

Supporting Information

A Swarm Intelligence Modeling Approach Reveals Noble Gas Cluster Configurations Confined within Carbon Nanotubes

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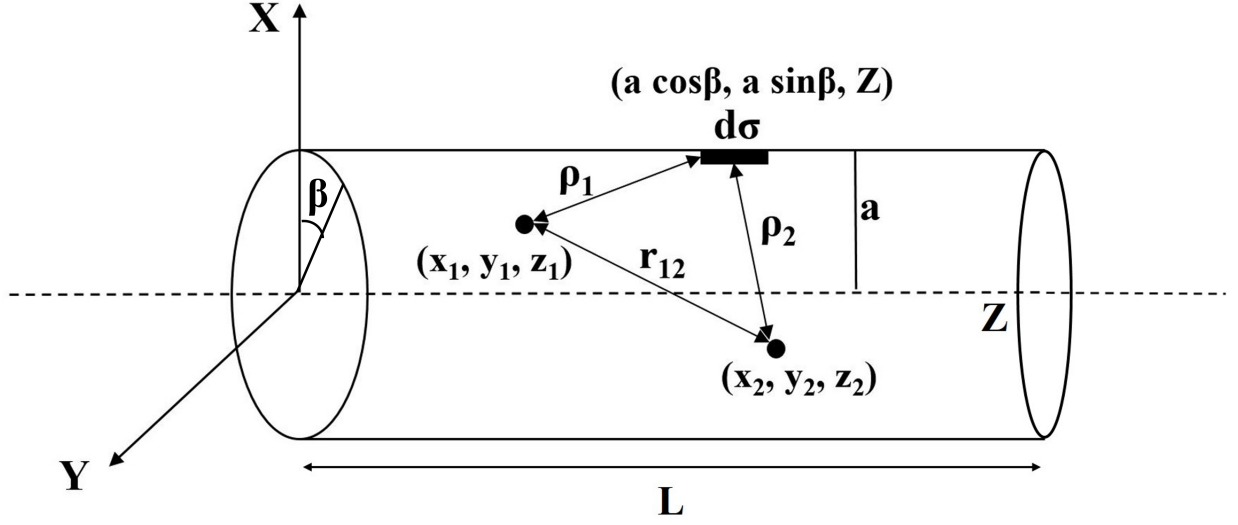


Figure S1: A schematic illustrating the key parameters in the continuum approximation for the interaction between a CNT of finite length and two noble gas atoms.

Table S1: Numerical values of various parameters employed in the calculations.

Parameters	Numerical values
Atomic surface density of CNTs ¹	0.3812 atoms/Å ²
He-He attractive constant, A_{He-He} ²	0.6377 eV × Å ⁶
He-He repulsive constant, B_{He-He} ²	215.8916 eV × Å ¹²
He-C attractive constant, A_{He-C} ^{1,2}	3.5045 eV × Å ⁶
He-C repulsive constant, B_{He-C} ^{1,2}	2774.8849 eV × Å ¹²
Ne-Ne attractive constant, A_{Ne-Ne} ²	5.2637 eV × Å ⁶
Ne-Ne repulsive constant, B_{Ne-Ne} ²	2395.7249 eV × Å ¹²
Ne-C attractive constant, A_{Ne-C} ^{1,2}	9.8930 eV × Å ⁶
Ne-C repulsive constant, B_{Ne-C} ^{1,2}	8934.1344 eV × Å ¹²
Ar-Ar attractive constant, A_{Ar-Ar} ²	64.2638 eV × Å ⁶
Ar-Ar repulsive constant, B_{Ar-Ar} ²	99275.1004 eV × Å ¹²
Ar-C attractive constant, A_{Ar-C} ^{1,2}	33.0456 eV × Å ⁶
Ar-C repulsive constant, B_{Ar-C} ^{1,2}	53263.6867 eV × Å ¹²

Details regarding the implementation of PSO

The candidate solution of the PSO improves over iterations using the velocity and position updation rules as given below:

$$V_i^{(t+1)} = V_i^{(t)} + c_1 r_1 (pbest_i^{(t)} - X_i^{(t)}) + c_2 r_2 (gbest^{(t)} - X_i^{(t)}) \quad (1)$$

$$X_i^{(t+1)} = X_i^{(t)} + V_i^{(t+1)}, \quad (2)$$

where $V_i^{(t+1)}$ and $V_i^{(t)}$ are the velocities of the i^{th} particle at the current iteration number ($t + 1$) and previous iteration number (t), respectively, whereas $X_i^{(t+1)}$ and $X_i^{(t)}$ are the positions of the i^{th} particle at the current iteration number and previous iteration number, respectively, r_1 and r_2 are random numbers generated from a uniform distribution in $[0, 1]$ and c_1 and c_2 are the cognitive and the social acceleration constants which usually take the value 2.05.^{3,4} The *pbest* represents the lowest energy located by the particle over the iterations whereas *gbest* is the lowest energy among the particles over the iterations. At the end of the iteration, the *gbest* converges to the global optimum structure and the corresponding energy represents the lowest energy in the landscape.

Table S2: Total binding energies, chiral indices (n, m) and optimal CNT radii for the encapsulation of helium clusters inside CNTs.

n	$L = 10 \text{ \AA}$			$L = 20 \text{ \AA}$			$L = 30 \text{ \AA}$			$L = 50 \text{ \AA}$		
	BE_{total} (eV)	a (\AA)	(n, m)	BE_{total} (eV)	a (\AA)	(n, m)	BE_{total} (eV)	a (\AA)	(n, m)	BE_{total} (eV)	a (\AA)	(n, m)
10	0.2562	4.50	(11,1)	0.3515	3.45	(7,3)	0.4888	3.30	(8,1)	0.5024	3.30	(8,1)
20	0.4118	5.61	(12,4)	0.5743	4.45	(8,5)	0.6318	4.12	(10,1)	0.9449	3.30	(8,1)
30	0.5299	6.50	(16,1)	0.7717	4.80	(9,5)	0.8887	4.42	(8,5)	0.9923	4.04	(6,5)
40	0.6438	7.10	(17,2)	0.9089	5.60	(12,4)	1.0987	4.75	(11,2)	1.2407	4.30	(10,2)
50	0.7408	7.90	(19,2)	1.0782	5.75	(13,3)	1.2775	5.14	(12,2)	1.5092	4.40	(10,2)

Table S3: Total binding energies, chiral indices (n, m) and optimal CNT radii for the encapsulation of neon clusters inside CNTs.

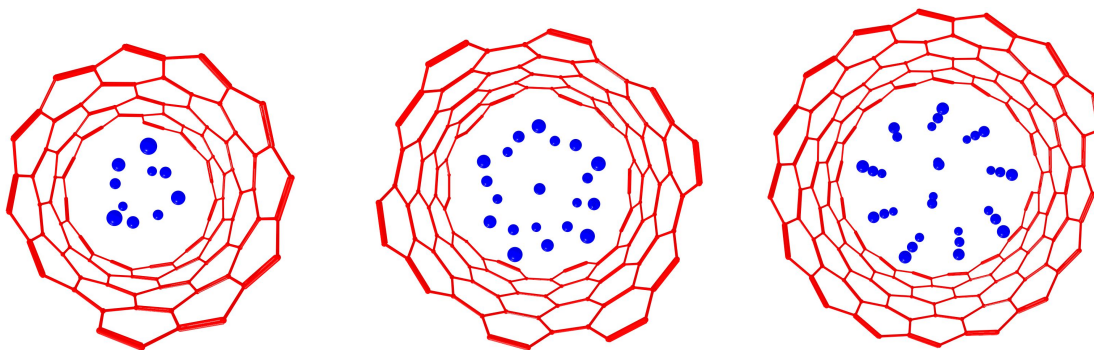
n	$L = 10 \text{ \AA}$			$L = 20 \text{ \AA}$			$L = 30 \text{ \AA}$			$L = 50 \text{ \AA}$		
	BE_{total} (eV)	a (\AA)	(n, m)	BE_{total} (eV)	a (\AA)	(n, m)	BE_{total} (eV)	a (\AA)	(n, m)	BE_{total} (eV)	a (\AA)	(n, m)
10	0.6681	4.70	(11,2)	0.8331	4.30	(10,3)	1.2446	3.40	(6,4)	1.3138	3.40	(6,4)
20	1.1150	5.90	(14,2)	1.5172	4.80	(9,5)	1.6378	4.53	(11,1)	2.3083	3.40	(6,4)
30	1.4852	7.02	(14,6)	1.9681	5.70	(14,1)	2.3568	4.65	(10,3)	2.5536	4.30	(10,2)
40	1.8430	7.60	(19,1)	2.5336	5.90	(14,2)	2.9025	5.17	(12,2)	3.2793	4.59	(11,1)
50	2.1548	8.50	(21,1)	3.0107	6.23	(12,6)	3.3267	5.70	(14,1)	4.0168	4.70	(11,2)

Table S4: Total binding energies, chiral indices (n, m) and optimal CNT radii for the encapsulation of argon clusters inside CNTs.

n	$L = 10 \text{ \AA}$			$L = 20 \text{ \AA}$			$L = 30 \text{ \AA}$			$L = 50 \text{ \AA}$		
	BE_{total} (eV)	a (\AA)	(n, m)	BE_{total} (eV)	a (\AA)	(n, m)	BE_{total} (eV)	a (\AA)	(n, m)	BE_{total} (eV)	a (\AA)	(n, m)
10	1.4697	5.60	(13,2)	1.8170	5.20	(10,5)	2.5281	3.70	(9,1)	3.0170	3.70	(9,1)
20	2.5647	7.03	(15,5)	3.3681	5.78	(13,3)	3.6361	5.50	(13,2)	3.8818	4.80	(11,2)
30	3.4207	8.40	(21,2)	4.6132	6.89	(17,1)	5.2383	5.77	(13,3)	5.7026	5.30	(13,1)
40	4.2529	9.20	(23,1)	5.5325	7.93	(20,1)	6.3536	6.73	(16,2)	7.3664	5.52	(13,2)
50	5.2092	10.14	(23,5)	6.7674	8.37	(19,5)	7.9231	6.90	(17,1)	8.9310	5.76	(13,3)

He

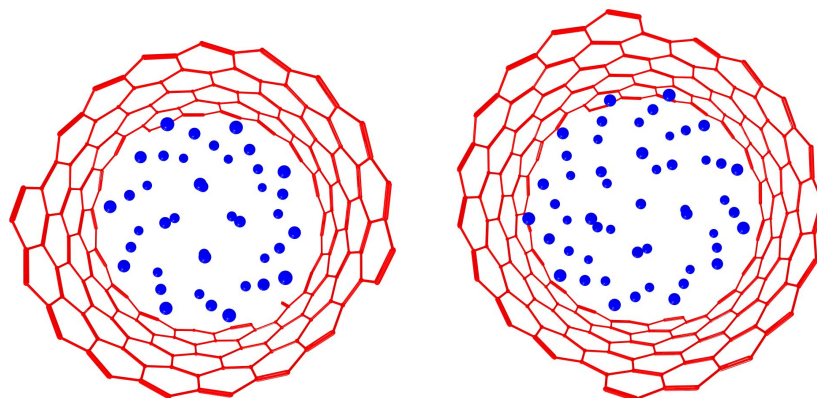
$L=10 \text{ \AA}$



n=10
a=4.50 \AA

n=20
a=5.60 \AA

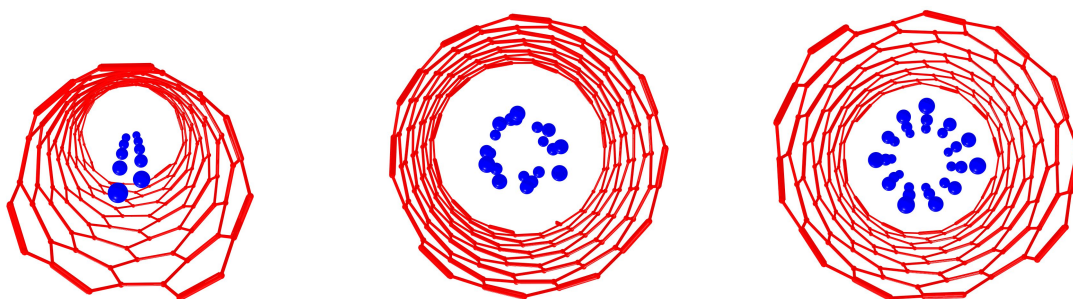
n=30
a=6.50 \AA



n=40
a=7.10 \AA

n=50
a=7.90 \AA

$L=20 \text{ \AA}$



n=10
a=3.50 \AA

n=20
a=4.50 \AA

n=30
a=4.80 \AA

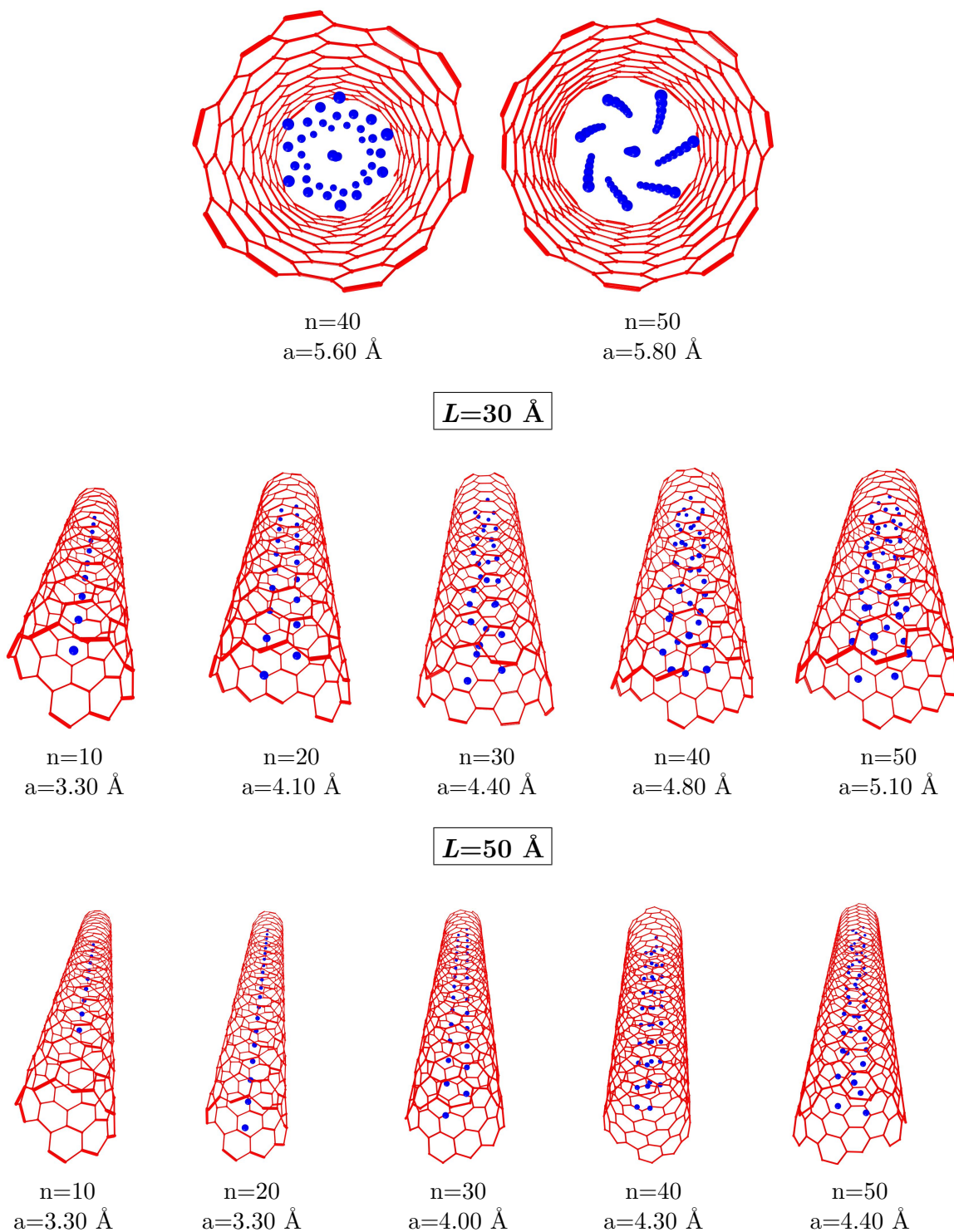
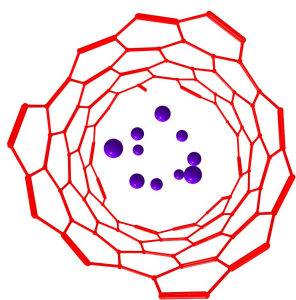


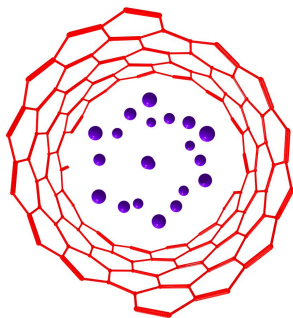
Figure S2: Optimized geometries of He clusters of size, $n = 10, 20, 30, 40$ and 50 inside CNTs of length, $L = 10 \text{ \AA}, 20 \text{ \AA}, 30 \text{ \AA}$ and 50 \AA . The optimal CNT radii for each case are also given.

Ne

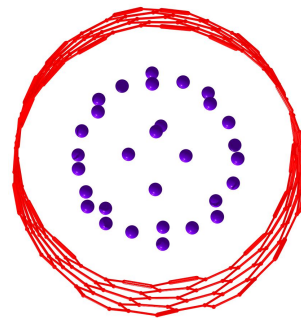
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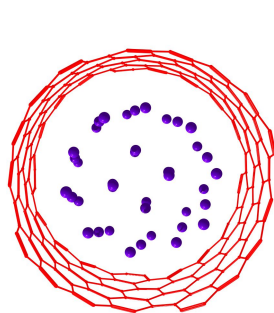
$n=10$
 $a=4.70 \text{ \AA}$



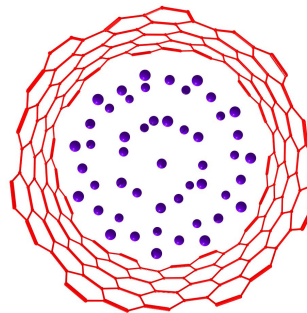
$n=20$
 $a=5.90 \text{ \AA}$



$n=30$
 $a=7.00 \text{ \AA}$

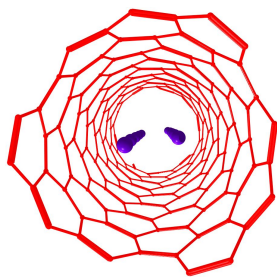


$n=40$
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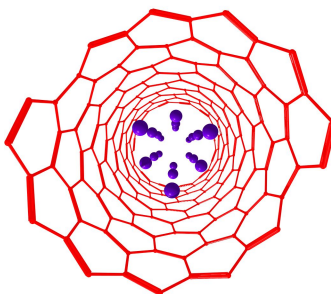


$n=50$
 $a=8.50 \text{ \AA}$

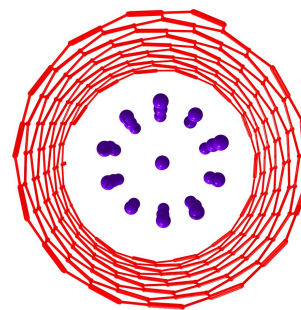
$L=20 \text{ \AA}$



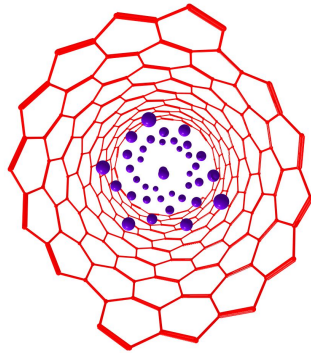
$n=10$
 $a=4.30 \text{ \AA}$



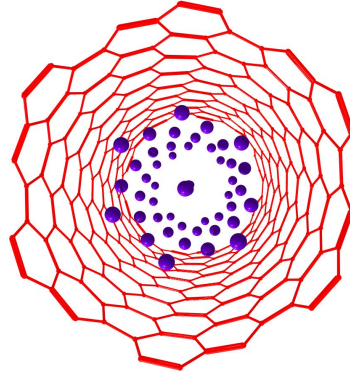
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 $a=4.80 \text{ \AA}$



$n=30$
 $a=5.70 \text{ \AA}$

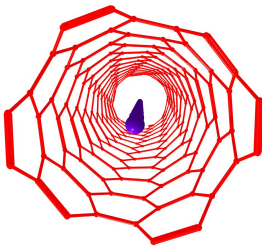


n=40
a=5.90 Å

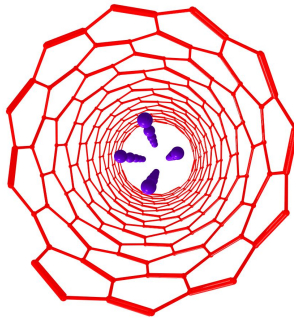


n=50
a=6.20 Å

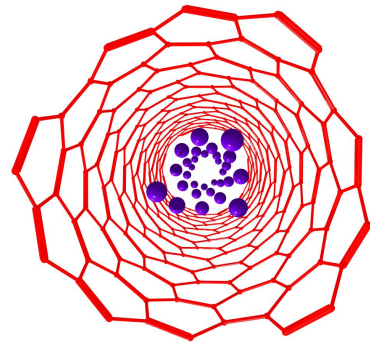
$L=30 \text{ \AA}$



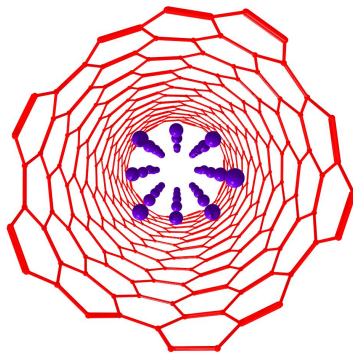
n=10
a=3.40 Å



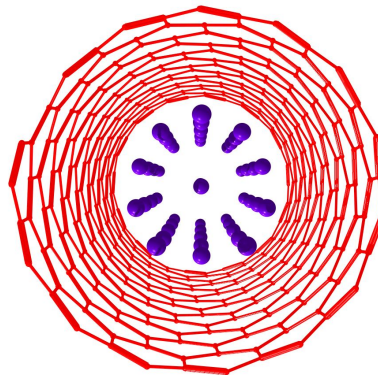
n=20
a=4.50 Å



n=30
a=4.70 Å



n=40
a=5.20 Å



n=50
a=5.70 Å

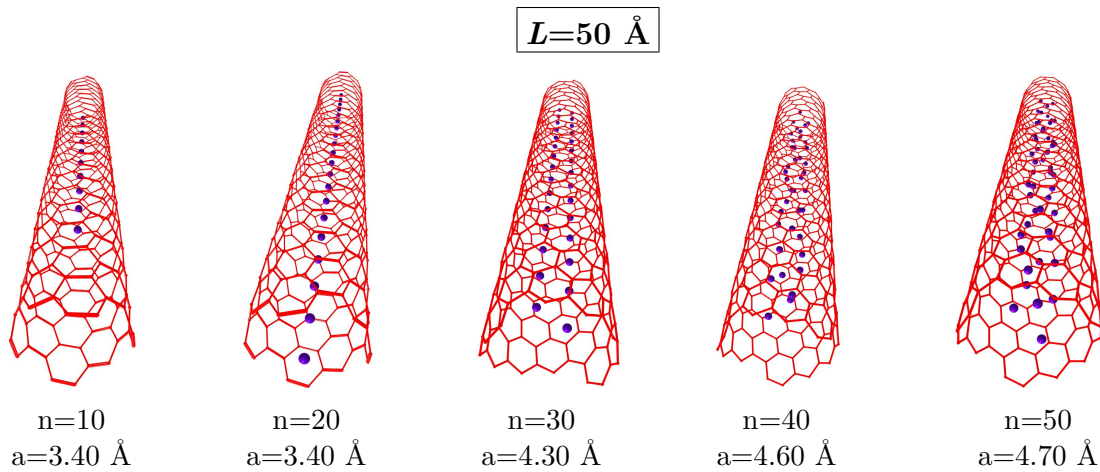
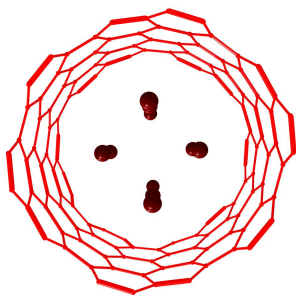


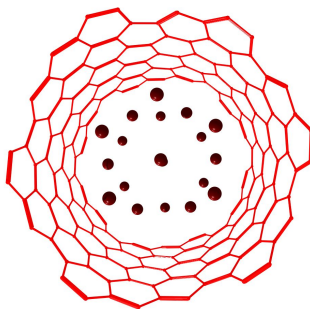
Figure S3: Optimized geometries of Ne clusters of size, $n = 10, 20, 30, 40$ and 50 inside CNTs of length, $L = 10 \text{ \AA}, 20 \text{ \AA}, 30 \text{ \AA}$ and 50 \AA . The optimal CNT radii for each case are also given.

Ar

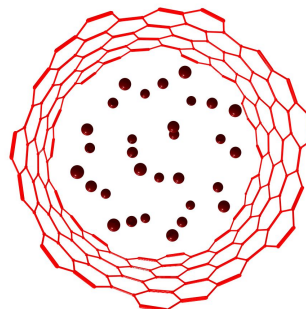
$L=10 \text{ \AA}$



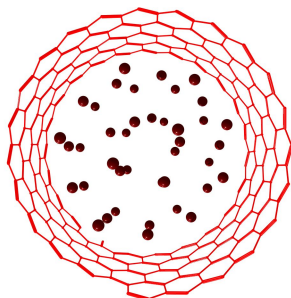
n=10
a=5.60 Å



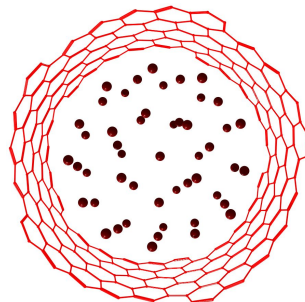
n=20
a=7.00 Å



n=30
a=8.40 Å

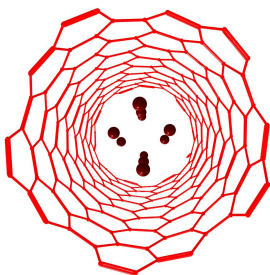


n=40
a=9.20 Å

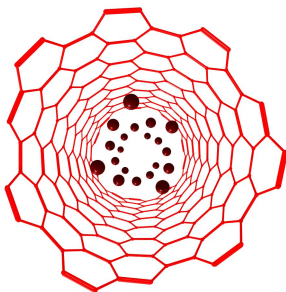


n=50
a=10.10 Å

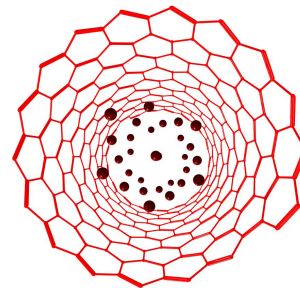
$L=20 \text{ \AA}$



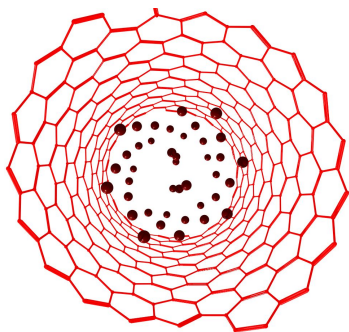
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a=5.20 Å



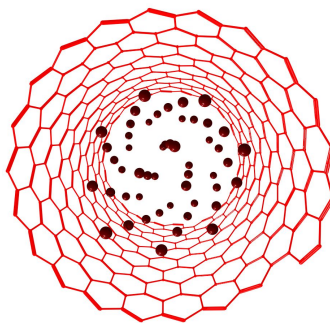
n=20
a=5.80 Å



n=30
a=6.90 Å

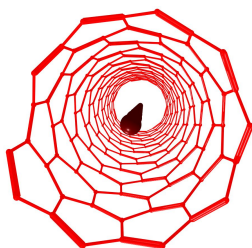


n=40
a=7.90 Å

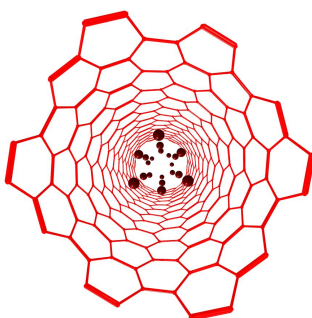


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a=8.40 Å

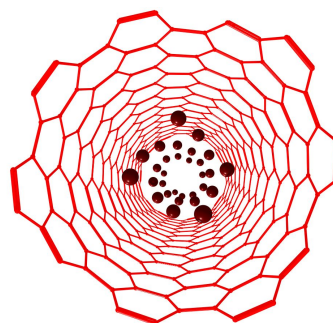
$L=30 \text{ \AA}$



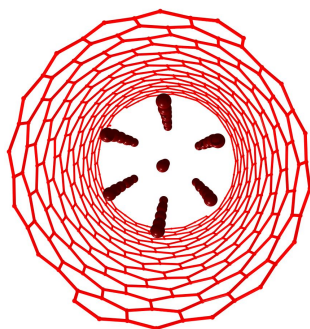
n=10
a=3.70 Å



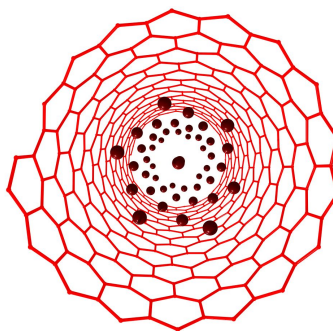
n=20
a=5.50 Å



n=30
a=5.80 Å



n=40
a=6.70 Å



n=50
a=6.90 Å

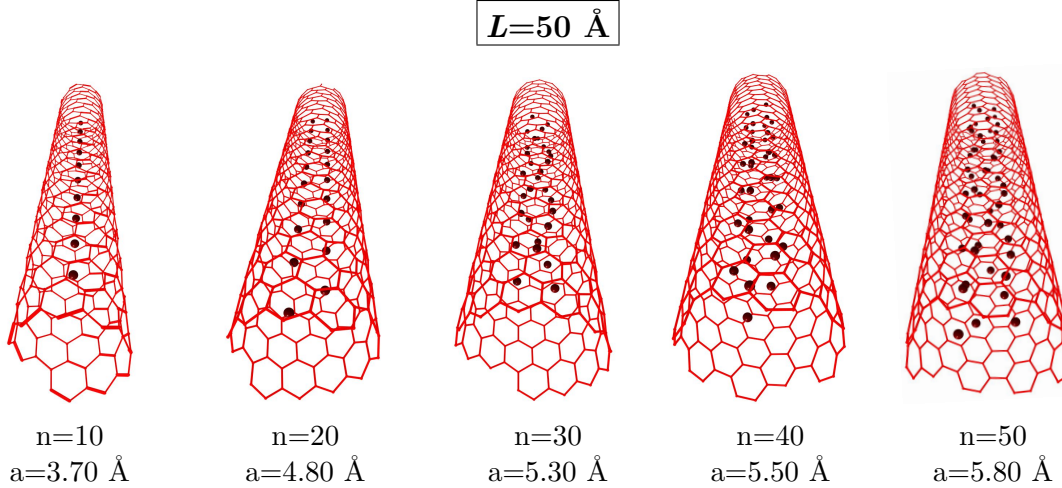


Figure S4: Optimized geometries of Ar clusters of size, $n = 10, 20, 30, 40$ and 50 inside CNTs of length, $L = 10 \text{ \AA}, 20 \text{ \AA}, 30 \text{ \AA}$ and 50 \AA . The optimal CNT radii for each case are also given.

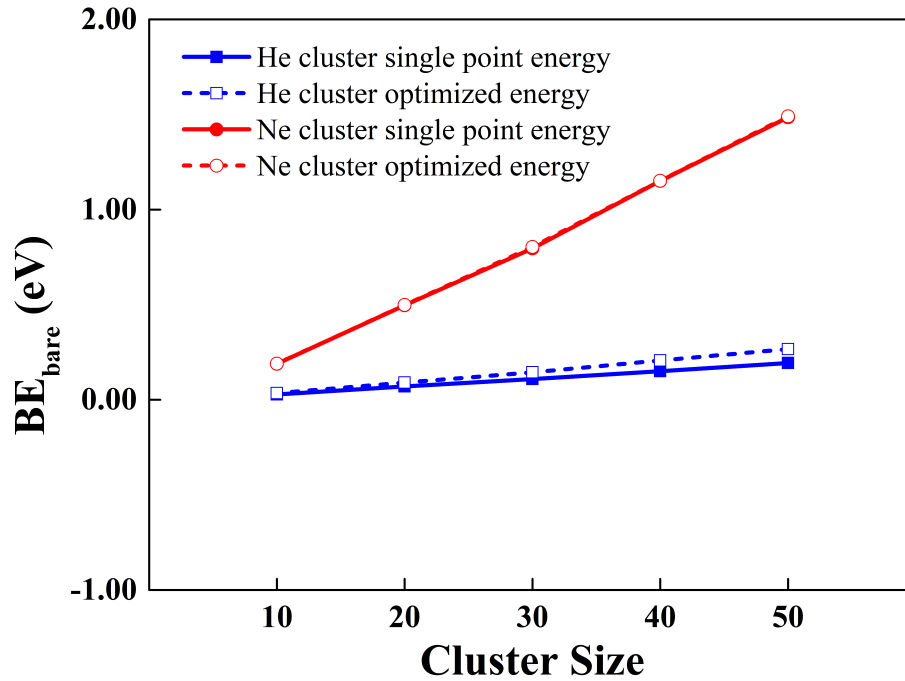


Figure S5: A comparison of the DFT optimized bare cluster binding energies and the single-point energies of the PSO geometries evaluated at the ω B97X-D/6-311G(d,p) level. We note that some of the optimized clusters have very small imaginary frequencies.

Effect of population size, iteration number as well as success rate of the PSO algorithm

We have considered He_{40} clusters encapsulated within CNTs of length 20 Å (for illustration purpose) and performed calculations with population sizes of 30, 60 and 90 with maximum iteration number varying from 1000-2500 for analyzing the effect of population size as well as iteration number on the putative global minima. Along with PSO, L-BFGS runs with iteration number varying from 7000-12000 are also carried out. The results from the analysis indicate that there is not much effect of population size as well as iteration number (beyond the numbers that we have originally employed) on the putative global optima.

Table S5: Effect of population size as well as iteration number on the putative global minima for the encapsulation of He_{40} cluster within CNT of length 20 Å.

Method	Cluster size	Atom	Length (Å)	Population size	Max. PSO iteration number	Optimal Radius (Å)	BE_{total} (eV)
Continuum	40	He	20	30	1000	5.60	0.9089
				60	1000	5.62	0.9088
				90	1000	5.60	0.9089
				30	1500	5.61	0.9072
				60	1500	5.59	0.9089
				90	1500	5.62	0.9090
				30	2000	5.60	0.9083
				60	2000	5.60	0.9089
				90	2000	5.60	0.9089
				30	1500	5.60	0.9279
				60	1500	5.62	0.9280
				90	1500	5.60	0.9282
Atomistic	40	He	20	30	2000	5.61	0.9276
				60	2000	5.59	0.9280
				90	2000	5.62	0.9282
				30	2500	5.60	0.9279
				60	2500	5.60	0.9281
				90	2500	5.60	0.9282

We now report the percentage success of the PSO algorithm in obtaining the global minima for the encapsulation of noble gas clusters into CNTs. In case of long CNTs (L=30

and 50 Å), the success rate is $\sim 80-90\%$. For short CNTs, the success rate for small cluster sizes (10-20 atoms) is $\sim 80-90\%$, whereas this decreases to $\sim 60-80\%$ in the case of large cluster sizes (30-50 atoms). The success rate, in general, diminishes with an increase in the cluster size due to the curse of dimensionality. In case of long CNTs, the cluster geometries tend to show linearity and hence the success rate is higher when compared to the case of short CNTs wherein the cluster geometries are not linear.

Coordinates for the putative global minima structures of bare clusters

The position coordinates of atoms are in Å units.

He

Cluster size	Atom	x	y	z
10	He	2.865634231	0.033443469	4.426388488
	He	5.127001905	4.150069805	3.275093901
	He	5.486446013	1.497477033	4.652711366
	He	2.412474162	4.19042731	2.089792161
	He	0.391736336	4.185144144	4.255856597
	He	2.950800696	2.913272565	4.734594273
	He	1.042231546	1.696020514	2.787402594
	He	2.918611883	5.806819675	4.475700089
	He	0.571378137	1.533883488	5.670710492
	He	3.911495671	1.674767355	2.193126445

He

Cluster size	Atom	x	y	z
20	He	3.656118348	6.275560383	0.562897888
	He	2.231476484	3.933130037	1.721967656
	He	-0.01659228	4.809917983	3.464816617
	He	6.651270596	5.927453876	1.251216701
	He	5.252540122	3.793660177	5.475049622
	He	4.580149626	5.065113274	2.958565006
	He	3.001443663	4.53095793	7.354004254
	He	4.951520206	3.512470768	0.613594743
	He	3.001122042	1.844141339	5.996572024
	He	2.535536804	4.249182471	4.57406767
	He	0.385557618	3.427017683	6.20190241
	He	6.860242184	3.384169541	2.947375818
	He	2.231828859	6.732625303	3.136332903
	He	6.860571832	6.07099418	4.304813099
	He	4.952068047	7.873879844	2.817069896
	He	4.104732665	6.545191677	5.412052342
	He	1.107594098	1.978493213	3.650783391
	He	0.622863855	6.152590339	0.807080236
	He	4.104195971	2.212069141	3.222872938
	He	1.108119686	6.339899495	5.854263126

He

Cluster size	Atom	x	y	z
30	He	0.965504757	4.091951259	0.050225606
	He	-0.935733029	-4.079979908	-0.396144534
	He	0.059202986	-1.37264458	-4.969688956
	He	0.776823088	1.711955581	-4.801187936
	He	-2.504726453	2.000940238	3.529146729
	He	2.590216155	0.794022044	3.923348946
	He	1.881191575	-2.253908114	3.756786799
	He	-3.213859355	-1.046973809	3.362621878
	He	3.93548631	-1.012689325	1.775427047
	He	-4.185609526	0.911164316	1.147130187
	He	2.717479554	-0.425760738	-3.779022631
	He	-2.039240579	0.701004163	-4.14690785
	He	2.244247707	2.13778971	-2.140507986
	He	1.124853789	-2.673404665	-2.403339499
	He	-1.835775104	-1.972101369	-2.632326369
	He	-0.716387821	2.839152548	-2.369466287
	He	2.912453929	1.813549865	1.000941793
	He	-3.029276635	-1.861017304	0.364803904
	He	-1.908636719	2.955644465	0.627927165
	He	1.791788261	-3.003055962	0.7377499
	He	-0.358387481	-0.145403636	4.187414587
	He	0.350100576	2.313380356	2.558317885
	He	-0.765554961	-2.48193156	2.29634569
	He	2.471065244	-0.53055695	-0.812106683
	He	-2.300438141	0.599757105	-1.181209852
	He	0.221182501	0.089750936	-2.584586309
	He	1.20937775	-0.37946433	1.795407247
	He	-1.498738115	0.262064086	1.585888647
	He	-0.301824612	-1.377804662	-0.317227495
	He	0.343214351	1.394570239	-0.165761625

He

Cluster size	Atom	x	y	z
	He	4.576829601	6.647269707	5.598344392
	He	1.704533874	5.96002794	5.597152886
	He	7.184916347	6.735770877	0.67387837
	He	6.168476686	0.462135417	3.463194181
	He	5.327285366	3.524420699	8.202409389
	He	5.572332494	8.818286207	3.939062087
	He	3.080426186	2.87736545	1.807486658
	He	6.57690492	4.609463839	5.768168592
	He	5.455005504	9.058590954	6.93776636
	He	2.35609759	5.519478332	0.612066997
	He	3.287156502	5.637893791	8.018608645
	He	3.35308646	1.465133275	7.317465497
	He	5.760329798	1.928371457	5.869409502
	He	6.23863438	6.055218239	3.323347757
	He	7.780658005	-0.042169578	5.941344596
	He	8.326063927	8.035731068	3.007282195
	He	1.299283075	3.547434244	7.157315915
	He	1.385854942	3.48107784	4.127367966
	He	6.032036025	0.580764327	8.335185224
40	He	4.790370005	-0.733360683	5.853527965
	He	7.776870759	4.038340845	1.872205285
	He	7.435170348	7.388159746	5.671974094
	He	6.132884538	6.346920761	8.053546748
	He	3.455623528	1.408005719	4.321332531
	He	1.083251424	0.921717475	2.714970498
	He	8.123307227	2.528311476	4.374689397
	He	4.414068139	7.497601747	1.57487711
	He	2.636856807	8.356107008	6.900142729
	He	8.891363839	5.420527901	7.247726987
	He	3.449042393	5.354801214	3.289414146
	He	3.762571645	3.9096522	5.738043368
	He	5.116252635	4.744544868	0.92651862
	He	2.715465245	8.10275962	3.900249731
	He	0.95003153	1.025605557	5.686155602
	He	5.831631621	1.932710263	0.952483921
	He	3.774198007	0.019455786	1.819858973
	He	5.444483122	3.310440814	3.435500333
	He	0.680927956	6.116271938	2.905373367
	He	8.063916029	2.614731706	7.373497289
	He	8.92634535	5.351715319	4.22931334

He

Cluster size	Atom	x	y	z
	He	8.888322957	6.660978015	4.147452243
	He	8.551279846	2.26696743	6.118206857
	He	-0.599625097	3.39128421	3.134176274
	He	0.140923125	3.150893221	5.985554769
	He	7.294280583	4.845068516	5.58700688
	He	4.358712737	8.850464003	2.832965872
	He	6.478614952	5.23394657	2.826263002
	He	6.539170309	2.569506001	4.125103459
	He	4.44160915	3.288751201	2.335367781
	He	0.789675899	8.232678233	6.364270265
	He	0.059820599	5.822112928	4.75048133
	He	5.743193735	2.756445402	6.965296825
	He	0.834012949	5.561818931	7.581760852
	He	3.257777432	4.882758451	0.221836556
	He	5.111885323	5.585432772	7.395463996
	He	0.927162674	2.884201268	8.818298659
	He	1.789755797	2.656342742	1.437199084
	He	3.886530699	1.700251172	4.843546927
	He	8.066843291	4.321422969	8.234744607
	He	10.09365816	4.818028747	6.107993548
	He	0.970710155	5.544746461	1.947075012
	He	8.534680777	0.670213449	3.570732919
	He	3.681855135	6.063187113	2.836391303
	He	5.342275983	0.500516652	2.574222494
	He	2.79954228	6.300693968	5.598732851
50	He	9.023974635	3.790576867	3.471072356
	He	6.316807292	0.177433678	5.598651088
	He	5.266763164	7.047417267	0.650442526
	He	8.665030515	5.768855452	1.182433081
	He	3.537647124	9.060821262	5.616252392
	He	2.87992883	3.657807129	6.816921641
	He	7.340984776	2.365599364	1.446956297
	He	6.673988646	6.613600198	9.549496784
	He	2.102985401	3.916718366	4.01979869
	He	5.684900703	3.835213779	9.717994726
	He	3.038175921	4.877911101	9.395625212
	He	1.639422182	7.984093175	3.560926533
	He	3.708334233	1.887214991	8.899995691
	He	7.134734511	8.10055335	2.48574177
	He	5.718696546	8.444324006	7.433558795
	He	6.115249638	4.435874738	0.019711009
	He	4.68464395	4.428408188	4.877695692
	He	2.471247078	7.746082968	0.767866657
	He	5.596328116	7.099916895	4.858110435
	He	8.218999706	7.040444687	7.057654758
	He	1.887822058	0.931156826	6.799804342
	He	7.523309806	9.175959599	5.177447259
	He	1.176457933	1.193082821	3.950653
	He	4.568678018	1.90262886	-0.086681393
	He	3.047742843	7.523310577	8.166442392

Ne

Cluster size	Atom	x	y	z
10	Ne	3.012172345	0.035153646	4.652737899
	Ne	5.389178139	4.362289283	3.442570294
	Ne	5.767002912	1.574052563	4.890634106
	Ne	2.535839318	4.404710525	2.196656533
	Ne	0.411768308	4.399157197	4.473485628
	Ne	3.101693913	3.06224673	4.976704207
	Ne	1.095527477	1.782748835	2.929940226
	Ne	3.067859082	6.103759317	4.704571116
	Ne	0.600596337	1.612320712	5.960690005
	Ne	4.111515336	1.760408868	2.305274956

Ne

Cluster size	Atom	x	y	z
20	Ne	3.843078946	6.596469721	0.591682439
	Ne	2.345586077	4.134256005	1.81002282
	Ne	-0.017440748	5.055879698	3.64199474
	Ne	6.991392388	6.230562312	1.315199373
	Ne	5.521135924	3.987654164	5.75502375
	Ne	4.814361823	5.324124749	3.109855262
	Ne	3.154926578	4.762654642	7.730061289
	Ne	5.204722944	3.692085751	0.644971747
	Ne	3.15458851	1.938444021	6.303214911
	Ne	2.665194936	4.466470211	4.807968858
	Ne	0.405273633	3.602262905	6.519045147
	Ne	7.211050023	3.557223665	3.0980939
	Ne	2.345956471	7.076907278	3.296713563
	Ne	7.211396528	6.381442746	4.524945587
	Ne	5.205298799	8.276521427	2.961124607
	Ne	4.314633767	6.879888979	5.688805019
	Ne	1.164232433	2.079666161	3.837471178
	Ne	0.654714848	6.467211436	0.848351384
	Ne	4.314069629	2.325186313	3.387678941
	Ne	1.164784897	6.664098901	6.153628854

Ne

Cluster size	Atom	x	y	z
	Ne	1.01487716	4.301198767	0.052793961
	Ne	-0.983583014	-4.288615244	-0.416401925
	Ne	0.062230411	-1.442836632	-5.223820777
	Ne	0.816546996	1.799498764	-5.046703228
	Ne	-2.632809055	2.103261046	3.709614459
	Ne	2.72267039	0.834625444	4.123974744
	Ne	1.977388871	-2.369164779	3.948895214
	Ne	-3.378204436	-1.100512242	3.534574134
	Ne	4.136732769	-1.064474575	1.86621593
	Ne	-4.399646377	0.957757946	1.205790253
	Ne	2.856441577	-0.447532594	-3.972268106
	Ne	-2.143519927	0.736850967	-4.358965638
	Ne	2.359010374	2.247108502	-2.249965781
	Ne	1.182374721	-2.810112858	-2.526237542
30	Ne	-1.929649967	-2.072947462	-2.766933967
	Ne	-0.753021289	2.984336485	-2.490632177
	Ne	3.061386232	1.906288211	1.052126317
	Ne	-3.184182827	-1.956182961	0.383458649
	Ne	-2.006237461	3.106785375	0.660037077
	Ne	1.883413798	-3.156621323	0.775475747
	Ne	-0.376714114	-0.152839049	4.401543742
	Ne	0.368003446	2.431678215	2.689140959
	Ne	-0.804702658	-2.608848514	2.413772458
	Ne	2.597426535	-0.557687703	-0.853634866
	Ne	-2.418074183	0.630426502	-1.241612628
	Ne	0.23249297	0.094340472	-2.716752655
	Ne	1.271220931	-0.398868756	1.887217845
	Ne	-1.575378132	0.275465091	1.666985226
	Ne	-0.317258825	-1.448260582	-0.333449355
	Ne	0.360765085	1.46588349	-0.174238071

Ne

Cluster size	Atom	x	y	z
	Ne	4.810872023	6.987186908	5.884623366
	Ne	1.791697538	6.264802096	5.883370931
	Ne	7.552326842	7.080213706	0.708338059
	Ne	6.483910153	0.485767342	3.640289338
	Ne	5.599703367	3.704646758	8.621850779
	Ne	5.857281314	9.269221297	4.140491398
	Ne	3.23794798	3.024503456	1.899914953
	Ne	6.913223922	4.845175058	6.063131758
	Ne	5.733954649	9.521814355	7.292538503
	Ne	2.476579853	5.801724383	0.643365877
	Ne	3.455249732	5.926195178	8.428651133
	Ne	3.524551109	1.540054863	7.691654074
	Ne	6.054892117	2.026981361	6.16954976
	Ne	6.557655457	6.364860081	3.493291676
	Ne	8.178532563	-0.044325977	6.245163354
	Ne	8.75182856	8.446649134	3.161063671
	Ne	1.365723687	3.728837131	7.523315024
	Ne	1.456722524	3.659087502	4.338426555
	Ne	6.340492413	0.610462502	8.761416287
	Ne	5.035332107	-0.770862081	6.1528561
40	Ne	8.17455165	4.24484691	1.967943055
	Ne	7.815377922	7.765963369	5.962018224
	Ne	6.446497951	6.671479209	8.465375843
	Ne	3.63233155	1.480006012	4.542309763
	Ne	1.138644963	0.968850755	2.853804216
	Ne	8.538703619	2.657600131	4.598395104
	Ne	4.639787532	7.881001836	1.655410598
	Ne	2.771696076	8.783407934	7.252990936
	Ne	9.346035854	5.697713987	7.61834939
	Ne	3.625413878	5.628626276	3.457622823
	Ne	3.954975877	4.109577597	6.03146604
	Ne	5.37787919	4.987163639	0.973897414
	Ne	2.854324263	8.517105283	4.099694319
	Ne	0.998612687	1.078051295	5.976924923
	Ne	6.129840056	2.031542038	1.001190486
	Ne	3.967196769	0.020450684	1.912919943
	Ne	5.722894191	3.479724719	3.611179328
	Ne	0.715748136	6.429035844	3.053943596
	Ne	8.476275371	2.748439577	7.750551128
	Ne	9.382806192	5.62538258	4.445585045

Ne

Cluster size	Atom	x	y	z
	Ne	9.342839472	7.001596209	4.359537869
	Ne	8.988561202	2.382891901	6.431069708
	Ne	-0.630287744	3.564702152	3.294446651
	Ne	0.148129421	3.312018442	6.291634274
	Ne	7.667283567	5.092827701	5.872706096
	Ne	4.581601456	9.303044549	2.977833445
	Ne	6.809907762	5.501591565	2.970787815
	Ne	6.8735597	2.700901194	4.33604625
	Ne	4.668736891	3.456925979	2.454789997
	Ne	0.830057053	8.653667461	6.689715904
	Ne	0.062879607	6.119834612	4.993403671
	Ne	6.036879778	2.897399996	7.321476776
	Ne	0.876661338	5.846230127	7.969464532
	Ne	3.424368324	5.132444963	0.233180471
	Ne	5.37328855	5.871051494	7.773641132
	Ne	0.974574402	3.031688833	9.269234386
	Ne	1.8812774	2.79217845	1.510692219
	Ne	4.085273746	1.787195834	5.091228304
	Ne	8.479352323	4.542404825	8.655839502
	Ne	10.60981113	5.064405217	6.420334127
	Ne	1.020348743	5.828284632	2.046641348
	Ne	8.971113317	0.704485727	3.753327216
	Ne	3.870131818	6.373236454	2.98143404
	Ne	5.61546055	0.526111253	2.705858871
50	Ne	2.942700692	6.622888546	5.88503169
	Ne	9.485427883	3.984413184	3.648570375
	Ne	6.639825847	0.186506991	5.884945746
	Ne	5.53608628	7.407796559	0.683703791
	Ne	9.108128666	6.063853743	1.242898409
	Ne	3.718549533	9.524158713	5.903447117
	Ne	3.027197918	3.844854085	7.165514225
	Ne	7.716376043	2.486567513	1.520948381
	Ne	7.015272156	6.951795662	10.03782332
	Ne	2.210524427	4.117005101	4.225356578
	Ne	5.975605852	4.031332666	10.21493764
	Ne	3.19353719	5.127349737	9.87608332
	Ne	1.723256271	8.392370667	3.743019367
	Ne	3.897964961	1.983720303	9.355109107
	Ne	7.499578889	8.514786191	2.612853565
	Ne	6.011129892	8.876136029	7.81368396
	Ne	6.427961268	4.662709242	0.020718958
	Ne	4.924199607	4.65486088	5.127123313
	Ne	2.597617667	8.142189484	0.807132566
	Ne	5.882503986	7.462980827	5.106536537
	Ne	8.639289464	7.400467426	7.418557559
	Ne	1.984358414	0.9787728	7.147521609
	Ne	7.908024512	9.645184806	5.442203084
	Ne	1.236617714	1.254092738	4.152675029
	Ne	4.802303598	1.999922382	-0.091113964
	Ne	3.203593329	7.908025322	8.58404456

Ar

Cluster size	Atom	x	y	z
10	Ar	3.69058954	0.043071134	5.70065184
	Ar	6.602956999	5.34478687	4.217923964
	Ar	7.065877442	1.928568906	5.992128274
	Ar	3.1069743	5.396762445	2.691398995
	Ar	0.504508917	5.389958367	5.481027436
	Ar	3.800273624	3.75194194	6.097583533
	Ar	1.3422679	2.184268843	3.589836674
	Ar	3.758818334	7.478479884	5.764159206
	Ar	0.735865782	1.975456007	7.303187754
	Ar	5.037532304	2.156897352	2.824481027

Ar

Cluster size	Atom	x	y	z
20	Ar	4.708637267	8.0821611	0.72494425
	Ar	2.873871229	5.065394745	2.217685617
	Ar	-0.021368844	6.194591342	4.462263826
	Ar	8.566030313	7.633842112	1.611415448
	Ar	6.764635006	4.885774471	7.05120027
	Ar	5.898677549	6.523251945	3.810273114
	Ar	3.865495627	5.835324606	9.471066084
	Ar	6.376957841	4.523636596	0.790235654
	Ar	3.865081418	2.375030512	7.722857909
	Ar	3.265464066	5.47243197	5.890844727
	Ar	0.496551478	4.413583379	7.987298558
	Ar	8.835160389	4.358400166	3.795862796
	Ar	2.874325046	8.670805314	4.039216618
	Ar	8.835584935	7.818704626	5.544077476
	Ar	6.377663393	10.14060283	3.628044564
	Ar	5.286398129	8.429413524	6.970067411
	Ar	1.426446945	2.548059441	4.701766488
	Ar	0.802173147	7.923790588	1.039421516
	Ar	5.285706933	2.848876924	4.150669693
	Ar	1.427123838	8.165022077	7.539581299

Ar

Cluster size	Atom	x	y	z
30	Ar	3.335884442	1.022604147	5.052797885
	Ar	2.422746725	-2.90276045	4.838286029
	Ar	-4.139061291	-1.34837536	4.330649389
	Ar	5.068429338	-1.304221101	2.286534833
	Ar	-5.390557723	1.173469195	1.477364635
	Ar	3.499784274	-0.548328223	-4.866923085
	Ar	-2.626294686	0.902808392	-5.340714655
	Ar	2.890319016	2.753214021	-2.756714831
	Ar	1.448675334	-3.443021159	-3.095209961
	Ar	-2.364255816	-2.539827521	-3.390117293
	Ar	-0.922620679	3.656484342	-3.05158537
	Ar	3.750887636	2.335632402	1.289091703
	Ar	-3.901341121	-2.396764709	0.46982321
	Ar	-2.458092745	3.806511811	0.808694077
	Ar	2.307606094	-3.867572072	0.950132447
	Ar	-0.461559635	-0.187262258	5.392882423
	Ar	0.450887105	2.979353489	3.294803337
	Ar	-0.985941996	-3.196427009	2.957414904
	Ar	3.182432512	-0.683293042	-1.045894971
	Ar	-2.962685485	0.772414453	-1.521255112
	Ar	0.284856251	0.115588326	-3.328633883
	Ar	1.557531951	-0.488704061	2.31226691
	Ar	-1.930193027	0.337506778	2.042432349
	Ar	-0.388713515	-1.774445398	-0.408550562
	Ar	0.442018482	1.796037429	-0.21348088

Ar

Cluster size	Atom	x	y	z
	Ar	5.894401758	8.560877653	7.209988989
	Ar	2.19523302	7.675793559	7.208454474
	Ar	9.253301356	8.674856432	0.867873658
	Ar	7.944250278	0.595174401	4.460174324
	Ar	6.860897819	4.539026658	10.56370906
	Ar	7.176488817	11.35688375	5.073034506
	Ar	3.967215543	3.705697928	2.327823726
	Ar	8.470256336	5.936430701	7.428701974
	Ar	7.025385876	11.66636714	8.93500213
	Ar	3.034368108	7.108419064	0.788268102
	Ar	4.233459131	7.260923822	10.32699598
	Ar	4.318368926	1.886914066	9.424008595
	Ar	7.418606558	2.483508695	7.559087995
	Ar	8.034604884	7.798387126	4.280069081
	Ar	10.0205444	-0.054309306	7.651731677
	Ar	10.72296112	10.34904759	3.873014948
	Ar	1.673319112	4.568665314	9.217755345
	Ar	1.784813182	4.483206309	5.315549653
	Ar	7.768531245	0.747954057	10.73470824
40	Ar	6.169415915	-0.944479667	7.538634501
	Ar	10.01566689	5.200893512	2.411173473
	Ar	9.575598175	9.515054218	7.304815121
	Ar	7.898411905	8.174064616	10.37199202
	Ar	4.450424241	1.813340699	5.565352502
	Ar	1.395096531	1.187060384	3.496552914
	Ar	10.46183507	3.256158719	5.634069677
	Ar	5.684784724	9.65600225	2.028250823
	Ar	3.395951949	10.76165296	8.886547454
	Ar	11.45099888	6.980982903	9.334193847
	Ar	4.441948536	6.896334897	4.236366703
	Ar	4.845736209	5.035158137	7.389904337
	Ar	6.589113242	6.110398693	1.193243678
	Ar	3.497190088	10.43537224	5.023048896
	Ar	1.223525455	1.320855641	7.323079184
	Ar	7.510434663	2.489096551	1.226683838
	Ar	4.860709555	0.025056694	2.343757769
	Ar	7.011834324	4.263446503	4.424508005
	Ar	0.876952671	7.87701689	3.74176873
	Ar	10.3853464	3.3674575	9.496170751
	Ar	11.49605083	6.892360639	5.446842938

Ar

Cluster size	Atom	x	y	z
	Ar	11.4470826	8.578532292	5.341415767
	Ar	11.01301192	2.919579266	7.879508831
	Ar	-0.772244443	4.367562997	4.03643914
	Ar	0.181491903	4.057968542	7.70866902
	Ar	9.394149235	6.239860967	7.195387649
	Ar	5.613493676	11.39832485	3.648516653
	Ar	8.343670771	6.740688764	3.63988417
	Ar	8.421658732	3.309212274	5.312633243
	Ar	5.720254209	4.235512911	3.007670627
	Ar	1.01700684	10.60269166	8.196408675
	Ar	0.077041681	7.498175741	6.118044137
	Ar	7.396537386	3.549967563	8.970458032
	Ar	1.074107585	7.162948624	9.764388976
	Ar	4.195622451	6.288401036	0.285698595
	Ar	6.583488674	7.193360389	9.524461207
	Ar	1.194073141	3.714501633	11.35689979
	Ar	2.304988526	3.42104747	1.850938214
	Ar	5.005380446	2.189717418	6.237901345
	Ar	10.38911636	5.565468975	10.6053529
	Ar	12.99940823	6.205037023	7.866355327
	Ar	1.250157018	7.140961351	2.507596607
	Ar	10.99163433	0.863153684	4.598671184
	Ar	4.741783128	7.80865007	3.652928193
	Ar	6.880203917	0.644604778	3.315286545
50	Ar	3.605471118	8.11453011	7.210489278
	Ar	11.62178551	4.881803541	4.470320459
	Ar	8.135282119	0.22851307	7.210383977
	Ar	6.782952559	9.076219207	0.837691131
	Ar	11.159509	7.429586568	1.522830483
	Ar	4.556060689	11.6692395	7.233052324
	Ar	3.708999251	4.710812212	8.77936878
	Ar	9.454298575	3.046605241	1.863504323
	Ar	8.595288407	8.517515406	12.29859434
	Ar	2.708390289	5.044258502	5.177013465
	Ar	7.321463026	4.939290474	12.51559927
	Ar	3.912802323	6.282158236	12.10042641
	Ar	2.111377053	10.28254424	4.586041747
	Ar	4.775884997	2.430504155	11.46211566
	Ar	9.188673233	10.43253083	3.201334098
	Ar	7.364987976	10.87526577	9.57352269
	Ar	7.875700292	5.712868981	0.02538539
	Ar	6.033253573	5.70325297	6.281880816
	Ar	3.182666691	9.976015944	0.98891918
	Ar	7.207392271	9.143832365	6.256657379
	Ar	10.58507538	9.067239369	9.089403856
	Ar	2.431285985	1.199217124	8.757323773
	Ar	9.689111114	11.81752373	6.667924499
	Ar	1.515135217	1.536546057	5.087962198
	Ar	5.883903507	2.450355351	-0.111635127
	Ar	3.925123358	9.689112106	10.51738793

Coordinates for the putative global minima structures of confined clusters from atomistic approach

The CNT lengths as well as position coordinates of atoms are in Å units.

He

Length	Cluster size	Atom	x	y	z
		He	0.358874379	1.395799172	3.045489838
		He	1.294405458	-0.558028474	1.372334469
		He	-1.427445803	0.33421289	4.728082025
		He	0.693599093	-1.289417804	3.877364077
10	10	He	1.425139985	-0.197509538	8.019847644
		He	-1.298649924	-0.619351626	2.199998977
		He	-1.06507538	-0.92337196	8.847388205
		He	-0.270931549	-1.438874081	6.34244428
		He	-0.764307537	1.22186026	7.174307272
		He	1.25945923	0.750437739	5.491777267

He

Length	Cluster size	Atom	x	y	z
10	20	He	0.906318789	-2.204642994	1.70931613
		He	1.86247247	1.576439583	3.973321149
		He	-2.450071904	-0.052022921	3.935402223
		He	-1.945942074	1.448038463	6.27352346
		He	0.620104673	2.285456486	1.629051003
		He	-1.836349435	-1.493745659	1.675598403
		He	2.059317248	-1.28351715	3.969191277
		He	-0.672827815	-2.337290701	3.954167236
		He	-0.73926077	-2.239786859	8.469967018
		He	-2.372260845	0.082706364	8.534245123
		He	2.442090928	0.117632961	6.265839648
		He	1.953699337	-1.303937194	8.530464588
		He	-0.002790935	0.008154866	5.094459382
		He	0.851905044	-2.290407594	6.238504327
		He	1.810626562	1.500921599	8.597433794
		He	-1.957246292	-1.439856123	6.230854203
		He	-1.983180928	1.282136905	1.610682727
		He	2.390029191	0.158373608	1.661413451
		He	0.650197936	2.340635614	6.305889954
		He	-0.873186654	2.289320075	3.928010591

He

Length	Cluster size	Atom	x	y	z
10	30	He	3.398089055	-0.111934452	4.402686471
		He	3.264486284	0.93180218	7.351911444
		He	2.924569226	1.628804797	2.451674271
		He	-2.934916208	-1.681649973	8.969576477
		He	-2.112775338	-2.697588358	6.502742814
		He	2.952307213	-1.712567989	6.453425695
		He	-0.998401414	3.225660844	9.357320477
		He	-0.882697381	0.081154705	7.915260743
		He	0.699254807	-3.340534516	6.349668204
		He	2.072520802	2.663029161	9.313608103
		He	-2.356229028	2.469898367	7.103904812
		He	-0.679616347	-3.311270848	8.714862804
		He	0.623147171	3.358493909	7.126635628
		He	-3.130277685	-1.393957128	4.382997943
		He	-0.826220564	-3.303767879	4.150760859
		He	2.012641967	-2.68352145	8.737776587
		He	-3.117553541	1.458333379	4.669429929
		He	-3.43059192	-0.171589263	6.790363169
		He	-2.275841522	-2.502358018	2.009286903
		He	0.937853148	0.108799157	5.761870829
		He	-1.973166182	2.736310907	2.513169643
		He	0.814250642	3.307105593	3.035783484
		He	3.128609545	-1.298322704	1.855726298
		He	2.384380969	2.463734705	5.192753072
		He	-1.002793838	3.276216834	4.98472962
		He	-3.367008685	0.219870968	2.207351177
		He	2.089149107	-2.703940051	4.029677729
		He	-0.855926799	0.119722205	3.567274995
		He	0.600188198	-3.321836603	1.802408762
		He	-3.189461421	1.145443532	9.279508802

He

Length	Cluster size	Atom	x	y	z
		He	-0.415545458	3.944892309	1.920109251
		He	-1.467351485	-0.813555792	6.649862223
		He	-2.261530319	3.383857772	3.839075065
		He	-1.657316634	3.723619742	6.463194242
		He	-1.706401442	-3.677118786	7.21037684
		He	-0.935661472	3.884571541	9.028332552
		He	0.751574068	-1.367664732	8.104603623
		He	-4.029882167	-0.190470232	3.951948669
		He	3.409478136	2.181693616	7.80254394
		He	3.944703251	0.987501535	3.245749882
		He	-1.297221653	-0.852822296	3.696182426
		He	1.751086779	-3.669893351	4.004604098
		He	-3.615029416	1.841136026	5.665625412
		He	1.336421141	0.97806954	6.622713564
		He	-0.226544953	-3.962034498	2.099426291
		He	1.120913425	3.880141473	7.052130858
		He	-4.033542706	-0.286087123	7.339086342
		He	3.928720956	-0.577142556	8.341455383
		He	3.832403266	-1.068176182	1.252788631
10	40	He	3.274790269	-2.400328157	6.343091014
		He	0.387695017	4.018144795	4.515764795
		He	-3.266926246	2.320621984	8.317284062
		He	4.0301584	0.267099037	5.794855151
		He	-0.999511155	-3.900805594	4.679567887
		He	1.008417944	-3.928320067	6.656616821
		He	3.660058186	-1.716106145	3.824269739
		He	2.281995463	3.299394207	2.616805095
		He	-0.926177821	1.471707418	5.172121097
		He	2.923687653	2.808515142	5.188416888
		He	2.636837666	-3.051120395	8.878513608
		He	1.277961314	0.891591662	3.647201199
		He	3.735278664	1.794180161	0.661977246
		He	0.945387561	-1.433929747	5.254269019
		He	-3.195896814	-2.355711869	8.996519031
		He	1.800004986	3.539440232	9.618246135
		He	-2.832210956	-2.887956971	2.855864969
		He	0.01859122	-3.982317747	9.25314156
		He	-3.945553452	-0.830947834	1.296036999
		He	-3.340282931	-2.334095122	5.474763445
		He	-3.565180468	1.849398862	2.045554787

He

Length	Cluster size	Atom	x	y	z
		He	2.23752595	-4.206697472	8.873230297
		He	-0.974342019	4.697844301	2.377989478
		He	-4.764246926	0.905998417	8.09161911
		He	-2.790893951	-3.901649086	2.638887264
		He	4.573299586	1.529955779	5.440119901
		He	3.816179151	3.00359926	7.55626812
		He	-1.221440062	4.647430868	7.140332472
		He	-4.510898021	-1.636397484	3.005987561
		He	-3.6661692	-3.136750217	5.14201159
		He	4.095448405	2.464410807	2.920045295
		He	-4.249299703	2.257378267	5.758859015
		He	-2.46996401	4.124639567	4.719809152
		He	4.667316143	-1.322465817	5.893501572
		He	3.835077385	-2.889107817	3.859914389
		He	-4.799331156	-0.483645801	5.48868765
		He	-0.108428754	-4.782857471	2.218959624
		He	4.365170279	-1.893789662	1.312248689
		He	4.260423711	-2.225648898	8.546449746
		He	-0.745447993	-2.179939347	8.101536764
		He	-2.31532114	-4.252767783	7.172561177
		He	0.549450201	-2.45247868	5.61095114
		He	-1.208648935	-4.639638778	4.728087376
		He	0.835917433	2.216427163	3.824218005
		He	2.193228253	-0.91180945	7.318154235
10	50	He	2.592597338	-4.038458133	1.736646649
		He	4.838014619	-0.229891452	3.362067046
		He	-4.696330192	1.128470993	3.248396775
		He	2.420901198	-0.241504642	4.571872007
		He	-0.194904482	0.16490355	5.53852701
		He	2.939861924	3.833220711	5.028250938
		He	-4.326161606	-2.151051655	7.567582521
		He	0.991211292	-2.118210507	2.892723707
		He	1.617945942	-4.559277974	4.302810027
		He	2.434978441	4.105680331	9.688590436
		He	1.516167334	4.587645008	7.210942123
		He	1.664132979	1.850246651	6.542038124
		He	0.254828924	4.807997951	4.802614398
		He	-3.451797968	3.350422746	2.201369206
		He	4.348741936	2.004234181	10
		He	-2.101105516	1.486463658	4.010908747
		He	-3.186152165	-3.562332996	9.646018385
		He	4.791178264	0.395470324	7.927731888
		He	-4.668566262	-1.068879687	10
		He	3.151080126	-3.653689967	6.381482019
		He	1.914905727	4.414337786	2.559223088
		He	0.49863847	-4.835206564	6.83171303
		He	-2.513208544	-0.117276009	6.938951314
		He	-1.757581569	-1.584593228	3.967524571
		He	-0.578924884	-4.748406777	9.310855785
		He	-3.413013849	3.375814065	8.203345689

He

Length	Cluster size	Atom	x	y	z
20	10	He	0.253456849	-0.21488288	20
		He	-0.274296209	0.232550391	17.71462302
		He	0.307791429	-0.260947925	15.48714403
		He	0.274298145	-0.232547867	2.285377452
		He	-0.307794452	0.260944114	4.512856912
		He	-0.320956517	0.272107425	8.904806993
		He	0.32095601	-0.272108593	11.09519548
		He	-0.318341862	0.26989274	13.28717131
		He	0.318344812	-0.269889233	6.712830488
		He	-0.253456792	0.214879889	0

He

Length	Cluster size	Atom	x	y	z
20	20	He	-1.462744058	0.027604812	6.568338489
		He	1.47188119	0.056756457	16.42729618
		He	-0.032110271	1.472995973	11.49395474
		He	0.086394869	-1.46480894	14.7343005
		He	-0.837002981	-1.20999135	10.73944886
		He	1.221293927	-0.822926915	5.830059984
		He	0.040073807	-1.459683748	8.184055199
		He	-1.194905027	0.835578298	15.6450599
		He	-1.136884951	0.819500945	2.495338376
		He	-1.189589731	0.863788388	9.141218489
		He	1.205983406	-0.851823868	12.36627537
		He	-0.107361301	1.402199625	18.10050704
		He	0.881686132	1.174185315	14.03013016
		He	1.467846816	0.061142014	9.831389774
		He	-0.868665211	-1.188066439	4.229202002
		He	-1.463949879	-0.063066246	13.09913845
		He	1.396102637	-0.226004057	3.090771
		He	0.064534714	1.44308415	4.867230219
He	0.843043163	1.211572176	7.48370199		
He	-0.751653195	-1.20696205	17.33377455		

He

Length	Cluster size	Atom	x	y	z
		He	-1.663023306	0.009006822	1.973399077
		He	1.528353557	0.754194995	14.69150229
		He	1.706212846	-0.238683358	17.13331987
		He	0.982032162	1.411815116	5.325626433
		He	1.255392317	-1.180461651	5.96403761
		He	-0.891582875	1.452231436	7.175807474
		He	1.709929458	-0.264689822	10.33191341
		He	0.486725603	-1.66007896	15.32565424
		He	-1.685714599	-0.319466239	16.09624175
		He	1.489288237	0.778363224	0.798800982
		He	1.590469835	0.672327739	7.811990925
		He	1.029759587	1.198591099	19.23930436
		He	0.107162381	1.724942757	2.825743583
		He	0.450225983	-1.583143963	1.532115614
20	30	He	-1.30999488	-1.126965055	13.52002973
		He	-0.332455511	-1.667215661	17.95500704
		He	0.905494075	1.441403667	12.19733186
		He	-1.309074145	-1.088628245	6.593784961
		He	0.03283373	1.702099689	9.681189152
		He	-1.682716217	-0.227228081	9.115957065
		He	-1.586646642	0.526655802	18.70207622
		He	-0.553422926	-1.594182873	4.031972415
		He	1.708233855	-0.28655449	3.460903755
		He	-1.529210766	0.752463215	4.64678012
		He	1.305777666	-1.123657458	12.84114104
		He	-1.546749782	0.704148189	11.62511777
		He	-0.961091647	1.404561872	14.17980082
		He	-0.481717586	-1.656558388	11.00893066
		He	-0.061672766	1.682815525	16.73204771
		He	0.465586076	-1.657339956	8.491692087

He

Length	Cluster size	Atom	x	y	z
		He	-2.224875427	0.967433297	12.48389137
		He	1.229306614	-2.107396741	12.47738231
		He	2.398190234	0.494157766	12.47582408
		He	-0.419150266	-2.405435494	14.94718407
		He	1.530540281	1.86887689	10.15555829
		He	-1.605442849	-1.820625821	12.48575647
		He	-0.031328674	-0.056397905	16.27119864
		He	-0.004103412	0.00386421	8.923952513
		He	-1.697320938	-1.722627939	17.60397319
		He	2.235910591	-0.921464936	10.12979868
		He	2.423110433	0.301194752	17.3072517
		He	2.251813101	0.913476307	2.917131348
		He	-2.318180172	0.641753256	2.820484861
		He	-1.512090523	1.90918852	5.36076449
		He	1.527572443	1.763631984	19.50553214
		He	-0.000790699	-0.003996355	13.5852144
		He	0.263836412	2.425977958	12.492099
		He	-2.293271234	0.769077842	7.697029736
		He	1.095324979	-2.17346808	17.52495676
20	40	He	-1.326749816	2.038754898	10.15587443
		He	-2.305131279	-0.816042007	5.332236647
		He	2.324830137	0.748000612	7.720256642
		He	-0.190361824	-2.428641227	10.11881763
		He	-2.124843009	1.11890598	17.52548349
		He	1.579679971	-1.826498923	2.92656787
		He	0.373137245	2.414264641	17.16878723
		He	-2.411958678	-0.420083524	14.9737383
		He	0.02501237	2.434280896	7.711487966
		He	-2.365910649	-0.610596748	10.13385094
		He	1.347698028	2.007002185	5.378677662
		He	1.711614041	1.70008515	14.88997616
		He	-1.293887778	-2.013996773	2.876939729
		He	-0.010399818	0.01061989	4.173824656
		He	-1.213347468	2.108213536	14.92196853
		He	0.043426053	-2.43480204	5.331909373
		He	-1.424313377	-1.949868386	7.684369407
		He	1.431143435	-1.963758725	7.702371817
		He	-0.128193481	2.417761904	2.889343067
		He	2.316943106	-0.686430203	5.368127042
		He	2.126459922	-1.15739979	14.91869646

He

Length	Cluster size	Atom	x	y	z
		He	-2.705422983	0.406858538	13.68446678
		He	-0.00812385	0.010684657	11.6057989
		He	2.678923356	0.648066991	14.50829272
		He	-1.454476715	2.347579543	12.1833882
		He	-0.333171519	-2.714470855	16.96260408
		He	2.042277018	-1.794798243	15.64715266
		He	2.396198804	-1.322295335	10.12874514
		He	2.721544853	0.4390645	17.21470209
		He	-1.619099018	2.228447225	9.452937089
		He	-1.539400507	-2.273286894	4.300516658
		He	0.577099542	-2.680486952	8.517248787
		He	2.50183523	-1.12371873	7.409828191
		He	-1.810897728	2.061960295	6.687945211
		He	-1.221081281	2.459528974	17.61640626
		He	0.019355235	-0.01372561	3.351392696
		He	0.01619433	0.015846525	17.10648265
		He	2.594494385	-0.820274425	2.059711581
		He	0.823013173	2.59922308	10.56639105
		He	1.029627345	2.519789476	13.28492324
		He	-0.011925248	0.002083432	8.865203219
		He	-2.660884866	-0.499894866	2.508650785
		He	-2.725317473	0.237324674	10.93746412
		He	-2.698427357	0.421035563	16.5709932
		He	1.296692888	2.315323408	18.66819159
20	50	He	2.571252073	-0.951701848	4.727891831
		He	-2.738784428	-0.183752116	5.450203674
		He	-1.337744313	2.411505177	14.9065468
		He	-2.109737797	-1.77358237	15.1842667
		He	2.246552514	-1.5482432	12.88379955
		He	-1.667681562	-2.187073826	7.044052825
		He	0.113942339	-2.742249132	14.04856907
		He	2.599203755	0.894549076	11.77271415
		He	2.264233148	1.541053194	3.603420337
		He	1.871522779	-1.916639061	18.36841922
		He	-0.009301271	-0.006563069	6.118238796
		He	-1.960296076	-1.932660191	12.45995311
		He	0.036590151	2.718013431	2.324406765
		He	0.564378119	2.672595502	7.817839277
		He	-1.814690997	-2.071968562	9.754328192
		He	2.4914783	1.142975552	9.019522526
		He	0.728524073	-2.647311614	5.749665137
		He	0.71992985	-2.649464267	2.892440747
		He	2.130472217	1.594884802	0.893734205
		He	1.18338385	2.442238107	15.97009315
		He	2.373402983	1.36628162	6.293306135
		He	0.002126914	0.013076803	14.34567075
		He	0.374965967	-2.71358731	11.27052478
		He	-2.737598198	0.04093537	8.206488005
		He	-2.02965478	1.831148828	3.865312259
		He	0.286108024	2.723053578	5.06297672

He

Length	Cluster size	Atom	x	y	z
30	10	He	0.014080323	-0.013396463	5.965226538
		He	0.012189711	0.015043917	24.67820878
		He	-0.014630728	0.012204379	22.00323001
		He	0.015348975	0.002806506	3.275416733
		He	-0.012918238	-0.014024738	8.640229
		He	0.012638367	0.014243989	13.98558703
		He	-0.014098802	0.012790651	11.31314125
		He	0.015139031	-0.002375653	27.36795385
		He	-0.012308752	-0.014515721	19.33034457
		He	0.014375574	-0.01247671	16.65792312

He

Length	Cluster size	Atom	x	y	z
30	20	He	-0.63007974	0.910166362	6.949180256
		He	0.942089154	0.632116789	18.3221677
		He	0.689154139	-0.900895776	14.56105674
		He	1.010750863	-0.500896971	20.84598419
		He	-1.130622142	-0.061081555	19.57838635
		He	-0.864193343	-0.733701988	10.79744965
		He	-0.658812424	0.906841446	22.12724232
		He	1.121175439	0.174460691	12.05192943
		He	0.186882335	-1.106869323	8.260571408
		He	-0.856472195	0.580268556	4.154401893
		He	-0.135632102	1.126679594	15.81596451
		He	-0.284982516	-0.990122146	26.24630795
		He	0.638938632	-0.713880806	2.401153452
		He	-0.469061946	-1.03364239	17.06822333
		He	0.160174578	1.077717037	24.79701848
		He	0.207911582	-1.087803903	23.44105949
		He	0.857554854	-0.669995669	5.59145428
		He	0.366201496	1.069362824	9.535537578
		He	-1.050338215	0.428719784	13.30617651
		He	0.168830482	0.938965844	28.00748462

He

Length	Cluster size	Atom	x	y	z
		He	-0.986630653	0.946055945	20.89176475
		He	-0.303950834	-1.325727541	11.99615239
		He	-1.139605692	0.756357328	4.049807202
		He	1.358583798	0.108266975	20.01084291
		He	0.309910693	-1.332716239	4.786533177
		He	1.051193502	0.878989195	22.67266133
		He	0.593394686	1.231867866	15.55548694
		He	-1.204356211	-0.670328247	26.20170836
		He	-1.358893733	-0.110815873	6.640895392
		He	1.35360749	-0.193506915	10.20995884
		He	0.353408127	1.322016147	25.40239035
		He	0.798585695	-1.101540936	24.45291422
		He	-1.348216462	0.229086884	23.57375298
		He	1.174402378	-0.718100276	17.336742
30	30	He	1.21071287	0.646977914	12.88884196
		He	-1.306572491	-0.381942613	16.44708446
		He	-0.241571387	1.348305641	18.22718397
		He	-0.864454258	-1.064097887	19.11260485
		He	-0.032624292	-1.374666401	21.79539082
		He	-0.752511994	1.145549419	11.10717187
		He	1.228968211	0.54859948	2.921395553
		He	0.030254325	1.363464393	8.423441606
		He	0.485406259	-1.280481202	14.66524241
		He	-0.754858271	-1.058257102	2.127506101
		He	0.871897101	1.059698557	5.778305442
		He	1.21664429	-0.578474476	27.21382442

He

Length	Cluster size	Atom	x	y	z
		He	1.659824888	-0.175336151	19.28950325
		He	0.043574672	-1.668586377	12.53526482
		He	0.154628565	1.664545735	23.43681625
		He	1.678100289	0.013125267	13.90516324
		He	-1.632028037	-0.337679642	3.030512204
		He	0.003665779	1.661783156	9.780241126
		He	1.643890746	-0.19967493	27.51302353
		He	-1.665151154	0.184622216	24.80550689
		He	-0.320671568	-1.607357346	28.80954761
		He	-0.184936035	-1.647825492	20.66431334
		He	-0.031734171	1.662403147	12.53744215
		He	0.012842906	1.68416696	15.24521627
		He	0.018459863	-1.663394736	9.769185628
		He	1.691545079	0.141370145	5.674956765
		He	-0.035888569	1.689055135	7.058952049
		He	-0.156332223	1.671834586	4.364212319
		He	0.176688416	1.655036165	20.66343038
		He	1.633824551	0.086699351	2.896249541
		He	0.061153692	-1.679994463	7.047138533
30	40	He	-1.656041719	-0.029802982	11.1557903
		He	-0.167047522	-1.675926614	17.94213085
		He	-0.152136335	-1.656306126	23.41505399
		He	-0.193009947	-1.671900682	26.11740568
		He	-1.693327543	0.085860781	16.58943144
		He	0.219236304	-1.683280374	4.36634575
		He	-1.650906461	0.173132849	22.05592972
		He	-1.616538835	0.376641217	27.51678744
		He	0.256976972	1.684624105	26.16689309
		He	1.651808199	-0.151940022	22.04215792
		He	-0.03098294	-1.692179587	15.25359911
		He	-1.678569725	-0.037811173	13.8950163
		He	-1.684148519	-0.093283692	5.720171266
		He	-1.664922487	0.191401909	19.29487634
		He	1.679808684	0.014080694	8.39227424
		He	1.661448082	0.018813539	11.15661496
		He	1.676234134	-0.162329853	24.78416493
		He	-1.670076645	-0.00777432	8.412377371
		He	0.139870974	1.67905854	17.93059033
		He	-0.36107266	1.570401355	1.668661389
		He	1.682941212	-0.098063629	16.59446775

He

Length	Cluster size	Atom	x	y	z
		He	-1.839956672	0.950817685	25.11674603
		He	0.268975353	-2.06192363	13.05907749
		He	-1.474631342	1.480514288	12.66023434
		He	1.980709418	-0.329406989	2.492296642
		He	-1.975832276	0.546036257	22.40408877
		He	-2.046274314	-0.208654901	16.92193625
		He	1.701222268	1.171583271	5.052783303
		He	0.466492925	1.96715959	7.578296308
		He	0.81341117	-1.883890933	10.28356278
		He	-1.768163085	-1.040752462	5.018120572
		He	-1.962544744	0.537405105	7.259075406
		He	-1.793858083	-1.037886167	11.65893221
		He	1.50565607	1.415490133	16.36870529
		He	0.512977435	2.007622534	26.17020816
		He	1.134778276	1.739795924	13.70625109
		He	-0.665584493	-1.937333879	18.52870768
		He	-0.990747553	1.783515423	5.063948184
		He	-0.23739	-2.057848736	15.78396333
		He	-1.058919579	1.784051323	15.30915774
		He	-1.969416914	-0.659408724	14.27335362
		He	1.726149066	1.098013244	19.08421652
		He	-1.655510814	1.220833169	9.892858416
		He	0.844404456	-1.89347283	25.63925727
		He	0.368352523	-1.992463622	28.3565341
30	50	He	-0.999396359	-1.784031638	21.3077053
		He	2.020834374	0.420430501	24.55498332
		He	0.060647546	2.05577959	23.47909508
		He	-1.947110234	0.541244728	2.743824378
		He	2.063055166	-0.198182466	12.06749806
		He	0.444459658	1.999875595	2.726061474
		He	0.980739571	1.783002133	28.85024333
		He	-1.339847986	-1.573378416	24.04541794
		He	1.94342524	-0.724001206	14.73339273
		He	1.722808318	-1.12546635	17.43816935
		He	-2.03304773	0.177839803	19.64724882
		He	1.173562367	-1.68098881	4.693448265
		He	-0.225647404	-2.084910796	6.96888812
		He	-1.577588941	1.300059698	27.81521859
		He	1.884186395	0.79727921	21.83689633
		He	1.482964445	-1.404465791	20.19196969
		He	2.065512058	-0.084164573	27.23060807
		He	1.226134224	-1.648922946	22.94389005
		He	-1.667640187	-1.247895775	26.75005725
		He	-0.581014638	-1.951126356	2.658294386
		He	-0.663309412	1.941695556	17.99459503
		He	2.011638112	0.497792365	9.455017849
		He	0.603668464	2.00829534	11.06772981
		He	1.964986503	-0.580016326	7.071966667
		He	-0.316226175	2.016676322	20.73794922
		He	-1.565497295	-1.382376794	9.092399331

He

Length	Cluster size	Atom	x	y	z
50	10	He	0.011294071	-0.014479568	35.99348567
		He	0.012646287	0.013337572	18.27872493
		He	3.43999E-05	-0.018382981	21.23121573
		He	0.018359116	-0.000869871	27.13589786
		He	0.014133784	-0.011737467	12.36859157
		He	-0.012696782	0.013287793	24.1836082
		He	-0.018348752	-0.0009774	15.32586499
		He	0.001782476	0.018286555	33.04063607
		He	-0.013896641	-0.012024296	30.08820726
		He	-0.018130897	0.002981073	38.95070891

He

Length	Cluster size	Atom	x	y	z
50	20	He	0.009433558	0.017118391	11.76891598
		He	0.019519081	-0.001118296	14.29312515
		He	-0.003075628	0.019295478	24.38967604
		He	-0.001435998	-0.019494256	31.96204498
		He	-0.013116319	-0.014493902	19.34141308
		He	0.007401072	-0.018095244	16.81728096
		He	-0.014280505	0.01334308	37.01033386
		He	0.019332633	0.002731191	42.05888123
		He	0.034037695	-0.038196549	1.639741151
		He	-0.018737876	0.005568293	21.86554933
		He	0.005871873	0.018645318	39.53453164
		He	-0.012626653	-0.01789022	47.11157751
		He	0.016092159	0.011110975	26.91379756
		He	0.016963934	-0.009720469	29.43792373
		He	-0.004397858	-0.022228815	4.191754976
		He	-0.047409706	-0.001105409	49.66283951
		He	-0.019158534	-0.003574884	6.719632651
		He	0.010641958	-0.016344732	44.58378573
He	-0.011368941	0.015861522	9.244555877		
He	-0.018200914	-0.007124636	34.4861826		

He

Length	Cluster size	Atom	x	y	z
50	30	He	0.938352537	0.234110383	18.01410373
		He	-0.538722655	-0.593732443	48.19684531
		He	0.850844186	0.474616125	33.57558625
		He	0.781700588	-0.177283928	1.823877005
		He	0.952366633	0.1851662	21.10375862
		He	0.875500527	0.390244282	42.92692617
		He	-0.810110381	-0.530499271	35.14145978
		He	0.965623453	0.065079616	14.88266169
		He	-0.830794985	-0.481384198	41.37223637
		He	-0.859695645	-0.428947421	25.79432188
		He	-0.860805379	-0.435869976	32.01392724
		He	0.845059619	0.48198291	39.81221584
		He	-0.946332405	-0.15274046	13.33598755
		He	0.955538746	0.091316383	8.652568103
		He	-0.809508962	-0.540394379	28.91415676
		He	0.941323182	0.138648401	5.494505558
		He	-0.894823154	-0.374241206	22.68691847
		He	0.849417518	0.443164455	36.69003487
		He	0.869203032	0.435682255	27.34417719
		He	0.710330747	0.558521239	46.25055816
		He	0.835477077	0.485334341	24.25522552
		He	-0.962193614	-0.148650123	16.44902767
		He	-0.939672258	-0.189494131	7.097438962
		He	0.951010668	0.198507985	11.78399862
		He	-0.944515947	-0.172614251	19.55534199
		He	-0.849668506	-0.429058818	44.52836819
		He	-0.967568617	-0.098371185	10.21265903
		He	0.802621484	0.527621034	30.46827082
		He	-0.886499493	-0.396975485	38.24194953
		He	-0.901948914	0.049080939	3.770844188

He

Length	Cluster size	Atom	x	y	z
		He	-1.24067556	0.419769759	20.9965618
		He	1.274508726	-0.322499701	33.8520902
		He	-0.284783816	-1.244209642	14.3441426
		He	-1.295651676	-0.251193356	42.34240784
		He	-1.315083387	-0.035401887	25.2428011
		He	0.502389339	-1.168711091	45.17982133
		He	1.225257454	-0.472279388	16.72306973
		He	0.189476077	1.264709311	23.33509193
		He	-0.089342145	-1.276784444	36.17842212
		He	-0.87653238	-0.915672375	5.289496411
		He	-1.171340644	0.337919248	46.77704943
		He	-0.134499591	-1.270727525	31.46857632
		He	-0.027539458	-1.281132869	40.02874849
		He	0.287398573	1.239574807	10.0126369
		He	1.135627002	-0.675448037	8.240360381
		He	0.135265918	1.272655874	31.90608891
		He	-0.167272488	-1.267000437	27.63236403
		He	-1.193429021	0.561360117	12.47227528
		He	-0.401923744	-1.215850746	10.5372981
50	40	He	1.307770187	-0.092106215	12.36503353
		He	-1.307148809	0.084805647	16.67908635
		He	1.283206961	-0.271657779	42.46709536
		He	-0.097023995	1.255611391	44.2796307
		He	1.310676082	0.083935451	29.52363466
		He	1.245919444	-0.409777164	25.28578812
		He	-1.259117202	0.38071178	29.57254142
		He	-0.200690509	-1.264700871	22.91944966
		He	-1.306372233	-0.101368413	33.81145156
		He	-1.283066676	0.271880598	38.14030587
		He	1.220178557	-0.038769612	3.68858731
		He	0.306629368	1.245341676	14.77570996
		He	1.304851444	0.145339183	38.08726165
		He	1.312599108	-0.032586666	20.96624906
		He	0.098676899	1.276323749	35.76305903
		He	0.568584515	1.113966729	6.242217908
		He	0.053949094	1.27440439	40.49028447
		He	0.160591642	1.268323927	27.18299668
		He	-0.233336899	-1.26019212	19.03987508
		He	0.252244045	1.25494185	18.64823298
		He	-1.30681642	0.127092913	7.999949309

He

Length	Cluster size	Atom	x	y	z
		He	1.347748186	0.168836849	44.86924971
		He	1.329888958	-0.239867519	34.69081024
		He	1.223668305	0.598498608	37.46385232
		He	0.112244451	1.356164789	32.82781484
		He	-1.25585992	-0.275378932	48.8367361
		He	-0.655322709	1.174069034	7.732742913
		He	-0.905888071	1.020999404	17.98191226
		He	-1.149417639	-0.723405529	5.788944723
		He	1.254941352	0.529398352	9.604792389
		He	-0.884522502	-1.012374252	44.00781184
		He	-1.304789748	-0.400981709	41.18127793
		He	-1.354783224	-0.028308846	30.96803986
		He	-0.235942487	1.347733122	43.01209854
		He	-1.262279388	0.518588778	38.40275461
		He	0.664454149	-1.177211043	21.68597006
		He	0.961055685	-0.969514866	31.90873911
		He	-0.422766115	1.287238513	25.40812862
		He	0.483990792	-1.261848717	39.32424647
		He	1.134237179	0.760225582	19.82572767
		He	0.886580879	1.022279001	30.04880585
		He	-1.199718877	0.650521035	10.55144309
		He	0.278441129	1.336288713	5.048767168
		He	-1.110816969	0.785389781	28.18760991
		He	0.625771592	1.204083218	40.26355118
50	50	He	-1.24153689	-0.556558273	23.54867848
		He	-0.977729268	0.940869856	45.96010862
		He	0.019524904	-1.364651642	46.68088252
		He	-0.071556577	1.362207937	15.18060592
		He	0.366400308	-1.308220634	11.47017948
		He	1.289487098	-0.431809723	6.858533304
		He	-1.092345795	-0.820302568	33.75163397
		He	1.053655236	0.805996911	47.88647973
		He	1.326352062	0.324152971	27.26699943
		He	1.349924782	-0.030918229	17.04432401
		He	0.857052535	-1.007119411	3.86101907
		He	1.083940584	-0.825804783	14.27132694
		He	-1.323186321	0.299313332	20.76587515
		He	-0.152710412	-1.352654587	18.90832622
		He	-0.500160405	-1.271493381	8.7158442
		He	-0.340506133	-1.320724649	36.55426923
		He	-1.170803629	0.529529513	2.875778406
		He	1.123296787	-0.76881037	42.13283645
		He	-0.724232826	1.147508323	35.60867829
		He	-1.339553929	-0.253619652	13.33135293
		He	0.138941972	-1.359037105	29.11006701
		He	0.72666719	1.138381947	12.40948017
		He	-0.941242033	-0.979521586	16.12443151
		He	0.406066678	1.303542912	22.62406953
		He	-0.669955964	-1.17590357	26.32630004
		He	1.236364828	-0.580746526	24.46736285

Ne

Length	Cluster size	Atom	x	y	z
10	10	Ne	1.382447732	-0.780620274	8.438461807
		Ne	-0.687544192	-1.517358264	6.590231467
		Ne	0.730269543	1.48949018	3.441886732
		Ne	1.467741681	-0.804878232	4.904799309
		Ne	0.870293365	1.401238206	6.613925063
		Ne	-1.416845798	0.715946701	8.26154076
		Ne	1.413666744	-0.733929122	1.726279058
		Ne	-0.859235066	-1.413227557	3.397906112
		Ne	-1.466496169	0.781519588	5.113140219
		Ne	-1.371100091	0.793109473	1.617410227

Ne

Length	Cluster size	Atom	x	y	z
10	20	Ne	-2.77780807	0.118261638	4.879113715
		Ne	-0.054382234	-0.084972768	6.428115958
		Ne	2.459201905	1.282850479	1.12712749
		Ne	0.811429528	2.687599217	6.678963446
		Ne	-2.215814058	-1.677534981	2.362494181
		Ne	2.32875265	-1.534083099	8.154847726
		Ne	2.721624119	-0.703367288	3.231817159
		Ne	1.795432025	2.140497972	3.955003808
		Ne	-1.183654212	2.542745281	4.534510166
		Ne	-2.618591108	-1.0139671	7.583897434
		Ne	2.341405114	1.334012399	8.744395375
		Ne	0.595471788	-2.718433197	2.572156035
		Ne	-0.263535742	-2.755623601	7.738349352
		Ne	-2.527389414	1.207338242	2.103708563
		Ne	-1.364835451	-2.447209388	5.035485304
		Ne	-2.028521804	1.886227199	7.3364735
		Ne	2.801534966	0.355701253	5.964574873
		Ne	1.553195819	-2.311637877	5.369489501
		Ne	-0.076036866	2.735407643	1.808993646
		Ne	-0.106814345	0.000301325	3.476289267

Ne

Length	Cluster size	Atom	x	y	z
		Ne	0.037539248	1.531797011	4.821745602
		Ne	-0.092122135	-3.735533038	1.59430939
		Ne	-2.595963723	-2.695633931	9.824753701
		Ne	1.112608694	3.706601797	6.400754254
		Ne	-2.228002127	3.081684275	3.332533125
		Ne	2.831519538	-2.586058012	7.918422093
		Ne	-3.474368128	-1.665160823	4.886076357
		Ne	1.433090937	-1.043956255	5.332768568
		Ne	3.152623798	2.174642117	4.992620896
		Ne	-1.2629137	-0.464612295	6.474373464
		Ne	-2.028419173	-3.249328747	7.024962596
		Ne	0.957121007	3.75180105	3.268007035
		Ne	0.82442442	-3.779467544	6.171082515
		Ne	1.149539319	0.020113604	8.130733948
10	30	Ne	-1.781216729	3.436948273	6.222708014
		Ne	-3.750923238	0.454350709	2.686528817
		Ne	-0.902429316	-0.809075027	3.341586185
		Ne	3.871408986	-0.152102818	6.613415241
		Ne	3.786941439	-0.20943869	9.606340224
		Ne	3.021577334	2.345401536	8.157951604
		Ne	0.224345137	-3.788393769	9.053906904
		Ne	-3.80153635	-0.775921078	7.821238283
		Ne	3.795982182	-0.475022318	3.592398587
		Ne	3.166718172	2.090499402	2.05908153
		Ne	-3.148050243	2.097372961	8.490907112
		Ne	2.172722034	-3.179924575	3.503093564
		Ne	-1.301496311	-3.602361269	4.219035056
		Ne	-3.596974454	1.24914905	5.540326894
		Ne	-0.485439654	3.769005635	8.91834679
		Ne	-2.968041995	-2.43591332	2.01844435

Ne

Length	Cluster size	Atom	x	y	z
		Ne	-4.382732734	-0.41526173	8.217700155
		Ne	3.245077763	-3.075481947	4.319217592
		Ne	3.204632811	3.096231324	8.625134443
		Ne	4.38947172	0.400111136	7.921118762
		Ne	1.095787619	1.382947829	7.561215953
		Ne	1.460785972	1.556797158	1.555484537
		Ne	-2.508795187	3.598377649	1.793499469
		Ne	-1.282752309	1.20447238	3.018940089
		Ne	-3.268678071	-3.023017117	9.050638314
		Ne	2.323936598	3.812703919	3.408506876
		Ne	1.426497349	-4.189353038	6.376803262
		Ne	-4.407088238	0.382863878	5.357989214
		Ne	-4.42008824	-1.141391825	0.493475212
		Ne	3.741613072	-2.413926944	7.215771953
		Ne	1.303558507	-1.21917956	2.912892453
		Ne	0.686281376	-4.339911525	3.461933476
		Ne	-1.315869649	-1.47518673	4.429372147
		Ne	-1.480368571	4.154222176	6.796488158
		Ne	0.535254424	4.330849941	8.97238646
10	40	Ne	-3.764148162	2.363238721	7.467667554
		Ne	-4.244965451	1.189406662	2.47715466
		Ne	2.155423489	-3.835342814	9.26935321
		Ne	-2.319887136	3.730839615	9.620981094
		Ne	-1.473694098	1.113365923	6.036582821
		Ne	4.2304983	-1.316536992	2.103469095
		Ne	-2.15943389	-3.856711657	2.653530192
		Ne	3.754512701	2.366255813	5.761159538
		Ne	1.462727099	4.188551695	6.199694361
		Ne	-0.588854099	4.349030443	4.014410299
		Ne	4.147202955	1.542849276	2.919969154
		Ne	1.39264255	-1.221144928	5.922669996
		Ne	1.221324285	1.404887552	4.581423091
		Ne	-0.702993047	-4.38290628	8.443917035
		Ne	4.370895969	-0.462293542	5.053907991
		Ne	0.374918765	4.381195749	1.249520021
		Ne	-3.702123113	-2.433685034	6.148515537
		Ne	-4.101341327	-1.728188214	3.338919244
		Ne	-1.439972276	-4.196709821	5.597065876
		Ne	-1.160053515	-1.552663294	7.474510297
		Ne	-3.233407021	3.063505648	4.616895955

Ne

Length	Cluster size	Atom	x	y	z
		Ne	3.847783951	-3.533622258	7.831241021
		Ne	-3.072896655	-0.513910262	8.954564623
		Ne	0.894259821	5.065436849	1.471113059
		Ne	-0.958308633	-2.533536069	1.954853136
		Ne	0.223324317	-2.652063884	7.072606147
		Ne	-2.948856618	4.426158109	3.041984234
		Ne	2.013257097	2.066067687	6.151329781
		Ne	2.312241538	-4.729781428	5.541685177
		Ne	-1.393516726	2.465274317	1.47346403
		Ne	-3.930714921	3.415748777	8.230415555
		Ne	0.525693365	-5.205330172	2.963852234
		Ne	2.653840135	-0.944321521	6.50625285
		Ne	-4.50639918	-2.696161647	3.949013383
		Ne	-1.491982407	2.435076014	4.508412551
		Ne	-5.139362682	-0.809801575	1.738158514
		Ne	5.080569301	1.268427858	2.195654108
		Ne	2.429004756	4.689800271	4.77014116
		Ne	-1.497758819	4.947693808	9.015537866
		Ne	4.883863163	1.91573338	7.443998208
		Ne	3.13295202	4.239899598	7.79370296
		Ne	1.138890344	2.546515015	3.217517597
		Ne	-4.723575391	2.141790505	2.36514935
		Ne	-0.875952388	2.399734342	7.41724565
		Ne	0.501507825	5.225293056	6.894206836
10	50	Ne	-0.332076742	5.240912365	4.070080855
		Ne	2.765715267	0.108850942	3.668711815
		Ne	-5.2793403	0.128840887	4.557591132
		Ne	-4.390808514	2.832827136	5.274168637
		Ne	-2.578285378	-0.006806835	3.073535861
		Ne	4.521794745	2.719674228	4.662633108
		Ne	3.571286868	3.844915101	2.065212018
		Ne	-2.342240674	-4.720386263	3.454749852
		Ne	-2.7354169	0.277746931	6.102480821
		Ne	3.255766863	-4.091659425	2.649214787
		Ne	1.41092493	-5.054196624	8.358490814
		Ne	1.240874361	-2.456250541	4.109981684
		Ne	4.466105851	-2.827174239	5.06465629
		Ne	-1.695205727	-2.239937844	4.86241014
		Ne	0.104057298	0.07139612	5.161642855
		Ne	-3.826907555	-3.497031532	1.173326247
		Ne	4.973176097	-1.632122415	2.438989149
		Ne	-2.337663245	4.736714068	6.110094411
		Ne	-1.505833547	-4.981801088	8.543026486
		Ne	5.266901647	-0.04055551	5.173844291
		Ne	-4.889265767	-1.852488233	6.734979409
		Ne	-5.228265115	0.933225263	7.463705796
		Ne	-3.947069415	-3.387978692	9.102121789
		Ne	5.17715428	-0.928513559	8.072488044
		Ne	-0.524457858	-5.247543338	5.744098854
		Ne	-3.224690286	-4.19800807	6.308154445

Ne

Length	Cluster size	Atom	x	y	z
20	10	Ne	-0.852512611	0.537493109	17.99168674
		Ne	0.871622585	-0.750851649	12.84141696
		Ne	0.699237195	-0.896470616	9.552872882
		Ne	0.838635224	-0.789264773	6.414753434
		Ne	0.65021503	-0.768173346	2.7624415
		Ne	0.751277841	-0.811160101	16.02384731
		Ne	-0.826380525	0.81310089	14.39560498
		Ne	-0.803992079	0.782656289	11.21279023
		Ne	-0.816923576	0.722490275	4.741559394
		Ne	-0.755256526	0.879853337	7.969587619

Ne

Length	Cluster size	Atom	x	y	z
20	20	Ne	-1.201886743	1.169455878	6.022882239
		Ne	-1.101919868	1.185883884	15.78686413
		Ne	1.15460729	-1.231301953	12.56342671
		Ne	1.170864356	-1.218286552	6.12128273
		Ne	1.132397442	-1.073069078	2.445514008
		Ne	-1.174621045	-1.165064125	10.92201916
		Ne	1.095004711	-1.183414391	15.76832705
		Ne	-1.178114588	1.207312086	12.52241953
		Ne	1.186575435	1.102382957	4.436326001
		Ne	-1.229830651	-1.155310774	7.651543912
		Ne	-1.241802595	-1.1383735	14.10959257
		Ne	1.149108536	-1.177647221	9.241512519
		Ne	-1.139387345	1.19181393	9.281105468
		Ne	-1.081474787	1.12860224	2.562526365
		Ne	1.151408252	1.056967109	17.67882759
		Ne	1.209559431	1.159632746	14.09487854
		Ne	1.179010944	1.193612585	7.61705188
		Ne	1.199899335	1.132431191	10.94411511
		Ne	-1.096859051	-1.189588755	4.380503488
		Ne	-1.152591	-1.060216111	17.68370867

Ne

Length	Cluster size	Atom	x	y	z
		Ne	0.350029145	2.49391996	4.046210003
		Ne	-2.551360513	-0.465539677	6.621286136
		Ne	2.540487738	0.395738208	9.267735757
		Ne	0.41329852	2.538911441	14.39594255
		Ne	1.190543584	-2.265142284	3.906524107
		Ne	0.412197306	2.551323527	9.25534981
		Ne	-1.824977706	-1.802443475	14.53596803
		Ne	1.182780411	-2.27747125	9.236523181
		Ne	1.190057485	-2.297573991	14.46863745
		Ne	-2.279736901	1.111077164	4.10465087
		Ne	-2.319673336	1.14842828	9.215468772
		Ne	-0.33764015	-2.562766507	6.537507488
		Ne	0.0104251	-0.007965434	7.909933127
		Ne	-2.289931595	1.146232238	14.44329203
20	30	Ne	1.81473445	1.81005762	6.581146681
		Ne	-1.185524676	2.295375612	6.653687888
		Ne	-0.401071362	-2.538611157	11.80482754
		Ne	-2.529396893	-0.427601674	11.74544679
		Ne	-0.005621091	-0.006417034	13.09969387
		Ne	-0.29723683	-2.503050937	17.0412093
		Ne	2.300167282	-1.13750734	6.496895675
		Ne	1.835592785	1.829069539	11.79101835
		Ne	2.293904791	-1.190508459	11.80676128
		Ne	-1.786880603	-1.858604516	9.204124878
		Ne	2.505403454	0.427381062	3.897845212
		Ne	2.569636968	0.365607142	14.38924046
		Ne	1.858205858	1.676430778	16.95498863
		Ne	-1.189560717	2.288969002	11.7505855
		Ne	-1.778142552	-1.831616326	4.0227134
		Ne	-1.143942181	2.221060971	16.99662368

Ne

Length	Cluster size	Atom	x	y	z
		Ne	-0.013965518	2.816062319	13.4420639
		Ne	-2.650813061	0.896085789	5.321656683
		Ne	2.793892463	-0.346413542	3.561205726
		Ne	2.529061286	1.2313521	14.06815439
		Ne	-2.714589972	-0.24492006	2.517959803
		Ne	-1.232628676	-2.524463481	9.600370945
		Ne	-1.934401568	-2.036960836	4.716446586
		Ne	2.416860002	-1.416979629	6.349993103
		Ne	-0.111485615	-2.824831906	6.856305118
		Ne	0.82437619	2.669747829	8.552091886
		Ne	1.675522793	-2.229495972	9.202468409
		Ne	-2.059958388	1.90354248	8.033316514
		Ne	-2.594637992	-1.104594171	7.437196861
		Ne	0.116832225	-0.001858708	7.574977927
		Ne	-1.413514023	2.367472024	3.014302772
		Ne	0.906499123	-2.647565219	4.002202237
		Ne	2.776374326	0.188793419	16.89470657
		Ne	2.742350528	0.464204218	8.939305007
		Ne	-2.562879331	1.150579368	12.80917632
20	40	Ne	-1.902920631	2.036189107	15.55075347
		Ne	2.7116529	-0.668327242	11.77632855
		Ne	-0.137820913	-0.126945304	16.4706223
		Ne	1.307708591	-2.481186467	17.36568369
		Ne	-1.136072099	2.577538031	10.73072425
		Ne	2.244282727	-1.686736091	14.59536323
		Ne	-0.507654788	-2.744851983	14.92112406
		Ne	0.084846091	-0.079665177	10.53875992
		Ne	2.34086518	1.501348083	6.095213283
		Ne	-2.674182506	-0.782016941	15.05013489
		Ne	-2.753251619	0.070814018	17.91613193
		Ne	1.036056785	2.581122138	16.21159199
		Ne	-2.810293939	0.025039078	10.12207231
		Ne	0.648461912	-2.704152395	12.07032142
		Ne	-0.317756943	2.758426091	5.800089984
		Ne	-2.12361274	-1.803684886	12.33123926
		Ne	0.07308891	0.091086357	4.606658093
		Ne	1.846638832	2.130021773	11.30256065
		Ne	-0.004609058	-0.115751486	13.49900992
		Ne	1.517042613	2.338916206	3.308771182
		Ne	-1.036444052	2.506074794	18.35208901

Ne

Length	Cluster size	Atom	x	y	z
		Ne	-0.340601711	-3.068498985	14.77589951
		Ne	1.750798575	-2.55029172	12.73791365
		Ne	-3.080576858	0.113570595	8.211283997
		Ne	-1.759025573	2.499045497	18.13929947
		Ne	2.328804613	2.02611515	11.46393278
		Ne	0.396074938	-3.052924572	17.78416417
		Ne	1.01565729	2.9170315	17.18823194
		Ne	-2.93321983	0.898406947	5.323442134
		Ne	1.037949771	-2.863969541	9.870144893
		Ne	-2.730392403	-1.426674413	13.94820745
		Ne	-1.143605499	2.872341931	15.18544707
		Ne	3.019394004	0.6678078	5.675782728
		Ne	0.277931384	-3.073815043	7.010302282
		Ne	0.072620261	0.023970821	17.76040052
		Ne	0.431242578	3.057931674	9.430709459
		Ne	1.202568119	2.82526733	6.531222572
		Ne	-1.311452785	-2.746712568	1.328932725
		Ne	-0.935998298	2.929480644	4.476412558
		Ne	-0.028472027	0.004305514	14.81673004
		Ne	-1.113959134	-2.869545408	11.92057747
		Ne	2.58916597	1.546690789	19.27395876
		Ne	2.288487716	-2.015090026	15.64966392
		Ne	-2.243368719	2.094418919	10.25855217
		Ne	-0.014665048	-0.104064435	3.077109814
20	50	Ne	1.730623002	2.537575487	14.34751046
		Ne	2.673918956	-1.472760548	7.774006711
		Ne	-2.978253889	0.722437956	16.01689037
		Ne	3.047421774	-0.00850131	13.53904417
		Ne	1.592767332	-2.60467239	2.048724168
		Ne	-2.391007802	-1.92974544	6.192901213
		Ne	3.056195879	-0.114790274	2.798316863
		Ne	-3.011061551	-0.165805305	18.87828088
		Ne	-2.97829439	-0.691631822	11.06369463
		Ne	-1.819298893	-2.494954499	9.0325022
		Ne	-0.022583845	0.015076236	8.955606964
		Ne	-2.229782689	-2.086783776	16.7967102
		Ne	-1.645403424	2.575569845	7.379036705
		Ne	0.033923917	-0.013087317	11.88549541
		Ne	2.764632459	-1.362834931	18.51464827
		Ne	2.975160827	0.789730463	16.41335375
		Ne	1.808759255	2.485170537	3.566397837
		Ne	-0.518479199	-3.001746657	4.17347873
		Ne	-2.585055344	1.614338426	2.401072841
		Ne	-2.84594508	-1.227740698	3.312525539
		Ne	2.982386716	-0.763891249	10.67039167
		Ne	2.230798121	-2.109723989	4.927576789
		Ne	0.019171829	-0.0206503	6.023617683
		Ne	-2.708710086	1.417194288	13.12952576
		Ne	-0.338292116	3.049901293	12.31353857
		Ne	2.749848352	1.369341957	8.596633914

Ne

Length	Cluster size	Atom	x	y	z
30	10	Ne	1.88666E-06	3.50506E-06	22.08461678
		Ne	1.77408E-06	-1.3435E-06	13.58317113
		Ne	-1.84E-07	-8.48071E-09	5.07956004
		Ne	1.30179E-06	6.67507E-07	16.41683543
		Ne	3.2146E-06	1.57901E-06	10.74944414
		Ne	-2.44773E-06	-7.83419E-07	2.22891349
		Ne	3.85207E-06	-5.72485E-07	19.25056026
		Ne	5.01504E-06	3.24339E-06	24.92043827
		Ne	-3.84312E-07	-2.87732E-06	7.915384355
		Ne	4.64952E-06	-2.72635E-06	27.77108612

Ne

Length	Cluster size	Atom	x	y	z
30	20	Ne	1.395007466	-0.352580046	13.73752732
		Ne	0.565124962	-1.198921316	3.873069963
		Ne	-0.684652167	1.261628149	14.71639362
		Ne	-0.525747	-1.33602021	15.76947688
		Ne	1.364450774	-0.235727698	22.71765103
		Ne	0.464249842	-1.332755895	18.96815183
		Ne	-1.173563354	-0.818622551	12.64354426
		Ne	0.411295159	1.260477731	26.70713086
		Ne	-1.319873136	0.438939958	9.153956046
		Ne	-0.069727082	1.355155616	5.254232927
		Ne	0.267213571	1.39230875	11.56411683
		Ne	-0.752035817	-1.154111525	6.625057272
		Ne	-0.958375266	0.989997161	23.97375549
		Ne	0.767362286	-1.173671729	10.34747377
		Ne	-1.212058164	-0.674631706	21.42691846
		Ne	0.202931412	-1.347251934	25.32038766
		Ne	-1.268076975	0.658287703	17.86092487
		Ne	0.547839469	1.284096333	20.20207468
		Ne	1.288504583	0.509817058	7.85998703
		Ne	1.339515398	0.521582769	16.75806849

Ne

Length	Cluster size	Atom	x	y	z
		Ne	-0.262474718	-1.48307941	15.69256001
		Ne	-1.326682699	0.757142852	7.321156628
		Ne	-0.615322942	-1.387924127	5.467531746
		Ne	0.020219854	-1.493928182	25.95785006
		Ne	-0.826592964	-1.276755828	23.13144988
		Ne	-1.187149317	0.957678612	24.99025193
		Ne	1.156473416	-0.990593214	11.0367745
		Ne	-0.648465239	1.354998122	4.479608513
		Ne	0.318966126	1.409163189	1.66559316
		Ne	0.872869307	1.255230744	9.182498211
		Ne	1.45527337	-0.452052924	3.61564176
		Ne	-0.348563411	1.465355381	22.20702651
		Ne	1.073085234	1.089272351	26.8371651
		Ne	0.655212034	-1.361732156	18.47580585
30	30	Ne	-1.489463011	-0.190425595	10.10472474
		Ne	1.356525146	-0.688472907	21.26931854
		Ne	1.503385947	-0.104390228	13.83038251
		Ne	0.350700201	-1.457110817	8.240341068
		Ne	1.491231238	0.189417042	24.06903192
		Ne	1.2982122	0.789849605	16.61632447
		Ne	-1.453735607	0.417758365	17.55563501
		Ne	-1.221103786	-0.844781153	2.580079472
		Ne	-0.911134474	1.21849504	14.758282
		Ne	-1.111874247	-1.03512915	12.89683136
		Ne	-1.419460773	-0.502966134	20.3412732
		Ne	-0.043232463	1.506257963	11.97001734
		Ne	-1.46755119	0.203180321	27.87716317
		Ne	0.9326508	-1.124471475	28.76211024
		Ne	0.555400248	1.415340153	19.41446623
		Ne	1.412802099	0.512984746	6.377972182

Ne

Length	Cluster size	Atom	x	y	z
		Ne	1.523659314	-1.302200691	8.502497266
		Ne	-1.521820653	-1.322117234	24.17304324
		Ne	-1.498895517	-1.301503959	1.743183093
		Ne	-1.96857286	-0.367667997	19.40205969
		Ne	0.525793526	-1.93625771	11.21088583
		Ne	-1.822997401	0.842483703	7.18202568
		Ne	1.519707212	-1.318030099	23.5035921
		Ne	2.005482409	-0.211402572	5.782203529
		Ne	-1.157787626	1.636368025	17.36271272
		Ne	-1.836676512	0.811587056	14.6286772
		Ne	-0.018403336	2.01618583	5.121417584
		Ne	1.974537832	-0.196052292	28.24425228
		Ne	-1.970716425	-0.305584875	26.94839323
		Ne	1.986905971	-0.244064815	20.7793252
		Ne	-0.501770141	-1.94581825	6.458823453
		Ne	1.812420812	0.884483411	25.49521979
		Ne	-1.990233084	-0.255544908	11.8929858
		Ne	-1.993106585	-0.309781439	4.48197211
		Ne	1.808417067	0.86123746	2.981410642
30	40	Ne	0.637121905	-1.89937013	18.74020681
		Ne	0.047078741	2.007232833	12.59900163
		Ne	-1.115781595	1.682639075	24.83427283
		Ne	-0.077227077	2.000330947	20.07107068
		Ne	1.791254383	0.896933372	18.06568741
		Ne	0.552520004	-1.935670642	26.26462917
		Ne	1.550524145	-1.277322659	16.01577882
		Ne	1.079267669	1.694302588	7.852345937
		Ne	1.063878263	1.702592153	15.33498991
		Ne	-0.529523963	-1.934100826	21.45005171
		Ne	-0.058647195	2.002539563	27.60135945
		Ne	-1.048391444	1.707514701	9.888242839
		Ne	1.842980535	0.79086864	10.55519246
		Ne	0.670274183	-1.901046091	3.708406953
		Ne	-0.564285434	-1.929455382	13.9454204
		Ne	1.984411101	-0.319866913	13.27421913
		Ne	-1.518653935	-1.303349667	9.171160807
		Ne	-1.844072198	0.798314934	22.10742224
		Ne	-1.102021542	1.672194147	2.376709844
		Ne	1.050254167	1.715647444	22.77495996
		Ne	-1.464448318	-1.373231052	16.68521214

Ne

Length	Cluster size	Atom	x	y	z
		Ne	0.727748065	2.440461253	5.578771227
		Ne	2.551974657	0.049472597	5.521564997
		Ne	-1.147512489	2.227604779	27.13280127
		Ne	-2.105883069	1.396981895	5.728748369
		Ne	-2.072777589	1.54779971	10.96263065
		Ne	-2.010896844	-1.562945768	5.85653344
		Ne	-0.968567089	2.332920081	3.111141901
		Ne	-2.254490727	1.262969655	19.40111619
		Ne	-1.900806934	-1.6671121	24.58484871
		Ne	-0.803593928	2.442606867	8.225321667
		Ne	0.534342279	2.499940604	24.62294653
		Ne	0.822926272	-2.408714679	5.641775868
		Ne	-0.706018139	2.492792243	13.65205347
		Ne	1.875180978	1.694506219	27.24440741
		Ne	0.02341215	-0.000596905	20.86616205
		Ne	-2.084084895	-1.534149292	10.93790573
		Ne	-0.713562239	-2.508747155	8.322454232
		Ne	0.835327851	-2.443800076	10.90961397
		Ne	-2.579805603	0.084275613	13.62730084
		Ne	0.031909545	0.006368475	9.450717005
		Ne	-0.499278819	-2.529686799	22.07220198
		Ne	1.809390841	1.835622507	16.63454222
		Ne	-0.398187429	-2.557560192	16.68243224
		Ne	0.8242459	2.442385912	10.94128667
30	50	Ne	-0.717311909	-2.402868439	27.25944532
		Ne	-2.483184433	-0.32656853	3.181864544
		Ne	1.120409265	-2.329821353	19.36734538
		Ne	-1.033557221	2.390738581	22.03610461
		Ne	2.548615394	0.228828835	24.73767252
		Ne	-0.87436159	-2.415052441	13.64588018
		Ne	2.22324792	-1.298187356	22.17188974
		Ne	-1.175664664	2.281771727	16.65498779
		Ne	-2.58541116	-0.301463327	21.97461491
		Ne	2.575915704	0.004023627	10.89619572
		Ne	2.069249397	1.54400347	8.121527797
		Ne	2.152639956	1.43174994	13.67681255
		Ne	1.015434262	-2.327860395	24.77510711
		Ne	-0.014882901	-0.00580655	15.1594957
		Ne	0.006301562	0.003818172	18.02045088
		Ne	-2.541898462	-0.40680662	16.69061943
		Ne	2.146828588	-1.465441121	8.163618119
		Ne	2.554161244	0.319119438	19.39273359
		Ne	0.011531056	0.000183685	12.29796597
		Ne	2.021020111	-1.589607173	13.68128996
		Ne	-1.874339847	-1.789203103	19.37482014
		Ne	0.51106502	2.523279903	19.41450442
		Ne	1.954165868	1.702539267	22.13952063
		Ne	-2.594239485	-0.019248108	8.36236797
		Ne	2.315221924	-1.161924047	16.65393868
		Ne	-2.216026356	1.263723927	24.50786043

Ne

Length	Cluster size	Atom	x	y	z
50	10	Ne	8.99129E-08	3.54871E-07	11.15638184
		Ne	-2.40587E-06	-2.59323E-07	35.99750258
		Ne	6.50432E-09	1.54556E-07	32.89255069
		Ne	4.57269E-07	1.40476E-08	14.2656262
		Ne	-1.44007E-07	-3.04783E-07	26.68356304
		Ne	-5.37797E-08	1.23707E-08	23.57919067
		Ne	4.97544E-08	2.9987E-07	17.37040188
		Ne	-3.98595E-06	-1.59071E-06	39.10693194
		Ne	1.90993E-07	9.29961E-08	20.47481884
		Ne	-1.32123E-07	1.96365E-08	29.78799774

Ne

Length	Cluster size	Atom	x	y	z
50	20	Ne	-3.96159E-06	1.63568E-06	10.54942782
		Ne	-4.78541E-06	7.78193E-06	28.95046308
		Ne	1.99325E-06	-1.43387E-06	0
		Ne	-7.04503E-07	-2.68384E-07	7.920567211
		Ne	-0.006111292	-0.002062209	47.3541129
		Ne	1.84236E-06	-3.00767E-07	5.291253274
		Ne	-6.79639E-07	-8.8878E-06	23.69304297
		Ne	-2.36518E-06	-5.16271E-06	36.83660407
		Ne	-1.84678E-06	1.35446E-06	2.659022502
		Ne	7.11324E-07	-2.33882E-06	31.57917106
		Ne	0.000687908	0.000218311	44.72328014
		Ne	8.62369E-06	-6.37975E-06	13.17818548
		Ne	-7.85344E-06	1.80256E-06	15.80690866
		Ne	-0.000177981	-6.1961E-05	42.09416383
		Ne	2.36741E-05	1.3535E-05	39.46534605
		Ne	-0.006122513	-0.003336361	50
		Ne	-7.79976E-06	-4.94116E-06	18.43562054
		Ne	-2.53275E-06	8.31242E-07	34.20788151
Ne	-3.65552E-06	2.4002E-06	26.32175118		
Ne	6.98824E-06	6.18174E-06	21.0643327		

Ne

Length	Cluster size	Atom	x	y	z
		Ne	0.891834535	-0.840207063	25.74246869
		Ne	-0.970819612	0.747751587	36.42717348
		Ne	-0.950630694	0.77728561	21.17149678
		Ne	0.870170773	-0.837959542	28.79824533
		Ne	0.96564531	-0.732012434	22.6935439
		Ne	-0.840684475	0.878088242	24.21427125
		Ne	-0.969266451	0.741122595	27.27950382
		Ne	-0.996926053	0.695643647	45.57381984
		Ne	0.978531165	-0.731719586	16.59711572
		Ne	-1.021139485	0.662683469	12.01365423
		Ne	-1.043001779	0.643772771	5.896103673
		Ne	0.902988374	-0.815652569	34.8969889
		Ne	1.002135966	-0.599471642	47.21994787
		Ne	-0.902076353	0.829446323	15.0560436
50	30	Ne	-0.878721424	0.844314216	8.947794861
		Ne	1.070555816	-0.568371752	44.07751489
		Ne	-1.002554104	0.677539799	33.37568245
		Ne	0.935520184	-0.788935146	4.371247722
		Ne	-0.947154999	0.749685303	39.48212638
		Ne	0.984195027	-0.701787199	7.432445004
		Ne	0.886367722	-0.826229475	13.53389159
		Ne	0.957897743	-0.766542065	10.48474452
		Ne	1.006275817	-0.70380885	31.85554587
		Ne	1.036244275	-0.642555498	37.9630407
		Ne	0.792534853	-0.932972793	19.63347717
		Ne	0.930912393	-0.799143114	41.0046471
		Ne	-0.885089828	0.82307643	18.11452056
		Ne	-1.074721025	0.588344152	42.53928035
		Ne	-0.835637318	0.897360193	30.31767163
		Ne	-0.884144222	0.728841822	2.73741127

Ne

Length	Cluster size	Atom	x	y	z
		Ne	0.849321389	1.234451209	9.635271248
		Ne	1.4734804	0.236065902	36.81975084
		Ne	-0.028717106	1.503128693	12.68596855
		Ne	-1.29192589	-0.706166976	43.95570704
		Ne	-1.388869119	-0.572582426	32.80998534
		Ne	0.741102681	-1.311769482	30.81707992
		Ne	-0.653642864	-1.289404628	5.505956451
		Ne	1.31156518	0.695856266	17.73420168
		Ne	-0.136165359	-1.487532336	27.75455667
		Ne	-1.332383366	0.706473036	7.669307432
		Ne	-0.9619308	-1.12900484	24.773829
		Ne	1.123681915	-0.971886847	11.64734886
		Ne	0.062074497	-1.479889708	38.84589458
		Ne	1.493747663	-0.161448893	14.68381954
		Ne	-0.210527704	1.487759707	23.74835351
		Ne	-1.144747719	0.970630246	37.88690716
		Ne	-0.823145173	-1.238918762	35.87000473
		Ne	0.492384078	1.397454139	31.81092969
		Ne	-0.346019657	-1.463859074	16.68034402
50	40	Ne	0.544331666	-1.396400581	19.75253766
		Ne	-0.998407986	1.100774572	26.80099819
		Ne	0.88487946	-1.21299282	41.90601137
		Ne	1.410001682	-0.235799354	45.13799676
		Ne	1.093990697	1.032977217	39.88663162
		Ne	1.220755665	0.871966059	28.81694062
		Ne	1.331342483	-0.655866765	33.84328666
		Ne	1.234350474	-0.820239172	22.74156098
		Ne	-0.39505695	1.448729929	34.80787597
		Ne	0.299645442	1.456132001	42.88306185
		Ne	-1.101064461	-0.993370224	13.67534604
		Ne	0.65564414	1.329254113	20.71089394
		Ne	-1.477547681	0.112928545	40.87966543
		Ne	-1.481275694	-0.201003234	10.67834595
		Ne	1.502873423	0.024200846	25.74466937
		Ne	-1.448296417	0.309382857	29.77929148
		Ne	-0.856266222	1.210286875	15.70580214
		Ne	-1.410057598	0.497549076	18.68801087
		Ne	0.382252633	-1.432345789	8.626563766
		Ne	1.343595493	0.58048834	6.558726685
		Ne	-1.453119109	-0.394523894	21.75499273

Ne

Length	Cluster size	Atom	x	y	z
		Ne	-0.124596635	-1.513534777	34.00210078
		Ne	1.214619812	-0.903201818	38.77348764
		Ne	-0.551291453	-1.395954294	44.50100689
		Ne	1.374638357	-0.583278076	28.1174363
		Ne	-0.389801819	-1.464434477	3.883703319
		Ne	-1.421494406	0.513825009	5.756477524
		Ne	0.328995094	-1.482991578	41.56395992
		Ne	-1.504550414	-0.255361281	39.6476952
		Ne	-0.650251772	-1.352500488	21.74168114
		Ne	0.250008167	1.490153003	17.98824874
		Ne	-0.7404702	1.393261772	27.72964042
		Ne	-0.133612582	1.495773928	37.78150207
		Ne	-1.366484653	0.660446	42.49885504
		Ne	-0.995407243	-1.15258953	36.85160983
		Ne	-1.444332936	-0.47870678	8.579601132
		Ne	0.046546813	-1.514242573	14.21778378
		Ne	1.504049485	0.207015783	12.33471092
		Ne	0.917303723	-1.237147117	31.2321442
		Ne	1.513469791	0.000286785	35.93596167
		Ne	0.519874694	1.415560735	30.2987468
		Ne	-1.236811534	-0.881421219	18.878722
		Ne	-0.534233852	1.454456344	45.19839326
		Ne	1.304439219	-0.738410551	9.517304989
		Ne	-1.158757748	0.961372484	13.27442868
50	50	Ne	0.648199502	-1.252076261	49.00052345
		Ne	-1.42007218	-0.369662249	47.2177523
		Ne	0.614535332	-1.382381486	6.700268447
		Ne	1.453229067	0.413876472	43.38665206
		Ne	0.782636315	1.277090439	40.62501426
		Ne	-1.076671011	-1.047587132	26.38695518
		Ne	0.739013929	-1.397534105	24.25429539
		Ne	-1.232809383	-0.867369181	29.4011063
		Ne	1.301187177	0.753733352	4.790534207
		Ne	1.053846813	1.077772883	15.15557195
		Ne	0.625436133	1.369026459	7.630205088
		Ne	1.425303724	-0.261877301	1.917491229
		Ne	1.174974773	0.966974105	33.1583748
		Ne	-0.921523759	1.172028456	2.8780568
		Ne	-1.464152968	0.277719695	32.11566563
		Ne	-1.05970037	1.065191025	34.98438553
		Ne	-0.350620958	1.482816074	10.45390689
		Ne	-1.334022987	0.635221182	23.88411153
		Ne	-1.511717218	0.112475005	16.09234725
		Ne	1.065387355	1.052509833	25.5805675
		Ne	1.286181312	0.834355549	22.58385009
		Ne	-0.845853649	1.296742109	20.75553958
		Ne	1.445909309	-0.279305637	46.34522449
		Ne	-0.856123803	-1.233151273	11.3984896
		Ne	1.437266293	-0.402652108	19.8950059
		Ne	0.98699805	-1.142184253	17.03439254

Ar

Length	Cluster size	Atom	x	y	z
10	10	Ar	1.895796487	-0.574906772	1.055711467
		Ar	2.036577565	-0.617753012	5.025611167
		Ar	0.554185215	2.011253918	6.897488137
		Ar	0.639068108	2.013737355	3.164329778
		Ar	1.902750226	-0.571739474	8.942784133
		Ar	-1.887417328	0.589466678	1.073096488
		Ar	-2.039627235	0.628001822	4.965877059
		Ar	-1.978776232	0.529040719	8.992636134
		Ar	-0.602012427	-2.020374048	3.151790709
		Ar	-0.628935283	-1.996208428	6.862710939

Ar

Length	Cluster size	Atom	x	y	z
		Ar	-0.64271858	3.438547599	2.592894758
		Ar	1.339698177	-3.242480412	3.787775984
		Ar	-1.993660166	2.892442883	5.908988913
		Ar	3.522178789	-0.051794754	4.817674611
		Ar	-2.323368082	-2.571117268	3.024324223
		Ar	0.32801899	-3.425929468	9.879799311
		Ar	2.521457056	-2.479198412	7.213480494
		Ar	-1.114100849	-3.314096173	6.444327606
		Ar	1.686024213	3.080522523	5.59060055
10	20	Ar	-3.054518658	1.751764738	9.174773877
		Ar	3.312567032	1.092681683	8.332097992
		Ar	2.692851222	2.228932117	2.132068426
		Ar	3.198379022	-1.294418436	1.384593541
		Ar	-2.949860043	-1.908807407	9.345414498
		Ar	-0.09357307	0.091307066	4.343348658
		Ar	-0.130265528	-0.037909718	7.913014259
		Ar	-3.353187935	1.005186056	2.729112107
		Ar	-3.463055339	-0.489494429	6.031104337
		Ar	-0.294200673	-0.011702271	0.743736959
		Ar	0.262847033	3.471343337	8.924381688

Ar

Length	Cluster size	Atom	x	y	z
		Ar	-2.192445188	0.843532547	8.637046451
		Ar	-2.256901306	4.366867271	7.327075264
		Ar	-1.891635611	-4.583269765	8.182763548
		Ar	-0.646451394	-1.830876473	6.336267854
		Ar	0.921840823	4.779647388	9.145023746
		Ar	1.067306423	4.771131688	5.483430823
		Ar	2.713685028	-3.989843125	1.996542707
		Ar	-1.350915448	-1.48127721	2.746344177
		Ar	-4.824848404	-1.090777546	3.715463716
		Ar	-2.075186301	4.530413174	3.663551311
		Ar	0.5881754	-4.91232953	4.861192163
		Ar	1.826381132	-0.283787668	4.031080615
		Ar	-4.577913078	1.843593918	5.888739671
		Ar	-2.941398244	-4.066966557	4.665529113
10	30	Ar	3.786573454	-3.150215709	5.367052025
		Ar	-2.213802312	4.738242305	0.028494727
		Ar	1.24350034	4.772173475	1.879293889
		Ar	-4.346532073	2.172468865	2.141228935
		Ar	-4.455831566	-1.861479985	7.281909643
		Ar	-0.028662744	-1.915611737	10
		Ar	3.902450992	2.907362966	3.620094498
		Ar	1.863338063	-4.512911577	8.214087019
		Ar	4.443090844	-1.897759589	8.797554069
		Ar	1.639611985	0.501423796	7.765920954
		Ar	-0.956344114	-4.837822783	1.545637485
		Ar	-0.586349877	1.746241732	1.514619644
		Ar	4.870444922	-0.8452686	2.294368842
		Ar	4.962940791	0.221496613	5.866608391
		Ar	-0.985041155	1.568929237	5.227756275
		Ar	3.76669889	3.275603764	7.344039942

Ar

Length	Cluster size	Atom	x	y	z
		Ar	4.08617122	4.110980044	8.053091057
		Ar	5.191695713	2.328810729	4.732429205
		Ar	-1.730089647	5.40020823	1.167295404
		Ar	2.050648587	-5.307313854	10
		Ar	-5.686018179	-0.761092725	9.042496242
		Ar	2.572326072	-0.391021199	3.638577837
		Ar	1.259379304	-1.802445745	8.823988038
		Ar	-0.641347449	-5.665792283	7.454022577
		Ar	0.276364976	-2.447805881	1.745430985
		Ar	-3.980323846	-4.112908645	8.309803746
		Ar	2.731269614	5.105364977	4.864653387
		Ar	2.972946201	-4.923895948	6.563703323
		Ar	-3.072867346	-4.784537205	4.811073791
		Ar	2.571311626	1.42812716	10
		Ar	4.903793676	-2.820567939	8.841966885
		Ar	-2.305399174	-0.871916677	7.497685775
		Ar	5.664639576	0.771358199	7.993628355
		Ar	-5.432565541	-1.953802811	5.609451061
		Ar	-3.181653647	4.825062891	7.262825283
10	40	Ar	-0.851115776	5.685462144	4.647819621
		Ar	0.631813845	5.645654133	7.985904759
		Ar	0.51572248	-5.790983014	3.907459351
		Ar	3.831998309	-4.196431101	3.226770912
		Ar	1.764862612	-5.457793922	0.429141802
		Ar	5.483583365	-1.759429144	5.383107114
		Ar	-4.922481255	-3.007628401	2.070165512
		Ar	0.865825266	2.824851354	2.737738042
		Ar	-5.69715338	0.607298739	2.881587262
		Ar	-1.65977753	2.071161599	5.341751625
		Ar	-4.89146036	2.826658423	9.779536017
		Ar	-1.005286164	2.332098997	8.993225278
		Ar	-5.408996262	1.775304462	6.329138243
		Ar	-2.042248436	-5.314558413	1.348488697
		Ar	5.771731407	-0.159426103	2.033123128
		Ar	-2.437837433	-1.081454595	3.778494979
		Ar	1.794917669	1.738248045	6.445254672
		Ar	4.764953924	-3.050035784	0
		Ar	-2.413939631	1.68564831	1.393478934
		Ar	-4.153729419	4.028921512	3.67324808
		Ar	0.324864274	-2.592253075	5.47950426

Ar

Length	Cluster size	Atom	x	y	z
		Ar	2.345238201	-2.211659959	3.863373226
		Ar	-2.63737408	1.844516655	7.056938515
		Ar	6.332616514	-0.827961668	5.535232935
		Ar	-3.214821767	0.306853752	3.800925126
		Ar	-4.638682153	4.321447641	1.353544332
		Ar	-0.033046686	0.334678589	1.996447117
		Ar	-2.070842619	-5.999237938	5.713263141
		Ar	-1.136072131	3.779638096	9.783212961
		Ar	-0.327255412	-6.35860473	8.879771204
		Ar	-3.697860234	-5.209995219	2.483593216
		Ar	-6.37086284	-0.301666835	5.505863419
		Ar	-6.043338755	-1.949646519	8.77101495
		Ar	1.766159225	6.093666443	9.493153995
		Ar	-3.878001829	-5.037039144	8.803582588
		Ar	1.708904515	2.753651922	7.560335237
		Ar	-1.293920351	-2.931362824	3.902211446
		Ar	0.629727189	-3.234310888	7.251318055
		Ar	-1.317397092	-3.094182196	10.52933117
		Ar	-0.324580726	3.264168965	4.566247961
		Ar	3.122092022	5.584906228	5.982091616
		Ar	-2.795635926	5.784523624	4.048144454
		Ar	4.787586767	-4.222306389	5.568090374
		Ar	5.691460838	2.887566696	5.813328213
		Ar	-0.988619991	3.944757587	1.032058663
10	50	Ar	-5.122907111	-3.834065955	5.58650021
		Ar	6.260083972	0.867892585	8.830965847
		Ar	2.440382458	-2.397679911	10.48881281
		Ar	0.938121995	6.320134464	3.123134822
		Ar	3.398230937	-5.37898917	2.291987915
		Ar	-0.220160757	-6.310090075	2.392939713
		Ar	-0.011563654	0.094907946	9.280533162
		Ar	-2.732973796	-1.787478357	7.252088629
		Ar	3.202345944	-0.592876	7.258757693
		Ar	6.226859492	1.233814015	2.532251486
		Ar	1.631636391	-6.167015166	5.460099026
		Ar	-5.409446269	3.286848895	4.876969808
		Ar	2.891357137	1.469321337	4.08632309
		Ar	-3.806933828	5.151841212	7.632107402
		Ar	4.338992001	4.576764299	2.709979936
		Ar	5.814862285	-2.558571674	2.370249236
		Ar	0.023309529	-0.075599284	5.649032674
		Ar	4.793298934	4.181750557	9.103535429
		Ar	-6.037220639	2.024183111	8.302219497
		Ar	-5.866412683	-2.304900715	2.425011547
		Ar	-6.284740117	1.207909269	1.988201378
		Ar	3.241401745	-5.490573527	8.651216489
		Ar	5.728525126	-2.75757222	8.72988466
		Ar	3.379825118	-0.305844968	0.741719442
		Ar	-0.43773589	6.337704871	6.695586168
		Ar	-3.499719589	0.253977947	10.3748777

Ar

Length	Cluster size	Atom	x	y	z
20	10	Ar	0.976674356	-1.486094371	7.275153928
		Ar	-1.253562579	-1.24057565	10.27556214
		Ar	-0.986150399	1.475606602	12.73700588
		Ar	1.272306201	1.215293326	4.795139739
		Ar	1.407806855	-1.070258369	12.81773615
		Ar	-1.407805377	1.06907427	7.345815841
		Ar	-1.32927307	-1.150421629	15.28471665
		Ar	-1.315913213	-1.120982469	4.232154285
		Ar	1.328001218	1.150406262	9.802743701
		Ar	1.229863451	1.225832112	15.8300038

Ar

Length	Cluster size	Atom	x	y	z
		Ar	0.942496502	-2.156990766	12.08714884
		Ar	2.329353538	-0.246613236	5.212977496
		Ar	-1.472384692	1.838158709	10.37892887
		Ar	2.341344031	0.037129655	14.69350204
		Ar	-0.088198802	2.368994597	4.393870579
		Ar	1.132178796	2.068680703	7.817827599
		Ar	2.004455006	1.231243948	11.25970707
		Ar	-2.268059672	-0.639404619	12.97071511
		Ar	-0.582084928	-2.282815016	6.056785121
20	20	Ar	-0.382944297	2.320823338	13.84836154
		Ar	-2.198691526	0.836398735	6.93715064
		Ar	0.648680531	-2.245083034	2.600216289
		Ar	1.888711612	-1.396595921	8.648475858
		Ar	1.911232645	-1.232757509	18.13441743
		Ar	-0.31433761	-2.349777335	15.50843108
		Ar	-1.629218002	-1.706242251	9.525763706
		Ar	0.844020307	2.175960369	17.29747588
		Ar	2.028687046	1.046202127	1.767003703
		Ar	-2.27809571	0.497746187	16.52704048
		Ar	-2.309854666	-0.292864999	3.397460889

Ar

Length	Cluster size	Atom	x	y	z
		Ar	-2.343557481	-2.497464536	13.32710351
		Ar	3.017817197	-1.641204849	10.38055544
		Ar	2.532003996	-2.335507227	17.08042092
		Ar	-3.40695468	-0.26861767	16.11446876
		Ar	1.213456274	-3.20486736	13.72301705
		Ar	3.118885604	1.325778331	17.32585691
		Ar	2.148684512	-2.667258398	6.920495998
		Ar	-0.137751204	-3.436781135	10.27140483
		Ar	-3.259706477	1.057082976	12.62540084
		Ar	0.152286778	-0.068514343	15.63706947
		Ar	3.422789968	-0.327339727	13.87506853
		Ar	2.789012678	1.972528112	10.79959338
		Ar	3.340854026	0.765459562	7.344305542
		Ar	-1.455583489	-3.117992019	6.770172994
20	30	Ar	1.935848794	2.816182098	4.569931904
		Ar	-2.679028515	2.184388681	9.047081403
		Ar	3.368658027	-0.660747235	3.863731823
		Ar	0.036036932	-0.163495966	8.556043107
		Ar	1.842162471	2.903560811	14.25782569
		Ar	-1.677926419	3.010964096	15.30961067
		Ar	0.749064032	-3.356901932	3.552936661
		Ar	0.729629514	3.348521634	8.055903696
		Ar	-3.442212958	-0.123154062	6.404602649
		Ar	-2.720836333	-2.022188694	3.325480625
		Ar	-0.025420019	-0.167723388	5.005957459
		Ar	-3.118029981	-1.400630139	9.872335848
		Ar	-0.539060911	3.417974149	11.62324991
		Ar	-1.107082702	-3.251839319	16.80206241
		Ar	0.113970223	-0.116646224	12.08655804
		Ar	-1.758898782	2.961187092	5.367976303

Ar

Length	Cluster size	Atom	x	y	z
		Ar	-4.317571002	0.68903302	3.12726885
		Ar	-0.681617611	-1.102160575	16.85768239
		Ar	3.968328423	1.873175941	5.703440068
		Ar	-4.317934763	-0.878574662	9.2595213
		Ar	2.215716674	3.76713361	8.426125303
		Ar	0.752351222	4.323389082	14.66019769
		Ar	1.732691578	-4.041859211	17.33051518
		Ar	1.434174965	-4.14915868	7.470344445
		Ar	-1.148426717	-0.056750848	11.08261447
		Ar	1.211694607	4.223861096	4.840337925
		Ar	-3.954010053	-1.915969411	5.709424709
		Ar	0.363617595	-4.376105427	11.03665772
		Ar	-2.373865398	3.728688428	3.967411342
		Ar	4.185145771	-1.300456359	16.46254343
		Ar	0.958355638	0.56826523	13.98583532
		Ar	3.074188981	3.134810306	12.00194686
		Ar	-1.8813337	3.96924638	17.31506313
		Ar	4.410502683	-0.216831689	12.86325701
		Ar	2.418729571	-3.665040808	3.898352689
20	40	Ar	-3.766246599	-2.343825815	15.31880505
		Ar	-0.316867994	4.370046928	11.09507788
		Ar	-4.218288584	1.173147269	16.43726603
		Ar	3.781944784	2.299717282	15.61612077
		Ar	-3.06130546	-3.188611355	11.85388668
		Ar	-2.149519908	-3.795653446	8.351633467
		Ar	1.057036844	-0.416380705	8.222646198
		Ar	-4.069516027	1.733018928	6.669235216
		Ar	2.732159493	-3.405420988	13.74895383
		Ar	4.338456352	0.873344513	9.322578036
		Ar	-1.183861955	-4.222234595	4.774089266
		Ar	-4.410655996	0.225973801	12.80586733
		Ar	3.524500798	-2.63410391	10.17104656
		Ar	4.086283999	-1.698937246	6.555386284
		Ar	-0.765401957	-4.317355826	14.61037162
		Ar	1.78242461	4.011661528	18.22064033
		Ar	-0.890589693	0.523454914	5.244666138
		Ar	-3.998252851	-1.732854027	18.88791156
		Ar	-1.373383098	4.145123355	7.52506689
		Ar	-3.516521234	2.68994812	10.18874584
		Ar	-2.742852692	3.389179352	13.74738654

Ar

Length	Cluster size	Atom	x	y	z
		Ar	4.945725267	1.091335693	14.52088499
		Ar	-4.021206996	-3.037056084	10.71909476
		Ar	4.236946727	-2.665144065	7.703281186
		Ar	-1.078823757	4.86333032	8.182504389
		Ar	2.731012721	4.149159789	8.124027901
		Ar	-0.647821588	-4.938833931	4.363465001
		Ar	0.909744326	4.871228025	4.964875629
		Ar	-1.113392887	1.364236409	14.88302511
		Ar	-2.4999189	-4.255060679	7.533919156
		Ar	1.050332181	4.952031197	11.22741595
		Ar	0.355164649	-1.799496978	15.83443677
		Ar	-1.20687041	-1.464689607	12.39494025
		Ar	-3.18953945	3.930231555	10.99581386
		Ar	1.104454813	-4.861204025	14.03930085
		Ar	1.759888898	-0.750742196	9.445058838
		Ar	4.827609057	-1.032115759	17.54186923
		Ar	-4.852037222	0.956794494	4.394025438
		Ar	-2.710024009	4.139359341	4.832305924
		Ar	-3.063323855	3.888735356	17.13218455
		Ar	4.096719054	2.728367821	11.24631804
		Ar	4.869191383	-0.722503786	4.60544011
		Ar	1.388151043	0.823210602	3.583423054
		Ar	-4.422867795	2.363574373	13.97428131
		Ar	-1.25593146	4.8413986	14.00136969
20	50	Ar	-0.414927434	1.790744014	10.86603433
		Ar	4.161331408	-2.672562367	14.26626375
		Ar	-0.845526039	-4.929101619	17.32822622
		Ar	0.531389515	4.91329694	17.30776996
		Ar	0.206648864	1.725104295	7.009133939
		Ar	2.974259177	-3.978471135	4.419340382
		Ar	0.408223504	-1.798006457	6.028157023
		Ar	-2.548142607	-4.305063083	14.09825561
		Ar	1.232138627	-4.84426804	7.755140884
		Ar	4.062446889	2.905210404	4.945316363
		Ar	2.91199282	-3.987091151	10.96099498
		Ar	4.845942817	1.011026209	7.989679042
		Ar	2.684277954	4.139791804	14.37036941
		Ar	-4.921895554	0.642172614	17.21012875
		Ar	-4.895259308	0.541920525	10.76543662
		Ar	1.921063749	0.144920294	13.07258751
		Ar	2.08441072	1.445059245	16.8252398
		Ar	4.938944109	-0.868766182	11.17486873
		Ar	-4.197922304	2.514684009	7.75351611
		Ar	-3.930178151	-3.000193097	4.291489024
		Ar	-0.786062489	-4.885683492	10.82006335
		Ar	-4.748623564	-1.320638855	13.9741007
		Ar	2.776286355	-4.137604996	17.35815606
		Ar	-1.777957747	-0.833006834	8.838437913
		Ar	-3.982671546	-2.955538782	17.24265706
		Ar	-4.903780546	-1.217014522	7.36373279

Ar

Length	Cluster size	Atom	x	y	z
30	10	Ar	-0.021597744	-0.006328997	28.08229947
		Ar	0.005585433	-0.021798322	3.995706141
		Ar	-0.010801999	-0.005976269	10.87930803
		Ar	0.01215045	-0.002186006	14.31911935
		Ar	0.065611241	0.026274708	31.56658766
		Ar	0.007584522	0.009900096	24.63892844
		Ar	-0.008081401	0.009331687	17.75886282
		Ar	0.004637588	0.011579514	7.439068683
		Ar	-0.01089607	0.069865254	0.511416587
		Ar	0.000380767	-0.012330631	21.19867955

Ar

Length	Cluster size	Atom	x	y	z
30	20	Ar	-0.010039275	-1.980555526	7.778311699
		Ar	1.80379503	0.819013057	18.31951892
		Ar	0.858535174	1.793882958	21.79932095
		Ar	0.66478068	-1.867388465	20.63622702
		Ar	-1.278971415	-1.502275609	4.289589299
		Ar	-1.671053659	-1.070455005	13.65061441
		Ar	-1.908792301	-0.508387656	22.97889117
		Ar	-1.83162644	0.744840014	19.44579689
		Ar	1.513424736	1.288827834	8.977546375
		Ar	-1.969281778	0.159670811	10.1300572
		Ar	-0.605953666	-1.893373318	17.12512592
		Ar	1.922697565	-0.457893423	14.79835657
		Ar	-0.339504264	1.945531996	25.36314525
		Ar	1.178284884	-1.591127576	11.3098423
		Ar	1.959815313	0.192356563	5.404801479
		Ar	-1.136682981	-1.609356126	26.4839082
		Ar	-1.395014202	1.401267367	6.640561398
		Ar	-0.929717561	1.750599909	15.9605445
		Ar	0.332567798	1.958403347	12.44890313
		Ar	1.705615283	-0.998784269	24.12300525

Ar

Length	Cluster size	Atom	x	y	z
		Ar	-2.32379958	0.064199963	4.240882941
		Ar	1.714548966	1.605005913	9.546631331
		Ar	-2.089611144	-1.082826841	7.842584831
		Ar	2.071663913	-1.1145657	21.76474323
		Ar	-2.324396427	0.308106047	13.94083632
		Ar	2.159787396	-0.945203851	12.18300723
		Ar	-0.814916972	2.188322242	6.915448344
		Ar	2.303683054	0.45597765	6.073852381
		Ar	2.131304634	-0.872148175	2.57543228
		Ar	-0.624952199	2.257672326	16.54765416
		Ar	-0.369948875	2.297712744	26.23909224
		Ar	0.647753361	2.249628672	13.05318946
		Ar	2.329287758	0.301214149	15.66632539
		Ar	-1.211019346	-2.01439269	11.32755295
30	30	Ar	-2.199889565	-0.753605117	27.07466778
		Ar	1.165304009	-1.99061402	27.90106529
		Ar	2.359811777	0.158028372	25.20817326
		Ar	-1.365912735	-1.918965521	20.93363387
		Ar	-1.712961955	1.594467909	20.0442724
		Ar	-0.003987637	-2.357287625	14.81205189
		Ar	0.786498769	2.208428414	22.63646271
		Ar	-2.152574333	-0.939098242	17.43698136
		Ar	-2.287166493	0.506782791	23.57434463
		Ar	1.212530956	-2.020028028	18.28944727
		Ar	1.35695399	-1.921445302	8.714429668
		Ar	-1.813502145	1.481699347	10.44897153
		Ar	1.837749636	1.460087814	19.15462633
		Ar	0.155214895	-2.365001891	5.254297394
		Ar	0.480781124	2.279295044	3.433984379
		Ar	-0.173816338	-2.343405074	24.4209649

Ar

Length	Cluster size	Atom	x	y	z
		Ar	-1.475788928	2.886946575	9.896288015
		Ar	-2.866353191	1.489028393	6.568077295
		Ar	-3.214160915	-0.502428008	22.64169933
		Ar	2.865574746	-1.455825264	3.588655687
		Ar	-2.294928968	-2.273893749	25.92748641
		Ar	0.505783996	3.203073801	25.89801671
		Ar	-2.307683183	-2.298868178	19.51729309
		Ar	1.467142369	-2.920458107	19.49859719
		Ar	-1.465676578	2.883719564	16.27381484
		Ar	0.509561457	3.226068756	13.04242781
		Ar	3.187990975	0.496322544	25.90911801
		Ar	3.195278434	0.528862854	6.70780856
		Ar	2.893195219	-1.480005349	22.64707716
		Ar	1.448932944	-2.910748191	6.695372534
		Ar	-0.516912467	-3.20042193	22.62847557
		Ar	2.883027859	-1.486065084	9.920775466
		Ar	0.521494225	3.220635251	19.50988025
		Ar	0.515836201	3.207454121	6.640470877
		Ar	2.301574236	2.288167064	16.25813923
30	40	Ar	3.212827518	0.492616857	19.51000727
		Ar	1.46700129	-2.921735859	13.03111465
		Ar	-2.879467725	1.490655635	25.87029396
		Ar	0.000282894	-0.000638844	24.21495299
		Ar	-2.900515035	1.480840387	13.01005322
		Ar	-2.901936183	1.484523168	19.49781613
		Ar	-3.212174285	-0.490249668	16.26927204
		Ar	-3.225136699	-0.494333055	9.874685177
		Ar	-0.00088122	-0.000878062	18.0469586
		Ar	-0.009379668	0.00405964	8.313831566
		Ar	-2.316537813	-2.287705948	13.0330775
		Ar	1.456085069	-2.899391681	25.8851457
		Ar	-1.458833131	2.890908106	22.62877072
		Ar	-2.290534641	-2.278548421	6.621672232
		Ar	-0.001214418	0.000213993	14.48785662
		Ar	3.211760515	0.502272551	13.02602806
		Ar	-0.541716554	-3.192713273	9.905546804
		Ar	2.315101065	2.284932564	22.63118878
		Ar	2.88508672	-1.473880227	16.2764232
		Ar	2.283904457	2.307210937	9.905515289
		Ar	-0.524291293	-3.190847277	16.25987158

Ar

Length	Cluster size	Atom	x	y	z
		Ar	1.753935804	-2.960615675	13.88301778
		Ar	-3.413530089	0.478204464	12.53796236
		Ar	3.158338871	1.314680245	8.312113341
		Ar	2.796382884	-2.001915348	17.22934032
		Ar	-0.144220125	-0.064781802	21.06341759
		Ar	3.267677772	-1.053081248	11.19098026
		Ar	-2.556554162	2.297308197	25.66663263
		Ar	-2.656266336	-2.194747793	19.45007796
		Ar	-3.306209384	-0.93678524	15.98198629
		Ar	-0.644618389	-3.393421401	16.56846177
		Ar	3.07704346	-1.350200881	1.557302818
		Ar	0.04290477	0.148644301	10.17738399
		Ar	-0.146829605	0.048888211	17.4355067
		Ar	2.072586681	2.745105497	21.32059828
		Ar	-2.348449579	2.516864941	15.58256446
		Ar	1.605509959	3.056783945	5.112160767
		Ar	-3.406509216	-0.598313289	6.322200204
		Ar	-3.180666595	-1.331024187	26.06424936
		Ar	2.965172264	-1.647745695	26.77498715
		Ar	-3.152863063	1.359536999	19.12204705
		Ar	-0.95858466	-3.309746174	7.081579614
		Ar	-3.426058191	0.044715953	22.63778774
		Ar	-0.053953959	-0.127580033	24.70210804
		Ar	3.373845518	-0.719991899	20.61147346
30	50	Ar	-0.067732522	0.136773486	13.80497164
		Ar	-1.557043513	-3.053052272	22.91219065
		Ar	-2.962246171	1.790713523	9.044954596
		Ar	2.06801479	-2.748594448	23.3349702
		Ar	1.429464825	-3.097942671	4.347541353
		Ar	-1.133453153	3.238401353	12.04650203
		Ar	3.009330946	1.695486248	17.94848189
		Ar	2.378642252	2.487349229	11.72799416
		Ar	1.17707284	3.228235903	15.16494877
		Ar	3.436009766	0.359630879	14.55368326
		Ar	-0.221070682	3.441120172	18.58007128
		Ar	3.369852215	0.69958246	24.00282416
		Ar	-2.903466082	-1.846936918	9.756646946
		Ar	0.224696057	3.420056306	8.542633852
		Ar	3.437928173	-0.086885333	4.960832095
		Ar	-0.182691785	-3.41701938	26.32571523
		Ar	0.781528515	-3.344647518	19.9453558
		Ar	-2.06367126	2.747045274	5.456329127
		Ar	-1.56083393	3.09207337	22.05061823
		Ar	-1.9469388	-2.855182212	13.1558796
		Ar	2.564065271	-2.294098125	7.810840858
		Ar	0.431477459	-3.427206702	10.49869361
		Ar	0.122706747	0.072380482	6.53497504
		Ar	2.734588047	1.967464432	27.48984107
		Ar	0.849151167	3.360276185	24.73044871
		Ar	-2.128120255	-2.609895793	3.563757763

Ar

Length	Cluster size	Atom	x	y	z
50	10	Ar	0.008739463	-0.00563009	12.31448446
		Ar	-0.010369461	0.000679828	38.87776624
		Ar	-0.000928023	0.010361612	35.0825103
		Ar	-0.004006186	-0.009681078	8.513026523
		Ar	0.006895553	0.007794539	16.10975501
		Ar	-0.008888436	-0.005373419	23.69889732
		Ar	-0.006653497	0.007984016	19.90439016
		Ar	0.003957473	-0.009612035	27.49337307
		Ar	-0.002528937	-0.010162275	42.67923222
		Ar	0.01010475	0.002468024	31.28787047

Ar

Length	Cluster size	Atom	x	y	z
50	20	Ar	0.081362692	1.348882832	21.9237517
		Ar	-0.002645922	-1.35305122	19.73433835
		Ar	0.326379565	-1.306940005	10.97670758
		Ar	-0.30834454	-1.317529327	28.49270912
		Ar	-0.60800482	-1.209442009	37.23912519
		Ar	-0.637268079	1.01510476	3.778178926
		Ar	0.852540699	0.967875326	44.01941757
		Ar	0.245617416	1.33034779	26.30666749
		Ar	-0.232389764	1.331082197	13.17604684
		Ar	0.542785135	1.240227016	35.05712623
		Ar	0.68041773	1.162977414	39.4324813
		Ar	0.137993612	-1.345689692	15.36567509
		Ar	-0.92850636	-0.760812079	46.61991846
		Ar	0.520546725	-1.177264678	6.385042724
		Ar	0.379265628	1.29774772	30.68047759
		Ar	-0.170433922	-1.340570627	24.11689012
		Ar	-0.771162612	-1.084177662	41.67080427
		Ar	-0.464659781	-1.269656348	32.87081434
Ar	-0.413795896	1.264574761	8.73865279		
Ar	-0.06324132	1.352350259	17.55022632		

Ar

Length	Cluster size	Atom	x	y	z
		Ar	-1.244673557	-1.387280513	18.82453615
		Ar	-1.761898507	-0.612374043	28.57566654
		Ar	-1.694484616	0.779664339	11.34762494
		Ar	1.393341841	1.242088968	37.34875371
		Ar	-1.09224969	-1.507240356	32.29190899
		Ar	0.05558351	-1.862614625	36.02382017
		Ar	-1.370846756	1.257682077	34.79751139
		Ar	1.865563888	-0.0121485	20.05630677
		Ar	0.607287259	-1.756773414	12.58207605
		Ar	1.052662451	-1.512023317	39.86529726
		Ar	-1.800817689	0.477863122	24.91982129
		Ar	1.688298688	0.791663331	10.03160668
		Ar	0.149577265	1.799230219	41.18683094
		Ar	-0.202903474	1.854319821	17.59076148
50	30	Ar	1.626075343	-0.909519998	29.80606916
		Ar	-1.858314902	0.164043113	38.48364274
		Ar	-1.817818002	-0.402671812	15.09289079
		Ar	1.855235645	0.222086243	33.52112408
		Ar	-0.408054356	1.82219969	31.03476226
		Ar	0.702760715	1.726245144	27.35182035
		Ar	-1.223310073	1.405304447	21.27725073
		Ar	-0.575579282	-1.776391816	8.901225294
		Ar	0.926634063	1.622549917	13.84891177
		Ar	1.713327611	-0.561009929	6.201920778
		Ar	-0.242535311	-1.8478089	22.49423646
		Ar	1.520143368	-1.080841271	16.34750062
		Ar	1.56988454	-0.792982567	43.57120514
		Ar	0.826166243	-1.669873507	26.13844066
		Ar	1.549478843	1.034053636	23.71092577
		Ar	-0.987527603	1.552816273	7.517185571

Ar

Length	Cluster size	Atom	x	y	z
		Ar	-1.782115153	0.9120812	12.28511216
		Ar	-1.311558375	-1.542804818	32.22087028
		Ar	-1.875337236	0.810492361	21.25834682
		Ar	-0.426259851	1.933982666	6.643255487
		Ar	-0.809973127	-1.865302371	23.40891459
		Ar	-1.072038837	1.672981685	15.86929852
		Ar	1.887927716	-0.78522914	33.71616419
		Ar	-1.480570618	1.337540683	25.09757754
		Ar	0.86320587	1.849007675	31.5198094
		Ar	1.758403826	0.915937497	13.5865322
		Ar	1.83263402	-0.831717674	16.82091517
		Ar	-1.347041846	1.460928445	34.43195277
		Ar	1.780544561	-0.906802813	42.65710826
		Ar	1.914476445	-0.804110436	25.49447149
		Ar	-1.094348888	-1.658539574	5.411018408
		Ar	1.005666814	1.771884224	27.77694035
		Ar	-0.951673644	-1.745760845	45.00834848
		Ar	0.995022889	1.732242175	10.04634704
		Ar	0.760619838	-1.834107866	11.25206242
50	40	Ar	1.475232956	-1.334288688	29.7604409
		Ar	-1.591159427	-1.201289359	18.19650909
		Ar	-1.598387838	1.168521068	47.22048349
		Ar	1.389108953	1.465159695	22.72771469
		Ar	-0.790248129	-1.870578649	35.90914499
		Ar	0.780515755	1.866536089	19.03514445
		Ar	-1.933161347	0.761934573	29.54863636
		Ar	1.958431811	0.243710425	4.239581918
		Ar	1.326956959	-1.485158597	20.47817996
		Ar	1.892704922	0.577872448	46.06119982
		Ar	-0.725619221	1.836817585	43.66759413
		Ar	1.070353532	-1.66749225	39.05988098
		Ar	0.881111995	1.810632117	40.36492958
		Ar	1.5635877	1.238742262	36.74534644
		Ar	1.704007262	-1.043827029	7.732002642
		Ar	-1.515451703	1.270384632	3.16633128
		Ar	-1.1151727	-1.723435918	27.1372845
		Ar	-1.739638052	-0.960645683	41.41306254
		Ar	-0.852335253	-1.817843705	14.56689423
		Ar	-1.844986151	0.787968583	38.1497395
		Ar	-1.870985075	-0.63038213	8.917972648

Ar

Length	Cluster size	Atom	x	y	z
		Ar	-0.990288185	-2.131337417	23.31828236
		Ar	-2.022623739	-1.189020302	17.17562637
		Ar	-2.126422174	-0.967867701	7.485657932
		Ar	0.268027599	-2.330510501	19.80167905
		Ar	1.627673115	1.692970257	15.4165725
		Ar	2.30631963	0.393572272	9.294460663
		Ar	1.564170201	1.70678706	39.30901405
		Ar	-1.65223049	1.628286743	37.566699
		Ar	0.532201198	-2.276971922	29.3948445
		Ar	1.413526211	1.756428877	35.31720116
		Ar	1.554066103	1.673120329	46.84983191
		Ar	1.277270366	-1.972532218	6.630183405
		Ar	2.24018303	-0.679143805	22.43601743
		Ar	-1.669150097	1.578169952	41.29806502
		Ar	-2.019999583	1.138054503	33.85624945
		Ar	1.744606353	-1.50654753	41.22354524
		Ar	-0.723841041	-2.238079172	32.74353759
		Ar	-1.636048889	-1.692083168	36.08957351
		Ar	-1.490990902	-1.705331365	46.9266641
		Ar	2.185801645	-0.840506074	12.77997223
		Ar	0.376739868	2.31944424	21.5625807
		Ar	0.528251998	2.294252244	11.91301587
		Ar	-1.892991547	1.381718829	14.53236578
		Ar	2.266172903	0.593847035	18.92871573
50	50	Ar	2.320316809	-0.390202283	32.32053034
		Ar	1.554533891	1.701023476	43.10015228
		Ar	-2.343881724	-0.102141506	30.30991453
		Ar	-1.524891612	-1.703374591	39.61956191
		Ar	-0.896408369	2.166826926	18.04367841
		Ar	-2.333830695	0.217767314	11.02534856
		Ar	1.772161197	1.549744559	5.82653428
		Ar	-0.721165778	2.24616896	8.409075957
		Ar	0.074877073	-2.354482676	10.13781622
		Ar	-1.966662304	1.268065678	24.20909273
		Ar	1.533671559	1.79339665	25.08005339
		Ar	2.12575402	-0.866601267	3.103481084
		Ar	-1.550982217	-1.682093756	43.2327739
		Ar	1.726978265	-1.535174934	44.98045578
		Ar	1.778063332	-1.441571744	37.38317522
		Ar	1.447946979	-1.843237929	16.28725847
		Ar	-1.292919706	-1.932611507	3.970405063
		Ar	-2.3407537	0.053012931	20.69369583
		Ar	0.220731221	2.340778819	31.27165991
		Ar	-1.119008816	-2.071261241	13.66082176
		Ar	-1.695615031	1.607419813	4.795313575
		Ar	-1.682092283	1.571872546	45.02943898
		Ar	2.236864632	0.779950375	28.63019473
		Ar	1.583588077	-1.723843223	25.93110399
		Ar	-1.016206504	2.111483686	27.71398449
		Ar	-1.941641616	-1.322874006	26.82807537

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