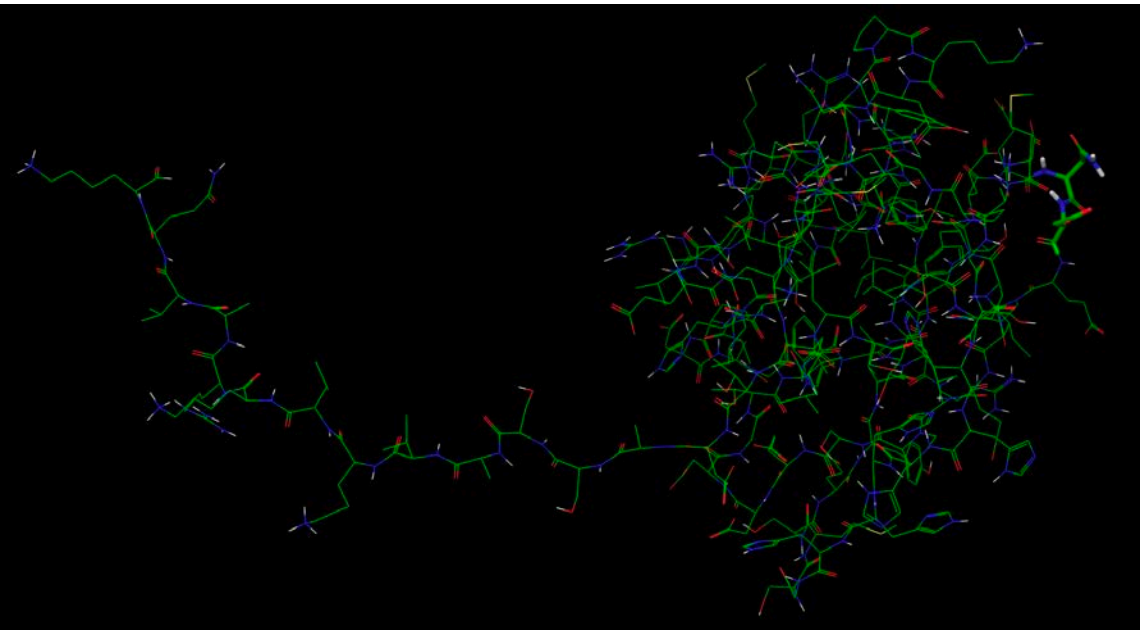
>sp|Q13148|TADBP_HUMAN TAR DNA-binding protein 43 OS=Homo sapiens OX=9606 GN=TARDBP PE=1 SV=1

MSEYIRVTEDENDEPIEIPSEDDGTVLLSTVTAQFPGACGLRYRNPVSQCMRGVRLVEGILHAPDAGWGNLVYVVNY
PKDNKRKMDETDASSAVKVKRAVQKTSDLIVLGLPWKTTEQDLKEYFSTFGEVLMVQVKKDLKTGHSKGFGFVRFTE
YETQVKVMSQRHMIDGRWCDCKLPNSKQSQDEPLRSRKVFVGRCTEDMTEDELREFFSQYGDVMDVFIPKPFRAFAF
VTFADDQIAQSLCGEDLIIKGISVHISNAEPKHNSNRQLERSGRFGGNPGGFGNQGGFGNSRGGGAGLGNNQGSNMG
GGMNFGAFSINPAMMAAAQAALQSSWGMMGMLASQQNQSGPSGNNQNQGNMQREPNQAFGSGNNSYSGSNSGAAIGW
GSASNAGSGSGFNGGFGSSMDSKSSGWGM

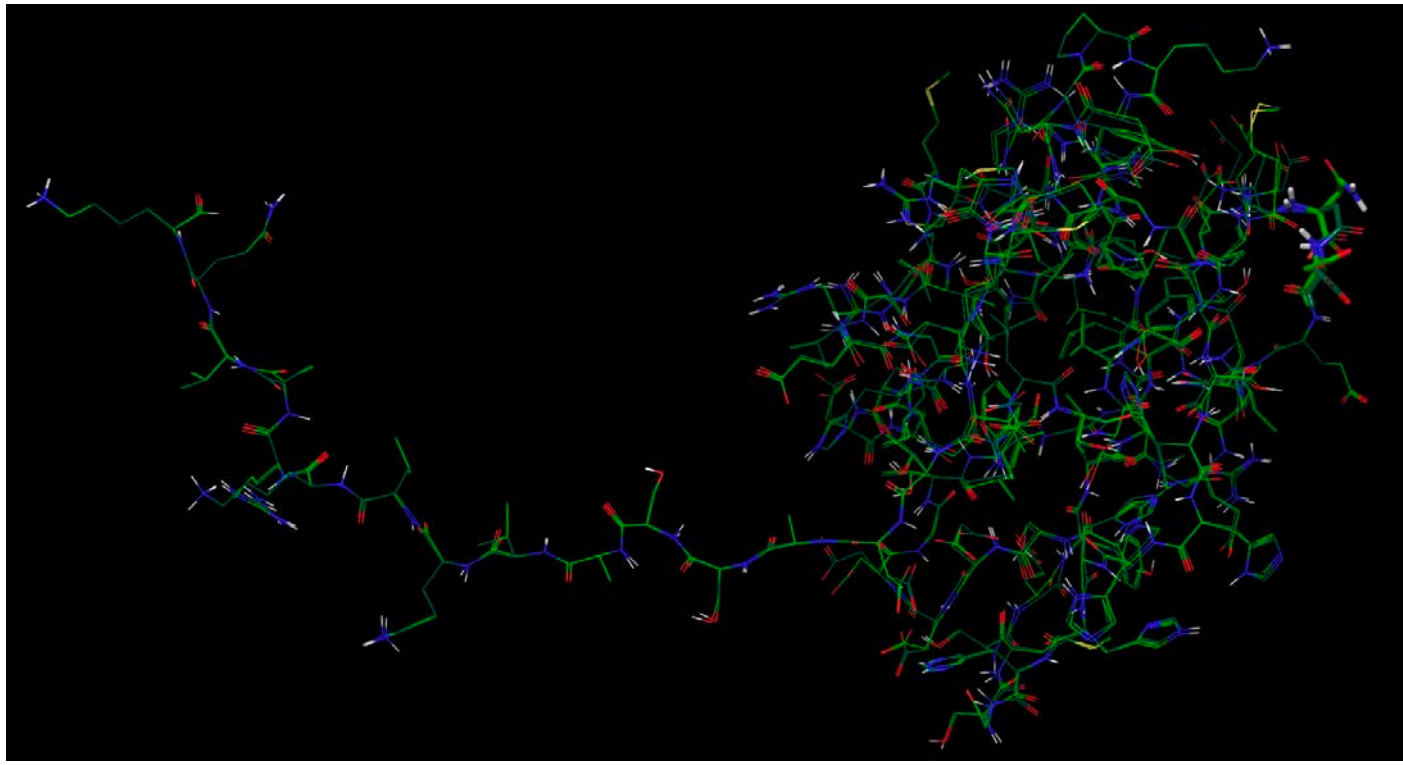
5MRG, 4BS2, 6N3C, 6N3A, 5WIA, 5WIQ

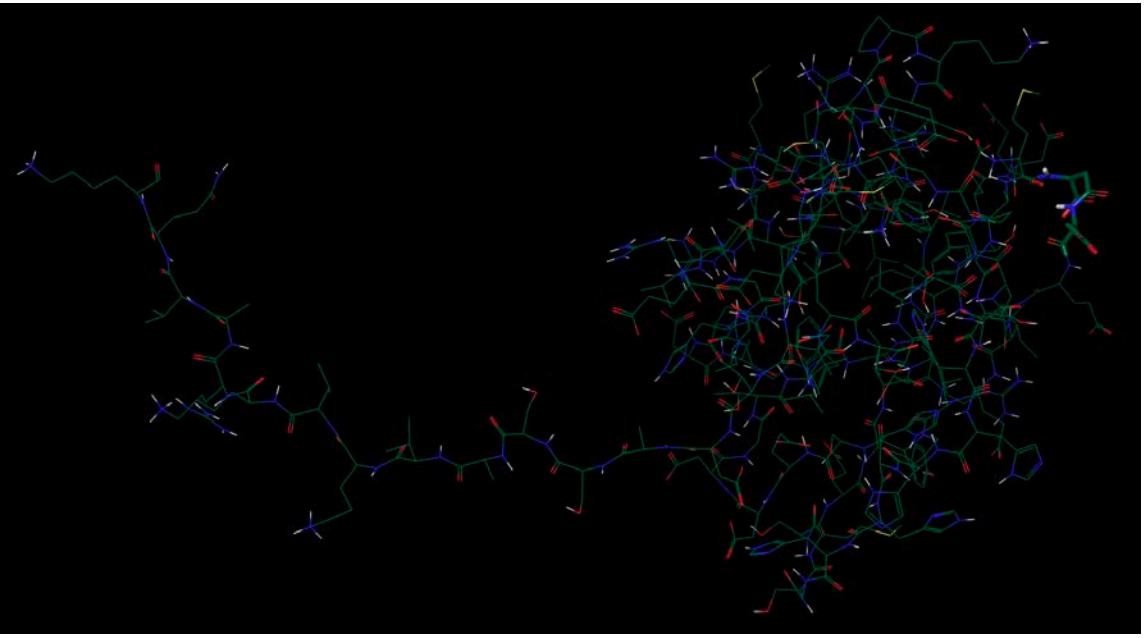
MSEYIRVTEDENDEPIEIPSEDDGTVLLSTVTAQFPGACGLRYRNPVSQCMRGVRLVEGILH
APDAGWGNLVYVVNYPKDNKRKMDETDASSAVKVKRAVQKTSDLIVLGLPWKTTEQDLKEYF
STFGEVLMVQVKKDLKTGHSKGFGFVRFTEYETQVKVMSQRHMIDGRWCDCKLPNSKQSQDE
PLRSRKVFVGRCTEDMTEDELREFFSQYGDVMDVFIPKPFRAFAFVTFADDQIAQSLCGEDL
IIKGISVHISNAEPKHNSNRQLERSGRFGGNPGGFGNQGGFGNSRGGGAGLGNNQGSNMGGG
MNFGAFSINPAMMAAAQAALQSSWGMMGMLASQQNQSGPSGNNQNQGNMQREPNQAFGSGNN
SYSGSNSGAAIGWGSASNAGSGSGFNGGFGSSMDSKSSGWGM



MSEYIRVTEDE**N**DEPIEIPSEDDGTVLLSTVTAQ
FPGACGLRYRNPVSQCMRGVRLVEGILHAPDAGW
GNLVYVVNYPKDNKRKMDETDASSAVKVKRAVQ

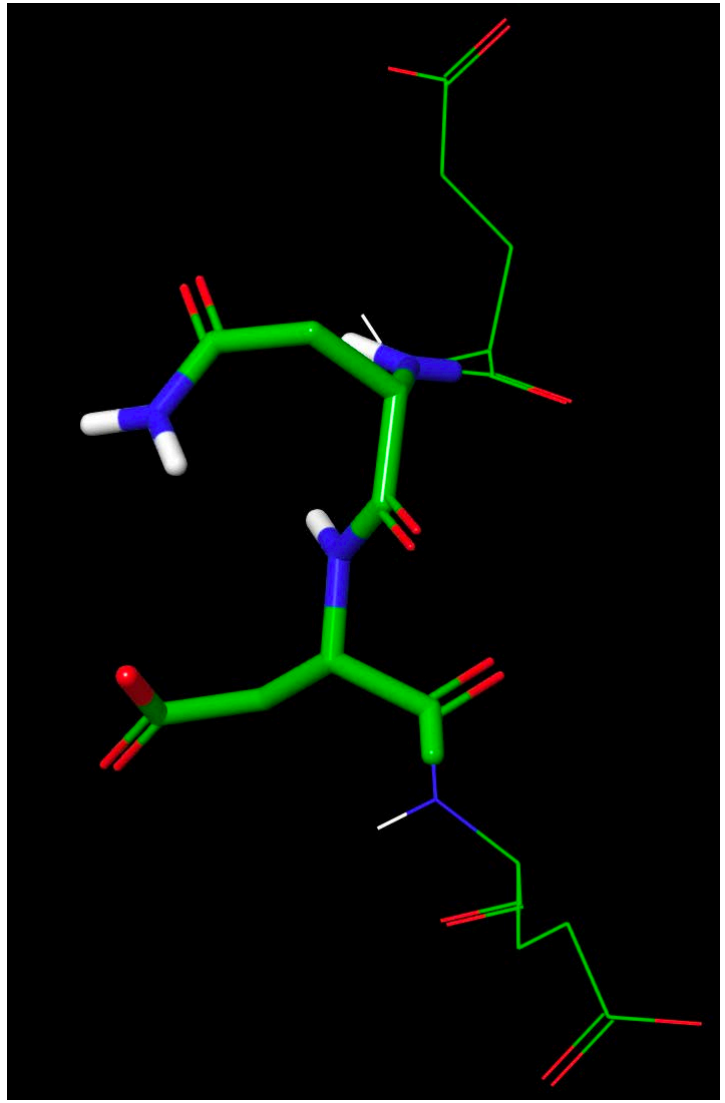
5MRG: -4021.2



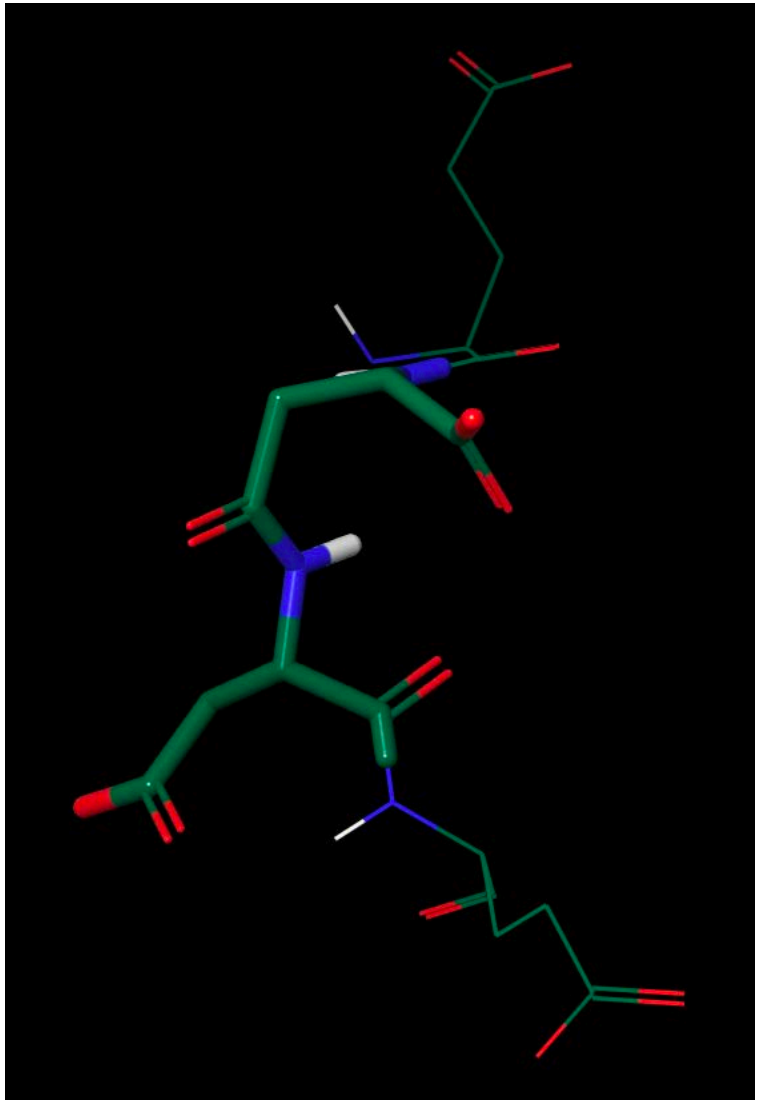


5MRG with isoaspartate24: -3997.5

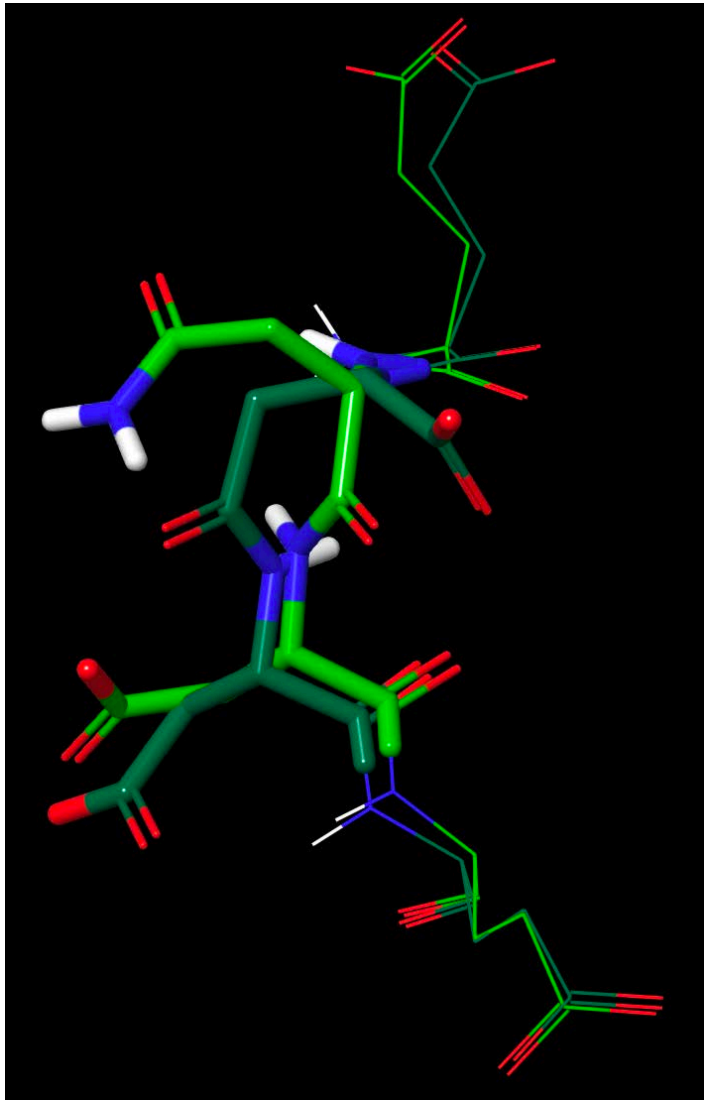
MSEYIRVTEDE**ND**EPIEIPSEDDGTVLLSTVTAQ
FPGACGLRYRNPVSQCMRGVRLVEGILHAPDAGW
GNLVYVVNYPKDNKRKMDETDASSAVKVKRAVQ



5MRG: -4021.2

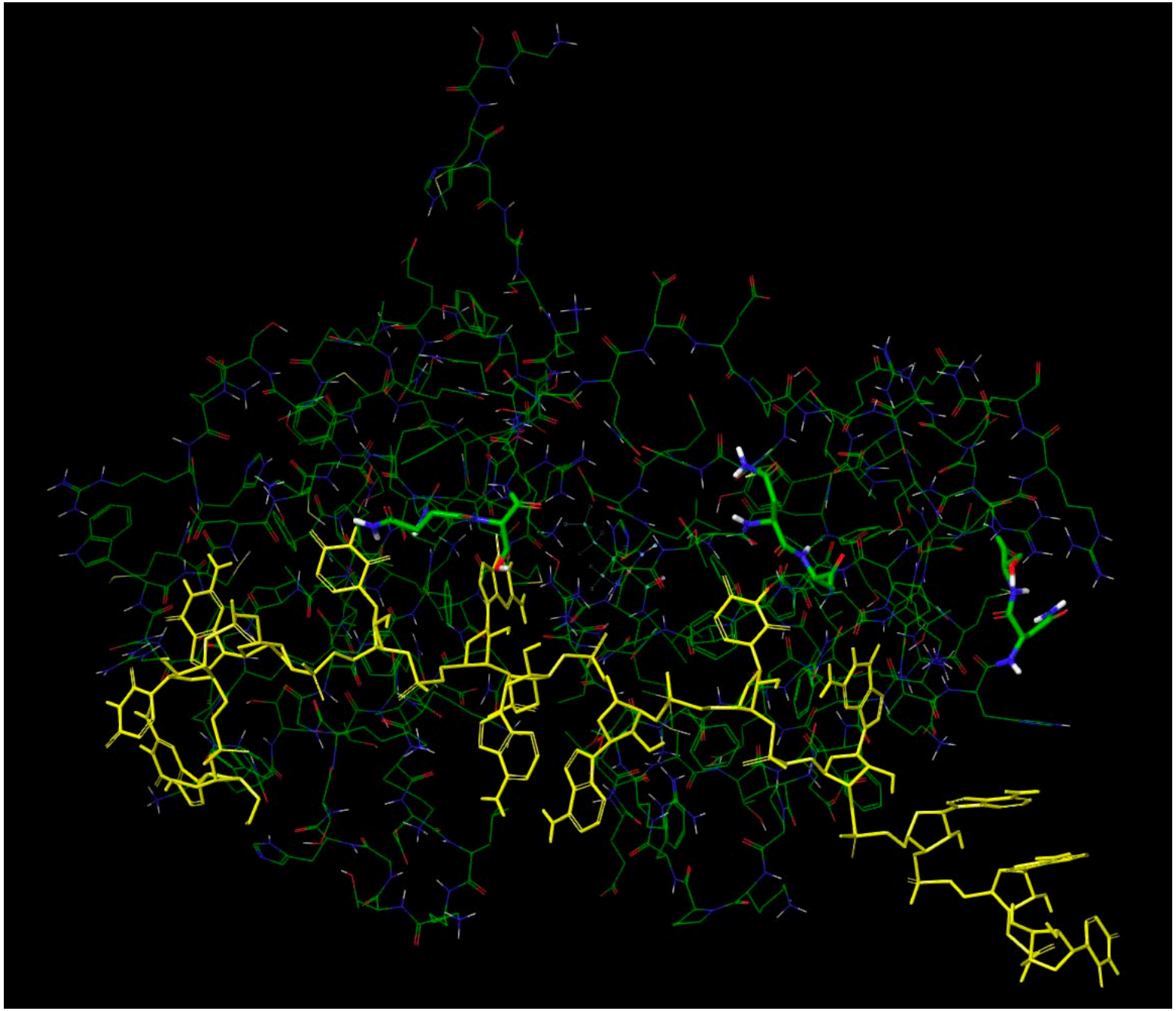


5MRG with isoaspartate24: -3997.5



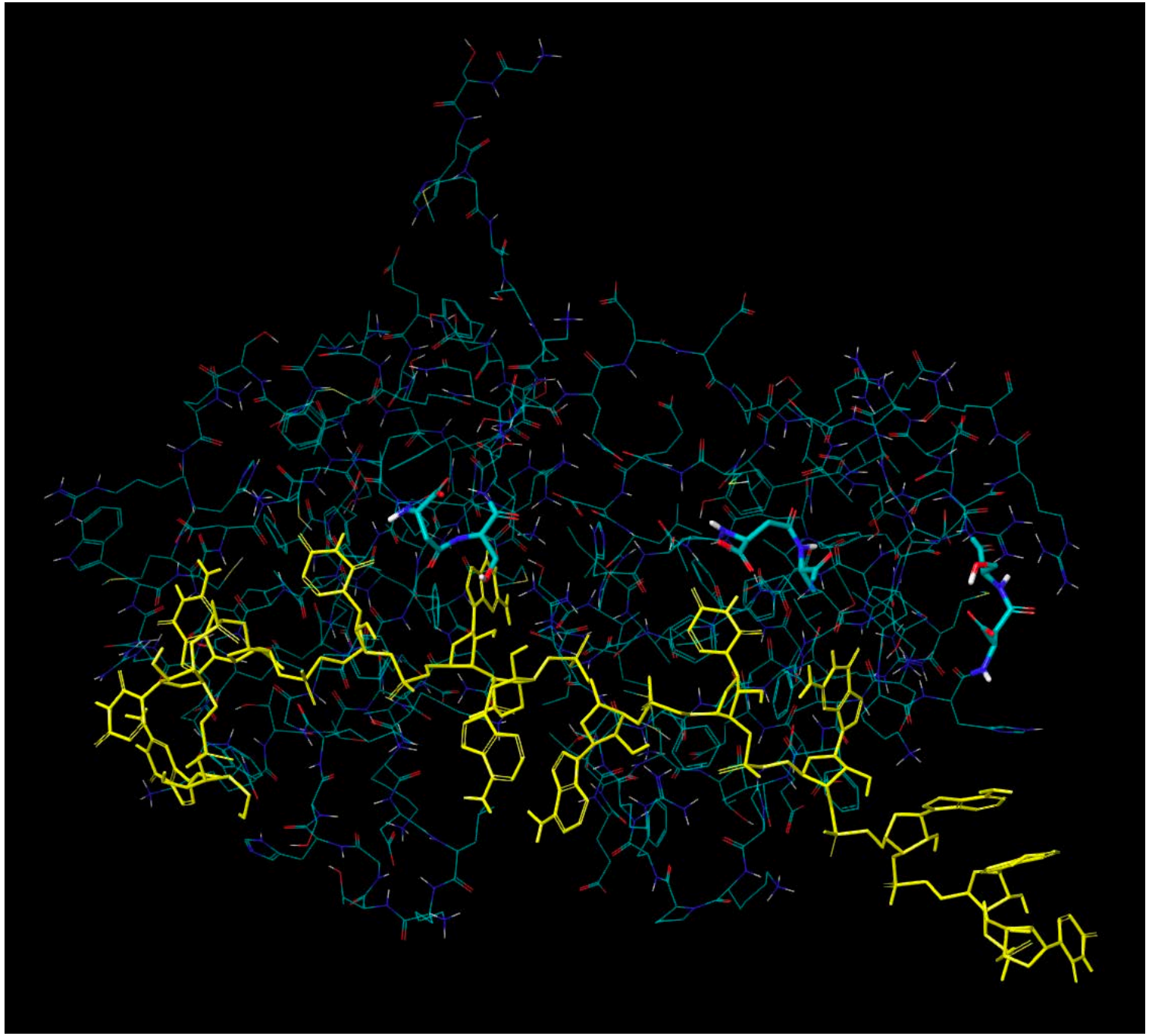
4BS2 all sites highlighted (179and265and259) : -8531.4 (RNA in yellow)

KTSDLIVLGLPWKTTEQDLKEYFSTFGE
VLMVQVKKDLKTGHSKGFGFVRFTEYET
QVKVMSQRHMIDGRWCDCKLP**NS**KQSQD
EPLRSRKVFVGRCTEDMTEDELREFFSQ
YGDVMDVFIPKPFRAFAFVTFADDQIAQ
SLCGEDLIIKGISVHIS**NA**EPKH**NS**NRQ



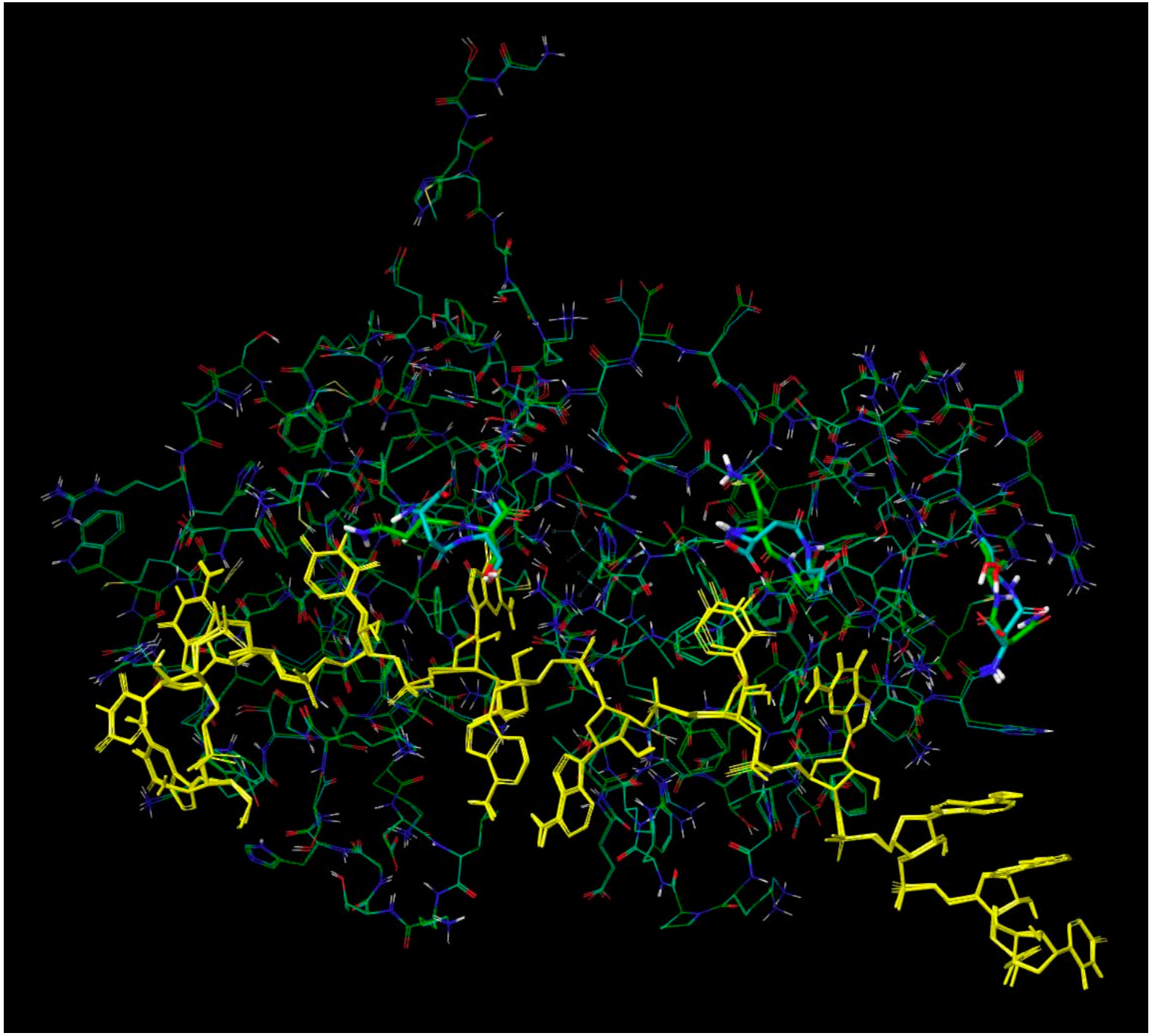
4BS2 Isoaspart_179and265and259: -8273.9

KTSDLIVLGLPWKTTEQDLKEYFSTFGE
VLMVQVKKDLKTGHSKGFGFVRFTEYET
QVKVMSQRHMIDGRWCDCKLPNSKQSQD
EPLRSRKVFVGRCTEDMTEDELREFFSQ
YGDVMDVFIPKPFRAFAFVTFADDQIAQ
SLCGEDLIIKGISVHISNAEPKHNSNRQ



4BS2_179and265and259 : overlay

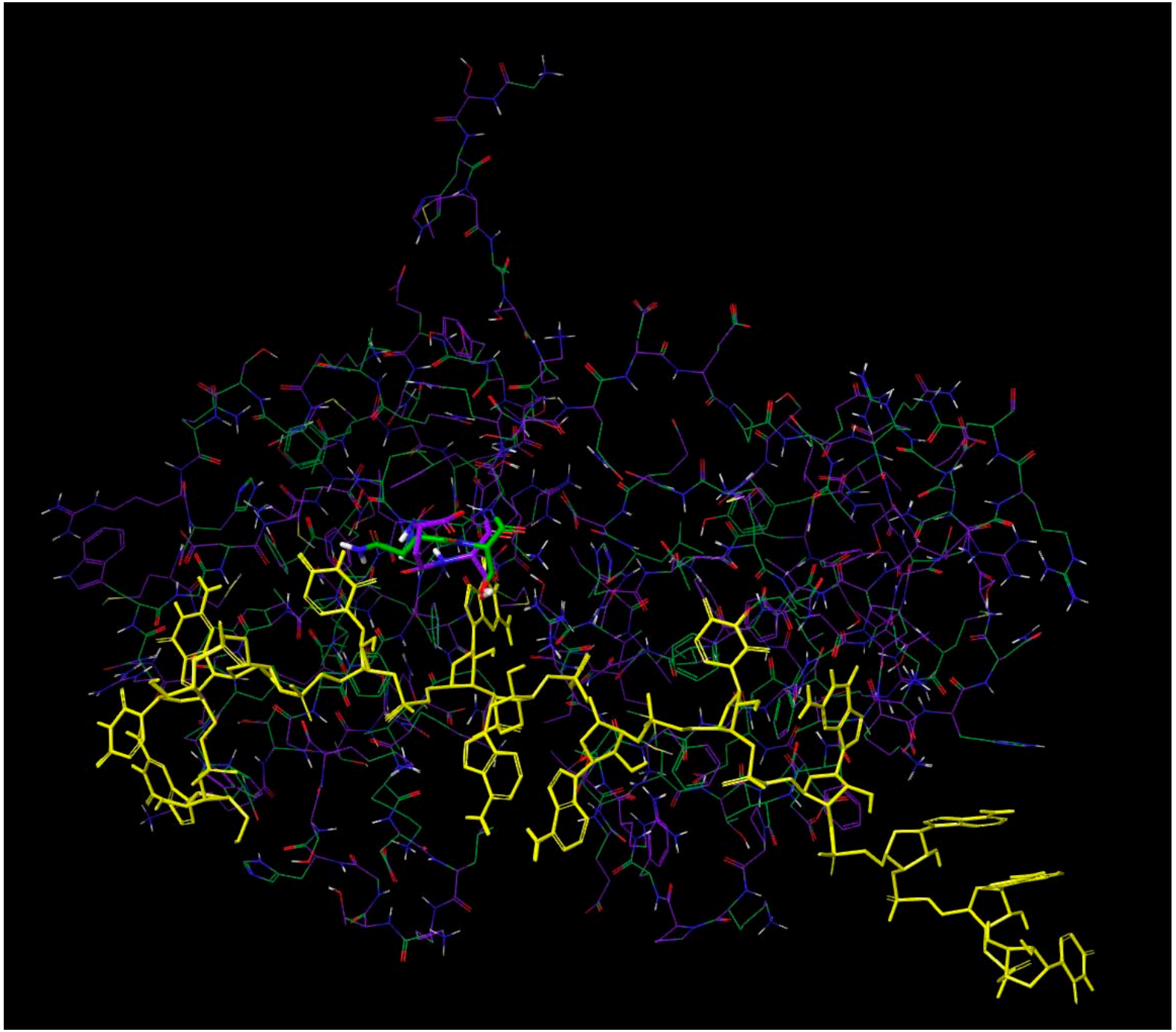
KTSDLIVLGLPWKTTEQDLKEYFSTFGE
VLMVQVKKDLKTGHSKGFGFVRFTEYET
QVKVMSQRHMIDGRWCDCKLP**NS**KQSQD
EPLRSRKVFVGRCTEDMTEDELREFFSQ
YGDVMDVFIPKPFRAFAFVTFADDQIAQ
SLCGEDLIIKGISVHIS**NA**EPKH**NS**NRQ

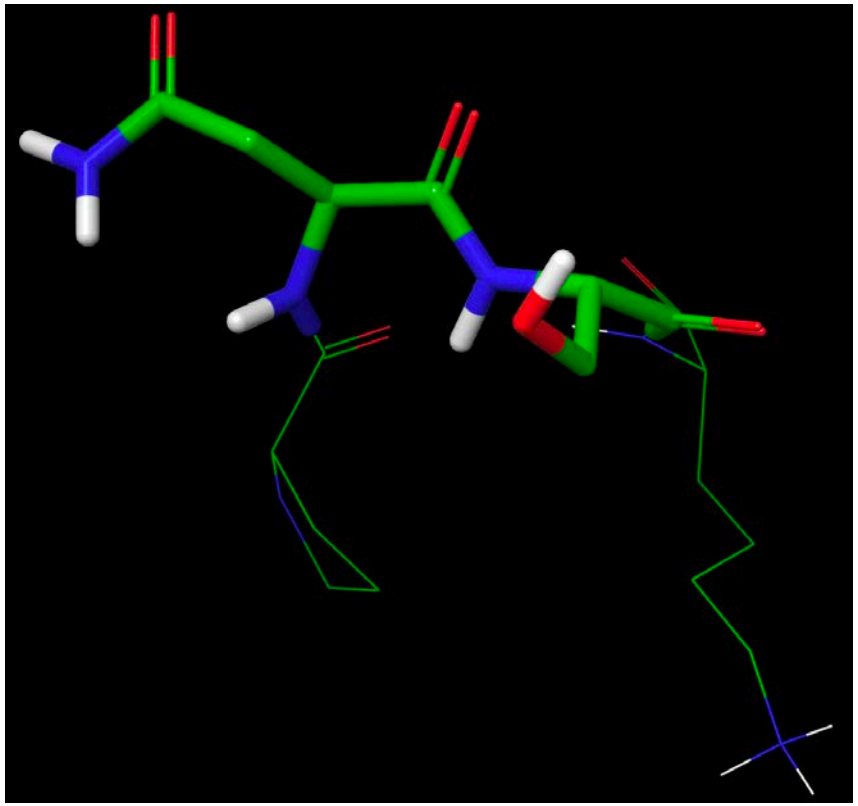


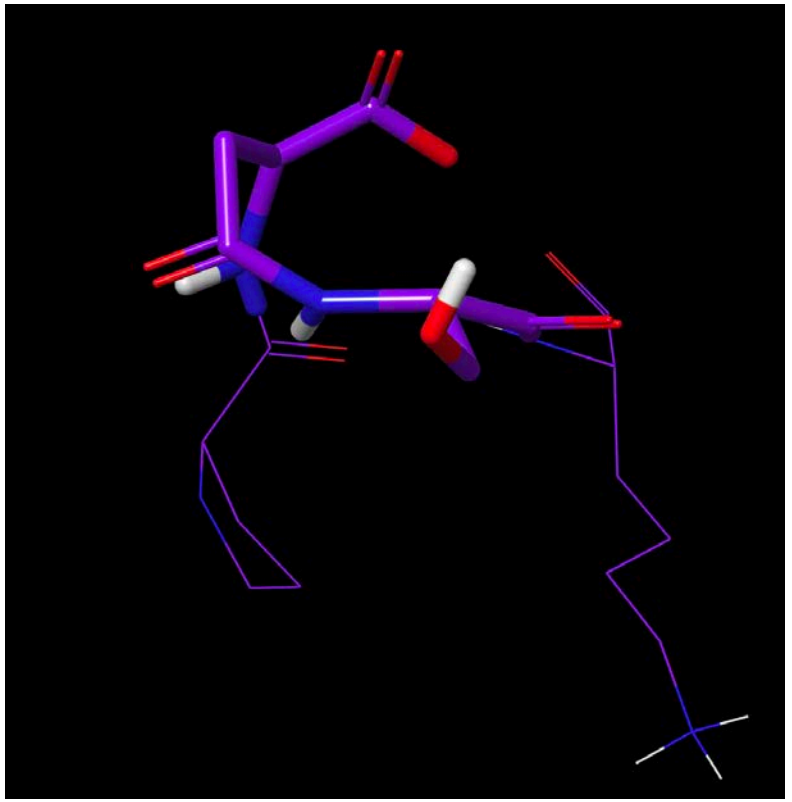
4BS2 Isoaspart_179: -8193.9
overlay

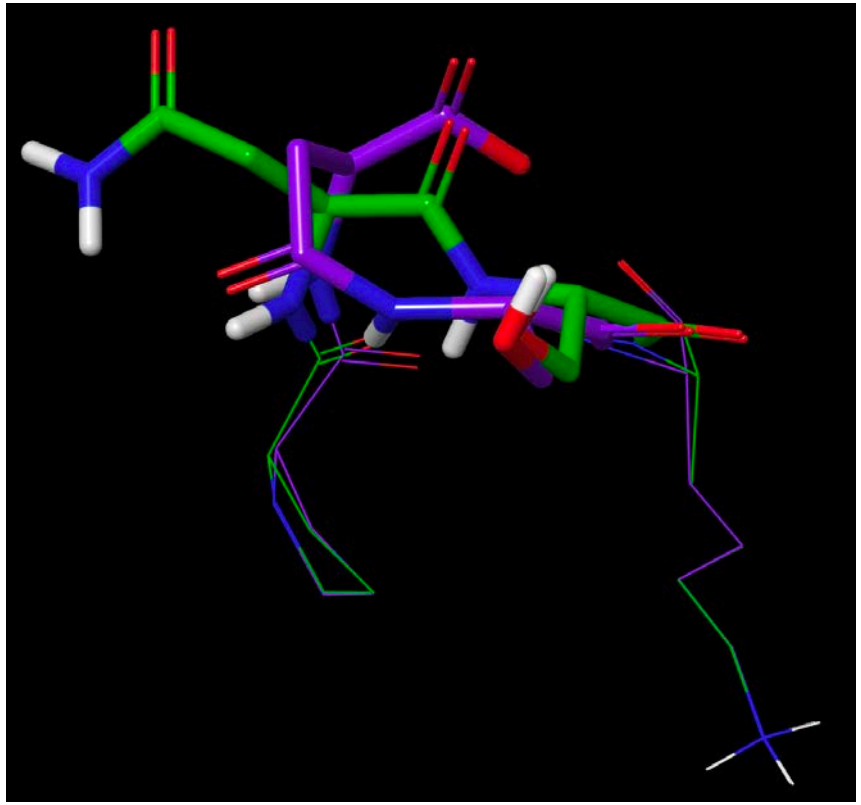
4BS2: -8531.4

KTSDLIVLGLPWKTTEQDLKEYFSTFGE
VLMVQVKKDLKTGHSKGFGFVRFTEYET
QVKVMSQRHMI**DG**RWCDCKLP**NS**KQSQD
EPLRSRKVFVGRCTEDMTEDELREFFSQ
YGDVMDVFIPKPFRAFAFVTFADDQIAQ
SLCGEDLIIKGISVHIS**N**AEPKH**NS**NRQ









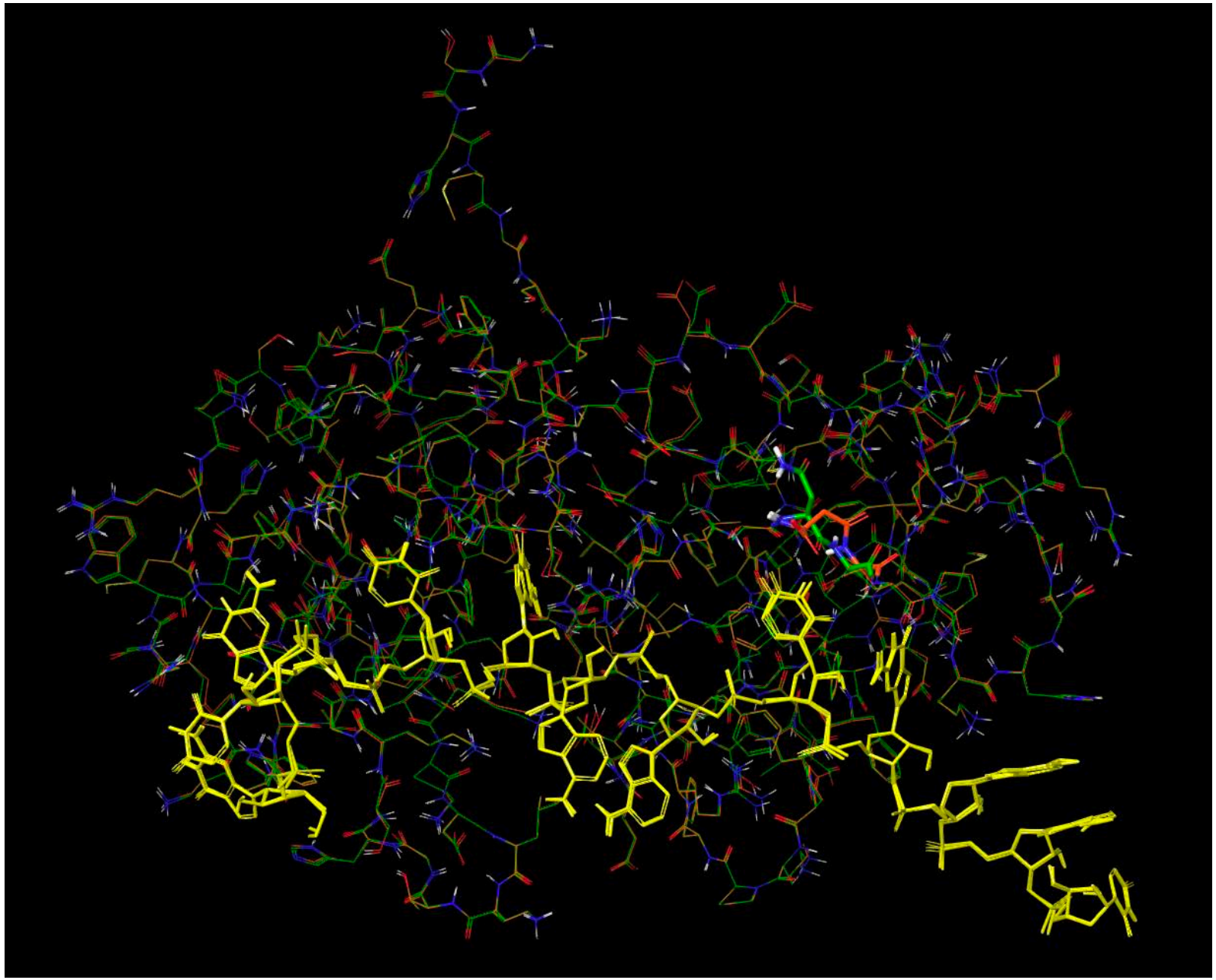
4BS2: -8531.4

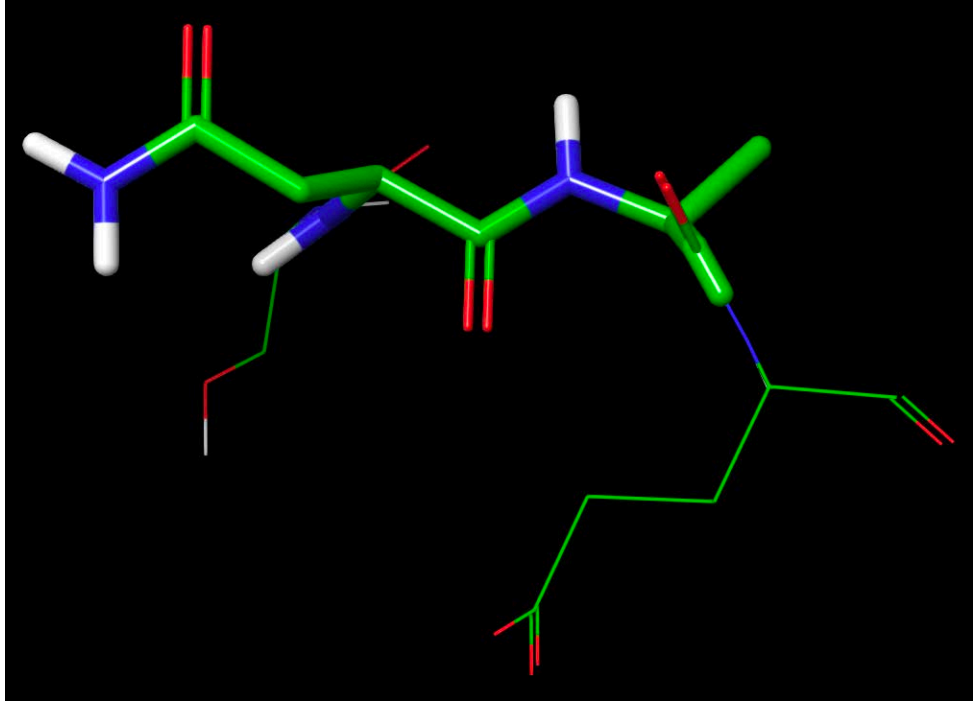
4BS2 Isoaspart_179: -8193.9

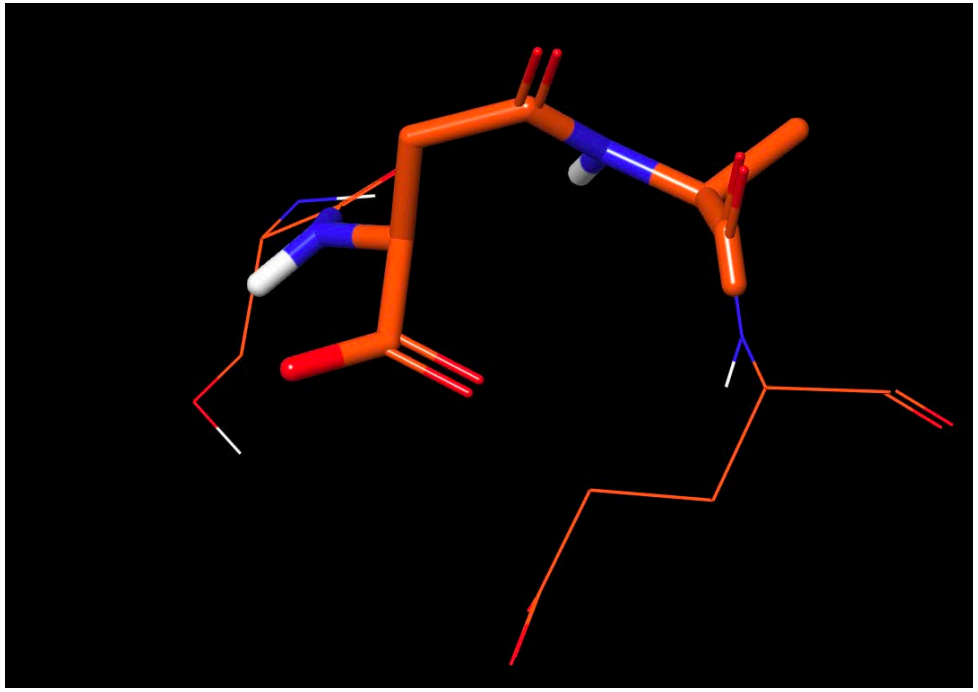
4BS2 isoaspart 259: -8438.4
overlay

4BS2: -8531.4

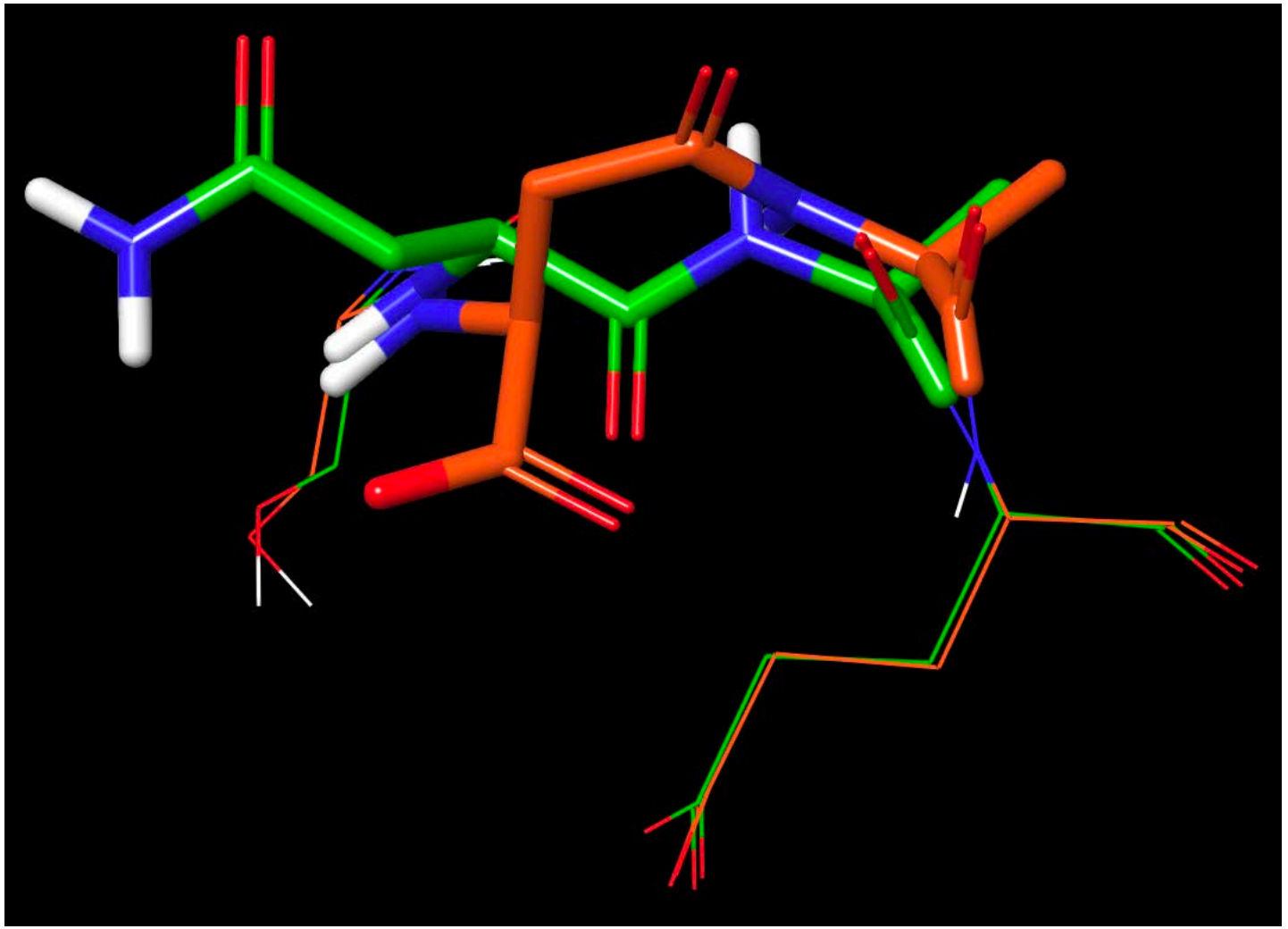
KTSDLIVLGLPWKTTEQDLKEYFSTFGE
VLMVQVKKDLKTGHSKGFGFVRFTEYET
QVKVMSQRHMIDGRWCDCKLP**NS**KQSQD
EPLRSRKVFVGRCTEDMTEDELREFFSQ
YGDVMDVFIPKPFRAFAFVTFADDQIAQ
SLCGEDLIIKGISVHIS**NA**EPKH**NS**NRQ







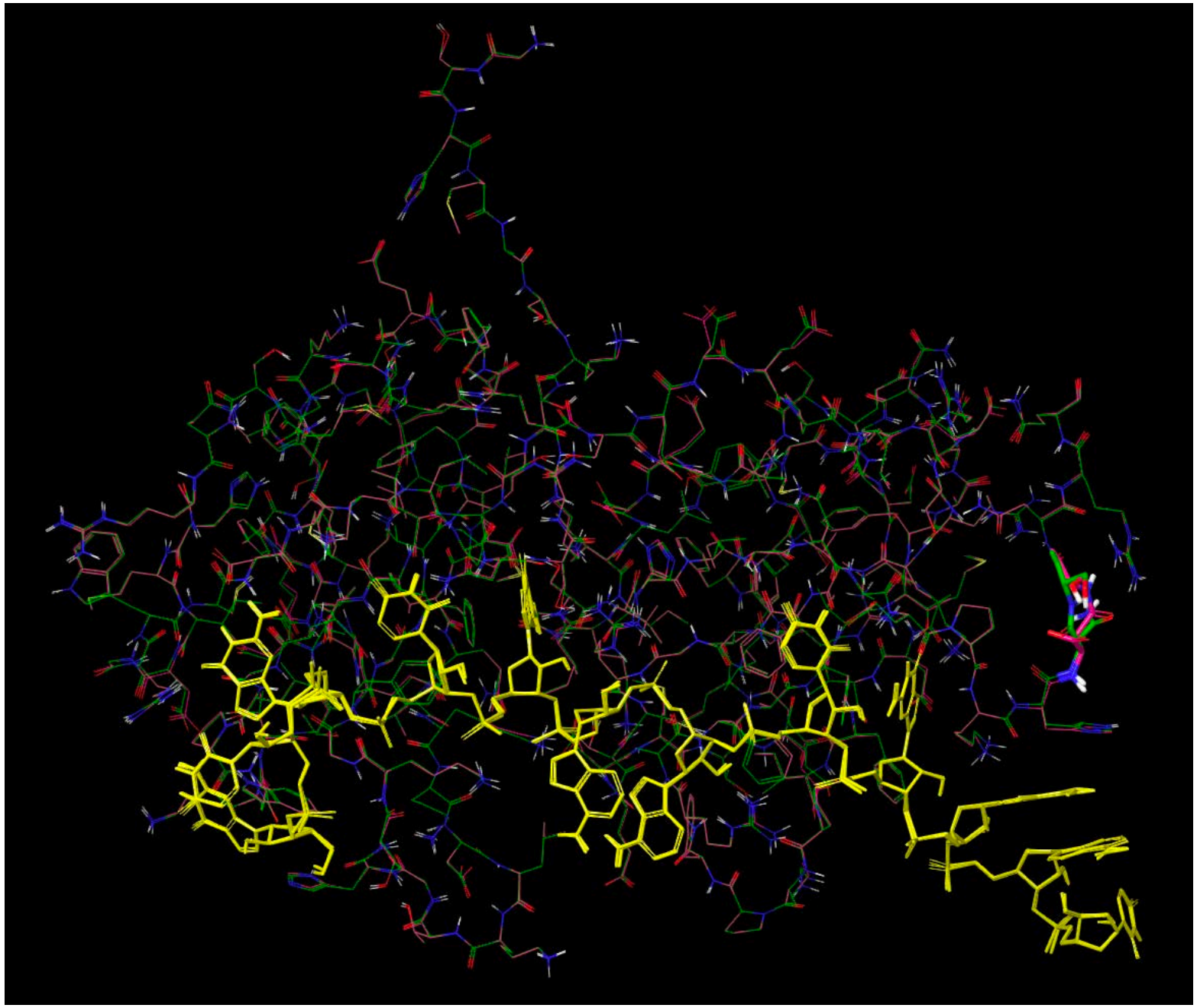
4BS2: -8531.4

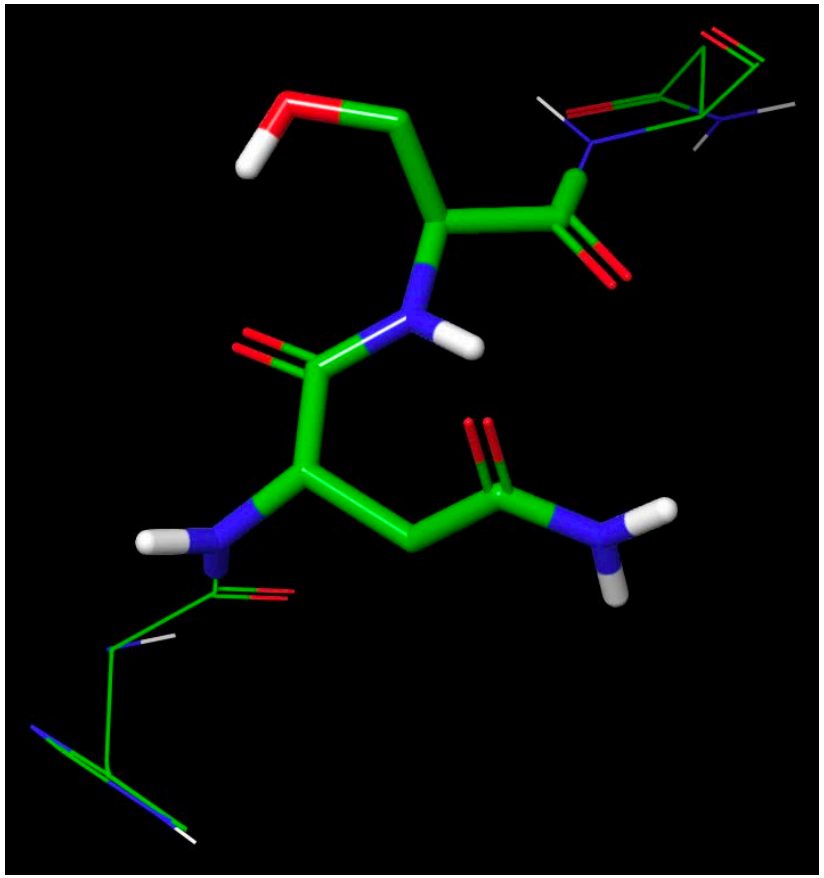


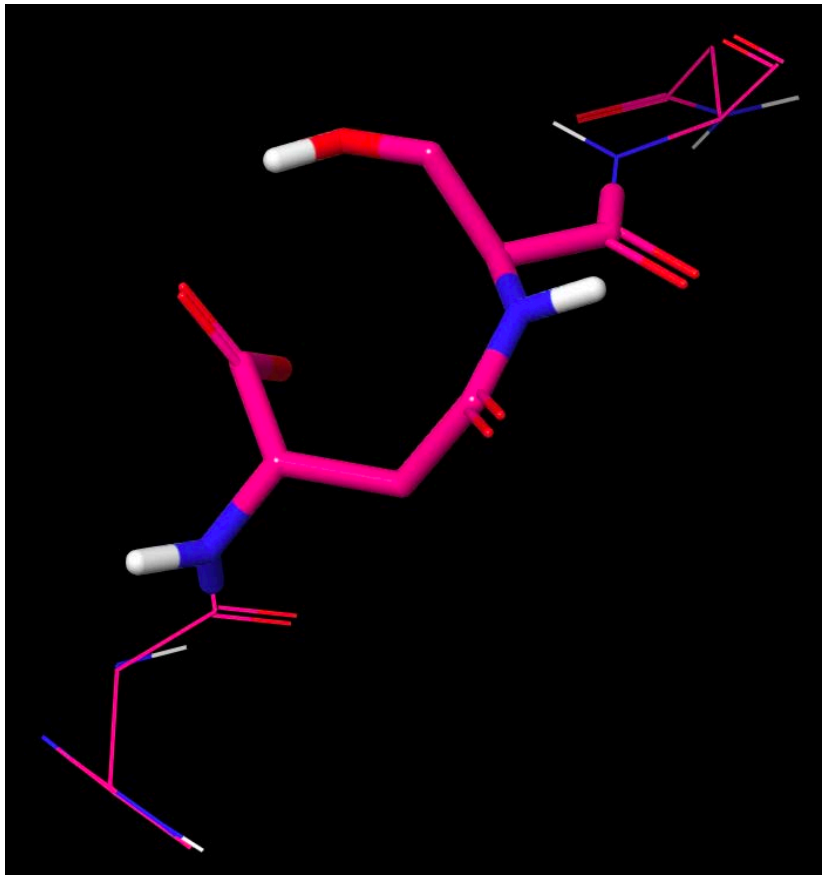
4BS2 isoaspart 259: -8438.4

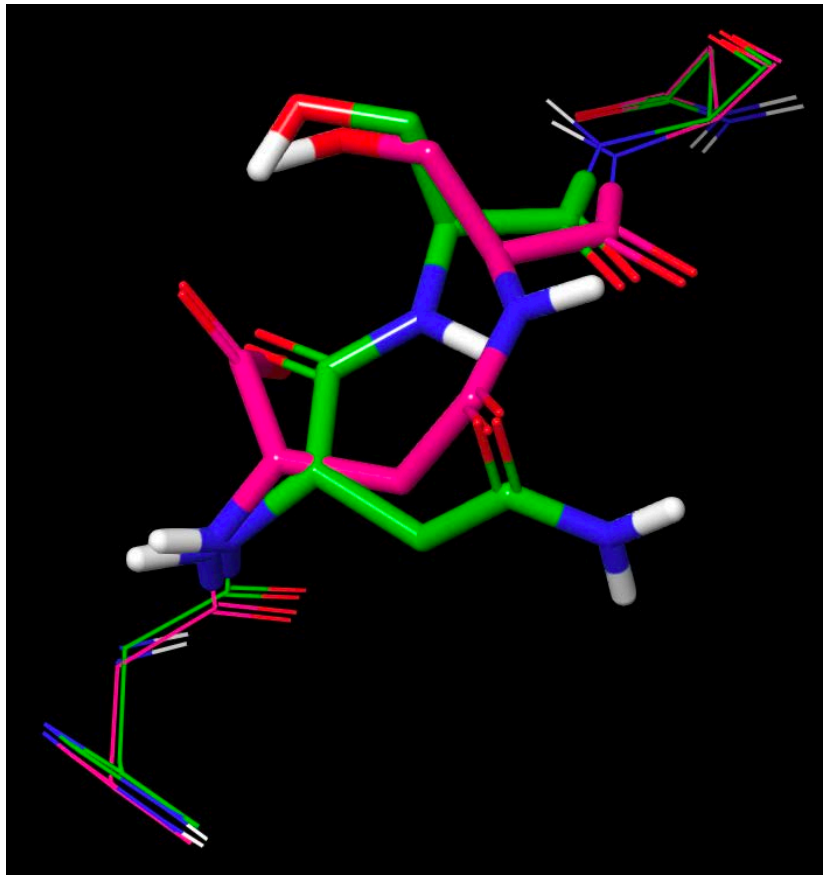
4BS2 Isoaspart_265: -8439.7
Overlay
4BS2: -8531.4

KTSDLIVLGLPWKTTEQDLKEYFSTFGE
VLMVQVKKDLKTGHSKGFGFVRFTEYET
QVKVMSQRHMIDGRWCDCKLP**NS**KQSQD
EPLRSRKVFVGRCTEDMTEDELREFFSQ
YGDVMDVFIPKPFRAFAFVTFADDQIAQ
SLCGEDLIIKGISVHISNAEPKH**NS**NRQ







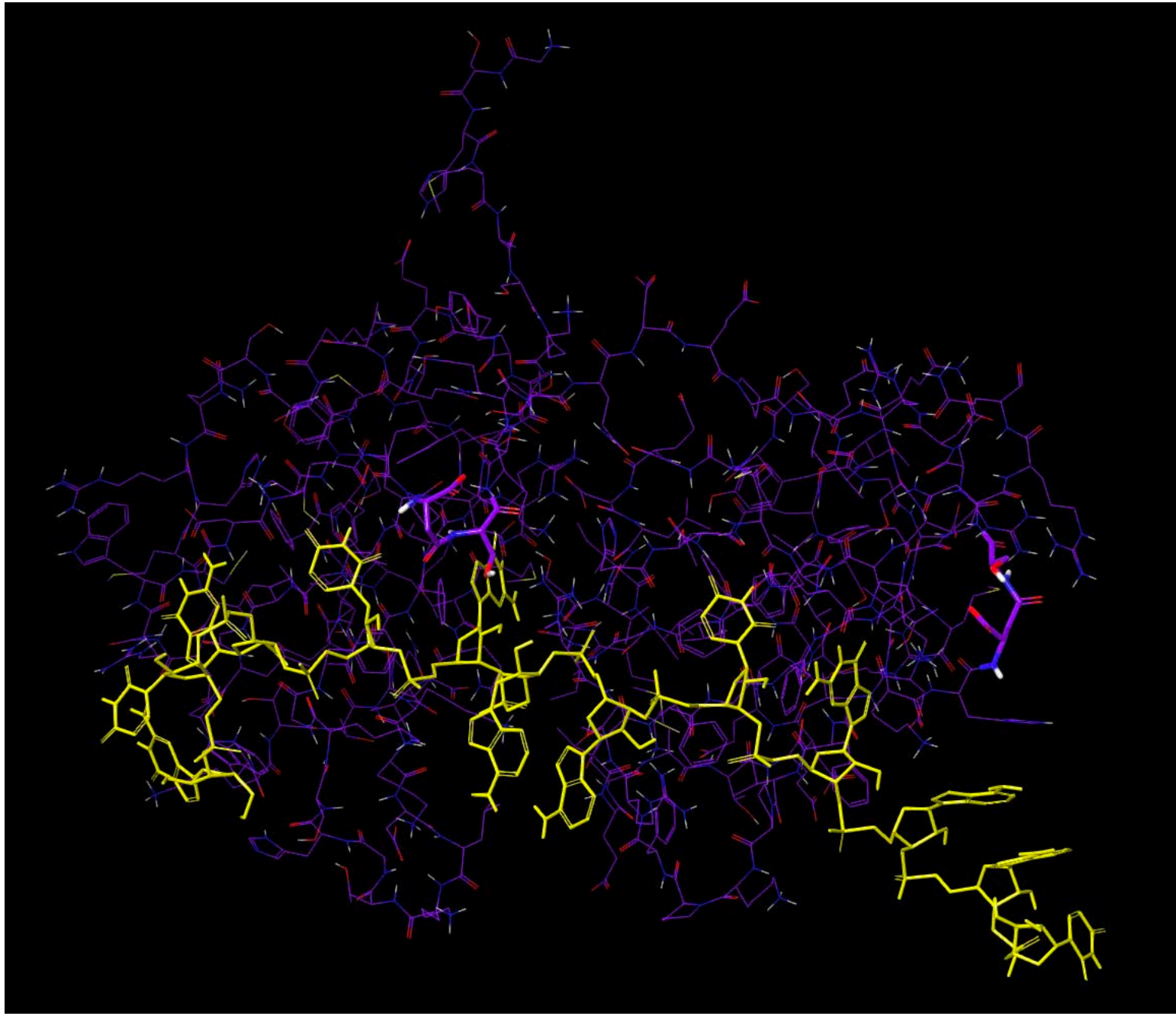


4BS2: -8531.4

4BS2 Isoaspart_265: -8439.7

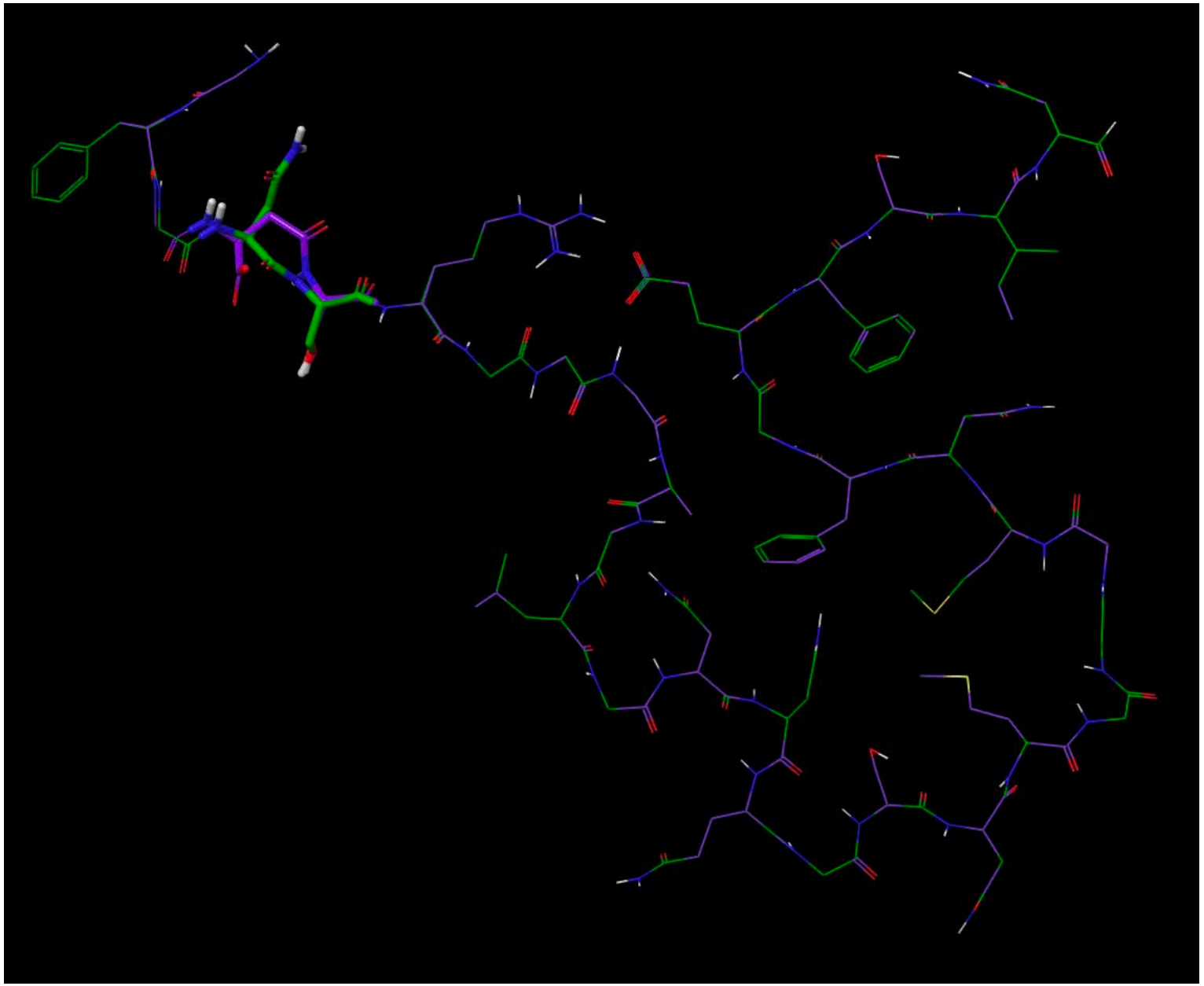
4BS2 Isoaspart_179and265: -8290.6

KTSDLIVLGLPWKTTEQDLKEYFSTFGE
VLMVQVKKDLKTGHSKGFGFVRFTEYET
QVKVMSQRHMIDGRWCDCKLPNSKQSQD
EPLRSRKVFVGRCTEDMTEDELREFFSQ
YGDVMDVFIPKPFRAFAFVTFADDQIAQ
SLCGEDLIIKGISVHISNAEPKHNSNRQ

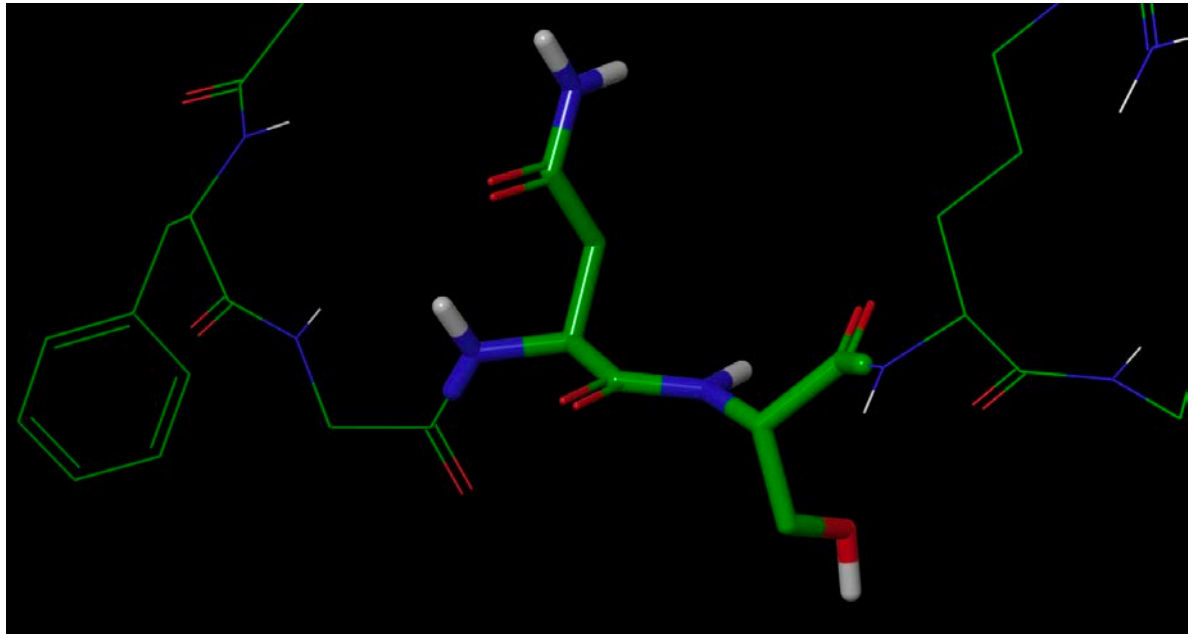


GFGNSRGGGAGLGNNQGSNMGGGMNFGEFSIN

6N3C: -1064.5

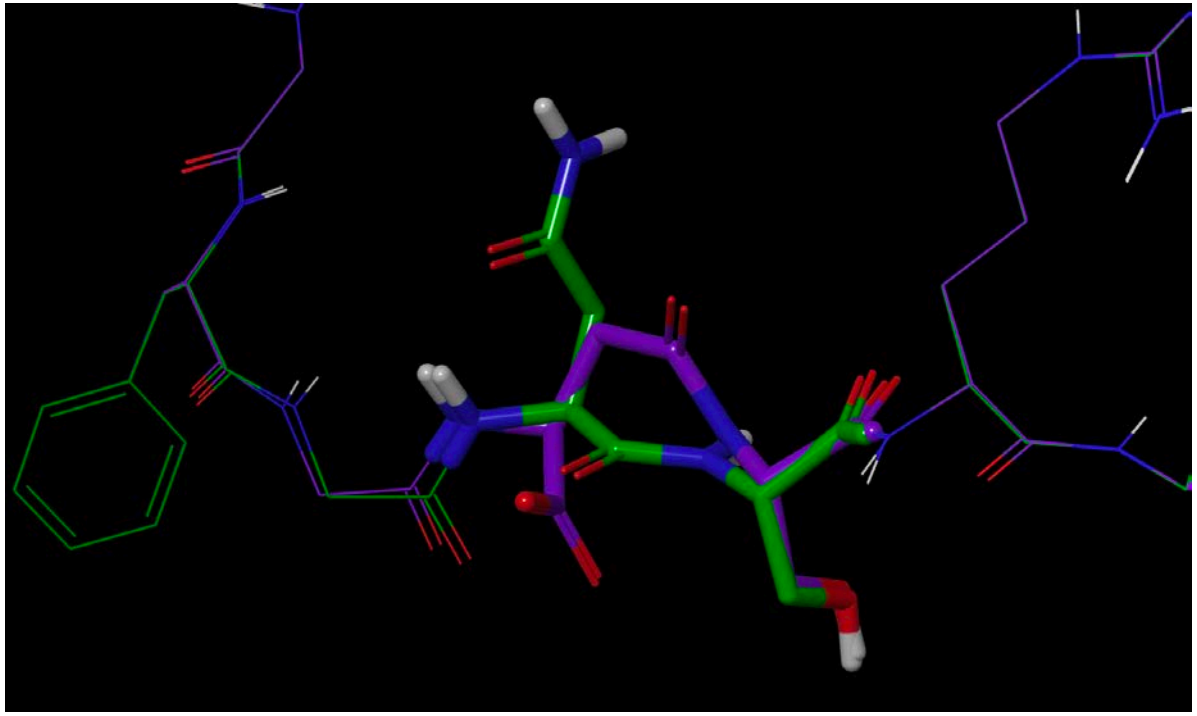


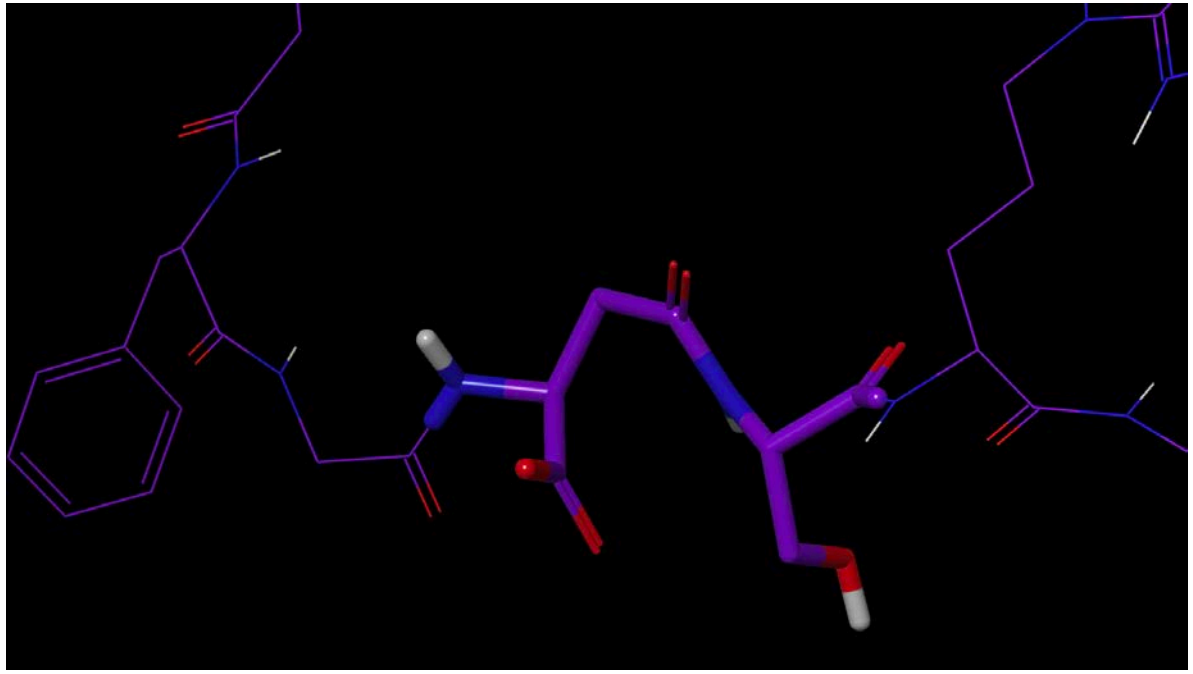
6N3C with isoaspartate 291: -902.6



GFGNSRGGGAGLGNNQGSNMGGGMNFGEFSIN

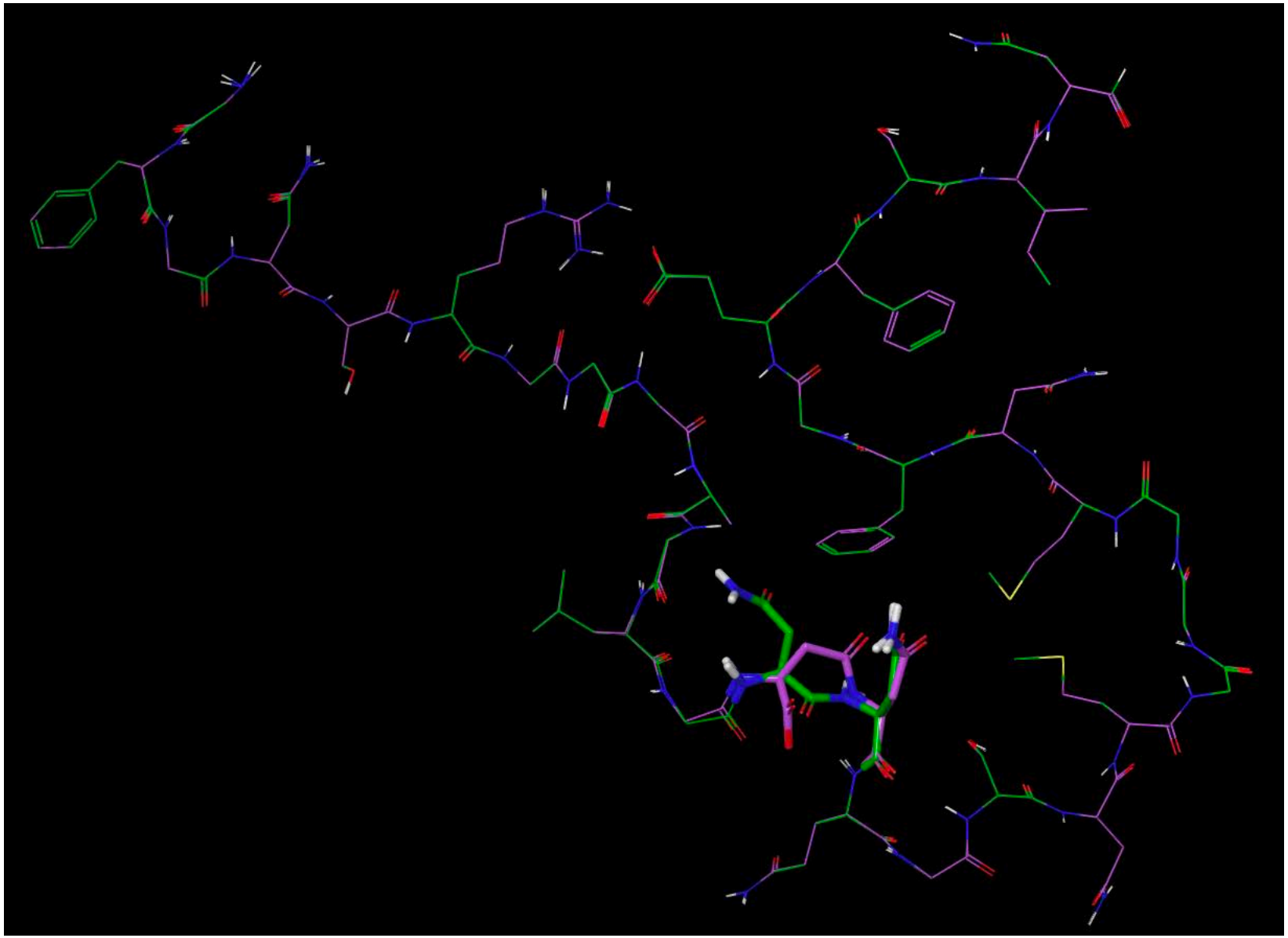
6N3C: -1064.5





6N3C with isoaspartate 291: -902.6

GFGNSRGGGAGLGNNQGSNMGGGMNFGEFSIN

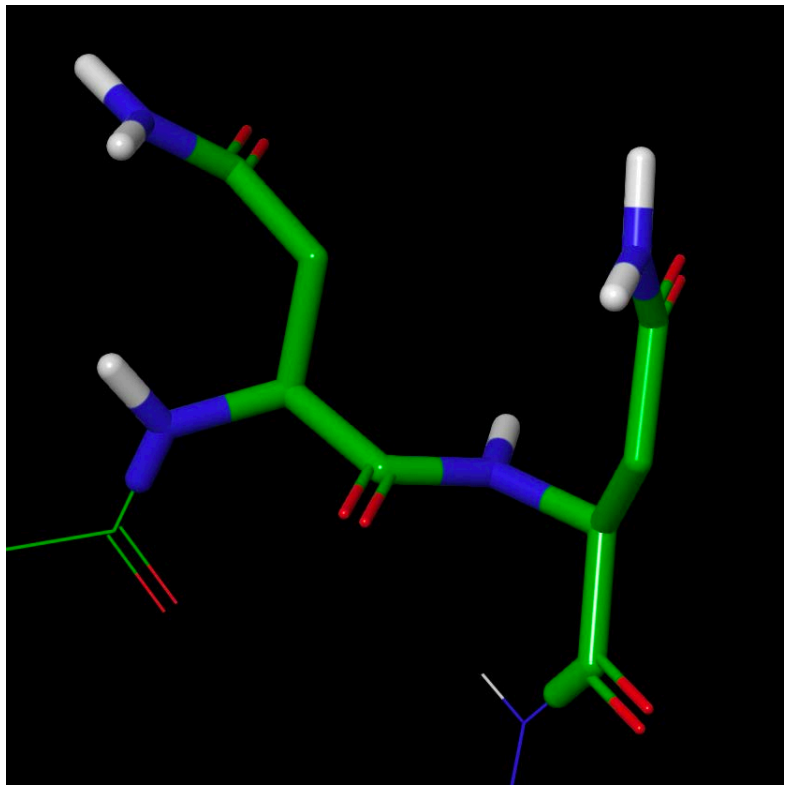


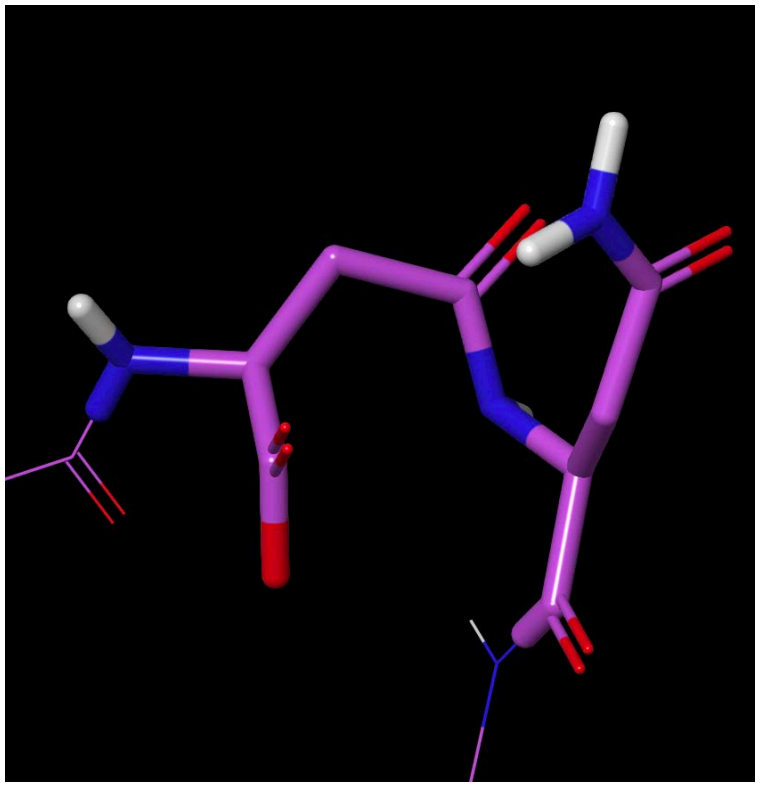
6N3C: -1064.5

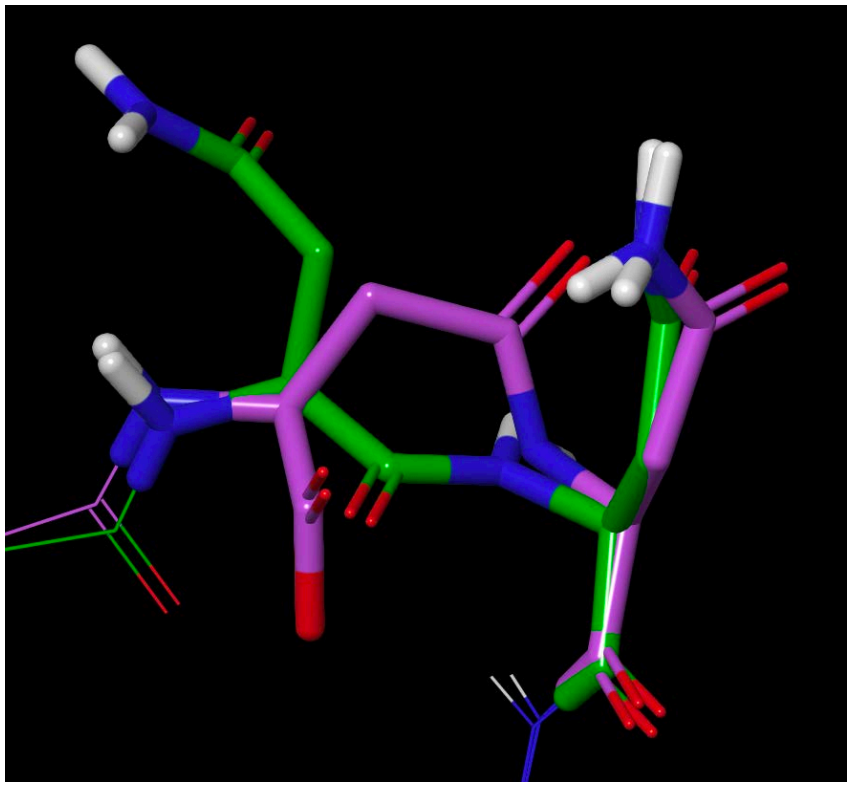
6N3C with isoaspartate 301: -894.2

GFGNSRGGGAGLGNNQGSNMGGGMNFGEFSIN

6N3C: -1064.5

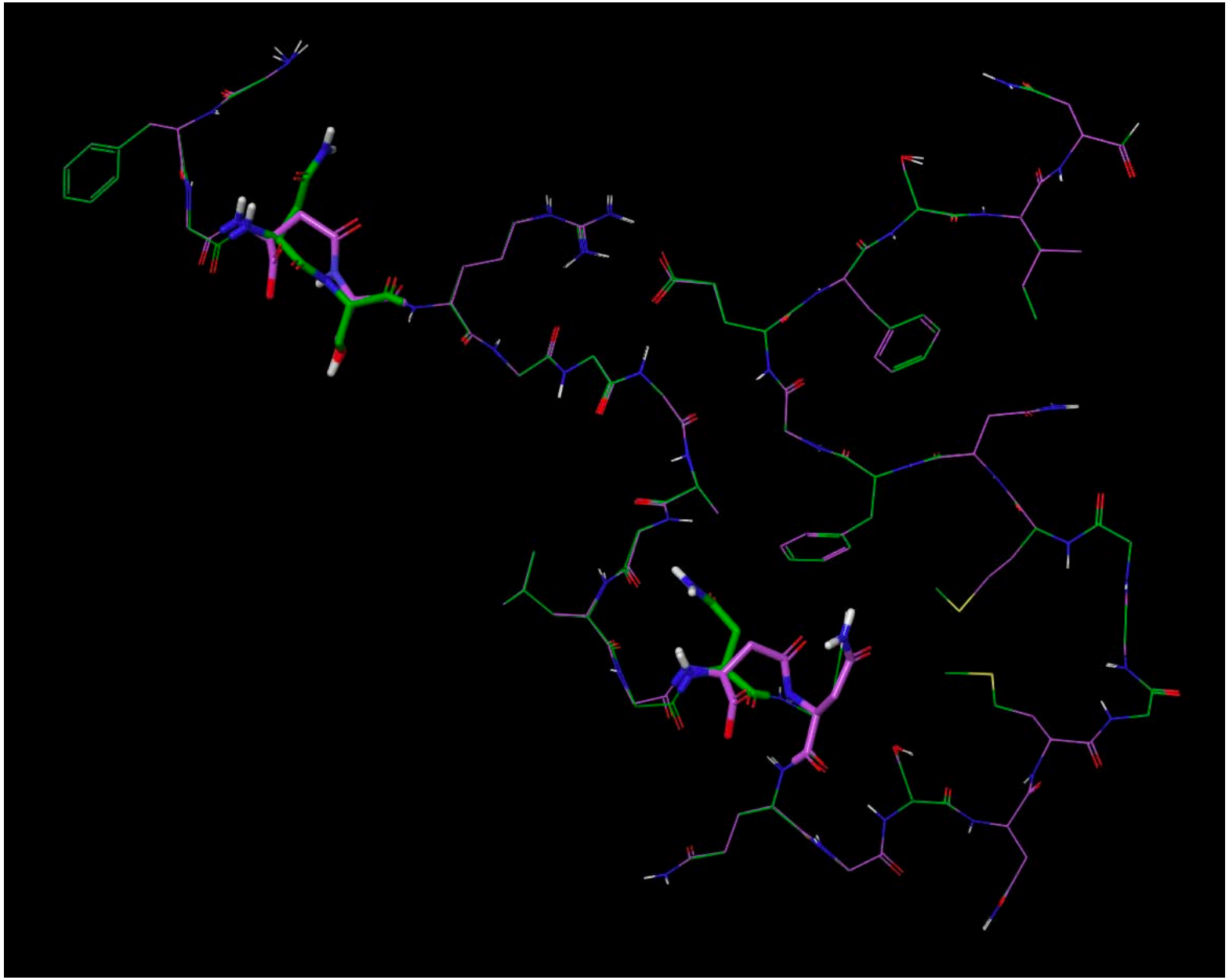






6N3C with isoaspartate 301: -894.2

GFGNSRGGGAGLGNNQGSNMGGGMNFGEFSIN

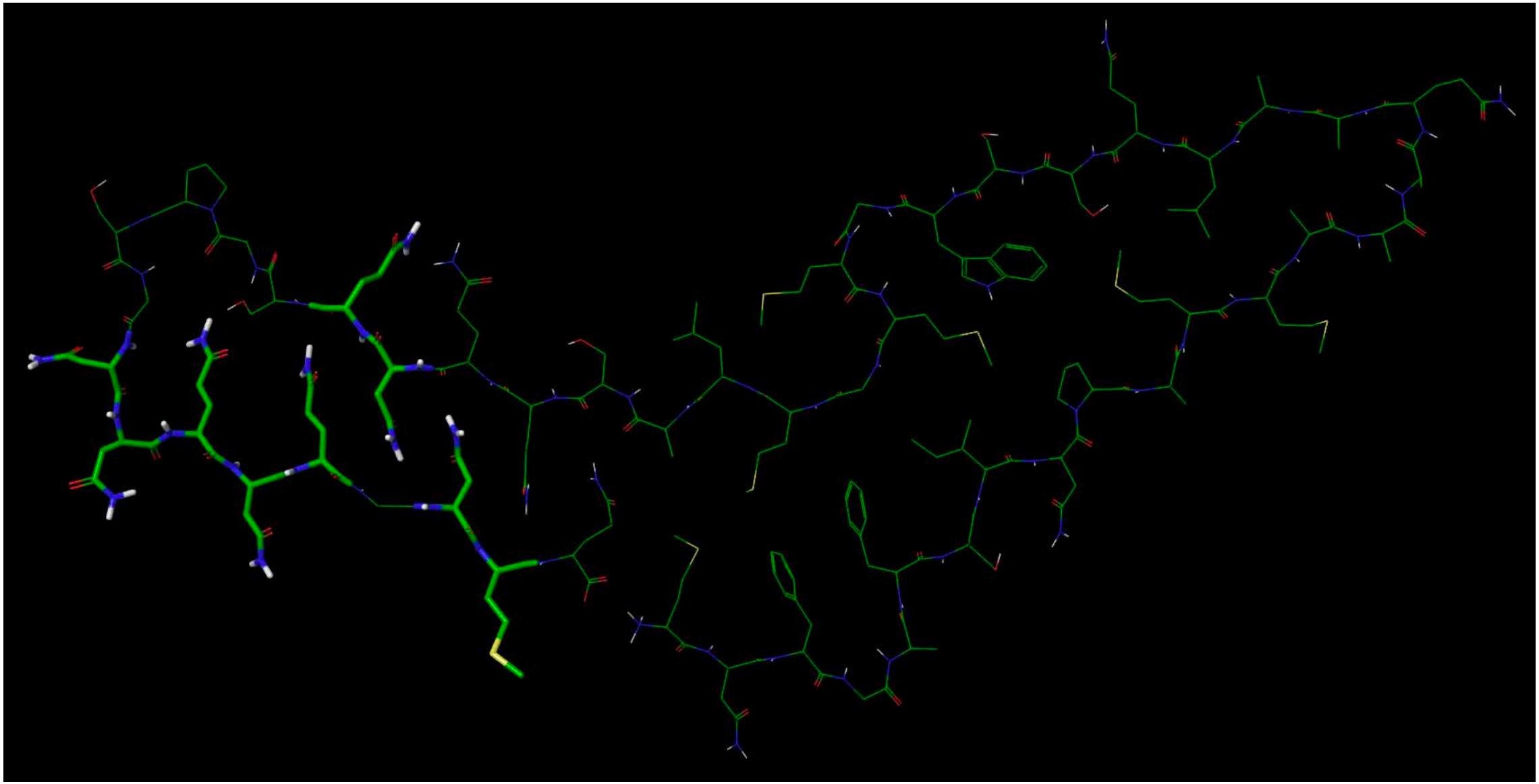


6N3C: -1064.5

6N3C with isoaspartates
291 and 301: -759.7

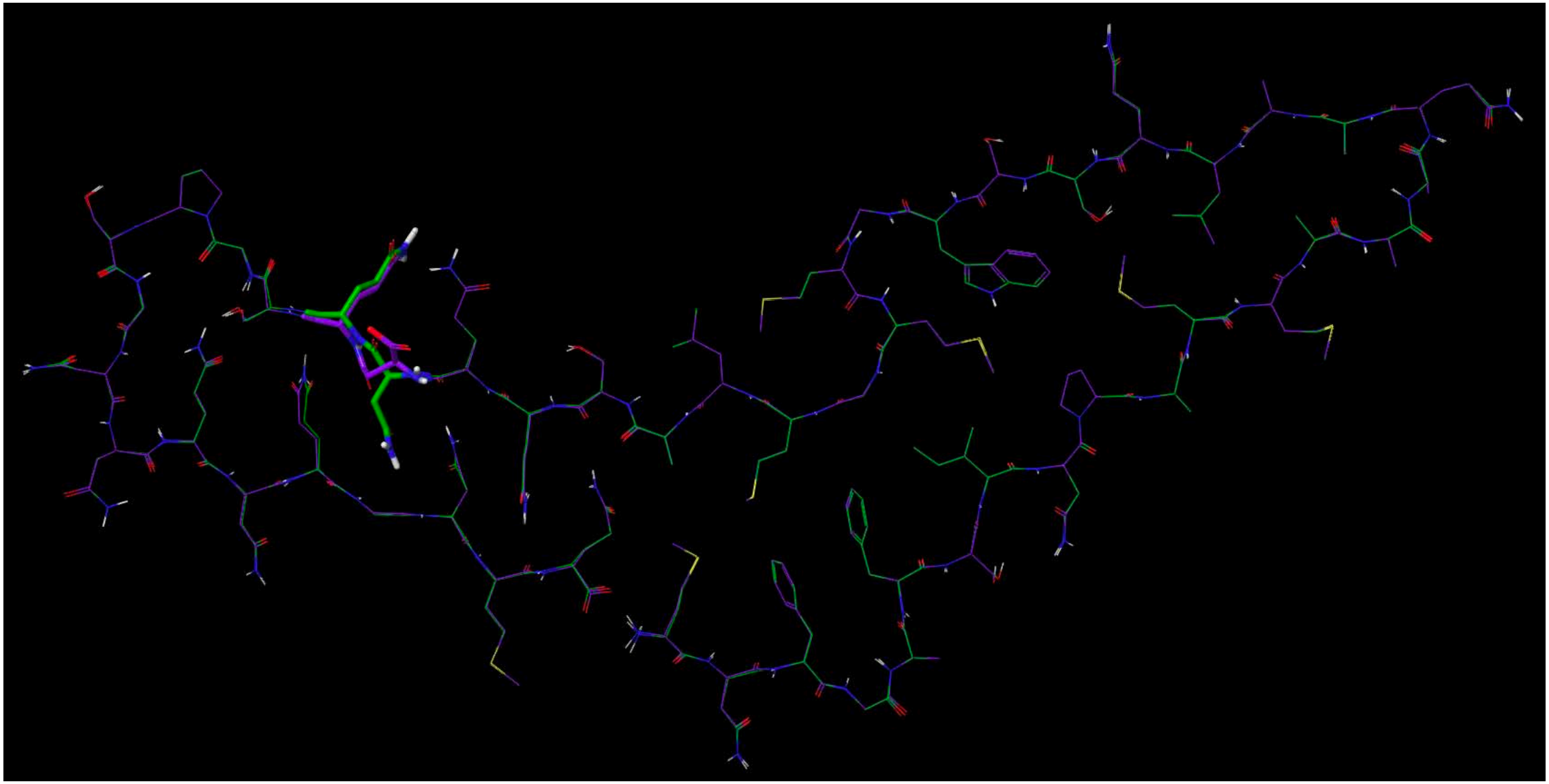
6N3A: -1778.6; all site highlighted

MNFGAFSINPAMMAAAQAALQSSWGMMGMLASQQNQSGPSGNNQNQGNMQ

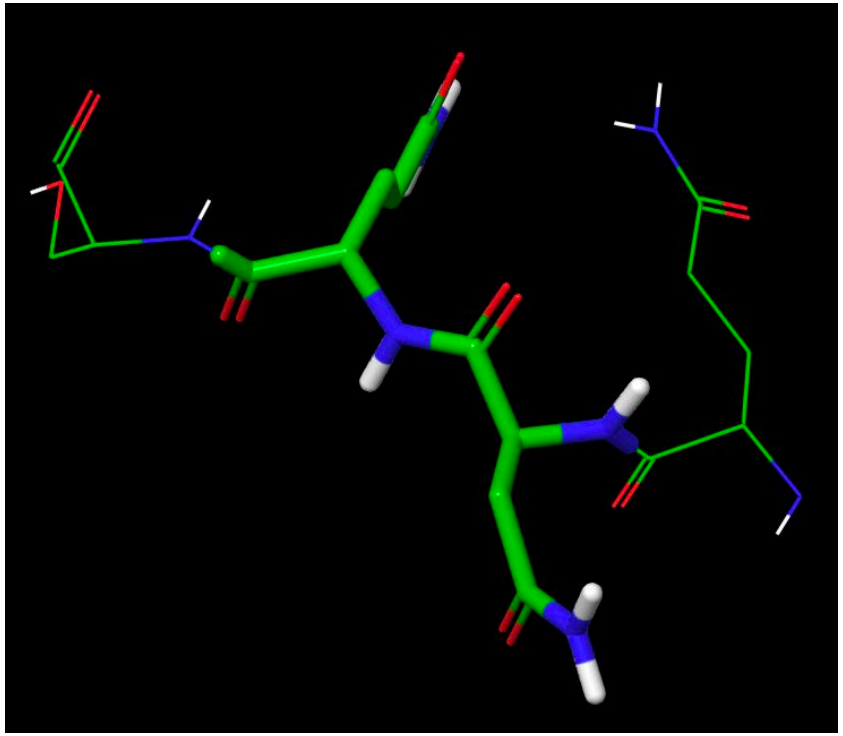


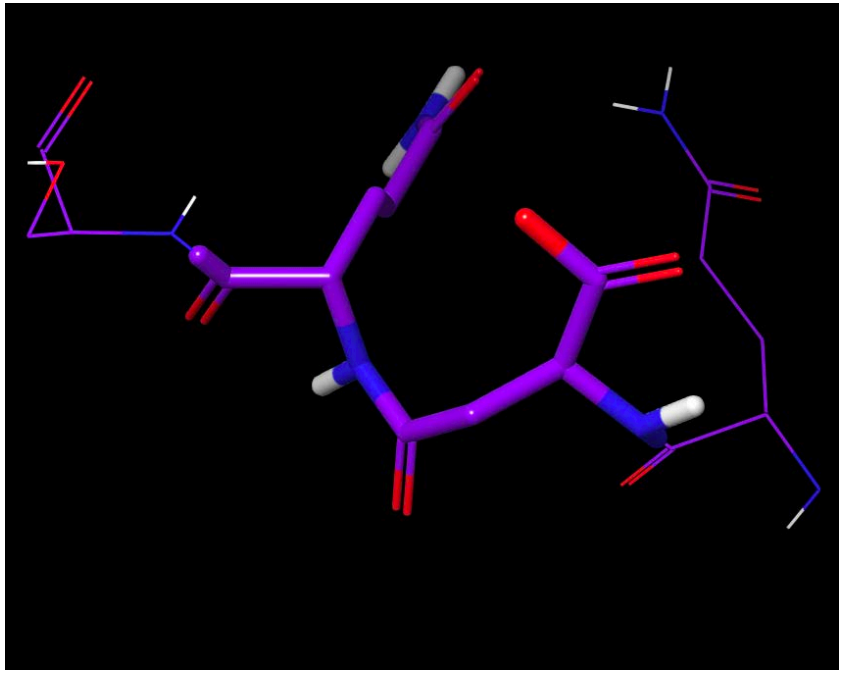
6N3A: -1778.6

MNFGAFSINPAMMAAAQAALQSSWGMMGMLASQQNQSGPSGNNQNQGNMQ



6N3A with isoaspartate 345 (N): -1710.7

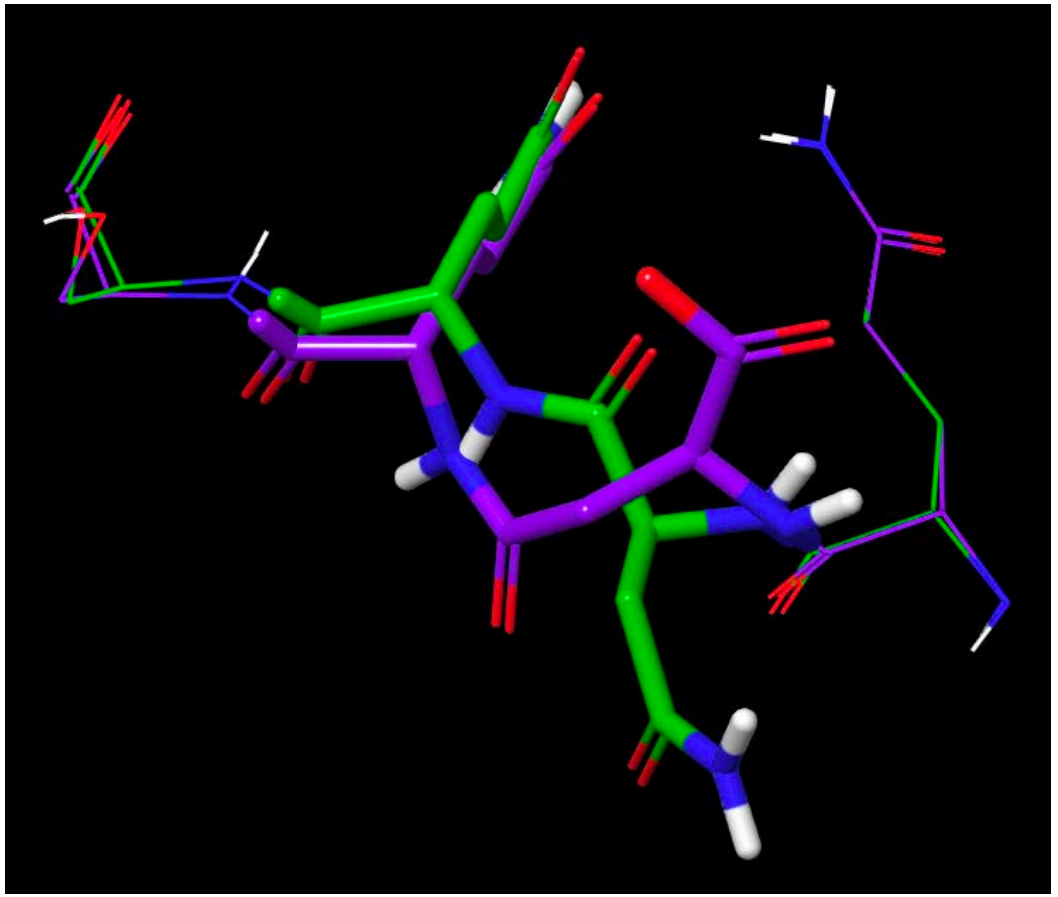




6N3A

MNFGAFSINPAMMAAAQAALQSSWGMMGMLASQQNQSGPSGNNQNQGNMQ

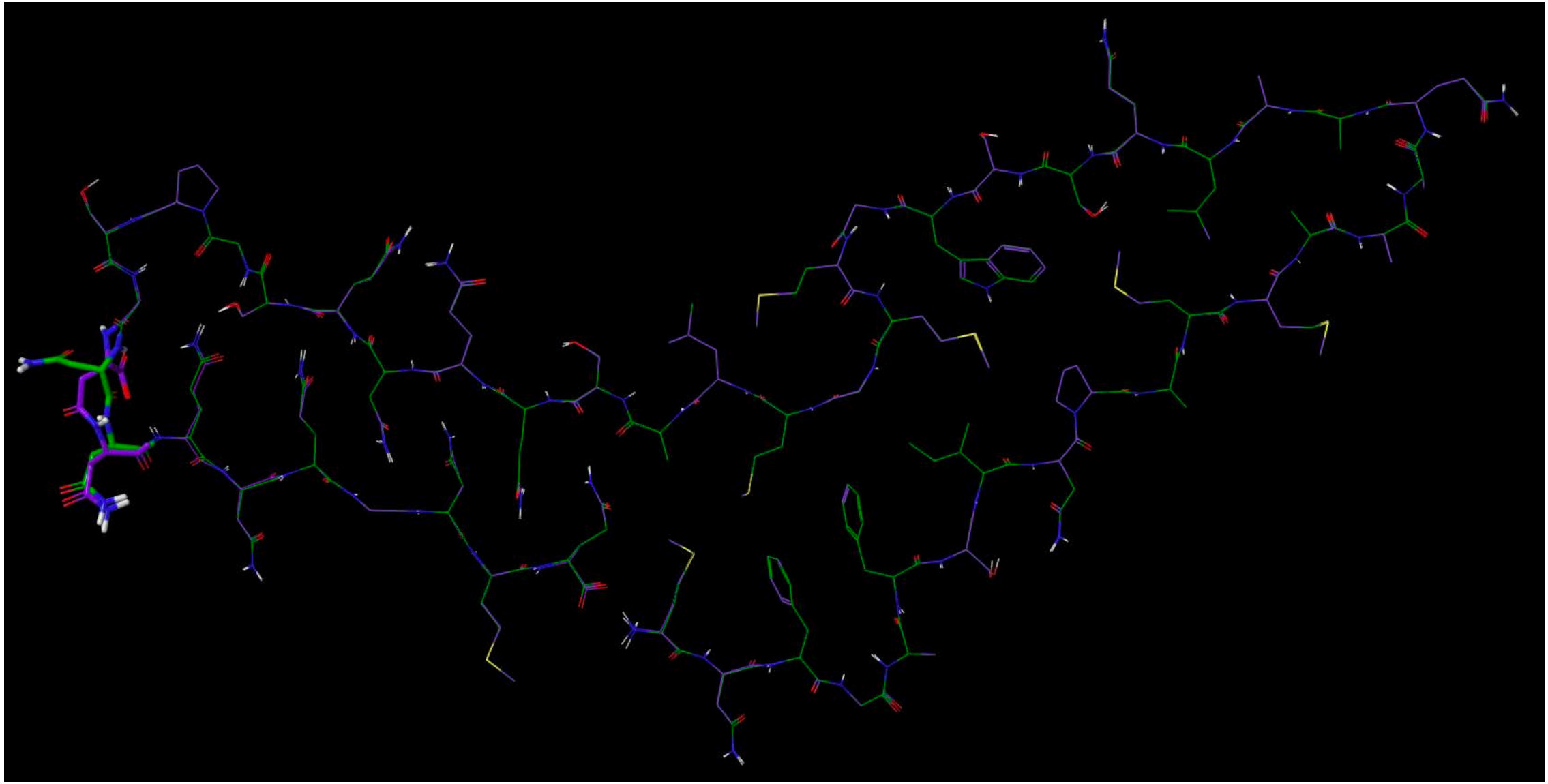
6N3A: -1778.6



6N3A with isoaspartate 345 (N): -1710.7

6N3A: -1778.6

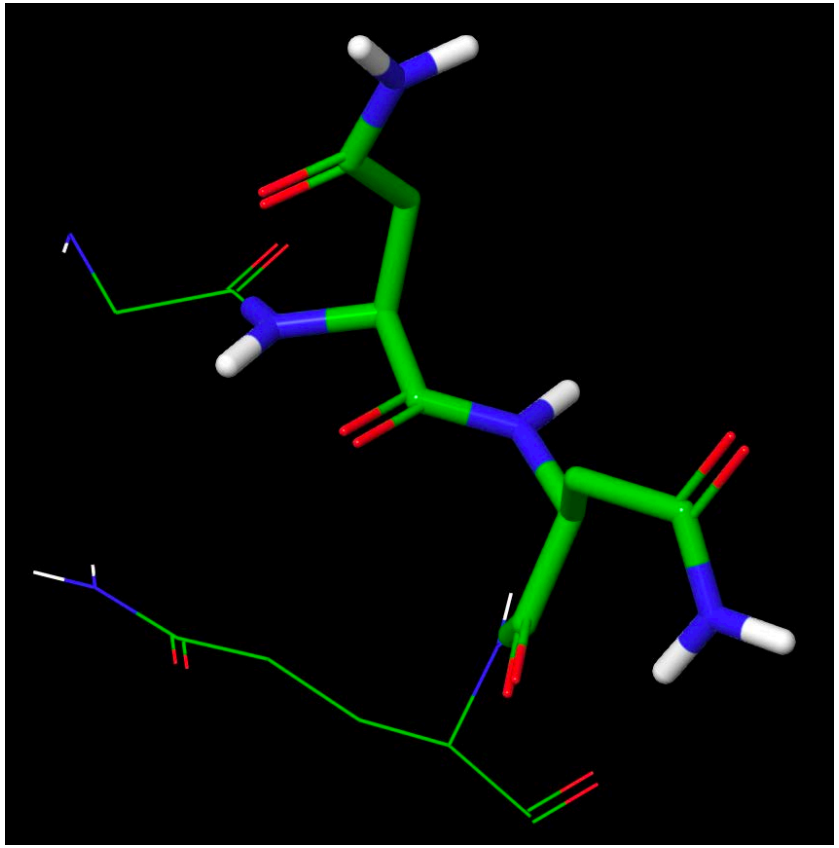
MNFGAFSINPAMMAAAQAALQSSWGMMGMLASQQNQSGPSGNNQNQGNMQ

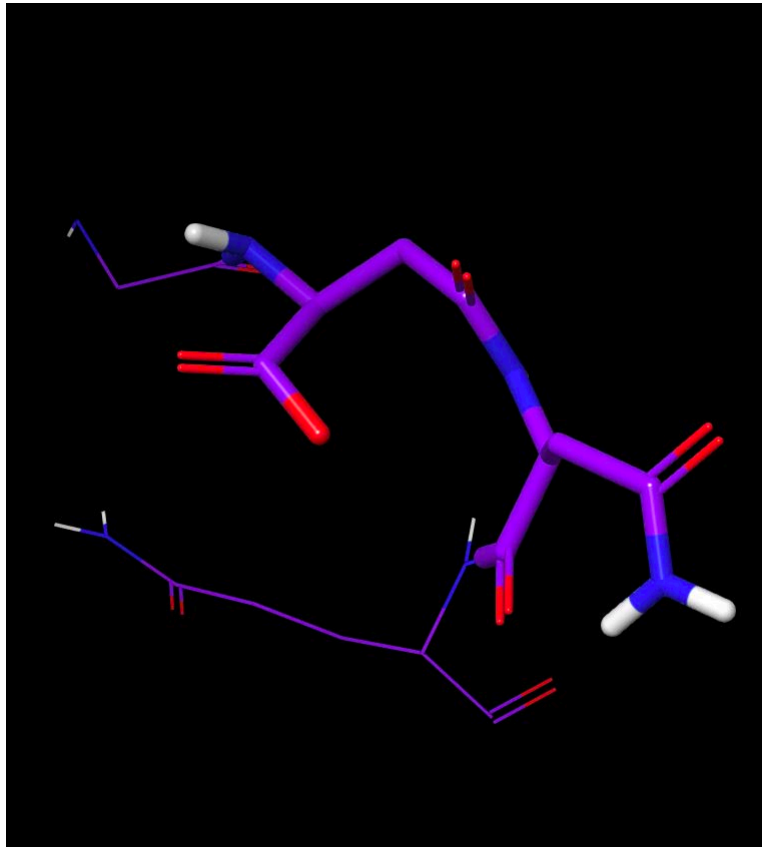


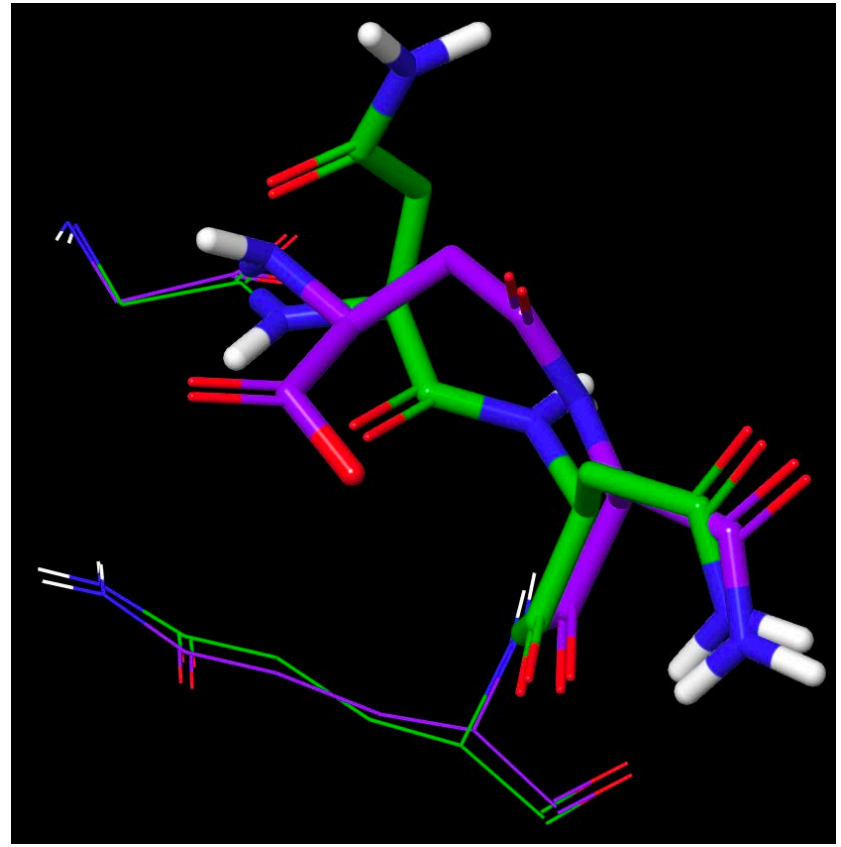
6N3A with isoaspartate 352: -1703.7

6N3A

MNFGAFSINPAMMAAAQAALQSSWGMMGMLASQQNQSGPSGNNQNQGNMQ





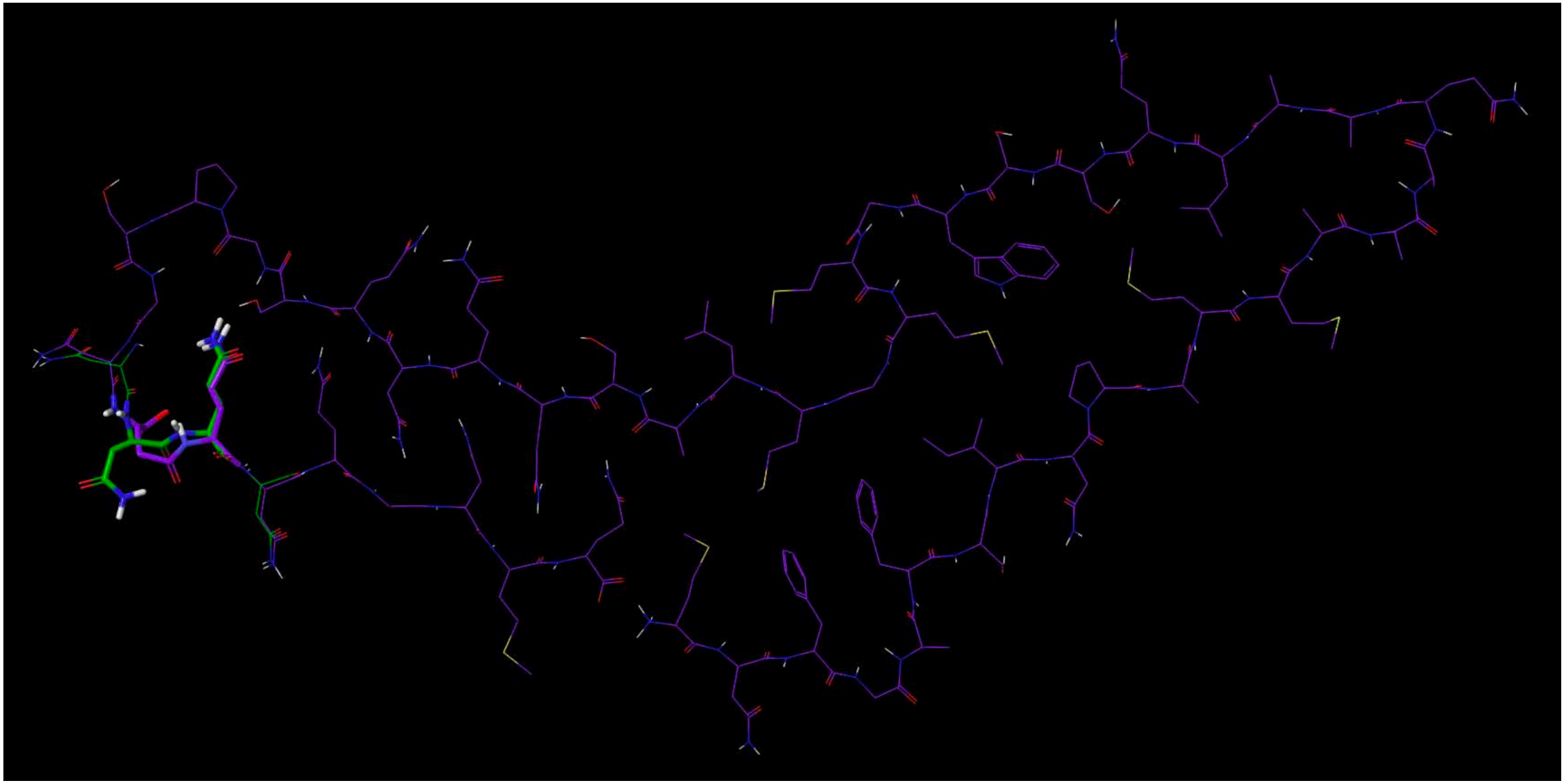


6N3A: -1778.6

6N3A with isoaspartate 352 (N): -1703.7

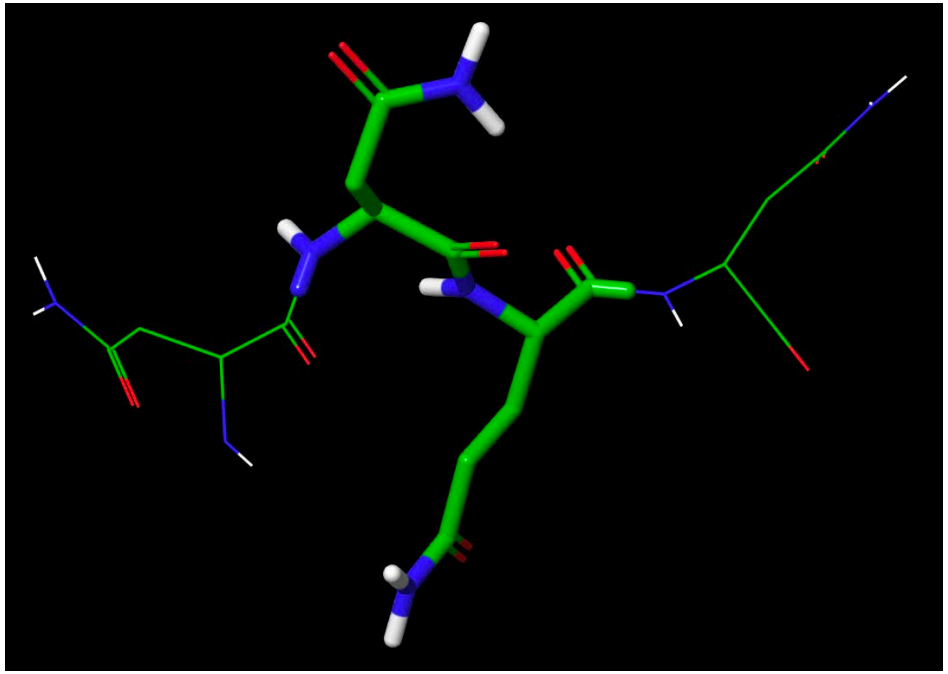
6N3A: -1778.6

MNFGAFSINPAMMAAAQAALQSSWGMMGMLASQQNQSGPSGNNQNQGNMQ

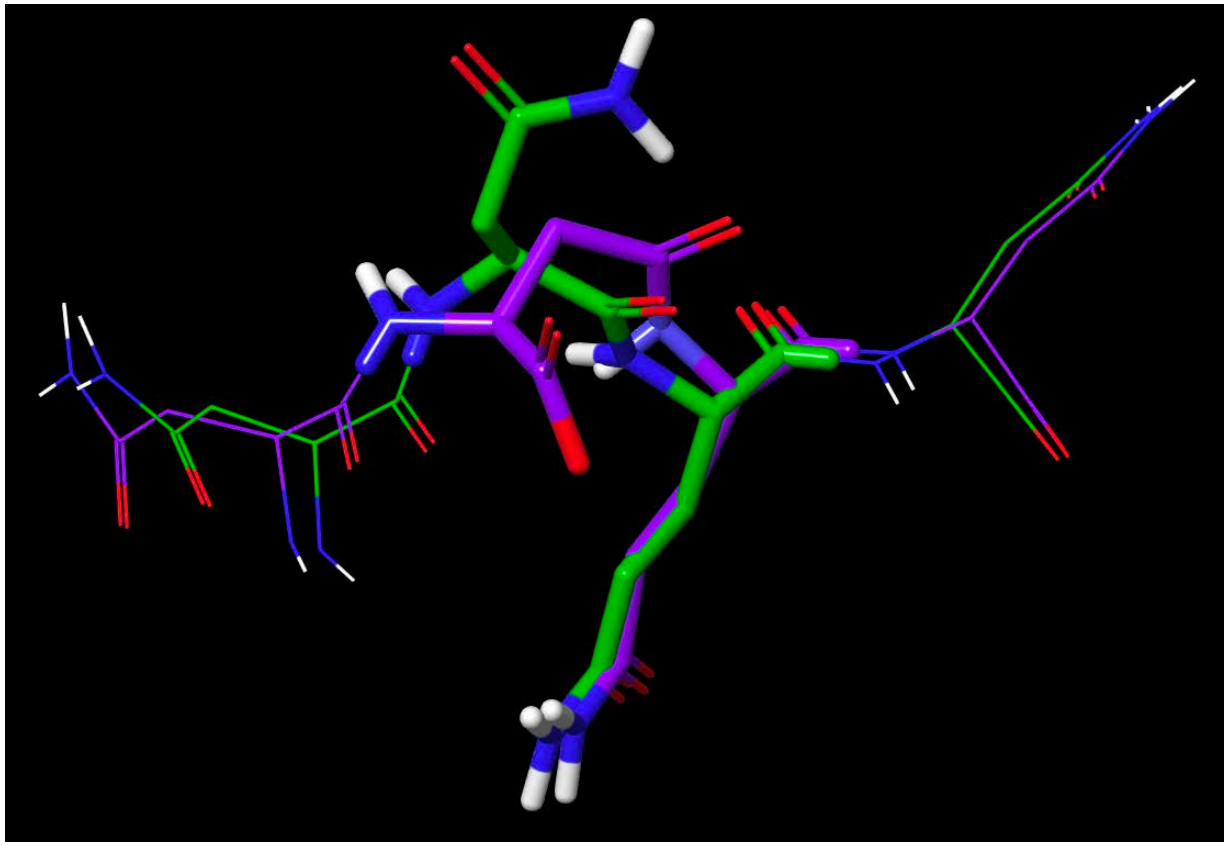


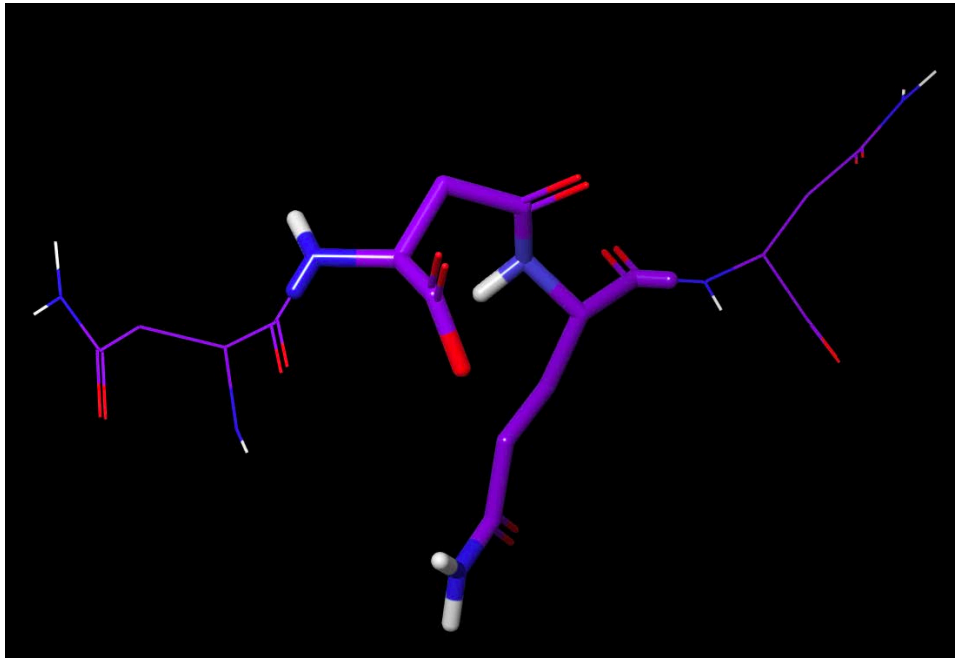
6N3A with isoaspartate 353 (N): -1697.1

MNFGAFSINPAMMAAAQAALQSSWGMMGMLASQQNQSGPSGNNQNQGNMQ



6N3A: -1778.6

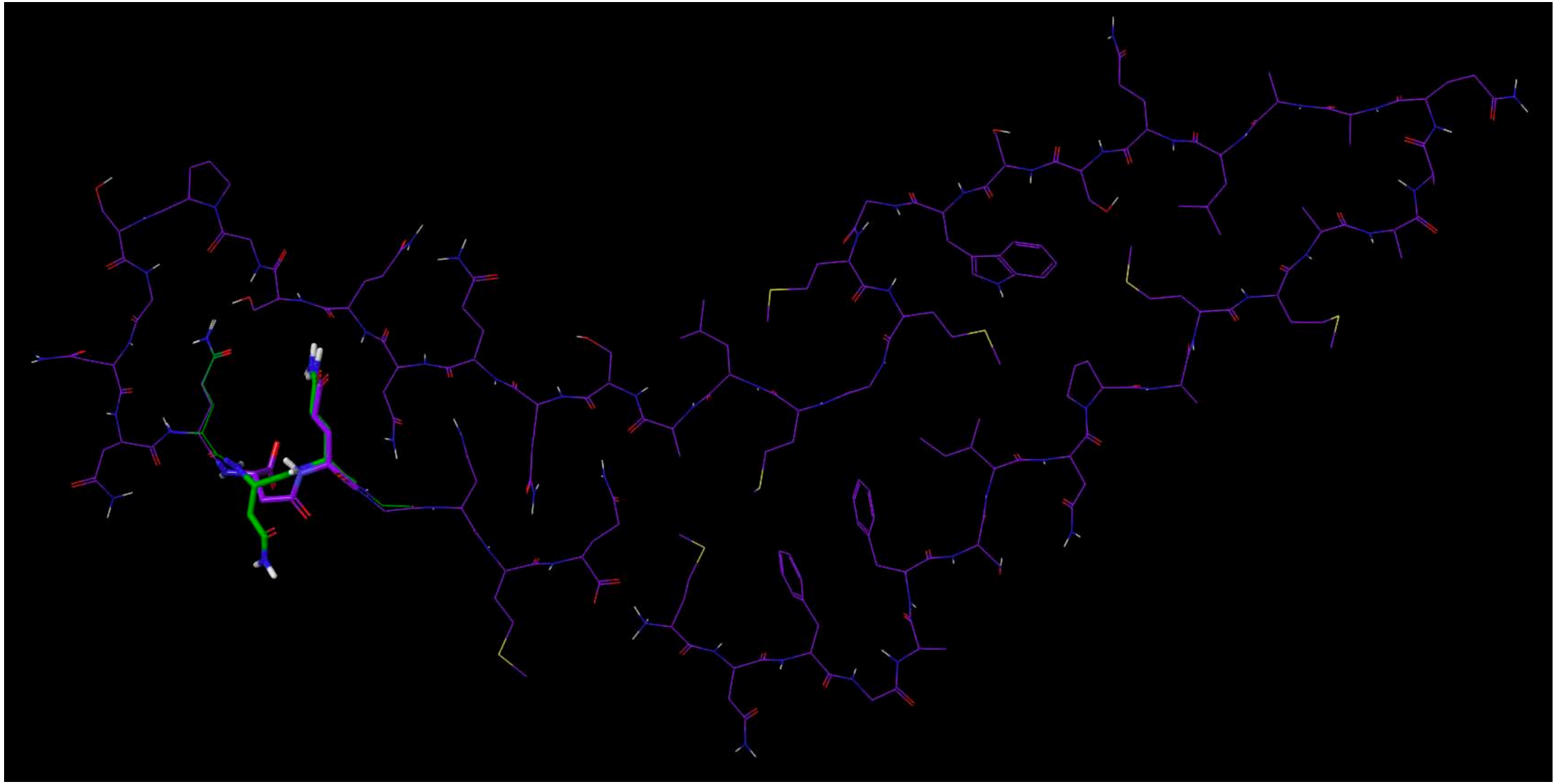




6N3A with isoaspartate 353 (N): -1697.1

6N3A: -1778.6

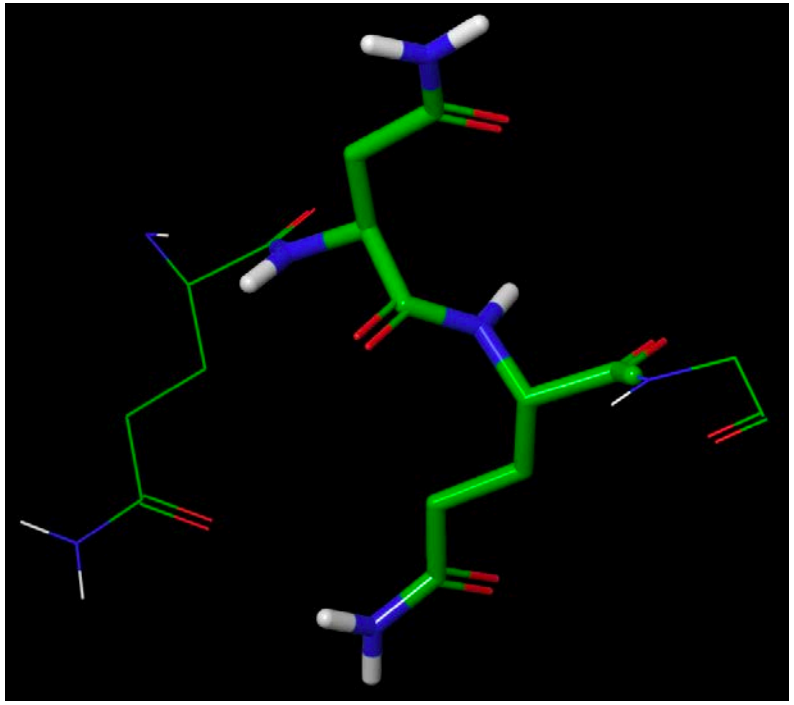
MNFGAFSINPAMMAAAQAALQSSWGMMGMLASQQNQSGPSGNNQNQGNMQ

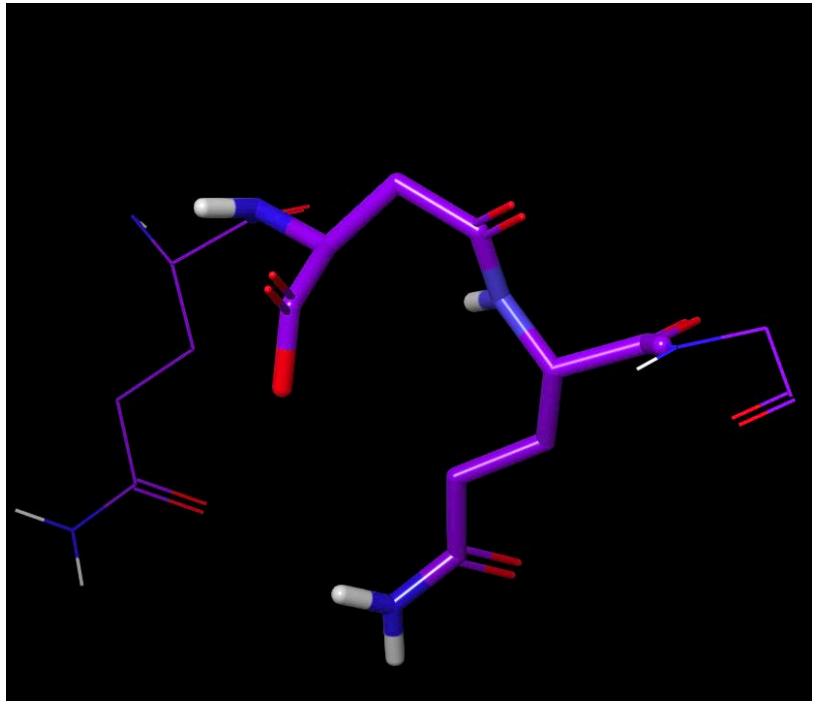


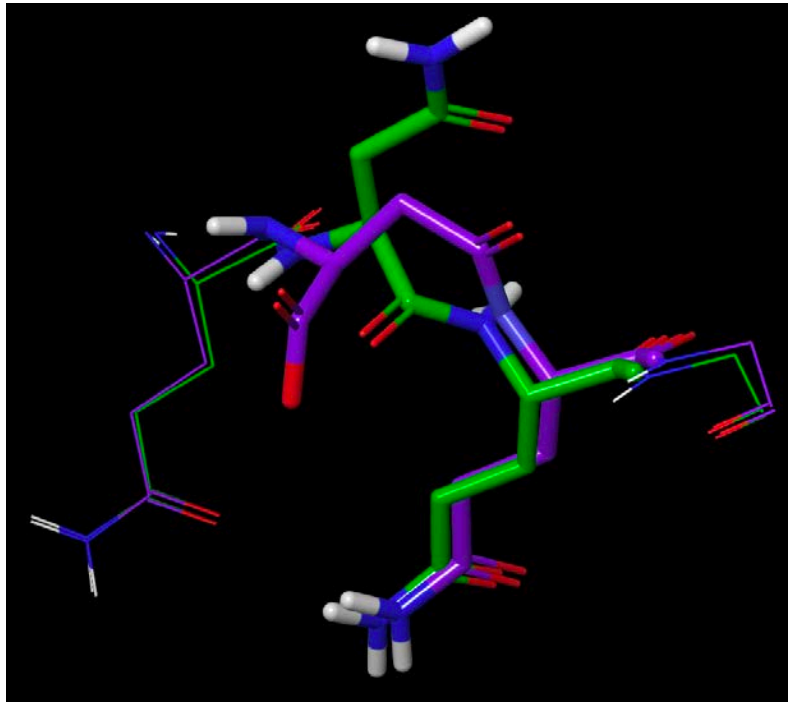
6N3A with isoaspartate 355 (N): -1723.5

6N3A

MNFGAFSINPAMMAAAQAALQSSWGMMGMLASQQNQSGPSGNNQNQGNMQ





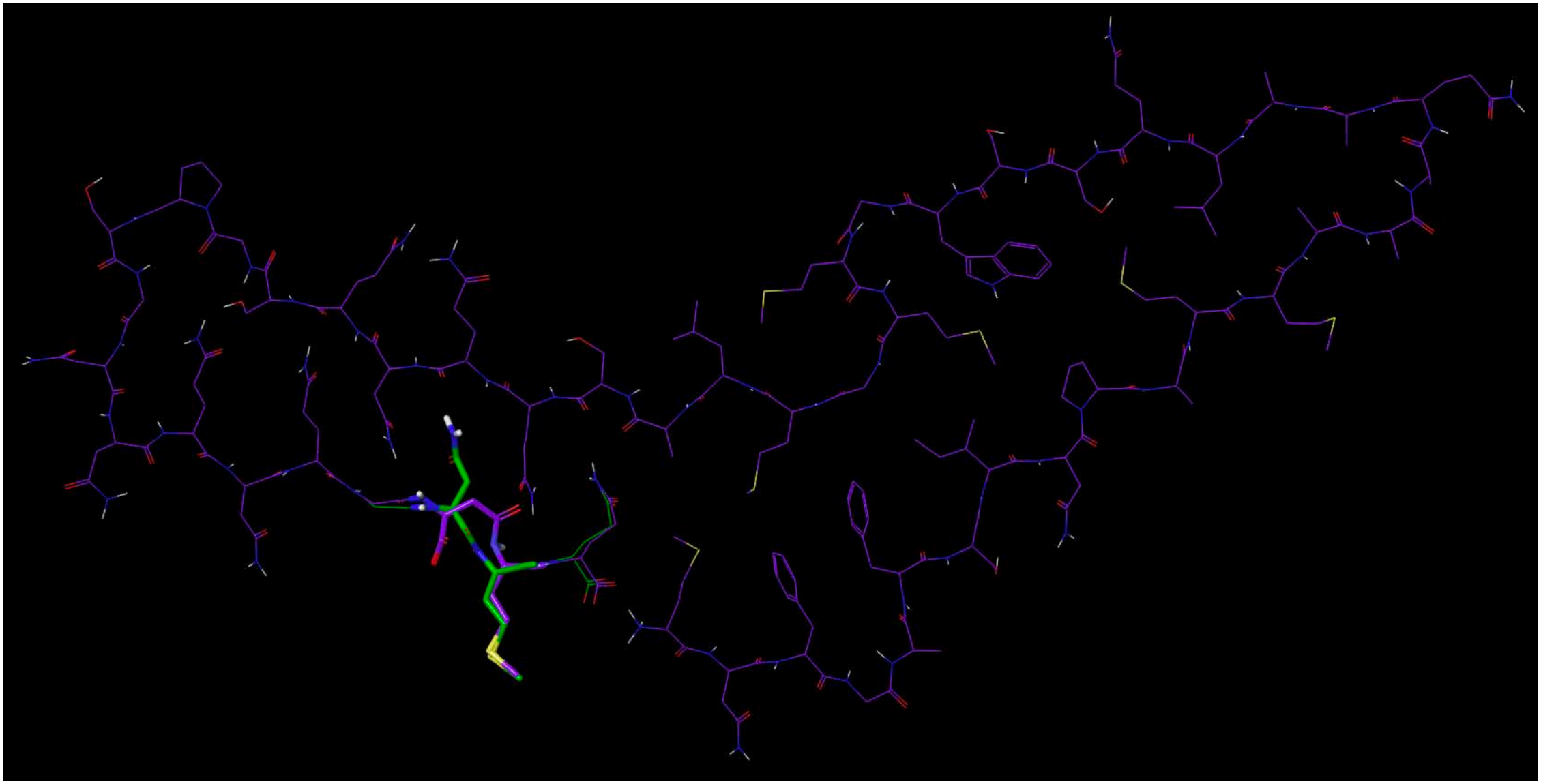


6N3A: -1778.6

6N3A with isoaspartate 355 (N): -1723.5

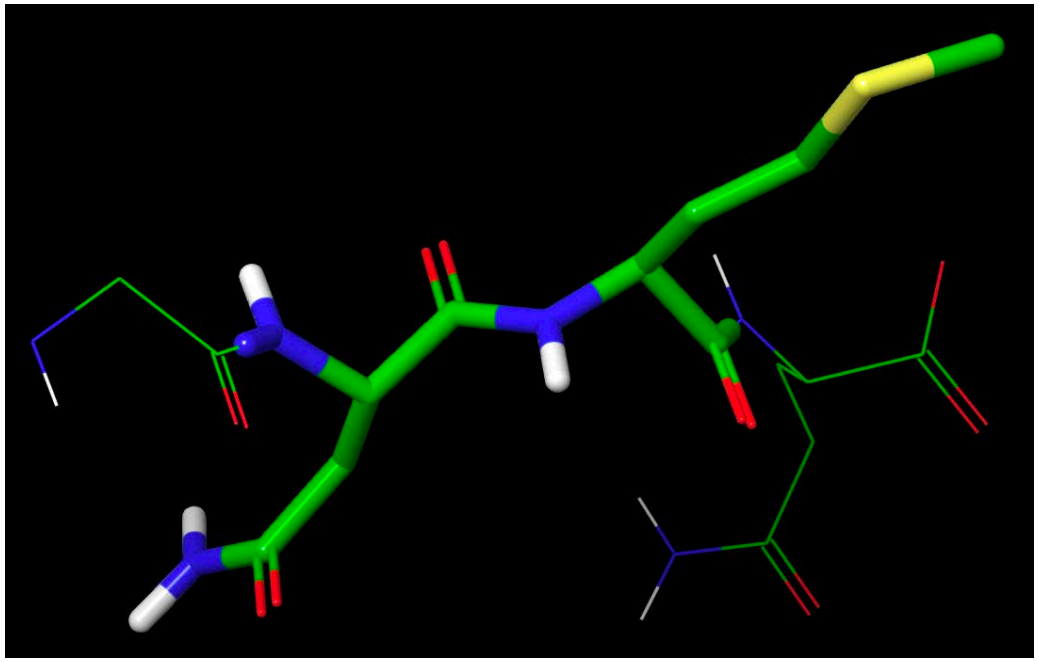
6N3A: -1778.6

MNFGAFSINPAMMAAAQAALQSSWGMMGMLASQQNQSGPSGNNQNQGNMQ

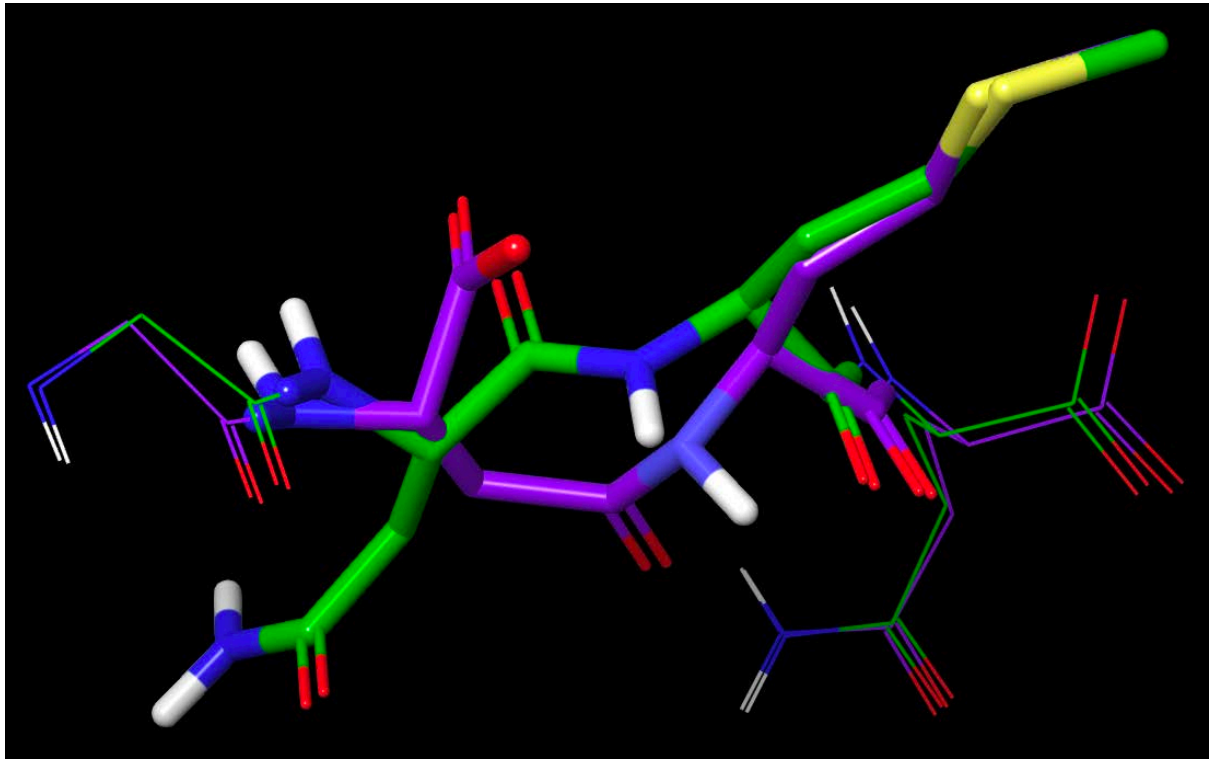


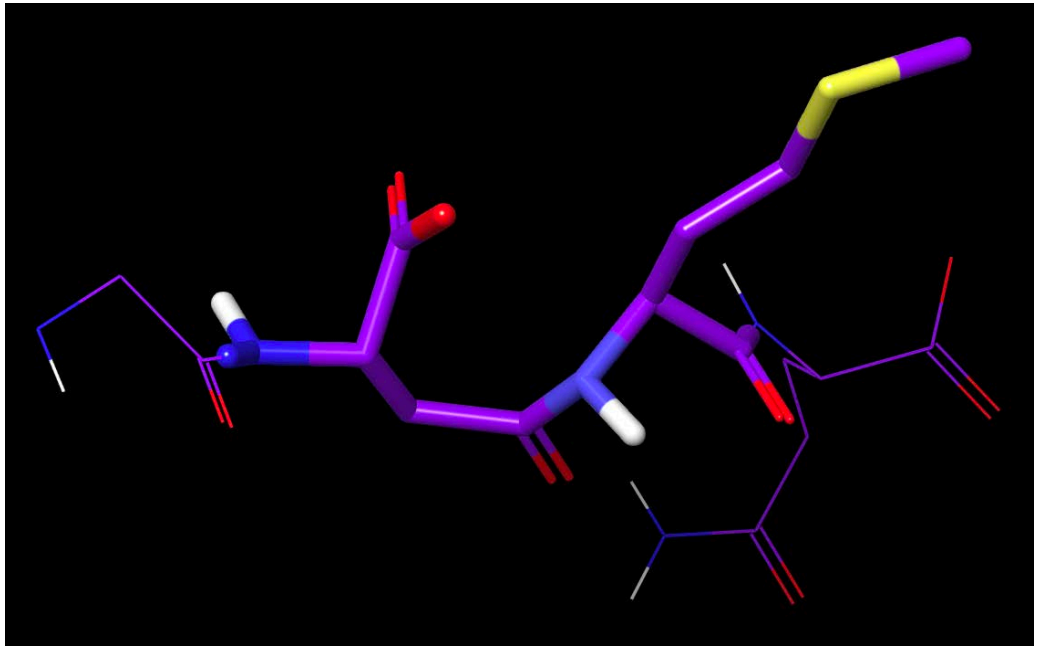
6N3A with isoaspartate 358 (N): -1693.4

MNFGAFSINPAMMAAAQAALQSSWGMMGMLASQQNQSGPSGNNQNQGNMQ



6N3A: -1778.6



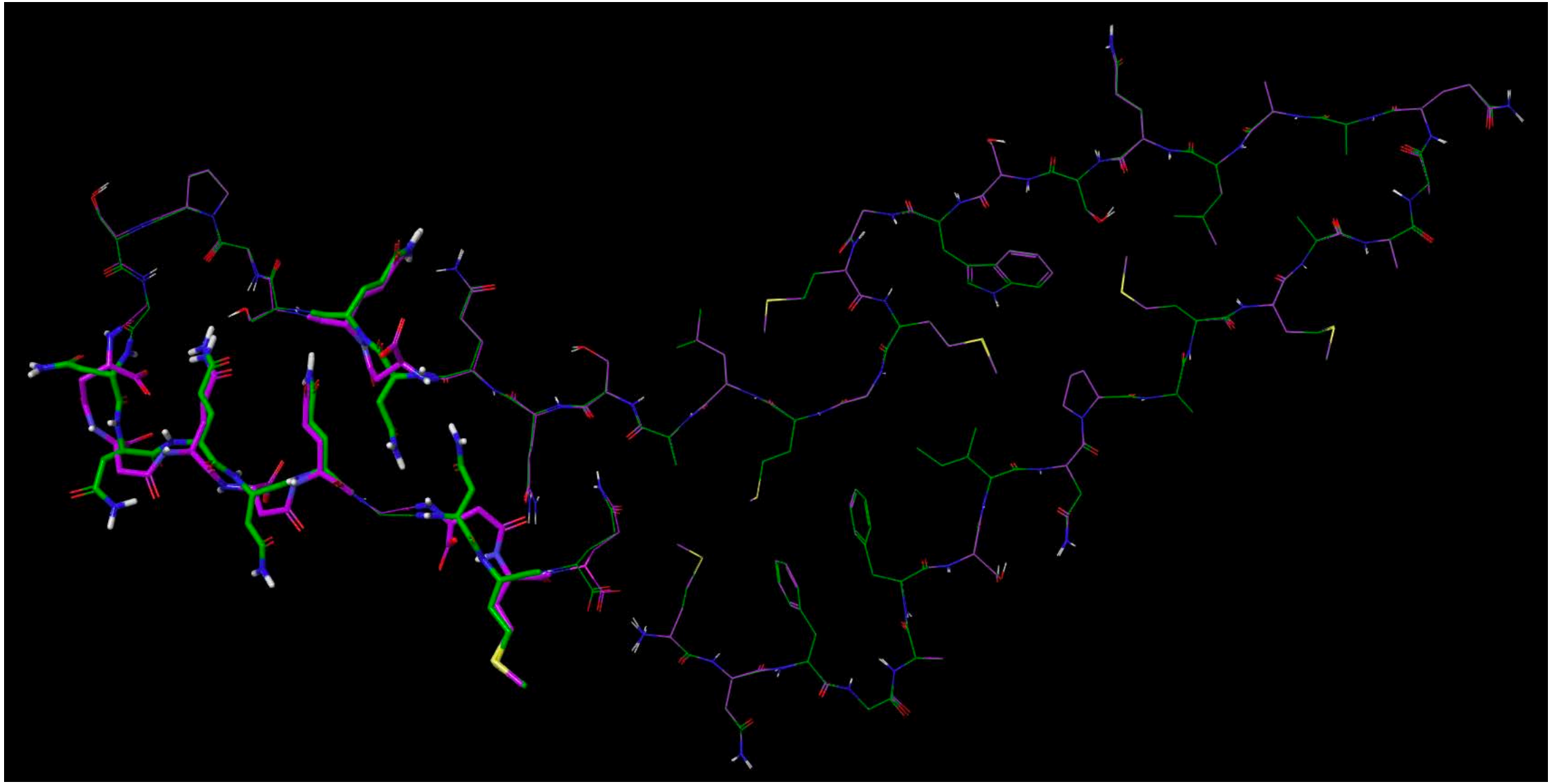


6N3A with isoaspartate 358 (N): -1693.4

6N3A: -1778.6

6N3A all sites

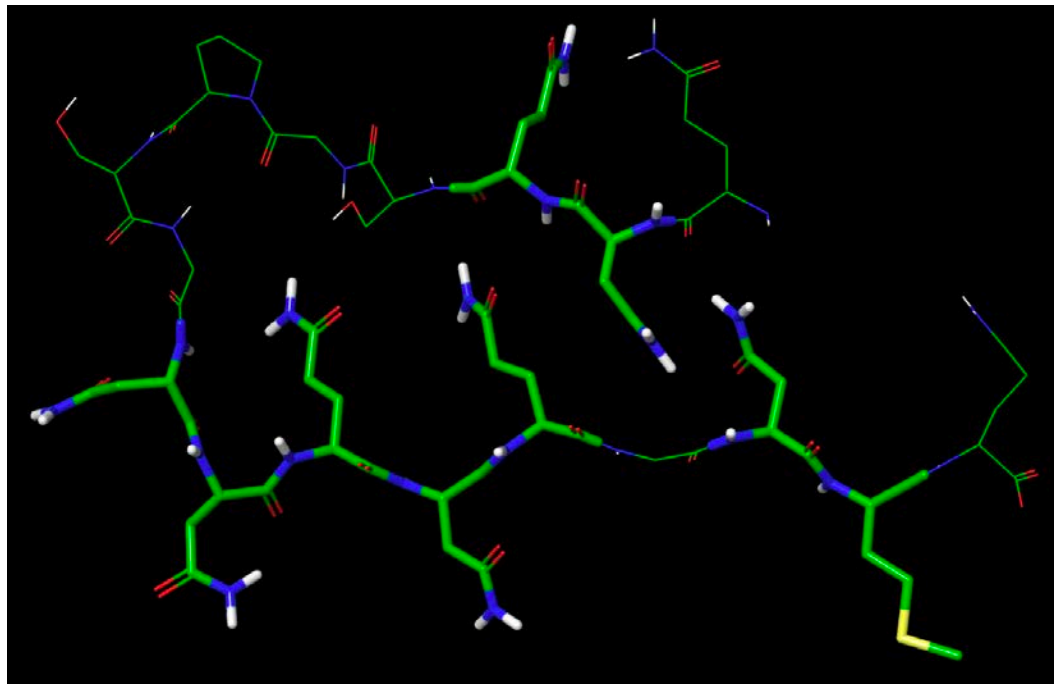
MNFGAFSINPAMMAAAQAALQSSWGMMGMLASQQNQSGPSGNNQNQGNMQ

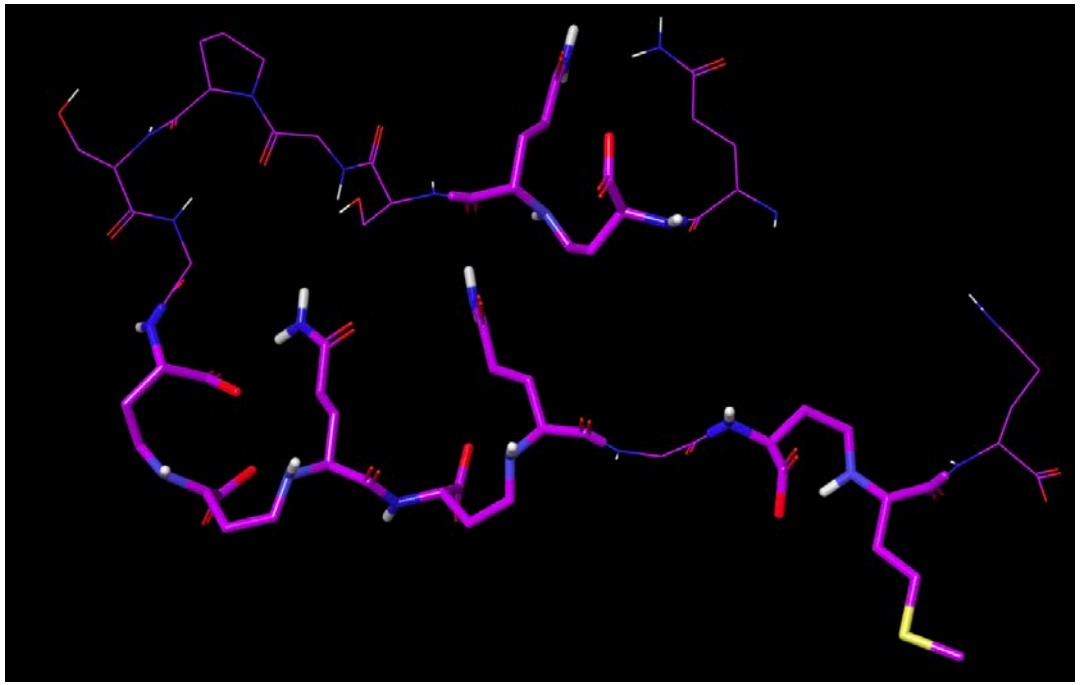


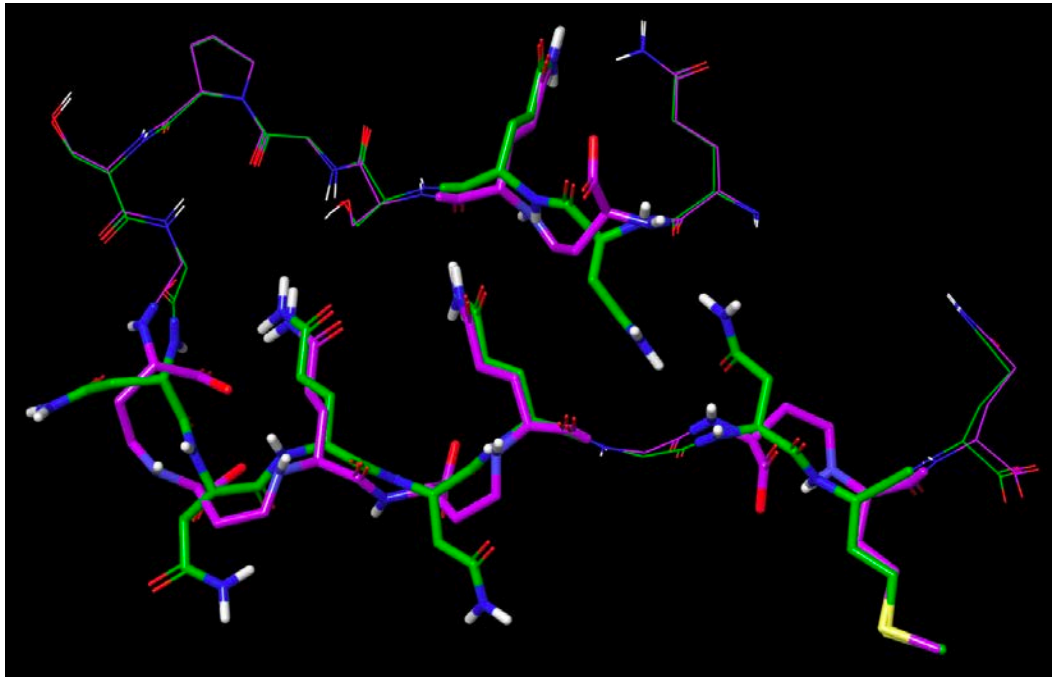
6N3A with all isoaspartate: -1360.0

6N3A all sites

MNFGAFSINPAMMAAAQAALQSSWGMMGMLASQQNQSGPSGNNQNQGNMQ

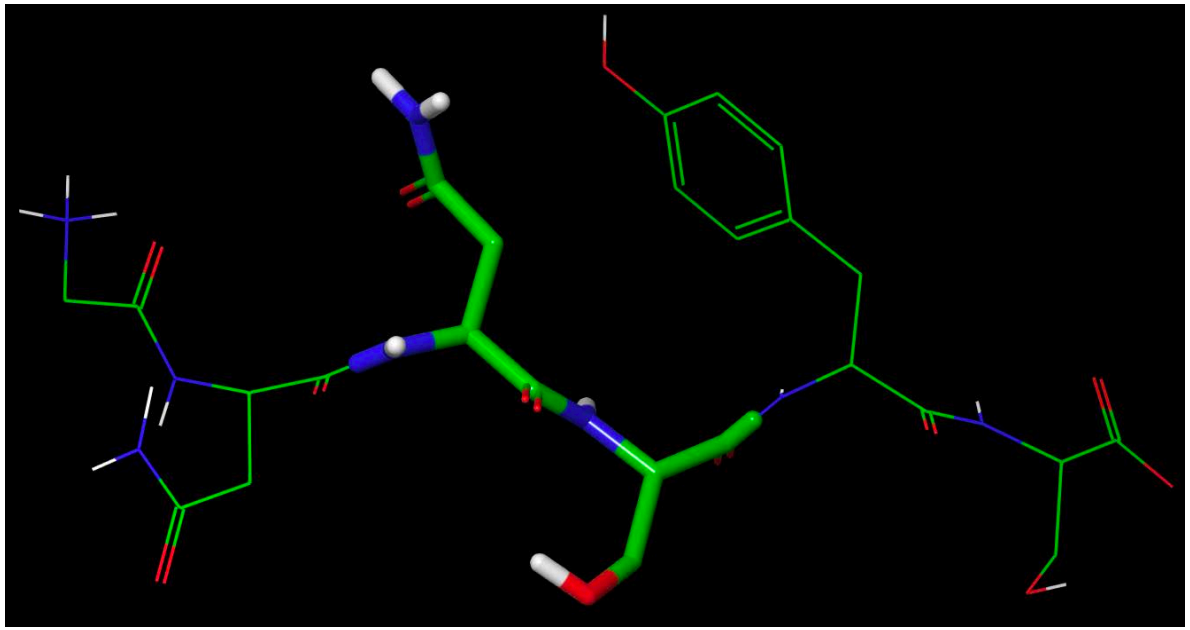






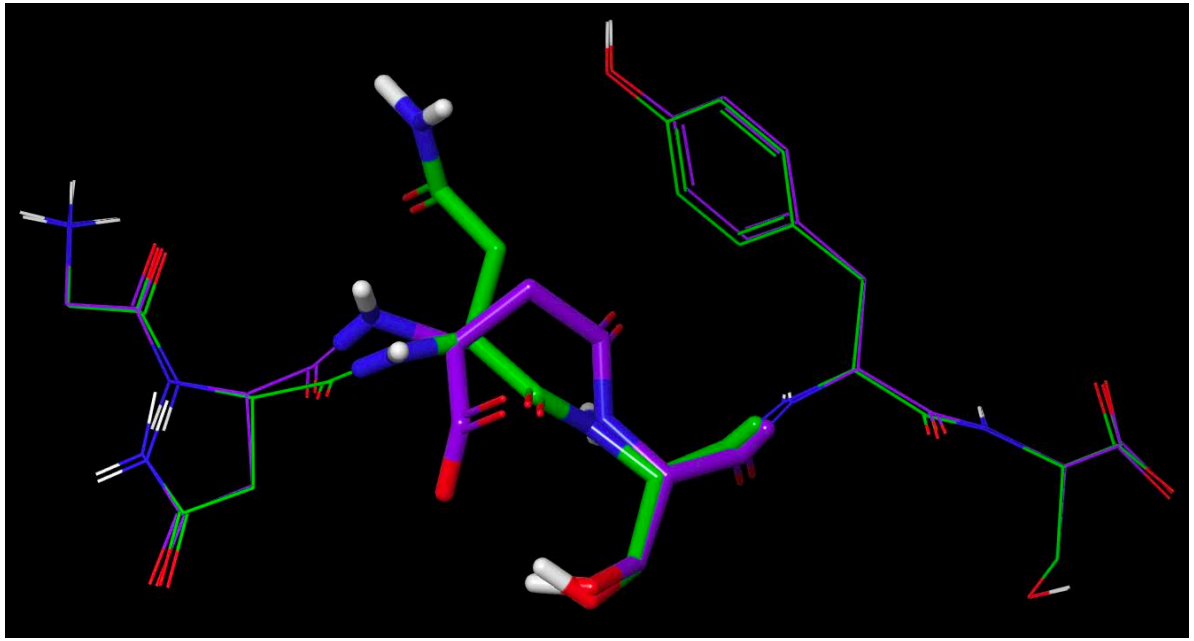
6N3A: -1778.6

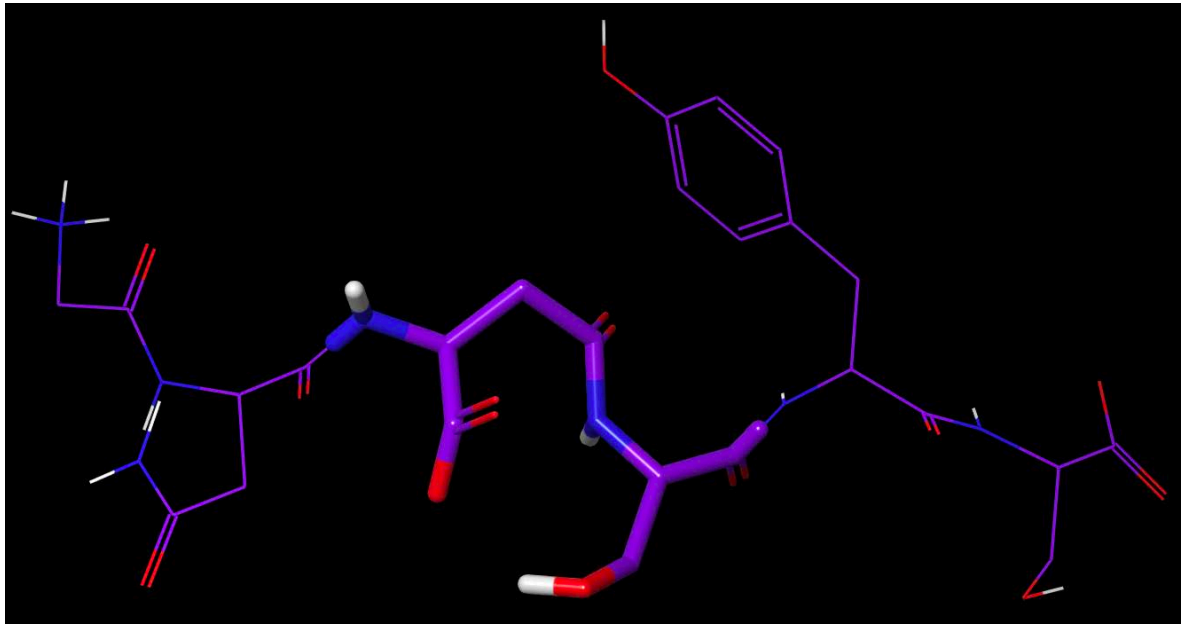
6N3A with all isoaspartate: -1360.0



GNNSYS

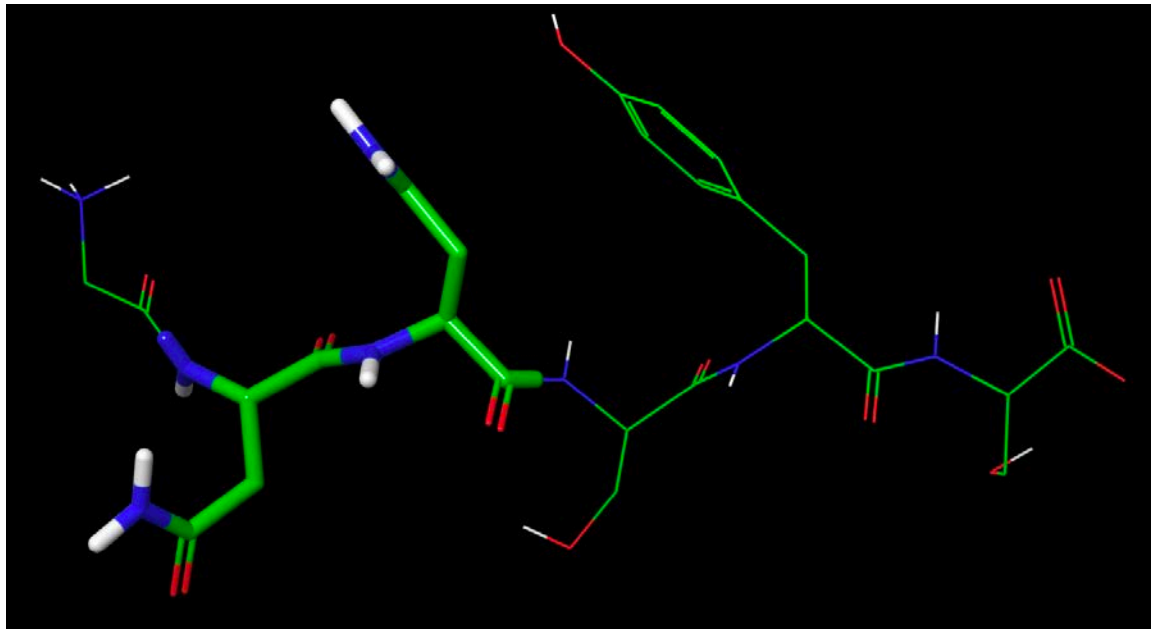
5WIA: -251.4



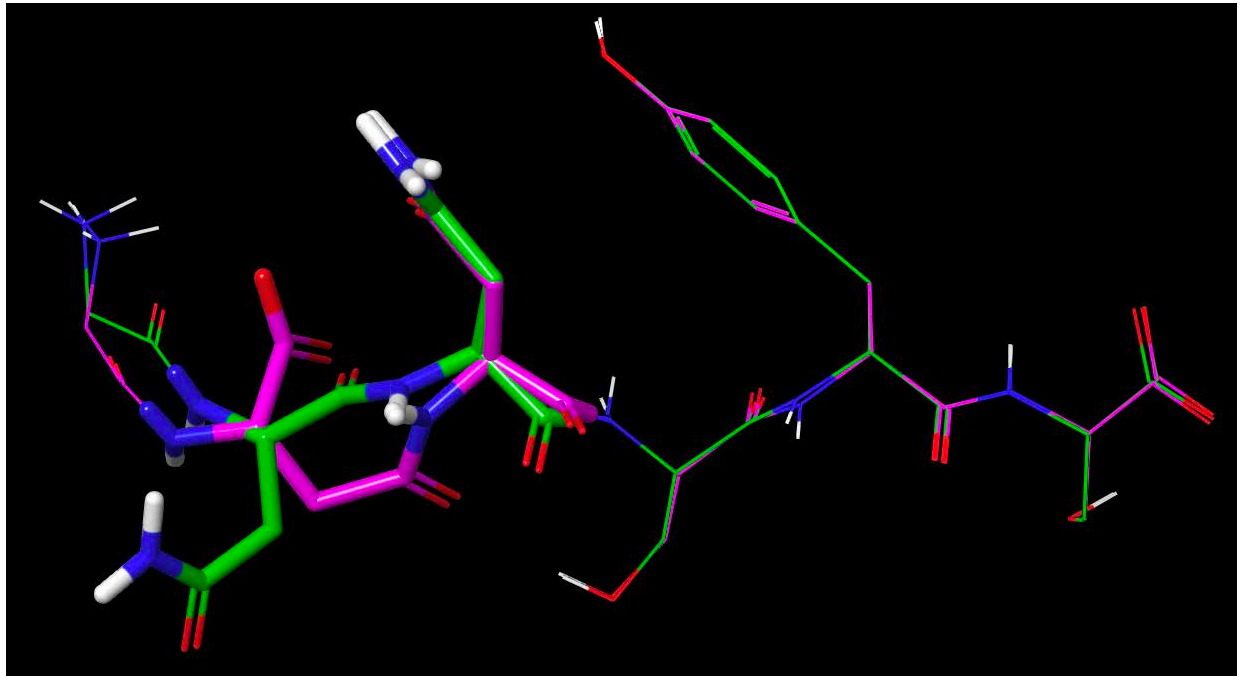


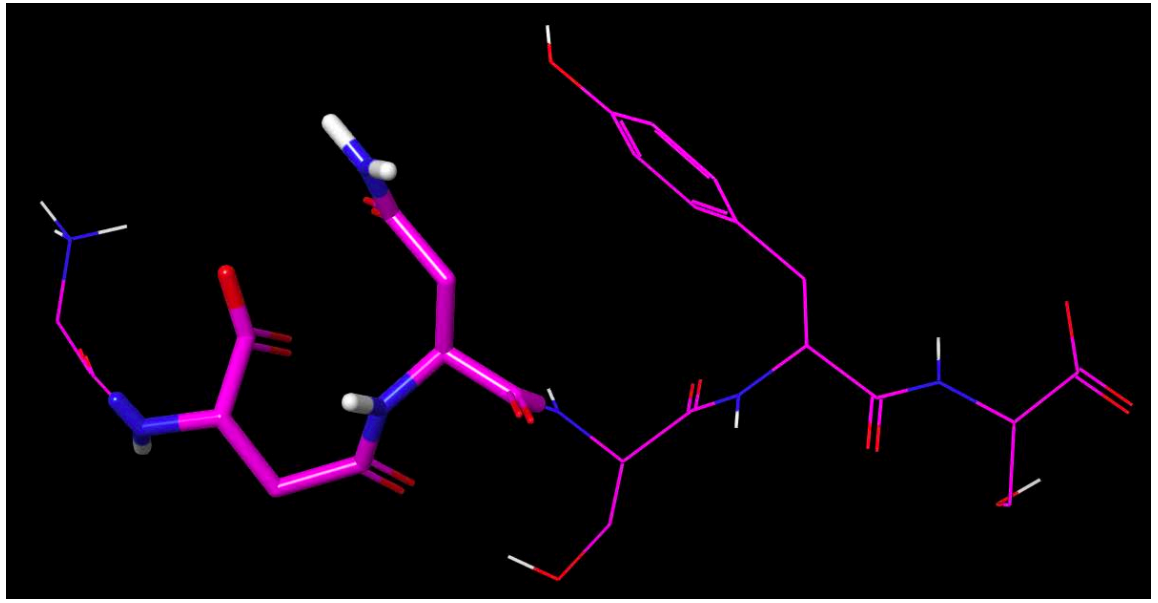
5WIA with isoaspartate: -59.5

GNNSYS

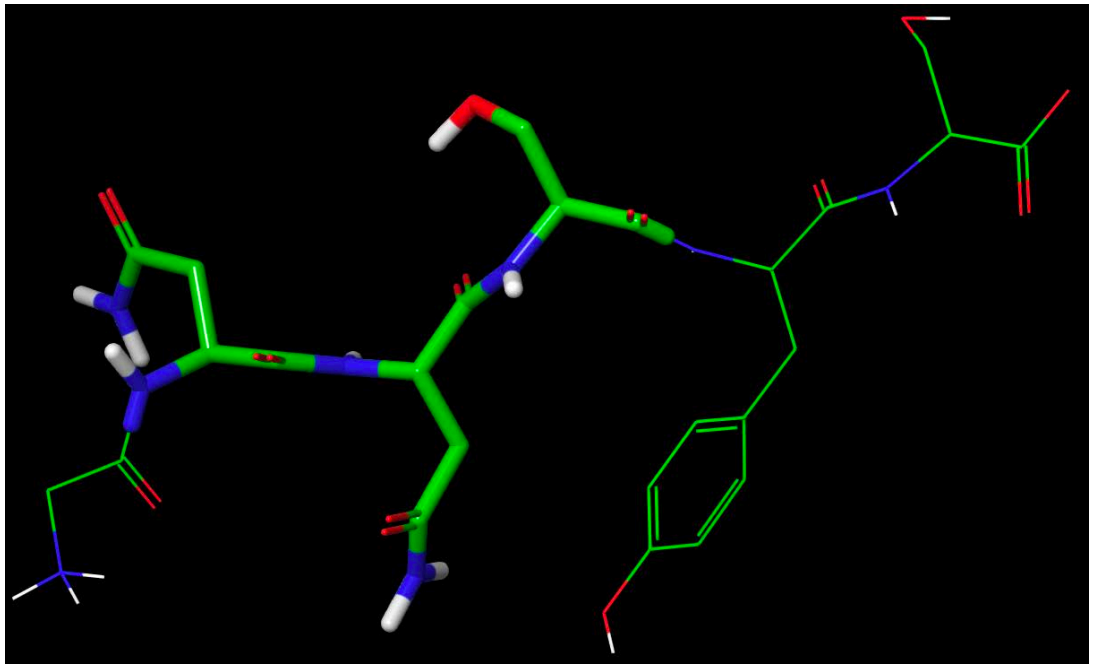


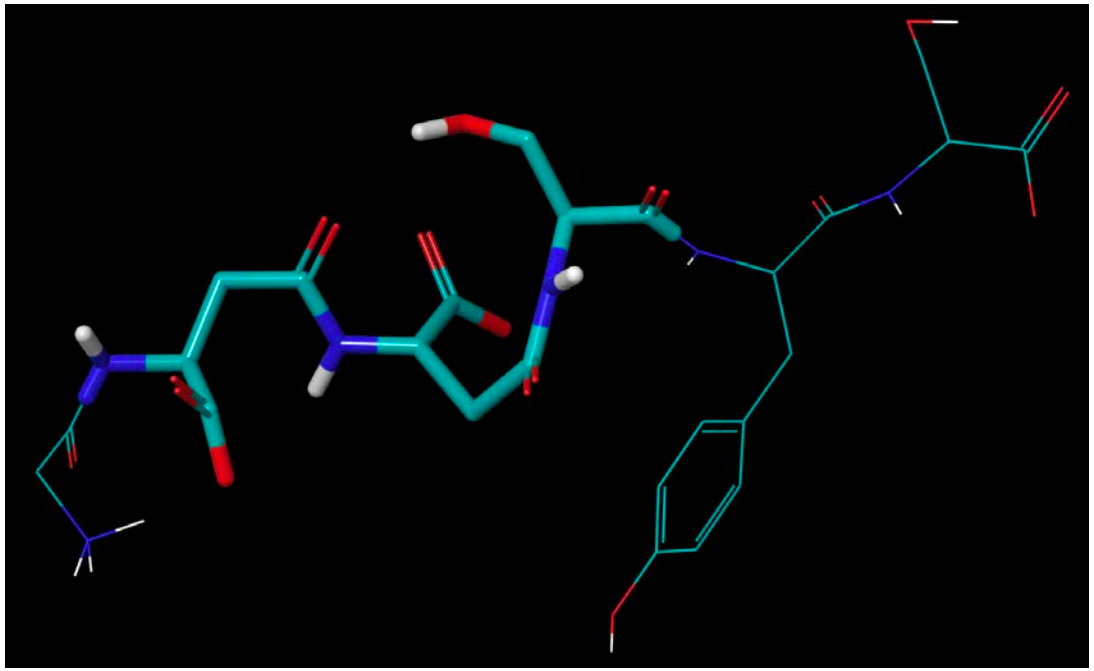
5WIA: -251.4





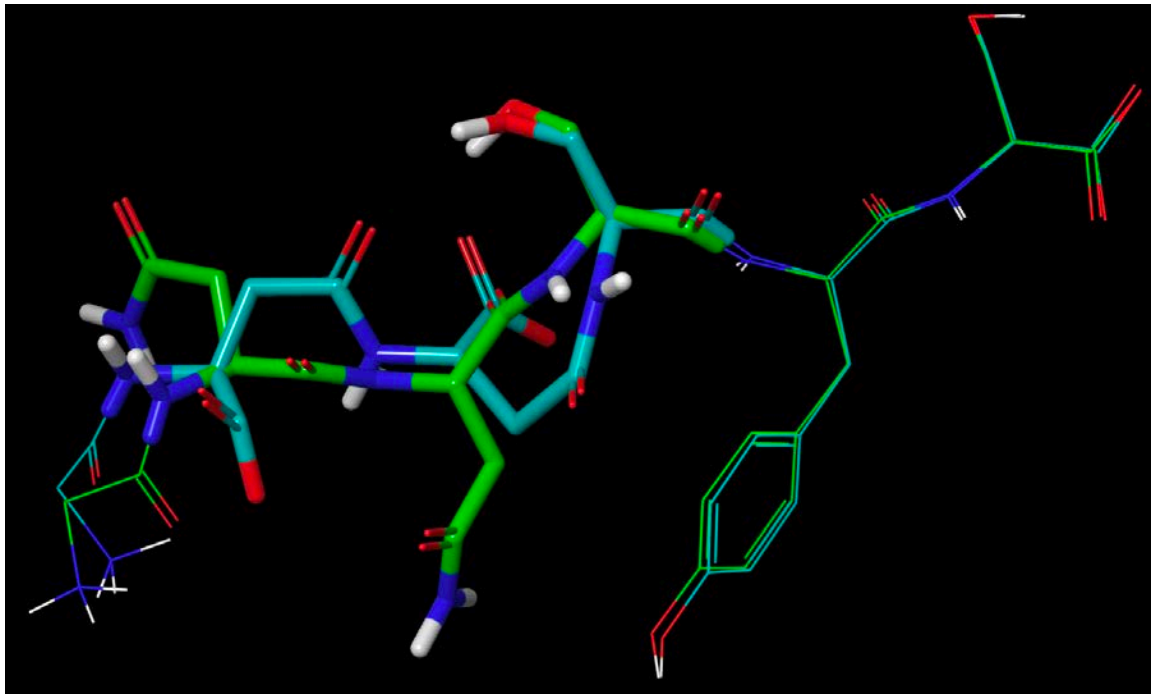
5WIA with isoaspartate 371: -130.0



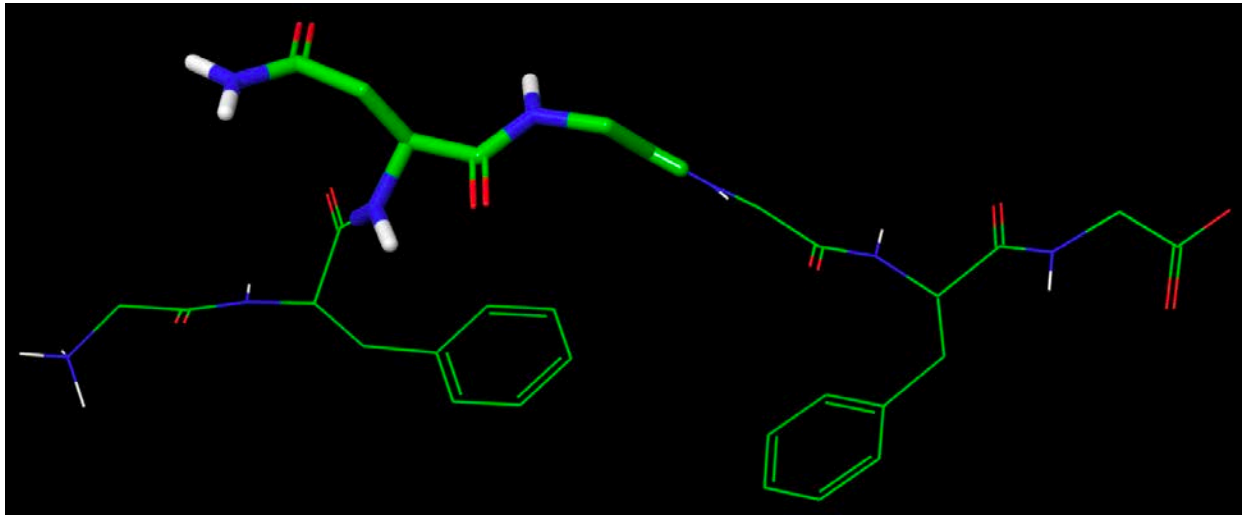


GNNSYS

5WIA: -251.4

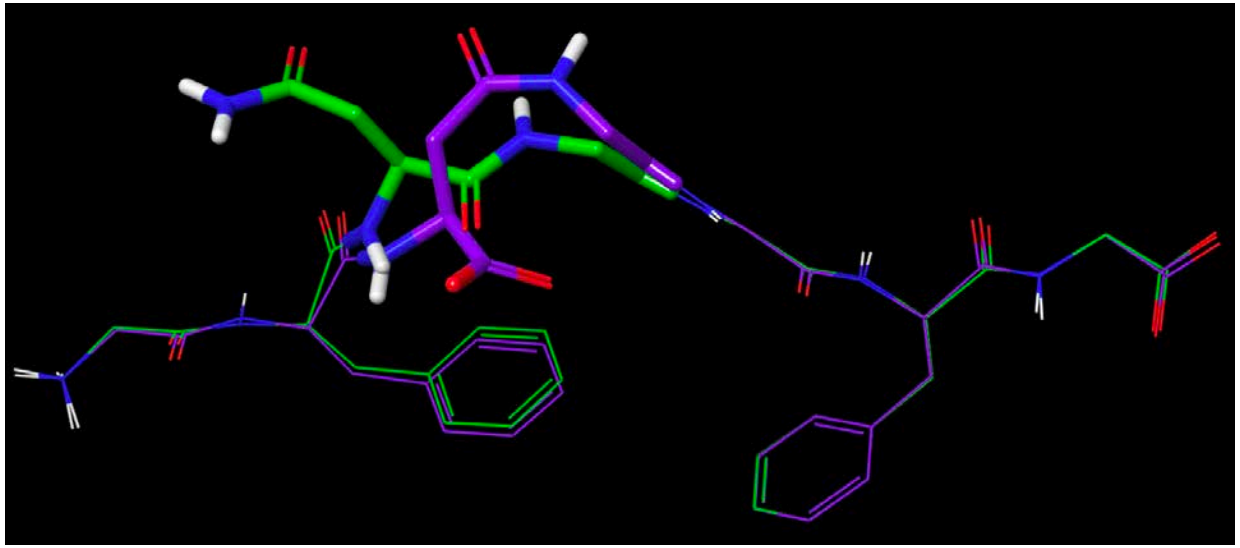


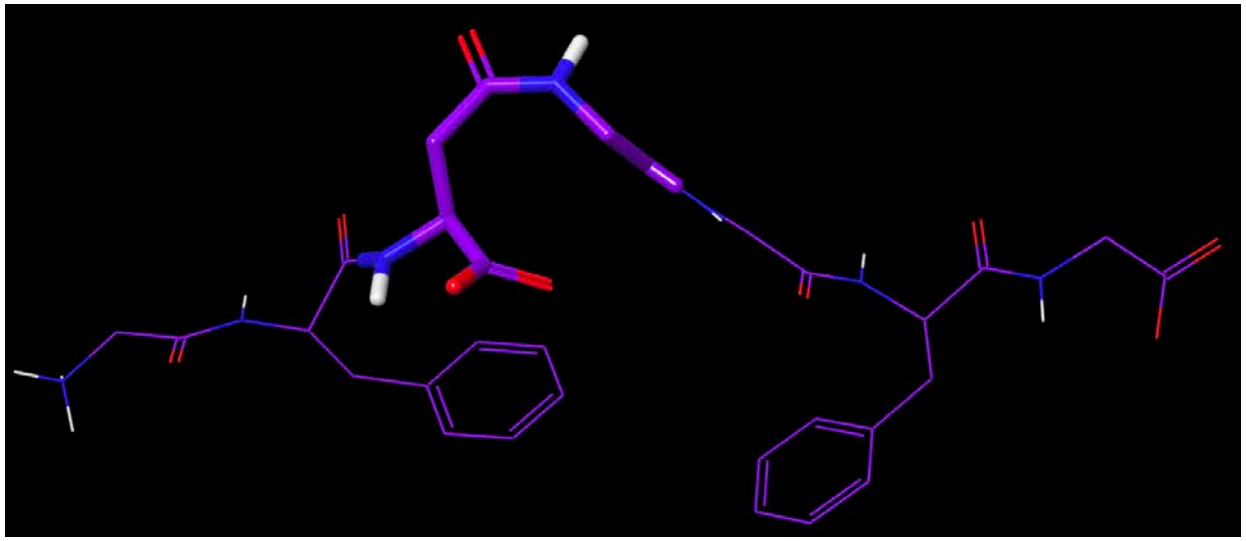
5WIA with isoaspartate 370 and 371: +141.3



GF**N**G**G**FG

5WIQ: -227.3





5WIQ with isoaspartate: -138.8