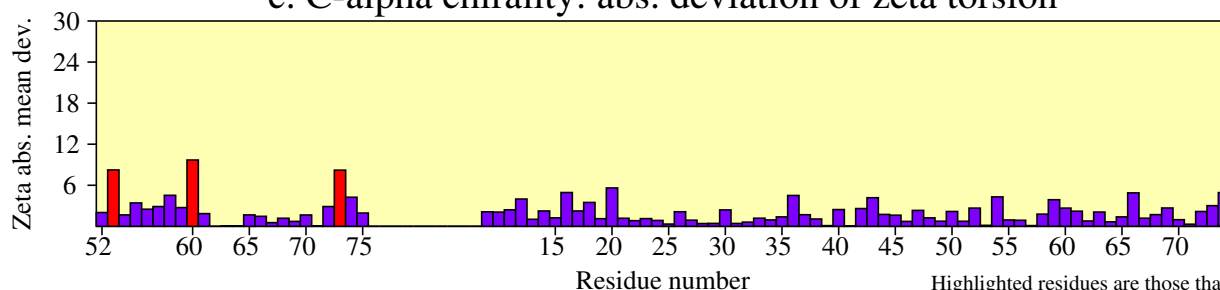
### a. Absolute deviation from mean Chi-1 value (excl. Pro)



### b. Absolute deviation from mean of omega torsion

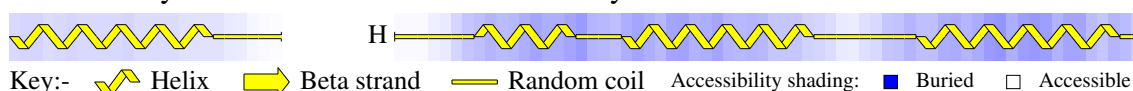


### c. C-alpha chirality: abs. deviation of zeta torsion

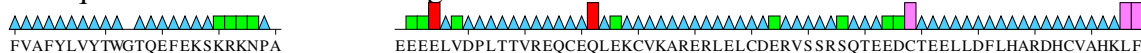


Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

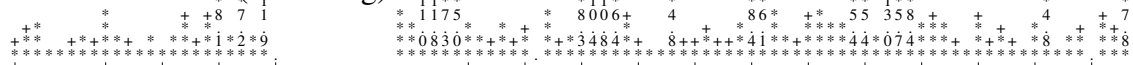
### d. Secondary structure & estimated accessibility



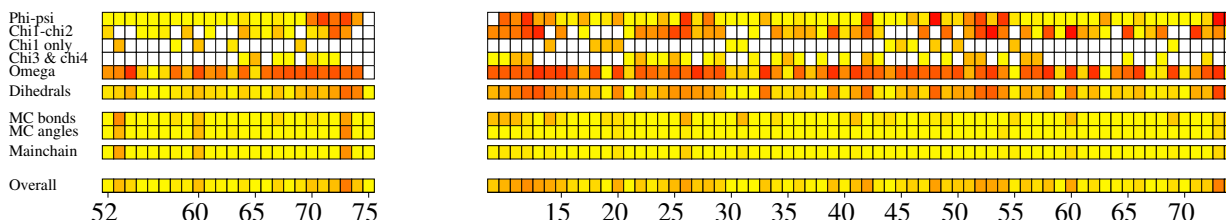
### e. Sequence & Ramachandran regions



### f. Max. deviation (see listing)

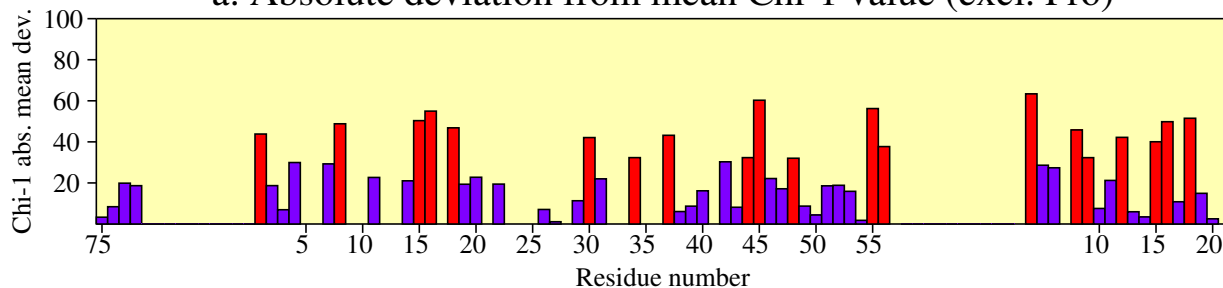


### g. G-factors

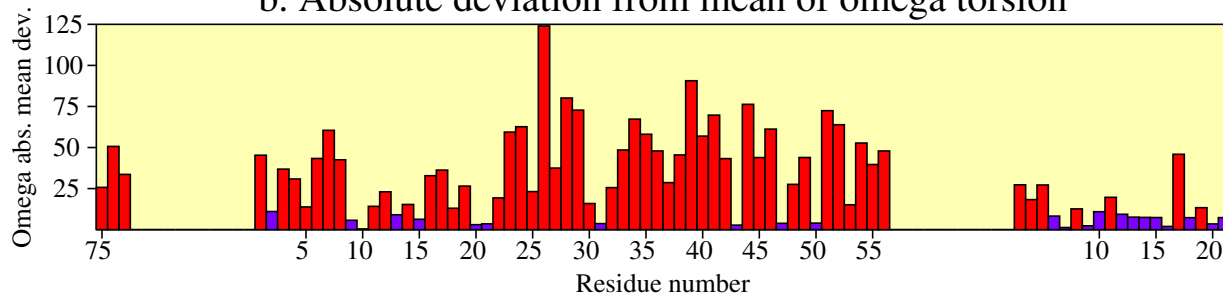


# Residue properties pdb1sqq

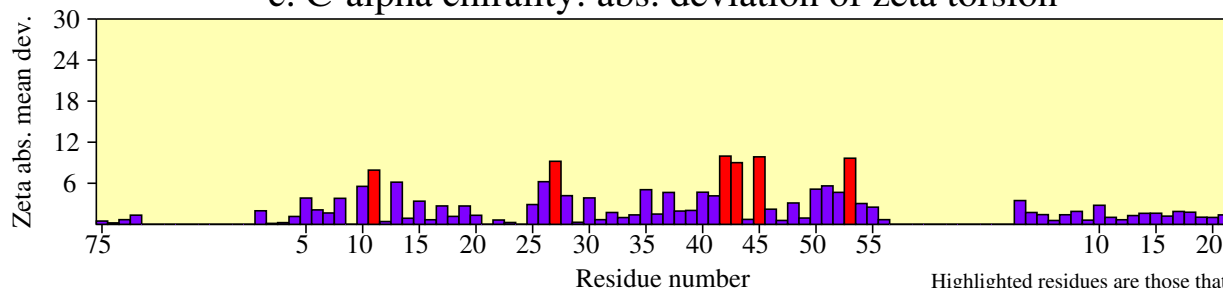
### a. Absolute deviation from mean Chi-1 value (excl. Pro)



### b. Absolute deviation from mean of omega torsion

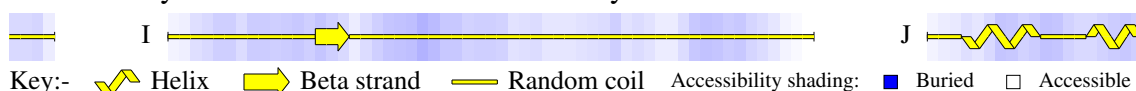


### c. C-alpha chirality: abs. deviation of zeta torsion



Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

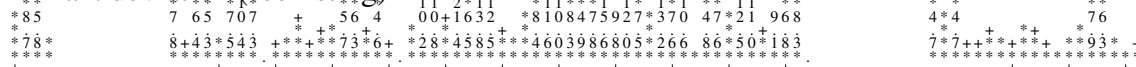
### d. Secondary structure & estimated accessibility



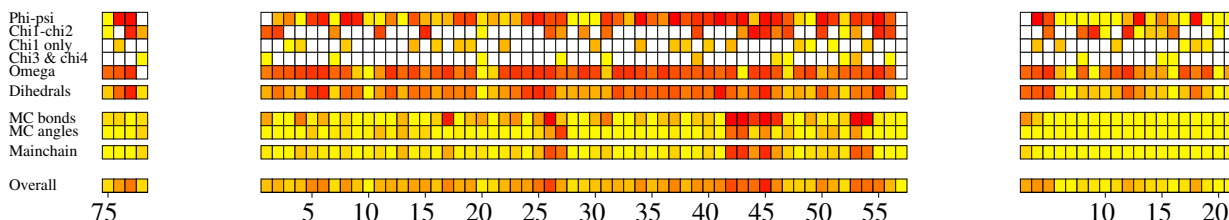
### e. Sequence & Ramachandran regions



### f. Max. deviation (see listing)



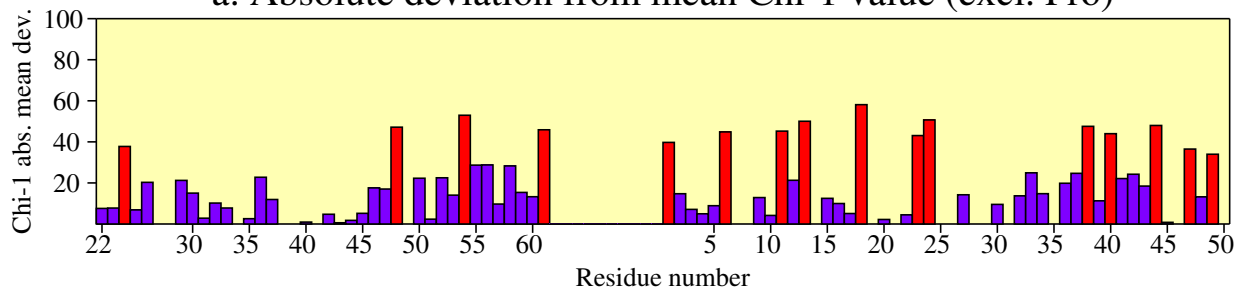
### g. G-factors



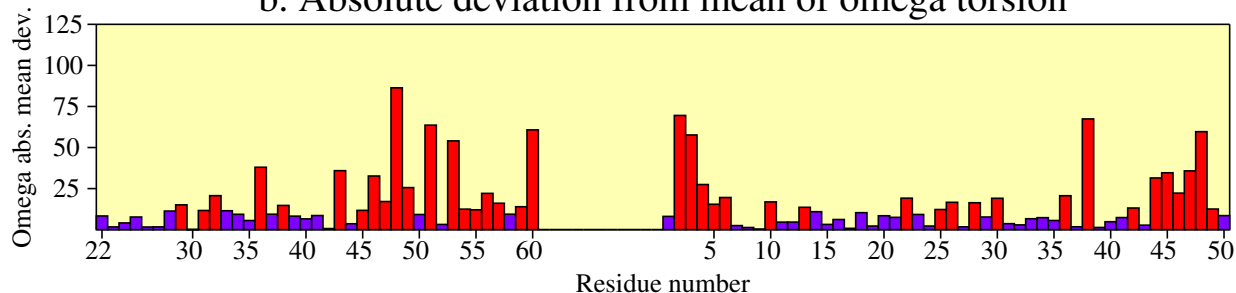
# Residue properties

## pdb1sqq

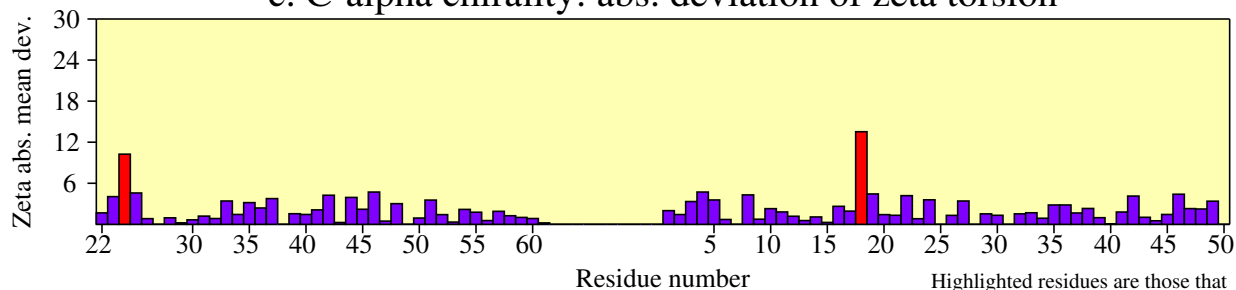
a. Absolute deviation from mean Chi-1 value (excl. Pro)



b. Absolute deviation from mean of omega torsion

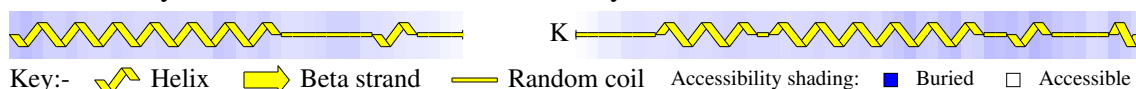


c. C-alpha chirality: abs. deviation of zeta torsion



Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

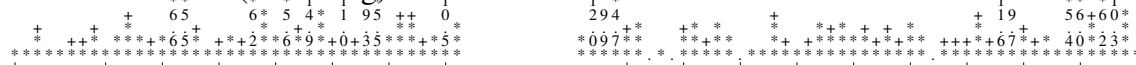
d. Secondary structure & estimated accessibility



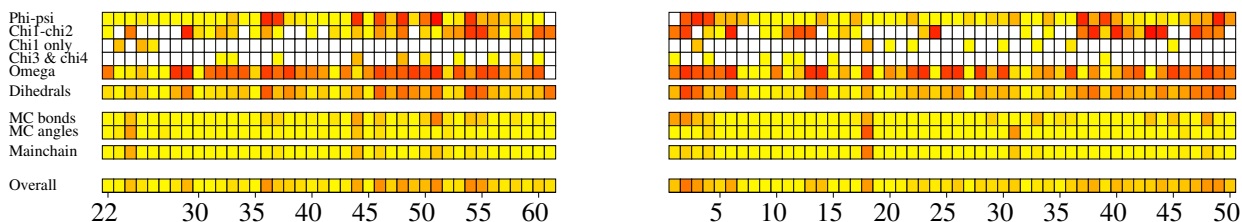
e. Sequence & Ramachandran regions



f. Max. deviation (see listing)

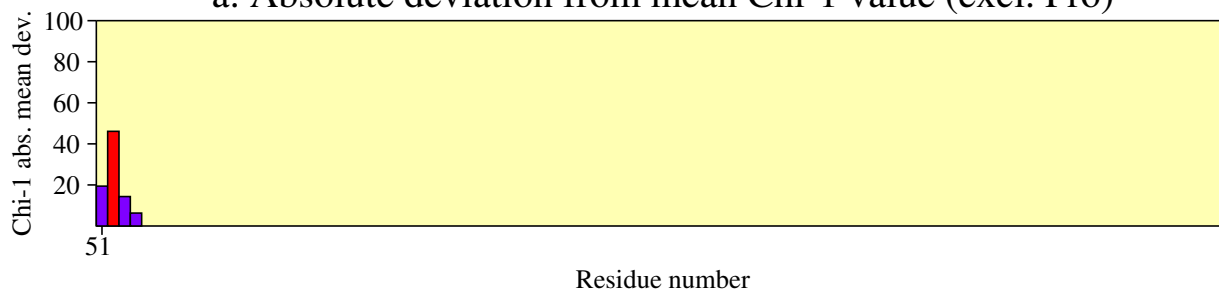


g. G-factors

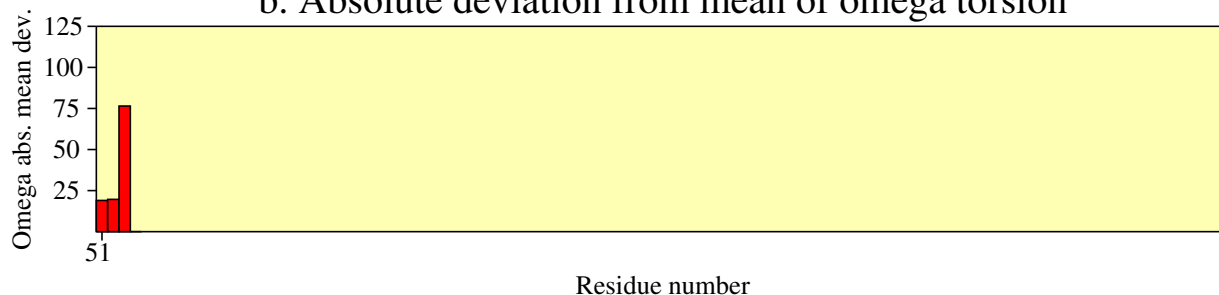


# Residue properties pdb1sqq

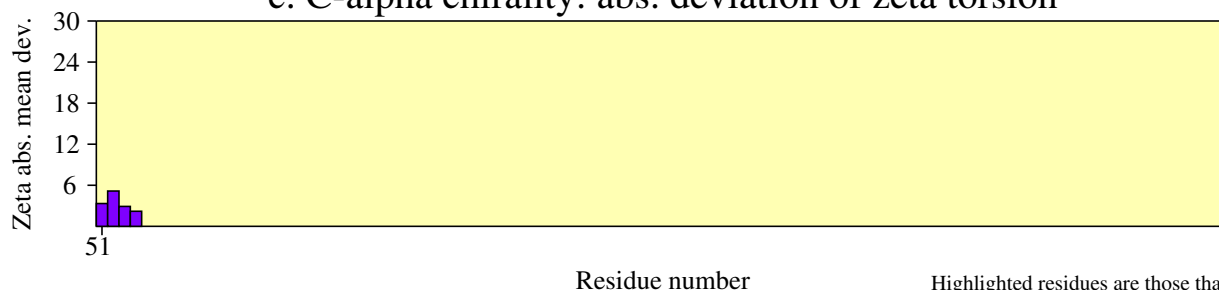
a. Absolute deviation from mean Chi-1 value (excl. Pro)



b. Absolute deviation from mean of omega torsion

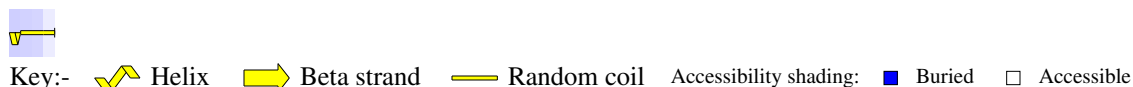


c. C-alpha chirality: abs. deviation of zeta torsion



Highlighted residues are those that deviate by more than 2.0 st. devs. from ideal

d. Secondary structure & estimated accessibility



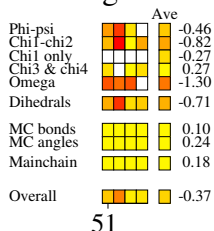
e. Sequence & Ramachandran regions Most favoured Allowed Generous Disallowed



f. Max. deviation (see listing)

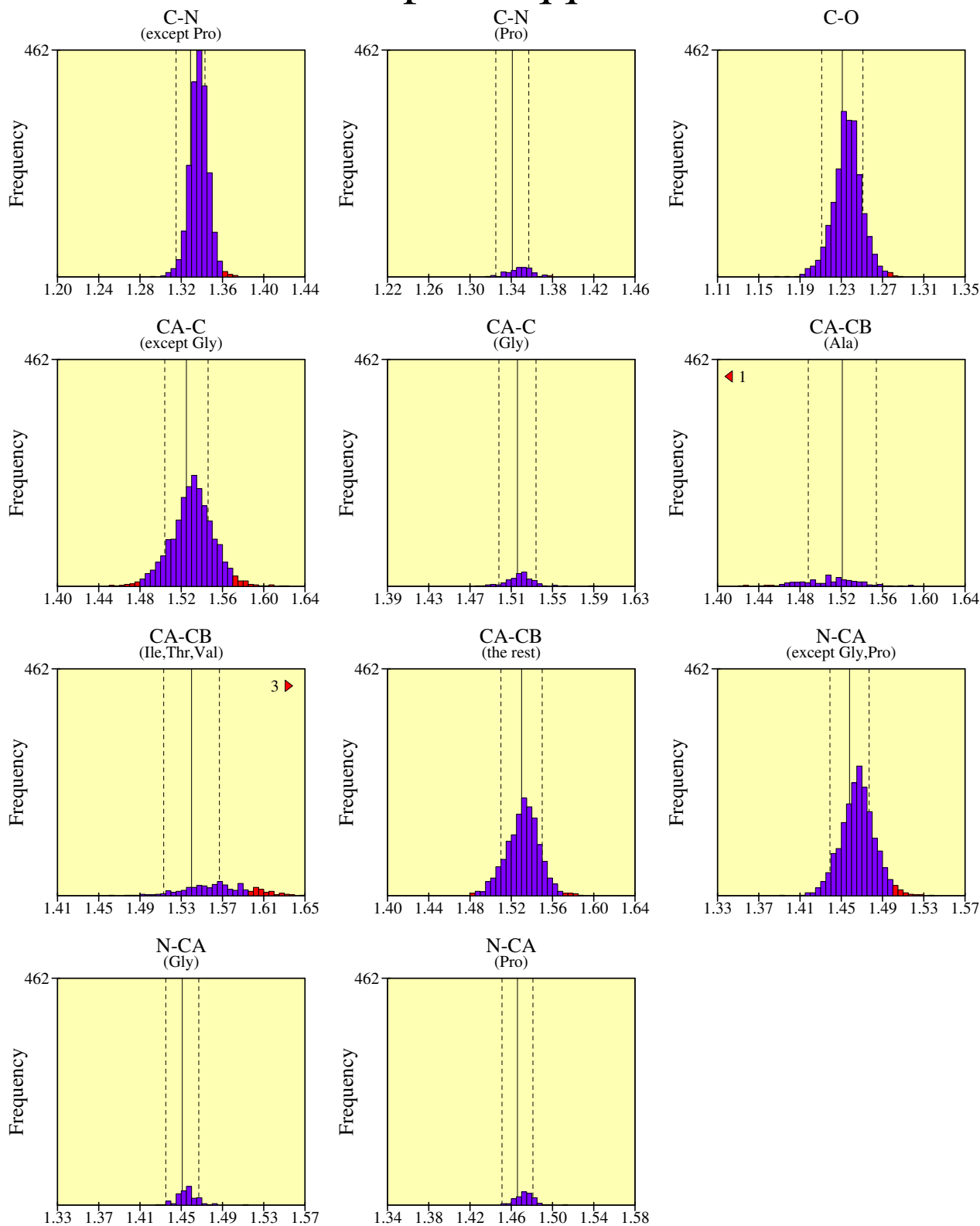


g. G-factors



# Main-chain bond lengths

## pdb1sqq



Black bars > 2.0 st. devs. from mean.

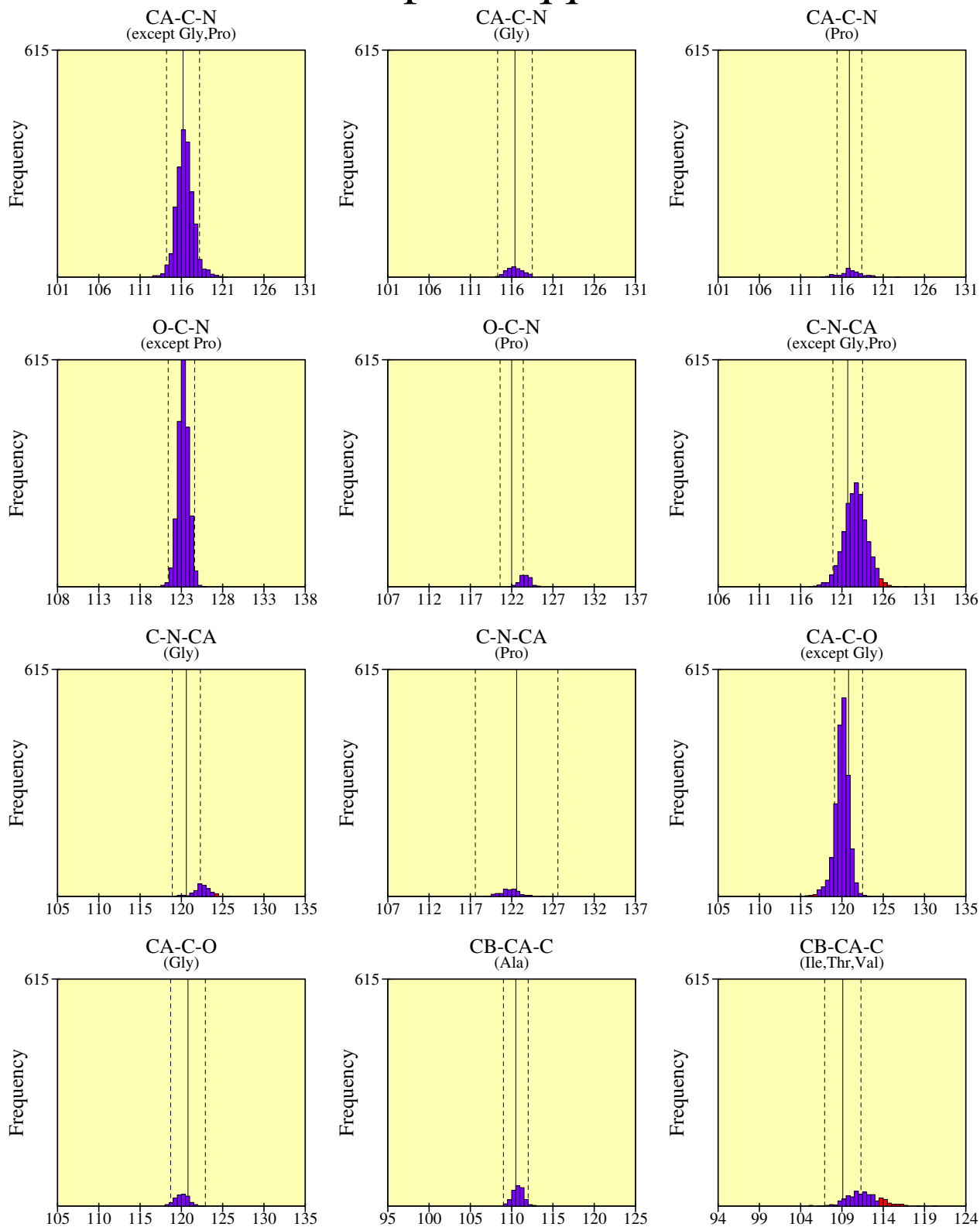
◀ or ▶ signifies data points off the graph in the direction shown.

Solid and dashed lines represent the mean and standard deviation values as per Engh & Huber small-molecule data.



# Main-chain bond angles

## pdb1sqq

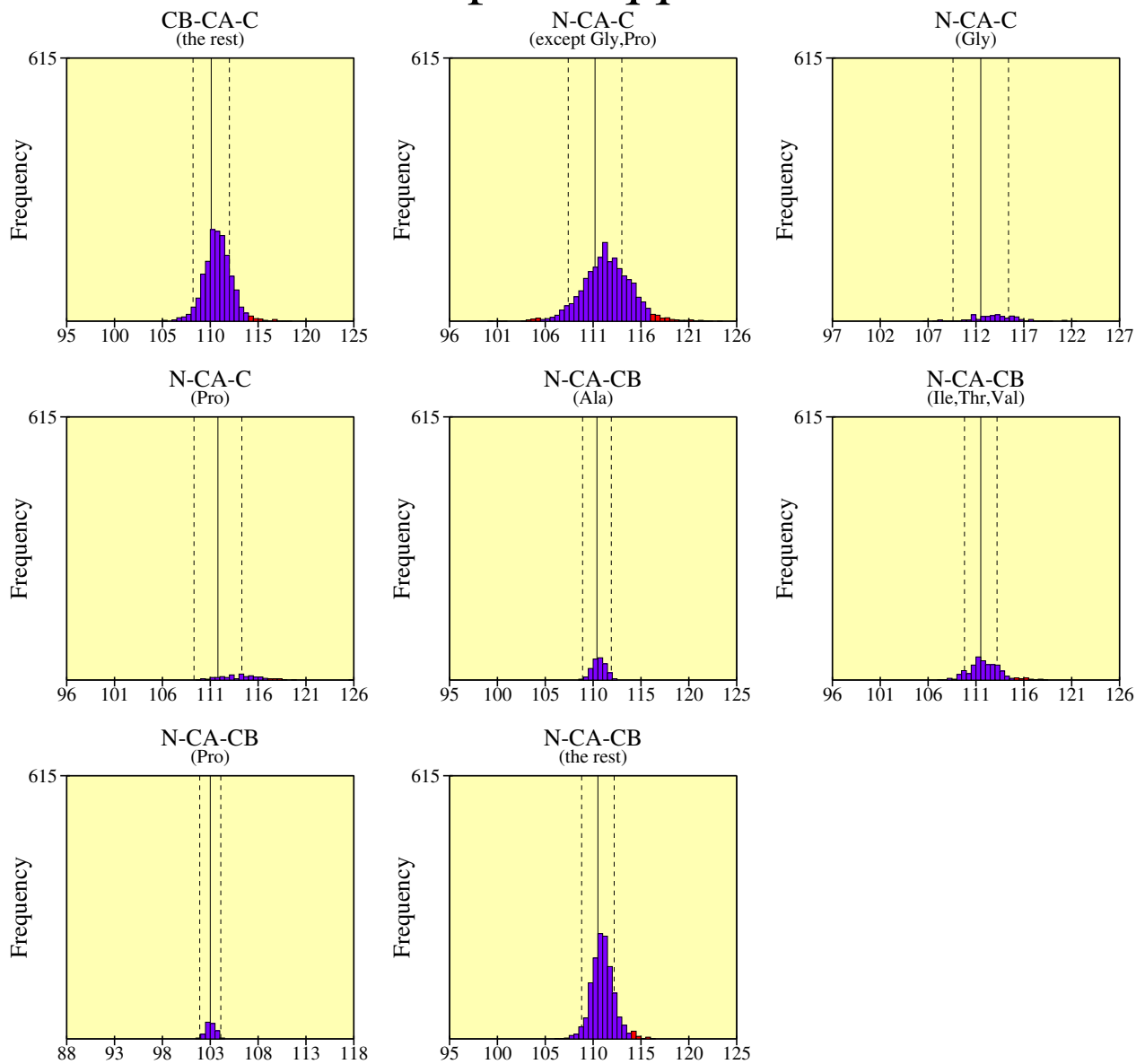


Black bars > 2.0 st. devs. from mean.

Solid and dashed lines represent the mean and standard deviation values as per Engh & Huber small-molecule data.

# Main-chain bond angles

## pdb1sqq

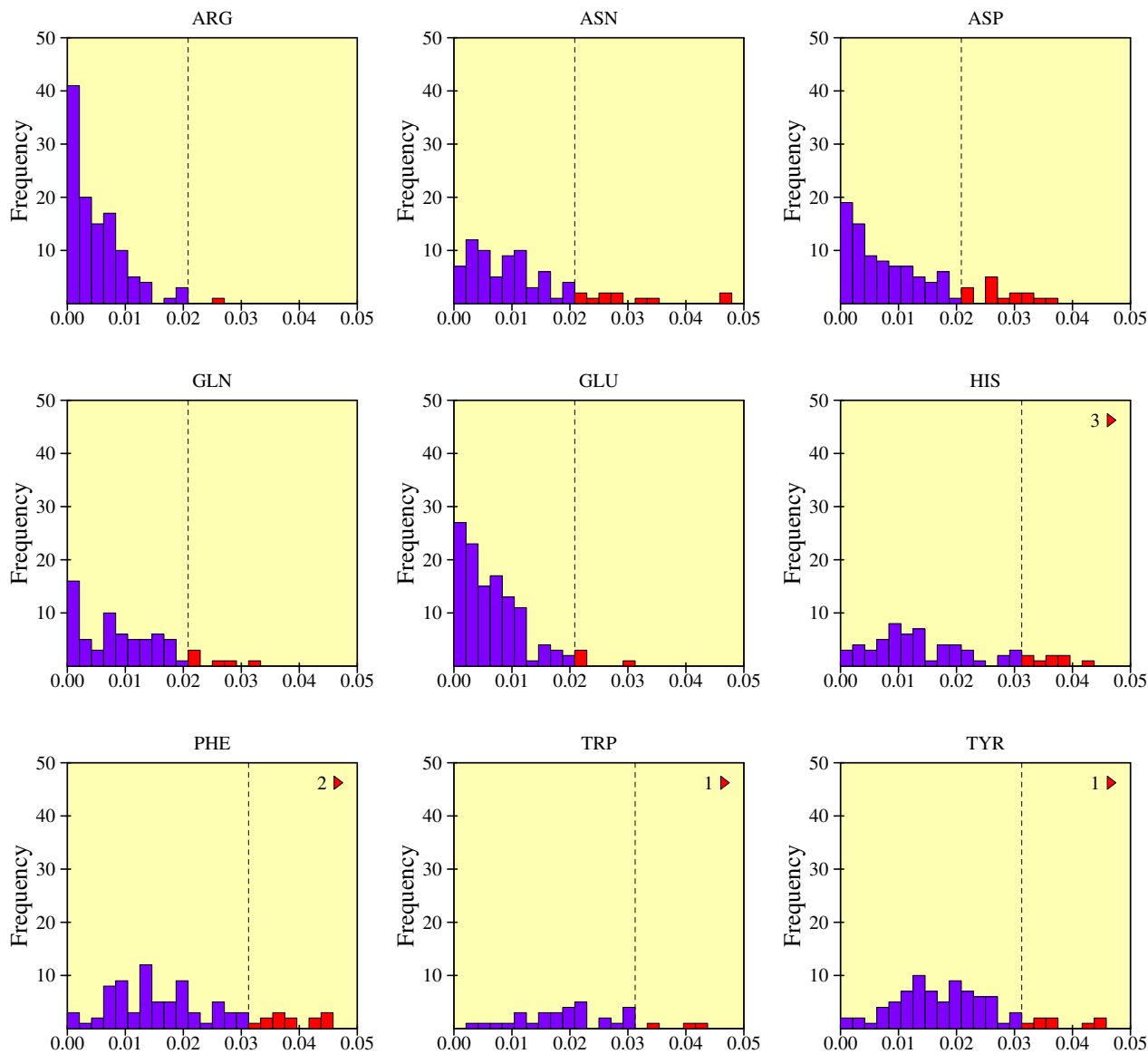


Black bars > 2.0 st. devs. from mean.

Solid and dashed lines represent the mean and standard deviation values as per Engh & Huber small-molecule data.

# RMS distances from planarity

## pdb1sqq



Histograms showing RMS distances of planar atoms from best-fit plane.  
 Black bars indicate large deviations from planarity: RMS dist > 0.03 for rings, and > 0.02 otherwise.

▶ signifies data points off the graph in the direction shown.

# Distorted geometry

## pdb1sqq

### Main-chain bond lengths

N 1.458 CA 0.051 1.509 A Thr 1	CA 1.521 CB 0.055 1.466 A Ala 7	CA 1.530 CB 0.056 1.586 A Asn 52	CA 1.521 CB 0.056 1.465 A Ala 84	CA 1.525 C 0.055 1.470 A Lys 100	CA 1.540 CB 0.105 1.645 A Ile 127
CA 1.540 CB 0.063 1.477 A Thr 143	CA 1.521 CB 0.053 1.468 A Ala 164	CA 1.521 CB 0.057 1.464 A Ala 198	N 1.458 CA 0.054 1.512 A Ala 200	CA 1.521 CB 0.055 1.576 A Ala 227	CA 1.540 CB 0.063 1.603 A Val 228
CA 1.540 CB 0.064 1.604 A Thr 230	CA 1.525 C 0.051 1.474 A Trp 262	N 1.458 CA 0.051 1.509 A Thr 283	CA 1.521 CB 0.126 1.395 A Ala 288	CA 1.540 CB 0.060 1.600 A Ile 312	CA 1.540 CB 0.053 1.593 A Thr 317
CA 1.540 CB 0.077 1.463 A Thr 347	CA 1.521 CB 0.056 1.465 A Ala 364	CA 1.521 CB 0.092 1.429 A Ala 421	CA 1.540 CB 0.057 1.597 A Val 422	CA 1.540 CB 0.050 1.590 A Ile 428	CA 1.540 CB 0.054 1.594 B Val 17
CA 1.525 C 0.052 1.577 B Pro 19	CA 1.530 CB 0.053 1.583 B His 20	CA 1.525 C 0.061 1.464 B Asp 23	CA 1.540 CB 0.054 1.594 B Ile 47	C 1.231 O 0.055 1.176 B Glu 58	CA 1.525 C 0.062 1.462 B Glu 58
CA 1.525 C 0.074 1.451 B His 67	CA 1.540 CB 0.052 1.592 B Ile 89	CA 1.540 CB 0.052 1.488 B Thr 99	CA 1.525 C 0.064 1.589 B Ser 100	CA 1.540 CB 0.076 1.616 B Ile 118	CA 1.525 C 0.051 1.474 B Leu 124
CA 1.540 CB 0.062 1.602 B Thr 128	CA 1.521 CB 0.066 1.456 B Ala 129	CA 1.521 CB 0.067 1.454 B Ala 138	CA 1.521 CB 0.098 1.423 B Ala 139	CA 1.521 CB 0.094 1.427 B Ala 151	CA 1.521 CB 0.051 1.470 B Ala 165
CA 1.525 C 0.067 1.458 B Asn 170	N 1.458 CA 0.064 1.394 B Asn 170	CA 1.521 CB 0.051 1.470 B Ala 171	CA 1.540 CB 0.058 1.598 B Val 186	CA 1.540 CB 0.082 1.622 B Ile 226	CA 1.525 C 0.051 1.576 B Leu 232
N 1.458 CA 0.053 1.511 B Leu 232	N 1.458 CA 0.052 1.510 B Ser 233	CA 1.521 CB 0.054 1.467 B Ala 237	CA 1.516 C 0.073 1.589 B Gly 249	CA 1.521 CB 0.051 1.470 B Ala 259	CA 1.521 CB 0.056 1.465 B Ala 263
CA 1.525 C 0.050 1.575 B Ser 273	CA 1.540 CB 0.061 1.601 B Val 274	CA 1.540 CB 0.066 1.606 B Val 299	CA 1.525 C 0.056 1.469 B Val 309	CA 1.525 C 0.054 1.470 B Phe 324	CA 1.521 CB 0.053 1.468 B Ala 339
CA 1.540 CB 0.056 1.484 B Val 344	CA 1.521 CB 0.074 1.447 B Ala 408	CA 1.540 CB 0.078 1.618 B Ile 411	CA 1.521 CB 0.078 1.443 B Ala 414	CA 1.525 C 0.054 1.471 B Arg 421	CA 1.525 C 0.056 1.469 B Ile 436

# Distorted geometry

## pdb1sqq

### Main-chain bond lengths (contd)

CA 1.540 CB 0.057 1.597 B Ile 436	C 1.231 O 0.050 1.281 C Thr 2	CA 1.525 C 0.058 1.582 C Thr 2	CA 1.540 CB 0.089 1.629 C Thr 2	CA 1.540 CB 0.057 1.597 C Ile 4	CA 1.540 CB 0.067 1.607 C Ile 13
CA 1.525 C 0.061 1.586 C Ala 23	CA 1.540 CB 0.094 1.634 C Ile 42	CA 1.525 C 0.058 1.583 C Met 53	CA 1.540 CB 0.065 1.605 C Thr 56	CA 1.540 CB 0.051 1.591 C Thr 60	CA 1.540 CB 0.054 1.594 C Thr 67
CA 1.540 CB 0.072 1.612 C Ile 69	CA 1.525 C 0.052 1.473 C Asn 74	CA 1.540 CB 0.065 1.605 C Ile 118	CA 1.540 CB 0.087 1.627 C Ile 156	CA 1.540 CB 0.052 1.592 C Ile 189	C 1.231 O 0.057 1.288 C Gly 204
CA 1.540 CB 0.050 1.590 C Ile 236	CA 1.540 CB 0.069 1.609 C Val 243	CA 1.525 C 0.051 1.576 C Ala 246	CA 1.540 CB 0.119 1.659 C Thr 257	CA 1.540 CB 0.050 1.590 C Thr 309	N 1.458 CA 0.066 1.524 C Thr 309
N 1.458 CA 0.055 1.513 C Leu 328	CA 1.540 CB 0.113 1.653 C Thr 336	CA 1.540 CB 0.061 1.601 C Ile 338	CA 1.540 CB 0.070 1.610 C Ile 348	CA 1.540 CB 0.074 1.614 C Ile 350	CA 1.540 CB 0.065 1.605 C Val 356
CA 1.525 C 0.054 1.579 C Leu 361	CA 1.540 CB 0.065 1.605 C Val 364	CA 1.525 C 0.061 1.586 D His 14	CA 1.540 CB 0.063 1.603 D Ile 26	CA 1.540 CB 0.056 1.596 D Val 52	CA 1.540 CB 0.063 1.603 D Val 68
CA 1.525 C 0.057 1.582 D Phe 91	CA 1.540 CB 0.089 1.629 D Ile 116	N 1.458 CA 0.058 1.516 D His 121	CA 1.525 C 0.051 1.576 D Leu 143	CA 1.540 CB 0.093 1.633 D Ile 158	CA 1.525 C 0.057 1.582 D Pro 162
CA 1.540 CB 0.062 1.602 D Ile 164	CA 1.540 CB 0.076 1.616 D Val 168	CA 1.530 CB 0.052 1.582 D Asp 173	CA 1.525 C 0.068 1.593 D Thr 175	CA 1.521 CB 0.053 1.468 D Ala 177	CA 1.540 CB 0.080 1.620 D Val 182
CA 1.540 CB 0.059 1.599 D Val 219	CA 1.525 C 0.053 1.578 D Leu 230	CA 1.540 CB 0.055 1.595 E Thr 22	CA 1.540 CB 0.071 1.611 E Thr 40	CA 1.525 C 0.073 1.452 E Ser 65	CA 1.540 CB 0.071 1.611 F Val 6
CA 1.540 CB 0.067 1.607 F Ile 16	CA 1.540 CB 0.062 1.602 F Ile 37	CA 1.521 CB 0.059 1.462 F Ala 46	CA 1.540 CB 0.061 1.601 F Val 59	CA 1.540 CB 0.077 1.617 F Ile 74	CA 1.540 CB 0.089 1.628 F Thr 81
N 1.458 CA 0.062 1.520 F Lys 87	N 1.451 CA 0.060 1.511 G Gly 1	N 1.458 CA 0.068 1.526 G Arg 2	N 1.458 CA 0.051 1.509 G Phe 4	C 1.231 O 0.062 1.169 G Arg 9	CA 1.540 CB 0.076 1.616 G Val 10

# Distorted geometry

## pdb1sqq

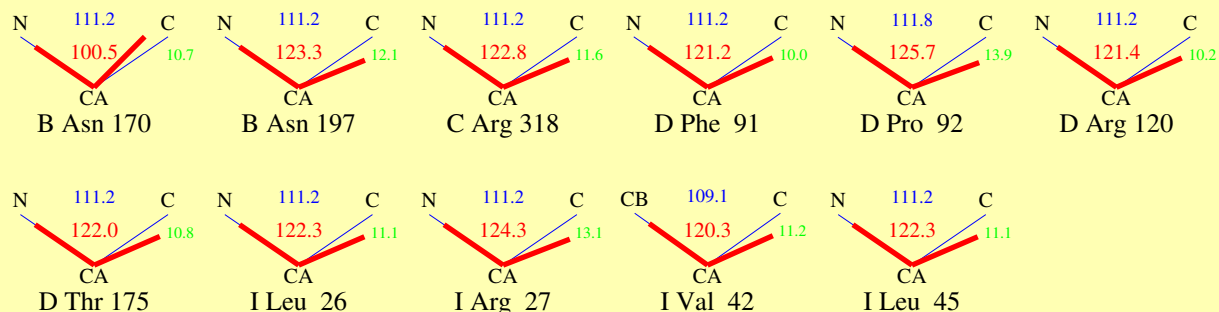
### Main-chain bond lengths (contd)

CA 1.540 CB 0.092 1.632 G Ile 34	CA 1.540 CB 0.068 1.608 G Val 37	CA 1.521 CB 0.068 1.453 G Ala 43	CA 1.540 CB 0.099 1.639 G Val 53	CA 1.540 CB 0.051 1.591 G Val 58	CA 1.540 CB 0.062 1.602 G Thr 60
CA 1.525 C 0.070 1.595 G Asn 73	CA 1.540 CB 0.067 1.607 H Val 14	CA 1.540 CB 0.063 1.603 H Val 20	CA 1.525 C 0.056 1.581 H Gln 26	CA 1.540 CB 0.071 1.611 H Val 31	N 1.458 CA 0.051 1.509 H Asp 60
CA 1.540 CB 0.071 1.611 H Val 69	N 1.458 CA 0.051 1.509 I Met 1	CA 1.540 CB 0.095 1.635 I Val 4	CA 1.525 C 0.055 1.580 I Ala 6	CA 1.525 C 0.060 1.465 I Pro 13	CA 1.525 C 0.083 1.608 I Ala 17
N 1.458 CA 0.051 1.509 I Ala 17	N 1.458 CA 0.051 1.509 I Arg 20	CA 1.540 CB 0.058 1.598 I Val 22	CA 1.525 C 0.056 1.581 I Ala 23	CA 1.521 CB 0.065 1.586 I Ala 23	CA 1.521 CB 0.072 1.449 I Ala 25
CA 1.525 C 0.095 1.620 I Leu 26	N 1.458 CA 0.061 1.519 I Leu 26	CA 1.525 C 0.055 1.580 I Arg 27	CA 1.540 CB 0.062 1.602 I Val 30	CA 1.525 C 0.053 1.578 I Gln 31	CA 1.540 CB 0.065 1.605 I Val 34
CA 1.525 C 0.059 1.584 I Ala 36	CA 1.540 CB 0.058 1.598 I Thr 37	CA 1.525 C 0.054 1.579 I Glu 39	CA 1.525 C 0.064 1.589 I Val 42	CA 1.540 CB 0.117 1.657 I Val 42	CA 1.525 C 0.056 1.581 I Leu 43
CA 1.530 CB 0.051 1.581 I Leu 43	N 1.458 CA 0.069 1.527 I Leu 43	N 1.458 CA 0.055 1.513 I Asp 44	CA 1.525 C 0.083 1.608 I Leu 45	CA 1.530 CB 0.052 1.582 I Leu 45	N 1.458 CA 0.066 1.524 I Leu 45
CA 1.525 C 0.083 1.608 I Lys 46	N 1.458 CA 0.056 1.514 I Lys 46	CA 1.540 CB 0.080 1.620 I Val 49	CA 1.525 C 0.052 1.577 I Arg 52	CA 1.525 C 0.090 1.615 I Glu 53	CA 1.525 C 0.076 1.601 I Ser 54
N 1.458 CA 0.079 1.537 I Ser 54	CA 1.540 CB 0.069 1.609 J Thr 4	CA 1.540 CB 0.078 1.618 J Ile 24	CA 1.540 CB 0.066 1.606 J Ile 42	CA 1.525 C 0.052 1.577 J Glu 44	CA 1.540 CB 0.076 1.616 J Ile 46
CA 1.525 C 0.069 1.594 J Leu 51	CA 1.540 CB 0.067 1.607 J Ile 55	CA 1.525 C 0.065 1.590 K Leu 2	CA 1.540 CB 0.062 1.602 K Thr 3	CA 1.540 CB 0.083 1.623 K Val 18	CA 1.521 CB 0.069 1.590 K Ala 29
CA 1.540 CB 0.066 1.606 K Val 33	CA 1.540 CB 0.050 1.590 K Ile 41	CA 1.525 C 0.055 1.580 K Val 45	CA 1.540 CB 0.086 1.626 K Ile 48		

Bonds differing by > 0.05A from small-molecule values. Values shown: "ideal", difference, actual

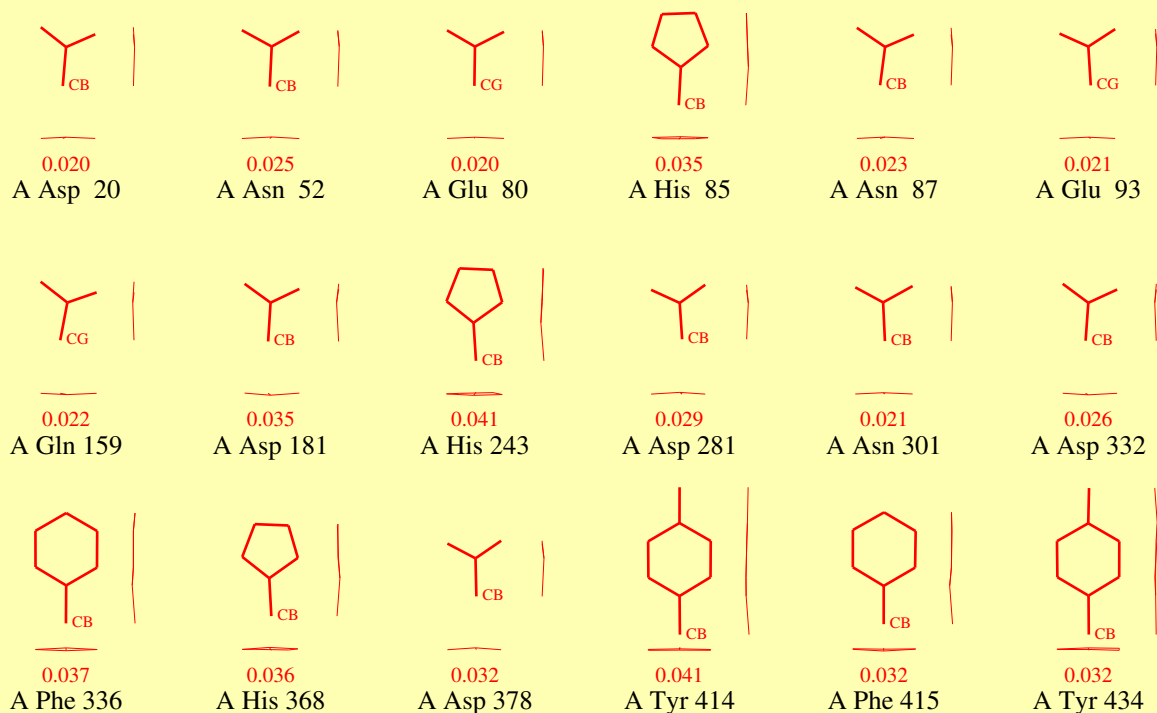
# Distorted geometry pdb1sqq

## Main-chain bond angles



Bond angles differing by > 10.0 degrees from small-molec values. Values shown: "ideal", actual, diff.

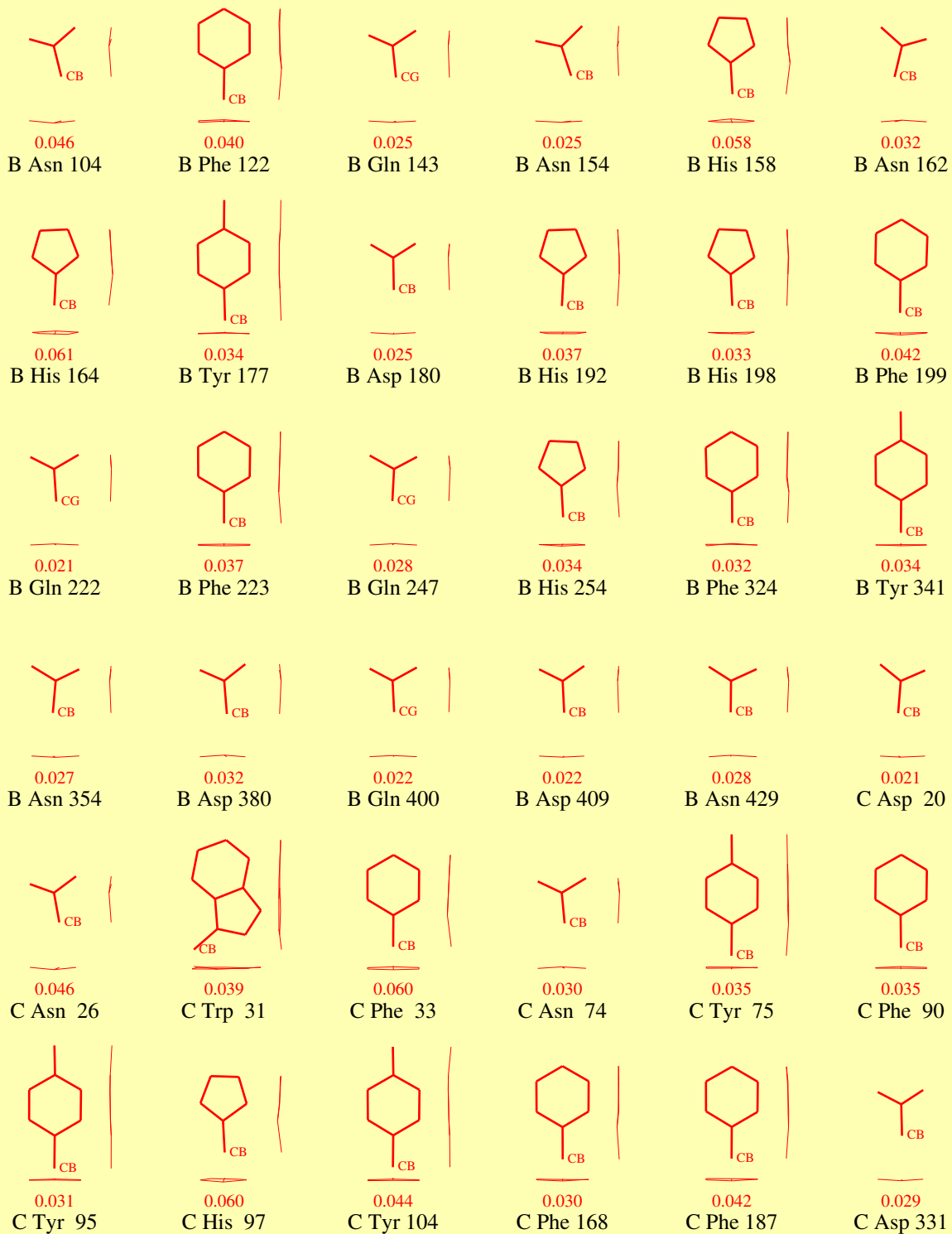
## Planar groups



# Distorted geometry

## pdb1sqq

### Planar groups (contd)

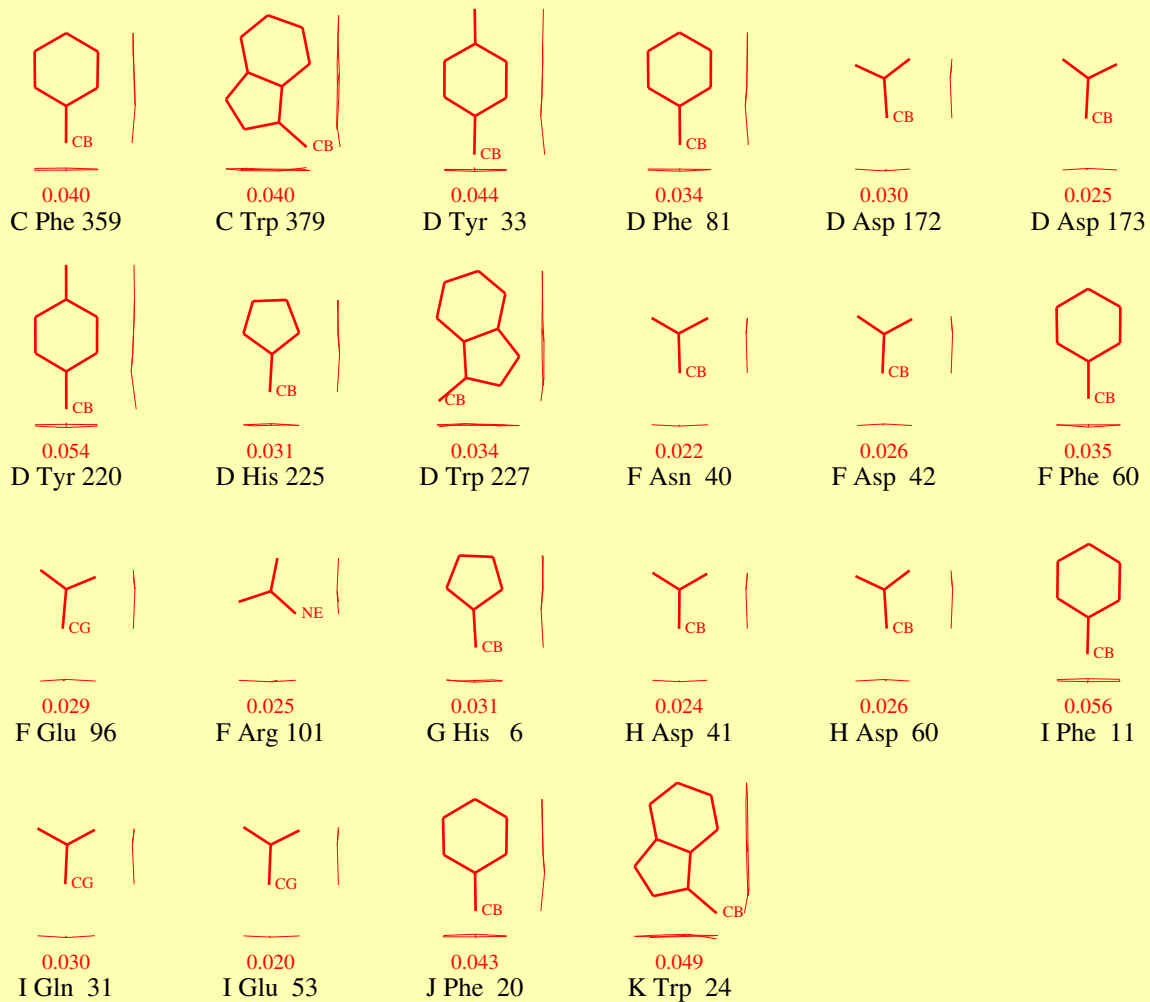




# Distorted geometry

## pdb1sqq

### Planar groups (contd)



Sidechains with RMS dist. from planarity > 0.03A for rings, or > 0.02A otherwise. Value shown is RMS dist.