Boltorn (20 structure @ 30M steps)

*The data we got from the simulation and histogram; the atom-center of mass distances for the 20 structure, radii of gyration and the average atom-center of mass per all the atoms in the structure.  
Then we used the atom-center of mass distances for last ten structures, dividing every structure into ten shells by plotting histogram to get some details about these shells*

The structure number 1:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.15499432247666325,0.21213462706498407,0.22358432413744883,0.1600563025938058,0.2158470060019364,0.2280242750235157,0.15261585762954016,0.2158691038569439,0.21446123192782424,0.1547965115886017,0.21286622559720444,0.22275172277672708,0.24616165420308658,0.251238293259606,0.23854211368225978,0.24164920856481237,0.3687217243396431,0.43856904815547537,0.3830194512031991,0.46045598052365433,0.4821347218361272,0.4329352030038676,0.5873411529937266,0.37627306573816843,0.4489719033525371,0.39294536515907624,0.4434084009127479,0.4143520604510128,0.46245447343495305,0.5707137548719147,0.3318009945735546,0.3467699669809945,0.34468877266310843,0.4703815472571177,0.49532124929181076,0.49668020898763443,0.5670218514307895,0.3590698817779072,0.4235567140301285,0.3643177871035124,0.4469479388027203,0.47326995467703237,0.430742277934266,0.572811330195205,0.6907035615949867,0.7778995629257026,0.7750646295632386,0.866238402519768,0.7920475112011908,0.7791916003140693,0.8101997099481093,0.8621318112678593,0.6880978128144281,0.9176770782797179,0.9312000053694156,0.9499664994093213,0.6707761549130979,1.0089378028401947,0.7313294879874594,0.6782193597944549,0.7986814947148833,0.9073118703070079,0.9862836204662431,0.8875777092739543,0.8703014075594732,0.8080360202367219,0.9660087939558316,0.8985445731848811,0.7775284560709017,0.7438391627226949,0.7111045352126509,0.9695714001557599,0.9085432570879606,0.6778065874569238,0.6095193762301567,0.7505269215691062,0.7702489078213609,0.7469916532331532,0.7205372578846978,0.8110758164314846,0.7628267955440474,0.822971408980895,0.91370310823593,0.8431683402500358,0.9456083755974245,0.8287893158095121,0.9124021317379741,0.8406288360507269,0.5443926248581993,0.6875029309028435,0.8066931386840973,0.9283941296669211,1.0137581171068375,0.9645683024026864,0.780815221419255,0.7009979029925839,0.8793324399793291,0.7652719320607546,0.8670492546562739,0.9051884389451738,0.8061983688894442,0.910979341148854,0.9796611352911784,0.7140300133747883,1.1035253508642202,1.2402320831199298,1.349896862726927,1.3678478680028716,1.3186578858824607,1.2220587424506242,1.159939196682309,1.3189330915554434,1.20098378840016,1.399114416336277,1.2862735828741882,1.3020805543437015,1.2175775211459847,1.4689995813477963,1.1129509468076302,0.9731201107776984,1.11584291457176,1.1400433061949884,1.1188635931158006,1.0828806305405967,1.1732224810324765,1.179256023940518,1.2767710248905246,1.1174875390804142,1.3497784040352698,1.2075005175982327,1.1862300620031512,1.1968589641223397,1.2724953162978636,0.9258541137781914,0.6173266963286133,0.6326728301420884,0.7583549432818378,0.7390562292545813,0.8338997241875068,0.6775552671184838,0.6058494037300026,0.7111605444623599,0.7670595674391917,0.5670808143465972,0.517150393986121,0.508113865191652,0.4317142573508547,0.8236409290461469,0.5726995983934331,1.1370660578875793,1.2598841097497815,1.2344901012158827,1.1587862097902275,1.2148175706664766,1.3758053859467185,1.4088907019353918,1.4605414954735108,1.3551046454056601,1.4362770763331147,1.3055876224903482,1.2415752454039992,1.32574018947907,1.359480617736053,1.1643054109639785,0.9500435042670418,1.0807295175019511,1.0590678212465903,1.0180346850672624,1.0059895675403399,1.1657429948320515,1.1952256607017777,1.2554548100190628,1.1231495225480892,1.2953537779309559,1.1670804813722144,1.1939941834029177,0.898565445585351,1.1804244406144766,1.1252268437963964,0.9910711932046055,0.9784945886411436,0.8461800399442193,0.8590224094865049,0.7619880904581127,1.1041588336829087,1.1907579560935129,1.1080058032339004,1.114834364378853,1.01063478566691,1.003036036241969,0.8381750175231902,1.068332139364908,1.1019633614598991,0.9285017770580731,0.8914297841108965,0.9978567883218511,0.8237741802217399,0.6765755168493753,0.908197517063331,0.8569641649450691,0.6665870835832326,0.6235401590916173,0.6331291258503274,0.9034391235716989,1.0124829776346858,0.9017264940102401,0.8168506840298293,0.8185404754805956,0.9658557656296307,0.9766435736746543,0.956804729294332,1.0744343116263553,1.2146103819744005,1.0670396946693221,1.0694416206600528,1.241256206429599,1.280064408535758,1.223677024381842,0.9644710726610723,1.082318224922781,1.1582783819099791,1.0889949540746273,1.1488547514807952,0.9753654750912603,1.0532748359284008,1.0159266558172393,1.255310435709032,1.024048695131242,0.9080892577274545,1.1500278127071535,1.2582795873731722,1.1601321691945272,1.289756294809217,1.1583562146421107,1.2723165132937635,1.2654169154867494,1.0663877765616032,1.364431595940229,1.182078905995704,1.4315282742579691,1.5629812730803911,1.3065046804355502,1.4617579827043867,1.3769018774044863,1.466040736132526,1.4693334849515953,1.523672697793066,1.5484036973606075,1.6206907292879782,1.5716807659318095,1.6718698573752682,1.5498943899504896,1.587005119714489,1.3292494950158904,1.2192971992094463,1.3004464771762043,1.0682627813417442,1.2445237241611746,1.346867807173369,1.1191602030093812,0.9846569859600856,1.0636027453894612,1.23364492460351,1.0338948108971238,1.183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**Average atom-center of mass per all atoms in the structures =** 1.2669128603829527

**Radius of gyration =** 1.3298731719585133

The structure number 2:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.1542993519104991,0.2124635262815715,0.20972121971798705,0.1535067750947815,0.2164471991040768,0.219742826959152,0.15427290753726003,0.22186737029135256,0.20964345923495933,0.1484911108450602,0.2106714029003463,0.207221837652309,0.25088957730443906,0.24736782329155088,0.24100989606238157,0.23145526565623875,0.36099209132611215,0.39044674412780056,0.3664332681403261,0.4850797975591232,0.5166111690623815,0.49160863499332486,0.5987568287710797,0.35601154475662705,0.4147223890749086,0.35024819771127985,0.46581993302133334,0.4560776249718898,0.504137203546812,0.5750260341932351,0.35447365205329406,0.39106472610042453,0.35938605982981603,0.4759832875217362,0.4860369739021918,0.5017512830078261,0.5848293511786152,0.35375494342835695,0.40337016498496775,0.3611718427563254,0.4712360873277854,0.4934624099158923,0.47357299331782016,0.5818791025634106,0.6407613050114687,0.7451468714287136,0.7153530946322942,0.8041429288379025,0.7207554231499064,0.7767553604578473,0.8157864058685951,0.8638926148544159,0.6894622687283185,0.8770513154884384,0.8723871044438932,0.9292504829162052,0.6035101821841949,0.9748625544147238,0.626874102192777,0.6676242281403516,0.7362632749227684,0.8490494096340919,0.9155367551332932,0.8146037318844052,0.8125026092265797,0.7575335900143307,0.8809527910166355,0.8813467762464445,0.6581700919975019,0.6220193646503299,0.5762839751372583,0.9280716621037408,0.7619054600145612,0.7232072109706873,0.6815739431639091,0.822870360384915,0.9111049610226032,0.9187135843123251,0.8735641762343505,0.8325557158532993,0.795068154311314,0.7840718844595819,0.9381327677892929,0.9127373773435596,1.0131538629448145,0.9130787151171575,1.0456942239488556,0.8681370225949357,0.6934248409164467,0.6741353350774603,0.8127859127716225,0.9061980247164522,1.0073509467906405,0.8737970702628842,0.8844568107036089,0.8463890181234629,0.9846370803499124,0.8992619696173076,0.8258800033903229,0.7997988809694598,0.7706646741612071,0.9129486130117069,0.9654874468370884,0.6526083741417971,1.0206142366242004,1.0759556031732906,1.0951097981481126,1.0038274951404749,1.1562356593705279,1.2173393487438084,1.21956102348345,1.2635272771095998,1.2769475282876739,1.0637803297673818,1.0030541112023816,0.8988089118383282,1.0090073389227652,1.1852880029764916,1.0563206047408142,1.0364821561416286,1.1293614523260476,1.1728829609129805,1.2294378308804392,1.0957265626058355,1.0713453458152509,1.043730736349179,1.153747372694733,0.9904029583962276,1.3533687524100737,1.2496418807002267,1.2939715761947785,1.2236415937683713,1.2576687799257797,1.0817097993454623,0.6090281684782732,0.6238929475478946,0.7274915325967719,0.694630585275368,0.812422193197601,0.706208170442682,0.6671062883828932,0.7414138452982924,0.7993141747773524,0.5471089562418073,0.4998164863227304,0.44910135827004605,0.4379538902670006,0.7868354529379062,0.6321873535590536,1.109376802533747,1.2005695481728664,1.2029627882856564,1.106214626553094,1.2343685875782813,1.342994605350297,1.3639553108514961,1.4240666065883296,1.3699013322133826,1.2983678600458348,1.181350875057872,1.0834243997621613,1.1983810579277363,1.312831748549676,1.1589887402386623,0.7612647962437246,0.8150564520326181,0.8167724836207447,0.7211949875033793,0.8771295970379746,0.9651180912199292,0.9750749150706317,1.0092034779963848,1.0259684887948555,0.8174810150700745,0.743259288539336,0.8957406041929772,0.7460215010306336,0.7623411637842994,0.6396653500073298,1.0083582547884458,1.0210183984630248,0.8921539104885436,0.8454254668508634,0.8273085156095036,1.1314229889833425,1.2219564231182716,1.1503255408796242,1.1090375692464167,1.133131757563965,1.0878647434309106,0.9185738348113343,1.09051349831169,1.178334680810168,1.0328574248171916,0.8918501499691525,1.0042525479181021,0.7987909551315663,0.7583670087760936,0.9020631962340554,0.6838315655188784,0.8527745305765178,0.7133057268801364,0.6897499981877493,0.9902647171337567,0.9384815874592318,0.860444646679843,0.6312582118277748,0.6354454657954528,0.7351383067151376,1.131435711828118,1.1143498597837214,1.2663106096057162,1.3713059906527059,1.3141655222992268,1.2491066767894563,1.3474814618390856,1.4609979431881481,1.414098423024366,1.241641772009946,1.3411933044867168,1.4331462939979291,1.2125326758483663,1.3435624771479735,1.174262721881266,1.3278840725003067,1.3501049662896583,1.4840207714179743,1.3329561770740999,1.2183264012570687,1.464255285119367,1.6174891467951182,1.5201200314448853,1.5624620859400076,1.5478310663635095,1.5785371550901166,1.6026990172830329,1.449857458511008,1.6653001351107852,1.4560660561938799,1.6777195981450534,1.7884699102864434,1.5215636003795565,1.686444641842714,1.5992482296379131,1.6636419656885313,1.6237633386673067,1.6913784378429326,1.7778800268859538,1.7928508777921266,1.7753011969803885,1.86642162707144,1.6929687770304562,1.770772930107076,1.5295587108705566,1.1949111473243523,1.212032598571507,1.0490014537644834,1.1712782803416104,1.2460302925691655,1.0260500085278494,0.8586889366936082,0.9672162633041276,1.0720851645275198,1.0016450219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**Average atom-center of mass per all atoms in the structures =** 1.2100164794697452

**Radius of gyration =** 1.2633006948929646

The structure number 3:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.15117251734359669,0.21308610935488,0.2202535130253317,0.15235432386381417,0.2156054034573346,0.21313350276293966,0.153344383659787,0.21422688906857612,0.21292191056817092,0.15517657684070768,0.2219833777560831,0.21596133913272536,0.24772028580639116,0.2413673963069579,0.240575580639432,0.24004968235763208,0.3615893527193521,0.4372479731228037,0.3615429988258662,0.45174279186280314,0.4851375990376341,0.4350503993791984,0.5754631352224049,0.35501607005880764,0.3846445891989123,0.3787132028329617,0.47850908037361223,0.49349185403611245,0.4997936974392535,0.587508391429433,0.35849009749224564,0.43079009970053844,0.36961287856350433,0.4532387450340053,0.4494609437982347,0.4810526582402391,0.5809186345780276,0.3558454018250059,0.3850587227943287,0.3653882045167852,0.48266429327224963,0.5168757007250392,0.4916464685116734,0.590767204573849,0.6620210117511379,0.7935957283151169,0.8033913367718127,0.9072714533148282,0.7914017437433405,0.8455390351722387,0.8680044124311812,0.9456844822666811,0.7883713972487841,0.9113072972384236,0.8982976900782947,0.9340191058003046,0.7228449557131879,1.0361324915279901,0.6491118393620627,0.7095222406662107,0.773899024421145,0.8364568966778863,0.8996584852042467,0.7599599594715496,0.9033771028756485,0.8883749940199801,0.9688543905045792,0.9562979974882305,0.6974667662333451,0.6096549351887505,0.6801381918404523,0.927808191384405,0.7948668127428643,0.7787061319907532,0.6723233002060839,0.8038790269686106,0.8604279981497581,0.8637243715445341,0.801254397803844,0.8197794703455313,0.75184765744132,0.8099172426859427,0.9238211839961241,0.9161751633830726,1.0088748683558333,0.9389200232181653,0.9872452228296676,0.9161612248943959,0.6530172202936152,0.6912636978751308,0.7837271591568075,0.8536919057833453,0.9228981850670204,0.7894173420947884,0.9031546102412364,0.8881118229142093,0.9705240749203496,0.9618705006392495,0.727666647579783,0.647720024393256,0.6976584336192031,0.9497029272356696,0.8471797625061638,0.7222951543517372,0.8387139083143906,0.970048086436956,0.9435691972505249,0.8879573919958096,0.9025275065060347,1.0749313512964442,1.0945210824831102,1.1715030217630682,1.0470280750772636,1.184512714157176,1.0533549923933525,1.0109128696381307,1.0760421413680785,1.0673123301077336,0.7553073612775135,0.9385774235511953,1.0277443651025284,0.9475256249833037,0.8900213087336731,0.8884067255486082,1.1088511577303783,1.1711214582612686,1.1824885031153578,1.05190104572626,1.2317060931894428,1.1314887803244007,1.075798912436706,1.1870744121578898,1.0511101464642036,0.8910281420920444,0.6850627270549757,0.7238325635117557,0.7147903608751314,0.6098211951055822,0.7765628242454052,0.8820331229608107,0.9156059195964168,0.9155205404577224,0.9340647622087027,0.7521899560616322,0.6792780064156353,0.5721146213828137,0.7130729415704962,0.7777318625336115,0.6766321452606286,1.134462273502297,1.2046389708124174,1.2230096810737028,1.127902894756459,1.2837206354966801,1.3499706885706817,1.3626487918755883,1.414874231159788,1.3934176976054238,1.230061059460058,1.1404559833680563,1.0382884666603978,1.1448996375228706,1.3092507590221212,1.1814641128701286,0.7534887789476362,0.8159795953331188,0.7324775627962946,0.6421709507599983,0.7193254061966671,0.9427187226315175,1.0049932188825952,1.0034829395659897,0.9364315992105352,0.9669187194381954,0.8788053766335296,0.8220439525962101,0.681718622306887,0.9428072655638585,0.8077023771167199,1.0555868652081644,1.1293872542223948,1.225593484806443,1.2887157793710764,1.1794064015427417,1.2241054080429508,1.1726722432120582,1.2890966488204056,1.2884340456538703,1.1346192885721629,1.0427727077364461,1.3175608259203824,1.1231207459574413,0.9854248525382336,0.9790811457688268,0.9268179432876772,1.0281207322099875,0.8387663798698659,0.7243976256173127,0.9454910100048549,0.8010277523282201,0.7782885133419356,0.6486262791469369,0.664432043176727,0.9874255566876932,1.0341443129466994,0.920644573111687,0.7472222226352748,0.7682866262014457,0.8939788923682708,1.0187219640314034,0.9462393143386088,1.158001269429356,1.2730271560339945,1.1999736913782735,1.1715461151828384,1.2652776256616571,1.3630332827924638,1.2991733910452448,1.134121285401169,1.2122025614557992,1.3349643103843638,1.1636729179627754,1.2750758291176256,1.1033700784414995,1.255842506049226,1.3491099065680305,1.3118521791726383,1.2913342363617561,1.1796518808529914,1.395299147136556,1.5455019540589396,1.4724769947269125,1.4745125092721323,1.5268397722092517,1.5033240003405788,1.5573060136016943,1.4025071408017857,1.5780713577021797,1.338288660939784,1.571621827921717,1.681766036046632,1.4020430735180716,1.5766786641544943,1.494675031570408,1.552070491311525,1.5217637201615761,1.586614111874718,1.6407647150033426,1.6900230442215873,1.6572189535483839,1.7527319275918953,1.5800066613783625,1.6503670924979086,1.4115472680714591,1.222255431569032,1.2975240460199573,1.0801388475561837,1.2499082006291504,1.3437312528924823,1.1266136249841825,0.9732933113917924,1.0506525258143151,1.2627125801226502,1.0166075201374427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**Average atom-center of mass per all atoms in the structures =** 1.2413029938977689

**Radius of gyration =** 1.2765284581496348

The structure number 4:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.1541075598405218,0.21344596505907504,0.2120325682530871,0.1537606256490916,0.215601808897792,0.22022617918857906,0.15432712010531408,0.22129324436141282,0.21666605640939654,0.1537518455173788,0.21881019171875876,0.21342926228612608,0.25102081586991937,0.24852965617809075,0.23542310846643721,0.2399582255310285,0.350755156768935,0.4244854061095624,0.3421635427686594,0.4529933332842773,0.5052301851631594,0.43650092783406574,0.5732324921007186,0.3727989806853019,0.4462366748710825,0.3912543162701216,0.4540574853473952,0.4288378015054181,0.4826341678745924,0.5780677814927934,0.360534339557274,0.38946658393243444,0.3932340270119054,0.4788970975063431,0.4957251052750904,0.48764237920837034,0.6012843420545724,0.3672296965115973,0.39371126476137247,0.4516994133270489,0.4220243831818252,0.38272185722793534,0.45092487179129903,0.5503531684291465,0.62736440766113,0.7605438251672287,0.7634277765447103,0.869104015639095,0.750077129367374,0.8280120651294887,0.8455074748339012,0.9231748100982826,0.7805966756270492,0.8643392505260884,0.8497829899450804,0.871783184054384,0.692743141431224,0.9830941867389921,0.5964722541744929,0.6543896469229934,0.770172642983377,0.8509234336883663,0.9391950915544645,0.8118827070457899,0.8634905905683049,0.8337751615393687,0.946362847960548,0.9091826329181611,0.7342334574234546,0.6762993641871916,0.6888269521440055,0.9082150571312942,0.8582068864790121,0.6624419521739242,0.6665125055090868,0.8102753914565101,0.893474459623777,0.9203465597262807,0.8559266557363431,0.8228685557244245,0.7785624188207395,0.7887533264589128,0.9313232414151386,0.890965841096055,0.9907144240395416,0.9098827342026004,1.0206578858755762,0.8431307549840655,0.637399788202036,0.7079642222598541,0.8184871898814298,0.9039028764198063,0.9923531478259136,0.8520042781582732,0.9137983858598131,0.8821989004753973,1.0049603225998525,0.958874913635767,0.7766992081880861,0.7293039489814928,0.7262448140950819,0.9492243412386765,0.9085535317195126,0.7230108851186131,0.9164969503495359,1.0255456011314172,1.0310045441218967,0.9368123718226612,1.0543651834160686,1.159157814967401,1.162738809879501,1.2345372979379763,1.1863203698832792,1.1304321872629066,1.013943257781223,0.9233741007847251,1.02570670759238,1.15095901317119,0.8575057492518635,0.917852853130609,0.9646741626062136,0.8860582035058417,0.917500501362261,0.7797683373925876,0.972056567284024,1.0433927352631893,1.015546212636333,0.8756664547645977,1.1885151997345262,1.1123099972579589,1.123319665099832,1.1663224511257595,0.9444028907198453,0.8894290415766738,0.6912525298326222,0.7149833914154933,0.7093910980552265,0.6119074194680107,0.7846006691304822,0.8669321830454793,0.8931022953727086,0.9067770233083767,0.9282463142937872,0.7087145969993844,0.6423436696971491,0.5346570957164976,0.6716797525606976,0.7810935987447345,0.7099198123732006,1.0985369634199846,1.1598639402964472,1.204072859091177,1.1316262147900253,1.2691423482021236,1.2876627858255438,1.2743921139115704,1.3376751773132372,1.3544719340023255,1.1531851585933632,1.0756003811825283,0.9824240530443055,1.0655781060063128,1.280962716085055,1.1658799509383462,0.9008433493121876,0.9845631112325909,0.923207468557312,0.8410210163842516,0.8926796793923338,1.0972006653297288,1.159736129470838,1.1608549521796423,1.0657896086939482,1.1577140709173401,1.0494080283664688,1.025316697415974,0.9106086371213487,1.1010425695675894,0.9786264915686677,0.9363498331286225,0.8864735134227081,0.7924938737933565,0.8511896322206934,0.7005649363192539,1.0186586965220492,1.1013705325638599,1.0107463034807498,1.0605793039655262,0.8510051938736919,0.8565482181406953,0.7761163894674564,1.0256326974117003,0.9517243981321479,0.7795119178049812,0.8415591541894129,0.951757164406972,0.7483961584615462,0.6528514532418541,0.8470358788150597,0.6907754483187717,0.7288577776219449,0.6047794556695856,0.5697952351503129,0.8943117912674527,0.9273619034659555,0.8000815770907371,0.641998395636625,0.6336972463250885,0.7829159341845076,1.069992897172687,1.0296350615630765,1.1943670876242363,1.3077866989689106,1.2428369603451612,1.1692226648504556,1.283709667331364,1.3977203082162037,1.3324384488598338,1.1727276836503857,1.2680667924048799,1.3609518507280118,1.1534342373971738,1.2679900788255403,1.0973887232881518,1.2571355615048048,1.2743867427119604,1.461114543764451,1.260048272884813,1.143649496130698,1.3878777936115272,1.5199205012105077,1.4207144047978113,1.4973986176032086,1.4240995365493243,1.5057096200795157,1.519627553053708,1.3420971872409242,1.5974038280910685,1.3978016204025523,1.5159831166606046,1.6118911036419303,1.518024278461975,1.5276356404588107,1.4102640355621359,1.559865997449781,1.4863641478453389,1.5760737070327646,1.7094915442902903,1.6510124045566712,1.7006535126238975,1.7653409500716855,1.634550867975665,1.7301025721037473,1.4686919145961144,1.0638910376537627,1.1681755818369088,0.9662599339722212,1.1012174807911472,1.1891705596759452,0.9945622403851859,0.8432552223378168,0.9031325262662177,1.163312705165727,0.8512168055201922,1.08534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**Average atom-center of mass per all atoms in the structures =** 1.1558107948679273

**Radius of gyration =** 1.1986510771507994

The structure number 5:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.1551189221210615,0.2205771066996751,0.22400305801484097,0.151180752743198,0.2182080200175966,0.21604133863684571,0.15280998004057167,0.21106212355607495,0.20937387611638641,0.15594188019900243,0.2168159357611888,0.21987876204854329,0.24934303679870445,0.23537138738597807,0.241643580506497,0.24460419047923088,0.35447304551968406,0.37602184776951475,0.37021580193179277,0.48443259593053817,0.5145730171705472,0.5012275132113165,0.5859148402285096,0.35921525580075236,0.4343223227051543,0.35876555018563333,0.44367368639575644,0.40372086891811726,0.4719715033770579,0.5690367826423879,0.3336550464177033,0.3107364478138985,0.40916314594547704,0.44276700419069137,0.4946800278968213,0.43281603482311043,0.556737406682899,0.3539488381108205,0.36844199000656813,0.38553038790736066,0.4824699265239233,0.4850758085083195,0.5136269560683123,0.5994341581858681,0.6334393814722925,0.7544542265770671,0.7430183174054329,0.8465424502055408,0.7219026873478174,0.8184062866327462,0.8537893299872047,0.9055890955615583,0.7531572146637115,0.8704759617588536,0.8480362551212066,0.8962302550126288,0.6634608428535927,0.993736609972683,0.5914130451723227,0.7148014969206489,0.8360098264972726,0.891507234967838,0.9812718379735554,0.8279848126626482,0.9542581254566291,0.9460879980213258,1.0371368906754788,0.9924332017823668,0.8130981552063686,0.747040969425372,0.7953920857036483,0.938469631900788,0.9423798437997281,0.7390692660366821,0.6737513562138486,0.8129336811819279,0.8968074988535722,0.9138348373748949,0.8666345596616835,0.814633297870889,0.7733890935357185,0.7800046666527067,0.9203262953974528,0.9074160401932513,1.0032068879348868,0.9369396618779674,1.0239154408446043,0.8721288551584566,0.6709080637464424,0.6529643864714209,0.7928043201194098,0.8691006385914117,0.9696215447276321,0.8328600422640045,0.8832760553756678,0.8663397081976559,0.9805017593048978,0.8981422827147151,0.8154691594413608,0.7796325801298966,0.7723006927356726,0.9023179816450511,0.9551618344552922,0.6393725909045521,0.9949013368168722,1.062979811661538,1.095714146116586,1.0164061688124484,1.155586054779132,1.1983579849110195,1.2050590483457642,1.2479024080431926,1.2657821850539686,1.0837834516175266,0.9869189885699837,0.8895089150761782,0.9823294406664188,1.1858047773558678,0.9889167002331386,0.9788721111565082,0.939190108550979,0.8018201419271027,0.7282646359668984,0.8198146497837174,1.0543123825508258,1.1507272656889642,1.0460627992620708,1.0615224020245633,0.9722973876340507,0.9597060956355331,0.8898006349739246,1.0624458856807715,0.7847579818007586,1.0923841128467582,0.6040460247365261,0.5858716753692743,0.7268452448767894,0.749664038086395,0.8053024835426748,0.576432702056363,0.49491795279621886,0.5759773433044045,0.6658427592157173,0.48050650359802616,0.4723477532496581,0.5067145744894261,0.3817497347739747,0.7583625056659907,0.6022295409559385,1.1117530076415354,1.167145860636108,1.1516920551953111,1.0452007701872406,1.209269643214449,1.3258051629104484,1.3572216031289812,1.3604384734342085,1.3762120367152728,1.185250188778724,1.1107664606027678,1.0030979264259299,1.152217561921359,1.232108209533562,1.1793368984306394,0.95253289182054,1.081577380495727,1.1470254835878755,1.1785216417189797,1.0924928191983685,1.0667343718095896,1.0355858679993661,1.1682179334353673,1.0086179901231185,1.3080963687741054,1.186069521571143,1.2597299115286578,0.8835832728158679,1.1547375502684583,1.2061829421775125,0.9858284384212094,0.9206595624876768,0.7845356397258194,0.8078072109111185,0.715650710891843,1.0154467292773168,1.1156756069754328,0.992310410103613,1.0262617892136492,0.9226390897853836,0.942058559750932,0.7437190665836125,1.087652324964187,1.0486175184498872,0.8850705565094797,0.8660141453810098,0.9726472844767522,0.7610980620130372,0.6735688903148663,0.8603229451781471,0.6908101692939967,0.7508056273097591,0.6303420658658286,0.59504831736591,0.9309567390593404,0.9294706342859901,0.8227786215015558,0.6314694687789743,0.6358507372017433,0.775252545948738,1.0917254508345955,1.0577558272115544,1.2130140106363159,1.3337926712949055,1.2448191876734547,1.214109834405438,1.3228581292035815,1.4202106639509509,1.3590701931835605,1.1702194067780625,1.2621001941208951,1.3741892664403985,1.220170164362332,1.3119241060366256,1.1464663667112087,1.3517131574413264,1.3104682636370861,1.4604504236707248,1.2989906427684537,1.1651040726046749,1.3908090127691868,1.4512274287650437,1.3647729664673172,1.5602652242487494,1.3793202746280502,1.5366596532739447,1.5472507779930178,1.2401896185664512,1.6101559272318944,1.401606496132206,1.5953126621449483,1.730003988434709,1.4602975518708508,1.6233722740024852,1.5514391061205075,1.6073189229272458,1.6037261923408244,1.6651795008346693,1.6962913989052708,1.7675356912945213,1.7081071394968177,1.8058887258078777,1.6696131677727035,1.7174707683101917,1.4664935151578413,1.080957094430672,1.172057481525544,1.0006721940775611,1.104659354733395,1.1825154079334448,0.98988828157525,0.8077904059841269,0.8891056967537667,1.1311030633854735,0.8619374049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**Average atom-center of mass per all atoms in the structures =** 1.146597848481255

**Radius of gyration =** 1.200506721819015

The structure number 6:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.15718256900814467,0.21658047003365757,0.22446275860373804,0.15560774402323263,0.21638220814105713,0.21204030277284533,0.15138725177504214,0.2140182468856338,0.2036413022940092,0.16000959346239205,0.22519611453131244,0.22174584550786994,0.25014787626522045,0.24168934606225354,0.244275193173601,0.24912603236113298,0.3649627378240142,0.3964171540183397,0.38557569944175724,0.4900749432484789,0.5204908164415583,0.5101664238265787,0.599122633523388,0.33060269206405396,0.3928776527113753,0.3156510731804983,0.44973737892241045,0.4397601846461319,0.49478488254998276,0.5422706427606054,0.35148694143595155,0.41401346596457456,0.3421421049797876,0.45505126084870906,0.4448607534948436,0.4927807423185285,0.5726385072626534,0.37380012038521365,0.38934821175908835,0.42433672949675294,0.49083003168102946,0.48875483629320793,0.5073627794783537,0.6102820167758513,0.6444010397260389,0.7552183459106382,0.7307697859107201,0.8311647429962363,0.6963915637053626,0.8339043290450052,0.8770631790241794,0.9217510564138238,0.7881760843872394,0.859985732439789,0.8214228204767628,0.9041817239913664,0.6498563148881454,0.971390436436349,0.6230524295755538,0.7167082739860063,0.8504843208431301,0.9027997009303891,0.996449481910649,0.9227332171326663,0.8496208213079529,0.8294211174065923,0.954110585833739,0.7943440942060312,0.9584049561641471,0.9800223517859171,0.9425248537837081,0.8282275411986735,1.0778139403440652,0.7122489803432506,0.6065718506492035,0.7536762036843139,0.7852364994063885,0.7794049204360978,0.7311544296521765,0.7965266724975374,0.745540347667381,0.7905169574398767,0.9025953910806319,0.8579986538450977,0.9542511304682847,0.8612299692881107,0.9274646408354335,0.8450008579877301,0.5782400712506872,0.6563166461396512,0.7151654563805496,0.8365785856690334,0.8892031657613463,0.9091576045988949,0.6334063861376835,0.5520001268115796,0.7071862413819999,0.6188771364333961,0.7741267338104274,0.8443562873574165,0.7047145095710746,0.8324297267637671,0.8451463482734813,0.7317611222250059,0.9830384987374606,1.0678318594235707,1.1593770827474554,1.111657487718227,1.209552491626552,1.1690090076641841,1.1210033630636442,1.2455337851700374,1.22361085725814,1.0969820098798342,0.9981778198297138,0.94270972202476,0.9380209112807669,1.2683260464092032,1.0484149321714187,0.8984706172157217,0.8827182902829195,0.7835968733985609,0.6851192377973342,0.8276417159616835,1.0274278028163342,1.0937431371213264,1.0516956641538464,1.0681653664110256,0.886451803540384,0.8689531517866773,0.7879002157633921,0.9539048380210681,0.805781794284284,1.0060981512755105,0.5533421726201605,0.594854284678189,0.7348408331060543,0.7364555519513717,0.7966029249255868,0.6372252819843227,0.5648547955005779,0.6886745312555124,0.7168233324885568,0.5831304056555447,0.5041478850496153,0.5045533173015513,0.40849335367910206,0.8111065712962753,0.475489537214017,1.090319003778252,1.1494820311775216,1.0941938128137987,0.9881355878623131,1.1170439740672702,1.2949706174272841,1.3493052360381623,1.3394869988170846,1.3181851387418992,1.1996223280682972,1.1354602458915066,1.035766402235562,1.2042838369753206,1.1710661894188563,1.167649001198562,1.1777802341693466,1.278242332267243,1.254575824731212,1.26136634250324,1.1537526858040248,1.2855402405214704,1.33568086757279,1.3641961552504098,1.1956508436830549,1.5228967758846959,1.420221693961897,1.3536433614508663,1.2157140864528966,1.4520681182368824,1.4194447823004603,0.8863969934515801,0.8412978426217439,0.6877978045908555,0.6614879741915194,0.6372582914329168,0.9100618715230301,1.0147111214528006,0.9055161732404341,0.8830748212920585,0.9431810112592393,0.9347668907273089,0.6752374026962666,1.0011404147271252,1.0312706773684592,0.9222529425271575,0.900152831468079,1.0141787712232986,0.8360450047694806,0.7442118381213783,0.9582607995738945,0.7711538692115857,0.8176911703082035,0.6626144655831172,0.7122955074967136,1.0078091783666192,1.0356654817072937,0.9611870577572295,0.68742217741356,0.7448338740954252,0.8584071644621801,0.9652034707770166,0.938938863824477,1.0787855254868772,1.2118100593739927,1.100869242916705,1.070655075175941,1.2156790900562533,1.2979182524334876,1.2448409054975653,1.0188280767627087,1.1308716726490236,1.2177126836819925,1.0784679781987034,1.1588203916051871,0.9850404407941836,1.415859064313959,1.3234767168333563,1.324019346535389,1.3130248436339655,1.2582356297609758,1.2425239836719446,1.0699124683823438,1.0968102525049626,1.4431445561689236,1.1129385697332985,1.3435475875457479,1.3561330465702837,1.0097297311657214,1.3131374832819296,1.2526310310702031,1.5233408187270505,1.6013407070327041,1.3907905593582375,1.5101244485140948,1.408090767670891,1.4987132814517927,1.417579913091322,1.5045348583532383,1.6483152186399295,1.5961613139028272,1.624373260676252,1.713896154963888,1.517042534011489,1.6233852346254716,1.3760316202762197,1.2749065455946174,1.3382034000853533,1.1635951400723537,1.27493364533218,1.3407413583536534,1.1332252291579112,0.9383304162180833,1.0389880894408758,1.244485889835638,1.0331015293764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**Average atom-center of mass per all atoms in the structures =** 1.1471153929863513

**Radius of gyration =** 1.1986834230076053

The structure number 7:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.1550376405909226,0.2162373464506079,0.2207071589233121,0.15433178544940065,0.21726723176770035,0.21440522381695803,0.15025904298909945,0.20763020011549374,0.21502304527654692,0.1495329060775588,0.21589955998102459,0.20708691412061736,0.24486394181259122,0.24844961259780587,0.2409665744455025,0.23906712446507616,0.35332973268605633,0.4380816019875751,0.3737516421368607,0.41245176687704943,0.43760792954424393,0.3681538129640922,0.5455516565825824,0.36994782064502,0.38135423165345833,0.4433904487018185,0.4674284651152515,0.4951993840868543,0.44942008188330834,0.5947527721667208,0.36133354397287826,0.3697250464872508,0.4286124706538527,0.46131233454136034,0.49979537812989017,0.4412671413101139,0.5893095366613373,0.35491122833745364,0.3654791649328324,0.3843281280364479,0.47885945746116415,0.49293856615201065,0.5013719776772535,0.5760666454499864,0.6328366060840664,0.7347826141111394,0.7218819709620127,0.8203680271682944,0.7191627145507475,0.7673417621894433,0.8149088292563776,0.8544740429059269,0.684466894743639,0.8701984658685626,0.8703275992406534,0.9036394967020861,0.6269715224792904,0.9763705956244277,0.6476609915688916,0.6567203438298531,0.783112054561798,0.8374379141166233,0.9334123472506675,0.8468454640605928,0.7860616578869629,0.7760134663780008,0.8919773876057627,0.7298933963257923,0.8980161746872941,0.9022308019570165,0.8815213780731587,0.7744915299730531,1.019953753853576,0.6400603565289764,0.6411783683188316,0.7983798657280877,0.863680942246614,0.8522997418748872,0.8367872429715925,0.8639942650272625,0.8493175260172128,0.8356506686409095,0.971392871087697,0.8612646689607089,0.9700438443699333,0.8443002664929103,1.0052463379689573,0.8375210922717108,0.572516200644138,0.6332498637978534,0.7658553975784202,0.8289587504815908,0.9283592300397515,0.8580614779839496,0.7666390219653577,0.7548508793132589,0.8710208608294064,0.7118927166364327,0.8769614358681915,0.9065873868524754,0.8549428577396271,0.7700226814841237,0.9956795719507356,0.5939899662452222,1.111318302737789,1.2268746798267542,1.343635936554244,1.3805502743471534,1.3078731781025255,1.1883954224078785,1.105360212781336,1.2785536555029673,1.1630589494948227,1.3651296092312994,1.2678533708595803,1.3104899885157462,1.1884084272673265,1.4523799847147443,1.142622194778309,0.8419956413188847,0.8050186830130093,0.7236720527973981,0.6316238437551261,0.7895562867839127,0.9397112641657543,1.0038632825240696,0.9298444332252572,0.9901615322764261,0.7486094175202445,0.7475802164316546,0.6551971306408475,0.827976243620552,0.7139437933058874,0.9603079193675329,0.6256250394605377,0.6893213836810804,0.7373531650437257,0.6534976817097363,0.8022821137230965,0.8177044820716097,0.8151861505202348,0.8739561259010655,0.878582699579271,0.7091782357066521,0.611827295893212,0.518884582542206,0.5995724643443857,0.8279330709664882,0.5886542448670522,1.0980467294245724,1.1786695423230378,1.1838324965973854,1.0838550318192928,1.2234982059651738,1.3287430488999743,1.3450362857558897,1.3799971521709744,1.3776520642019885,1.2270873359300876,1.1361854998194616,1.0298202318851575,1.1587443592095712,1.2684145418592452,1.1412937790069653,1.1274168749845823,1.2698890148355488,1.3670989174160006,1.3558597493841318,1.3489466446083036,1.284786227354575,1.218126930988721,1.3868755027038302,1.260331519878798,1.441337923597378,1.3072631946169069,1.4995737994510312,1.1130004222820407,1.244644696288865,1.301808223203403,0.8443040743713137,0.7925943035374409,0.659918426777129,0.6803584496425399,0.5816869089123468,0.8978275613947265,0.9918766102696447,0.8848111945494367,0.9109525454160614,0.8036846209801459,0.8068124999031688,0.6316970872182337,0.9654220734994623,0.9084934176976744,0.7515841270277072,0.88804021305344,1.0137853224425768,0.812102487374592,0.8682251666474542,0.8804748094068333,0.6615446772516577,0.9753459745136592,0.8523371692000762,0.8321042602943458,0.9875691570720503,0.8644117074635209,0.8579652906732298,0.6227447470673677,0.6219493307336215,0.6400087890021506,1.077893802746819,1.0636327655727793,1.201888260197261,1.323132755999941,1.2384153665067306,1.1890577530128636,1.321924604506626,1.4097891970078362,1.3504778006320568,1.158369656025226,1.260773865528628,1.3583333206543962,1.1796080069243338,1.2892597604827347,1.115764392692292,1.4024254561294869,1.288235331762019,1.4819203149967273,1.305945186445434,1.213360185600302,1.3242507051159156,1.2416195431773775,1.20412023486029,1.5258397065222806,1.1909720903530863,1.4425892485388898,1.417577909675514,1.0784725541245819,1.4719672720546466,1.3834372193923365,1.598538898494497,1.66258508955181,1.522235885137385,1.5805847683689724,1.4558311921373297,1.593601098142191,1.502241711576402,1.5958007331744148,1.7446524324346087,1.6771012163849863,1.7304976422983065,1.8142951331026598,1.6328959734165553,1.7549732875459947,1.485702840409212,1.1689470218962021,1.217519272948071,1.0505294093931876,1.1613570338186272,1.2381664831515995,1.0247949502217506,0.8470465512591382,0.9460957086891368,1.1361764431636487,0.9378889379878624,1.06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**Average atom-center of mass per all atoms in the structures =** 1.2024980173650057

**Radius of gyration =** 1.2700231462824736

The structure number 8:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.15049574744822547,0.19676430062386818,0.21885931554311341,0.15439967616546363,0.2161010411821282,0.21636175724928847,0.1519030282779118,0.21597696636447172,0.21716304934311498,0.15544860887122833,0.2229689440258446,0.21661703534117513,0.24942493860879292,0.24378125440648576,0.24638656619223373,0.24596467226006288,0.3555047960295333,0.43865130798847524,0.35101991396500565,0.42893768778226987,0.4729479675397708,0.3849651153026727,0.5456741243636168,0.36020012493057246,0.37098801867445735,0.4477210962195099,0.4149631911386837,0.45392529120990827,0.3714543444354904,0.5415932975951605,0.3705839446063469,0.42863725922975937,0.38539535544684494,0.46412637287704306,0.4509712407681889,0.49333012273730004,0.5866698645746173,0.37006662913588995,0.3856615096169179,0.41166386773677394,0.4767548321726798,0.48153879386815773,0.49950729724399406,0.5947156799681678,0.6039310391095989,0.7090494482051303,0.6760050443598774,0.772846543629458,0.6616284833650983,0.7704399068064945,0.8146257668402099,0.8501879498087465,0.7000893871499554,0.8309130760795621,0.8050921748470793,0.8791903377540041,0.5853248158074283,0.9353170852710859,0.6076355322066017,0.678262788305536,0.8079893130481369,0.8123752888905472,0.9138977240369955,0.8062621720011427,0.8694538285613562,0.8927699087670911,0.9632101899377935,0.807517188671548,0.916930188182285,0.9001248413414665,0.9478475457582828,0.7363987642575184,1.0348614641583673,0.6622329726010326,0.6032441711280764,0.7470056358555803,0.7756207449520676,0.7563730957668975,0.7294037153730435,0.8025585897615198,0.7475690603549611,0.8106839704841833,0.9078479167790161,0.8449877750594977,0.9431220281596651,0.8358358331634271,0.9161726311127176,0.8551432219225035,0.5759330343017321,0.6077785945556161,0.7307353145975638,0.7789344837661251,0.875631303688944,0.8117435186067086,0.7225150863476832,0.7162459773010944,0.8231916484027275,0.6621993430984361,0.8443303737281987,0.8762835442937408,0.8329468530464594,0.70699073544142,0.9597221368708756,0.5747513288370898,1.077657338860549,1.19458897533838,1.290342826538746,1.326693152164433,1.2537359331214848,1.1627421425234399,1.1013937079900176,1.2608321141214642,1.1255995246978385,1.3826119665329095,1.2722597965824436,1.3018987902291024,1.2121026524185154,1.411263030054993,1.0868725914291886,0.796529955494456,0.7712018283173349,0.6895945330409748,0.5909077931454281,0.755945209654774,0.9184626448582436,0.9921035278639019,0.9294209918008092,0.9544891041808703,0.7767802778134884,0.7518117650050442,0.656508720429516,0.8392078407641337,0.7157784573455672,0.9071851685295566,0.5949790752623149,0.6674323711058668,0.7339195391866875,0.6709159485360292,0.7912416824207381,0.7931253936169235,0.7773932917127595,0.8605063509353085,0.8594348957309093,0.7105540373539511,0.6001279030340119,0.5221818361452258,0.5645496080948065,0.8378296127495134,0.5784338855910848,0.9523213008223639,1.0434198435912554,1.0115095352986052,0.9110073161067368,1.0307601757926037,1.1893837648126866,1.23671152254679,1.2579383331467406,1.2091328876513114,1.1522373800567312,1.048140415211626,0.9512819613553071,1.0874921333048806,1.1164041114220242,0.932156413913459,1.1406734019867388,1.2064599205941324,1.3563272245295381,1.372570366137926,1.39621563162715,1.1979113406258413,1.0940337700455138,1.256148980017896,1.2475667316821175,1.2327869888995424,1.154932504521368,1.437667398948728,1.183202176299554,1.0544624317632183,1.1673307414781813,0.6764747297571434,0.678713164746346,0.5432098949761506,0.4816021283175564,0.5040942074652315,0.753084995203065,0.8519066028620743,0.7702365480811725,0.717436903148981,0.8270752928240577,0.7805393391751632,0.5782422156847424,0.6604578184865407,0.8753355071057046,0.7614148081039668,0.907670325613876,1.0227012564771787,0.8409900237220415,0.8446048543549817,0.9416988159703715,0.7092226519225114,0.9485108381036035,0.7948459221761156,0.8060725339570877,1.0323894759246626,0.9610197760712315,0.9228229353456705,0.6431232696769725,0.6797159259573076,0.7293377955378426,0.9642918126791287,0.9431283369722275,1.051857599677827,1.1825335597774804,1.0936947746057855,0.9892880571400827,1.1546180017650858,1.2470461338699539,1.2496071942814664,1.009503551256755,1.1536149834325138,1.187871819684262,0.9604058829474131,1.066487740201452,0.901215961909242,1.2425058269481075,1.1086942815763057,1.3031523395213622,1.1361539684391375,1.070512564148595,1.1275476575293837,1.0354025593941711,1.0013323574118633,1.316567795443896,0.9861536797071742,1.2248937709042362,1.1963447872582555,0.8913881926523373,1.2391854542400018,1.2080334308287994,1.5147547062148379,1.5779661751761347,1.4315264510305072,1.4947685941308777,1.375138934798953,1.4856647872248971,1.3766844409667742,1.470820379924075,1.6421620078421009,1.5505420826278784,1.6271466344493974,1.7065169966923854,1.481445625056823,1.6468665671510856,1.3876788317186362,1.0557980583425979,1.1942661219343031,1.136697013280144,1.095039309796685,1.134273467907982,1.0175427804274375,0.8394414154662612,0.8749069664827226,1.2106365185306447,0.8151858745096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**Average atom-center of mass per all atoms in the structures =** 1.156520115413411

**Radius of gyration =** 1.2199377789883374

The structure number 9:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.1554308527931306,0.21216524220522057,0.2180551765035628,0.15017260069666438,0.2068704425479871,0.2111808229929977,0.15438228525319925,0.22294512777811498,0.221584250342844,0.15317901292278868,0.22229352217282466,0.2165435291113544,0.247855381220582,0.2423731627057747,0.23844301205948612,0.24488452380662995,0.3367556532561846,0.3890028406065946,0.3166016582394977,0.4540985465733177,0.49669671833021,0.4440055630282124,0.5642712911357443,0.3620315041539896,0.42748929811165987,0.36566051195063365,0.4678503820667457,0.45587727515198656,0.5019962748865772,0.5775578066306432,0.3663234909202519,0.36976841401071553,0.4442576167045421,0.43998955669424733,0.46733676294509585,0.4045829951938172,0.576450752449852,0.36673723563336197,0.3749236455599993,0.43001220912899707,0.46389111869058197,0.44251153657277636,0.48961821861528,0.5899369203567448,0.6005340539886139,0.7037868214168267,0.6736781798455403,0.7682023561536376,0.6586071211276113,0.7725123299986866,0.8165449405880851,0.8584652817674107,0.7052726210480597,0.8247647058403986,0.8071135050288778,0.8644209911842728,0.5686613491349666,0.9300549123573293,0.5597590195789612,0.6909822935502761,0.8225861231506402,0.9029147911071123,0.9970547978922722,0.9229293201540407,0.816743264435037,0.7759965077241006,0.9204705915997536,0.7748275356490631,0.911463246653424,0.9330997481512892,0.8758955531340479,0.8558917922260965,1.039547521761271,0.6846607919254613,0.6449995813952132,0.7935196909970166,0.8502511864149325,0.8487263163116838,0.8044658662740143,0.8320159914328571,0.7822344277772493,0.821462920648278,0.9338920387282464,0.8953437384602624,0.9934319553950336,0.8874474745020123,0.9902042264098858,0.8953617257846119,0.6262421336831301,0.6267829448860277,0.7031534896450423,0.7444858830092084,0.8203100999012519,0.8105579868214249,0.6468506705569687,0.6512937048674742,0.7314884072902323,0.5509663056848401,0.837374593595961,0.889220169586813,0.8454633108538782,0.6576584295818011,0.92439466679552,0.6404426594161259,1.0512877626986823,1.1758311485923483,1.1469299019556516,1.1072597888481277,1.0836324330694427,1.2647640096081174,1.2858162738120875,1.357812406041424,1.225017771299666,1.395334243111664,1.267977026605767,1.2221472129003126,1.2990827879700362,1.2720622233208565,1.0697692741895335,0.7305666636248882,0.7301761157419494,0.6192065325882792,0.5241288963604278,0.650169462524964,0.8513836326827061,0.9421328197234192,0.8749620906073594,0.861111903297127,0.7757553029145214,0.7466370604249434,0.6726157744210292,0.8384961478742767,0.6445867746083533,0.8267281657231723,0.6248831090692086,0.7080924092235424,0.7415868458919694,0.6690743232257533,0.7899302627447563,0.8407554876419185,0.845597835853428,0.9087873403607684,0.8876904584369489,0.767805815294467,0.6588670579107748,0.5726845204822641,0.6558172077644814,0.8498075429178075,0.6358438173010729,1.0539101764382015,1.128844728029502,1.0885088378143744,0.9859961308240512,1.116088504555082,1.2738404374174968,1.3148020763597836,1.330451073884342,1.2906485230301858,1.1996792821416893,1.1258345393529192,1.026200292340633,1.1768407921210071,1.1677064057373325,1.1205508913030229,1.155460739272434,1.2555380161508454,1.348906408910566,1.3978727159509199,1.2985659821510804,1.1939413260290477,1.1473345109426463,1.2738223581017882,1.1383785222850968,1.4491406211958864,1.3485709065525622,1.4665322533105098,1.1832232460529166,1.287267765462959,1.3959840758404085,0.9013558953044021,0.842398652657992,0.6994900285207791,0.7223178663164853,0.6354479128929447,0.9420526577638851,1.0384926383947075,0.919919914992604,0.9525427654441556,0.8337153471059526,0.8627200820660197,0.6493930858886625,1.023912940635091,0.9689260910926076,0.810748209988773,0.9449491996927666,1.067063475150377,0.8741786201915487,0.8150430786160939,0.9908822785780355,0.7798248585419674,0.9061228724626701,0.7387982200844829,0.7739517814437792,1.0707130988271325,1.0466090865265785,0.9730207140652253,0.7054963430096576,0.7449401720943766,0.8459120817200799,1.050416307946521,0.9988769543842728,1.1885480469884255,1.307162484161782,1.2222297042700283,1.2119372384740061,1.2925250751919672,1.4009283993123987,1.3333544015002166,1.1522648350097295,1.2218810785015046,1.353074484276457,1.2090658873692535,1.311759208086606,1.1432174290133963,1.4969341735694328,1.4109292540733573,1.5080828889686404,1.3993739528803586,1.3055207849743335,1.391708694375371,1.297239858314568,1.276100470182501,1.6116326814755275,1.2957157751605866,1.5245660234965226,1.5277566461972931,1.1468620710442907,1.5259504874012133,1.4035727305700973,1.5947609664147169,1.6968819935399166,1.4786155754623984,1.5961565618697942,1.497235896577423,1.5939492651900813,1.5501477381204665,1.6261633866250949,1.686363288262645,1.7214388807041627,1.7103011021454673,1.8074205349060304,1.6413723191281127,1.7134908024264386,1.4627800313102441,1.277233028855737,1.3460295279079126,1.1749596248382324,1.2756629805712791,1.3352621540356782,1.1395083720622674,0.9375100319463253,1.0261017737047329,1.2511113859285272,1.0191271657649008,1.1723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**Average atom-center of mass per all atoms in the structures =** 1.1943071811518708

**Radius of gyration =** 1.258659436682258

The structure number 10:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.15522786476660713,0.21076539089708293,0.21961070101431812,0.15459230252506087,0.21062718248127402,0.20886708692371833,0.15300692794772355,0.22476816945466244,0.21936157366321016,0.15815637830957038,0.20544493179438647,0.21427853368921468,0.23938575563303724,0.2439118898290935,0.24072160268658865,0.24969231065453396,0.3389256850697512,0.41717054066652454,0.33561956140844973,0.4259800699563307,0.4647131696003465,0.39551709191892087,0.5432019329862517,0.3697848834119642,0.38575520735305735,0.4411904577390587,0.44305053887790274,0.4651690982857743,0.41088156444406293,0.578668246925646,0.3650564202969179,0.38488411242866283,0.44293712872144647,0.41470665536014706,0.4335246590449031,0.3801840738379237,0.5487668904006503,0.36067726570994174,0.38073245199220906,0.44388229295613923,0.43412827597381887,0.4098548035585288,0.462499740540468,0.5565653600431855,0.638187942537307,0.7489709273396401,0.7502003132497347,0.8450129999000014,0.7613211280399359,0.7778581683057656,0.8105049598861203,0.8696513611787201,0.7000387989247456,0.8789520407849337,0.8873503141375455,0.9039728922926837,0.6466634518820437,0.9896001667340201,0.6679103981822715,0.6275287881842557,0.7769399333281823,0.8549228854113105,0.9603590630592288,0.8341263992944956,0.8285893735741487,0.7981175101449657,0.9372899284639732,0.8044542560021677,0.8447734844323661,0.8431765236295424,0.811900468037801,0.8324432833532868,0.9862701658267885,0.5816491124380747,0.6666683508312059,0.805823988225717,0.8379448370865467,0.8192407338505577,0.7846672734350524,0.8455288167768147,0.7910766966609497,0.8599191822491229,0.9486768100886619,0.9133835667451004,1.0146391131826131,0.9047148998441444,0.9779392925943818,0.9235023064400008,0.6527014095281244,0.6444763067793882,0.7418491019068496,0.8123375776116729,0.8889091123393886,0.8721913264874855,0.6840614446085964,0.6473652832829387,0.772628118825609,0.6148323430009187,0.856352503353613,0.9067812856472062,0.8214364795892616,0.7293040929543722,0.952497118105876,0.6812990899744398,1.080026786704848,1.1820127833488097,1.2680369474112334,1.319868501025765,1.2065797072717575,1.1211293636329391,1.0672424935318114,1.2117595223475655,1.0606962854653539,1.3680372326804557,1.2615733866882262,1.3100431786777111,1.205304712510492,1.3572111736940569,1.121073106447568,0.7998723710692842,0.7539414367177325,0.6549887708961121,0.5631381446856534,0.7098805603761803,0.8797123734494131,0.9574130456600218,0.8846471047824659,0.9235411089929885,0.7179696372410175,0.7254485026519795,0.6439831830102396,0.8190656200818097,0.6445217606877206,0.9097173736936102,0.6046100230727243,0.6719274216758838,0.7201002291348064,0.6415631145881127,0.7814274950371276,0.8153862888226657,0.8193162210038314,0.86826300738889,0.8781678541144629,0.711148570975151,0.607173294867289,0.5161819059207708,0.6053397310601706,0.8106904341362368,0.5489692978664654,1.1027248342174945,1.1720018643329881,1.138611096907105,1.0319566415310288,1.173529599115421,1.3203342682820896,1.350500181414279,1.3882623203126991,1.351781764931011,1.2325891002276472,1.1501975569440237,1.0454289311091407,1.181629760119472,1.2244742422770687,1.1666004114520103,1.0537998576579901,1.1996561840794222,1.2681303008760578,1.2255786551666121,1.2705838225005068,1.2813038047239225,1.247825380411859,1.38474342027684,1.2867604633341825,1.353179914128199,1.2163431917020793,1.4168866256691117,1.0002134822126727,1.1891508398853363,1.172153121396689,0.9115490606654152,0.8690255002012315,0.7100357596628499,0.6627345622494731,0.679177892749757,0.936924810216914,1.0448188024724674,0.9291019965536622,0.9050631414437341,0.9451559236443486,0.9467676853378558,0.6900594032400409,1.0330860031962492,1.0495030967081524,0.9252119540948448,0.9715231906650514,1.0930876177141517,0.9148930866500196,0.863395164452524,1.0395662220368647,0.8032083540402205,0.9530180953161389,0.7826899130562507,0.8387994635191421,1.1142966391405837,1.080246513532907,1.0303643675904175,0.721348348580629,0.7804257555975457,0.8647935071449145,1.0362268477510126,1.0466431149154896,1.1305403398375489,1.2644502481315745,1.1629802620853031,1.088702130979819,1.2632485028686948,1.3419716278669978,1.3289270484116125,1.074251502209794,1.2141267685048378,1.259648383478501,1.0783495815365252,1.1666270783759476,0.9936399851052693,1.4698833457114895,1.3739830748593667,1.4222447398391034,1.3704617251131097,1.3043582445018704,1.3039733854645965,1.132682881480956,1.1542864679099376,1.4883784800916737,1.1478594818182237,1.3887528577828379,1.3936620322014945,1.0715947834886093,1.3504863938596345,1.3225211113626882,1.6250801610997532,1.729679363350329,1.442525261477247,1.6272764516209284,1.5537748549902588,1.584402994821709,1.5184009121440885,1.5819318126897888,1.7128690376091222,1.6841035271027733,1.694206823265684,1.7906520655895157,1.5477664552509205,1.6775435165741603,1.4424222717359847,1.3143044624439202,1.383694225614894,1.236386129006631,1.325956307726616,1.3856727102746884,1.1913672061963099,1.0025903699916536,1.0879454260209933,1.319736325937875,1.07138488882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**Average atom-center of mass per all atoms in the structures =** 1.1919593127668044

**Radius of gyration =** 1.250655183317864

The structure number 11:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.15551491889847693,0.20338891316883517,0.21881137996000105,0.1523182195274091,0.21502132452387165,0.2100342114989841,0.15399564928919215,0.2195629750208356,0.21570419560129084,0.15670960404518983,0.21747813683218872,0.21534103185412673,0.24746933143321015,0.24306324279907135,0.24772684553757987,0.24012390551546528,0.3451411740143444,0.42977603469714276,0.3317709149398117,0.41582258235935177,0.4625197184985736,0.3631431811283254,0.5328961812586013,0.3575301246049065,0.4231205383812044,0.3554260119912439,0.4616123698515891,0.4495095438363905,0.49856383743709326,0.5717245578073414,0.3500683504688768,0.39395513703974,0.34587457264158644,0.479992260354269,0.4812422466907905,0.5245815856470752,0.5786067749344113,0.3687875269040426,0.38242199204543703,0.4382569337728724,0.4488443048541447,0.41623259122754946,0.46307153874968393,0.5804898448724148,0.6076113395913538,0.7353018495828768,0.7343211899434741,0.8361061834480112,0.7238201572213917,0.790525559359089,0.8219814900592347,0.8863643945917505,0.7242397531204706,0.8482680590473748,0.8328758971179319,0.8625994493390317,0.651099662110187,0.9675996382802134,0.6005328134248782,0.6701197728764611,0.7898143452736218,0.7670264337035587,0.865873322143603,0.740246945282451,0.852451640857122,0.8856559207728477,0.9426970032836636,0.7839343403627628,0.9056793527512926,0.8814920362657851,0.9427656495651507,0.6757309301785736,1.0057593996577905,0.678238556851496,0.5988712215493419,0.7403977714715247,0.7674892572538066,0.7544976474449739,0.7258251442324115,0.8020740177814017,0.7564583465069311,0.8097123007587321,0.9030629822996847,0.8286913599163441,0.9278418022486378,0.8168864119325281,0.9088180235888812,0.8355326923585942,0.5532943249302315,0.6576491693904889,0.7564791338827526,0.8452448166064079,0.9303571034823137,0.8923188331532627,0.7130682576023142,0.6684458467220812,0.8078234770047229,0.6625790367948566,0.8589167480029712,0.8957150774660435,0.8176581804152643,0.7983041400368659,0.9731451844406362,0.6866557070322795,1.0857700401097827,1.1691651594193182,1.2408901039173452,1.2942123859707106,1.1786023460013983,1.1028117337061665,1.0773864534140012,1.1860783321518023,1.0346310163531727,1.3605630047888262,1.2740927556500743,1.326008404950738,1.2211683626756797,1.3378377666966947,1.1218057987013619,0.8920005941702059,0.8686489049092276,0.7649367751651112,0.6670277355552768,0.8170235063937882,1.0075106401423262,1.0812794180969134,1.0102254253383252,1.0531917109434543,0.8424114552877358,0.8412223190096659,0.7524094696373778,0.9318736824269692,0.7688461094393342,1.0117715404180927,0.6117221673276193,0.6976113029474217,0.7663827438036426,0.7040892130973179,0.8354697720444468,0.8129971832669531,0.7896757879028582,0.8798038588230899,0.875191281949266,0.7279732481348473,0.6258452444494561,0.5567784478587511,0.5926055517795964,0.8565194101711879,0.5413413525678598,1.0801378523133056,1.153250900715018,1.2341732212295,1.1749309213736785,1.3024542180053782,1.2619942432515299,1.2286042731490077,1.3268129672263531,1.3253782441250497,1.1404432997742588,1.0652685576886232,0.9816086592935089,1.02047101379706,1.3249394363517153,1.1291234520635904,1.1365205541476144,1.249906372493556,1.2020771273092257,1.1718129031547653,1.124958101442005,1.3135351194391416,1.3597692855775203,1.39724941939512,1.2504397706407133,1.4827763317506792,1.3685334157410989,1.3236579694165709,1.1799337142399142,1.3984932784965394,1.3474649865580923,0.7473752069743819,0.7118878352662024,0.6472761466329499,0.7191473492963735,0.5462510320356382,0.8530232939375104,0.9078418639829294,0.8640052372526454,0.9157118815435344,0.6290976553763336,0.6336937825164453,0.655020778296383,0.8445345996464563,0.7119745009478918,0.541605769910181,0.8826412238276666,1.004252657452297,0.8057373393358411,0.7419065507191589,0.9208955749703657,0.7260256538167225,0.8276371850031876,0.6735170821887152,0.6905095654659685,0.9872526981477433,0.975156525897253,0.9134478583914902,0.6570031202361215,0.6791157338775184,0.8065389575215814,0.9597405326441101,0.9058101677503956,1.1064397046382601,1.2003592837146722,1.1493920001461644,1.139919387500713,1.1868654262383755,1.3030236337073866,1.2019210290197941,1.0924281990135556,1.1425064507476534,1.28733269204196,1.1315539050350187,1.2455502920396269,1.0800078194161378,1.6303017665450772,1.6310082617816504,1.4274709279001103,1.5625662417958484,1.5082759197176094,1.4701420543607346,1.3350727695522815,1.3897298838263505,1.6270230238075922,1.469556293579801,1.5625191326828611,1.6267709181074024,1.3207321984414555,1.5050176444148424,1.3852865624122688,1.4509642965972667,1.581685664093849,1.257911169359745,1.4731576460107727,1.416394030628483,1.4380222738191504,1.452441303461176,1.5021136075543695,1.492872563214959,1.6080246360053074,1.5193452701739658,1.6200089228149337,1.506943200654889,1.512188834107698,1.2880269795310968,1.2594646084745689,1.2845302370905876,1.1228918870487932,1.2301709312124065,1.3103936011748534,1.0780536164773995,0.9092839875418461,1.017209270504354,1.1064818389833606,1.0367838926217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**Average atom-center of mass per all atoms in the structures =** 1.1790883189237045

**Radius of gyration =** 1.2356228714145028

The structure number 12:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.15256133192916224,0.2067140295190438,0.21205025347780182,0.15720970071849863,0.2210399963807453,0.21771251686570461,0.15630489435715067,0.21900162099856768,0.21870009144945518,0.1539575915633917,0.21009781055498936,0.2160986811621028,0.24553602586993137,0.25266835971288526,0.23063618536561015,0.24704495542309804,0.34040301115001886,0.39664687065449,0.32152737053009917,0.45091995963807097,0.4968990340099281,0.4296780655327889,0.5648402429005914,0.36488898311678236,0.4260664971574269,0.3647546298540976,0.46834903651016424,0.45617755315227837,0.5053446546664956,0.5873724968024975,0.3335493216902114,0.38011010247032406,0.32476990316222326,0.4593209444386358,0.4591214327386605,0.4975457566897744,0.5700335165584569,0.3669102069989342,0.37303686144937515,0.44571041046850185,0.4475440313533407,0.41871692108153524,0.4783479591259906,0.5718851108395816,0.6492522699228702,0.7737408416259285,0.7666681550710186,0.8638627900309168,0.7613557447080829,0.8266441374618215,0.8605997966534732,0.9248710612836795,0.7660952551739242,0.8876825220764458,0.869647940260885,0.9027315160112667,0.6741874590942785,1.0065395123888576,0.6403407061869479,0.6386926490887465,0.7850614052416544,0.8824981529725717,0.9820299231693508,0.8695333231107368,0.8316758322808242,0.7829306035658598,0.9373332598387839,0.8351806391434135,0.8162636216321294,0.8076275441068123,0.7593568989612202,0.8700738531871889,0.9578566489825086,0.6013385984617987,0.6933751509824962,0.8239989684459559,0.8768955468013272,0.9126742847259367,0.8212973943706382,0.822415497178889,0.75072929874889,0.8152175231188293,0.9237061166843045,0.9378779718065666,1.0329273837012933,0.9521929688881342,1.0038403309291768,0.9292029541494146,0.7098798842057715,0.6488325592939986,0.7568956136746999,0.877010136771521,0.9572644409984116,0.916084570331801,0.7182814629377546,0.6502640694364105,0.8131237236730956,0.6856654432009831,0.8200683873921741,0.8611630914060358,0.7631824224915036,0.8637059569089478,0.9229870909173112,0.6808213348595951,1.0489498987082277,1.1306825770303537,1.218523742074811,1.2817652554192607,1.1665450098474563,1.0507210714552182,0.9930158558653532,1.1338200959587907,0.9961151238687224,1.314753684155326,1.2284226634184179,1.2968614806524257,1.180826913649922,1.312619042220553,1.1098572926282015,0.9388346126981049,0.8831984035311664,0.8101520659728024,0.7247825673952157,0.8881589609974112,1.0119168197040707,1.0742124231268226,0.9950649476290484,1.070484703300332,0.7878297087569116,0.8182286538614989,0.7319834492664434,0.8927761365538401,0.7844467923320232,1.0576996218208652,0.6210648999903302,0.6799901249282962,0.7603552656488934,0.7072338863487801,0.8356769052690157,0.7834172196218311,0.7510757418529765,0.8313504074696778,0.8611291482698749,0.6815884021900599,0.5870893884239426,0.507058872321547,0.5465549743621396,0.8586459689534447,0.5525551375202291,1.1172500928619336,1.1967910176801964,1.2656164229338995,1.1953956918108744,1.3317186790009357,1.3118592531213091,1.2808973573241529,1.3757373477521058,1.380467026045896,1.2030598197928475,1.1103741261394735,1.0272918231933899,1.0722253774277115,1.3575413253378326,1.1664995156449918,0.9943419985095676,1.096257492562765,1.125380095789863,1.034605258057391,1.1608756608698458,1.2342400536362452,1.2349025629579045,1.300642249044679,1.2772248549100507,1.1542881962490998,1.0482004388474568,1.2330944854308612,0.9973598447902344,1.0406016240617735,0.9584483188988336,0.9065792519134777,0.8127949618446224,0.7111278998886211,0.7767844681763404,0.6541999464995399,0.9075419714812099,0.9898928982470784,0.8708538224064934,0.9462564134525062,0.7245492115791723,0.7761700522437078,0.6388165464356732,1.03108995727822,0.877203174868856,0.7179697834867429,0.9411276374647591,1.041447963174348,0.8527676647246887,0.7719283062564811,0.9602373092105925,0.7777789274594671,0.8521682991052879,0.6922027520892995,0.7112767534511438,1.0223749458980298,1.0310400622672231,0.9355054783377803,0.7184613977104122,0.7278359842711811,0.8607813950126939,1.028438282056828,1.0144990389349806,1.1014932818678467,1.222823903920757,1.162372285457632,1.0203567856392193,1.1940119304261572,1.2837028472352934,1.315665025756936,1.0959685077592323,1.2315417370109711,1.2475526682268765,0.9955964694593887,1.0947701767951112,0.9479147271775028,1.293676934168651,1.1847276353660359,1.3823212180965747,1.2059668735085554,1.1040460588218226,1.2500509109632292,1.2148598026109838,1.1544118026077175,1.453848812634931,1.150730680915391,1.3811002027369337,1.3679930043680775,1.0323895631010611,1.4285654552732256,1.2889879246913056,1.3921474706366417,1.518204548142311,1.4196725678831719,1.4367159531375713,1.3383238808300477,1.5010932582621237,1.5064954397541335,1.5706231565846718,1.563343202882847,1.6452403897303274,1.6065949240552206,1.6851047474860428,1.6411597697969564,1.6540308280077487,1.3968277345471056,1.2240351833178647,1.3030937418313386,1.1281109697188478,1.2469949518743042,1.345955236997129,1.1306257249859473,0.9657662294779201,1.0397288107963532,1.2839304147811124,0.991726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**Average atom-center of mass per all atoms in the structures =** 1.1507571963072987

**Radius of gyration =** 1.2029034942482215

The structure number 13:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.15407043843645066,0.2130971140114292,0.21746305433337443,0.15213845667680453,0.2145090674074175,0.21353362732834372,0.15142767250407016,0.2127841394465292,0.21179775730635125,0.15689725937695673,0.21847793938977034,0.2186599871947312,0.23937581331454544,0.2407500571131811,0.24433192587134378,0.24651316394870273,0.3420518674119469,0.4011960119442869,0.32937584914501544,0.46071046222112255,0.5039237045426618,0.4533490597762391,0.5739710271433569,0.37093310717702194,0.3773171080139356,0.42749570758078975,0.4689050543553566,0.4962478110782959,0.45519317877138704,0.5965217514894156,0.36585732191661796,0.44377297123641934,0.3703223865768852,0.43644328382964037,0.40327702637269125,0.46997308433568785,0.5680297175324538,0.3759598515799262,0.40294905385172425,0.4145257048724481,0.49085718900714914,0.4967015200298867,0.5230893709491719,0.6119745256136079,0.6433445577604584,0.7645023544764269,0.7662856973740275,0.8645439260095464,0.7619543162158737,0.7968921445214527,0.8231593952570792,0.8947012629922908,0.722194329803274,0.8817752264608029,0.873351847768126,0.8954738466309334,0.673644572456425,0.9978044748346241,0.6396790210722875,0.6954975629001154,0.7978832809377577,0.7779211785264624,0.8631468646759949,0.7896103722722999,0.8079340876581459,0.8389669719363215,0.8991194692586746,0.7276845126838967,0.9321750962131529,0.9405346830393873,0.9487543043380622,0.6661827001656532,1.0402835286593748,0.6919967051944691,0.7130382107573197,0.8509910516568318,0.8689727498604315,0.8581261503998114,0.80232964546999,0.8980798015766748,0.8318433626591006,0.9112659655665843,0.9974029777376843,0.9683246821185548,1.0550107155853914,0.9613172889322235,1.01171534039966,0.9946396835035288,0.7143787020901449,0.6634865258616782,0.751435559446051,0.8246149343784649,0.9026031963160775,0.8873870745058206,0.6976565774075378,0.6695529254659408,0.78410867231526,0.6278581607337756,0.8758470756930116,0.9303538789084501,0.8585106988267531,0.7539390293651073,0.9617757586880635,0.7076874804601248,1.0945034581946276,1.1973593529095596,1.3000786514669025,1.3510828286970418,1.2581770026510577,1.141537318706664,1.0809545596369905,1.2271530833600182,1.0848193674524802,1.3836332787267005,1.272143502125448,1.3236761613023031,1.2139885007692621,1.4035592541820237,1.1442883814843179,0.8486719861053499,0.8479881720873231,0.7911606284440597,0.6907578229741594,0.8583482277024863,0.9912348157727303,1.0512564434998724,1.00950860818519,1.039475064635992,0.828805646698911,0.7888646842139658,0.6832822623191671,0.8448194244925948,0.81469907327798,0.9495317266947954,0.6416030392696093,0.7373673507824987,0.7792078413363147,0.708075440895954,0.8098296302309518,0.8626885938738269,0.8582031577662713,0.943042867530421,0.8911754316631487,0.8212510273966179,0.7021014599044783,0.618176293625047,0.6886389547506004,0.8963648587489358,0.5789231727958383,1.0997344770443453,1.2057117109823559,1.2758482903543038,1.217290417279295,1.3173672267063576,1.3136241547718281,1.2758207397593126,1.3967588088141776,1.3596303357898427,1.2680656173873652,1.155200887291903,1.0899935687883668,1.1078518673541153,1.3952237777503649,1.120892813787295,1.0806784258048276,1.1891148010179675,1.1448499290300018,1.0588248816494639,1.110250651880016,1.3089323970320244,1.3521847432950873,1.383638626954307,1.2845175825966726,1.363484763391216,1.2536744633277015,1.2512698350076215,1.0580054867532593,1.3016655215530606,1.1775885656713896,0.7274270066474029,0.6768021276562302,0.5782573994338507,0.6350198500834446,0.47967449379761695,0.8064862615072872,0.880368928347656,0.7996093671287251,0.8412691245968799,0.6561703208771335,0.6477086150422888,0.5808512804496515,0.8371779619650771,0.744579915119929,0.5711141129406629,1.0366257087300121,1.1462806419023224,0.9806776126740122,0.8910377376968948,1.1069806050694835,0.917571937234351,0.9693250899466084,0.8065711313951176,0.8476680010475799,1.1493262852645456,1.1686515092190657,1.1016012254895144,0.829555670223524,0.8950195305131614,0.9961207256151235,1.0284455697799466,1.023982748878124,1.0814290083033649,1.204855634505645,1.1436959211258908,0.9765987814860304,1.165327014189579,1.2473872333802358,1.3084122171548227,1.0742953457964899,1.2234549930422447,1.199686804962028,0.9318504708374623,1.0335008272855906,0.8979345299073864,1.1506575250699054,1.0667248051864173,1.344535179904193,1.0881364804104308,0.9727864411061659,1.1811792962967138,1.2117607932261216,1.1269629142079165,1.3533238378156207,1.0929068258547934,1.312201299343969,1.2866284040079328,1.029925657511259,1.3840441792081637,1.2386611562489556,1.565367927996482,1.603988640857534,1.4776129466135577,1.5264747786976371,1.403244219656721,1.5172407389732188,1.384717808797157,1.4837291430716049,1.684969373608909,1.5613342531309558,1.655602536842705,1.739430582115883,1.4949878327264075,1.656311942237935,1.4280708035668257,1.3031671957197204,1.4317607830919243,1.3089254906219836,1.3524649570321592,1.4352242856083504,1.2764542059940889,1.1280772579925544,1.1621960979111916,1.454590530011797,1.0743597395658497,1.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**Average atom-center of mass per all atoms in the structures =** 1.1948486400743958

**Radius of gyration =** 1.2512475825927272

The structure number 14:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.15796993384818575,0.2205556845787478,0.2205686741130753,0.1516875077255869,0.2189148236186849,0.2075734568773183,0.1584498343325105,0.2179781181678565,0.21738146195110541,0.15174646618620113,0.21142906611911225,0.21695995022123293,0.2480952236541451,0.24853695902219453,0.23943211981687013,0.23987813572728975,0.3497057048433729,0.42370312720111003,0.3428191651585429,0.4378831807685705,0.48574180384232957,0.4046345758829816,0.5508842165101488,0.36684934237367783,0.3868876451891426,0.4294339646558015,0.47338836065116763,0.5063267225813783,0.45523586194411353,0.5918655759545406,0.3559831035316144,0.42389263970963215,0.3553548930294896,0.4432249541711298,0.4113478333478858,0.4825690520536928,0.5617507276363781,0.3639424405039891,0.37710933427853516,0.41076020985484946,0.4749613563228068,0.47397831174010474,0.4831236798170836,0.5988609354432796,0.6243061268320219,0.7525866063118585,0.7508849512408675,0.8495296581050015,0.7537006700275649,0.7863321626386656,0.8051137248861187,0.8779805578713011,0.7105072061562788,0.8789689186768782,0.877207877301612,0.89462453018012,0.6481675940680773,0.9966128134837525,0.6226377678875575,0.6917625821045827,0.7919444803772544,0.8386613738571727,0.9261568171751479,0.8869054628312986,0.7609757814805933,0.7565031262328002,0.8453151838219871,0.6796292518719305,0.9245945003081081,0.956518886379145,0.9195846344953791,0.747052461343914,1.0325877008758142,0.7171426217984814,0.7017469700682719,0.8469453229105172,0.852811520794601,0.8037771706138461,0.815627298464194,0.9336565214253044,0.8869852140819487,0.9535798288554559,1.0339394421338224,0.9295291818980188,1.0251085259620076,0.8841495857602378,0.9954391643892659,0.9603052118988005,0.7053451424657295,0.6700226936455214,0.7608447279175959,0.8747533252294617,0.9489844097771053,0.9302033433610097,0.7038763101568345,0.6363366247513967,0.7940165804314167,0.6598709949679558,0.8372859666804405,0.8958953342885542,0.7787503707864287,0.835841450276307,0.9352010425571603,0.7065249747885779,1.069957947771781,1.1579322303140198,1.2539493012079879,1.31606670043733,1.2060690734779669,1.0862387122543555,1.0277495803939798,1.1654646626989595,1.0263621436900334,1.335637630497135,1.253909952907305,1.318897259076688,1.2053270095704318,1.3371501187226515,1.1265466390700387,0.917448314620502,0.8935201676515198,0.8202015849777419,0.7222947666984716,0.882041722369186,1.0316349208901372,1.0910157377416698,1.0365600657945493,1.0869960487508683,0.8354614772687009,0.8358691943121238,0.74412007767564,0.9118634601737259,0.8269639048954918,1.0366642850990861,0.6084462507074895,0.6952237193882272,0.7791538615703584,0.7222012808075051,0.8405190896107005,0.8036109070937254,0.7683480070905373,0.871116720078315,0.8570349934512596,0.7392921546993455,0.6281426907956501,0.5614658760779677,0.5765924297109705,0.8729990664370727,0.531519877332918,1.099593038355555,1.1890118838766925,1.3038223383574932,1.2639866494548115,1.352250531521434,1.2563682979126782,1.190142201587693,1.3293662738312573,1.3149259979177539,1.2240400851279343,1.1252823467912398,1.0803237755413884,1.050850136794015,1.401491123767825,1.1414940078686358,1.1190799524609494,1.224574640436425,1.1703065453119537,1.1110282534661304,1.1141440256986528,1.3135885543045813,1.36162126158488,1.3911219536762403,1.264805135188816,1.4224672720312408,1.3116489050046893,1.2802839411630533,1.1039607964053797,1.35259920523413,1.2627426103525614,0.8196531339536257,0.7745237052537514,0.6776761837337948,0.7301026092269497,0.5891965546403002,0.9064187718709276,0.9791422879234661,0.9073834580815326,0.9495318478071181,0.716016438358785,0.7341422205540289,0.6644297178784225,0.919061613821402,0.822161322369278,0.6501366856284918,1.010222693271142,1.1307079419549506,0.9404934609023075,0.9119044412656404,1.052765999640946,0.8186826613529812,1.0095217233918248,0.8491314680307167,0.8674419865328169,1.1370449683279904,1.0851111095182835,1.0386718442318537,0.7470004551538106,0.781503915537216,0.8726223753720737,1.0222938667526085,1.0090133993163817,1.0797548147612033,1.2219060233913246,1.0837294173362648,1.01529446959983,1.2321675535413192,1.2836179805534043,1.2960490538556013,0.9863154718445818,1.1506075395198834,1.1523148918589916,1.0263684572316119,1.0822995934582993,0.913599786558644,0.902178457956074,0.9633315628588113,1.1399910657544647,0.9434020457895985,0.8668530094543134,1.0933734311752779,1.2801744607669694,1.1774264690416976,1.1425996105373049,1.178210214690061,1.1703768196610869,1.1861906802871114,1.1512077049776896,1.2695822777591061,1.1238278560349,1.5726790295543462,1.686223312613131,1.380454953991618,1.5835261570305683,1.5093407203146676,1.5502158559374888,1.5053437780121854,1.5717682430943818,1.6456011758624869,1.673076107055504,1.6533128439590614,1.7534385560948522,1.5577497648852334,1.644090344232944,1.4021236250773323,1.202279959077752,1.3463307877338322,1.2509195417771681,1.2704245077925729,1.3405469741862839,1.198700183532146,1.056798415025307,1.0930527617640424,1.4072371832779293,1.0114085524653231,1.317115279692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**Average atom-center of mass per all atoms in the structures =** 1.1847813405745151

**Radius of gyration =** 1.2481956294868848

The structure number 15:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.1573846561771508,0.21964214076538188,0.2167980857849071,0.14899694627743215,0.21023760367736322,0.21411830841850046,0.14951180555394247,0.21174326435568114,0.21268363829876452,0.15723647795597642,0.2140028270841308,0.2239996651783215,0.2502481168760316,0.24919167321561936,0.246912251619882,0.2517409382678949,0.351476329217203,0.40827130685366536,0.33994742240528875,0.4588388170152998,0.5104620749869669,0.444171183216561,0.5717805697992887,0.3621132005326512,0.36736412454130585,0.41559041134270647,0.473197474634005,0.5042199222561519,0.4613658634966396,0.5877348807072793,0.3679207659265781,0.3841009893244223,0.4536202927559566,0.4274535062436615,0.4440600972841401,0.386653604664433,0.5619069406939194,0.37015426513819905,0.4379387285911123,0.3708019012896244,0.46156102521768466,0.4923510231531972,0.435980377998827,0.5814612282861175,0.6023340269319003,0.7230641672770127,0.6984413003252311,0.8000945944074361,0.6647370457556877,0.7944828317842995,0.8196412446918467,0.889455164693533,0.7427276082117853,0.8317815638735931,0.8101258852795656,0.8683802508118201,0.629554485330698,0.944624904393273,0.5725861332585689,0.6669914916998569,0.7686776827773785,0.7675414321064371,0.858646498857359,0.7796420268302632,0.7880409507125883,0.8155375282597364,0.8794211789580693,0.7059338000124376,0.9093161936312368,0.9211894104905901,0.9411204280005828,0.6595677827183498,1.0139517049642948,0.6846456455714885,0.6997629455751425,0.8228277340974841,0.8028615198152167,0.7577483355309995,0.7457890385356976,0.8950474009794119,0.8429490435370339,0.9251324391674955,0.9861519406257839,0.9259030672808034,1.0195930756924547,0.8941331276717132,0.9324915656455022,0.9684735670115113,0.7279019233385773,0.660786205969828,0.7566168052587781,0.8178491181140933,0.8970876657272687,0.8712994950073139,0.7131284877215324,0.700591221754883,0.8055294221814621,0.6307342863678808,0.8838345150535817,0.9324598275529086,0.8640657208800728,0.7386528074812958,0.9909521582801059,0.7003161785936406,1.1041804381531128,1.209155515225399,1.3477299135954504,1.3566613468364168,1.3675672012738531,1.2233274704673316,1.13838460109051,1.3128751425783034,1.2486273343155676,1.2971616206163359,1.1895728056743728,1.1858188478852911,1.1020736590627682,1.452387589454,1.1234944192117733,0.8176645583611902,0.8051695597822861,0.6642942947218502,0.6478072784401239,0.5931717289284785,0.855797528624616,0.9511364045183006,0.8725943845796861,0.7895328365558966,0.9363465063746436,0.9175072206800339,0.900567099110333,1.0086268933555163,0.6756883157196077,0.9062879509295048,0.6647573090985913,0.6657559688053869,0.6967989236501446,0.6276584023176929,0.7877580339165062,0.7943129232235867,0.8062546682035395,0.8140667785876045,0.8802315945249863,0.5760602225462192,0.5462003295495161,0.44776461450186084,0.558005206068904,0.7325556975411491,0.6792307045474311,1.062649283630305,1.181410957287937,1.2851488668632909,1.247153250406701,1.312970319542677,1.2557318941557547,1.1943006196096524,1.3486900385188585,1.283656020902796,1.274483785695212,1.1545271716161556,1.109621403903151,1.0973311669682948,1.4007212820543562,1.0663886158432112,1.1347907912915054,1.274517277246566,1.2926952231674724,1.212282842409312,1.2928296136769148,1.3897159026218278,1.3885550943336749,1.484470525136825,1.390080292644997,1.4158222557934315,1.288878403884556,1.4164168630738623,1.1378663014607653,1.2841964141049458,1.212939742938618,0.7060205804365768,0.6884222541434873,0.6198012988047057,0.6818006233496713,0.516156797882194,0.8373017854991117,0.8924183380007388,0.8531302714122857,0.876727979478242,0.6541147758612399,0.6374097347860328,0.641915305939966,0.7955296726081308,0.706950776221372,0.5401324282062686,1.0024519140587242,1.1096654856306922,0.9417587058264981,0.8905553941221175,1.076324272698521,0.8479950825329118,0.9768562330251063,0.8163878612522362,0.8419610917376171,1.1520037933965324,1.1194953371943983,1.0728181672585528,0.7576745805423329,0.8233800155456775,0.9032331814099834,0.9317368619948446,0.8986560020385992,0.9867001064153181,1.1027950036158127,1.052740409597732,0.8906927697023259,1.0694768580946479,1.1513678169898616,1.2001294388523263,0.994393790205872,1.1282520152873647,1.1254515804778102,0.8473577933789249,0.9528135232037797,0.8251475383226929,1.0579367703223104,0.968192434384818,1.2276486264399928,0.9960439397938227,0.8773357738061296,1.1018638799779221,1.1663725005331707,1.0734074575854224,1.2829097474101598,1.0624579285788214,1.2254536710949135,1.202863637325529,0.9697235533903468,1.2992041948823907,1.1567986298401292,1.49094944582303,1.533116371969199,1.3778171322784454,1.4489846306983383,1.3408692516423815,1.4166803803257806,1.2761598254137292,1.3676752940665413,1.6052629877998186,1.443000855855602,1.5564359736269273,1.6204282304378674,1.3587568325495185,1.551232638903656,1.3287054489238765,1.2323075062661917,1.382859674732039,1.2899135203570822,1.2920051122189882,1.3495340862682943,1.2098009671016137,1.0376721543917424,1.0842144898496793,1.3929626592267288,1.0158276428607365,1.30367966157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**Average atom-center of mass per all atoms in the structures =** 1.194494498328713

**Radius of gyration =** 1.2620428700902444

The structure number 16:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.15138094331850369,0.2159720815290723,0.22182646370530282,0.15603951422636433,0.21631627308180024,0.216815013317805,0.1535788396882852,0.2160033796031908,0.20978050433727186,0.14824675375872495,0.21175925009311905,0.20730699457567753,0.23896344908793082,0.2463704730685065,0.24499404074385142,0.23397010492795928,0.36879995932754617,0.4471198720701195,0.40291037464925133,0.423152407531849,0.43926785677989233,0.39366338412405094,0.5546839190025253,0.37582972208168924,0.3943342871219793,0.4490887774148893,0.44644352386388053,0.47820507107307025,0.4048561966921089,0.5768691879447191,0.36963275017238406,0.3717561297409904,0.41960787647516806,0.46997031821169305,0.5016069975588459,0.4567090102023388,0.5908756468158086,0.3331534931529312,0.41663980846769816,0.32820482933680295,0.41487768076868164,0.4577044679703272,0.3918483507685087,0.538991762460244,0.6334942225466622,0.7263244867137552,0.6767053568577686,0.7652224447832147,0.6209018118833282,0.8261809789628424,0.8883527114834514,0.8983376703667727,0.7947832094351261,0.8215701917669604,0.7780646117129348,0.8751916075923032,0.6156491370902748,0.9248483713560832,0.6614909523190776,0.6333713681561557,0.7300653737851156,0.735134987604318,0.8183832476291291,0.7630201111373153,0.743493846645687,0.7666848374658264,0.8272292850232036,0.6658571243142184,0.86777412959825,0.8822648695261535,0.8944617878925855,0.6221871503012579,0.968464026177535,0.6594736158482764,0.6736342998986912,0.7960733697342219,0.7818704816016515,0.7480815263057893,0.714487326689564,0.8670505521594456,0.8133359822361232,0.9093545733101028,0.9587560325755449,0.9022895322456087,0.9919444087246014,0.8745577968322046,0.9115617477713724,0.9468200568217806,0.6870652516318951,0.6938021692096388,0.7850900394222311,0.8696636188780122,0.9371694884064463,0.9309126274790779,0.7235096267500524,0.6757620439178279,0.8038639996914905,0.6600377943724136,0.8910940803304668,0.9526163446004903,0.8505699442138784,0.7985449580330467,0.9880239268357828,0.7324498754181067,1.1180978982182197,1.2094303039034535,1.3521286810063609,1.3581473079161923,1.3915302727572985,1.2281649644897057,1.135035532483455,1.3012365964727555,1.2813821522090905,1.253677622038457,1.1578952197845884,1.1542371203526598,1.0604229392086917,1.4539356622629491,1.1635013579708449,0.8933992220726412,0.9102625006007883,0.7743810754402513,0.739080672186738,0.7062610565506217,0.9874331825495845,1.0787357322347308,1.0180166845391094,0.9363223483395023,1.055567221923834,1.0208711280078404,0.9966635390140448,1.1129476672332803,0.8049879377978281,0.9684264917896457,0.5869494441602278,0.5963889838016795,0.6723619709650454,0.6221357247417965,0.7649378340754235,0.7101299036091917,0.6816166224498933,0.7458945971114144,0.8006472943812396,0.5293588291508893,0.4766933186022225,0.4046982209004631,0.4479308093891284,0.722922748293343,0.5972063211319857,1.057384726577796,1.1800317368613438,1.2426445791134326,1.1773282040280868,1.2845640855947982,1.2959015626196304,1.2828097364769255,1.3780863906156244,1.3256526769859442,1.257216886619011,1.1431059487204147,1.0712036361028652,1.1034380589774855,1.358639576929805,1.0982408205853573,1.050540170578927,1.178609031867651,1.1772935954977417,1.0966197061880663,1.1640715184214416,1.2910616213024073,1.3027939361234382,1.385271446323789,1.285805432404142,1.3361350418277342,1.218284962560074,1.3098496325914666,1.0324454949293937,1.2312802605418482,1.1417708001170819,0.6940262026753751,0.6747423878785151,0.5614954496698976,0.5956968860083124,0.463426207718123,0.8054708064231755,0.8848124999117049,0.8192932381022073,0.8275301565502015,0.6945470250458211,0.6703306199182607,0.5803806681825306,0.7964475688957817,0.7656110827306516,0.5899506843796357,0.9916601282697612,1.0880057858302037,0.9314860868526161,0.8365430054695333,1.0566082197295266,0.8711366999501281,0.8989051896612901,0.7574218111462064,0.8009666784579743,1.1137822543028773,1.1285855483746015,1.0400884625838323,0.7917554546701904,0.848778280824857,0.9558367329204293,0.942469288624303,0.9209410458873023,1.0413004705655324,1.1706728877017698,1.0871759057300705,0.9901152660170424,1.1626842778673836,1.2406695732547004,1.2480845684487891,1.0069265017865003,1.1384390585358526,1.185318893800313,0.9798228870566346,1.0692541699708253,0.9003713567189926,1.272376677717726,1.2255319416481965,1.3217000189150336,1.2007100024568798,1.0746292895691982,1.2346676354387842,1.2033544033243078,1.1552483023142681,1.4382205741818597,1.1714533238674079,1.3852159542829408,1.404039294321921,1.0143068717109236,1.4202818910343111,1.234664339000685,1.5491465811859118,1.6119772796165577,1.4088104130790624,1.5209276412768622,1.4201482809904036,1.489363736633868,1.374458577040428,1.4619900717857144,1.64516456623646,1.5453016048655357,1.6151957466511602,1.6919882416849112,1.4653879554575295,1.605256085489165,1.3802333317232987,1.2644157939538716,1.382752711080329,1.2516452133092668,1.3070245483540082,1.3724299071355155,1.2058587728254082,1.0194121982789885,1.093429503900457,1.3720944464576774,1.04455489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**Average atom-center of mass per all atoms in the structures =** 1.2061965793488865

**Radius of gyration =** 1.2645516204283942

The structure number 17:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.15569540776785945,0.21932854351406278,0.2222464847865987,0.15559942159275497,0.2154067315568386,0.21784951227854482,0.15547736169616486,0.2218342399180076,0.21431726482017222,0.15564321379359922,0.21210888713111445,0.2227523737247259,0.24796044039322107,0.2483788034434501,0.24808381648144687,0.24404399193588067,0.3597155125929377,0.42194184433402665,0.356265294408535,0.4559229211171556,0.5042706614507731,0.4260630469777918,0.5706249644030658,0.37593236093744303,0.3853532664971199,0.4365734531553653,0.4682923018799266,0.4936935385439026,0.4467534443068121,0.5937399178091365,0.3704954115775254,0.3916102271391795,0.4423937047472538,0.43858177116701985,0.4683813190126184,0.4070892899598324,0.5676943984222496,0.3359958481886348,0.32241845480679304,0.38520385512089594,0.45944677602525424,0.4533176480129581,0.5031159110980296,0.5580369969813829,0.5966260302735711,0.6955076203752192,0.6793246793691506,0.766889366206104,0.6960316156612428,0.7206209405783323,0.7502445534624028,0.8092148107888288,0.6467938388698521,0.8293795632881243,0.8387620580355312,0.8640509302118713,0.5770489234025138,0.937629505721743,0.5971546700813785,0.6763561783557538,0.7421186023810483,0.7602385283580413,0.8270809512979973,0.8222132874139169,0.6933432483265419,0.7120419439892574,0.7714138772410052,0.5974683255202741,0.8871278881874927,0.9389133027069115,0.8959639557482213,0.6433964096884596,0.964259181963024,0.7491523810280524,0.6708643603590818,0.8073736991009799,0.8189260528277261,0.8047737073239898,0.7612535320115104,0.8650034450798448,0.8108683308651287,0.8849240984400863,0.9640704175525765,0.9157915537937655,1.01001336129776,0.8972934024052557,0.9603465051740436,0.9494975408077687,0.6586564354805925,0.6690517842439407,0.7727200463298466,0.7924837790138043,0.8781119461663192,0.8276970581076147,0.7500779359506584,0.7546091769916404,0.8427198941522624,0.6682917102583276,0.9051571521012254,0.9451752959107642,0.9136051718329975,0.6833379471388958,1.008068534376508,0.695327225124977,1.066939637467838,1.2213822538419339,1.2887762955610262,1.268006277586985,1.2551960643660425,1.2674854792067642,1.2294364644014752,1.3764079409826147,1.2322327621030051,1.420386714947729,1.2753475251867632,1.2396461632256204,1.2404415786323844,1.4301014824130496,1.0138074619966069,0.7397373182420908,0.7299689034472635,0.6026676032441101,0.5842257183657701,0.519864770877966,0.7816709921699794,0.8785719150985877,0.8042831217923201,0.7327568901074899,0.887045528707518,0.8621594458103443,0.8693819011228612,0.9403774454972855,0.6326447186217553,0.8297184462213676,0.6378082940821637,0.6640966345344627,0.7369071108355516,0.6826664339192311,0.8238981551138469,0.7728485297909289,0.752381957518919,0.8117238816247803,0.866551054468229,0.6075286824504663,0.5470210782044878,0.46922274028439886,0.5193958220856232,0.8067196539071061,0.6946093578407937,1.0541768447466486,1.161118017257505,1.2408357103178485,1.1867694047286523,1.282095912948793,1.263843874851637,1.2174306797514183,1.341984999916169,1.3136004148903122,1.2291452558587204,1.11813676265473,1.0506523830458865,1.0699114028740881,1.3635868949208922,1.0923448173539343,1.0779851993418095,1.2140089126526215,1.2383648291194322,1.16337296685113,1.2361251959247495,1.3374159188524715,1.3317483283263398,1.4267241674549431,1.3434652284298243,1.3635067473247064,1.2305044250225192,1.366034395613815,1.070210586753841,1.2287273131171135,1.1678601029232913,0.6911790940125435,0.6121410049980316,0.5325573396358368,0.6103905798748867,0.4601098781812886,0.7360644129422368,0.7962466012486333,0.716937054419703,0.8009577829074389,0.5232685543771954,0.5549878827506057,0.4946095530820246,0.8124612175359508,0.6460619861901801,0.4791912874834018,0.9908236825994824,1.1000178407644121,0.9434749493229797,0.8729489389420205,1.0746147495730733,0.8616926424195578,0.9481249548450875,0.7888327135711348,0.8520622160382417,1.1389179557808367,1.1257064848351903,1.0659893104529705,0.7728842992324272,0.8377258143330666,0.9305455765302418,0.9943406559122481,0.9883721869822114,1.0267742400352664,1.1748490328548595,1.029030242509908,0.9558252821515024,1.2022565657961701,1.2226411779422441,1.2463721755559212,0.9360178844445222,1.1043595247925377,1.0909103996204266,0.9734641698593739,1.0084376331732174,0.851260999928929,1.233760920924309,1.1066569884114952,1.237916620778637,1.1331815520912785,1.140564320851744,1.0538776874002025,0.8678720527819755,0.9038340445015332,1.2080076034528922,0.8723641556139267,1.0990780727500664,1.0594791267410604,0.870450228330144,1.0559106070117863,1.1223362998673794,1.5411808005552108,1.5427893018814975,1.4549961408883525,1.4807329570182461,1.3667671528098704,1.4507863385075008,1.2808264558479416,1.3822153377820696,1.6619370325015324,1.4463229584017534,1.5960671947007745,1.6481068563658121,1.3722674156300583,1.585664453785857,1.3777937073451882,1.31676200583097,1.4146689400704326,1.2818660226404317,1.3358673175132327,1.4007281891930354,1.2208317697373374,1.027174381495177,1.1018855657462798,1.374909084267029,1.065305054902116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**Average atom-center of mass per all atoms in the structures =** 1.1948213572290693

**Radius of gyration =** 1.2542682323053864

The structure number 18:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.15095807364960645,0.20823076141627106,0.2159456876161227,0.15687160354888935,0.21621156305803838,0.21980159235091987,0.15403639180401504,0.21466403983900031,0.21159371446241002,0.15141680884234746,0.21385029810594114,0.21203596393065022,0.2450937167697288,0.2530674218464319,0.24336082264818232,0.2415233943120211,0.3652422757567914,0.4192967922605658,0.373131692569795,0.4723554276178056,0.49945986825770106,0.4592745257468566,0.5892162506245057,0.3407795475083562,0.4132288228088645,0.316779386955654,0.4479258532391272,0.42644918806347853,0.4987547092509507,0.5490778906494055,0.36206214936112807,0.3784927608290543,0.4326339214624764,0.44134142112428115,0.46638974045319675,0.40591793505584334,0.574174102515953,0.33986851869509765,0.41800662674173017,0.3218074890365357,0.4210429550532822,0.47283378686384114,0.38883972276504886,0.543116838258583,0.6815617433512534,0.7851320271139115,0.7664940704271624,0.8590865206718122,0.7682302975019923,0.8193499252456181,0.8555695296117084,0.9049911878024007,0.7427157195051146,0.9185482295448617,0.9151060157162122,0.9529680529797417,0.6562274834232409,1.0270391277843312,0.7076768400901642,0.632079093152115,0.7391371050082657,0.7600516627177394,0.8514662999790421,0.7752397048655338,0.7444771386684755,0.743383326420495,0.8440809084442084,0.6723710136524329,0.8726270337320523,0.8929092955054283,0.877195474224531,0.6569624799027722,0.9898075621048772,0.6406050655435063,0.6319230174633617,0.7733511621508043,0.8019632098793558,0.7985411949298548,0.7375056542156133,0.7979656508898113,0.7271982260704439,0.8032354138109198,0.8998824867725784,0.888648878916752,0.9844303632050367,0.895220654364051,0.9360019978611159,0.8912682873299151,0.6208957883574344,0.6698613961111661,0.742845030945217,0.7743810237860944,0.8386890246092409,0.8377315560488336,0.6928002092955808,0.6936594337281089,0.7702150414007768,0.5903866614346905,0.8871718210132692,0.946823051050195,0.8857184654279265,0.663816827144356,0.969147135372127,0.7230490578100495,1.0768247443293641,1.2255023174192694,1.2668146115355634,1.273553257622154,1.1985672905598586,1.2380508632523948,1.2101618445480753,1.3442352993430877,1.183145646148436,1.4626054902125867,1.3269244062869592,1.3320705123978984,1.2926011217695894,1.393972194844646,1.064486096668247,0.7227752347721943,0.6874472779784645,0.5563845882121469,0.5642195849135333,0.4676764693674465,0.7092154115640749,0.8110582346539613,0.7174573297416371,0.6481029933583089,0.8346068835086375,0.8126356932845125,0.822849263231122,0.8998601891405134,0.5659967579412446,0.8280302530705025,0.617083292595092,0.6204725457262394,0.7104198899242613,0.6701869291473836,0.8036968458318098,0.7161007540842282,0.6792773292257,0.7379644503632946,0.8102375207308038,0.5207215282663087,0.48239118980346263,0.42927465566930456,0.43440075966784414,0.7559171581595434,0.6341275187215897,1.1476676348141912,1.2006622880727122,1.1812639713459478,1.0763164636852864,1.2247137951374598,1.3475757529727224,1.3673332037217556,1.3970551778652123,1.3982622715356372,1.209816572873756,1.1428393850406102,1.0371383466056976,1.1718601367057422,1.2410256927235632,1.219896106232002,1.1099973378346455,1.2108318875880335,1.268231737499106,1.1875168419858309,1.3215398631899076,1.3337937884095878,1.3290566466482912,1.4012794475050294,1.3912768452037145,1.2639068715692623,1.157226581098101,1.3731877366187044,1.1435446821178439,1.1475148190764246,1.0735652844610803,0.6739890948672687,0.6777121660410121,0.575445914052746,0.6018481619146148,0.47015089067234606,0.8176058096662475,0.8939310152355161,0.8398782411754697,0.8474837461568216,0.7292717531894405,0.6855672177109987,0.6250347910316674,0.7088498430556363,0.774445879322758,0.5971226423441,0.9353845412449361,1.0448349343317347,0.8537255120939043,0.80544016537543,0.957223516217607,0.7490845479650481,0.8956420769481521,0.7366392672129283,0.7440654272306975,1.0423322838711269,1.0036590108199102,0.9317991521781931,0.6745753997886373,0.7075550720615327,0.8076851180998694,0.9918026315754558,0.9474311109521368,1.1077632147710987,1.2314113772415776,1.1453065179243502,1.0923324448170526,1.2086029000461649,1.3121659231972154,1.2709663803578761,1.0648734431846816,1.1771681060919041,1.2606765524907648,1.084976561958829,1.188713068826956,1.009729354827322,1.410230637165425,1.3160432515688831,1.3865416293786499,1.3103730957250308,1.2218026231761006,1.2786513911148736,1.1461155002878203,1.1472067032579616,1.4892788624028745,1.1643483069940883,1.390807384219684,1.400191683306253,1.0320157411590194,1.3884205810920551,1.2975339417525849,1.5517928534440422,1.6138248417966548,1.4302664157421865,1.5214248387613496,1.4105052428119507,1.512142655307362,1.4127430233414704,1.5059790270783988,1.6799312902615984,1.5958970706157711,1.6573560389970525,1.7362646716442742,1.5241223244871123,1.6689628575855124,1.404945425986362,1.330163380942356,1.3065272174738654,1.138157708755689,1.288602351386959,1.371233787506711,1.1357216692482364,1.0217929242268218,1.1230608977254972,1.1105842336356126,1.1755529677560257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**Average atom-center of mass per all atoms in the structures =** 1.18065307500128

**Radius of gyration =** 1.2391658259081422

The structure number 19:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.15576767957442245,0.21983880458190266,0.21475646672451984,0.1553140045198757,0.21865502509661197,0.22289928218816657,0.15537879520706893,0.21962276749007628,0.2114414812660946,0.1514057792820336,0.2190252496859661,0.20925329149143615,0.24769136036608153,0.24478688690369005,0.24752761462107664,0.23930238193549183,0.32551588286902394,0.3654941586400528,0.307332816340852,0.46363767103202486,0.5154838309782378,0.4811476592481775,0.5547600292018163,0.37363652123420676,0.4504978357328703,0.38455010076711743,0.45313835635487754,0.41526272406754716,0.47584003614660264,0.578853427043496,0.364603634101472,0.3759969946688409,0.4353066505349999,0.45823898786550227,0.4883578503515635,0.43587745984393383,0.5840583618098453,0.340619230226363,0.433395962140858,0.34044823395047885,0.38002295983269213,0.41835953437205187,0.3289103525278581,0.5083003344480507,0.5901486846549775,0.7132934108766185,0.7036015704928463,0.8097249471271093,0.6812626952945537,0.7800556582706135,0.8097122019582021,0.8713622897509394,0.7300325609176624,0.8219896532195525,0.8086438276521993,0.8517696519599652,0.6275855798215889,0.9447460717039265,0.5226098449130095,0.6163261555377965,0.7034972210321806,0.7151378328686017,0.8032883168576522,0.7559247978469817,0.6838910000870027,0.6995346596130892,0.7662195312049941,0.5934143493377961,0.8453304501791001,0.8758101392425189,0.8526893162225035,0.6099520390981577,0.9406185358581876,0.6706284366174764,0.5958746932031935,0.7343173428429971,0.834443245523624,0.807071849341804,0.8536480363709622,0.8017730663972193,0.8196605333917207,0.7573298422748174,0.9035314327681137,0.7383203505254342,0.8420536918748116,0.7066569252473224,0.9644380799201155,0.6769641127858991,0.5354221792193521,0.6746016083585927,0.790416149885616,0.824051727745292,0.9196449206079483,0.8382705231606323,0.79404086166897,0.7963756965151569,0.8896054687331911,0.7137361417218548,0.9240128029416041,0.9481543017884803,0.9415532857995884,0.7376377769610236,1.0356687163374207,0.6896627074157341,1.112815887737051,1.204190441749145,1.1414271417834785,1.1201167706984836,1.0480451230743846,1.2499808438532172,1.303762742986622,1.329148306247275,1.1685126143948978,1.4223161990218636,1.3273080426185935,1.3006995848388674,1.380663862060567,1.2279855414458265,1.1075293811001137,0.8111283868784278,0.8487766137211845,0.7716820135262966,0.7957507461510798,0.6671515045325164,0.8603383346102857,0.9345266234837832,0.9096327005995332,0.7662883204121018,1.0745676572463922,1.0033291234684658,1.022804663657729,1.0658451669919047,0.8336432930216618,0.8761353890809342,0.6141767660861163,0.6253734004576786,0.6982444056345888,0.6381244627813608,0.784935653413705,0.7363342175941575,0.7221524631267281,0.7635424873574491,0.8261716589184116,0.5589630846487094,0.5042022312525009,0.4287173194542064,0.4870848591364754,0.7623023612714317,0.6324967667901552,1.0564259604913164,1.1168601971598775,1.1051154645556274,1.003587873581581,1.1552781526541562,1.262882662799676,1.282539391207927,1.3134462493760448,1.303064990704608,1.147827487038013,1.0745047417298819,0.967933189843183,1.0899061473356317,1.1898139140218522,1.1272352416421336,1.0696801671527805,1.199272325203913,1.3184990443682545,1.330725959767826,1.3063179322048675,1.1826706092568633,1.107363066026676,1.2773737550145614,1.1711428990520332,1.3445874125544985,1.2320186565145839,1.440575621062637,1.085390699241522,1.1559103511951092,1.264813124536586,0.6550993207140429,0.6594626524679014,0.5811404391367032,0.6272990435191179,0.47339435991570544,0.8089309364834556,0.8712089186871312,0.8378680743410626,0.8393442082959769,0.6944999712023031,0.6355074035760718,0.6326252366132732,0.7281108981467043,0.7053106407817763,0.5352436828211986,0.7614722056647898,0.8792986921405034,0.7247271831523913,0.6941703753402328,0.8541389641036171,0.6199202529358112,0.7874711550272809,0.6237836804534079,0.6827749482809099,0.9318457275751172,0.9042376955203759,0.8522154246433236,0.5314785884680585,0.6022676564452052,0.675033488058185,1.053186906489062,1.0643999671176245,1.1394260748289025,1.2903623560845225,1.1130500258299267,1.145808801676789,1.321322799318925,1.3497345850203286,1.308037877891921,1.0142070498670375,1.128519995392195,1.2119983622101143,1.1852636373398113,1.218221330465035,1.054250639079721,1.2100929964263074,1.1217203439360452,1.2537560448508316,1.1251662499382031,1.010982190743239,1.165830300687025,1.140336976511768,1.0795863328145647,1.3793743545535417,1.0701525405286851,1.3068999999999997,1.2976234816001135,0.9562767434168832,1.3543313959293715,1.1943312187161483,1.5837914067199628,1.6425639987531686,1.4714479059756074,1.5544262800145907,1.4426753584919925,1.5512506244962476,1.4370331728947665,1.5336051317076371,1.717436418037069,1.618700333601003,1.68677568751746,1.7724556919708883,1.5586159597540374,1.6847581013308701,1.4409940041513014,1.1143233866342388,1.2267543397110927,1.0297173301445401,1.15948272518395,1.245054649402989,1.056080915460553,0.9066991452516092,0.964339260841329,1.2240737314394092,0.9029540519871426,1.14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**Average atom-center of mass per all atoms in the structures =** 1.1871340224591331

**Radius of gyration =** 1.2451183421610021

The structure number 20:

**The atom-center of mass distances of every atom in the chain =**

[0.0,0.14973690259919206,0.21545092248584136,0.20832515450612235,0.15171318334278008,0.2216106495635984,0.2174659743500116,0.1527901829307106,0.21122862021989416,0.2187417884173025,0.15259803406335237,0.21635031777189526,0.2161983811225239,0.2339640998102059,0.2387138454300462,0.2468789176904336,0.23921895827881196,0.3574119332087275,0.41627829633551644,0.37248706017793437,0.4437717994645447,0.4875889867501111,0.425106539587431,0.574736896327354,0.3499527110910844,0.4284496469831665,0.3513552760383711,0.4405311453234605,0.40564600330830325,0.48058947137863933,0.5561652002777594,0.35960058398172867,0.39890264476435855,0.36922875023486534,0.48052834463744204,0.48392751523342803,0.503894691379062,0.5974617477295096,0.3371244577303761,0.33980422304615354,0.3759439053901526,0.4654168669053583,0.4751176275408016,0.5037640221373495,0.5673248452165657,0.6369554851008036,0.7439947042822282,0.7224256709170849,0.819822273422722,0.7074033432208245,0.7978888331089741,0.8364733886980508,0.8803911005910954,0.7231593185460589,0.8641456243018301,0.8500153704492642,0.8943941301238508,0.6234138753669188,0.9724266810407868,0.6301182190668668,0.6660574599837464,0.7095945391559887,0.6802558930284985,0.7370590885403966,0.7329275953325813,0.6736997402404131,0.7203481797020105,0.729458271596121,0.5679213413845268,0.8640585396835102,0.9120921609135779,0.9084587717667766,0.5474388915669036,0.9235712100320149,0.7549386398906868,0.6494031567524138,0.7819849487042575,0.8477433927787348,0.8699820515389957,0.788322078848487,0.7967377862258073,0.7289535033182846,0.7863551869225511,0.9018282208935358,0.8946639704380634,0.9843499276172067,0.9209871931791455,0.9786551026791819,0.8927282005179403,0.6643448727882229,0.7014942052504786,0.7813110648134968,0.77136736384164,0.8416275304432479,0.8208865268720158,0.761619596649141,0.7928167127400888,0.8378391432727406,0.6648774473540221,0.9307135219819257,0.9658994461122751,0.950286414719268,0.6399710852843276,1.0177063525398675,0.7591124422639904,1.15583198173437,1.2653668796044888,1.2432815489662827,1.1607436366398916,1.2398914549265998,1.3911456933046231,1.4167027528737288,1.4686221740120915,1.3757919537488226,1.4173638805895972,1.2971436119412538,1.2160986020878408,1.3135442969310172,1.3632572537859462,1.1916378728456067,0.6212492736414269,0.5824649173984642,0.4753423713493256,0.5250467883912825,0.3785799387183639,0.580023671930724,0.6817024937610254,0.5707728620037924,0.5161922897525691,0.7365831996454985,0.7128320208857063,0.7329816232348529,0.7947828508466951,0.47835755455516743,0.673234052911764,0.6225295896581947,0.6567835031423981,0.7192968858545129,0.6522954085381871,0.804524965429911,0.7807067887497844,0.7610673886062918,0.8267208718787739,0.8560162673687927,0.6242883548489433,0.5525608563769244,0.46729425419108256,0.5398692526899456,0.7824645487177041,0.6251224759997036,1.0911616562178126,1.1536020370994498,1.1247202185432605,1.0183693730665706,1.149133852081645,1.2951641478978637,1.3289252198675439,1.3564408501663463,1.3185530895644664,1.2220067839418896,1.1315849813425414,1.0275870084815204,1.163555954821254,1.2014659628969937,1.1522236154497094,1.0410800689668398,1.1704722380304453,1.295747649042822,1.305479321935051,1.296557171897946,1.1811772601942523,1.102252570874752,1.2812746973229436,1.1812777531131278,1.311341442950691,1.1898645343063217,1.4201957118650936,1.0504574003737608,1.1189517103074647,1.2006310049303244,0.5863518227139743,0.572278166628782,0.5738754394465752,0.6685398118287347,0.4964087126552072,0.7131327085472943,0.7398383066589618,0.7286535871043247,0.790140120484968,0.5200488150164364,0.4711520985838859,0.6137969208133908,0.6695940337249132,0.5073529047911325,0.3655451545295053,0.9372157755821229,1.053767811237371,0.8662995844394707,0.8172147392209712,0.9927357654481883,0.7734153541273924,0.9015035940028195,0.7401043372390137,0.8005109555777485,1.0639761557478626,1.0457588106250886,0.9834957498637196,0.6940172620331573,0.7538723632021535,0.8393444465772083,1.036033382666794,0.9935839571973776,1.1643999398832003,1.2873708168200801,1.1542233319423065,1.1994471976706604,1.3143755817877933,1.3702157275407403,1.2908614061935544,1.0698960603722214,1.1478178688276293,1.2783768380254703,1.2213151149478174,1.2950458910787679,1.1277612202944383,1.3558593363619988,1.2885649576175817,1.3321961867532874,1.2718471488351109,1.1620979562842373,1.2764772383399556,1.2022580172325743,1.1766479592469448,1.4935490216260061,1.2011668701725005,1.4141632048671042,1.412882684443404,1.0437616442464246,1.4497544102364377,1.2847754862231766,1.5135676165933256,1.5678106964809237,1.4628850775095081,1.4866617470023233,1.361680773896731,1.5163030468873957,1.4269882550322555,1.5198764357670658,1.6723273543179278,1.5998392981796639,1.658783183541478,1.729212421884599,1.5756485966102975,1.700735423280176,1.422471672828672,1.2461846131292103,1.3518812410859171,1.1867443406226967,1.2836536526649234,1.373319503975677,1.1753711286227853,1.0210211799957924,1.0823225304871003,1.3420676473263184,1.018625053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**Average atom-center of mass per all atoms in the structures =** 1.1704085941092526

**Radius of gyration =** 1.2295682586512677

**The data taken from the histogram plots are:***A) density, number of atoms and volumes of whole structure.  
B) density, number of atoms and volumes of individual shell.***Data for the last ten structures:-**

structure number 11:

**Density of the shells in the whole structure respectively =**

[4.366484630200553,4.366484630200553,4.366484630200554,4.366484630200553,4.366484630200553,4.366484630200555,4.366484630200554.366484630200555,4.366484630200555,4.36648463020055]

**Volumes of the shells in the structure(width"cut from x-axis"\*hight"number of atoms") respectively =**[2.9772233503551595,5.954446700710319,21.527614994875766,40.30702382019293,39.84898945859983,44.20031589373428,33.20749121549988,27.024027333992976,12.824962124606836,3.206240531151712]

**Number of atoms in the shells of the structure respectively =**[13,26,94,176,174,193,145,118,56,14]

**The data taken from the histogram plots are:***A) density, number of atoms and volumes of whole structure.  
B) density, number of atoms and volumes of individual shell.***Data for the last ten structures:-**

structure number 12:

**Density of the shells in the whole structure respectively =**

[4.328620249036021,4.328620249036021,4.32862024903602,4.3286202490360224.3286202490360224.3286202490360175,4.3286202490360224.3286202490360224.3286202490360224.328620249036022]

**Volumes of the shells in the structure(width"cut from x-axis"\*hight"number of atoms") respectively =**[3.234286953935907,6.6995944045815214,18.481639736776614,41.814709904457075,49.66940679258713,46.66614033536098,32.111849042649354,24.95021364464842,8.085717384839766,1.3861229802582455]

**Number of atoms in the shells of the structure respectively =**[14,29,80,181,215,202,139,108,35,6]

**The data taken from the histogram plots are:***A) density, number of atoms and volumes of whole structure.  
B) density, number of atoms and volumes of individual shell.***Data for the last ten structures:-**

structure number 13:

**Density of the shells in the whole structure respectively =**

[4.479094630823824,4.479094630823825,4.479094630823824,4.479094630823824,4.479094630823824,4.479094630823824,4.479094630823824,4.479094630823824,4.47909463082382,4.479094630823829]

**Volumes of the shells in the structure(width"cut from x-axis"\*hight"number of atoms") respectively =**[2.9023722585671194,4.911706899113586,15.404898910856248,33.93542948478478,37.73083936137255,48.000771968610046,36.837801743351896,26.344609731609236,14.288601888330447,4.9117068991135815]

**Number of atoms in the shells of the structure respectively =**[13,2269,152,169,215,165,118,64,22]

**The data taken from the histogram plots are:***A) density, number of atoms and volumes of whole structure.  
B) density, number of atoms and volumes of individual shell.***Data for the last ten structures:-**

structure number 14:

**Density of the shells in the whole structure respectively =**

[4.326512366299905,4.326512366299905,4.326512366299905,4.326512366299905,4.326512366299904,4.3265123662999074.3265123662999025,4.3265123662999074.3265123662999025,4.326512366299907]

**Volumes of the shells in the structure(width"cut from x-axis"\*hight"number of atoms") respectively =**[3.0047296527474816,7.396257606763032,20.570841468809682,38.136953284871886,46.22661004226896,45.99547699205759,27.50483297515004,24.500103322402534,15.254781313948763,4.622661004226893]

**Number of atoms in the shells of the structure respectively =**[13,32,89,165,200,199,119,106,66,20]

**The data taken from the histogram plots are:***A) density, number of atoms and volumes of whole structure.  
B) density, number of atoms and volumes of individual shell.***Data for the last ten structures:-**

structure number 15:

**Density of the shells in the whole structure respectively =**

[4.248070938886333,4.248070938886333,4.248070938886333,4.248070938886334,4.248070938886334,4.2480709388863325,4.2480709388863364.2480709388863325,4.248070938886332,4.248070938886336]

**Volumes of the shells in the structure(width"cut from x-axis"\*hight"number of atoms") respectively =**[3.0602125498893047,8.003632822787413,28.483516810508146,37.193352529423855,40.95976797544146,39.782763148560974,34.83934287566284,27.541912949003752,14.124057922566028,3.5310144806415034]

**Number of atoms in the shells of the structure respectively =**[13,34,121,158,174,169,148,117,60,15]

**The data taken from the histogram plots are:***A) density, number of atoms and volumes of whole structure.  
B) density, number of atoms and volumes of individual shell.***Data for the last ten structures:-**

structure number 16:

**Density of the shells in the whole structure respectively =**

[4.259056198602821,4.25905619860282,4.25905619860282,4.259056198602821,4.259056198602821,4.2590561986028194.259056198602822,4.2590561986028194.259056198602822,4.259056198602819]

**Volumes of the shells in the structure(width"cut from x-axis"\*hight"number of atoms") respectively =**[3.2871132352263133,7.2786078780011225,18.079122793744727,38.74097741516726,48.6023171208462,40.14974023026427,36.86262699503792,30.992781932133823,9.391752100646604,3.52190703774248]

**Number of atoms in the shells of the structure respectively =**[14,31,77,165,207,171,157,132,40,15]

**The data taken from the histogram plots are:***A) density, number of atoms and volumes of whole structure.  
B) density, number of atoms and volumes of individual shell.***Data for the last ten structures:-**

structure number 17:

**Density of the shells in the whole structure respectively =**

[4.333889170183091,4.333889170183092,4.333889170183091,4.333889170183092,4.333889170183093,4.333889170183094.333889170183094,4.333889170183094.333889170183094,4.33388917018309]

**Volumes of the shells in the structure(width"cut from x-axis"\*hight"number of atoms") respectively =**[2.999615239226525,6.922189013599673,21.228046308372335,35.995382870718295,40.61017554645141,43.60979078567796,36.45686213829159,29.07319385711864,13.15215912583937,2.76887560543987]

**Number of atoms in the shells of the structure respectively =**[13,30,92,156,176,189,158,126,57,12]

**The data taken from the histogram plots are:***A) density, number of atoms and volumes of whole structure.  
B) density, number of atoms and volumes of individual shell.***Data for the last ten structures:-**

structure number 18:

**Density of the shells in the whole structure respectively =**

[4.1977325296479354.1977325296479354.1977325296479354.197732529647934,4.197732529647934,4.197732529647934,4.197732529647934,4.1977325296479354.1977325296479354.197732529647935]

**Volumes of the shells in the structure(width"cut from x-axis"\*hight"number of atoms") respectively =**[3.096910036116645,8.337834712621737,23.58416104427291,44.30963590136123,45.02430744815738,46.93009823961378,32.6366673036908,22.869489497476764,10.005401655146084,3.5733577339807443]

**Number of atoms in the shells of the structure respectively =**[13,35,99,186,189,197,137,96,42,15]

**The data taken from the histogram plots are:***A) density, number of atoms and volumes of whole structure.  
B) density, number of atoms and volumes of individual shell.***Data for the last ten structures:-**

structure number 19:

**Density of the shells in the whole structure respectively =**

[4.553476006114595,4.553476006114596,4.553476006114596,4.553476006114594,4.553476006114595,4.553476006114597,4.5534760061145924.553476006114597,4.553476006114597,4.553476006114592]

**Volumes of the shells in the structure(width"cut from x-axis"\*hight"number of atoms") respectively =**[2.1961244523022825,6.368760911676619,17.1297707279578,31.624192113152873,33.82031656545515,52.2677619647943,30.745742332231973,20.42395740641122,18.227832954108937,8.784497809209135]

**Number of atoms in the shells of the structure respectively =**[10,29,78,144,154,238,140,93,83,40]

**The data taken from the histogram plots are:***A) density, number of atoms and volumes of whole structure.  
B) density, number of atoms and volumes of individual shell.***Data for the last ten structures:-**

structure number 20:

**Density of the shells in the whole structure respectively =**

[4.261931472233709,4.261931472233708,4.261931472233708,4.261931472233709,4.261931472233709,4.261931472233706,4.26193147223371054.261931472233707,4.261931472233706,4.2619314722337105]

**Volumes of the shells in the structure(width"cut from x-axis"\*hight"number of atoms") respectively =**[3.284895613927481,7.508332831834243,24.63671710445611,38.01093496116085,46.45780939697437,46.692444797969216,32.61432073827997,25.340623307440577,9.854686841782447,2.3463540099481994]

**Number of atoms in the shells of the structure respectively =**[14,32,105,162,198,199,139,108,42,10]