

Supplimentary Materials for  
Structural Predictions of Three Medium-Sized Thiolate-Protected Gold  
Nanoclusters  $\text{Au}_{44}(\text{SR})_{30}$ ,  $\text{Au}_{56}(\text{SR})_{32}$ , and  $\text{Au}_{60}(\text{SR})_{34}$

Wenhua Han,<sup>#</sup> Gang Wang,<sup>#</sup> Pengye Liu,<sup>b</sup> Wenliang Li,<sup>a\*</sup> Wen Wu Xu<sup>b\*</sup>

<sup>a</sup>College of Energy Engineering, Xinjiang Institute of Engineering, Urumqi 830023, China

<sup>b</sup>Department of Physics, School of Physical Science and Technology, Ningbo University, Ningbo 315211, China

AUTHOR INFORMATION

<sup>#</sup>W. Han and G. Wang contributed equally to this work.

**Corresponding Author**

\*W. Li([wenliangli@vip.126.com](mailto:wenliangli@vip.126.com)), W. W. Xu ([xuwenwu@nbu.edu.cn](mailto:xuwenwu@nbu.edu.cn))

The cartesian coordinates of Au<sub>44</sub>(SR)<sub>30</sub>:

Au	1.53252	0.2782	-0.29929
Au	1.27408	2.00846	2.17824
Au	-1.51624	1.88118	2.12872
Au	-0.13686	2.6597	-0.52718
Au	0.00773	0.79716	-2.62324
Au	-0.1255	1.14038	4.46016
Au	3.11235	-0.36057	1.99965
Au	-0.23825	4.61543	1.50056
Au	4.40465	0.26782	-0.41483
Au	-1.629	4.99776	-0.93558
Au	1.16168	5.12433	-0.90623
Au	7.00819	-2.37685	-0.06981
Au	4.55676	6.13157	-0.50267
Au	-5.09032	5.68863	-0.66878
Au	6.47561	3.21374	-0.40974
Au	1.61593	3.98213	-3.67335
Au	1.69942	-1.1908	5.09183
Au	-1.79564	3.80336	-3.73661
Au	-0.24248	4.11683	5.15009
S	-7.00056	4.75544	0.3823
S	6.53203	5.37211	0.5731
S	-3.20305	6.75176	-1.61747
S	-0.14418	5.24355	-4.66121
S	7.22716	-3.0913	-2.31556
S	-0.17899	2.27044	6.65856
S	6.92949	-1.60269	2.1675
S	2.59742	7.03408	-1.47121
S	3.56055	0.11906	4.37972
S	-3.52079	2.35757	-3.01106
S	-0.28979	5.88431	3.58226
S	3.43452	2.68015	-2.90479
S	-3.02754	-1.48861	-4.13056
S	6.48872	1.07303	-1.40943
Au	-0.00888	-0.56938	2.25612
Au	-1.5669	0.12511	-0.3629
Au	0.11534	-2.36387	-0.04676
Au	-3.13979	-0.67843	1.89924
Au	3.22636	-2.21504	-0.08339
Au	1.51289	-2.97614	2.34222
Au	-1.24293	-2.01055	-2.53939
Au	-4.4437	-0.19908	-0.55077
Au	-2.98943	-2.52191	-0.18551
Au	-1.28212	-3.10783	2.29696
Au	1.54525	-1.87841	-2.49783
Au	0.27481	-4.35234	-1.93585

Au	5.03417	-2.92091	2.743
Au	-1.45286	-5.75791	0.25825
Au	-4.72413	-3.38709	2.80654
Au	-6.75183	2.61111	-0.59872
Au	1.99495	-5.58553	0.36372
Au	-6.68733	-2.84681	0.03117
Au	0.16833	-4.89527	-5.06474
Au	-1.80931	-1.28433	5.03753
S	-2.81933	-4.58336	3.54653
S	0.29361	-6.82571	1.46732
S	-6.62283	0.42663	-1.48615
S	-0.11332	-3.41574	-6.88767
S	-6.84463	-3.53759	-2.22752
S	3.25842	-4.30876	3.48714
S	-0.03512	-2.52253	6.04661
S	-3.36054	-4.88304	-0.82684
S	-6.7151	-2.18804	2.30265
S	-3.70182	-0.08877	4.23422
S	0.44288	-6.42593	-3.26587
S	3.84847	-4.53688	-0.66278
Au	0.01325	-1.28792	-5.83318
S	0.14174	0.95674	-5.0863
Au	3.26016	3.04622	-0.52225
Au	-3.51438	2.6941	-0.6191
S	-3.65505	3.01566	1.75974
S	3.22154	3.4569	1.85097
S	3.28838	-1.12043	-4.03636
Au	5.21649	-2.08106	-3.08354
Au	-4.89457	-2.43491	-3.03326
H	4.50889	-0.85562	4.53403
H	-0.01519	-3.51447	5.1065
H	-4.60597	-1.09678	4.43002
H	-2.83901	-5.5843	2.61206
H	-7.59802	-3.13387	2.74088
H	-6.24635	-4.75348	-2.04967
H	-3.22222	-0.19053	-3.74325
H	-2.81077	-4.78554	-2.07314
H	0.36138	-7.94048	0.68067
H	4.70962	-4.68957	0.38915
H	3.11608	-3.70617	4.70787
H	7.88674	-2.43818	2.66935
H	6.6917	-4.33583	-2.1361
H	3.05936	-2.09457	-4.96558
H	7.32416	0.45153	-0.52393
H	7.43383	5.93382	-0.28481
H	2.86464	6.63663	-2.7508

H	4.16388	2.52498	2.18178
H	4.41434	3.61097	-3.10508
H	-0.21606	6.19457	-3.68214
H	-4.58021	3.18088	-3.26603
H	-3.15874	4.28914	1.77543
H	1.05009	6.14559	3.5996
H	-1.5303	2.16033	6.81932
H	1.80789	-6.44176	-3.28654
H	-1.47686	-3.47521	-6.92814
H	1.50437	1.04456	-5.11104
H	-6.1448	0.76788	-2.71922
H	-7.93422	5.24896	-0.48332
H	-3.38351	6.27616	-2.88586

The cartesian coordinates of Au<sub>56</sub>(SR)<sub>32</sub>:

Au	-0.612111	1.470052	-2.306151
Au	-0.734034	-1.464702	-2.270985
Au	-1.806893	0.066811	0.059807
Au	0.719352	-1.505921	0.387917
Au	-3.224775	-2.856047	-2.535382
Au	0.666775	-0.090187	-4.347204
Au	3.436545	-0.121012	0.550840
Au	-3.047473	3.069059	-2.549308
Au	-0.957318	-4.400383	-2.197566
Au	-1.904615	-2.928590	-0.008482
Au	-1.570437	6.580737	-0.051410
Au	-1.688938	3.039496	-0.064954
Au	1.907077	-0.071329	-1.932074
Au	2.471269	1.348356	2.886460
Au	2.388753	-1.475392	2.890963
Au	3.165065	-3.159183	0.519705
Au	0.828266	1.458936	0.365877
Au	1.756161	-3.114412	-1.893688
Au	-0.643630	4.391461	-2.286064
Au	3.379694	2.936811	0.490835
Au	0.712976	-4.479937	0.319641
Au	-4.680614	4.932246	-0.329595
Au	1.019363	4.411312	0.254969
Au	-5.057606	-4.574190	-0.197052
Au	1.986716	2.977154	-1.940906
Au	-0.341314	0.035873	2.641725
Au	-1.752175	-0.046423	-6.026079
Au	6.463384	1.544226	0.988737
Au	6.323655	-1.969999	1.028003
S	0.464954	-0.299923	-6.850262
S	0.472540	6.640135	1.161139
S	-3.578425	6.800749	-1.315875
S	-3.823129	0.342169	-5.000643
S	-0.253403	-6.400089	-3.459301
S	5.143938	-3.873026	1.816957
S	5.387260	3.484582	1.845089
S	7.730554	-0.273751	0.116972
S	-6.013399	3.162519	0.537121
S	-6.212072	-2.671727	0.636435
S	1.698557	3.507005	3.801395
S	2.481097	-0.272047	7.082473
S	1.458742	-3.551579	3.851006
Au	4.861834	-0.131459	2.943111
Au	4.557900	-0.103486	5.973619
S	6.593613	-0.045486	4.735246

S	-0.085968	-6.583273	1.312601
Au	-2.093579	-6.439133	0.042564
S	0.064606	6.402224	-3.516249
S	-4.152945	-6.561662	-1.155590
H	0.584822	-7.395524	0.439729
H	-3.717353	-5.954291	-2.300093
H	-5.696863	-2.711385	1.903222
H	-1.021263	-7.294250	-2.768407
H	4.736733	-3.357394	3.015770
H	8.674454	-0.306299	1.103611
H	5.921190	4.354927	0.933022
H	6.702560	1.314989	4.700062
H	2.392940	1.024889	7.497455
H	-4.367191	-0.896368	-5.165759
H	0.481950	-1.665051	-6.821567
H	-5.534206	3.212653	1.817491
H	-4.155832	7.756465	-0.528756
H	-0.016172	6.197940	2.358696
H	1.248798	3.022648	4.997308
H	1.066240	-3.013448	5.044274
H	0.600084	5.698025	-4.559152
Au	-4.419008	-1.232094	-0.299986
Au	-3.351742	0.103950	-2.542268
Au	-4.336133	1.551077	-0.315544
S	-5.007500	3.572163	-3.947134
S	-5.300583	-3.491426	-3.708669
Au	-6.299587	1.883452	-2.895565
Au	-6.423085	-1.584404	-2.843461
S	-7.715196	0.210862	-1.976924
H	-5.423178	4.628167	-3.185179
H	-8.656886	0.225506	-2.966245
H	-4.973756	-3.007526	-4.944056
Au	4.329423	-1.549151	-1.767463
Au	4.436588	1.230660	-1.766123
Au	1.671920	-6.608457	-2.085329
Au	4.698245	-5.024484	-1.648835
Au	2.032838	6.483704	-2.193637
Au	4.952012	4.716567	-1.715571
Au	3.424467	-1.859747	-4.840947
Au	3.563756	1.489307	-4.879615
S	5.934063	-3.234079	-2.584115
S	3.623860	-6.959703	-0.777893
S	6.089788	2.843291	-2.630510
S	4.021087	6.756614	-0.913144
S	2.236696	3.374046	-4.389068
S	5.035327	-0.257260	-5.537935

S	1.908029	-3.593333	-4.337488
Au	-2.875430	1.814099	2.282491
Au	-2.732852	4.621707	1.954649
Au	-0.401502	3.143387	2.551167
Au	-3.054328	-4.372807	2.056753
Au	-2.990612	-1.559710	2.301996
Au	-0.612168	-3.058795	2.606047
S	-4.448313	0.188043	3.295934
Au	-1.493771	-1.310814	4.878758
Au	-1.334396	1.507265	4.862491
Au	1.013186	-0.038996	5.140510
S	-2.259661	3.060254	6.511063
S	-2.645528	-2.686721	6.540503
S	-3.734807	6.357846	3.437835
S	-4.131425	-6.048943	3.543778
Au	-3.451565	-4.362718	5.084184
Au	-3.051163	4.703988	5.010491
H	-5.343905	0.218102	2.264331
H	-5.406390	-5.596340	3.362733
H	-3.783737	-1.932654	6.554450
H	-5.020986	5.921793	3.303045
H	-3.442287	2.396103	6.662923
H	6.981326	2.695362	-1.602977
H	3.503531	6.253909	0.247476
H	3.272370	4.254450	-4.241399
H	4.688554	-0.256677	-6.859739
H	2.833961	-4.591084	-4.211742
H	6.813618	-3.101866	-1.543532
H	4.214530	-7.872194	-1.605222

The cartesian coordinates of Au<sub>60</sub>(SR)<sub>34</sub>:

Au	0.79882	0.10492	1.31055
Au	1.54814	-1.45626	-1.14617
Au	-0.66882	-0.11304	-2.60589
Au	-1.24392	-1.55591	-0.03872
Au	-1.96459	-0.01846	2.35145
Au	2.04178	-0.00128	-3.48476
Au	1.04224	-2.93144	1.35007
Au	3.59043	0.22026	0.25055
Au	-0.59309	-3.13837	-2.50071
Au	-3.43151	-0.23041	-1.6223
Au	3.1009	-1.10886	2.70025
Au	3.68251	-2.8217	0.33355
Au	-1.63314	-3.12114	2.5027
Au	4.56092	-1.19312	-2.0721
Au	-3.1898	-3.27719	-1.45882
Au	-4.15711	-1.59598	0.82834
Au	-1.09164	-4.51465	-0.1114
Au	1.77339	-4.29338	-1.05166
Au	0.32424	-1.55259	3.79707
Au	6.27567	0.35171	-0.42144
Au	-6.08153	-0.35251	-0.83145
Au	-2.5097	-1.38545	4.78901
Au	-2.76036	-1.65499	-3.9478
Au	0.60263	-4.36469	3.68498
Au	-4.6088	-0.09626	3.40808
Au	6.28252	-1.32574	2.07739
Au	1.14118	-6.45273	1.57627
Au	-0.35119	-6.63046	-2.46872
Au	-5.8967	-2.21436	-3.21135
Au	3.57693	-4.46714	3.19941
Au	-2.86353	-5.03452	-4.2584
Au	-1.05818	-4.37614	6.26036
Au	8.11524	-0.05183	-2.91742
Au	-7.8235	-0.28257	1.71402
Au	2.75929	-3.27146	-3.894
S	-4.02103	-3.68113	2.15647
S	0.89717	0.24139	5.39731
S	1.98308	-6.53786	-2.06067
S	-6.41096	-0.53879	-4.82415
S	3.49429	-6.48196	1.92864
S	-5.49707	-4.0759	-1.78688
S	-2.62897	-2.71248	6.84349
S	-3.17649	-3.23998	-5.77944
S	6.07694	-3.30884	0.77943
S	5.05553	-3.30325	-3.2705



S	6.63189	0.51053	3.55283
S	-1.17914	-6.66194	1.11202
S	8.724	0.56815	-0.70146
S	-2.675	-6.94253	-2.85659
S	-8.55673	-0.44701	-0.54416
S	0.54441	-3.3228	-4.72218
S	0.61595	-5.94338	5.62226
S	-7.00474	-0.0051	3.91228
S	7.58272	-0.60489	-5.15365
S	3.93783	-2.54019	4.54144
Au	1.37653	1.57628	-1.25051
Au	-1.41209	1.43301	-0.14372
Au	0.70663	3.14605	1.13952
Au	-0.93483	2.90154	-2.69925
Au	2.9583	1.66274	2.58919
Au	3.3461	3.27287	0.11309
Au	-1.98008	3.10054	2.30245
Au	4.38618	1.57382	-2.14082
Au	-3.5417	2.82266	-1.66876
Au	-4.31165	1.21785	0.72868
Au	-1.59864	4.36377	-0.39811
Au	1.28648	4.41467	-1.36176
Au	0.14789	1.85469	3.67627
Au	-2.62836	1.43453	4.71371
Au	-2.9099	1.09427	-4.04422
Au	0.10703	4.66519	3.37997
Au	6.06954	2.19406	1.96359
Au	0.43226	6.64444	1.11189
Au	-1.09183	6.3965	-2.92893
Au	-6.08036	1.31388	-3.3627
Au	3.04787	5.07028	2.90158
Au	-3.4051	4.40779	-4.60607
Au	-1.53474	4.64744	5.97198
Au	2.39037	3.30771	-4.15463
S	-4.40579	3.38927	1.91391
S	1.23547	6.59572	-2.51337
S	2.76266	6.96235	1.48227
S	-5.91274	3.31915	-2.09692
S	-2.84419	2.82911	6.71249
S	-3.49013	2.47979	-5.98777
S	5.65656	4.05462	0.54022
S	4.69885	3.51348	-3.62214
S	-1.89336	6.58259	0.63607
S	-3.43202	6.41642	-3.33912
S	0.16348	3.1259	-4.92618
S	-0.18027	6.41556	5.13464

S	3.59585	3.27948	4.36374
S	2.94799	0.13682	-5.77458
Au	5.23627	-0.22673	-5.2774
H	2.674	-1.15871	-6.11606
H	7.49034	-1.9521	-4.94673
H	9.03515	-0.68647	-0.26335
H	4.9061	-4.13634	-2.19694
H	0.41952	-4.68151	-4.79869
H	-0.10567	4.46214	-5.0244
H	4.53203	4.45033	-2.64124
H	6.22418	3.50192	-0.57434
H	7.98561	0.59204	3.38818
H	6.54877	-2.7663	-0.38454
H	2.36148	-6.08058	-3.29373
H	-2.5536	-7.87016	-3.85219
H	-1.89074	-3.20091	-6.24261
H	1.67482	6.10917	-3.71475
H	-3.4061	7.28247	-4.39529
H	-2.2036	2.565	-6.44324
H	-7.76871	-0.59823	-4.68212
H	-5.98891	-3.52967	-0.63409
H	-6.38902	2.81907	-0.91709
H	-8.63837	-1.80888	-0.58282
H	-7.13323	-1.30274	4.31391
H	-1.64302	-6.11645	2.27677
H	3.48844	-7.33789	2.9933
H	2.76449	-2.58606	5.24141
H	-0.23247	-6.85112	5.05703
H	-3.74909	-3.41786	6.51025
H	-4.46564	-3.13846	3.32876
H	-4.81879	2.89995	3.12073
H	-0.26459	0.20793	6.11584
H	-4.06554	3.35589	6.4081
H	0.94501	6.09866	5.83916
H	-2.30536	6.1184	1.854
H	2.63453	7.89151	2.47553
H	2.40483	3.21905	5.03253

Information on the absorption spectrum of Au<sub>44</sub>(SR)<sub>30</sub>:

# Spectra

#	X	Y	DY/DX
	200.0000000000	0.0000000000	0.0000000000
	201.4000000000	0.0000000000	0.0000000000
	202.8000000000	0.0000000000	0.0000000000
	204.2000000000	0.0000000000	0.0000000000
	205.6000000000	0.0000000000	0.0000000000
	207.0000000000	0.0000000000	0.0000000000
	208.4000000000	0.0000000000	0.0000000000
	209.8000000000	0.0000000000	0.0000000000
	211.2000000000	0.0000000000	0.0000000000
	212.6000000000	0.0000000000	0.0000000000
	214.0000000000	0.0000000000	0.0000000000
	215.4000000000	0.0000000000	0.0000000000
	216.8000000000	0.0000000000	0.0000000000
	218.2000000000	0.0000000000	0.0000000000
	219.6000000000	0.0000000000	0.0000000000
	221.0000000000	0.0000000000	0.0000000000
	222.4000000000	0.0000000000	0.0000000000
	223.8000000000	0.0000000000	0.0000000000
	225.2000000000	0.0000000000	0.0000000000
	226.6000000000	0.0000000000	0.0000000000
	228.0000000000	0.0000000000	0.0000000000
	229.4000000000	0.0000000000	0.0000000000
	230.8000000000	0.0000000000	0.0000000000
	232.2000000000	0.0000000000	0.0000000000
	233.6000000000	0.0000000000	0.0000000000
	235.0000000000	0.0000000000	0.0000000000
	236.4000000000	0.0000000000	0.0000000000
	237.8000000000	0.0000000000	0.0000000000
	239.2000000000	0.0000000000	0.0000000000
	240.6000000000	0.0000000000	0.0000000000
	242.0000000000	0.0000000000	0.0000000000
	243.4000000000	0.0000000000	0.0000000000
	244.8000000000	0.0000000000	0.0000000000
	246.2000000000	0.0000000000	0.0000000000
	247.6000000000	0.0000000000	0.0000000000
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774.0000000000	1995.3540054999	-51.6587815424
775.4000000000	1912.2947791384	-48.7757770531
776.8000000000	1831.0866468723	-45.9395811520
778.2000000000	1751.8051213727	-43.1630637264
779.6000000000	1674.5155642498	-40.4574482245
781.0000000000	1599.2734944871	-37.8323560315
782.4000000000	1526.1249329181	-35.2958653925
783.8000000000	1455.1067776306	-32.8545826401
785.2000000000	1386.2472053651	-30.5137235166
786.6000000000	1319.5660941764	-28.2772024519
788.0000000000	1255.0754628558	-26.1477277567
789.4000000000	1192.7799228599	-24.1269008157
790.8000000000	1132.6771387508	-22.2153175110
792.2000000000	1074.7582934274	-20.4126702621
793.6000000000	1019.0085547081	-18.7178492444
795.0000000000	965.4075401062	-17.1290415174
796.4000000000	913.9297769273	-15.6438269759
797.8000000000	864.5451551006	-14.2592702110
799.2000000000	817.2193704346	-12.9720075395
800.6000000000	771.9143562597	-11.7783286201
802.0000000000	728.5887016880	-10.6742522325
803.4000000000	687.1980549702	-9.6555959314
804.8000000000	647.6955106776	-8.7180394202
806.2000000000	610.0319796642	-7.8571816005
807.6000000000	574.1565409839	-7.0685913560
809.0000000000	540.0167751410	-6.3478522154
810.4000000000	507.5590782396	-5.6906011098
811.8000000000	476.7289567761	-5.0925615020
813.2000000000	447.4713029736	-4.5495712090
814.6000000000	419.7306507081	-4.0576052745
816.0000000000	393.4514122009	-3.6127942722
817.4000000000	368.5780957742	-3.2114384347
818.8000000000	345.0555050652	-2.8500180076
820.2000000000	322.8289201855	-2.5252002287
821.6000000000	301.8442613905	-2.2338433203
823.0000000000	282.0482358853	-1.9729978739
824.4000000000	263.3884684518	-1.7399059844
825.8000000000	245.8136166195	-1.5319984746
827.2000000000	229.2734711406	-1.3468905228
828.6000000000	213.7190425506	-1.1823759869
830.0000000000	199.1026346133	-1.0364206881
831.4000000000	185.3779054553	-0.9071548942
832.8000000000	172.4999171998	-0.7928652167
834.2000000000	160.4251748996	-0.6919861092
835.6000000000	149.1116555644	-0.6030911319
837.0000000000	138.5188280580	-0.5248841254

838.4000000000	128.6076646248	-0.4561904124
839.8000000000	119.3406447796	-0.3959481293
841.2000000000	110.6817522727	-0.3431997702
842.6000000000	102.5964658102	-0.2970840100
844.0000000000	95.0517441818	-0.2568278568
845.4000000000	88.0160064177	-0.2217391753
846.8000000000	81.4591075594	-0.1911996045
848.2000000000	75.3523106029	-0.1646578914
849.6000000000	69.6682551310	-0.1416236460
851.0000000000	64.3809231260	-0.1216615214
852.4000000000	59.4656024135	-0.1043858146
853.8000000000	54.8988481610	-0.0894554784
855.2000000000	50.6584428176	-0.0765695323
856.6000000000	46.7233548549	-0.0654628560
858.0000000000	43.0736966334	-0.0559023475
859.4000000000	39.6906816944	-0.0476834269
860.8000000000	36.5565817453	-0.0406268637
862.2000000000	33.6546835823	-0.0345759084
863.6000000000	30.9692461669	-0.0293937059
865.0000000000	28.4854580499	-0.0249609693
866.4000000000	26.1893953136	-0.0211738949
867.8000000000	24.0679801811	-0.0179422975
869.2000000000	22.1089404224	-0.0151879470
870.6000000000	20.3007696675	-0.0128430887
872.0000000000	18.6326887218	-0.0108491291
873.4000000000	17.0946079597	-0.0091554736
874.8000000000	15.6770908616	-0.0077184976
876.2000000000	14.3713187436	-0.0065006411
877.6000000000	13.1690567184	-0.0054696108
879.0000000000	12.0626209135	-0.0045976806
880.4000000000	11.0448469663	-0.0038610780
881.8000000000	10.1090598017	-0.0032394476
883.2000000000	9.2490446948	-0.0027153829
884.6000000000	8.4590196119	-0.0022740188
886.0000000000	7.7336088162	-0.0019026763
887.4000000000	7.0678177219	-0.0015905548
888.8000000000	6.4570089735	-0.0013284652
890.2000000000	5.8968797230	-0.0011085988
891.6000000000	5.3834400776	-0.0009243281
893.0000000000	4.9129926826	-0.0007700345
894.4000000000	4.4821134071	-0.0006409605
895.8000000000	4.0876330947	-0.0005330821
897.2000000000	3.7266203423	-0.0004429995
898.6000000000	3.3963652670	-0.0003678437
900.0000000000	3.0943642236	-0.0003051960

Information on the absorption spectrum of Au<sub>56</sub>(SR)<sub>32</sub>:

# Spectra

#	X	Y	DY/DX
200.0000000000		0.0000000000	0.0000000000
202.0000000000		0.0000000000	0.0000000000
204.0000000000		0.0000000000	0.0000000000
206.0000000000		0.0000000000	0.0000000000
208.0000000000		0.0000000000	0.0000000000
210.0000000000		0.0000000000	0.0000000000
212.0000000000		0.0000000000	0.0000000000
214.0000000000		0.0000000000	0.0000000000
216.0000000000		0.0000000000	0.0000000000
218.0000000000		0.0000000000	0.0000000000
220.0000000000		0.0000000000	0.0000000000
222.0000000000		0.0000000000	0.0000000000
224.0000000000		0.0000000000	0.0000000000
226.0000000000		0.0000000000	0.0000000000
228.0000000000		0.0000000000	0.0000000000
230.0000000000		0.0000000000	0.0000000000
232.0000000000		0.0000000000	0.0000000000
234.0000000000		0.0000000000	0.0000000000
236.0000000000		0.0000000000	0.0000000000
238.0000000000		0.0000000000	0.0000000000
240.0000000000		0.0000000000	0.0000000000
242.0000000000		0.0000000000	0.0000000000
244.0000000000		0.0000000000	0.0000000000
246.0000000000		0.0000000000	0.0000000000
248.0000000000		0.0000000000	0.0000000000
250.0000000000		0.0000000000	0.0000000000
252.0000000000		0.0000000000	0.0000000000
254.0000000000		0.0000000000	0.0000000000
256.0000000000		0.0000000000	0.0000000000
258.0000000000		0.0000000000	0.0000000000
260.0000000000		0.0000000000	0.0000000000
262.0000000000		0.0000000000	0.0000000000
264.0000000000		0.0000000000	0.0000000000
266.0000000000		0.0000000000	0.0000000000
268.0000000000		0.0000000000	0.0000000000
270.0000000000		0.0000000000	0.0000000000
272.0000000000		0.0000000000	0.0000000000
274.0000000000		0.0000000000	0.0000000000
276.0000000000		0.0000000000	0.0000000000
278.0000000000		0.0000000000	0.0000000000
280.0000000000		0.0000000000	0.0000000000



374.0000000000	0.0000000000	0.0000000000
376.0000000000	0.0000000000	0.0000000000
378.0000000000	0.0000000000	0.0000000000
380.0000000000	0.0000000000	0.0000000000
382.0000000000	0.0000000000	0.0000000000
384.0000000000	0.0000000000	0.0000000000
386.0000000000	0.0000000000	0.0000000000
388.0000000000	0.0000000000	0.0000000000
390.0000000000	0.0000000000	0.0000000000
392.0000000000	0.0000000000	0.0000000000
394.0000000000	0.0000000001	0.0000000000
396.0000000000	0.0000000006	0.0000000000
398.0000000000	0.0000000026	0.0000000000
400.0000000000	0.0000000102	0.0000000000
402.0000000000	0.0000000387	0.0000000000
404.0000000000	0.0000001406	0.0000000000
406.0000000000	0.0000004884	0.0000000000
408.0000000000	0.0000016255	0.0000000000
410.0000000000	0.0000051890	0.0000000000
412.0000000000	0.0000159040	0.0000000000
414.0000000000	0.0000468497	0.0000000000
416.0000000000	0.0001327759	0.0000000000
418.0000000000	0.0003623855	0.0000000000
420.0000000000	0.0009534017	0.0000000000
422.0000000000	0.0024201303	0.0000000002
424.0000000000	0.0059327077	0.0000000009
426.0000000000	0.0140573067	0.0000000052
428.0000000000	0.0322225658	0.0000000274
430.0000000000	0.0715140602	0.0000001342
432.0000000000	0.1537982966	0.0000006149
434.0000000000	0.3207651243	0.0000026404
436.0000000000	0.6492869542	0.0000106450
438.0000000000	1.2765283932	0.0000403554
440.0000000000	2.4394459127	0.0001440725
442.0000000000	4.5345488698	0.0004850779
444.0000000000	8.2047883238	0.0015424180
446.0000000000	14.4608090081	0.0046381515
448.0000000000	24.8430470077	0.0132073366
450.0000000000	41.6287455713	0.0356591945
452.0000000000	68.0834338063	0.0914020182
454.0000000000	108.7495395743	0.2226864265
456.0000000000	169.7557644865	0.5162915196
458.0000000000	259.1203599954	1.1403890369
460.0000000000	387.0108472167	2.4024000365
462.0000000000	565.9139066711	4.8320697966
464.0000000000	810.6643415800	9.2888448498



466.0000000000	1138.2833552592	17.0828131307
468.0000000000	1567.5855196230	30.0841603962
470.0000000000	2118.5313754043	50.7798620348
472.0000000000	2811.3278302713	82.2236149132
474.0000000000	3665.3090925494	127.8234729852
476.0000000000	4697.6630734747	190.9288501343
478.0000000000	5922.0973480194	274.2183688124
480.0000000000	7347.5600144169	378.9489623038
482.0000000000	8977.1399303788	504.1919233018
484.0000000000	10807.2651240938	646.2328520967
486.0000000000	12827.2970952080	798.3273654271
488.0000000000	15019.5840307727	950.9670461162
490.0000000000	17359.9916684102	1092.7188331890
492.0000000000	19818.8822720263	1211.5724809587
494.0000000000	22362.4663037472	1296.5970580287
496.0000000000	24954.4139418766	1339.6074307060
498.0000000000	27557.5894067755	1336.5078682835
500.0000000000	30135.7629212245	1288.0272605991
502.0000000000	32655.1635001007	1199.6803474876
504.0000000000	35085.7587782278	1080.9517720553
506.0000000000	37402.1819999679	943.8625147437
508.0000000000	39584.2661716258	801.2001351391
510.0000000000	41617.1859107848	664.7471251930
512.0000000000	43491.2438390257	543.8176976479
514.0000000000	45201.3666573218	444.3252128621
516.0000000000	46746.3940006687	368.4776482517
518.0000000000	48128.2500868059	315.0699080469
520.0000000000	49351.0848352883	280.2381844611
522.0000000000	50420.4594791793	258.4810838490
524.0000000000	51342.6343805405	243.7396180421
526.0000000000	52123.9966956985	230.3565090049
528.0000000000	52770.6454399256	213.7902159237
530.0000000000	53288.1335941655	191.0240721317
532.0000000000	53681.3527050575	160.6714757095
534.0000000000	53954.5357274941	122.8245582563
536.0000000000	54111.3487237675	78.7219454681
538.0000000000	54155.0409854226	30.3214619505
540.0000000000	54088.6253306811	-20.1408349172
542.0000000000	53915.0647195259	-70.5386214639
544.0000000000	53637.4468813452	-119.1441239839
546.0000000000	53259.1344540264	-164.7941701097
548.0000000000	52783.8834867974	-206.9314208759
550.0000000000	52215.9276059885	-245.5370299368
552.0000000000	51560.0284664785	-280.9843417700
554.0000000000	50821.4952972376	-313.8506090569
556.0000000000	50006.1775298793	-344.7247378721

558.0000000000	49120.4348946400	-374.0442380575
560.0000000000	48171.0892306057	-401.9851634900
562.0000000000	47165.3618252752	-428.4168107773
564.0000000000	46110.7995686000	-452.9205433573
566.0000000000	45015.1927158998	-474.8614377859
568.0000000000	43886.4866790673	-493.4941131725
570.0000000000	42732.6900292516	-508.0809293835
572.0000000000	41561.7807795586	-518.0016977316
574.0000000000	40381.6129815471	-522.8383703975
576.0000000000	39199.8256633201	-522.4246016210
578.0000000000	38023.7561116289	-516.8571677506
580.0000000000	36860.3594188334	-506.4726792809
582.0000000000	35716.1360567639	-491.7978444820
584.0000000000	34597.0689989028	-473.4842366019
586.0000000000	33508.5715995218	-452.2390211730
588.0000000000	32455.4470734589	-428.7617405448
590.0000000000	31441.8600287815	-403.6945965332
592.0000000000	30471.3201134987	-377.5903814238
594.0000000000	29546.6774710598	-350.8989095568
596.0000000000	28670.1293768209	-323.9699941594
598.0000000000	27843.2371617345	-297.0690158216
600.0000000000	27066.9523264163	-270.4000713540
602.0000000000	26341.6506087215	-244.1315416406
604.0000000000	25667.1726867068	-218.4195195162
606.0000000000	25042.8701689504	-193.4256665170
608.0000000000	24467.6555367603	-169.3274688625
610.0000000000	23940.0547486610	-146.3203009954
612.0000000000	23458.2612883811	-124.6119841835
614.0000000000	23020.1905263224	-104.4115104221
616.0000000000	22623.5333657486	-85.9142130597
618.0000000000	22265.8082547244	-69.2858891917
620.0000000000	21944.4107604187	-54.6482485996
622.0000000000	21656.6600218530	-42.0676502657
624.0000000000	21399.8415190324	-31.5484828637
626.0000000000	21171.2457192514	-23.0318506087
628.0000000000	20968.2022836652	-16.3995360774
630.0000000000	20788.1096371283	-11.4826076383
632.0000000000	20628.4598197252	-8.0735795310
634.0000000000	20486.8586470478	-5.9407505622
636.0000000000	20361.0413057960	-4.8432506196
638.0000000000	20248.8835995231	-4.5453981239
640.0000000000	20148.4091345002	-4.8291842930
642.0000000000	20057.7927964254	-5.5040090603
644.0000000000	19975.3609143451	-6.4131519338
646.0000000000	19899.5885386396	-7.4368242706
648.0000000000	19829.0942758362	-8.4919794044

650.0000000000	19762.6331255053	-9.5293256950
652.0000000000	19699.0877551644	-10.5281779934
654.0000000000	19637.4586298769	-11.4898892638
656.0000000000	19576.8533861490	-12.4306296281
658.0000000000	19516.4758068781	-13.3742354852
660.0000000000	19455.6147174413	-14.3457516781
662.0000000000	19393.6330842739	-15.3661520668
664.0000000000	19329.9575579202	-16.4485653386
666.0000000000	19264.0686636675	-17.5961688856
668.0000000000	19195.4918053075	-18.8017569997
670.0000000000	19123.7892118132	-20.0488504582
672.0000000000	19048.5529230442	-21.3140998675
674.0000000000	18969.3988790722	-22.5706493686
676.0000000000	18885.9621483164	-23.7920727036
678.0000000000	18797.8933023021	-24.9564705997
680.0000000000	18704.8559194102	-26.0503258036
682.0000000000	18606.5251764244	-27.0717474751
684.0000000000	18502.5874650331	-28.0327964299
686.0000000000	18392.7409508098	-28.9606622667
688.0000000000	18276.6969747757	-29.8975571439
690.0000000000	18154.1821826934	-30.8992925351
692.0000000000	18024.9412550448	-32.0326078363
694.0000000000	17888.7401015176	-33.3714162184
696.0000000000	17745.3693780268	-34.9922169181
698.0000000000	17594.6481820418	-36.9689882943
700.0000000000	17436.4277834015	-39.3679177945
702.0000000000	17270.5952528659	-42.2423404621
704.0000000000	17097.0768592559	-45.6282457297
706.0000000000	16915.8411179195	-49.5406740430
708.0000000000	16726.9013880219	-53.9712634203
710.0000000000	16530.3179333147	-58.8871262512
712.0000000000	16326.1993799779	-64.2311447357
714.0000000000	16114.7035252017	-69.9236764552
716.0000000000	15896.0374706811	-75.8655670006
718.0000000000	15670.4570754423	-81.9422813070
720.0000000000	15438.2657417389	-88.0288953782
722.0000000000	15199.8125655346	-93.9956400231
724.0000000000	14955.4898988137	-99.7136609367
726.0000000000	14705.7303842002	-105.0606559247
728.0000000000	14451.0035328226	-109.9260694233
730.0000000000	14191.8119238584	-114.2155641390
732.0000000000	13928.6871086703	-117.8545457088
734.0000000000	13662.1853039756	-120.7905838783
736.0000000000	13392.8829572458	-122.9946474061
738.0000000000	13121.3722637855	-124.4611443157
740.0000000000	12848.2567090330	-125.2068291435

742.0000000000	12574.1467019589	-125.2687001606
744.0000000000	12299.6553564638	-124.7010588321
746.0000000000	12025.3944678178	-123.5719388159
748.0000000000	11751.9707209176	-121.9591315960
750.0000000000	11479.9821568555	-119.9460405262
752.0000000000	11210.0149144059	-117.6175857671
754.0000000000	10942.6402538462	-115.0563612899
756.0000000000	10678.4118623373	-112.3392143323
758.0000000000	10417.8634330813	-109.5343802883
760.0000000000	10161.5065048026	-106.6992649630
762.0000000000	9909.8285438342	-103.8789242687
764.0000000000	9663.2912482411	-101.1052513221
766.0000000000	9422.3290519394	-98.3968446469
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772.0000000000	8736.8018307128	-90.6638254514
774.0000000000	8521.8961055302	-88.1645012519
776.0000000000	8314.2876402280	-85.6581047971
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782.0000000000	7737.5566407955	-77.7334193103
784.0000000000	7561.2771643183	-74.8332513188
786.0000000000	7393.1925351190	-71.7475440844
788.0000000000	7233.3776098751	-68.4492517904
790.0000000000	7081.8718294036	-64.9175588420
792.0000000000	6938.6792226241	-61.1387459813
794.0000000000	6803.7685465523	-57.1067555153
796.0000000000	6677.0735749403	-52.8234669730
798.0000000000	6558.4935477993	-48.2987035174
800.0000000000	6447.8937930376	-43.5499961806
802.0000000000	6345.1065298678	-38.6021375310
804.0000000000	6249.9318615545	-33.4865589136
806.0000000000	6162.1389625731	-28.2405661803
808.0000000000	6081.4674624171	-22.9064681523
810.0000000000	6007.6290252228	-17.5306302417
812.0000000000	5940.3091211757	-12.1624830352
814.0000000000	5879.1689824116	-6.8535124928
816.0000000000	5823.8477329277	-1.6562550089
818.0000000000	5773.9646789496	3.3766828647
820.0000000000	5729.1217433446	8.1935635430
822.0000000000	5688.9060250905	12.7444029489
824.0000000000	5652.8924625618	16.9817897611
826.0000000000	5620.6465775244	20.8616310117
828.0000000000	5591.7272752704	24.3438176608
830.0000000000	5565.6896752949	27.3928054124
832.0000000000	5542.0879463294	29.9781073839

834.0000000000	5520.4781193981	32.0746963448
836.0000000000	5500.4208528489	33.6633151799
838.0000000000	5481.4841239989	34.7306950616
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842.0000000000	5445.2962268842	35.2792699493
844.0000000000	5427.2403302268	34.7645509063
846.0000000000	5408.7000173909	33.7365703926
848.0000000000	5389.3160553968	32.2121062684
850.0000000000	5368.7498953798	30.2133668874
852.0000000000	5346.6852698736	27.7676170675
854.0000000000	5322.8295766992	24.9067380875
856.0000000000	5296.9150427679	21.6667293165
858.0000000000	5268.6996637448	18.0871599952
860.0000000000	5237.9679181065	14.2105805040
862.0000000000	5204.5312566280	10.0819031119
864.0000000000	5168.2283707145	5.7477626966
866.0000000000	5128.9252452235	1.2558682078
868.0000000000	5086.5150034850	-3.3456442911
870.0000000000	5040.9175540841	-8.0088463337
872.0000000000	4992.0790506326	-12.6866292548
874.0000000000	4939.9711771822	-17.3332842519
876.0000000000	4884.5902731428	-21.9050415140
878.0000000000	4825.9563125407	-26.3605606488
880.0000000000	4764.1117531995	-30.6613658212
882.0000000000	4699.1202719451	-34.7722203163
884.0000000000	4631.0654022378	-38.6614366227
886.0000000000	4560.0490907322	-42.3011195535
888.0000000000	4486.1901891604	-45.6673413506
890.0000000000	4409.6228976579	-48.7402491039
892.0000000000	4330.4951752013	-51.5041061349
894.0000000000	4248.9671322372	-53.9472702069
896.0000000000	4165.2094198555	-56.0621125078
898.0000000000	4079.4016290286	-57.8448822833
900.0000000000	3991.7307125083	-59.2955227638
902.0000000000	3902.3894409724	-60.4174446216
904.0000000000	3811.5749039531	-61.2172636056
906.0000000000	3719.4870649810	-61.7045092361
908.0000000000	3626.3273792576	-61.8913115120
910.0000000000	3532.2974810389	-61.7920724866
912.0000000000	3437.5979467893	-61.4231293380
914.0000000000	3342.4271390595	-60.8024151945
916.0000000000	3246.9801349686	-59.9491235140
918.0000000000	3151.4477421341	-58.8833812598
920.0000000000	3056.0156039122	-57.6259355027
922.0000000000	2960.8633948777	-56.1978574173
924.0000000000	2866.1641066088	-54.6202669594

926.0000000000	2772.0834230433	-52.9140808237
928.0000000000	2678.7791839418	-51.0997856033
930.0000000000	2586.4009343376	-49.1972374282
932.0000000000	2495.0895572718	-47.2254887455
934.0000000000	2404.9769866007	-45.2026423474
936.0000000000	2316.1859962277	-43.1457322472
938.0000000000	2228.8300617471	-41.0706305623
940.0000000000	2143.0132901909	-38.9919791888
942.0000000000	2058.8304133403	-36.9231447382
944.0000000000	1976.3668398957	-34.8761949673
946.0000000000	1895.6987616895	-32.8618947463
948.0000000000	1816.8933090753	-30.8897194926
950.0000000000	1740.0087506176	-28.9678839286
952.0000000000	1665.0947322515	-27.1033840078
954.0000000000	1592.1925511640	-25.3020498787
956.0000000000	1521.3354597624	-23.5686078242
958.0000000000	1452.5489952523	-21.9067492072
960.0000000000	1385.8513305167	-20.3192045806
962.0000000000	1321.2536421953	-18.8078212556
964.0000000000	1258.7604920731	-17.3736427835
966.0000000000	1198.3702181275	-16.0169889657
968.0000000000	1140.0753318208	-14.7375351792
970.0000000000	1083.8629184792	-13.5343899698
972.0000000000	1029.7150378523	-12.4061700326
974.0000000000	977.6091222057	-11.3510718571
976.0000000000	927.5183695505	-10.3669394649
978.0000000000	879.4121298691	-9.4513278067
980.0000000000	833.2562824382	-8.6015615130
982.0000000000	789.0136025913	-7.8147888109
984.0000000000	746.6441164892	-7.0880305161
986.0000000000	706.1054426875	-6.4182241045
988.0000000000	667.3531194987	-5.8022629388
990.0000000000	630.3409173383	-5.2370307917
992.0000000000	595.0211354327	-4.7194318590
994.0000000000	561.3448824321	-4.2464164958
996.0000000000	529.2623406310	-3.8150029394
998.0000000000	498.7230136427	-3.4222953067
1000.0000000000	469.6759575034	-3.0654981636
1002.0000000000	442.0699953009	-2.7419279723
1004.0000000000	415.8539155259	-2.4490217249
1006.0000000000	390.9766544397	-2.1843430604
1008.0000000000	367.3874628295	-1.9455861616
1010.0000000000	345.0360575971	-1.7305777082
1012.0000000000	323.8727586809	-1.5372771535
1014.0000000000	303.8486118654	-1.3637755703
1016.0000000000	284.9154980698	-1.2082932979

1018.0000000000	267.0262297389	-1.0691765987
1020.0000000000	250.1346349841	-0.9448935176
1022.0000000000	234.1956301375	-0.8340291156
1024.0000000000	219.1652813930	-0.7352802315
1026.0000000000	205.0008562088	-0.6474499072
1028.0000000000	191.6608651489	-0.5694415955
1030.0000000000	179.1050948289	-0.5002532516
1032.0000000000	167.2946326261	-0.4389713962
1034.0000000000	156.1918837950	-0.3847652244
1036.0000000000	145.7605816151	-0.3368808191
1038.0000000000	135.9657911761	-0.2946355208
1040.0000000000	126.7739073844	-0.2574124902
1042.0000000000	118.1526477495	-0.2246554972
1044.0000000000	110.0710404855	-0.1958639541
1046.0000000000	102.4994084349	-0.1705882133
1048.0000000000	95.4093492961	-0.1484251336
1050.0000000000	88.7737126074	-0.1290139247
1052.0000000000	82.5665739148	-0.1120322647
1054.0000000000	76.7632065205	-0.0971926921
1056.0000000000	71.3400511856	-0.0842392624
1058.0000000000	66.2746841302	-0.0729444623
1060.0000000000	61.5457836508	-0.0631063722
1062.0000000000	57.1330956484	-0.0545460629
1064.0000000000	53.0173983361	-0.0471052176
1066.0000000000	49.1804663717	-0.0406439626
1068.0000000000	45.6050346394	-0.0350388966
1070.0000000000	42.2747618811	-0.0301813033
1072.0000000000	39.1741943592	-0.0259755351
1074.0000000000	36.2887297127	-0.0223375552
1076.0000000000	33.6045811505	-0.0191936243
1078.0000000000	31.1087421084	-0.0164791221
1080.0000000000	28.7889514814	-0.0141374904
1082.0000000000	26.6336595258	-0.0121192880
1084.0000000000	24.6319945155	-0.0103813470
1086.0000000000	22.7737302198	-0.0088860212
1088.0000000000	21.0492542616	-0.0076005173
1090.0000000000	19.4495374035	-0.0064963021
1092.0000000000	17.9661037975	-0.0055485759
1094.0000000000	16.5910022276	-0.0047358074
1096.0000000000	15.3167783651	-0.0040393231
1098.0000000000	14.1364480497	-0.0034429444
1100.0000000000	13.0434716021	-0.0029326688
1102.0000000000	12.0317291694	-0.0024963893
1104.0000000000	11.0954970972	-0.0021236478
1106.0000000000	10.2294253210	-0.0018054194
1108.0000000000	9.4285157616	-0.0015339234

1110.0000000000	8.6881017092	-0.0013024576
1112.0000000000	8.0038281763	-0.0011052543
1114.0000000000	7.3716331961	-0.0009373547
1116.0000000000	6.7877300433	-0.0007944983
1118.0000000000	6.2485903511	-0.0006730286
1120.0000000000	5.7509280962	-0.0005698096
1122.0000000000	5.2916844238	-0.0004821539
1124.0000000000	4.8680132838	-0.0004077608
1126.0000000000	4.4772678472	-0.0003446618
1128.0000000000	4.1169876739	-0.0002911739
1130.0000000000	3.7848866005	-0.0002458598
1132.0000000000	3.4788413183	-0.0002074923
1134.0000000000	3.1968806122	-0.0001750248
1136.0000000000	2.9371752297	-0.0001475654
1138.0000000000	2.6980283513	-0.0001243540
1140.0000000000	2.4778666343	-0.0001047441
1142.0000000000	2.2752318008	-0.0000881856
1144.0000000000	2.0887727440	-0.0000742107
1146.0000000000	1.9172381251	-0.0000624225
1148.0000000000	1.7594694360	-0.0000524836
1150.0000000000	1.6143945024	-0.0000441081
1152.0000000000	1.4810214041	-0.0000370535
1154.0000000000	1.3584327882	-0.0000311141
1156.0000000000	1.2457805550	-0.0000261161
1158.0000000000	1.1422808928	-0.0000219121
1160.0000000000	1.0472096442	-0.0000183776
1162.0000000000	0.9598979818	-0.0000154072
1164.0000000000	0.8797283770	-0.0000129120
1166.0000000000	0.8061308422	-0.0000108169
1168.0000000000	0.7385794319	-0.0000090584
1170.0000000000	0.6765889841	-0.0000075831
1172.0000000000	0.6197120896	-0.0000063458
1174.0000000000	0.5675362729	-0.0000053086
1176.0000000000	0.5196813716	-0.0000044393
1178.0000000000	0.4757971023	-0.0000037112
1180.0000000000	0.4355607993	-0.0000031015
1182.0000000000	0.3986753167	-0.0000025911
1184.0000000000	0.3648670812	-0.0000021641
1186.0000000000	0.3338842862	-0.0000018069
1188.0000000000	0.3054952186	-0.0000015081
1190.0000000000	0.2794867074	-0.0000012584
1192.0000000000	0.2556626872	-0.0000010498
1194.0000000000	0.2338428686	-0.0000008755
1196.0000000000	0.2138615066	-0.0000007299
1198.0000000000	0.1955662624	-0.0000006084



Information on the absorption spectrum of Au<sub>60</sub>(SR)<sub>34</sub>:

# Spectra #	X	Y	DY/DX
	200.0000000000	0.0000000000	0.0000000000
	202.0000000000	0.0000000000	0.0000000000
	204.0000000000	0.0000000000	0.0000000000
	206.0000000000	0.0000000000	0.0000000000
	208.0000000000	0.0000000000	0.0000000000
	210.0000000000	0.0000000000	0.0000000000
	212.0000000000	0.0000000000	0.0000000000
	214.0000000000	0.0000000000	0.0000000000
	216.0000000000	0.0000000000	0.0000000000
	218.0000000000	0.0000000000	0.0000000000
	220.0000000000	0.0000000000	0.0000000000
	222.0000000000	0.0000000000	0.0000000000
	224.0000000000	0.0000000000	0.0000000000
	226.0000000000	0.0000000000	0.0000000000
	228.0000000000	0.0000000000	0.0000000000
	230.0000000000	0.0000000000	0.0000000000
	232.0000000000	0.0000000000	0.0000000000
	234.0000000000	0.0000000000	0.0000000000
	236.0000000000	0.0000000000	0.0000000000
	238.0000000000	0.0000000000	0.0000000000
	240.0000000000	0.0000000000	0.0000000000
	242.0000000000	0.0000000000	0.0000000000
	244.0000000000	0.0000000000	0.0000000000
	246.0000000000	0.0000000000	0.0000000000
	248.0000000000	0.0000000000	0.0000000000
	250.0000000000	0.0000000000	0.0000000000
	252.0000000000	0.0000000000	0.0000000000
	254.0000000000	0.0000000000	0.0000000000
	256.0000000000	0.0000000000	0.0000000000
	258.0000000000	0.0000000000	0.0000000000
	260.0000000000	0.0000000000	0.0000000000
	262.0000000000	0.0000000000	0.0000000000
	264.0000000000	0.0000000000	0.0000000000
	266.0000000000	0.0000000000	0.0000000000
	268.0000000000	0.0000000000	0.0000000000
	270.0000000000	0.0000000000	0.0000000000
	272.0000000000	0.0000000000	0.0000000000
	274.0000000000	0.0000000000	0.0000000000
	276.0000000000	0.0000000000	0.0000000000
	278.0000000000	0.0000000000	0.0000000000
	280.0000000000	0.0000000000	0.0000000000
	282.0000000000	0.0000000000	0.0000000000



376.0000000000	0.0000000000	0.0000000000
378.0000000000	0.0000000000	0.0000000000
380.0000000000	0.0000000000	0.0000000000
382.0000000000	0.0000000000	0.0000000000
384.0000000000	0.0000000000	0.0000000000
386.0000000000	0.0000000000	0.0000000000
388.0000000000	0.0000000000	0.0000000000
390.0000000000	0.0000000000	0.0000000000
392.0000000000	0.0000000000	0.0000000000
394.0000000000	0.0000000000	0.0000000000
396.0000000000	0.0000000000	0.0000000000
398.0000000000	0.0000000000	0.0000000000
400.0000000000	0.0000000000	0.0000000000
402.0000000000	0.0000000000	0.0000000000
404.0000000000	0.0000000000	0.0000000000
406.0000000000	0.0000000000	0.0000000000
408.0000000000	0.0000000000	0.0000000000
410.0000000000	0.0000000000	0.0000000000
412.0000000000	0.0000000000	0.0000000000
414.0000000000	0.0000000000	0.0000000000
416.0000000000	0.0000000000	0.0000000000
418.0000000000	0.0000000000	0.0000000000
420.0000000000	0.0000000001	0.0000000000
422.0000000000	0.0000000003	0.0000000000
424.0000000000	0.0000000009	0.0000000000
426.0000000000	0.0000000032	0.0000000000
428.0000000000	0.0000000107	0.0000000000
430.0000000000	0.0000000343	0.0000000000
432.0000000000	0.0000001062	0.0000000000
434.0000000000	0.0000003182	0.0000000000
436.0000000000	0.0000009219	0.0000000000
438.0000000000	0.0000025849	0.0000000000
440.0000000000	0.0000070200	0.0000000000
442.0000000000	0.0000184791	0.0000000000
444.0000000000	0.0000471853	0.0000000000
446.0000000000	0.0001169563	0.0000000000
448.0000000000	0.0002816030	0.0000000000
450.0000000000	0.0006590920	0.0000000000
452.0000000000	0.0015005159	0.0000000001
454.0000000000	0.0033251002	0.0000000003
456.0000000000	0.0071765439	0.0000000012
458.0000000000	0.0150953353	0.0000000052
460.0000000000	0.0309635612	0.0000000217
462.0000000000	0.0619722754	0.0000000863
464.0000000000	0.1210971774	0.0000003264
466.0000000000	0.2311566686	0.0000011743

468.0000000000	0.4312754800	0.0000040252
470.0000000000	0.7868893001	0.0000131590
472.0000000000	1.4047928949	0.0000410733
474.0000000000	2.4551319137	0.0001225329
476.0000000000	4.2026215851	0.0003497402
478.0000000000	7.0495737652	0.0009560308
480.0000000000	11.5934321644	0.0025052713
482.0000000000	18.7013385231	0.0062995125
484.0000000000	29.6036553792	0.0152135685
486.0000000000	46.0072383603	0.0353199525
488.0000000000	70.2275007728	0.0788964056
490.0000000000	105.3359255419	0.1697134143
492.0000000000	155.3167232847	0.3518531102
494.0000000000	225.2229894702	0.7036360919
496.0000000000	321.3192754630	1.3583835808
498.0000000000	451.1943633278	2.5335029536
500.0000000000	623.8257053679	4.5684949684
502.0000000000	849.5759641046	7.9707041136
504.0000000000	1140.1028301725	13.4648652451
506.0000000000	1508.1661460610	22.0389003094
508.0000000000	1967.3214685037	34.9745256309
510.0000000000	2531.4964535348	53.8479905565
512.0000000000	3214.4554545736	80.4849380132
514.0000000000	4029.1678189537	116.8552545441
516.0000000000	4987.1056593237	164.8997993092
518.0000000000	6097.5063307467	226.2912022524
520.0000000000	7366.6424046322	302.1444934335
522.0000000000	8797.1466426064	392.7079429086
524.0000000000	10387.4406098457	497.0770005628
526.0000000000	12131.3127293328	612.9812024787
528.0000000000	14017.6847591083	736.6925438344
530.0000000000	16030.5952755991	863.0927907060
532.0000000000	18149.4155441821	985.9172841593
534.0000000000	20349.2982256765	1098.1669218000
536.0000000000	22601.8439584428	1192.6527952020
538.0000000000	24875.9562722821	1262.6147003958
540.0000000000	27138.8427469494	1302.3401502071
542.0000000000	29357.1108309082	1307.7076441977
544.0000000000	31497.9009901616	1276.5874364360
546.0000000000	33529.9982119148	1209.0530101049
548.0000000000	35424.8653231309	1107.3830293464
550.0000000000	37157.5477352154	975.8617319563
552.0000000000	38707.4084426799	820.4106517310
554.0000000000	40058.6635307528	648.1023923013
556.0000000000	41200.7011184421	466.6158312225
558.0000000000	42128.1795963000	283.6914684705

560.0000000000	42840.9132968841	106.6371895323
562.0000000000	43343.5645820973	-58.0788536795
564.0000000000	43645.1701512513	-205.1271728004
566.0000000000	43758.5357828710	-330.5015161683
568.0000000000	43699.5375520073	-431.5950451688
570.0000000000	43486.3688428501	-507.1823512008
572.0000000000	43138.7714044065	-557.3258537070
574.0000000000	42677.2856086765	-583.2260612048
576.0000000000	42122.5503904206	-587.0337922477
578.0000000000	41494.6775474521	-571.6398736301
580.0000000000	40812.7186410201	-540.4550243010
582.0000000000	40094.2361125952	-497.1902346319
584.0000000000	39354.9838299469	-445.6462285175
586.0000000000	38608.6964253214	-389.5194937199
588.0000000000	37866.9817445668	-332.2316155142
590.0000000000	37139.3066565980	-276.7879038786
592.0000000000	36433.0634642817	-225.6702626672
594.0000000000	35753.7022228659	-180.7677358116
596.0000000000	35104.9133591004	-143.3461700057
598.0000000000	34488.8449912649	-114.0560984322
600.0000000000	33906.3401388927	-92.9755265566
602.0000000000	33357.1804198239	-79.6820832383
604.0000000000	32840.3246904226	-73.3472610983
606.0000000000	32354.1332232315	-72.8444080860
608.0000000000	31896.5702771450	-76.8618419086
610.0000000000	31465.3801590916	-84.0129241601
612.0000000000	31058.2339874766	-92.9360395857
614.0000000000	30672.8462568937	-102.3789995705
616.0000000000	30307.0619086001	-111.2642184866
618.0000000000	29958.9158959241	-118.7328908122
620.0000000000	29626.6681859152	-124.1681493093
622.0000000000	29308.8177664683	-127.1986787820
624.0000000000	29004.0995566589	-127.6854156743
626.0000000000	28711.4681841684	-125.6947481624
628.0000000000	28430.0724424535	-121.4620502868
630.0000000000	28159.2239206933	-115.3494704417
632.0000000000	27898.3628609082	-107.8016995137
634.0000000000	27647.0237858892	-99.3030258625
636.0000000000	27404.8029008178	-90.3384045201
638.0000000000	27171.3287365164	-81.3605869667
640.0000000000	26946.2370016957	-72.7646333472
642.0000000000	26729.1501664220	-64.8704145221
644.0000000000	26519.6619229846	-57.9130546246
646.0000000000	26317.3263703689	-52.0407057104
648.0000000000	26121.6515457340	-47.3186144243
650.0000000000	25932.0967769669	-43.7381539394

652.0000000000	25748.0732472301	-41.2293568015
654.0000000000	25568.9471356334	-39.6754862443
656.0000000000	25394.0447165510	-38.9283035676
658.0000000000	25222.6588520157	-38.8228968312
660.0000000000	25054.0563857688	-39.1911960747
662.0000000000	24887.4860335989	-39.8735768593
664.0000000000	24722.1864536870	-40.7282154994
666.0000000000	24557.3942655931	-41.6380816996
668.0000000000	24392.3518619118	-42.5156228131
670.0000000000	24226.3149189382	-43.3053040510
672.0000000000	24058.5595600631	-43.9842252981
674.0000000000	23888.3891576908	-44.5610492711
676.0000000000	23715.1407771090	-45.0734631335
678.0000000000	23538.1912707663	-45.5843727652
680.0000000000	23356.9630262895	-46.1770100385
682.0000000000	23170.9293591659	-46.9491288659
684.0000000000	22979.6195242712	-48.0064801948
686.0000000000	22782.6233022061	-49.4557886585
688.0000000000	22579.5950992650	-51.3974984561
690.0000000000	22370.2574859486	-53.9186039708
692.0000000000	22154.4040898587	-57.0859207976
694.0000000000	21931.9017556530	-60.9401747411
696.0000000000	21702.6918879991	-65.4912815571
698.0000000000	21466.7909031199	-70.7151537855
700.0000000000	21224.2897300861	-76.5523021114
702.0000000000	20975.3523236059	-82.9084007349
704.0000000000	20720.2131745087	-89.6568663967
706.0000000000	20459.1738310650	-96.6433690396
708.0000000000	20192.5984722539	-103.6920601406
710.0000000000	19920.9086016390	-110.6131843542
712.0000000000	19644.5769562619	-117.2116419316
714.0000000000	19364.1207476952	-123.2960019358
716.0000000000	19080.0943711152	-128.6874350541
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720.0000000000	18503.6883503315	-136.7880970506
722.0000000000	18212.5333998604	-139.2718050004
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