

Supporting Information for

Intermolecular Interaction of Al₈O₁₂ Oxymetallic Clusters in the Detection of Atmospheric Pollutants: A DFT Exploration of CO, CO₂, H₂, N₂, NO, NO₂, O₂, and SO₂, Binding Mechanisms

Sajida Riffat Laraib^a, Ji Liu^{a,*}, Yuan-gu Xia^a, Yang-wen Wu^a, Mohsen Doust Mohammadi^{b,c},
Nayab Fatima Noor^d, Qiang Lu^a

*a National Engineering Research Center of New Energy Power Generation, North China Electric Power
University, Beijing 102206, P.R. China.*

b School of Chemistry, College of Science, University of Tehran, Tehran 14176, Iran

*c Climate and Atmospheric Research Centre, The Cyprus Institute, 20, Konstantinou Kavafi Street,
Nicosia 2121, Cyprus*

d Military College of Signals, National University of Science and Technology, Rawalpindi, Pakistan.

*Corresponding author: Ji Liu (liujipower@ncepu.edu.cn; liujipower@126.com)

S1 Introduction for adopted methodologies

S1.1 NBO analysis

NBO analysis, developed by Weinhold et al.,[1-3] represents an advanced computational technique employed in quantum chemistry to glean profound insights into the essence of chemical bonding within molecules. This method harnesses ab initio or DFT calculations to furnish precise electronic structure information. The crux of the analysis revolves around the utilization of Natural Bond Orbitals, which are localized molecular orbitals extracted from canonical molecular orbitals. NBO analysis ingeniously adopts Lewis structure-like concepts, allowing for the meticulous allocation of electrons to bonds and lone pairs, thus facilitating a more profound and chemically meaningful comprehension of electron distribution and bond properties. By meticulously identifying and quantifying orbital interactions, NBO analysis effectively characterizes bond strengths, lone pair contributions, and electron delocalization effects. Furthermore, it confers invaluable bond order information, enabling comparisons of bond strengths across distinct molecules. Additionally, NBO analysis sheds light on electron delocalization and proffers a clear identification of stabilizing hyper conjugative interactions. As a powerful tool in theoretical chemistry, NBO analysis profoundly enhances our discernment of molecular structure, bonding intricacies, and reactivity trends spanning diverse chemical systems. In the present investigation, NBO computations were conducted to discern diverse forms of bond order, encompassing Mulliken[4] (Equation 9) and Mayer[5, 6] (Equation 10) bond orders, in addition to the Wiberg bond index (WBI)[7] within the Löwdin orthogonalized basis (Equation 11). As such, the study aimed to unravel the intricate bonding characteristics present in the system under examination.

$$I_{AB} = \sum_i \eta_i \sum_{a \in A} \sum_{b \in B} 2C_{a,i} C_{b,i} S_{a,b} = 2 \sum_{a \in A} \sum_{b \in B} P_{a,b} S_{a,b} \quad (9)$$

$$I_{AB} = I_{AB}^{\alpha} + I_{AB}^{\beta} = 2 \sum_{a \in A} \sum_{b \in B} \left[(P^{\alpha} S)_{ba} (P^{\alpha} S)_{ab} + (P^{\beta} S)_{ba} (P^{\beta} S)_{ab} \right] \quad (10)$$

$$I_{AB} = \sum_{a \in A} \sum_{b \in B} P_{ab}^2 \quad (11)$$

The concept of Fuzzy bond order (FBO) was initially postulated by Mayer[8] and is frequently found to exhibit proximity to Mayer bond order, particularly for low-polar bonds. However, it demonstrates substantially greater stability concerning variations in the basis set employed. Tian Lu introduced an innovative conceptualization of covalent bond order, predicated on the Laplacian of electron density $\nabla^2\rho$ within the concept of fuzzy overlap space. This novel construct, denoted as Laplacian bond order (LBO), succinctly quantifies the bonding between atoms A and B as follows,[9]

$$L_{AB} = -10 \times \int_{\nabla^2\rho < 0} w_A(r)w_B(r)\nabla^2\rho(r)dr \quad (12)$$

In this context, the symbol "w" denotes a continuously evolving weight function introduced by Becke, which characterizes a nebulous atomic domain. Consequently, " $w_A w_B$ " signifies the presence of a fuzzy intersectional domain between entities A and B. It is important to note that the integration is solely confined to the negative component of the Laplacian operator applied to the electron density ($\nabla^2\rho$). The underlying principle of the Laplacian Bond Order (LBO) approach lies in assessing the magnitude of the integrated negative $\nabla^2\rho$ within the fuzzy overlap space. This magnitude serves as an indicator of the extent to which electron density is concentrated within the bonding region. As a result, a stronger covalent bond is inferred when a larger value is obtained for this integral.

Together, these bond order methods highlight distinct features of bonding. LBO emphasizes covalent bond strength through electron density concentration, while FBO stabilizes bond orders across basis sets through fuzzy atomic spaces. WBO and MBO are similar in applications but vary in basis set dependency and sensitivity to electron density distributions, with WBO sometimes overestimating polar bonds. MPA, while useful for qualitative bonding analysis, lacks quantitative robustness. These methods offer complementary views of bonding interactions and, when combined, provide a more comprehensive understanding of bonding properties. The bond order analysis values calculated for various molecules interacting with the Al_8O_{12} cluster reveal interesting trends across different bond order definitions. These values offer insight into bonding interactions between atoms from gases (e.g., CO, CO₂, H₂, N₂, NO, NO₂, O₂, SO₂) and the Al_8O_{12} cluster, allowing for a detailed examination of covalent and non-covalent bonding contributions. In the following sections, each bond order's behavior is examined, highlighting both specific and general trends across the different bond order metrics: Mulliken, Mayer, WBI, FBO, and LBO. The results values obtained from the all of the bond order analyses are summarized in Table 3.

S1.2 QTAIM analysis

QTAIM, abbreviated as "Quantum Theory of Atoms in Molecules,"[10] serves as a theoretical construct widely employed in the domain of quantum chemistry, enabling the investigation of electron density dispersion within molecular structures. Its principal aim is to acquire profound discernment into the chemical bonding and interactions amongst constituent atoms within a molecule, predicated upon the electron density distribution. By focalizing on the electron density, QTAIM discerns vital junctures like

nuclei (NCPs) and bond critical points (BCPs), representing chemical bonds, thereby facilitating the classification of distinct bond types, encompassing covalent, ionic, and van der Waals interactions. Employing topological properties, QTAIM methodically examines the connectivity of critical points and features of electron density to elucidate the spatial arrangement of atoms and bonds. Additionally, the framework furnishes descriptors for quantifying electron density attributes at diverse spatial locations. Moreover, QTAIM analysis holds the capacity to prognosticate chemical reactivity and reaction mechanisms by scrutinizing electron density alterations during chemical processes. Notwithstanding its potency, QTAIM is not without limitations, encompassing assumptions of a static electron density and the neglect of electron correlation effects in specific systems. In summation, QTAIM bestows invaluable insights into the fundamental properties and behavior of chemical systems, through its in-depth scrutiny of electron density distribution and characterization of chemical bonding within molecules.

The elucidation of the intermolecular interaction's essence lies in the values of Lagrangian kinetic energy $G(\mathbf{r})$ and potential energy density $V(\mathbf{r})$. Consequently, the ratio of $G(\mathbf{r})/V(\mathbf{r})$ can be employed as a suitable indicator in link classification. When $G(\mathbf{r})/V(\mathbf{r})$ falls below 0.5, the interaction tends to be covalent, whereas if $G(\mathbf{r})/V(\mathbf{r})$ surpasses 1, the interaction is considered non-covalent. According to virial theorem, a relationship exists between $G(\mathbf{r})$, $V(\mathbf{r})$, and $\nabla^2\rho(\mathbf{r})$ as follows:

$$\frac{1}{4}\nabla^2\rho(\mathbf{r}) = 2G(\mathbf{r}) + V(\mathbf{r}) \quad (13)$$

In the context of closed-shell interactions, the η index at the Bond Critical Point (BCP) is less than 1 and rises as the covalent character increases.[11] Additionally, elevated values of ellipticity of electron density (ε) indicate an unstable structure and are defined as follows, [12]

$$\varepsilon = \frac{\lambda_1}{\lambda_2} - 1, |\lambda_1| > |\lambda_2| \quad (14)$$

In the aforementioned relationship, the λ values represent the eigenvalues of the Hessian matrix values, which govern the bond critical point formation. The results obtained from this analysis are summarized in Table 5, followed by detailed explanations regarding the interpretation of the data. Additionally, for enhanced clarity, Figures 7 and 8 have been created to illustrate the positions of critical bonding points between the gas molecules and the aluminum oxide cluster.

S1.3 NCI analysis

Non-covalent interactions[13, 14] play a pivotal role in diverse chemical and biological processes, wherein molecules engage without electron-sharing typical of conventional covalent bonds. An invaluable instrument for scrutinizing such interactions is the reduced density gradient (RDG) approach, which furnishes profound discernment into the potency and character of these non-covalent associations. The reduced density gradient manifests as a scalar field deduced from the electron density (ρ) and its Laplacian ($\nabla^2\rho$), with the following definition,[15, 16]

$$\text{RDG} = \frac{1}{2(3\pi^2)^{\frac{1}{3}}} \frac{|\overline{\Delta\rho(\mathbf{r})}|}{\rho(\mathbf{r})^{\frac{4}{3}}} \quad (15)$$

The two functions, RDG and $sign\lambda^2(r)\rho(r)$, can be graphically represented to delineate distinct regions. To scrutinize non-covalent interactions, the RDG is frequently portrayed via its concomitant sign function ($sign\lambda^2(r)\rho(r)$), yielding distinctive positive, negative, and null territories. The interpretation of these zones facilitates the identification of diverse non-covalent interactions: (1) Attraction ($sign\lambda^2(r)\rho(r) < 0$): Regions exhibiting a negative RDG denote alluring interactions. Notable instances include hydrogen bonds, van der Waals interactions, and π - π stacking, typically represented by regions with a negative RDG; (2) Repulsion ($sign\lambda^2(r)\rho(r) > 0$): Positive RDG regions signify repulsive forces between molecules; (3) Near zero ($sign\lambda^2(r)\rho(r) \approx 0$): Zones with RDG values approaching zero correspond to regions where interactions are weak or nearly insignificant. Through a meticulous analysis of the RDG and its associated *sign* function, researchers can glean invaluable insights into the essence and potency of non-covalent interactions within molecular systems. This information is pivotal in comprehending the behavior of intricate chemical and biological systems and bears substantial implications in this domain.[17, 18]

Table S1

The values of electronic energies (EE in Hartree), zero-point energy correction (Hartree), thermal energy (TE) in kcal/mol, heat capacity (C_V) in Cal/mol·K, entropy (S) in Cal/mol·K and adsorption energies (E_{ads}) in eV calculated at ω B97XD/Def2-SVP level of theory. The notation gas@Al₈O₁₂-*x*, the gas refers to the CO, CO₂, H₂, N₂, NO, NO₂, O₂, and SO₂ and the "@" symbol indicates that the gas is adsorbed onto the Al₈O₁₂ cluster, and the index *x* refers to the number of the most energetically stable gas/cluster configuration

Systems	EE	ZPE	TE	C_V	S
CO₂_01	-3030.209624	0.076357	62.903	84.295	165.912
CO₂_02	-3030.209624	0.076353	62.901	84.297	165.928
CO₂_03	-3030.209624	0.076356	62.903	84.295	165.915
CO₂_04	-3030.209624	0.076357	62.903	84.295	165.922
CO₂_05	-3030.209624	0.076357	62.903	84.295	165.918
CO₂_06	-3030.209624	0.076357	62.903	84.295	165.918
CO₂_07	-3030.209624	0.076357	62.903	84.295	165.911
CO₂_08	-3030.209624	0.076357	62.903	84.295	165.916
CO₂_09	-3030.209625	0.07636	62.902	84.294	165.878
CO₂_10	-3030.209624	0.076357	62.903	84.295	165.916

CO ₂ _11	-3030.209624	0.076358	62.903	84.294	165.894
CO ₂ _12	-3030.209624	0.076356	62.903	84.295	165.912
CO ₂ _13	-3030.209624	0.076357	62.903	84.295	165.918
CO ₂ _14	-3030.209624	0.076356	62.903	84.295	165.923
CO ₂ _15	-3030.209624	0.076356	62.903	84.295	165.92
CO ₂ _16	-3030.209624	0.076357	62.903	84.295	165.917
CO ₂ _17	-3030.209624	0.07635	62.9	84.299	165.929
CO ₂ _18	-3030.209624	0.076356	62.903	84.295	165.915
CO ₂ _19	-3030.209624	0.076356	62.902	84.295	165.892
CO ₂ _20	-3030.209598	0.076347	62.895	84.301	165.834
CO_01	-2955.002264	0.069441	58.412	82.475	163.66
CO_02	-2955.002275	0.069534	58.465	82.415	163.757
CO_03	-2955.002252	0.069417	58.413	82.488	163.972
CO_04	-2955.00226	0.069475	58.436	82.454	163.801
CO_05	-2955.002274	0.06953	58.461	82.419	163.683
CO_06	-2955.002274	0.069531	58.463	82.418	163.724
CO_07	-2955.002234	0.069222	58.306	82.611	164.03
CO_08	-2955.015487	0.070479	58.769	81.911	161.969
CO_09	-2955.015459	0.070233	58.645	82.064	162.263
CO_10	-2955.015459	0.070224	58.641	82.07	162.286
CO_11	-2955.002258	0.069459	58.43	82.463	163.856
CO_12	-2955.015476	0.07044	58.754	81.936	162.112
CO_13	-2955.015462	0.070272	58.666	82.04	162.236
CO_14	-2955.015453	0.07034	58.708	81.999	162.293
CO_15	-2955.002238	0.069286	58.338	82.572	163.941
CO_16	-2955.015454	0.070432	58.751	81.942	162.11
CO_17	-2955.015491	0.07048	58.772	81.91	162.024
CO_18	-2955.002245	0.069374	58.39	82.516	163.993
CO_19	-2955.002242	0.069399	58.405	82.498	164.029
CO_20	-2955.002235	0.069348	58.377	82.533	164.022
H ₂ _01	-2842.984575	0.077765	62.614	79.79	152.676
H ₂ _02	-2842.984556	0.077622	62.539	79.877	152.802
H ₂ _03	-2842.984558	0.077739	62.605	79.79	152.809
H ₂ _04	-2842.984549	0.077752	62.581	79.787	152.426
H ₂ _05	-2842.98454	0.077479	62.452	79.982	152.747
H ₂ _06	-2842.984557	0.07776	62.609	79.78	152.696
H ₂ _07	-2842.984535	0.077784	62.618	79.764	152.662
H ₂ _08	-2842.984521	0.077534	62.518	79.917	153.28
H ₂ _09	-2842.771028	0.074927	60.555	79.788	148.975
H ₂ _10	-2842.975424	0.075359	61.184	79.539	156.364

H₂_11	-2842.984518	0.077566	62.531	79.897	153.177
H₂_12	-2842.98452	0.07747	62.511	79.947	153.798
H₂_13	-2842.984537	0.077604	62.527	79.877	152.818
H₂_14	-2842.984553	0.077688	62.589	79.817	153.026
H₂_15	-2842.984512	0.077477	62.479	79.961	153.152
H₂_16	-2842.984553	0.077752	62.588	79.789	152.494
H₂_17	-2842.984535	0.077586	62.521	79.887	152.886
H₂_18	-2842.984551	0.077625	62.543	79.873	152.841
H₂_19	-2842.984545	0.077668	62.561	79.838	152.774
H₂_20	-2842.975491	0.075216	61.12	79.627	156.95
N₂_01	-2951.220042	0.070462	58.912	82.281	162.771
N₂_02	-2951.220027	0.070358	58.856	82.346	162.826
N₂_03	-2951.220061	0.070621	58.992	82.182	162.59
N₂_04	-2951.220029	0.070371	58.863	82.338	162.817
N₂_05	-2951.220058	0.070639	59.001	82.171	162.567
N₂_06	-2951.220053	0.070604	58.984	82.192	162.608
N₂_07	-2951.220048	0.070499	58.934	82.256	162.822
N₂_08	-2951.220048	0.070505	58.934	82.253	162.736
N₂_09	-2951.205047	0.069572	58.794	82.703	168.183
N₂_10	-2951.22002	0.070521	58.946	82.245	162.764
N₂_11	-2951.22004	0.070521	58.947	82.243	162.785
N₂_12	-2951.220056	0.070562	58.962	82.218	162.679
N₂_13	-2951.220056	0.070611	58.987	82.188	162.605
N₂_14	-2951.220029	0.070471	58.925	82.275	162.89
N₂_15	-2951.220016	0.07053	58.954	82.241	162.744
N₂_16	-2951.220038	0.070505	58.94	82.253	162.827
N₂_17	-2951.220058	0.070591	58.977	82.2	162.652
N₂_18	-2951.22002	0.070448	58.91	82.291	162.869
N₂_19	-2951.220052	0.07053	58.946	82.237	162.678
N₂_20	-2951.22002	0.070438	58.905	82.297	162.864
NO₂_01	-3046.675396	0.074292	61.859	84.958	170.196
NO₂_02	-3046.676791	0.074196	61.874	85.019	170.701
NO₂_03	-3046.675149	0.074244	61.278	82.967	163.461
NO₂_04	-3046.675395	0.074292	61.859	84.96	170.182
NO₂_05	-3046.675395	0.07429	61.858	84.961	170.185
NO₂_06	-3046.675396	0.07429	61.858	84.96	170.221
NO₂_07	-3046.676769	0.074139	61.847	85.051	171.015

NO₂_08	-3046.675396	0.074289	61.86	84.96	170.238
NO₂_09	-3046.676796	0.074184	61.866	85.026	170.715
NO₂_10	-3046.676786	0.074139	61.854	85.05	170.921
NO₂_11	-3046.675396	0.074293	61.861	84.957	170.231
NO₂_12	-3046.675395	0.074288	61.858	84.961	170.258
NO₂_13	-3046.676798	0.074199	61.874	85.016	170.7
NO₂_14	-3046.675396	0.07429	61.859	84.959	170.211
NO₂_15	-3046.676765	0.074061	61.809	85.102	170.865
NO₂_16	-3046.675395	0.074287	61.857	84.962	170.211
NO₂_17	-3046.675395	0.074288	61.858	84.961	170.206
NO₂_18	-3046.676794	0.074169	61.861	85.034	170.802
NO₂_19	-3046.676793	0.074169	61.861	85.034	170.748
NO₂_20	-3046.675395	0.074294	61.861	84.958	170.189
NO_01	-2971.567189	0.069053	58.241	82.514	167.216
NO_02	-2971.561538	0.068965	58.157	82.448	167.601
NO_03	-2971.561538	0.068958	58.158	82.449	168.036
NO_04	-2971.567195	0.069085	58.26	82.489	167.344
NO_05	-2971.567196	0.069086	58.259	82.489	167.306
NO_06	-2971.567195	0.069088	58.258	82.489	167.188
NO_07	-2971.56719	0.069106	58.264	82.484	166.928
NO_08	-2971.567186	0.069023	58.229	82.53	167.229
NO_09	-2971.567213	0.069097	58.267	82.475	167.6
NO_10	-2971.561541	0.069111	58.225	82.367	166.82
NO_11	-2971.567196	0.069089	58.261	82.487	167.281
NO_12	-2971.561511	0.068895	58.138	82.481	168.98
NO_13	-2971.567196	0.069082	58.259	82.49	167.372
NO_14	-2971.561536	0.06902	58.188	82.411	167.984
NO_15	-2971.56705	0.069159	58.275	82.468	166.579
NO_16	-2971.56718	0.068917	57.637	80.557	162.186
NO_17	-2971.561546	0.069168	58.252	82.331	166.811
NO_18	-2971.561508	0.068787	58.083	82.55	168.558
NO_19	-2971.551122	0.069258	58.542	82.244	172.356
NO_20	-2971.567197	0.069067	58.262	82.49	167.937
O₂_01	-2991.917621	0.068324	57.129	80.381	158.705
O₂_02	-2991.917914	0.068451	57.772	82.316	164.771
O₂_03	-2991.917914	0.068448	57.772	82.317	164.844
O₂_04	-2991.901106	0.068929	58.098	82.117	164.016
O₂_05	-2991.917914	0.068449	57.772	82.316	164.822
O₂_06	-2991.917914	0.06845	57.772	82.316	164.802
O₂_07	-2991.917912	0.068443	57.769	82.32	164.838

O₂_08	-2991.917913	0.068449	57.77	82.318	164.746
O₂_09	-2991.917912	0.068441	57.768	82.321	164.859
O₂_10	-2991.917614	0.068357	57.145	80.361	158.64
O₂_11	-2991.917912	0.068445	57.769	82.319	164.812
O₂_12	-2991.917909	0.068433	57.764	82.326	164.848
O₂_13	-2991.917914	0.068455	57.772	82.315	164.669
O₂_14	-2991.917914	0.068452	57.773	82.315	164.802
O₂_15	-2991.917908	0.068427	57.761	82.33	164.858
O₂_16	-2991.91791	0.068432	57.763	82.331	164.766
O₂_17	-2991.917914	0.068462	57.772	82.313	164.526
O₂_18	-2991.917912	0.068446	57.77	82.319	164.809
O₂_19	-2991.917905	0.068413	57.755	82.338	164.897
O₂_20	-2991.917913	0.068447	57.77	82.318	164.807
SO₂_01	-3390.147663	0.072487	60.392	85.105	163.68
SO₂_02	-3390.147668	0.072547	60.419	85.069	163.564
SO₂_03	-3390.147667	0.072553	60.423	85.063	163.578
SO₂_04	-3390.147667	0.072531	60.412	85.08	163.578
SO₂_05	-3390.147668	0.07255	60.421	85.067	163.571
SO₂_06	-3390.147667	0.072531	60.411	85.08	163.564
SO₂_07	-3390.147668	0.072541	60.415	85.074	163.523
SO₂_08	-3390.147667	0.072543	60.423	85.067	163.74
SO₂_09	-3390.147667	0.072555	60.424	85.062	163.575
SO₂_10	-3390.127543	0.07176	60.488	85.723	172.327
SO₂_11	-3390.147663	0.072494	60.394	85.102	163.646
SO₂_12	-3390.147668	0.072548	60.422	85.066	163.648
SO₂_13	-3390.127544	0.07176	60.488	85.722	172.362
SO₂_14	-3390.127544	0.07176	60.488	85.722	172.375
SO₂_15	-3390.127544	0.07176	60.488	85.722	172.361
SO₂_16	-3390.147667	0.07254	60.414	85.075	163.528
SO₂_17	-3390.147668	0.072548	60.419	85.069	163.539
SO₂_18	-3390.147664	0.072503	60.399	85.097	163.647
SO₂_19	-3390.147667	0.072533	60.412	85.079	163.547
SO₂_20	-3390.147668	0.072547	60.418	85.069	163.54

Table S2

The values of HOMO energy (ϵ_{HOMO}), LUMO energy (ϵ_{LUMO}), HOMO-LUMO energy gap (HLG), chemical hardness (η), chemical potential (μ), and electrophilicity index (ω). All values are in eV obtained at ω B97XD/Def2-SVP level of theory

Systems	ϵ_{HOMO}	ϵ_{LUMO}	HLG	μ	η	ω
CO ₂ _01	-9.470926423	-0.67103	8.799893395	4.399947	-5.07098	1.461088
CO ₂ _02	-9.470926423	-0.68654	8.784382899	4.392191	-5.07873	1.468148
CO ₂ _03	-9.471198537	-0.60437	8.866833429	4.433417	-5.03778	1.431134
CO ₂ _04	-9.470926423	-0.63348	8.837445122	4.418723	-5.0522	1.444126
CO ₂ _05	-9.470926423	-0.61144	8.859486352	4.429743	-5.04118	1.434255
CO ₂ _06	-9.470926423	-0.6128	8.858125783	4.429063	-5.04186	1.434863
CO ₂ _07	-9.470926423	-0.37171	9.099218752	4.549609	-4.92132	1.330848
CO ₂ _08	-9.470926423	-0.62477	8.846152768	4.423076	-5.04785	1.440219
CO ₂ _09	-9.470654309	-0.60681	8.863840176	4.43192	-5.03873	1.432158
CO ₂ _10	-9.470926423	-0.64899	8.821934626	4.410967	-5.05996	1.451109
CO ₂ _11	-9.470654309	-0.59321	8.877445874	4.438723	-5.03193	1.426105
CO ₂ _12	-9.470926423	-0.64001	8.830914386	4.415457	-5.05547	1.447062

CO₂_13	-9.470926423	-0.56273	8.908194751	4.454097	-5.01683	1.412664
CO₂_14	-9.470926423	-0.63811	8.832819184	4.41641	-5.05452	1.446205
CO₂_15	-9.470926423	-0.39157	9.079354433	4.539677	-4.93125	1.339149
CO₂_16	-9.470926423	-0.57171	8.899214991	4.449607	-5.02132	1.416622
CO₂_17	-9.471198537	-0.60028	8.870915139	4.435458	-5.03574	1.429316
CO₂_18	-9.470926423	-0.30286	9.168063585	4.584032	-4.88689	1.302442
CO₂_19	-9.470926423	-0.49715	8.973774216	4.486887	-4.98404	1.384069
CO₂_20	-9.471742765	-0.59892	8.872819937	4.43641	-5.03533	1.428778
CO_01	-9.47691293	-0.62695	8.849962364	4.424981	-5.05193	1.441928
CO_02	-9.476368702	-0.63076	8.84560854	4.422804	-5.05356	1.44357
CO_03	-9.476096589	-0.44599	9.030101807	4.515051	-4.96105	1.362774
CO_04	-9.475824475	-0.37252	9.103300462	4.55165	-4.92417	1.331797
CO_05	-9.476368702	-0.39919	9.077177521	4.538589	-4.93778	1.34302
CO_06	-9.476096589	-0.46178	9.014319197	4.50716	-4.96894	1.369506
CO_07	-9.476096589	-0.47375	9.002346183	4.501173	-4.97492	1.374634
CO_08	-9.435551608	-0.58641	8.849146022	4.424573	-5.01098	1.418776
CO_09	-9.434735266	-0.64028	8.794451116	4.397226	-5.03751	1.442757
CO_10	-9.43500738	-0.65933	8.775675252	4.387838	-5.04717	1.451394
CO_11	-9.475824475	-0.59402	8.881799698	4.4409	-5.03492	1.427102
CO_12	-9.434463152	-0.36844	9.066020849	4.53301	-4.90145	1.32496
CO_13	-9.434463152	-0.63675	8.797716483	4.398858	-5.0356	1.441131
CO_14	-9.434735266	-0.6392	8.795539571	4.39777	-5.03697	1.442266
CO_15	-9.476368702	-0.62369	8.852683503	4.426342	-5.05003	1.440398
CO_16	-9.434735266	-0.64518	8.789553064	4.394777	-5.03996	1.444964
CO_17	-9.434463152	-0.46722	8.967243481	4.483622	-4.95084	1.366687
CO_18	-9.476368702	-0.37987	9.096497612	4.548249	-4.92812	1.334929
CO_19	-9.476368702	-0.64083	8.835540324	4.41777	-5.0586	1.448096
CO_20	-9.476096589	-0.62396	8.852139276	4.42607	-5.05003	1.440486
H₂_01	-9.561812486	-0.43484	9.126974376	4.563487	-4.99833	1.368649
H₂_02	-9.5620846	-0.64056	8.921528336	4.460764	-5.10132	1.458465
H₂_03	-9.562628828	-0.63647	8.926154273	4.463077	-5.09955	1.456698
H₂_04	-9.561540372	-0.603	8.958535834	4.479268	-5.08227	1.441614
H₂_05	-9.562900942	-0.55021	9.012686513	4.506343	-5.05656	1.418488
H₂_06	-9.562356714	-0.61634	8.946018592	4.473009	-5.08935	1.447653
H₂_07	-9.561812486	-0.6343	8.927514843	4.463757	-5.09806	1.455622
H₂_08	-9.5620846	-0.62532	8.936766717	4.468383	-5.0937	1.451632
H₂_09	-8.814859663	-0.45987	8.354987069	4.177494	-4.63737	1.286966
H₂_10	-9.715828988	-0.63511	9.080715003	4.540358	-5.17547	1.474857
H₂_11	-9.562356714	-0.64328	8.91907931	4.45954	-5.10282	1.459721
H₂_12	-9.561812486	-0.42531	9.136498365	4.568249	-4.99356	1.364619

H₂_13	-9.561812486	-0.79621	8.765607036	4.382804	-5.17901	1.529964
H₂_14	-9.561812486	-0.62641	8.935406148	4.467703	-5.09411	1.452086
H₂_15	-9.562356714	-0.6226	8.939759971	4.46988	-5.09248	1.450448
H₂_16	-9.562356714	-0.46123	9.10112355	4.550562	-5.01179	1.379944
H₂_17	-9.561812486	-0.46912	9.092688017	4.546344	-5.01547	1.38325
H₂_18	-9.562356714	-0.59947	8.962889658	4.481445	-5.08091	1.440142
H₂_19	-9.562900942	-0.60845	8.954454125	4.477227	-5.08567	1.444202
H₂_20	-9.715828988	-0.63947	9.076361179	4.538181	-5.17765	1.476806
N₂_01	-9.469837967	-0.63049	8.839349919	4.419675	-5.05016	1.442648
N₂_02	-9.469837967	-0.60981	8.86003058	4.430015	-5.03982	1.433393
N₂_03	-9.469565853	-0.61498	8.854588301	4.427294	-5.04227	1.435668
N₂_04	-9.470382195	-0.63484	8.835540324	4.41777	-5.05261	1.44467
N₂_05	-9.468477398	-0.61471	8.85377196	4.426886	-5.04159	1.435413
N₂_06	-9.469565853	-0.58559	8.883976609	4.441988	-5.02758	1.422591
N₂_07	-9.469293739	-0.84138	8.627917371	4.313959	-5.15534	1.540202
N₂_08	-9.470110081	-0.61471	8.855404643	4.427702	-5.04241	1.435613
N₂_09	-9.697325239	-0.63511	9.062211254	4.531106	-5.16622	1.472589
N₂_10	-9.470110081	-0.62069	8.849418136	4.424709	-5.0454	1.438291
N₂_11	-9.470110081	-0.6109	8.859214238	4.429607	-5.0405	1.433912
N₂_12	-9.470382195	-0.62396	8.846424882	4.423212	-5.04717	1.439786
N₂_13	-9.469837967	-0.61117	8.85867001	4.429335	-5.0405	1.434
N₂_14	-9.470654309	-0.60001	8.870643025	4.435322	-5.03533	1.429128
N₂_15	-9.469293739	-0.61471	8.854588301	4.427294	-5.042	1.435513
N₂_16	-9.469565853	-0.62695	8.842615287	4.421308	-5.04826	1.441028
N₂_17	-9.470654309	-0.61797	8.852683503	4.426342	-5.04431	1.43714
N₂_18	-9.469565853	-0.59919	8.870370911	4.435185	-5.03438	1.428632
N₂_19	-9.470110081	-0.37089	9.099218752	4.549609	-4.9205	1.330407
N₂_20	-9.470382195	-0.3913	9.079082319	4.539541	-4.93084	1.338968
NO₂_01	-9.452422674	-0.82532	8.62710103	4.313551	-5.13887	1.530526
NO₂_02	-9.417319973	-1.33417	8.083145221	4.041573	-5.37575	1.787588
NO₂_03	-9.457864953	-1.43676	8.021103238	4.010552	-5.44731	1.849697
NO₂_04	-9.452422674	-1.13091	8.321517051	4.160759	-5.29166	1.682488
NO₂_05	-9.452422674	-0.93634	8.516078534	4.258039	-5.19438	1.584157
NO₂_06	-9.452694788	-0.88301	8.569684984	4.284842	-5.16785	1.558208
NO₂_07	-9.417592087	-1.09907	8.318523798	4.159262	-5.25833	1.661956
NO₂_08	-9.452422674	-0.86342	8.589005075	4.294503	-5.15792	1.548732
NO₂_09	-9.416231517	-1.23594	8.180289905	4.090145	-5.32609	1.733875

NO₂_10	-9.416775745	-0.68464	8.732137019	4.366069	-5.05071	1.460676
NO₂_11	-9.452422674	-1.05689	8.395532049	4.197766	-5.25466	1.644411
NO₂_12	-9.452694788	-0.86614	8.58655605	4.293278	-5.15942	1.550073
NO₂_13	-9.417592087	-0.96709	8.450499069	4.22525	-5.19234	1.595197
NO₂_14	-9.452422674	-1.79051	7.661912809	3.830956	-5.62147	2.062206
NO₂_15	-9.416503631	-0.87621	8.540296676	4.270148	-5.14636	1.550589
NO₂_16	-9.452422674	-0.9124	8.540024562	4.270012	-5.18241	1.572441
NO₂_17	-9.452422674	-0.85607	8.596352152	4.298176	-5.15425	1.545205
NO₂_18	-9.417319973	-1.01471	8.402607012	4.201304	-5.21602	1.618952
NO₂_19	-9.417047859	-1.2139	8.203147478	4.101574	-5.31547	1.72216
NO₂_20	-9.452422674	-0.94015	8.512268938	4.256134	-5.19629	1.586029
NO_01	-9.484532121	-2.67434	6.81019611	3.405098	-6.07943	2.713543
NO_02	-9.510655062	-2.38943	7.121222368	3.560611	-5.95004	2.485741
NO_03	-9.510382948	-2.39025	7.120133912	3.560067	-5.95032	2.486348
NO_04	-9.485348463	-1.02288	8.462472083	4.231236	-5.25411	1.631066
NO_05	-9.484532121	-2.52141	6.963124156	3.481562	-6.00297	2.587606
NO_06	-9.484804235	-0.89145	8.593358898	4.296679	-5.18812	1.56613
NO_07	-9.484532121	-0.85634	8.628189485	4.314095	-5.17044	1.549191
NO_08	-9.485076349	-1.46288	8.022191693	4.011096	-5.47398	1.867598
NO_09	-9.484532121	-1.25581	8.22872619	4.114363	-5.37017	1.75232
NO_10	-9.510382948	-2.39025	7.120133912	3.560067	-5.95032	2.486348
NO_11	-9.484532121	-2.52032	6.964212612	3.482106	-6.00243	2.586733
NO_12	-9.510655062	-1.0226	8.488050796	4.244025	-5.26663	1.633908
NO_13	-9.484532121	-0.93498	8.54954855	4.274774	-5.20976	1.587311
NO_14	-9.510655062	-2.38943	7.121222368	3.560611	-5.95004	2.485741
NO_15	-9.483171552	-0.98859	8.494581531	4.247291	-5.23588	1.613643
NO_16	-9.483987893	-0.99675	8.487234453	4.243617	-5.24037	1.617811
NO_17	-9.510655062	-2.39079	7.119861798	3.559931	-5.95072	2.486784
NO_18	-9.510927176	-2.25936	7.251564956	3.625782	-5.88514	2.3881
NO_19	-7.793343852	-0.62913	7.164216374	3.582108	-4.21124	1.237714
NO_20	-9.484260007	-1.572	7.912257653	3.956129	-5.52813	1.931196
O₂_01	-9.507661808	-3.75544	5.752217028	2.876109	-6.63155	3.822656
O₂_02	-9.506301238	-3.53803	5.968275513	2.984138	-6.52216	3.563728
O₂_03	-9.506301238	-3.52007	5.986235035	2.993118	-6.51318	3.543259
O₂_04	-8.73295336	-3.08577	5.647181039	2.823591	-5.90936	3.091858
O₂_05	-9.506301238	-3.18972	6.316581384	3.158291	-6.34801	3.189798
O₂_06	-9.506301238	-4.60526	4.901044557	2.450522	-7.05578	5.078919
O₂_07	-9.506573352	-3.29503	6.211545395	3.105773	-6.4008	3.297911
O₂_08	-9.506301238	-3.42428	6.082019149	3.04101	-6.46529	3.436358
O₂_09	-9.506301238	-3.81395	5.692351957	2.846176	-6.66013	3.896216

O ₂ _10	-9.507389694	-3.37503	6.132360232	3.06618	-6.44121	3.382807
O ₂ _11	-9.506301238	-4.59927	4.907031064	2.453516	-7.05279	5.06842
O ₂ _12	-9.506573352	-3.22482	6.281750797	3.140875	-6.3657	3.225383
O ₂ _13	-9.506573352	-3.5851	5.921471912	2.960736	-6.54584	3.618018
O ₂ _14	-9.506029124	-3.37149	6.134537144	3.067269	-6.43876	3.379035
O ₂ _15	-9.506845466	-4.60934	4.897507076	2.448754	-7.05809	5.08592
O ₂ _16	-9.506573352	-3.69885	5.807728276	2.903864	-6.60271	3.753255
O ₂ _17	-9.506301238	-3.6281	5.878205792	2.939103	-6.5672	3.668474
O ₂ _18	-9.506301238	-4.60553	4.900772443	2.450386	-7.05592	5.079397
O ₂ _19	-9.506845466	-4.60607	4.900772443	2.450386	-7.05646	5.08018
O ₂ _20	-9.506301238	-4.45206	5.054244717	2.527122	-6.97918	4.818617
SO ₂ _01	-9.849709057	-2.49801	7.351702893	3.675851	-6.17386	2.59236
SO ₂ _02	-9.850253285	-2.58263	7.267619679	3.63381	-6.21644	2.658654
SO ₂ _03	-9.850525399	-2.33419	7.516331839	3.758166	-6.09236	2.46908
SO ₂ _04	-9.850253285	-2.5478	7.302450266	3.651225	-6.19903	2.631168
SO ₂ _05	-9.850525399	-2.88386	6.966661637	3.483331	-6.36719	2.909655
SO ₂ _06	-9.850253285	-2.86237	6.987886526	3.493943	-6.35631	2.890908
SO ₂ _07	-9.849981171	-1.84874	8.001238918	4.000619	-5.84936	2.138108
SO ₂ _08	-9.851069627	-2.92033	6.930742595	3.465371	-6.3857	2.941759
SO ₂ _09	-9.850253285	-2.63053	7.219727621	3.609864	-6.24039	2.696948
SO ₂ _10	-9.217044097	-2.68903	6.528013932	3.264007	-5.95304	2.714352
SO ₂ _11	-9.849981171	-1.83296	8.017021528	4.008511	-5.84147	2.128145
SO ₂ _12	-9.850525399	-2.76305	7.087480236	3.54374	-6.30679	2.806042
SO ₂ _13	-9.216771983	-2.87488	6.341887982	3.170944	-6.04583	2.881795
SO ₂ _14	-9.216771983	-3.01421	6.202565634	3.101283	-6.11549	3.014818
SO ₂ _15	-9.217044097	-2.60223	6.614818285	3.307409	-5.90963	2.639814
SO ₂ _16	-9.850253285	-2.85584	6.994417261	3.497209	-6.35304	2.885242
SO ₂ _17	-9.850525399	-2.59814	7.252381297	3.626191	-6.22433	2.671008
SO ₂ _18	-9.849709057	-2.65202	7.19768639	3.598843	-6.25087	2.714297
SO ₂ _19	-9.850253285	-2.63134	7.21891128	3.609456	-6.2408	2.697606
SO ₂ _20	-9.850253285	-2.9625	6.887748589	3.443874	-6.40638	2.979326

Table S3

The XYZ values of all gas/cluster configurations obtained at ω B97XD/Def2-SVP level of theory

CO2_000001

13	-3.05320400	0.76386100	-0.00093400
13	1.00940800	2.08888500	-0.00379900
13	-1.02906500	1.44152500	2.14131100
13	-2.07953900	-2.10413300	0.00383100
13	-1.02983300	1.43422800	-2.14597800
13	-0.04899700	-1.41629500	-2.12561000
13	2.09349700	-0.78628300	0.00082300
13	-0.04840000	-1.40896100	2.13032500
8	-1.26202400	-2.41015700	1.46762100

8	0.19037300	2.41744000	1.45652600
8	-3.31041900	-0.92169100	0.00185200
8	-0.55074400	0.01130700	2.93552200
8	1.51468400	-1.46887000	-1.46303500
8	2.26758600	0.94223200	-0.00209400
8	-2.59226200	1.51149600	1.46149500
8	0.18983400	2.41241900	-1.46493400
8	-1.26228700	-2.41533700	-1.45902700
8	-2.59283300	1.50668600	-1.46598600
8	1.51498500	-1.46375400	1.46719400
8	-0.55178200	0.00122600	-2.93533900
6	4.80143200	-0.02502200	0.00002200
8	5.51346100	0.86898900	-0.00110100
8	4.13281800	-0.99406100	0.00134100

CO2_000002

13	-0.04900700	1.39279700	2.14086600
13	-0.04872700	1.43225400	-2.11485000
13	2.09340600	0.78640500	0.00755700
13	-1.02938400	-1.45751200	2.13061500
13	-2.07996200	2.10381700	0.01877800
13	-3.05310900	-0.76406600	-0.00733900
13	-1.02905500	-1.41815600	-2.15663700
13	1.00973700	-2.08871100	-0.01867400
8	0.19013100	-2.42835300	1.43878600
8	1.51475700	1.47977600	-1.45130500
8	-0.55120000	-0.03335500	2.93569600
8	2.26783400	-0.94197800	-0.00803400
8	-2.59219100	-1.49607500	-1.47762900

8	-0.55120700	0.02077400	-2.93520200
8	1.51454800	1.45284700	1.47874500
8	-1.26220700	2.42647100	-1.44135400
8	-2.59241000	-1.52209500	1.44985000
8	-1.26274400	2.39837300	1.48509400
8	0.19069800	-2.40099800	-1.48253000
8	-3.31079000	0.92133400	0.00737500
6	4.80138000	0.02534200	-0.00026500
8	4.13280000	0.99435300	0.00894700
8	5.51336100	-0.86867700	-0.00875400

CO2_000003

13	-0.04887800	1.41811700	2.12438400
13	-0.04873400	1.40741200	-2.13141600
13	2.09338900	0.78649700	-0.00182600
13	-1.02939900	-1.43272500	2.14700500
13	-2.07968700	2.10410900	-0.00513000
13	-3.05307600	-0.76406500	0.00185500
13	-1.02914800	-1.44325600	-2.14013000
13	1.00952100	-2.08887200	0.00516400
8	0.19031900	-2.41142800	1.46673900
8	1.51474000	1.46296500	-1.46859100
8	-0.55148000	0.00105700	2.93505300
8	2.26747600	-0.94198200	0.00238300
8	-2.59228800	-1.51271000	-1.46013000
8	-0.55091300	-0.01357200	-2.93545300
8	1.51474100	1.47021000	1.46158700
8	-1.26245900	2.40890500	-1.46934600
8	-2.59248600	-1.50596900	1.46729600

8	-1.26224400	2.41676300	1.45732000
8	0.19032100	-2.41873200	-1.45478200
8	-3.31042800	0.92148000	-0.00193200
6	4.80131200	0.02503300	0.00007800
8	4.13279600	0.99411400	-0.00236800
8	5.51319200	-0.86910300	0.00231800

CO2_000004

13	-1.02941800	1.43873400	-2.14308200
13	-2.07928100	-2.10433800	-0.00110400
13	-0.04829500	-1.41165600	-2.12855400
13	1.00910400	2.08906900	0.00105200
13	-3.05335700	0.76354800	0.00008100
13	-1.02997100	1.43690400	2.14421000
13	-0.04877400	-1.41347800	2.12739100
13	2.09351900	-0.78594900	-0.00005700
8	2.26739000	0.94254900	0.00058000
8	-1.26172800	-2.41219200	-1.46449700
8	0.18993500	2.41567500	-1.45963000
8	1.51514300	-1.46547900	-1.46550800
8	-0.55167400	0.00498700	2.93537800
8	-1.26201100	-2.41349300	1.46217900
8	-0.55091800	0.00754500	-2.93546200
8	-3.31030200	-0.92205400	-0.00067100
8	0.18955200	2.41435400	1.46181300
8	-2.59259500	1.50942100	-1.46329400
8	1.51483000	-1.46669800	1.46471100
8	-2.59303200	1.50825800	1.46421100
6	4.80187000	-0.02501800	0.00011800

8	5.51409100	0.86884400	0.00015600
8	4.13293800	-0.99381000	0.00004600

CO2_000005

13	-1.03010000	1.43417600	-2.14599200
13	-1.02942900	1.44140100	2.14134900
13	-3.05340400	0.76345900	-0.00094700
13	-0.04880800	-1.41615500	-2.12563300
13	1.00897400	2.08912400	-0.00371100
13	2.09353900	-0.78588800	0.00099200
13	-0.04816000	-1.40892500	2.13031400
13	-2.07925800	-2.10436200	0.00374100
8	-1.26189300	-2.41547000	-1.45907700
8	-2.59267200	1.51100900	1.46159200
8	-0.55189500	0.00124800	-2.93538700
8	-3.31034600	-0.92214200	0.00167500
8	1.51523000	-1.46368500	1.46726500
8	-0.55068000	0.01129000	2.93549800
8	-2.59308100	1.50645000	-1.46593400
8	0.18971200	2.41762300	1.45649400
8	1.51484800	-1.46842000	-1.46296400
8	0.18951300	2.41246200	-1.46495500
8	-1.26171100	-2.41017600	1.46756700
8	2.26727900	0.94262100	-0.00178200
6	4.80207200	-0.02498700	-0.00008600
8	5.51452400	0.86870100	-0.00119600
8	4.13291700	-0.99361900	0.00108500

CO2_000006

13	1.00970700	2.08874200	0.00533800
13	-0.04852000	-1.40725800	-2.13152900
13	2.09342000	-0.78654400	-0.00190400
13	-1.02947000	1.43247500	2.14720500
13	-1.02899500	1.44335800	-2.14012600
13	-3.05306100	0.76416400	0.00172700
13	-2.07977500	-2.10395500	-0.00537900
13	-0.04909800	-1.41810800	2.12438000
8	-0.55185700	-0.00131400	2.93537300
8	1.51491400	-1.46309100	-1.46865300
8	0.19052000	2.41085500	1.46700300
8	1.51450300	-1.46999600	1.46153800
8	-3.31050700	-0.92134900	-0.00208400
8	-1.26240900	-2.40859800	-1.46954600
8	2.26769200	0.94189800	0.00211900
8	-0.55058400	0.01381200	-2.93548900
8	-2.59242500	1.50594000	1.46723100
8	0.19033500	2.41880000	-1.45446000
8	-1.26236700	-2.41671600	1.45707900
8	-2.59222100	1.51268700	-1.46029700
6	4.80106400	-0.02506800	0.00029300
8	5.51285900	0.86915700	0.00242600
8	4.13265900	-0.99420500	-0.00199300

CO2_000007

13	1.02953700	1.44062900	2.14178900
13	-2.09355600	-0.78592700	0.00093800
13	-1.00927800	2.08902300	-0.00271500

13	3.05334600	0.76357600	-0.00085700
13	0.04848200	-1.40981000	2.12970700
13	2.07939900	-2.10432000	0.00272000
13	0.04875700	-1.41531500	-2.12612700
13	1.02974300	1.43514900	-2.14537200
8	2.59279200	1.50722100	-1.46543400
8	-2.26771100	0.94258600	-0.00109700
8	2.59275600	1.51063700	1.46199400
8	-0.18999800	2.41304300	-1.46392400
8	1.26198400	-2.41488100	-1.46019000
8	-1.51483600	-1.46779100	-1.46331600
8	-0.18981500	2.41697500	1.45749900
8	-1.51499800	-1.46432800	1.46684700
8	3.31041900	-0.92201600	0.00110000
8	0.55102800	0.01012000	2.93539400
8	0.55171500	0.00244200	-2.93535100
8	1.26199900	-2.41080500	1.46648200
6	-4.80181900	-0.02523800	-0.00008400
8	-5.51409300	0.86858800	-0.00109600
8	-4.13282700	-0.99399500	0.00101600

CO2_000008

13	0.04868600	1.41211100	-2.12830300
13	3.05321400	-0.76384500	0.00019900
13	2.07957500	2.10412500	-0.00049200
13	-2.09345600	0.78634400	-0.00020800
13	1.02943300	-1.43842200	-2.14329400
13	-1.00939000	-2.08891400	0.00049100
13	1.02942000	-1.43738200	2.14398100

13	0.04867400	1.41315500	2.12761000
8	-1.51484900	1.46675100	1.46474700
8	3.31048800	0.92170900	-0.00017000
8	-1.51483400	1.46606200	-1.46547300
8	1.26216100	2.41309800	1.46274800
8	-0.19012600	-2.41463200	1.46132000
8	2.59252600	-1.50873800	1.46410800
8	1.26220000	2.41233100	-1.46391300
8	2.59254100	-1.50939500	-1.46338100
8	-2.26748000	-0.94216200	0.00019100
8	0.55118100	-0.00701100	-2.93541600
8	0.55120100	-0.00557000	2.93539700
8	-0.19008500	-2.41537300	-1.46015000
6	-4.80147700	0.02502000	0.00001400
8	-5.51348500	-0.86901400	0.00024200
8	-4.13283600	0.99402200	-0.00023500

CO2_000009

13	1.02475200	-1.52983500	-2.08093700
13	2.07896100	2.10233600	-0.09551700
13	0.04382400	1.31840900	-2.18600200
13	-1.00895200	-2.08718400	0.09328200
13	3.05328200	-0.76340000	0.02723100
13	1.03547300	-1.34187900	2.20303200
13	0.05346000	1.50423400	2.06620100
13	-2.09364600	0.78361900	-0.02664100
8	-2.26859000	-0.94323600	0.04474300
8	1.26016200	2.34599000	-1.57019600
8	-0.19151400	-2.47760900	-1.35243700

8	-1.51645400	1.40120000	-1.51953600
8	0.56179400	0.12323100	2.93354500
8	1.26261400	2.47600900	1.35326100
8	0.54256500	-0.13471900	-2.93259100
8	3.30938100	0.92073800	-0.04424000
8	-0.18701700	-2.34554800	1.56573400
8	2.58967400	-1.56939600	-1.40290500
8	-1.51234600	1.52503100	1.40734800
8	2.59629900	-1.44561700	1.52245700
6	-4.80274900	0.02600000	-0.00118800
8	-5.51427100	-0.86782600	0.03099900
8	-4.13436000	0.99451300	-0.03634600

CO2_000010

13	2.09346100	0.78634400	-0.00026500
13	-1.02949200	-1.43843300	-2.14328300
13	1.00937800	-2.08891600	0.00046800
13	-0.04860400	1.41317000	2.12760000
13	-0.04872600	1.41211200	-2.12829800
13	-2.07958600	2.10411600	-0.00047600
13	-3.05321100	-0.76386300	0.00024800
13	-1.02936800	-1.43734100	2.14401800
8	-0.55110300	-0.00554300	2.93542500
8	0.19004500	-2.41537100	-1.46015800
8	1.51490100	1.46676600	1.46469900
8	0.19013800	-2.41460900	1.46131200
8	-3.31048600	0.92168700	-0.00016600
8	-2.59258200	-1.50943200	-1.46333300
8	2.26746500	-0.94216000	0.00012900

8	-0.55126500	-0.00700800	-2.93537900
8	-1.26213800	2.41306500	1.46275200
8	1.51481500	1.46606900	-1.46551800
8	-2.59248900	-1.50869400	1.46417900
8	-1.26221100	2.41236100	-1.46389100
6	4.80146900	0.02499300	-0.00001100
8	4.13284100	0.99400200	-0.00032100
8	5.51345500	-0.86906200	0.00025800

CO2_000011

13	-0.04950300	-1.41807000	2.12422200
13	1.00850500	2.08975800	0.00534600
13	2.09322200	-0.78676600	-0.00246800
13	-2.07945900	-2.10437600	-0.00578200
13	-1.02974700	1.43240400	2.14719100
13	-3.05342900	0.76326800	0.00125400
13	-1.02921000	1.44384400	-2.13956000
13	-0.04718700	-1.40759400	-2.13138300
8	-1.26160600	-2.40857600	-1.46979500
8	2.26542200	0.94192700	-0.00004300
8	-1.26244500	-2.41700900	1.45685400
8	1.51653200	-1.46529000	-1.46908700
8	-2.59294000	1.51181000	-1.46080000
8	0.18844600	2.42124400	-1.45376700
8	1.51408400	-1.46946600	1.46121700
8	0.19043700	2.41114700	1.46782200
8	-3.31070900	-0.92233400	-0.00253700
8	-0.55235800	-0.00143300	2.93549200
8	-0.54876300	0.01442100	-2.93397700

8	-2.59240900	1.50541500	1.46647000
6	4.80250200	-0.02456800	0.00170700
8	4.13323000	-0.99304900	0.00093200
8	5.51476600	0.86935900	0.00185600

CO2_000012

13	1.02932200	-1.44631400	2.13810000
13	2.07957500	2.10408900	0.00826100
13	3.05321600	-0.76388800	-0.00288700
13	-1.00935100	-2.08887400	-0.00824800
13	0.04852300	1.40412300	2.13348800
13	-2.09347300	0.78636600	0.00294400
13	0.04878300	1.42114000	-2.12239000
13	1.02956200	-1.42939400	-2.14921700
8	-0.19012400	-2.40909800	-1.47031000
8	3.31045500	0.92165800	0.00342600
8	-0.19002800	-2.42079100	1.45114200
8	2.59259100	-1.50347500	-1.46948300
8	-1.51480700	1.47221200	-1.45946100
8	1.26212500	2.41877200	-1.45376600
8	2.59248900	-1.51463900	1.45803700
8	1.26219000	2.40661700	1.47284400
8	-2.26743300	-0.94212300	-0.00380800
8	0.55086500	-0.01793100	2.93551000
8	0.55150700	0.00539900	-2.93528000
8	-1.51491500	1.46064200	1.47073900
6	-4.80148600	0.02491900	-0.00000100
8	-4.13288200	0.99395700	0.00365100
8	-5.51342300	-0.86916700	-0.00332200

CO2_000013

13	2.09346300	-0.78618100	0.00021600
13	-1.02936300	1.43904100	2.14289900
13	1.00926400	2.08900700	-0.00122400
13	-0.04878400	-1.41372600	-2.12722700
13	-0.04848000	-1.41140500	2.12872000
13	-2.07947800	-2.10421300	0.00125600
13	-3.05329300	0.76364500	-0.00025300
13	-1.02968200	1.43674600	-2.14437000
8	-0.55140600	0.00473700	-2.93541500
8	0.19007400	2.41584200	1.45939700
8	1.51478500	-1.46709300	-1.46446900
8	0.18982800	2.41428500	-1.46206200
8	-3.31051400	-0.92191600	0.00069700
8	-2.59250700	1.50968400	1.46304400
8	2.26741600	0.94232200	-0.00074900
8	-0.55099600	0.00791400	2.93546800
8	-1.26218200	-2.41351700	-1.46197300
8	1.51499500	-1.46542400	1.46576700
8	-2.59276300	1.50811900	-1.46442400
8	-1.26195900	-2.41191600	1.46470200
6	4.80172200	-0.02512100	-0.00001600
8	5.51389500	0.86878500	-0.00023500
8	4.13286500	-0.99396400	0.00023700

CO2_000014

13	-0.04845800	1.42017000	2.12284600
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13	1.00910100	-2.08901700	0.00722100
13	-1.02961400	-1.43006500	2.14878900
13	-2.07936500	2.10420100	-0.00721500
13	2.09355300	0.78597700	-0.00313200
13	-0.04843600	1.40479500	-2.13310600
13	-1.02984200	-1.44533300	-2.13869300
13	-3.05340800	-0.76355800	0.00291400
8	-3.31041400	0.92200700	-0.00227600
8	0.19016600	-2.40931500	1.46941200
8	-1.26149600	2.41845100	1.45465200
8	-2.59264600	-1.50395800	1.46904400
8	-0.55088400	-0.01690100	-2.93565600
8	0.18920300	-2.42034200	-1.45197400
8	-0.55157200	0.00438000	2.93540800
8	2.26744200	-0.94253900	0.00253300
8	-1.26218800	2.40681000	-1.47190700
8	1.51502200	1.47100200	1.45970700
8	-2.59300300	-1.51341000	-1.45858200
8	1.51508600	1.46119500	-1.47051700
6	4.80180900	0.02492300	0.00036700
8	5.51397000	-0.86899400	0.00368800
8	4.13297100	0.99377100	-0.00319900

CO2_000015

13	0.04867800	-1.41555600	2.12603400
13	3.05320400	0.76391700	0.00101900
13	2.07959000	-2.10413200	-0.00281800
13	-2.09345800	-0.78632800	-0.00098600
13	1.02947900	1.43497800	2.14555100

13	-1.00933100	2.08893100	0.00276200
13	1.02942800	1.44074700	-2.14176600
13	0.04864400	-1.40979100	-2.12979100
8	-1.51485900	-1.46445100	-1.46700400
8	3.31042900	-0.92163500	-0.00119700
8	-1.51487000	-1.46841100	1.46319000
8	1.26217300	-2.41076300	-1.46655700
8	-0.19008300	2.41696700	-1.45754800
8	2.59252700	1.51102700	-1.46177200
8	1.26215600	-2.41478400	1.46005900
8	2.59258200	1.50717800	1.46577600
8	-2.26741100	0.94216600	0.00129400
8	0.55127700	0.00227900	2.93534000
8	0.55114700	0.01019000	-2.93538100
8	-0.19003700	2.41299700	1.46393600
6	-4.80155500	-0.02492000	-0.00003500
8	-5.51360400	0.86908400	0.00117400
8	-4.13289200	-0.99389800	-0.00129300

CO2_000016

13	1.00935800	2.08893200	-0.00061100
13	-0.04863900	-1.41324700	-2.12755800
13	2.09345400	-0.78628500	0.00021500
13	-1.02947400	1.43854100	2.14320700
13	-1.02946000	1.43725100	-2.14406300
13	-3.05323800	0.76378800	-0.00023100
13	-2.07951900	-2.10416000	0.00062300
13	-0.04868600	-1.41198100	2.12838000
8	-0.55123800	0.00716700	2.93541300

8	1.51488300	-1.46680600	-1.46469900
8	0.19007300	2.41543300	1.46003300
8	1.51483200	-1.46589400	1.46553500
8	-3.31045700	-0.92177600	0.00028900
8	-1.26212500	-2.41314100	-1.46262400
8	2.26748400	0.94222100	-0.00029300
8	-0.55117800	0.00542800	-2.93542400
8	-2.59257600	1.50948400	1.46327600
8	0.19004300	2.41456900	-1.46143100
8	-1.26214300	-2.41231200	1.46405200
8	-2.59257800	1.50857500	-1.46420400
6	4.80153400	-0.02503700	0.00003800
8	4.13282900	-0.99399300	0.00030800
8	5.51358500	0.86896100	-0.00019900

CO2_000017

13	-1.02955800	1.40873200	2.16255100
13	-1.02862500	1.46698100	-2.12433000
13	1.00971900	2.08862300	0.02814900
13	-0.04934900	-1.44177500	2.10851800
13	-3.05302800	0.76412200	0.01011300
13	-2.07999700	-2.10371400	-0.02830600
13	-0.04844200	-1.38336900	-2.14687700
13	2.09332400	-0.78657600	-0.01037700
8	1.51446400	-1.48602100	1.44554300
8	0.19023100	2.43530900	-1.42774500
8	-0.55255300	-0.03394800	2.93469000
8	2.26761900	0.94170300	0.01222300
8	-1.26293900	-2.39122700	-1.49609400

8	-0.54965900	0.04654300	-2.93556200
8	0.19085500	2.39425200	1.49352600
8	-2.59192900	1.52799300	-1.44390300
8	-1.26221000	-2.43350100	1.43021100
8	-2.59240200	1.49043300	1.48331000
8	1.51481000	-1.44707400	-1.48436700
8	-3.31078200	-0.92123500	-0.01118000
6	4.80115500	-0.02522300	0.00047300
8	4.13271900	-0.99428200	-0.01263900
8	5.51308600	0.86880800	0.01254000

CO2_000018

13	-3.05320900	0.76382900	-0.00280600
13	-0.04864100	-1.42005200	-2.12301100
13	-1.02946000	1.43046200	-2.14850000
13	-1.02950500	1.44524500	2.13878400
13	-2.07951500	-2.10416000	0.00703400
13	-0.04869200	-1.40518800	2.13288400
13	2.09348400	-0.78624900	0.00290300
13	1.00934200	2.08893000	-0.00699700
8	0.18973600	2.42028200	1.45237500
8	-0.55162900	-0.00404300	-2.93524900
8	-2.59265400	1.51361100	1.45866800
8	0.19037800	2.40959400	-1.46909500
8	1.51476900	-1.46144600	1.47018000
8	1.51494300	-1.47110700	-1.46002900
8	-2.59250600	1.50450800	-1.46882700
8	-1.26175700	-2.41832500	-1.45492000
8	-0.55091200	0.01654400	2.93557600

8	-3.31040700	-0.92172600	0.00227100
8	2.26748800	0.94226100	-0.00273400
8	-1.26246700	-2.40719900	1.47171000
6	4.80152200	-0.02500900	-0.00024100
8	5.51360700	0.86895800	-0.00364400
8	4.13284100	-0.99398500	0.00342500

CO2_000019

13	3.05311400	0.76415300	0.00352800
13	0.04792000	-1.40103700	-2.13548900
13	2.07993800	-2.10381200	-0.01173400
13	1.02981700	1.42616000	2.15125100
13	1.02858600	1.44965400	-2.13604000
13	-1.00941400	2.08877400	0.01164600
13	-2.09333700	-0.78689600	-0.00381400
13	0.04938100	-1.42448300	2.12022900
8	0.55224000	-0.00996800	2.93514300
8	1.26230900	-2.40385200	-1.47668900
8	2.59261400	1.50171300	1.47118700
8	1.26262400	-2.42103700	1.44981600
8	-2.26707400	0.94158700	0.00512300
8	-1.51539800	-1.45945600	-1.47264700
8	3.31075700	-0.92130500	-0.00497400
8	0.54948900	0.02254200	-2.93530200
8	-0.19026300	2.40665800	1.47425100
8	2.59198200	1.51661700	-1.45637600
8	-1.51439400	-1.47464300	1.45760200
8	-0.19027100	2.42346800	-1.44721800
6	-4.80125000	-0.02459500	0.00043600

8	-5.51306500	0.86960000	0.00490300
8	-4.13286900	-0.99381100	-0.00445800

CO2_000020

13	-3.05016700	0.76906200	-0.01225900
13	-0.05629900	-1.47691000	-2.08711200
13	-1.03417200	1.38084900	-2.17854700
13	-1.01185100	1.49927300	2.10526000
13	-2.08629700	-2.09883100	0.06514200
13	-0.04454000	-1.35201600	2.16469100
13	2.09073000	-0.79875600	0.00533100
13	1.01282900	2.08756900	-0.06659100
8	0.21031400	2.45315900	1.39397600
8	-0.55341100	-0.07398000	-2.92523300
8	-2.57568100	1.55481100	1.42583300
8	0.18210400	2.38337000	-1.52761500
8	1.51491800	-1.42662800	1.49446200
8	1.51195500	-1.53015100	-1.43483600
8	-2.59701900	1.46956600	-1.50003500
8	-1.27429100	-2.45050300	-1.39143700
8	-0.53775400	0.08933200	2.93731000
8	-3.31518100	-0.91444500	0.03776000
8	2.25961300	0.92927500	-0.05898400
8	-1.26391300	-2.36637900	1.53382800
6	4.79509500	-0.02163900	0.00651000
8	5.50150100	0.87663100	-0.01662000
8	4.13264300	-0.99446600	0.03334300

CO_000001

13	1.22969500	2.43174100	-0.43220700
13	1.23108600	-0.84080200	2.32168500
13	-0.52434400	1.57976900	1.87595800
13	-0.52506800	0.83524100	-2.30589300
13	2.97963100	0.00009400	0.00018100
13	1.23215200	-1.58938300	-1.88921400
13	-0.52369400	-2.41478400	0.42948300
13	-2.35579900	-0.00121000	-0.00070100
8	-2.04367000	0.57272200	-1.58683300
8	0.35597400	0.51297900	2.87659300
8	0.35393200	2.23596100	-1.88173600
8	-2.04184100	1.08589300	1.28830600
8	0.35733200	-2.74719200	-0.99447000
8	0.35632600	-2.23633700	1.88150500
8	0.35570500	2.74905700	0.99685200
8	2.74897800	-0.57563000	1.58890600
8	0.35744300	-0.50991800	-2.87694500
8	2.74710200	1.66352400	-0.29594100
8	-2.04236700	-1.66125400	0.29506900
8	2.75023900	-1.08827500	-1.29282500
6	-5.62704600	-0.00156000	0.00207600
8	-4.49331400	-0.00143900	0.00111400

CO_000002

13	0.52218500	2.42881000	-0.34524900
13	0.52582000	-0.91420100	2.27551500
13	-1.23178600	1.52297800	1.94328900
13	-1.23273700	0.92011300	-2.29093600

13	2.35609300	0.00271200	-0.00033500
13	0.52526800	-1.51235300	-1.92986600
13	-1.22856700	-2.44546400	0.34847800
13	-2.97982300	-0.00251800	0.00007900
8	-2.75038400	0.62798100	-1.56794400
8	-0.35568000	0.41093800	2.89308900
8	-0.35866800	2.29964800	-1.80187100
8	-2.74893000	1.04041600	1.32966700
8	-0.35325600	-2.71124900	-1.09012800
8	-0.35370400	-2.29938900	1.80436200
8	-0.35823200	2.71239800	1.08966000
8	2.04357300	-0.62712800	1.56423100
8	-0.35686800	-0.41294300	-2.89294600
8	2.04132700	1.67211900	-0.23728000
8	-2.74705000	-1.67523700	0.23826800
8	2.04301100	-1.03715900	-1.32782500
6	5.62664900	-0.00361800	-0.00200800
8	4.49313900	0.00219400	-0.00135900

CO_000003

13	0.52465400	0.22719600	-2.44232200
13	0.52559100	2.00052200	1.41743900
13	-1.22902400	2.24453800	-1.03061100
13	-1.23283600	-2.01382300	-1.42781100
13	2.35613500	-0.00258400	-0.00083100
13	0.52297600	-2.22892800	1.02336000
13	-1.23119700	-0.22843100	2.45874700
13	-2.97995600	0.00149600	0.00065200
8	-2.75012600	-1.37770900	-0.97589800

8	-0.35422400	2.91076200	0.27215500
8	-0.35828700	-1.21807600	-2.65594900
8	-2.74674100	1.53646500	-0.70532100
8	-0.35752700	-1.69045500	2.38308600
8	-0.35509400	1.22070300	2.65458500
8	-0.35350700	1.68999300	-2.38419900
8	2.04280900	1.37380100	0.97375000
8	-0.35754600	-2.90947800	-0.27113900
8	2.04273200	0.15310100	-1.67996000
8	-2.74918500	-0.15475200	1.68333900
8	2.04179500	-1.53425200	0.70395600
6	5.62680400	0.00115500	0.00357500
8	4.49324000	-0.00094600	0.00115200

CO_000004

13	1.23188400	1.45301500	-1.99625200
13	1.23144300	-2.45585400	-0.25932300
13	2.97970600	-0.00043500	0.00098300
13	-0.52437800	2.43938800	0.25679300
13	-0.52384800	-0.99672100	-2.24104600
13	-2.35612600	-0.00000100	-0.00163400
13	-0.52514300	-1.44214600	1.98313000
13	1.23002800	1.00308200	2.25689500
8	0.35534400	2.36327400	1.71783000
8	2.74932700	-1.68085100	-0.17703500
8	0.35711000	2.67185500	-1.18660300
8	2.74784200	0.68571300	1.54504100
8	-2.04291300	-0.99116200	1.36270500
8	0.35583700	-2.66901500	1.18771400

8	2.74922600	0.99389700	-1.36529300
8	0.35670000	-2.36311700	-1.71974200
8	-2.04238700	1.67718000	0.17467700
8	0.35675200	0.30635600	-2.90491200
8	0.35472000	-0.30761900	2.90684900
8	-2.04267200	-0.68619400	-1.54202000
6	-5.62671200	-0.00068600	0.00223000
8	-4.49314600	-0.00033700	-0.00014600

CO_000005

13	-0.52388800	-0.35782200	2.42602500
13	-0.52510000	-1.92242600	-1.52263300
13	-2.35632200	-0.00028100	-0.00012400
13	1.23123300	1.93542500	1.53341000
13	1.23116000	-2.29605100	0.90878300
13	2.97981500	0.00002000	-0.00012600
13	1.23071900	0.36056500	-2.44275400
13	-0.52435200	2.28014500	-0.90317800
8	0.35645800	2.89111200	0.42540600
8	-2.04357600	-1.32195400	-1.04776600
8	0.35563900	1.07607400	2.71720400
8	-2.04238200	1.56747900	-0.62124800
8	2.74853800	0.24764500	-1.67162600
8	0.35622400	-1.07716200	-2.71560800
8	-2.04201600	-0.24698500	1.66790300
8	0.35513600	-2.89158300	-0.42702700
8	2.74893200	1.32385400	1.05011300
8	0.35728500	-1.81366500	2.29077500
8	0.35566600	1.81572200	-2.29039500

8	2.74891000	-1.57144000	0.62113800
6	-5.62641300	0.00120200	0.00150400
8	-4.49280900	0.00069200	0.00097500

CO_000006

13	0.52457300	-0.90522300	-2.27965700
13	0.52412500	-1.52146200	1.92311100
13	2.35608400	-0.00053700	-0.00064000
13	-1.23066600	1.53192800	-1.93661800
13	-1.23143500	-2.44313400	-0.35828500
13	-2.97987900	0.00024400	0.00027600
13	-1.23090800	0.91149100	2.29515900
13	0.52451200	2.42654600	0.35564900
8	-0.35608000	2.71672700	-1.07776900
8	2.04217800	-1.04652000	1.32188900
8	-0.35547700	0.42353900	-2.89148000
8	2.04236200	1.66792300	0.24402200
8	-2.74870500	0.62409100	1.57078300
8	-0.35617600	-0.42496100	2.89110400
8	2.04295100	-0.62309300	-1.56794900
8	-0.35639500	-2.71585600	1.07914500
8	-2.74826200	1.04829500	-1.32518300
8	-0.35643000	-2.29110200	-1.81345800
8	-0.35578800	2.29248000	1.81215200
8	-2.74906800	-1.67173300	-0.24475400
6	5.62674000	0.00041200	0.00249300
8	4.49317500	0.00014300	0.00126100

CO_000007

13	-2.35625000	-0.00024400	-0.00104300
13	1.23000000	-1.73678000	1.75584200
13	-0.52444700	-2.37268000	-0.62203900
13	-0.52353400	1.72460800	-1.74361500
13	-0.52530900	0.64771000	2.36494700
13	1.23113100	2.38885400	0.62641900
13	2.97973000	0.00005100	0.00094900
13	1.23218500	-0.65230200	-2.38116400
8	0.35697300	0.74135000	-2.82633900
8	0.35466400	-2.81918200	0.77159200
8	-2.04188600	1.18608300	-1.19919000
8	0.35746300	-2.07841900	-2.05376200
8	2.74901100	1.63453200	0.42998400
8	2.74776200	-1.18873100	1.20168000
8	-2.04276000	-1.63133100	-0.42951000
8	0.35519600	-0.73993700	2.82699900
8	0.35710400	2.81843000	-0.77282600
8	-2.04324600	0.44472300	1.62570000
8	2.74971100	-0.44562700	-1.62913300
8	0.35515200	2.07705900	2.05530600
6	-5.62680900	0.00118300	-0.00013100
8	-4.49323200	0.00143600	-0.00088400

CO_000008

13	-2.99602400	0.00137400	-0.00141900
13	0.50737500	2.26219200	0.94229300
13	-1.24784200	0.31827700	2.44720700
13	-1.24748900	-2.27912300	-0.94877500

13	-1.24598700	1.96216100	-1.49969000
13	0.50761800	-0.31618400	-2.42949000
13	2.36243400	-0.00205800	0.00211900
13	0.50702000	-1.94840900	1.48899000
8	-0.37401900	-2.89921700	0.37744800
8	-0.37422700	1.77674200	2.32169800
8	-2.76529500	-1.55873000	-0.65054600
8	-0.37453500	-1.12435200	2.69721700
8	2.02639100	-0.21904400	-1.67182100
8	2.02654000	1.55563700	0.65250100
8	-2.76570100	0.21880100	1.67430200
8	-0.37190100	2.89913000	-0.37542800
8	-0.37390100	-1.77461500	-2.32298000
8	-2.76470200	1.34395000	-1.02764000
8	2.02736200	-1.34347600	1.02698500
8	-0.37181100	1.12237800	-2.69825900
6	4.55558700	0.00204100	-0.00195000
8	5.67506300	0.00414000	-0.00402100

CO_000009

13	2.99597400	0.00050900	0.00367800
13	-0.51022800	0.60913100	2.37254400
13	1.24585200	2.37798600	0.66539700
13	1.25027000	-0.61316600	-2.39024000
13	1.24586400	-1.76438200	1.72785200
13	-0.50617200	-2.36066400	-0.66062900
13	-2.36283300	-0.00047800	-0.00403900
13	-0.50611800	1.75143900	-1.71583000
8	0.37690700	0.78791800	-2.81469600

8	0.37045300	2.04432800	2.08972500
8	2.76731200	-0.41949100	-1.63342200
8	0.37323400	2.83073100	-0.72718400
8	-2.02598900	-1.62610200	-0.45753600
8	-2.02839700	0.41934300	1.63102200
8	2.76441700	1.62797300	0.45806900
8	0.37016700	-0.78541300	2.81451400
8	0.37648300	-2.04526800	-2.08788900
8	2.76480400	-1.20725800	1.18552700
8	-2.02630400	1.20590100	-1.18467100
8	0.37334300	-2.83169200	0.72494900
6	-4.55570200	-0.00106300	-0.00041200
8	-5.67514400	-0.00078400	0.00396100

CO_000010

13	0.50696100	-2.36693200	-0.63887200
13	0.50976000	1.73663900	-1.72803700
13	-1.24526100	-0.63311800	-2.38668500
13	-1.24958400	-1.74939300	1.74055000
13	2.36243300	-0.00182600	0.00292600
13	0.50567300	0.62840600	2.36966400
13	-1.24663100	2.38384500	0.64357300
13	-2.99606500	0.00166200	-0.00250700
8	-2.76682600	-1.19608200	1.18980900
8	-0.37053300	0.76406900	-2.82104000
8	-0.37560900	-2.82593900	0.74894700
8	-2.76412900	-0.43215800	-1.63557600
8	-0.37401000	2.06120100	2.07208500
8	-0.37125000	2.82513300	-0.75112200

8	-0.37254900	-2.06291800	-2.07051600
8	2.02804400	1.19439700	-1.18822600
8	-0.37631300	-0.76202300	2.82154500
8	2.02640200	-1.63110400	-0.43796400
8	-2.76505500	1.63288500	0.43879400
8	2.02578700	0.43169700	1.63400600
6	4.55558500	-0.00010000	0.00064900
8	5.67501400	0.00208400	-0.00222300

CO_000011

13	-2.35622600	-0.00138100	-0.00096800
13	1.23167900	-2.25263400	1.01149700
13	-0.52293200	-1.98876600	-1.43524100
13	-0.52480600	2.23736800	-1.00432200
13	-0.52556000	-0.24932000	2.43966500
13	1.22892700	2.00265700	1.44555800
13	2.97971700	0.00107400	0.00095100
13	1.23228900	0.25109200	-2.45618100
8	0.35623400	1.71090200	-2.36848600
8	0.35654600	-2.90772400	-0.29668300
8	-2.04254100	1.53734900	-0.69094800
8	0.35873400	-1.19796100	-2.66469900
8	2.74681900	1.37040900	0.99060400
8	2.74914600	-1.54100400	0.69199600
8	-2.04170700	-1.36803200	-0.98853000
8	0.35671800	-1.70908300	2.36990600
8	0.35502300	2.90840500	0.29566600
8	-2.04340400	-0.17353700	1.67677400
8	2.74987300	0.17344000	-1.68027800

8	0.35287300	1.19689400	2.66603500
6	-5.62594200	0.00049800	-0.00164200
8	-4.49237700	-0.00057900	-0.00168100

CO_000012

13	0.50414300	0.99241000	2.24255800
13	0.50736900	-2.43768900	-0.25988900
13	-1.25099500	-1.45571000	1.99219900
13	-1.24692400	2.45555100	0.26171100
13	2.36232300	-0.00038400	0.00629400
13	0.51110100	1.44510400	-1.97767100
13	-1.24374100	-0.99938000	-2.25866700
13	-2.99587100	0.00063100	-0.00460900
8	-2.76490200	1.68072000	0.17659900
8	-0.37581900	-2.67384200	1.18221800
8	-0.37388000	2.36119300	1.72290000
8	-2.76791300	-0.99605600	1.36040700
8	-0.36861300	0.31270200	-2.90483800
8	-0.37225100	-2.36221100	-1.72158800
8	-0.37843300	-0.31025500	2.90473300
8	2.02655700	-1.67877100	-0.17528400
8	-0.37101000	2.67293600	-1.18466000
8	2.02490800	0.68230700	1.54935900
8	-2.76322500	-0.68296400	-1.54995700
8	2.02889700	0.99531200	-1.35739900
6	4.55527900	-0.00083200	0.00056100
8	5.67469000	-0.00131400	-0.00604100

CO_000013

13	-2.99602000	0.00377200	0.01085800
13	0.49927400	-1.79392500	-1.67568200
13	-1.25668400	0.55727400	-2.40112800
13	-1.23712500	1.80686900	1.68804000
13	-1.24770900	-2.35999900	0.72493900
13	0.51551600	-0.55319200	2.38398200
13	2.36237300	-0.00484900	-0.01361300
13	0.50773700	2.34307300	-0.71982400
8	-0.36411000	2.84815000	0.65864100
8	-0.38441500	-0.85371200	-2.79388800
8	-2.75793500	1.23995500	1.16168200
8	-0.38189800	1.99593200	-2.13521400
8	2.03091600	-0.38272200	1.63244600
8	2.02252300	-1.24013900	-1.16239800
8	-2.77220700	0.38269700	-1.63692900
8	-0.38009700	-2.84696700	-0.65924300
8	-0.36184500	0.85232100	2.79640300
8	-2.76560400	-1.61253000	0.50446200
8	2.02645800	1.60900900	-0.50793400
8	-0.36782800	-1.99351700	2.13829400
6	4.55555000	-0.00053600	-0.00279300
8	5.67492100	0.00351500	0.00971800

CO_000014

13	-0.50840000	-0.15166700	2.44551000
13	2.99597300	-0.00719400	0.00088600
13	1.24073900	-2.21432400	1.09739100
13	-2.36259300	0.00833600	-0.00085400

13	1.25290200	2.05375100	1.36654900
13	-0.50159600	2.19808300	-1.08995500
13	1.24818700	0.15283000	-2.46343400
13	-0.51264400	-2.03918400	-1.35659600
8	-2.02983400	-1.39892400	-0.93408400
8	2.76084500	-1.52018500	0.75224300
8	-2.02739600	-0.09739100	1.68381100
8	0.36558400	-2.91783700	-0.18528200
8	0.37852800	1.61865600	-2.43355700
8	2.76599700	0.09950300	-1.68573400
8	0.36743200	-1.61724900	2.43416100
8	2.76955800	1.40120000	0.93582000
8	-2.02333100	1.51899400	-0.75213700
8	0.37738400	1.29776200	2.61877500
8	0.37036700	-1.30031900	-2.61749100
8	0.38111000	2.91674900	0.18282500
6	-4.55557800	0.00295600	0.00039500
8	-5.67498500	-0.00420200	0.00117000

CO_000015

13	0.52657800	-1.67324400	1.79228300
13	-2.98048400	-0.00098800	0.00187000
13	-1.22684300	0.72144800	2.36121300
13	2.35580700	0.00107900	-0.00217100
13	-1.23163200	-2.40658900	-0.55428300
13	0.52147500	-0.71677500	-2.34395000
13	-1.23373300	1.68501500	-1.80359400
13	0.52461600	2.39091000	0.55103800
8	2.04195300	1.64354200	0.37998600

8	-2.74464500	0.48936500	1.61819000
8	2.04427200	-1.15147600	1.22963900
8	-0.35544800	2.13907700	1.99228000
8	-0.36158800	0.65507300	-2.84526600
8	-2.75109300	1.15464100	-1.23139000
8	-0.34953200	-0.65661100	2.84733000
8	-2.74879200	-1.64635600	-0.38195100
8	2.04033400	-0.48980700	-1.61484200
8	-0.35687800	-2.79452200	0.85667200
8	-0.35665000	2.79595300	-0.85396500
8	-0.35564000	-2.13817400	-1.99228600
6	5.62667000	-0.00013700	-0.00487300
8	4.49305600	-0.00199400	-0.00465200

CO_000016

13	0.50632100	-1.18193300	2.14673900
13	0.50280600	-1.27314100	-2.09693100
13	-1.25386500	-2.46609100	0.05403400
13	-1.24087600	1.28252600	2.11226300
13	2.36277100	-0.00764400	-0.00532400
13	0.51324900	2.44854600	-0.05386900
13	-1.24704300	1.19067400	-2.16210100
13	-2.99593300	0.00640400	0.00329800
8	-2.76071100	0.88278800	1.44741500
8	-0.38161300	-2.56071900	-1.40757000
8	-0.37022300	0.06123500	2.92235600
8	-2.77018900	-1.68367900	0.03974800
8	-0.37122900	2.50131500	-1.51348200
8	-0.37554300	-0.06274100	-2.92074900

8	-0.37836800	-2.49921400	1.51641700
8	2.02522600	-0.88339400	-1.44771300
8	-0.36372600	2.56271700	1.40673500
8	2.02512300	-0.81784600	1.47507800
8	-2.76550200	0.81841100	-1.47862700
8	2.03026600	1.68059100	-0.04318000
6	4.55569400	-0.00323300	0.00066500
8	5.67514400	0.00403300	0.00614600

CO_000017

13	1.24742900	-0.35325200	-2.44302700
13	1.24601400	-1.94041000	1.52727300
13	2.99586600	-0.00102700	0.00057300
13	-0.50636300	1.92627900	-1.51634300
13	-0.50859700	-2.27595600	-0.90989200
13	-2.36265700	0.00103500	-0.00074500
13	-0.50754200	0.35049100	2.42536100
13	1.24840400	2.29232500	0.91638100
8	0.37480300	2.89275600	-0.41865200
8	2.76443800	-1.32857200	1.04587700
8	0.37455200	1.08578700	-2.71344600
8	2.76631800	1.56841600	0.62754700
8	-2.02669000	0.24199200	1.66985100
8	0.37231900	-1.08393600	2.71434600
8	2.76549900	-0.24249400	-1.67193400
8	0.37185800	-2.89323700	0.41643500
8	-2.02607200	1.32709200	-1.04485400
8	0.37297000	-1.80910000	-2.29569000
8	0.37407200	1.80705700	2.29701800

8	-2.02755300	-1.56657700	-0.62712700
6	-4.55570000	0.00109700	0.00025000
8	-5.67513700	0.00083200	0.00112100

CO_000018

13	-2.98008600	-0.00262800	0.00038000
13	0.52348700	1.39784700	2.01537600
13	-1.22929400	-1.05516200	2.23309000
13	-1.22991900	-1.40788100	-2.02894700
13	-1.23423700	2.45993700	-0.20344300
13	0.52315100	1.04819900	-2.21763100
13	2.35614200	0.00308000	-0.00070700
13	0.52699100	-2.44347200	0.20168900
8	-0.35360700	-2.64369800	-1.24707500
8	-0.35514600	0.24121300	2.91238000
8	-2.74801900	-0.96533800	-1.38817000
8	-0.35364800	-2.40242700	1.66367100
8	2.04203800	0.72349500	-1.52529600
8	2.04220200	0.96355100	1.38538000
8	-2.74745400	-0.72330200	1.52858300
8	-0.35948900	2.64145600	1.24850800
8	-0.35563600	-0.24037900	-2.91140500
8	-2.75130600	1.68175300	-0.13944900
8	2.04446100	-1.67801800	0.13814000
8	-0.35904200	2.40135700	-1.66535400
6	5.62675500	-0.00261500	0.00017800
8	4.49319800	0.00242900	0.00026800

CO_000019

13	-1.22811600	2.24705800	-1.02661500
13	-1.24741800	-2.01206900	-1.42131700
13	0.51516300	0.22267400	-2.44592400
13	0.53744700	1.99918600	1.41102400
13	-2.98009900	0.00943000	0.01331400
13	-1.21816700	-0.22452500	2.46384900
13	0.52112000	-2.23065400	1.02054000
13	2.35638200	-0.01109900	-0.01884300
8	2.04859600	1.36731100	0.95448900
8	-0.37537700	-1.21906200	-2.65277800
8	-0.34742000	2.91287300	0.27243300
8	2.04071400	0.14182500	-1.69815400
8	-0.34905600	-1.68921400	2.38581300
8	-0.37004400	-2.90944000	-0.26761000
8	-0.35770000	1.68833500	-2.38165500
8	-2.76116800	-1.37144000	-0.96357800
8	-0.33648500	1.22215700	2.65462600
8	-2.74657300	1.54310600	-0.69538200
8	2.03981500	-1.54030600	0.69047800
8	-2.73913400	-0.14658200	1.69456500
6	5.62586500	0.01042700	0.02633600
8	4.49293000	-0.00738200	-0.00654500

CO_000020

13	-2.97995500	0.00078800	-0.00084300
13	0.52504500	0.15142900	-2.44738000
13	-1.23030500	2.21111100	-1.10015500
13	-1.23178000	-0.15261700	2.46423600

13	-1.23099500	-2.05778000	-1.36477300
13	0.52359400	-2.19608900	1.09270200
13	2.35615700	-0.00073700	0.00083100
13	0.52452100	2.04358200	1.35539500
8	-0.35670300	1.30252000	2.61582400
8	-0.35500600	1.61410400	-2.43574900
8	-2.74923200	-0.10387000	1.68582700
8	-0.35533000	2.91665100	0.18158900
8	2.04195700	-1.51043800	0.75199500
8	2.04286600	0.10363700	-1.68226100
8	-2.74832200	1.51370900	-0.75343300
8	-0.35535500	-1.30129500	-2.61672100
8	-0.35738400	-1.61574800	2.43493000
8	-2.74856600	-1.40752700	-0.93460900
8	2.04269000	1.40475600	0.93262200
8	-0.35666000	-2.91694200	-0.18002400
6	5.62694300	0.00158900	-0.00095600
8	4.49338200	-0.00024200	0.00070300

H2_000001

13	-2.62607800	0.07317200	0.05607500
13	1.00938600	1.87820000	1.55662600
13	-0.78504600	-0.38834700	2.44710900
13	-0.90962200	-1.87233000	-1.55114300
13	-0.77888900	2.33271400	-0.83986100
13	0.88491900	0.39073100	-2.45456100
13	2.67173600	-0.07243800	-0.05533400
13	0.87856400	-2.34006800	0.84326500
8	-0.03796100	-2.88323400	-0.48816500

8	0.13864300	1.01586800	2.74219100
8	-2.40013600	-1.23672300	-1.02612600
8	0.04643900	-1.86599100	2.25400500
8	2.41275600	0.21609100	-1.71623300
8	2.49762100	1.23502100	1.02564100
8	-2.31249400	-0.21442700	1.71458300
8	0.14146400	2.88348900	0.48729400
8	-0.03488500	-1.01649700	-2.74015300
8	-2.30838300	1.64722800	-0.53817000
8	2.40823800	-1.64910900	0.53914900
8	0.05643600	1.86733700	-2.25336300
1	-4.70189900	0.28920900	0.22545000
1	-4.64461100	-0.30287100	-0.25897200

H2_000002

13	-0.88921600	2.01663700	1.45040900
13	2.62626600	0.01308900	-0.08593200
13	0.90409000	-0.21749200	2.42319200
13	-2.67181300	-0.01440500	0.08465700
13	0.77901500	2.24081400	-1.06148800
13	-1.00387400	0.21810400	-2.43140200
13	0.79045100	-2.00905500	-1.44720100
13	-0.87973500	-2.24790300	1.06435400
8	-2.40973500	-1.54688900	0.78585900
8	2.39621700	-0.14280100	1.60528100
8	-2.41526900	1.36796400	1.05014700
8	0.03296000	-1.68424200	2.38995200
8	-0.13051100	-1.22932600	-2.65377400
8	2.31737100	-1.36697100	-1.05132100

8	0.02845900	1.22889800	2.65235100
8	2.30763100	1.54334200	-0.78471400
8	-2.49390000	0.13906100	-1.60443100
8	-0.05909400	2.91576300	0.26307200
8	-0.04381100	-2.91321500	-0.26457300
8	-0.13825900	1.68644500	-2.38940900
1	4.70362800	0.03123900	-0.35326300
1	4.64250100	-0.01273200	0.41009800

H2_000003

13	0.87716000	1.98405500	-1.50102600
13	0.87338000	-2.27097700	-1.01956800
13	2.67153400	-0.01503200	-0.10488600
13	-0.77176700	2.26370700	1.01655500
13	-0.92469400	-0.27224000	-2.40956600
13	-2.62586900	0.01379400	0.10335400
13	-0.77696200	-1.97665300	1.49724900
13	1.02247700	0.27315600	2.41821300
8	0.15539600	1.73968200	2.34985500
8	2.40495500	-1.56297000	-0.76942300
8	0.05677500	2.91048800	-0.32790600
8	2.50609500	0.17619800	1.58161400
8	-2.30637100	-1.34377700	1.09662900
8	0.04939300	-2.90831100	0.33038800
8	2.40693100	1.34505500	-1.09927600
8	-0.05204000	-1.73714700	-2.34862300
8	-2.30149000	1.55922000	0.76513700
8	-0.05076900	1.16870900	-2.67644000
8	0.15170400	-1.16930500	2.67949600

8	-2.41342900	-0.17983600	-1.58672200
1	-4.64817100	-0.02730700	-0.36197500
1	-4.69740200	0.04571600	0.39992400

H2_000004

13	0.78046100	-1.41320500	-2.03676500
13	-2.67074400	-0.03751600	0.08415400
13	-0.88269800	-2.47379700	0.25607100
13	2.62568000	0.03767800	-0.08480800
13	-1.00983700	1.01842600	-2.21631200
13	0.78215300	2.46610800	-0.25662300
13	-0.88012000	1.41844000	2.04297200
13	0.91054000	-1.01476300	2.20878600
8	2.40109400	-0.67117800	1.45978000
8	-2.41104000	-1.71650000	0.23300200
8	2.30961500	-0.94277000	-1.45233600
8	0.03622600	-2.38474600	1.68965100
8	-0.05110900	2.66033100	1.21991300
8	-2.40949600	0.94372500	1.45443900
8	-0.05294900	-2.65958000	-1.22189000
8	-2.49749000	0.66979000	-1.45774400
8	2.30979800	1.71386900	-0.23341300
8	-0.14058700	-0.27327600	-2.91121400
8	0.03798500	0.27270300	2.91049000
8	-0.14009500	2.38718100	-1.69016100
1	4.70139200	0.15396600	-0.33258200
1	4.64233000	-0.16817000	0.36124300

H2_000005

13	0.89982400	-1.76215100	-1.67861700
13	-2.67218400	-0.06405700	-0.05069800
13	-0.87776500	-2.39193200	0.68391700
13	2.62667900	0.06773000	0.04897100
13	-0.89589300	0.55959600	-2.41715800
13	0.78073100	2.38379400	-0.67972800
13	-0.99957200	1.76709200	1.68597400
13	0.79327900	-0.55736600	2.41096500
8	2.31703600	-0.33473200	1.68434200
8	-2.40600800	-1.67794900	0.43139100
8	2.39292300	-1.16420400	-1.12006900
8	-0.04033500	-2.01792600	2.12125100
8	-0.13228200	2.84233900	0.68690600
8	-2.49070900	1.16513500	1.11724400
8	0.03309800	-2.84458500	-0.68452600
8	-2.42261300	0.33923200	-1.68904200
8	2.31171000	1.68010100	-0.43295400
8	0.01934300	-0.82669200	-2.80136100
8	-0.12740400	0.82376200	2.80684100
8	-0.06263500	2.01652600	-2.11695800
1	4.64063900	-0.29687600	-0.30089700
1	4.70610100	0.25363000	0.22925800

H2_000006

13	-0.77769200	-1.99072400	-1.47837600
13	-0.76865400	2.25394000	-1.04009000
13	-2.62588900	0.01488000	-0.10480400
13	0.87066600	-2.26141300	1.04291900

13	1.02395600	0.24805600	-2.42043100
13	2.67108900	-0.01629600	0.10683200
13	0.87800300	1.99810900	1.48214200
13	-0.92640200	-0.24717000	2.41147800
8	-0.05413200	-1.71292900	2.36624300
8	-2.29901300	1.55353900	-0.78137500
8	0.04678800	-2.91101600	-0.30118700
8	-2.41481300	-0.16250900	1.58736700
8	2.40738600	1.35346000	1.08798200
8	0.06013700	2.91297600	0.29821700
8	-2.30668900	-1.35270900	-1.08447100
8	0.15751900	1.71567000	-2.36833000
8	2.40307100	-1.55762100	0.78585100
8	0.15278700	-1.19651900	-2.66802200
8	-0.05240000	1.19605500	2.66469500
8	2.50670700	0.15946300	-1.58146500
1	-4.64774600	-0.01929600	0.36150900
1	-4.69703200	0.04443600	-0.40127200

H2_000007

13	-1.00525600	-0.05382000	-2.43947100
13	-0.88339700	-2.11394500	1.30814300
13	0.78475700	-2.16031900	-1.21543200
13	0.78043400	2.10711100	-1.30438700
13	-2.67244400	0.00131900	0.08980500
13	-0.88595400	2.16829000	1.21636400
13	0.90916200	0.05162700	2.42894100
13	2.62678200	-0.00169400	-0.08667000
8	2.30744300	1.44123400	-0.95116700

8	-0.05339700	-2.92527100	0.05960400
8	-0.13682800	1.40858400	-2.56228100
8	2.31169800	-1.48007100	-0.89104700
8	0.03493600	1.51512400	2.49381200
8	0.03362400	-1.40718200	2.56042600
8	-0.13360600	-1.51766700	-2.50221200
8	-2.41248100	-1.44339200	0.95848300
8	-0.05559100	2.92808600	-0.06464800
8	-2.49318000	-0.03722900	-1.60530200
8	2.40446500	0.02735300	1.61305500
8	-2.41458400	1.48308600	0.89392300
1	4.70486700	0.08650700	-0.37266400
1	4.65202700	-0.00911900	0.38670100

H2_000008

13	0.87410000	-0.10214600	-2.48683000
13	1.00991700	2.15147900	1.14901900
13	-0.78910400	2.11900800	-1.28171100
13	-0.91060300	-2.14387300	-1.14548500
13	2.67133800	-0.07727100	-0.05149800
13	0.88864400	-2.12490900	1.28706300
13	-0.77340600	0.10283700	2.47888100
13	-2.62614500	0.07778100	0.05118100
8	-2.40138400	-1.41862000	-0.75428400
8	0.13602200	2.92373000	-0.09483300
8	-0.04103400	-1.54088000	-2.48404700
8	-2.31572600	1.50510900	-0.84235300
8	0.06312500	-1.38113600	2.58034500
8	0.14522800	1.54083900	2.48571900

8	0.04088900	1.38271500	-2.57839700
8	2.49747400	1.41737300	0.75087700
8	-0.03388900	-2.92166400	0.09450800
8	2.40535500	-0.12231200	-1.73545900
8	-2.30360200	0.12202600	1.73223200
8	2.41527500	-1.50633900	0.84345200
1	-4.64283100	-0.36125000	-0.17188200
1	-4.70068900	0.31672100	0.18174900

H2_000009

13	0.96345900	1.84873300	-1.65009200
13	-2.23535000	0.94774400	0.84330200
13	-1.32502600	0.79506800	-2.12072800
13	2.37372200	-0.44785100	-0.80886600
13	0.37246000	2.10186600	1.36170800
13	1.61519800	-0.69219200	1.85425700
13	-1.00746300	-1.89252300	1.29559200
13	-0.74612500	-1.88701000	-1.46731200
8	1.09609200	-1.68271800	-1.34691000
8	-2.43025300	1.12604200	-0.85375500
8	2.39344500	0.87494500	-1.86570000
8	-1.37778200	-0.86303300	-2.65789700
8	0.44856700	-1.89630300	2.19748800
8	-2.14816200	-0.63648100	1.47977300
8	0.42505000	-0.63306100	-0.46178300
8	-1.30938200	2.15288200	1.63486600
8	2.92012900	-0.89975500	0.72830200
8	0.94234500	2.67405000	-0.14584500
8	-1.25034700	-2.82325000	-0.15070600

8	1.29646000	0.94832700	2.20864400
1	-4.24640400	1.47255600	1.10598600
1	-3.94425400	1.73445600	1.76002300

H2_000010

13	0.12755900	2.39700300	-1.06904100
13	0.01625800	-1.80826600	-1.90171800
13	2.21205400	0.23526900	-1.47439400
13	0.09713000	1.80807100	1.90216500
13	-2.06783700	0.35464500	-1.49855300
13	-2.09758100	-0.23534800	1.47792000
13	-0.01437100	-2.39749200	1.06831400
13	2.18213700	-0.35387400	1.49548200
8	1.53402300	0.99020100	2.32023600
8	1.50166000	-1.07436100	-2.30460500
8	0.13507000	2.87144600	0.56932300
8	2.98174200	-0.07800300	0.01443900
8	-1.46404200	-1.79688100	1.73873000
8	-0.02301200	-2.87242300	-0.56973000
8	1.57613000	1.79576000	-1.73903700
8	-1.42151400	-0.99183400	-2.31996100
8	-1.38905500	1.07595100	2.30647800
8	-1.34828200	1.87957300	-1.75094200
8	1.46025300	-1.87821600	1.74910900
8	-2.86559200	0.08098700	-0.01410500
1	-6.04942200	-0.02064300	0.00068700
1	-5.28916800	0.00293300	-0.00244100

H2_000011

13	1.00756100	-1.19380200	2.12750400
13	0.88193200	2.48633400	-0.05464400
13	2.67165100	0.04443200	-0.07827400
13	-0.78240100	-2.47812200	0.05618100
13	-0.78258000	1.24441100	2.14273300
13	-2.62620400	-0.04497100	0.07765000
13	-0.90857900	1.18934600	-2.12005100
13	0.88359700	-1.24883400	-2.14893800
8	0.05242700	-2.55261400	-1.43027100
8	2.41037400	1.72966400	-0.09246100
8	0.13842000	-2.51611500	1.49244000
8	2.41235200	-0.82335700	-1.52329900
8	-2.40066600	0.78459600	-1.40524400
8	-0.03689500	2.51447400	-1.49111700
8	2.49607600	-0.78562600	1.40092100
8	0.05197000	2.55315600	1.43333500
8	-2.31089000	-1.72794100	0.09289700
8	0.13787000	0.03810100	2.92330000
8	-0.03347300	-0.03676900	-2.92136400
8	-2.31013200	0.82220800	1.51969800
1	-4.64416600	0.19960000	-0.34088500
1	-4.69999100	-0.18212300	0.32213000

H2_000012

13	2.62584300	-0.08306600	0.04197400
13	-1.01043200	-2.12964500	1.18924300
13	0.78357100	-0.06276600	2.47658700
13	0.91048100	2.12264700	-1.18545100

13	0.77901400	-2.14213100	-1.24955000
13	-0.88378000	0.06181000	-2.48465700
13	-2.67136900	0.08194800	-0.04169300
13	-0.87821000	2.14895800	1.25394700
8	0.04023300	2.92413200	0.04397300
8	-0.13868300	-1.49797600	2.51154900
8	2.40057000	1.40005700	-0.78713100
8	-0.04827500	1.42517200	2.55566000
8	-2.41193800	0.09735300	-1.72720600
8	-2.49834100	-1.39917300	0.78580300
8	2.31149700	-0.09872700	1.72506600
8	-0.14298000	-2.92412200	-0.04500500
8	0.03407800	1.49862400	-2.50988100
8	2.30827000	-1.52387800	-0.82676400
8	-2.40765400	1.52531800	0.82761600
8	-0.05451300	-1.42637500	-2.55534200
1	4.69984100	-0.30922800	0.20987200
1	4.64549500	0.33518400	-0.20177500

H2_000013

13	0.87752000	-0.66584900	-2.39679000
13	0.88479600	-1.77693500	1.73800600
13	2.67169600	-0.08790900	-0.02842700
13	-0.78529500	1.77209300	-1.73164300
13	-0.91100300	-2.34806100	-0.62924100
13	-2.62608100	0.08878200	0.02794900
13	-0.77709100	0.66439100	2.38898900
13	1.01041300	2.35595400	0.63117800
8	0.13834700	2.82502500	-0.75686500

8	2.41240400	-1.27562800	1.16778600
8	0.04596600	0.75969600	-2.82539300
8	2.49818700	1.55033700	0.41227600
8	-2.30645300	0.51463500	1.65529600
8	0.05752800	-0.75830200	2.82669900
8	2.40776100	-0.51522700	-1.65831000
8	-0.03583300	-2.82391800	0.75606500
8	-2.31296200	1.27504300	-1.16639900
8	-0.03932500	-2.06556100	-2.06866300
8	0.14352000	2.06534100	2.07041700
8	-2.40146200	-1.55186400	-0.41471500
1	-4.64484100	-0.38423500	-0.09021700
1	-4.70100100	0.35556200	0.10439200

H2_000014

13	0.75980200	-1.96119400	-1.52574300
13	-2.67129300	-0.00116600	0.11330500
13	-0.88428300	-2.27937800	0.99202400
13	2.62543200	-0.00086200	-0.11050500
13	-1.02853900	0.31148400	-2.41145500
13	0.78157500	2.27263600	-0.98858700
13	-0.86001800	1.96909500	1.53005300
13	0.93191800	-0.31047000	2.40261300
8	2.41888400	-0.21718500	1.57687400
8	-2.41299800	-1.56077800	0.75385600
8	2.29364100	-1.34087300	-1.12300200
8	0.04692500	-1.76718700	2.32532700
8	-0.04006900	2.90736300	0.36602400
8	-2.39434400	1.34201600	1.12703700

8	-0.06744500	-2.90325000	-0.36842100
8	-2.50982900	0.21404200	-1.57078200
8	2.30798800	1.55656700	-0.74806800
8	-0.16881300	-1.13376500	-2.69408100
8	0.06942300	1.13357400	2.68979500
8	-0.15060000	1.77065800	-2.32692300
1	4.69384700	0.06507600	-0.41806000
1	4.65431800	-0.07642200	0.33479800

H2_000015

13	0.88564100	2.22179500	-1.11384600
13	-2.62581700	-0.08123000	-0.06552300
13	-0.76321600	0.08881200	-2.48190800
13	2.67120900	0.08182700	0.06749100
13	-0.92406700	2.04453500	1.30564600
13	0.86508600	-0.08933700	2.49002400
13	-0.78540700	-2.21547200	1.10906900
13	1.02169800	-2.05232000	-1.30979700
8	2.50507500	-1.34613800	-0.84989500
8	-2.29537700	0.00730000	-1.74326900
8	2.41300000	1.57558000	-0.71411200
8	0.15946500	-1.34196500	-2.59814200
8	0.03767900	-1.57979400	2.46228300
8	-2.31248100	-1.57313800	0.71445700
8	0.06897900	1.57845600	-2.46561900
8	-2.41251200	1.34861500	0.85583300
8	2.39922900	-0.00487100	1.74900600
8	-0.04575300	2.91874000	0.13287300
8	0.14621500	-2.92247200	-0.13353900

8	-0.05591600	1.34178300	2.59574200
1	-4.69888400	-0.32371400	-0.23312500
1	-4.64857900	0.32502600	0.17313300

H2_000016

13	-0.88428200	-1.42809100	-2.03439400
13	-0.88176700	2.47183000	-0.26741600
13	-2.67193100	0.03816400	-0.08049300
13	0.78166300	-2.46399400	0.26776400
13	0.90757100	1.00308600	-2.21501600
13	2.62649000	-0.03841500	0.08136600
13	0.78452000	1.42277700	2.02861300
13	-1.00715500	-1.00644100	2.22254400
8	-0.13825800	-2.37821200	1.70234800
8	-2.41069900	1.71616300	-0.23763000
8	-0.05387200	-2.66591900	-1.20651500
8	-2.49610100	-0.66234900	1.46436800
8	2.31247500	0.94789700	1.44534800
8	-0.04949200	2.66512100	1.20821800
8	-2.41247500	-0.94921000	-1.44658200
8	0.03448700	2.37650600	-1.70227700
8	2.31017700	-1.71397800	0.23815700
8	0.03377400	-0.28772500	-2.90889600
8	-0.13694600	0.28865300	2.90998900
8	2.39905700	0.66335300	-1.46586600
1	4.64356500	0.16454200	-0.36985800
1	4.70299900	-0.15282300	0.32597100

H2_000017

13	-0.78254700	-0.63041800	-2.39673200
13	2.67174200	0.09008700	0.02351300
13	0.87910300	1.80276200	-1.71342400
13	-2.62592900	-0.09070000	-0.02379400
13	1.01118000	-2.34571200	-0.66768800
13	-0.77901500	-1.79764600	1.70737800
13	0.88242100	0.63148300	2.40455500
13	-0.91189300	2.33799100	0.66529400
8	-2.40203000	1.54414100	0.44013500
8	2.40865800	1.29391800	-1.15560300
8	-2.31077300	-0.49462600	-1.65748400
8	-0.03919100	2.83510300	-0.71412900
8	0.05465300	-0.80167400	2.81435300
8	2.41104000	0.49475300	1.65969100
8	0.04894000	0.79996600	-2.81465900
8	2.49858400	-1.54182800	-0.44005600
8	-2.30810100	-1.29235600	1.15380700
8	0.14063100	-2.03467300	-2.10046000
8	-0.03752700	2.03434700	2.09877100
8	0.14263600	-2.83594400	0.71530900
1	-4.70103100	-0.35862300	-0.09675600
1	-4.64493300	0.37758400	0.11105000

H2_000018

13	-0.77933700	1.34619100	2.08181500
13	2.67133100	-0.09086300	0.00102400
13	0.88381500	-1.17813800	2.18870300
13	-2.62599300	0.09150000	-0.00123800

13	1.00870300	2.43796200	-0.09861600
13	-0.78413400	1.17527200	-2.18124300
13	0.87963600	-1.34941900	-2.08908500
13	-0.90927000	-2.42966800	0.09815700
8	-2.39996500	-1.60623800	0.06650400
8	2.41197400	-0.86787900	1.49685900
8	-2.30819300	0.98427300	1.42492600
8	-0.03459700	-2.47140300	1.56265300
8	0.04881900	-0.11612700	-2.92328800
8	2.40910400	-0.98501900	-1.42736500
8	0.05487300	0.11810900	2.92333200
8	2.49661200	1.60410200	-0.06688100
8	-2.31202100	0.86690400	-1.49509900
8	0.14091600	2.58948400	1.36136400
8	-0.03708700	-2.58850300	-1.35983600
8	0.13740900	2.47211200	-1.56392100
1	-4.64311600	-0.39984000	0.02128500
1	-4.70140200	0.36442500	-0.00899300

H2_000019

13	-1.01422100	1.02196400	2.21226100
13	2.62644000	0.04550200	0.08444600
13	0.78429000	-1.40313700	2.04142100
13	-2.67200100	-0.04776800	-0.08621700
13	0.77211300	2.46889200	0.24863400
13	-0.88492700	1.40917700	-2.04670900
13	0.91737400	-1.01841000	-2.20355700
13	-0.87436800	-2.47659900	-0.24882500
8	-2.40626100	-1.72633800	-0.22963500

8	2.31193100	-0.92935800	1.45661400
8	-2.49982200	0.66611600	1.45285600
8	-0.04553600	-2.65435800	1.23047900
8	0.04120500	0.26527400	-2.90768500
8	2.40899900	-0.67158200	-1.45728000
8	-0.14123500	-0.26454100	2.91256200
8	2.30164400	1.72069200	0.22594900
8	-2.41317000	0.92937600	-1.45997400
8	-0.14877800	2.39257700	1.68332500
8	0.04585300	-2.38951200	-1.68187100
8	-0.06214800	2.65809500	-1.22795000
1	4.69851500	0.17149000	0.35098100
1	4.64893400	-0.13808000	-0.34901000

H2_000020

13	-0.01167200	2.16450500	-1.48519800
13	2.23345300	0.01057400	1.46238200
13	0.06405800	2.12392800	1.54337600
13	-2.11934900	-0.00996300	-1.46561300
13	2.15781100	0.05083100	-1.56669200
13	0.04985200	-2.12357900	-1.54373000
13	0.12477400	-2.16396200	1.48491900
13	-2.04364500	-0.05061200	1.56897700
8	-2.86219600	-0.04176600	0.07113100
8	1.54884500	1.45701300	2.05205900
8	-1.47851200	1.47182900	-2.01322100
8	-1.37475100	1.41558000	2.12503700
8	0.09904300	-2.92720100	-0.04034500
8	1.59009800	-1.46967100	2.01319600

8	0.01398700	2.92762600	0.04007900
8	2.97805300	0.04179000	-0.07157100
8	-1.43606100	-1.45750100	-2.05234100
8	1.44545700	1.51162500	-2.08385300
8	-1.33389500	-1.51293300	2.08341200
8	1.48750700	-1.41443400	-2.12554000
1	-5.28951500	-0.01869300	0.02765600
1	-6.04977400	-0.01933600	0.00853200

N2_000001

13	2.35250500	-0.00123200	-0.00137100
13	-1.23664100	1.62278500	1.86208200
13	0.51862100	2.40688400	-0.47094000
13	0.51592100	-1.61179300	-1.84994300
13	0.51682500	-0.79651800	2.31960200
13	-1.23894100	-2.42309300	0.47410200
13	-2.98675300	0.00127600	0.00078900
13	-1.23829200	0.80187700	-2.33523800
8	-0.36455400	-0.56163900	-2.86793200
8	-0.36119100	2.76456500	0.94768400
8	2.03471700	-1.10899000	-1.27335400
8	-0.36283200	2.20412300	-1.91883600
8	-2.75623200	-1.65715100	0.32510500
8	-2.75477100	1.11142100	1.27464800
8	2.03680200	1.65463500	-0.32523400
8	-0.36284600	0.55970300	2.86845800
8	-0.36442600	-2.76405200	-0.94903400
8	2.03481200	-0.54808600	1.59426900
8	-2.75598800	0.54943000	-1.59761500

8	-0.36399100	-2.20342000	1.92064300
7	4.53020900	-0.00103200	0.00057000
7	5.62433500	0.00007200	0.00250100

N2_000002

13	2.98677400	0.00027800	0.00004700
13	-0.51749100	2.38783800	0.56207100
13	1.23749700	1.69191000	-1.79863600
13	1.23831700	-2.40382200	-0.56566400
13	1.23783400	0.71216800	2.36428700
13	-0.51667500	-1.68079400	1.78638700
13	-2.35248600	-0.00033100	-0.00017100
13	-0.51714100	-0.70705700	-2.34871000
8	0.36376600	-2.12784900	-2.00283000
8	0.36329900	2.79898500	-0.84142300
8	2.75587600	-1.64479000	-0.38654800
8	0.36277200	0.66910200	-2.84506800
8	-2.03502300	-1.15590800	1.22858000
8	-2.03553300	1.64177200	0.38607900
8	2.75530900	1.15757800	-1.23122400
8	0.36276800	2.12964400	2.00191200
8	0.36340200	-2.79894600	0.84325200
8	2.75570600	0.48796600	1.61797500
8	-2.03564600	-0.48669900	-1.61542600
8	0.36377800	-0.67058800	2.84404000
7	-5.62421400	-0.00016200	0.00100800
7	-4.53006300	-0.00049400	0.00049100

N2_000003

13	0.51858900	-1.52363200	-1.92175700
13	-2.98687900	-0.00071500	-0.00166700
13	-1.23713300	-2.44384300	0.35980800
13	2.35194000	0.00096600	0.00208200
13	-1.23620100	0.90928700	-2.29627300
13	0.51713400	2.42753600	-0.35729800
13	-1.23993300	1.53382200	1.93418300
13	0.51552300	-0.90337000	2.28094400
8	2.03409600	-0.62005100	1.56997200
8	-2.75458200	-1.67229100	0.24535600
8	2.03618100	-1.04661600	-1.32039400
8	-0.36292700	-2.29113300	1.81564200
8	-0.36494800	2.71821300	1.07517700
8	-2.75732100	1.04918800	1.32274000
8	-0.36144300	-2.71787500	-1.07706100
8	-2.75438000	0.62154000	-1.57269500
8	2.03536000	1.66982800	-0.24397300
8	-0.36176700	-0.42789100	-2.89069300
8	-0.36577200	0.42557400	2.89017700
8	-0.36251700	2.29144500	-1.81426300
7	4.53011900	0.00043500	0.00069000
7	5.62426100	-0.00044700	-0.00071500

N2_000004

13	2.35283300	0.00045000	-0.00011000
13	-1.23832200	2.36034900	0.72498600
13	0.51686400	1.79625600	-1.67040700
13	0.51737500	-2.34443500	-0.72039500

13	0.51695200	0.54855400	2.39038500
13	-1.23786200	-1.80830800	1.68140700
13	-2.98680800	-0.00035500	0.00037700
13	-1.23777900	-0.55232500	-2.40660900
8	-0.36266500	-1.99087000	-2.13995400
8	-0.36330900	2.84853500	-0.65431500
8	2.03548400	-1.61205600	-0.49551500
8	-0.36397000	0.85949200	-2.79347500
8	-2.75601500	-1.23745300	1.15163600
8	-2.75606200	1.61520800	0.49603700
8	2.03547200	1.23525900	-1.14943900
8	-0.36385400	1.98947100	2.14068900
8	-0.36370300	-2.84879400	0.65216700
8	2.03528800	0.37810300	1.64386200
8	-2.75539300	-0.37879800	-1.64646200
8	-0.36278700	-0.85776500	2.79355400
7	4.53077700	-0.00011300	0.00100200
7	5.62491500	-0.00061300	0.00106400

N2_000005

13	0.51495600	1.49129400	1.94693400
13	0.52175100	0.93685400	-2.26454100
13	2.35193100	-0.00618600	0.00448600
13	-1.24257800	-0.94563700	2.27877400
13	-1.23487600	2.45067900	-0.32270800
13	-2.98726000	0.00490700	-0.00408100
13	-1.23580100	-1.50132000	-1.96049800
13	0.51508900	-2.43548900	0.32136400
8	-0.36761200	-2.32046800	1.77823700

8	2.03794300	0.63908600	-1.55433300
8	-0.36855200	0.38124100	2.89623500
8	2.03486700	-1.67885800	0.22326400
8	-2.75322200	-1.02244200	-1.34512100
8	-0.35881900	-0.38067400	-2.89934500
8	2.03303700	1.02111900	1.34165600
8	-0.35809400	2.31646700	-1.77850500
8	-2.75847000	-0.64418800	1.55641000
8	-0.36127800	2.70058800	1.11999600
8	-0.36460800	-2.69980500	-1.11767800
8	-2.75413200	1.68055000	-0.22200300
7	4.52936400	0.00323400	0.00254700
7	5.62346300	0.01430000	-0.00069100

N2_000006

13	-2.35270400	-0.00036100	0.00053400
13	1.23813100	-0.28852300	-2.45148400
13	-0.51822300	1.96632000	-1.46614500
13	-0.51721500	0.28748400	2.43534200
13	-0.51602800	-2.25407900	-0.96820800
13	1.23898700	-1.97964700	1.47564100
13	2.98701600	0.00082500	-0.00024600
13	1.23686100	2.26925200	0.97547900
8	0.36169500	1.74789500	2.34250800
8	0.36237800	1.15550600	-2.68335000
8	-2.03599400	0.19733900	1.67596300
8	0.36208800	2.90341200	-0.34319200
8	2.75632800	-1.35449400	1.00912900
8	2.75630000	-0.19599500	-1.67871500

8	-2.03610400	1.35190300	-1.00798400
8	0.36516800	-1.74833500	-2.34014400
8	0.36439100	-1.15313800	2.68312300
8	-2.03393800	-1.54962700	-0.66592000
8	2.75431900	1.55248700	0.66827900
8	0.36429200	-2.90477300	0.34193100
7	-4.53049500	-0.00200200	-0.00132100
7	-5.62466100	-0.00284800	-0.00223400

N2_000007

13	1.23727900	-1.60221700	-1.87891600
13	-2.35244800	0.00050700	-0.00063000
13	-0.51737300	-2.41259900	0.44440700
13	2.98684000	-0.00025400	0.00012900
13	-0.51725400	0.82145500	-2.31175900
13	1.23847500	2.42855500	-0.44754400
13	-0.51678200	1.59126000	1.86618800
13	1.23784300	-0.82678900	2.32704800
8	2.75566300	-0.56621900	1.59244200
8	-2.03524700	-1.65844800	0.30492200
8	2.75497700	-1.09626800	-1.28593400
8	0.36291800	-2.22461000	1.89505300
8	0.36383100	2.75398500	0.97921900
8	-2.03512100	1.09438800	1.28325300
8	0.36309400	-2.75527600	-0.97764900
8	-2.03569200	0.56587300	-1.58989000
8	2.75607100	1.66161000	-0.30599400
8	0.36231800	-0.52937700	-2.87387300
8	0.36358800	0.53083300	2.87362400

8	0.36388500	2.22336400	-1.89658600
7	-4.52995200	0.00044000	0.00105600
7	-5.62402600	-0.00012300	0.00256100

N2_000008

13	-0.51590900	-2.31159500	0.82190300
13	2.98685700	0.00089300	-0.00180600
13	1.23729100	-1.87909800	-1.60227400
13	-2.35248700	-0.00120400	0.00214000
13	1.23999400	-0.44713700	2.42750200
13	-0.51643500	1.86681100	1.59135200
13	1.23624700	2.32716300	-0.82743000
13	-0.51887900	0.44392700	-2.41161900
8	-2.03637500	0.30325500	-1.65723200
8	2.75510900	-1.28577100	-1.09708000
8	-2.03475600	-1.59006200	0.56832900
8	0.36262300	-0.97723700	-2.75461400
8	0.36306000	2.87463300	0.53060000
8	2.75423800	1.59277900	-0.56799300
8	0.36283800	-2.87425700	-0.52931400
8	2.75726800	-0.30463700	1.66035000
8	-2.03483200	1.28343900	1.09526900
8	0.36650200	-1.89681100	2.22328900
8	0.36001900	1.89546000	-2.22467500
8	0.36474900	0.97908700	2.75321500
7	-5.62424300	0.00109800	-0.00094500
7	-4.53009500	-0.00051200	0.00121300

N2_000009

13	1.20074500	-2.13930900	-0.09546100
13	1.20682400	2.13514600	0.09771100
13	1.19142700	0.09524100	-2.14342500
13	-1.83056600	-2.13675900	-0.09814000
13	1.18789000	-0.09952600	2.14564200
13	-1.83716400	-0.09482000	2.13976700
13	-1.82436300	2.14098400	0.09567600
13	-1.83397500	0.09911200	-2.14154100
8	-2.38686900	-1.39302300	-1.52860500
8	1.75397600	1.52054300	-1.39600700
8	-0.31583800	-2.91925200	-0.13247100
8	-0.32115000	0.13273300	-2.92880600
8	-2.38413800	1.39894600	1.52561700
8	-0.30759300	2.91938600	0.13197600
8	1.74958400	-1.39312600	-1.52735800
8	1.75135100	1.38726600	1.53036900
8	-2.38824400	-1.52540100	1.39311900
8	1.74738200	-1.52652400	1.39926700
8	-2.38237900	1.53141200	-1.39625600
8	-0.32561100	-0.13274000	2.92940000
7	4.53347400	0.54787500	0.02256800
7	4.53589800	-0.54825500	-0.02327600

N2_000010

13	-2.98661000	0.00167300	-0.00021900
13	0.51614100	-1.27293500	2.09701200
13	-1.23930200	-2.46827100	-0.05364100
13	-1.23732100	1.28139300	-2.11103700

13	-1.23732900	1.18859000	2.16459200
13	0.51849100	2.45152200	0.05328500
13	2.35285300	-0.00188700	0.00001100
13	0.51656400	-1.18068700	-2.15004900
8	-0.36356100	0.06222700	-2.92126900
8	-0.36522100	-2.56196500	1.40700800
8	-2.75550900	0.87830300	-1.44477800
8	-0.36401700	-2.49879000	-1.51632000
8	2.03627200	1.68474800	0.03675500
8	2.03483600	-0.87684300	1.44220700
8	-2.75643100	-1.68782800	-0.03718500
8	-0.36340600	-0.06416900	2.92151900
8	-0.36176300	2.56263000	-1.40522700
8	-2.75534100	0.81419900	1.48139400
8	2.03530800	-0.81268100	-1.47919000
8	-0.36225900	2.49951600	1.51499400
7	4.53030900	-0.00033800	0.00002500
7	5.62446200	0.00220100	0.00016400

N2_000011

13	-1.23704300	2.24751600	-1.02445900
13	-1.23723600	-0.23535600	2.45779900
13	-2.98675600	0.00178400	0.00032200
13	0.51641400	0.23382200	-2.44120700
13	0.51854900	1.99678600	1.42369000
13	2.35264500	-0.00209600	-0.00023200
13	0.51639000	-2.23276400	1.01765900
13	-1.23948100	-2.01055700	-1.43279300
8	-0.36458200	-1.21213400	-2.65889300

8	-2.75510500	-0.16001600	1.68225900
8	-0.36315700	1.69562100	-2.38027600
8	-2.75674800	-1.37432800	-0.98069500
8	2.03519700	-1.53706700	0.69939700
8	-0.36331400	-1.69689700	2.37911700
8	-2.75526700	1.53933400	-0.70079300
8	-0.36227400	1.21386100	2.65889000
8	2.03492100	0.15990400	-1.67915900
8	-0.36134100	2.90908700	0.28008100
8	-0.36520700	-2.90983900	-0.27808800
8	2.03626400	1.37126500	0.97946400
7	4.53004400	0.00017900	-0.00108800
7	5.62419400	0.00281300	-0.00185100

N2_000012

13	-1.23892500	1.57147300	-1.90410500
13	2.35271900	0.00073700	-0.00085300
13	0.51685600	2.41923400	0.40580400
13	-2.98675900	-0.00044300	0.00092600
13	0.51640800	-0.85758400	-2.29811800
13	-1.23768900	-2.43545900	-0.40859100
13	0.51799400	-1.56096900	1.89141400
13	-1.23730000	0.86327600	2.31362400
8	-2.75539000	0.59082000	1.58391600
8	2.03536300	1.66430900	0.27824000
8	-2.75651300	1.07490300	-1.30274600
8	-0.36283400	2.25446100	1.85954500
8	-0.36228200	-2.73778700	1.02270000
8	2.03619100	-1.07289300	1.30046300

8	-0.36432300	2.73845100	-1.02113400
8	2.03498600	-0.58971200	-1.58097300
8	-2.75556400	-1.66703500	-0.27865700
8	-0.36430000	0.48318100	-2.88227900
8	-0.36253700	-0.48503000	2.88207100
8	-0.36382100	-2.25352700	-1.86105700
7	4.53045900	0.00025900	-0.00067700
7	5.62457300	-0.00091400	0.00038700

N2_000013

13	1.23663000	1.48790500	-1.97104800
13	1.23829200	0.96345900	2.27342400
13	-0.51819300	2.43466100	0.30076500
13	-0.51752800	-0.95701700	-2.25827700
13	2.98670300	0.00074900	-0.00065000
13	1.23887900	-2.45070800	-0.30325400
13	-0.51556100	-1.47763600	1.95793900
13	-2.35250500	-0.00027500	0.00053300
8	-2.03579400	-0.65760500	-1.55306900
8	0.36315700	2.33319500	1.75932000
8	0.36279500	0.35709500	-2.90052700
8	-2.03641800	1.67409300	0.20746300
8	0.36547400	-2.69040300	1.14103100
8	0.36419400	-0.35889400	2.90080600
8	0.36127900	2.69166300	-1.13970100
8	2.75597700	0.65901000	1.55571600
8	0.36308800	-2.33244300	-1.76110800
8	2.75458900	1.01926800	-1.34875000
8	-2.03399100	-1.01676800	1.34637300

8	2.75641100	-1.67636600	-0.20867300
7	-5.62445900	-0.00178100	0.00116400
7	-4.53031500	-0.00244000	0.00116900

N2_000014

13	-2.35333900	0.00677800	-0.00057700
13	1.23941600	-0.20502300	-2.45956200
13	-0.51331400	2.01762500	-1.39778800
13	-0.51968300	0.20440200	2.44252900
13	-0.51869400	-2.21642100	-1.04675800
13	1.23395700	-2.03201100	1.40628600
13	2.98717000	-0.00420600	0.00299400
13	1.24186200	2.23140300	1.05394300
8	0.36626200	1.66311400	2.40159500
8	0.36828900	1.24895800	-2.64145000
8	-2.03944000	0.14833400	1.68111500
8	0.36747200	2.91257600	-0.24126200
8	2.75324500	-1.39188100	0.96674800
8	2.75659300	-0.14468500	-1.68101000
8	-2.03359800	1.39067800	-0.96435800
8	0.36220400	-1.66549400	-2.40131800
8	0.35560900	-1.24783600	2.63891500
8	-2.03454900	-1.51980600	-0.71797400
8	2.75907400	1.52509100	0.72263500
8	0.36161500	-2.91577000	0.23800400
7	-4.53209500	0.00009700	-0.00225800
7	-5.62620400	-0.00857700	-0.00159800

N2_000015

13	2.98626100	-0.00034400	-0.00238400
13	-0.51834400	1.25532500	-2.10692900
13	1.23554800	-1.20868900	-2.15347500
13	1.23837300	-1.26310700	2.12141900
13	1.23904600	2.47039900	0.03121600
13	-0.51447200	1.19997900	2.13962000
13	-2.35119900	0.00176300	0.00050900
13	-0.51667100	-2.45495700	-0.03109900
8	0.36244800	-2.55127700	1.42905200
8	0.35948500	0.03732400	-2.91882400
8	2.75507000	-0.86540500	1.44896300
8	0.36409500	-2.51575100	-1.49206300
8	-2.03305400	0.82516100	1.47208900
8	-2.03733800	0.86671200	-1.44820900
8	2.75403200	-0.82617000	-1.47629700
8	0.36399100	2.55044200	-1.42962900
8	0.36607000	-0.03605200	2.92174600
8	2.75597000	1.68937200	0.02053600
8	-2.03195600	-1.68377300	-0.02263500
8	0.36523100	2.51306200	1.49445100
7	-4.53384000	-0.00155300	0.00127600
7	-5.62807100	-0.00329300	0.00174700

N2_000016

13	0.51737600	-1.41574600	-2.00267300
13	-2.98677500	-0.00058700	-0.00048000
13	-1.23814100	-2.45955000	0.22618700
13	2.35223700	0.00067300	0.00065000

13	-1.23713400	1.03356600	-2.24265200
13	0.51742600	2.44360000	-0.22457900
13	-1.23815100	1.42581100	2.01585600
13	0.51653000	-1.02650500	2.22765900
8	2.03495300	-0.70595500	1.53218600
8	-2.75594800	-1.68343700	0.15413300
8	2.03526700	-0.97240900	-1.37707600
8	-0.36384000	-2.38585000	1.68798900
8	-0.36391900	2.65541300	1.22218000
8	-2.75560000	0.97469600	1.37952400
8	-0.36275800	-2.65381400	-1.22381400
8	-2.75486800	0.70701000	-1.53490400
8	2.03561500	1.68064700	-0.15343500
8	-0.36289500	-0.26879200	-2.91039700
8	-0.36357500	0.26742700	2.90994800
8	-0.36254200	2.38695800	-1.68645900
7	4.52985800	-0.00139000	0.00036200
7	5.62401400	-0.00311800	-0.00015900

N2_000017

13	1.23596500	1.91723500	1.55628300
13	1.24049500	-2.30565000	0.88102300
13	-0.51676500	-0.38792900	2.42222300
13	-0.51934900	2.29028900	-0.87557700
13	2.98696400	0.00263200	-0.00013300
13	1.23703000	0.39092600	-2.43833500
13	-0.51510800	-1.90459800	-1.54573900
13	-2.35288400	-0.00287800	0.00085400
8	-2.03652000	1.57287300	-0.60174300

8	0.36530800	-1.84141700	2.26844500
8	0.36069700	2.88628400	0.46035800
8	-2.03546300	-0.26808600	1.66662400
8	0.36398800	-1.04401900	-2.72945400
8	0.36678900	-2.88641200	-0.46271300
8	0.36231500	1.04273800	2.73044100
8	2.75762400	-1.57614100	0.60298600
8	0.36082400	1.84342000	-2.26848900
8	2.75446000	1.31406300	1.06533000
8	-2.03400900	-1.31231900	-1.06218900
8	2.75494400	0.26932600	-1.66880100
7	-4.53010400	-0.00118200	-0.00066500
7	-5.62420600	0.00077800	-0.00135500

N2_000018

13	0.51825700	-2.05418700	1.33969600
13	0.51667000	-0.13278800	-2.44947600
13	-1.23691400	-2.20293700	-1.11642800
13	-1.23751600	0.13375400	2.46588700
13	2.35262000	0.00171900	-0.00072600
13	0.51642000	2.18813900	1.10892700
13	-1.23935100	2.06788700	-1.34883000
13	-2.98672800	-0.00129700	0.00066400
8	-2.75546500	0.09049900	1.68797900
8	-0.36260300	-1.59607700	-2.44819000
8	-0.36228100	-1.32243600	2.60603300
8	-2.75478600	-1.50825600	-0.76373000
8	-0.36458700	2.91820200	-0.15803800
8	-0.36488200	1.32061300	-2.60702700

8	-0.36191900	-2.91868300	0.15968800
8	2.03519300	-0.08964400	-1.68507800
8	-0.36362900	1.59735600	2.44720200
8	2.03590300	-1.41146400	0.92052800
8	-2.75665400	1.41430100	-0.92240200
8	2.03510200	1.50597100	0.76256200
7	5.62421200	-0.00121400	0.00099000
7	4.53006300	0.00024000	0.00008200

N2_000019

13	-0.51585700	2.30629900	-0.83682200
13	-0.51773500	-1.87699200	-1.57830200
13	1.23838000	0.43032700	-2.43127300
13	1.23879400	1.88990400	1.58877000
13	-2.35275400	0.00169000	-0.00001900
13	-0.51769000	-0.42759700	2.41498800
13	1.23676600	-2.32161200	0.84281800
13	2.98659000	-0.00149500	0.00012100
8	2.75621100	1.29258200	1.08689100
8	0.36268900	-0.99785900	-2.74728400
8	0.36447100	2.87833800	0.50936400
8	2.75604900	0.29286200	-1.66388600
8	0.36186900	-1.88002400	2.23773800
8	0.36255900	-2.87732400	-0.51108200
8	0.36454000	1.88108600	-2.23624200
8	-2.03567000	-1.28994500	-1.08509700
8	0.36400600	0.99603900	2.74725100
8	-2.03464200	1.58722700	-0.57556500
8	2.75504800	-1.58963600	0.57735200

8	-2.03612900	-0.29263900	1.66115000
7	-5.62440600	-0.00209300	-0.00064900
7	-4.53022600	0.00030900	-0.00054500

N2_000020

13	0.51367100	0.15660300	2.44892900
13	0.51957700	2.04133100	-1.35800500
13	2.35290000	0.00008900	0.00546300
13	-1.24044500	-2.05512300	1.36731000
13	-1.24041000	2.21321800	1.09352500
13	-2.98640500	0.00070200	-0.00434400
13	-1.23325600	-0.15815900	-2.46569300
13	0.51799800	-2.19889100	-1.08643900
8	-0.36613500	-2.91757200	0.18496700
8	2.03740800	1.40436300	-0.93025500
8	-0.36611100	-1.29663900	2.61899000
8	2.03514200	-1.51209500	-0.74215900
8	-2.75211100	-0.10873900	-1.69012000
8	-0.35834900	1.29695100	-2.61874300
8	2.03407500	0.10878400	1.68862000
8	-0.36316500	2.91667500	-0.18782500
8	-2.75730300	-1.40485400	0.93380700
8	-0.36868200	1.61803900	2.43216700
8	-0.35804900	-1.62092300	-2.43293400
8	-2.75816300	1.51602900	0.74440900
7	5.62452200	0.00035000	-0.00353900
7	4.53038600	0.00005300	0.00110000

NO2_000001

13 -1.97342600 -1.64611600 -1.43702400
13 -1.33960400 -0.10601700 2.49294600
13 -0.22840900 -2.42272800 0.90523700
13 0.25835300 0.11414200 -2.47188700
13 -3.07289500 0.68618500 0.14519300
13 -0.84891900 2.44506100 -0.91462200
13 0.89165800 1.63384900 1.42154100
13 2.10047100 -0.71874300 -0.14830600
8 1.73758900 -0.37189100 -1.79212200
8 -0.88184600 -1.73925900 2.32770300
8 -0.97631000 -1.04557200 -2.68215200
8 1.40164600 -2.13075100 0.52744500
8 0.23452600 2.79318400 0.35568200
8 -0.10530300 1.05565400 2.67979100
8 -1.31532000 -2.79030400 -0.35935200
8 -2.81820600 0.39841800 1.80714300
8 -0.21217500 1.75068900 -2.33497200
8 -3.25279100 -0.65980000 -0.88616000
8 2.18124200 0.66048800 0.88938100
8 -2.48060800 2.14046800 -0.52118600
7 4.94336000 -0.10685300 0.01865700
8 4.85753600 1.04852100 0.14978200
8 4.15033100 -0.99300100 -0.16606100

NO2_000002

13 -1.93790400 -2.21215900 -0.27674600
13 -1.18416500 1.63830200 -1.95956100
13 -3.15484700 0.54032600 0.05594100

13	0.02074600	-1.61487100	1.94456100
13	0.03885600	-1.09890400	-2.27236800
13	2.10883700	-0.55173500	-0.05482700
13	0.78158000	2.19322300	0.27260800
13	-1.20424700	1.11908000	2.29071200
8	-0.60714500	-0.35243000	2.90903100
8	-2.75104000	1.49265400	-1.30037500
8	-1.10097100	-2.62690600	1.14884400
8	-2.76698000	1.13933600	1.60551500
8	2.13086600	1.16535300	0.15344100
8	-0.05850400	2.62923100	-1.14804700
8	-3.26694200	-1.14862400	-0.15110700
8	-0.58060200	0.35953900	-2.91094600
8	1.58677300	-1.45918800	1.30643300
8	-1.09032200	-2.27017500	-1.75423400
8	-0.07203000	2.27270400	1.74880200
8	1.59818600	-1.10354400	-1.59900000
7	4.81842800	0.24339700	0.02504500
8	4.15959000	-0.76378100	-0.07690900
8	5.96610900	0.43130500	0.04611700

NO2_000003

13	-0.62054700	-0.90861200	-2.14193100
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13	-2.09264600	0.76168100	-0.02033500
13	0.70393100	-2.62499500	-0.04412700
13	1.74210300	0.98281500	-2.09935300
13	3.05895500	-0.72370400	0.02211400
13	1.68387800	0.90906200	2.16468000

13	-0.68113000	-0.98169900	2.07650900
8	-0.17998000	-2.46988400	1.40579400
8	-1.30821200	2.28351700	0.01829100
8	-0.13753000	-2.42110300	-1.51307900
8	-2.03379200	-0.19376500	1.41337100
8	3.04728800	0.12716900	1.50009600
8	1.21293500	2.41109600	1.51140100
8	-1.98741800	-0.14295100	-1.48280100
8	1.24996100	2.45991900	-1.40617100
8	2.37574700	-2.28659800	-0.01432800
8	0.56980900	0.04544600	-2.90751700
8	0.48860000	-0.05513200	2.90478300
8	3.08759700	0.17877400	-1.42456100
7	-4.88130800	0.08181600	-0.00155100
8	-4.71782300	-1.07241700	0.02125400
8	-4.14789500	1.03454900	-0.02820700

NO2_000004

13	3.07287900	-0.68511500	-0.14942100
13	0.22846900	2.42762600	-0.89190200
13	1.33910800	0.12091100	-2.49272700
13	0.84997500	-2.45005700	0.90085700
13	1.97327600	1.63796000	1.44640400
13	-0.25798200	-0.12850900	2.47137900
13	-2.10024400	0.71680500	0.15267500
13	-0.89171200	-1.62580400	-1.43074700
8	-0.23428500	-2.79039600	-0.37085800
8	0.88104900	1.75319500	-2.31910900
8	2.48151900	-2.14373900	0.50828400

8	0.10535300	-1.04037500	-2.68555200
8	-1.73756800	0.36042300	1.79440700
8	-1.40114100	2.13273500	-0.51464100
8	2.81771500	-0.38690100	-1.80935900
8	1.31606700	2.78773300	0.37421700
8	0.21371900	-1.76393700	2.32542800
8	3.25248500	0.65415400	0.89070200
8	-2.18182200	-0.65599900	-0.89336800
8	0.97567400	1.03110400	2.68806300
7	-4.94407600	0.10786200	-0.01752600
8	-4.85997800	-1.04677000	-0.15596900
8	-4.15009600	0.99194100	0.17250000

NO2_000005

13	-0.89185400	1.62500700	1.43194700
13	0.22997000	-2.42812200	0.89108200
13	-2.10035000	-0.71775600	-0.15073200
13	0.84830200	2.45042000	-0.90042600
13	1.34022300	-0.12055500	2.49196000
13	3.07304100	0.68603300	0.14780500
13	1.97353400	-1.63733600	-1.44711700
13	-0.25931400	0.12874200	-2.47035200
8	0.21121600	1.76450800	-2.32468500
8	-1.40017500	-2.13350000	0.51569200
8	-0.23491000	2.79014100	0.37236000
8	-1.73820100	-0.36091500	-1.79256300
8	3.25300500	-0.65355300	-0.89187700
8	1.31701800	-2.78810700	-0.37555000
8	-2.18208400	0.65496200	0.89533600

8	0.88331400	-1.75317000	2.31771200
8	2.48031700	2.14424300	-0.50963100
8	0.10576800	1.03964300	2.68630900
8	0.97498500	-1.02997200	-2.68775700
8	2.81811200	0.38840200	1.80793700
7	-4.94388900	-0.10803000	0.01728800
8	-4.15050900	-0.99309700	-0.17076000
8	-4.85897300	1.04698800	0.15182700

NO2_000006

13	3.07268400	-0.68584800	-0.14884100
13	-0.25795800	-0.12634300	2.47132600
13	1.97370500	1.63863000	1.44508200
13	1.33909200	0.11926000	-2.49272400
13	0.84904800	-2.44976100	0.90246300
13	-0.89173800	-1.62651100	-1.42936400
13	-2.10028400	0.71803400	0.15223200
13	0.22833800	2.42721900	-0.89351300
8	0.88114700	1.75163600	-2.32004000
8	0.97626000	1.03274300	2.68738200
8	2.81744600	-0.38883800	-1.80901400
8	1.31621300	2.78769300	0.37231500
8	-2.18138700	-0.65549300	-0.89298100
8	-1.73738200	0.36268700	1.79415700
8	3.25281300	0.65421100	0.89020300
8	0.21273100	-1.76214500	2.32620800
8	0.10516800	-1.04196600	-2.68471700
8	2.48069200	-2.14375000	0.50992400
8	-1.40148800	2.13361400	-0.51619500

8	-0.23482100	-2.79124200	-0.36935000
7	-4.94334700	0.10654300	-0.01726000
8	-4.15037800	0.99175100	0.17194900
8	-4.85752700	-1.04798100	-0.15556000

NO2_000007

13	-1.14299800	2.34059900	-1.05169400
13	-1.24547400	0.00568100	2.53786500
13	-3.15369800	0.48678100	0.24534900
13	0.07645400	0.00564400	-2.51213800
13	0.78088300	1.83722600	1.22895500
13	2.10892900	-0.50073300	-0.24473800
13	-0.01615200	-2.31131200	1.04719400
13	-1.93825400	-1.85198000	-1.24178900
8	-1.06227300	-1.26471100	-2.58072400
8	-2.79593400	0.33555400	1.90613600
8	-0.52789100	1.60258500	-2.45960900
8	-3.26755000	-0.93720700	-0.68568300
8	1.56317400	-1.91263000	0.56607800
8	-0.65724800	-1.59171200	2.45781200
8	-2.72101300	1.93497900	-0.54584600
8	-0.10644600	1.27376600	2.57395100
8	1.62167200	-0.30717500	-1.88054300
8	-0.02487600	2.86119600	0.12605500
8	-1.12911400	-2.85620500	-0.12779900
8	2.13064100	0.94722300	0.70199100
7	4.81665100	0.22180500	0.09985600
8	5.96388300	0.38917300	0.19301800
8	4.16015900	-0.68826400	-0.34684100

NO2_000008

13	-2.10049100	0.71810400	-0.14776900
13	1.97426700	1.65055800	-1.43126500
13	0.22757500	2.41977700	0.91201900
13	-0.89242000	-1.63832300	1.41592900
13	-0.25663000	-0.10701500	-2.47267000
13	0.84991400	-2.44214400	-0.92149400
13	3.07326500	-0.68612300	0.14484200
13	1.33830600	0.09887100	2.49368600
8	0.10426600	-1.06380700	2.67605100
8	1.31582100	2.79137700	-0.35024400
8	-2.18218400	-0.66386300	0.88617900
8	0.88008400	1.73241500	2.33308400
8	2.48127100	-2.13851200	-0.52597900
8	3.25343000	0.66251400	-0.88301800
8	-1.40206500	2.12834300	0.53216200
8	0.97750800	1.05400700	-2.67859700
8	-0.23468300	-2.79424600	0.34672100
8	-1.73658200	0.37606600	-1.79232700
8	2.81756100	-0.40311100	1.80743400
8	0.21445200	-1.74377200	-2.34045900
7	-4.94420400	0.10799400	0.01845100
8	-4.85991400	-1.04749800	0.14946700
8	-4.15018600	0.99332100	-0.16569500

NO2_000009

13	-0.03301100	-1.21919800	-2.21093900
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13	-0.02651300	-1.50736700	2.02778100
13	1.93857800	-2.22440600	-0.15339900
13	1.19084300	1.53151100	-2.04353400
13	-2.10924300	-0.55377100	-0.03337000
13	-0.78154600	2.20489100	0.15174900
13	1.19777000	1.24044200	2.22983600
13	3.15417300	0.54167400	0.03260800
8	2.75637500	1.42070700	-1.37424100
8	1.09839600	-2.55962300	1.29093500
8	0.58807400	0.20309100	-2.92488600
8	3.26770500	-1.15581500	-0.08274800
8	0.06755200	2.36419400	1.62408200
8	0.59812400	-0.19512000	2.92584100
8	1.09428900	-2.36119200	-1.62752300
8	-1.59015900	-1.38643900	1.37632600
8	0.06289100	2.56300300	-1.28794400
8	-1.59488000	-1.18860500	-1.54416600
8	2.76128900	1.22208500	1.54678700
8	-2.13073000	1.17201500	0.08329000
7	-4.81836800	0.24382100	0.01451300
8	-4.15986600	-0.76695600	-0.04625600
8	-5.96594400	0.43292400	0.02661800

NO2_000010

13	-0.02884700	-1.35671900	2.13063000
13	-0.03123300	-1.37651000	-2.11766900
13	-2.10931300	-0.55545200	0.00445900
13	1.19580700	1.39849500	2.13465700
13	1.93914300	-2.22873800	0.00917500

13	3.15478800	0.54332000	-0.00386400
13	1.19234200	1.37869500	-2.14821100
13	-0.78169700	2.20981800	-0.00941800
8	0.06652600	2.47564300	1.44796800
8	-1.59341800	-1.29780800	-1.45597200
8	0.59475900	0.01720600	2.93185600
8	-2.13059200	1.17431600	-0.00364400
8	2.75722800	1.31789100	-1.47090700
8	0.59090900	-0.00975100	-2.93236700
8	-1.59236800	-1.28422000	1.47126100
8	1.09588000	-2.47262600	-1.45171300
8	2.76015100	1.33136800	1.45669300
8	1.09713900	-2.45891800	1.47292400
8	0.06386200	2.46244700	-1.47069200
8	3.26848200	-1.15818300	0.00364200
7	-4.81801300	0.24503900	-0.00156500
8	-5.96548900	0.43518400	-0.00284800
8	-4.16016400	-0.76793800	0.00556100

NO2_000011

13	-0.25649200	-0.10668800	-2.47281900
13	-0.89220200	-1.63842700	1.41561900
13	0.85114300	-2.44156500	-0.92215900
13	1.97375800	1.65128100	-1.43094200
13	-2.10061700	0.71758700	-0.14783500
13	0.22700800	2.41940300	0.91257000
13	1.33793800	0.09842900	2.49405600
13	3.07353700	-0.68569200	0.14497400
8	3.25300700	0.66362400	-0.88211600

8	-0.23293300	-2.79354000	0.34651300
8	0.97769500	1.05433000	-2.67863600
8	2.48261700	-2.13798300	-0.52710100
8	0.88029200	1.73212100	2.33329400
8	0.10342800	-1.06374500	2.67653400
8	0.21475200	-1.74340400	-2.34082000
8	-2.18251800	-0.66501100	0.88529700
8	1.31470100	2.79176100	-0.34995000
8	-1.73644000	0.37639900	-1.79249500
8	2.81702400	-0.40393500	1.80766800
8	-1.40258500	2.12756800	0.53297900
7	-4.94440100	0.10737100	0.01819000
8	-4.15034700	0.99267800	-0.16592100
8	-4.86021100	-1.04809400	0.14945900

NO2_000012

13	1.34014600	0.12008800	2.49247100
13	1.97336100	1.63752400	-1.44689000
13	3.07249300	-0.68589400	0.14865400
13	-0.89188200	-1.62538300	1.43106400
13	0.22919600	2.42749000	0.89204900
13	-2.10020300	0.71835300	-0.15115900
13	-0.25850900	-0.12808900	-2.47123900
13	0.84773500	-2.45004800	-0.90132700
8	-0.23592000	-2.79055900	0.37090100
8	3.25245100	0.65355000	-0.89115200
8	0.10595800	-1.04072400	2.68556700
8	2.47938300	-2.14373900	-0.50924300
8	-1.73713500	0.36161300	-1.79277200

8	0.97564900	1.03090700	-2.68855800
8	2.81841900	-0.38840200	1.80887700
8	1.31623700	2.78730300	-0.37467400
8	-2.18175700	-0.65455000	0.89479600
8	0.88268000	1.75246900	2.31855200
8	0.21167000	-1.76405900	-2.32601800
8	-1.40106400	2.13424200	0.51636900
7	-4.94280100	0.10721500	0.01676000
8	-4.85674800	-1.04730300	0.15491800
8	-4.14991900	0.99262300	-0.17186600

NO2_000013

13	-0.02338100	-1.53805800	2.00519000
13	-0.03505500	-1.18678000	-2.22857600
13	-2.10898600	-0.55485200	-0.03920900
13	1.19943600	1.20713300	2.24734000
13	1.93869900	-2.22101900	-0.18779100
13	3.15383600	0.54314000	0.03824800
13	1.18795600	1.56155200	-2.02061300
13	-0.78241600	2.20139700	0.18551300
8	0.06831400	2.33902300	1.65903600
8	-1.59643300	-1.16599200	-1.56018800
8	0.60095700	-0.23881600	2.92204400
8	-2.13113500	1.16909000	0.10372700
8	2.75430300	1.44330100	-1.35451900
8	0.58602300	0.24584100	-2.92140200
8	-1.58767900	-1.40820600	1.35701600
8	1.09237600	-2.33740700	-1.66255700
8	2.76262300	1.20036700	1.56310200

8	1.10114100	-2.57958100	1.25255500
8	0.06022000	2.58195400	-1.24953600
8	3.26690400	-1.15239500	-0.10347500
7	-4.81691200	0.24447600	0.01825700
8	-5.96422800	0.43518200	0.03184600
8	-4.15998200	-0.76660900	-0.05379000

NO2_000014

13	-3.07292900	0.68608000	0.14616300
13	0.25902700	0.12004500	-2.47149600
13	-0.84850000	2.44717900	-0.90899900
13	-1.34047700	-0.11207300	2.49252200
13	-1.97289400	-1.64253500	-1.44143000
13	-0.22900300	-2.42489900	0.89975100
13	2.10027500	-0.71824300	-0.14904800
13	0.89147400	1.63028600	1.42576800
8	-0.10605100	1.04902100	2.68213400
8	-0.21142700	1.75629300	-2.33089800
8	-2.81875100	0.39449700	1.80749600
8	0.23470300	2.79209400	0.36239200
8	1.40110100	-2.13177700	0.52318800
8	1.73793800	-0.36758100	-1.79215000
8	-2.48032100	2.14184400	-0.51676600
8	-0.97536200	-1.03936400	-2.68494600
8	-0.88316100	-1.74505500	2.32364900
8	-3.25228000	-0.65722300	-0.88878300
8	2.18155700	0.65854300	0.89183300
8	-1.31556800	-2.78930100	-0.36606600
7	4.94344400	-0.10728600	0.01785900

8	4.85820600	1.04769800	0.15256500
8	4.15007300	-0.99280300	-0.16827600

NO2_000015

13	-0.03252600	0.95666900	2.33628800
13	3.15410300	-0.53498100	-0.09470300
13	1.19086100	-1.75668700	1.85430400
13	-2.10959400	0.54704000	0.09701100
13	1.93865100	2.19163700	0.40731000
13	-0.02631100	1.73079200	-1.84131600
13	1.19787800	-0.97566200	-2.35742400
13	-0.78193900	-2.17182300	-0.40329600
8	-2.13140500	-1.15403100	-0.21695300
8	2.75622600	-1.56969400	1.20182300
8	-1.59458500	1.00316700	1.67075600
8	0.06239700	-2.69407900	0.98531600
8	0.59842900	0.53034300	-2.88400300
8	2.76157000	-1.03665200	-1.67728200
8	0.58827400	-0.53820600	2.88245500
8	3.26763200	1.13803100	0.21433600
8	-1.58973500	1.53572000	-1.20770200
8	1.09480700	2.15798600	1.88763400
8	0.06722700	-2.16087900	-1.88414800
8	1.09868000	2.69164900	-0.98861800
7	-4.81844200	-0.24084500	-0.04332000
8	-4.16054000	0.75648700	0.13426400
8	-5.96591700	-0.42795300	-0.07700700

NO2_000016

13 -1.34324800 -0.12388600 2.49153100
13 2.10022500 -0.71872100 -0.14959600
13 -0.23039400 -2.42904200 0.88828100
13 -3.07241900 0.68624800 0.14727200
13 0.89039700 1.62225300 1.43597800
13 -0.84611000 2.45123400 -0.89804600
13 0.26118400 0.13209100 -2.47055800
13 -1.97168800 -1.63483600 -1.45136000
8 -3.25109300 -0.65209700 -0.89421000
8 1.40045300 -2.13549900 0.51525500
8 -2.82052000 0.38706500 1.80757200
8 -1.31492600 -2.78673900 -0.38121200
8 -0.20829000 1.76807400 -2.32330900
8 1.73865700 -0.35957000 -1.79100900
8 -0.88650700 -1.75615600 2.31453200
8 2.18067800 0.65245300 0.89889200
8 -2.47838800 2.14456300 -0.50869500
8 -0.10859000 1.03571400 2.68873100
8 -0.97346100 -1.02565700 -2.69141200
8 0.23550800 2.78879600 0.37665400
7 4.94254600 -0.10638500 0.01758900
8 4.15013400 -0.99243200 -0.16988500
8 4.85620100 1.04839100 0.15326700

NO2_000017

13 -0.22908700 -2.42326200 -0.90391100
13 0.25936300 0.11544500 2.47155200
13 2.10025400 -0.71909300 0.14762800

13	-1.34064900	-0.10723600	-2.49253000
13	-1.97320400	-1.64500600	1.43850000
13	-3.07291600	0.68652200	-0.14463400
13	-0.84792700	2.44553500	0.91334300
13	0.89144800	1.63280200	-1.42313200
8	-0.10638500	1.05427900	-2.68053000
8	1.73828200	-0.37110300	1.79137100
8	-0.88288900	-1.74037500	-2.32649300
8	2.18102000	0.65932200	-0.89111200
8	-2.47978800	2.14092500	0.52079300
8	-0.21072700	1.75205400	2.33394300
8	1.40114800	-2.13164800	-0.52674200
8	-0.97527800	-1.04407900	2.68279900
8	-2.81898000	0.39781400	-1.80650900
8	-1.31609200	-2.78983500	0.36093500
8	0.23521700	2.79283700	-0.35748000
8	-3.25261500	-0.65853600	0.88798600
7	4.94307000	-0.10698400	-0.01829800
8	4.85751900	1.04839200	-0.14965800
8	4.15004900	-0.99321100	0.16563000

NO2_000018

13	2.10890900	-0.55451400	0.03124100
13	-1.19376500	1.27037400	-2.21379900
13	0.03001100	-1.48068200	-2.04640800
13	0.02908400	-1.24958700	2.19555800
13	0.78153000	2.20646400	-0.11893800
13	-1.19471800	1.50351800	2.06234300
13	-3.15386000	0.54300600	-0.03019200

13	-1.93791000	-2.22634700	0.12017900
8	-1.09642400	-2.38400900	1.59391100
8	-0.59317100	-0.15609600	-2.92700800
8	1.59220200	-1.20986500	1.53221500
8	-1.09559100	-2.54428600	-1.32693800
8	-2.75922600	1.40311600	1.38902200
8	-2.75880700	1.24402700	-1.53441500
8	1.59238000	-1.36755700	-1.39065600
8	-0.06435600	2.38554400	-1.59084300
8	-0.59428700	0.16287700	2.92652800
8	2.13047700	1.17277100	-0.06162500
8	-3.26608900	-1.15592500	0.06206600
8	-0.06565600	2.54608600	1.32364000
7	4.81782100	0.24512700	-0.01567800
8	5.96526400	0.43520400	-0.02513500
8	4.16010700	-0.76624900	0.04298300

NO2_000019

13	1.18988000	1.48842600	2.07445200
13	1.19840500	1.28616700	-2.20358900
13	3.15418600	0.54323100	-0.02233500
13	-0.03301100	-1.26516200	2.18574800
13	-0.78173400	2.20735100	-0.10546600
13	-2.10912600	-0.55472500	0.02158900
13	-0.02630400	-1.46555600	-2.05745900
13	1.93852200	-2.22674800	0.10769600
8	1.09433900	-2.39473100	1.57874300
8	2.76265800	1.25468100	-1.52249700
8	0.58845900	0.14199400	2.92887200

8	3.26710700	-1.15639100	0.05892300
8	-1.59047600	-1.35816200	-1.40494500
8	0.59846600	-0.13504000	-2.92800600
8	2.75505000	1.39288800	1.40202300
8	0.06825600	2.39648200	-1.57372800
8	-1.59455400	-1.22018900	1.51906200
8	0.06186600	2.53634700	1.34167100
8	1.09794100	-2.53361000	-1.34273000
8	-2.13079700	1.17313400	-0.05968600
7	-4.81784900	0.24475200	-0.01131200
8	-4.15995600	-0.76739500	0.03042500
8	-5.96532000	0.43473800	-0.01926400

NO2_000020

13	-2.10000400	0.71655200	-0.15070100
13	0.84951700	-2.44860000	-0.90472900
13	-0.25798100	-0.12480300	-2.47166900
13	0.22890300	2.42641100	0.89564300
13	-0.89173800	-1.62827400	1.42859200
13	1.33963800	0.11655400	2.49259800
13	3.07286100	-0.68531800	0.14796000
13	1.97284900	1.64054800	-1.44395700
8	1.31530900	2.78922700	-0.37075900
8	0.21328100	-1.76059800	-2.32839000
8	-1.40087100	2.13123700	0.51919200
8	0.97556000	1.03522200	-2.68662700
8	2.81799900	-0.39120600	1.80869400
8	2.48123500	-2.14248800	-0.51266600
8	-1.73722900	0.36283100	-1.79299500

8	-0.23384600	-2.79116800	0.36712600
8	0.88290300	1.74942700	2.32096000
8	-2.18232200	-0.65822200	0.89269000
8	3.25208900	0.65626500	-0.88921700
8	0.10504500	-1.04401500	2.68416400
7	-4.94429600	0.10896500	0.01737200
8	-4.86100200	-1.04603200	0.15329300
8	-4.14971400	0.99293600	-0.17048900

NO_000001

13	1.40413500	-0.78439500	2.27831100
13	1.41009600	-1.40680600	-1.95128100
13	-0.16791400	-2.52054400	0.37099400
13	-0.66168600	1.39833300	1.94102800
13	2.97713300	0.34729300	-0.04716900
13	0.91752100	2.53866300	-0.37190700
13	-0.65590200	0.78170100	-2.26409300
13	-2.31371500	-0.35070000	0.04661400
8	-2.11768900	0.73287600	1.36579500
8	0.71741000	-2.69675700	-1.07836600
8	0.37018000	0.42511200	2.89044100
8	-1.77015600	-1.95902200	0.28601800
8	0.04340300	2.27150800	-1.81126700
8	0.37851800	-0.42381300	-2.88766600
8	0.71381700	-2.27133900	1.81168600
8	2.86126800	-0.72455800	-1.36860100
8	0.04052000	2.69566900	1.08162900
8	2.85666900	-0.29779600	1.52680900
8	-2.11568600	0.30965300	-1.52814100

8	2.52529000	1.97437900	-0.28792300
7	-4.50769300	-0.45908700	-0.04775000
8	-5.28752300	0.36002900	0.03731100

NO_000002

13	-1.48464500	0.03699500	2.36597700
13	2.31312300	-0.00390700	0.27157200
13	0.37593100	-2.11522000	1.33593100
13	-2.98087900	0.00317000	-0.26430500
13	0.38596100	2.14831300	1.27544200
13	-1.11360700	2.12428900	-1.34725900
13	0.74968100	-0.03693600	-2.35327300
13	-1.12456600	-2.15785800	-1.28645700
8	-2.67092000	-1.47353400	-1.05929700
8	1.92552400	-1.45602900	1.09417900
8	-2.91758300	0.02871000	1.43969100
8	-0.37976200	-2.92876500	0.03943100
8	-0.11181000	1.42511900	-2.53664400
8	2.18502900	-0.02917000	-1.43972200
8	-0.62700100	-1.42687100	2.53329000
8	1.93199900	1.47426500	1.04978700
8	-2.66300300	1.45360700	-1.10349800
8	-0.61794300	1.49938700	2.49362800
8	-0.12212500	-1.49718900	-2.49692700
8	-0.36690000	2.92910600	-0.04261600
7	5.27223100	0.00628900	-0.43532500
8	4.49967000	-0.00226200	0.41346200

NO_000003

13 0.37757600 -1.24889900 -2.16660600
13 -2.98135800 0.26317900 0.01188500
13 -1.48434900 -2.36598200 -0.06012100
13 2.31353600 -0.27054000 -0.01209900
13 -1.12340200 1.37276500 -2.10418700
13 0.74935000 2.35303100 0.05974500
13 -1.11579000 1.26010100 2.17606800
13 0.38519500 -1.36140300 2.09494300
8 1.93196600 -1.10970100 1.43221200
8 -2.91737700 -1.44044600 -0.03274700
8 1.92671100 -1.03230100 -1.49735400
8 -0.61881100 -2.55208800 1.39675000
8 -0.11525500 2.47793900 1.52614200
8 -2.66511500 1.04211300 1.49595500
8 -0.62426300 -2.47426700 -1.52806800
8 -2.66999800 1.11874200 -1.43034600
8 2.18469800 1.44030300 0.03314300
8 -0.37867600 0.07879300 -2.92761700
8 -0.36828900 -0.07560400 2.92720500
8 -0.12050800 2.55510200 -1.39483800
7 5.27303600 0.43480500 0.01840100
8 4.49977900 -0.41269900 -0.01593300

NO_000004

13 0.66156200 1.34609100 1.97690800
13 -2.97732400 0.34693000 -0.03678800
13 -0.91650100 2.54708300 -0.30265500
13 2.31378800 -0.35094400 0.03449200

13	-1.40404500	-0.84580100	2.25741800
13	0.16717400	-2.52778600	0.30317000
13	-1.41126700	-1.35214700	-1.98865700
13	0.65577500	0.84291800	-2.24372400
8	2.11636600	0.35050500	-1.52266600
8	-2.52366300	1.97966100	-0.23220300
8	2.11706900	0.69704300	1.38233600
8	-0.04312400	2.31991100	-1.74927600
8	-0.71842300	-2.66441200	-1.15009700
8	-2.86331900	-0.68760600	-1.38792300
8	-0.03980100	2.66760300	1.15455200
8	-2.85736800	-0.34153600	1.51876100
8	1.76934100	-1.96451800	0.23157200
8	-0.37047900	0.34813200	2.90004200
8	-0.37984400	-0.34476300	-2.89895900
8	-0.71286900	-2.31969600	1.75137500
7	4.50892800	-0.46199500	-0.05108600
8	5.29091600	0.35361500	0.04692100

NO_000005

13	-0.91799600	2.54733900	-0.30011000
13	-1.41046400	-1.35077600	-1.99020500
13	0.65580500	0.84542500	-2.24245800
13	0.66132600	1.34367600	1.97893100
13	-2.97745700	0.34700800	-0.03673900
13	-1.40384600	-0.84870800	2.25619900
13	0.16802900	-2.52859600	0.30020300
13	2.31391700	-0.35004500	0.03489500
8	2.11735800	0.69567900	1.38440100

8	-0.37872400	-0.34239700	-2.89908700
8	-0.04094300	2.66500300	1.15708400
8	2.11660800	0.35384400	-1.52104700
8	-0.71263500	-2.32181600	1.74824700
8	-0.71763300	-2.66402100	-1.15316800
8	-0.04447200	2.32126900	-1.74682900
8	-2.86222600	-0.68616600	-1.38888200
8	-0.37034200	0.34418200	2.90084000
8	-2.52542300	1.98031400	-0.23056900
8	1.76986000	-1.96417800	0.22952400
8	-2.85688900	-0.34293000	1.51817200
7	4.50874800	-0.46070100	-0.05122200
8	5.29017200	0.35568200	0.04497200

NO_000006

13	0.66162400	-1.34431700	-1.97836500
13	-2.97729300	-0.34787400	0.03710600
13	-0.91705300	-2.54735500	0.30148900
13	2.31384000	0.35105700	-0.03531000
13	-1.40427000	0.84715800	-2.25657600
13	0.16727900	2.52864300	-0.30149400
13	-1.41073600	1.35146400	1.98959100
13	0.65622300	-0.84390200	2.24284200
8	2.11673000	-0.35205200	1.52100700
8	-2.52468000	-1.98091100	0.23178900
8	2.11743100	-0.69535700	-1.38430400
8	-0.04347100	-2.32030000	1.74801700
8	-0.71828500	2.66446400	1.15189900
8	-2.86231600	0.68610000	1.38866100

8	-0.04012100	-2.66540200	-1.15572300
8	-2.85709000	0.34122700	-1.51821100
8	1.76935800	1.96494800	-0.23067800
8	-0.37045800	-0.34569400	-2.90078500
8	-0.37871200	0.34383300	2.89899300
8	-0.71346800	2.32071900	-1.74933500
7	4.50868800	0.46086500	0.05026700
8	5.28935500	-0.35650400	-0.04415100

NO_000007

13	1.39248100	-0.86948700	2.25004200
13	1.42439000	-1.32891400	-2.00024100
13	-0.16638500	-2.53395600	0.26657400
13	-0.67266700	1.32352000	1.98864800
13	2.97723400	0.35272800	-0.02073400
13	0.91479900	2.55128700	-0.26999400
13	-0.64685800	0.86352500	-2.23758700
13	-2.31327300	-0.35753000	0.01720400
8	-2.12249800	0.67810500	1.37616100
8	0.72807600	-2.65294000	-1.18284700
8	0.35402900	0.31372800	2.90487900
8	-1.76969100	-1.97388200	0.19470300
8	0.04607300	2.33557700	-1.72094200
8	0.39598700	-0.31197100	-2.90339300
8	0.70646000	-2.33702500	1.72074000
8	2.87091200	-0.66753000	-1.38325100
8	0.03261400	2.65447400	1.18541000
8	2.84866200	-0.35226100	1.52674300
8	-2.10981400	0.35842600	-1.53146200

8	2.52323900	1.98712100	-0.20054400
7	-4.50781200	-0.43895500	0.13743600
8	-5.28801100	0.35035900	-0.09655900

NO_000008

13	0.91410600	-2.53441700	0.40094400
13	-2.31288100	0.35264500	-0.05141400
13	-0.65836500	-0.75367600	2.27255300
13	2.97706500	-0.35055300	0.05206900
13	-0.66325800	-1.41945400	-1.92563500
13	1.40623100	0.75680400	-2.28617800
13	-0.16407300	2.51678900	-0.39913500
13	1.41173200	1.42764700	1.93560800
8	2.86185300	0.73677000	1.36095900
8	-2.11774900	-0.28814000	1.53168200
8	2.52294100	-1.97411300	0.31173800
8	0.37825900	0.45680800	2.88261700
8	0.71864100	2.25013600	-1.83620600
8	-1.76651500	1.95702400	-0.30937500
8	0.03899400	-2.24921200	1.83618700
8	-2.11945000	-0.74688100	-1.35885600
8	2.85803400	0.27614200	-1.52944800
8	0.03823000	-2.70704000	-1.05128900
8	0.72022900	2.70871800	1.04872800
8	0.36994400	-0.45737000	-2.88502900
7	-4.51069500	0.46470500	0.01544300
8	-5.28620900	-0.36260700	-0.01329000

NO_000009

13	-0.65777100	-1.22102700	-2.05913500
13	2.97696700	-0.35046200	0.02196900
13	1.40996400	0.98250800	-2.19854400
13	-2.31360400	0.35312000	-0.02159400
13	0.91578900	-2.56103200	0.14789600
13	-0.66128700	-0.97858600	2.18529600
13	1.40582900	1.22757300	2.07081700
13	-0.16571900	2.54244500	-0.14886100
8	-1.76790400	1.97564000	-0.11646900
8	2.86090300	0.43222300	-1.48874000
8	-2.11568900	-0.60909800	-1.43166800
8	0.71849300	2.42296100	-1.60457100
8	0.37128000	0.16741700	2.91534000
8	2.85850900	0.59910400	1.43382400
8	0.37732000	-0.16877200	-2.91615500
8	2.52378400	-1.99223000	0.11562900
8	-2.11901600	-0.44395800	1.48901300
8	0.04136000	-2.58940400	-1.31532100
8	0.71620300	2.58933800	1.31232000
8	0.03996900	-2.42251800	1.60430000
7	-4.50830700	0.45898000	0.07063600
8	-5.28946500	-0.35344000	-0.05580300

NO_000010

13	1.48388600	-2.31397800	0.49858800
13	1.11553100	0.83351100	-2.37245700
13	-0.38566700	-1.72727000	-1.80545200
13	-0.37718700	-0.82478900	2.36100700

13	2.98116300	0.25647700	-0.06087900
13	1.12388100	1.74008000	1.81224600
13	-0.74907700	2.30107900	-0.49567400
13	-2.31339800	-0.26373500	0.06249600
8	-1.92646200	-0.73705800	1.66313000
8	0.36827100	-0.61866700	-2.86207400
8	0.62447800	-2.14766100	1.96137800
8	-1.93230400	-1.35628400	-1.20128900
8	0.12126200	2.77029000	0.89567700
8	0.11500900	2.15086500	-1.95987700
8	0.61787500	-2.76768700	-0.89804800
8	2.66499800	0.74635000	-1.66371100
8	0.37889100	0.62142800	2.86142100
8	2.91663800	-1.40918000	0.29926200
8	-2.18430800	1.40901800	-0.29919200
8	2.67049700	1.36524300	1.19739600
7	-5.27246300	0.42543400	-0.09997400
8	-4.50002900	-0.40114700	0.09360800

NO_000011

13	2.97744800	0.34727700	-0.03658000
13	-0.16789500	-2.52923900	0.29565200
13	1.40430200	-0.85285900	2.25440000
13	0.91786000	2.54794500	-0.29553300
13	1.41015200	-1.34704600	-1.99285700
13	-0.65630800	0.84947200	-2.24068000
13	-2.31391700	-0.35030000	0.03475200
13	-0.66101500	1.33993700	1.98157800
8	0.04105200	2.66279500	1.16203500

8	0.71302800	-2.32505300	1.74391100
8	2.52535500	1.98093000	-0.22731400
8	0.37086700	0.33879200	2.90144700
8	-2.11696300	0.35648200	-1.51992200
8	-1.76977400	-1.96478100	0.22627800
8	2.85716800	-0.34560400	1.51704700
8	0.71758600	-2.66187500	-1.15809200
8	0.04404400	2.32440000	-1.74247300
8	2.86196700	-0.68338900	-1.39061300
8	-2.11711400	0.69294400	1.38611700
8	0.37814800	-0.33709600	-2.89968000
7	-4.50871400	-0.46042100	-0.05214000
8	-5.29000800	0.35589200	0.04569000

NO_000012

13	0.37872700	2.24280300	-1.10551900
13	0.74901400	-1.98931500	-1.25832600
13	2.31357000	0.23063700	0.14110300
13	-1.48397600	2.00031900	1.26531900
13	-1.12283800	0.02959900	-2.51215100
13	-2.98139000	-0.22420700	-0.13755600
13	-1.11684100	-2.25734400	1.10752300
13	0.38426400	-0.03431800	2.49829000
8	-0.61942500	1.34373300	2.57974700
8	2.18454300	-1.21645700	-0.77272900
8	-0.62283900	2.90684900	0.10652600
8	1.93128000	0.12457400	1.80800000
8	-2.66560000	-1.69678100	0.66305000
8	-0.11630000	-2.90868300	-0.10969400

8	1.92760200	1.68997300	-0.66957300
8	-0.12032500	-1.34777300	-2.57974100
8	-2.91713600	1.21669700	0.77245000
8	-0.37761700	1.56266300	-2.47631200
8	-0.36957700	-1.56562700	2.47508600
8	-2.67002300	-0.13357800	-1.81198000
7	5.27376400	-0.36989200	-0.22866900
8	4.50001300	0.35103400	0.21739700

NO_000013

13	-1.40450500	-0.84877300	2.25576900
13	-1.41049400	-1.35019900	-1.99052100
13	-2.97743200	0.34765700	-0.03718100
13	0.66121500	1.34310700	1.97939700
13	0.16758500	-2.52883900	0.29985800
13	2.31391900	-0.35089900	0.03545400
13	0.65644600	0.84548300	-2.24201200
13	-0.91725100	2.54751500	-0.29988800
8	-0.04060700	2.66469400	1.15758500
8	-2.86226000	-0.68546300	-1.38937800
8	-0.37088200	0.34373300	2.90093600
8	-2.52480600	1.98080900	-0.23091900
8	2.11693100	0.35324100	-1.52047700
8	-0.37847800	-0.34179400	-2.89900300
8	-2.85732200	-0.34249000	1.51765400
8	-0.71784600	-2.66370800	-1.15371800
8	2.11714600	0.69475800	1.38502100
8	-0.71348100	-2.32186300	1.74762900
8	-0.04326600	2.32159200	-1.74639000

8	1.76963900	-1.96502300	0.22977000
7	4.50875600	-0.46057300	-0.05121900
8	5.28966000	0.35630500	0.04468100

NO_000014

13	-0.37927200	2.18040200	1.22326500
13	2.98131500	-0.23079800	0.12657400
13	1.12162500	-0.10455900	2.51059200
13	-2.31341200	0.23702400	-0.13016200
13	1.48414100	2.06535000	-1.15615800
13	-0.38329800	0.09886100	-2.49710300
13	1.11774800	-2.19476700	-1.22611100
13	-0.74942000	-2.05398500	1.14988000
8	-2.18491100	-1.25709600	0.70470200
8	2.66900700	-0.23064400	1.80328800
8	-1.92779000	1.65052400	0.75809500
8	0.11863300	-1.48329600	2.50417800
8	0.37026600	-1.43165800	-2.55501800
8	2.66636100	-1.65806300	-0.75240800
8	0.37717300	1.42865300	2.55606600
8	2.91716700	1.25698800	-0.70443700
8	-1.93068500	0.22075800	-1.80018500
8	0.62202100	2.90889600	0.04859700
8	0.11737200	-2.91036000	-0.04539900
8	0.62053200	1.47925800	-2.50405000
7	-5.27352900	-0.37976900	0.21080500
8	-4.49987600	0.36235500	-0.19914700

NO_000015

13	-2.31166800	-0.34230100	0.10946500
13	1.36394200	0.00710700	2.42277300
13	-0.18094100	-2.26844100	1.16085300
13	-0.63272600	-0.01023200	-2.40690000
13	-0.67228000	1.96248600	1.36484600
13	0.92372200	2.28275700	-1.16803000
13	2.97614500	0.31759900	-0.12684200
13	1.43943000	-1.96384300	-1.37313900
8	0.42183500	-1.33989500	-2.59044500
8	0.67259000	-1.55040900	2.45359800
8	-2.10967400	-0.24284900	-1.59386200
8	0.73165900	-2.89967800	-0.13647100
8	2.52886800	1.77357600	-0.89435600
8	2.82548600	0.22323100	1.56933300
8	-1.78520100	-1.78495600	0.87150900
8	0.33200800	1.35340000	2.60315900
8	0.05263900	1.55319700	-2.43924700
8	-2.09822400	1.11986900	0.98267700
8	2.88648300	-1.12900500	-1.02575300
8	0.04709900	2.92062400	0.14866300
7	-4.49459400	-0.29442600	0.33958800
8	-5.29443900	0.28467900	-0.21836200

NO_000016

13	2.31293200	-0.35363500	-0.06214800
13	-1.41278500	-0.72445900	-2.29386300
13	0.15756800	-2.51197600	-0.43383300
13	0.66763700	0.72057200	2.27919800

13	0.65919100	1.44416100	-1.90916500
13	-0.91009200	2.52976200	0.43702400
13	-2.97590200	0.35437600	0.06469600
13	-1.40860200	-1.45334100	1.91907200
8	-0.36854700	-0.49736100	2.87431800
8	-0.72804200	-2.22488300	-1.86505600
8	2.12692200	0.26577200	1.53020500
8	-0.72346300	-2.72505600	1.01324300
8	-2.52049600	1.97384200	0.34584900
8	-2.86110800	-0.25088600	-1.52534100
8	1.75994400	-1.95274400	-0.33896500
8	-0.37615100	0.49541600	-2.87970000
8	-0.02989300	2.22219100	1.86434300
8	2.11553300	0.76309900	-1.35374400
8	-2.85854700	-0.75079700	1.35866500
8	-0.03970700	2.72049400	-1.01636800
7	4.51033900	-0.46653500	-0.02121400
8	5.28584500	0.36025900	0.00951700

NO_000017

13	-1.48459700	0.52564100	-2.30699300
13	-1.11757600	1.79656500	1.75841200
13	-2.98121800	-0.05666500	0.25766300
13	0.37969400	-1.78970100	-1.74557700
13	0.38332100	2.36810300	-0.80070800
13	2.31335500	0.05832400	-0.26535700
13	0.74916200	-0.52270200	2.29465100
13	-1.12118000	-2.37950200	0.80960000
8	-0.37587900	-2.85655800	-0.64789400

8	-2.66594300	1.18956700	1.37846300
8	-0.62277300	-0.86878700	-2.77530000
8	-2.66862600	-1.66521200	0.73037900
8	2.18437100	-0.32104700	1.40365900
8	-0.11681300	0.86634500	2.77832000
8	-2.91778900	0.32110000	-1.40407100
8	-0.37026000	2.85615400	0.65114100
8	1.92825700	-1.19321700	-1.37030900
8	-0.62112500	1.98423300	-2.12620100
8	-0.11863500	-1.98311800	2.13037600
8	1.93094200	1.66519700	-0.72130600
7	5.27209400	-0.09483900	0.42609900
8	4.49963100	0.08822600	-0.40284300

NO_000018

13	0.35550800	-2.33211000	-0.92265300
13	0.40967800	0.23633200	2.47963700
13	2.31276400	-0.23494800	0.13540000
13	-1.14798200	-0.23304500	-2.49320700
13	-1.48124700	-1.88265300	1.43722100
13	-2.98072700	0.22828700	-0.13043700
13	-1.09367000	2.34696700	0.92328300
13	0.74628500	1.87247500	-1.42865900
8	-0.14045900	1.12916000	-2.68350200
8	1.94970000	0.01223800	1.79184600
8	-0.40982400	-1.76196000	-2.33801600
8	2.18166600	1.13200700	-0.89429600
8	-2.64961700	1.76096300	0.54064400
8	-0.33698300	1.76442700	2.33590900

8	1.91100800	-1.75412700	-0.54692200
8	-0.59903900	-1.12526600	2.68395600
8	-2.68741700	-0.00398100	-1.79454300
8	-0.63831100	-2.88820300	0.34876800
8	-0.10131500	2.89060000	-0.35216100
8	-2.91473200	-1.13183000	0.89608900
7	5.27388300	0.37112900	-0.23053100
8	4.49968700	-0.35088600	0.21299300

NO_000019

13	-1.20455400	1.50037700	-1.50971400
13	1.82624700	1.52770100	1.52197800
13	-1.19879900	1.48194900	1.53319000
13	-1.16318500	-1.52732200	-1.52472000
13	1.82012300	1.54596200	-1.50933800
13	1.86248100	-1.48380200	-1.52728900
13	1.86849100	-1.50174700	1.50361900
13	-1.15743900	-1.54520900	1.51201200
8	-1.69633000	-2.09484200	-0.00860700
8	0.30708000	2.05464700	2.09124700
8	-1.74559900	-0.01827900	-2.06519200
8	-1.73845800	-0.04297500	2.07255000
8	2.42197300	-2.04216700	-0.01620600
8	2.40624900	0.01753000	2.06139400
8	-1.75423100	2.02618300	0.01605300
8	2.36273300	2.10230500	0.00862200
8	0.35700800	-2.05418600	-2.09023100
8	0.29907600	2.08001700	-2.06678400
8	0.36495900	-2.07808500	2.06574300

8	2.39752200	0.04220800	-2.06890900
7	-4.43106400	0.61538800	0.00363100
8	-4.41652000	-0.52742100	-0.00243400

NO_000020

13	-0.65730700	0.86258300	2.23448000
13	-0.66126400	1.32679300	-1.99072600
13	0.91678100	2.55012900	0.28008500
13	1.40979600	-1.33455100	2.00181000
13	-2.31369300	-0.35179000	-0.03487200
13	-0.16646400	-2.53163600	-0.28012800
13	1.40573500	-0.86631100	-2.24836300
13	2.97721400	0.34939200	0.03576100
8	2.86121400	-0.67378400	1.39535700
8	0.04069800	2.65432100	-1.17869400
8	0.37746500	-0.31900600	2.90191100
8	2.52485200	1.98403000	0.21706200
8	0.71613500	-2.33594300	-1.72853200
8	0.37098900	0.31976700	-2.90366800
8	0.04198500	2.33499000	1.72767500
8	-2.11792500	0.68358200	-1.39218200
8	0.71766000	-2.65488600	1.17531900
8	-2.11691200	0.36386400	1.51575500
8	2.85764300	-0.35218800	-1.51406300
8	-1.76855400	-1.96715800	-0.21636000
7	-4.50869600	-0.45959000	0.05090100
8	-5.29018600	0.35706300	-0.04094500

O2_000001

13	0.34384700	1.53534500	1.97887600
13	-3.00221800	-0.21932800	-0.03012400
13	-1.45660700	2.36743600	-0.30558500
13	2.30767600	0.22465700	0.02970700
13	-1.20578500	-1.04350300	2.26333800
13	0.68752300	-2.35454300	0.30501200
13	-1.11619700	-1.54879700	-1.98678500
13	0.43399200	1.03207700	-2.25297700
8	1.96416100	0.85410600	-1.52984100
8	-2.90672000	1.47171000	-0.22999000
8	1.90110900	1.20168200	1.37980400
8	-0.55952900	2.32732100	-1.75493700
8	-0.15305400	-2.67570400	-1.14553200
8	-2.67413000	-1.20855700	-1.38017900
8	-0.62210000	2.67196200	1.14939500
8	-2.73373600	-0.86318800	1.52618900
8	2.13843800	-1.47091300	0.22908100
8	-0.45146400	0.34384100	2.90685900
8	-0.32816500	-0.34839200	-2.90628600
8	-0.21284000	-2.33284800	1.75524000
8	4.40752400	0.49624500	0.00325200
8	5.11813200	-0.45644900	-0.00543000

O2_000002

13	0.65627900	-1.10891300	-2.12008100
13	0.14976500	2.54966400	-0.01420900
13	-1.41999700	1.09143200	-2.14420500
13	-0.91608500	-2.56730100	0.01441700

13	2.29853000	0.36112900	-0.00185300
13	0.65599400	-1.08492200	2.13244700
13	-1.42036300	1.11570400	2.13163500
13	-2.98455400	-0.36214000	0.00186300
8	-2.52674600	-2.00520000	0.01121200
8	-0.73352900	2.50037100	-1.47430700
8	-0.04002600	-2.51445000	-1.44717700
8	-2.86870900	0.49751300	-1.46667200
8	-0.38129400	0.01756800	2.92023100
8	-0.73374000	2.51718400	1.44624800
8	-0.38094900	-0.01541000	-2.92047200
8	1.75382900	1.98633200	-0.01092500
8	-0.04014800	-2.49799200	1.47541100
8	2.11271000	-0.52659300	-1.46018800
8	-2.86888800	0.51406700	1.46061900
8	2.11264900	-0.51031800	1.46621600
8	5.01744300	-0.49108800	0.00266600
8	4.42059600	0.53670700	-0.00288300

O2_000003

13	0.14968900	-2.54961500	-0.00996300
13	0.65610300	1.10532500	-2.12204900
13	-1.42032800	-1.09520000	-2.14217500
13	-1.42007300	-1.11191000	2.13376900
13	2.29850400	-0.36105300	-0.00155800
13	0.65617000	1.08864500	2.13054500
13	-0.91598400	2.56731600	0.00996800
13	-2.98452800	0.36206800	0.00146800
8	-2.86868900	-0.51163500	1.46168200

8	-0.38122600	0.01033500	-2.92021500
8	-0.73342100	-2.51444700	1.45066400
8	-2.86902300	-0.50013200	-1.46561800
8	-0.03997400	2.50058500	1.47104700
8	-0.04008400	2.51212500	-1.45164500
8	-0.73391700	-2.50310600	-1.46997200
8	2.11269500	0.52442400	-1.46123100
8	-0.38106200	-0.01237800	2.92049600
8	1.75367000	-1.98613700	-0.00807000
8	-2.52660900	2.00510900	0.00788900
8	2.11272400	0.51273300	1.46517600
8	4.42049400	-0.53706100	-0.00163200
8	5.01764900	0.49052500	0.00142000

O2_000004

13	-1.84607000	-1.52067200	1.51180500
13	1.17580100	-1.51025800	-1.52760500
13	-1.84679600	-1.51540000	-1.51634900
13	-1.84626700	1.51523100	1.51701000
13	1.17653700	-1.51557800	1.52166700
13	1.17649600	1.51049700	1.52680600
13	1.17573600	1.51581100	-1.52228500
13	-1.84699600	1.52051600	-1.51101300
8	-2.40398800	2.07039900	0.00409600
8	-0.33628200	-2.07819000	-2.07428900
8	-2.39207600	-0.00370400	2.06752400
8	-2.39303100	0.00349700	-2.06654300
8	1.73055100	2.03919800	0.00303800
8	1.71970800	0.00378800	-2.08942200

8	-2.40356100	-2.07062500	-0.00310200
8	1.73038300	-2.03892100	-0.00401900
8	-0.33547900	2.07820000	2.07402700
8	-0.33529400	-2.08541600	2.06705900
8	-0.33648700	2.08547000	-2.06677200
8	1.72073500	-0.00349000	2.08841200
8	4.19669000	0.59553800	0.00102400
8	4.19566700	-0.59598500	-0.00109100

O2_000005

13	-2.98465300	-0.36176600	0.00020700
13	0.65613300	-1.09935200	-2.12508200
13	-1.41977600	1.10156100	-2.13917800
13	-1.42016300	1.10611500	2.13673600
13	-0.91673700	-2.56723700	0.00264700
13	0.65582000	-1.09477700	2.12750100
13	2.29858900	0.36041400	-0.00016800
13	0.15013600	2.54961300	-0.00262700
8	-0.73327500	2.51055800	1.45771600
8	-0.38059100	-0.00173000	-2.92042000
8	-2.86876400	0.50781200	1.46291400
8	-0.73332200	2.50746700	-1.46286500
8	2.11261900	-0.51730900	1.46409800
8	2.11285700	-0.52092600	-1.46237900
8	-2.86848000	0.50448800	-1.46444000
8	-0.04076900	-2.50771700	-1.45876700
8	-0.38130900	0.00423500	2.92035800
8	-2.52736300	-2.00500200	0.00214500
8	1.75401700	1.98570800	-0.00216600

8	-0.04061800	-2.50459700	1.46381700
8	5.01783700	-0.49089100	0.00151800
8	4.42071900	0.53672600	-0.00158600

O2_000006

13	0.65594800	1.08961800	-2.13009800
13	-2.98458100	0.36193400	-0.00110200
13	-1.42025600	-1.11108400	-2.13405900
13	2.29854900	-0.36095500	0.00110100
13	-0.91621200	2.56727800	-0.00886100
13	0.65618700	1.10441700	2.12242200
13	-1.41998600	-1.09616300	2.14181600
13	0.14988900	-2.54960800	0.00875600
8	1.75391900	-1.98618000	0.00680600
8	-2.86887800	-0.51115900	-1.46170400
8	2.11261000	0.51358900	-1.46514600
8	-0.73348400	-2.51394700	-1.45169900
8	-0.38091400	0.00904600	2.92040300
8	-2.86872300	-0.50083300	1.46559600
8	-0.38134600	-0.01114200	-2.92032300
8	-2.52681600	2.00502500	-0.00692700
8	2.11273600	0.52379200	1.46125400
8	-0.04023400	2.50124800	-1.46997800
8	-0.73347300	-2.50369000	1.46892700
8	-0.04023300	2.51140400	1.45267600
8	4.42056500	-0.53685500	0.00169400
8	5.01752300	0.49086800	-0.00154000

O2_000007

13	-0.65636300	-1.12598400	2.11125100
13	-0.65613000	-1.06794600	-2.14104700
13	-2.29854200	0.36071500	0.00474300
13	1.42012200	1.07411400	2.15294700
13	0.91576700	-2.56706500	-0.03482500
13	2.98442400	-0.36201300	-0.00487800
13	1.42035100	1.13269200	-2.12285900
13	-0.14914600	2.54914700	0.03462700
8	0.73396400	2.48859500	1.49442600
8	-2.11300700	-0.49911100	-1.47034300
8	0.38085300	-0.03879500	2.92018800
8	-1.75307000	1.98545900	0.02684300
8	2.86892000	0.52589400	-1.45650000
8	0.38111000	0.04090300	-2.91991600
8	-2.11292300	-0.53885000	1.45584200
8	0.03996200	-2.48627700	-1.49533400
8	2.86882700	0.48571300	1.47057200
8	0.03999900	-2.52620200	1.42733200
8	0.73403300	2.52878400	-1.42624300
8	2.52637500	-2.00487800	-0.02733100
8	-4.42034700	0.53816800	0.00521700
8	-5.01798100	-0.48910200	-0.00468500

O2_000008

13	-2.29845000	-0.36124300	0.00297500
13	1.41947000	-1.08208600	2.14907000
13	-0.14993800	-2.54961300	0.02491100
13	-0.65545900	1.07583100	-2.13728600

13	-0.65654600	1.11818100	2.11525500
13	0.91606200	2.56725100	-0.02540100
13	2.98450500	0.36192400	-0.00288400
13	1.42076300	-1.12497300	-2.12667700
8	0.38220900	-0.02983900	-2.92011500
8	0.73325900	-2.49377500	1.48485800
8	-2.11213100	0.50363100	-1.46894100
8	0.73356200	-2.52346400	-1.43569200
8	2.52663100	2.00488500	-0.01986200
8	2.86839200	-0.49109300	1.46943900
8	-1.75403600	-1.98651900	0.01937900
8	0.38035000	0.02795500	2.92058900
8	0.04017100	2.49190300	-1.48618000
8	-2.11283900	0.53311500	1.45735800
8	2.86916800	-0.52085700	-1.45767300
8	0.04005600	2.52083400	1.43654000
8	-4.42067300	-0.53661500	0.00635300
8	-5.01728200	0.49127200	-0.00599300

O2_000009

13	-2.29855000	-0.36100700	0.00581700
13	1.41987300	-1.06682000	2.15648000
13	-0.14975800	-2.54927900	0.04291300
13	-0.65588300	1.06063500	-2.14455800
13	-0.65619400	1.13308600	2.10742800
13	0.91604500	2.56699000	-0.04355800
13	2.98451500	0.36195000	-0.00587800
13	1.42045300	-1.14006300	-2.11883900
8	0.38155800	-0.05060000	-2.91966700

8	0.73367600	-2.48315600	1.50226000
8	-2.11265400	0.49364500	-1.47205200
8	0.73347700	-2.53380900	-1.41800800
8	2.52664000	2.00477600	-0.03439900
8	2.86873600	-0.48065600	1.47245600
8	-1.75380300	-1.98596700	0.03355000
8	0.38082900	0.04858100	2.92032300
8	0.03988200	2.48122500	-1.50357500
8	-2.11252900	0.54342000	1.45393000
8	2.86889600	-0.53107900	-1.45438500
8	0.04036700	2.53089300	1.41878200
8	-4.42075700	-0.53689200	0.00976400
8	-5.01763000	0.49069200	-0.00866500

O2_000010

13	-3.00277400	0.21806400	0.00163200
13	0.68946500	2.35513800	0.29092100
13	-1.17978200	1.04222100	2.27238300
13	-1.45915100	-2.36808700	-0.29307200
13	-1.13981400	1.54987500	-1.97717200
13	0.40835100	-1.03114900	-2.26206200
13	2.30808800	-0.22526700	-0.00281900
13	0.36789300	-1.53592600	1.96914600
8	-0.60780700	-2.67318400	1.15195300
8	-0.19452800	2.33215800	1.75110900
8	-2.90822800	-1.47256400	-0.20030600
8	-0.41669400	-0.34461000	2.90576400
8	1.94760000	-0.85445700	-1.55814800
8	2.13826900	1.47010200	0.19858500

8	-2.71731300	0.86042800	1.55575600
8	-0.16731000	2.67908400	-1.14972000
8	-0.57898100	-2.32663100	-1.75252900
8	-2.68982400	1.20893600	-1.35108600
8	1.91813000	-1.20230500	1.35178000
8	-0.36171300	0.34959300	-2.90474400
8	4.40803800	-0.49297400	-0.02941400
8	5.11791200	0.45851100	0.03269600

O2_000011

13	0.14979200	-2.54939300	0.03455200
13	0.65618200	1.12611800	2.11119100
13	2.29851200	-0.36090700	0.00476800
13	-1.42032300	-1.13298300	-2.12265900
13	-1.41991800	-1.07406000	2.15289600
13	-2.98452200	0.36190700	-0.00476900
13	-0.91612400	2.56709600	-0.03504600
13	0.65593600	1.06780300	-2.14101600
8	-0.38136100	-0.04096200	-2.91987700
8	2.11262400	0.53865100	1.45588600
8	-0.73348600	-2.52898900	-1.42627100
8	2.11268100	0.49868800	-1.47026200
8	-2.52671300	2.00483300	-0.02761800
8	-0.04031500	2.52617700	1.42707900
8	1.75381000	-1.98596300	0.02701300
8	-0.38091600	0.03892000	2.92035100
8	-2.86883700	-0.52618300	-1.45630400
8	-0.73360600	-2.48827600	1.49413600
8	-0.04004400	2.48619100	-1.49537900

8	-2.86875300	-0.48571700	1.47071500
8	5.01766000	0.49053700	-0.00694100
8	4.42051200	-0.53697700	0.00760700

O2_000012

13	1.41955200	-1.05119600	-2.16416500
13	0.91584800	2.56661300	0.06187100
13	-0.65640700	1.14846800	-2.09914900
13	-0.14974200	-2.54876700	-0.06098700
13	2.98448700	0.36160000	0.00814700
13	1.42079200	-1.15524000	2.11050500
13	-0.65561200	1.04537400	2.15209200
13	-2.29846100	-0.36094100	-0.00816900
8	-1.75382300	-1.98563100	-0.04761500
8	0.04020300	2.54145000	-1.40071800
8	0.73352100	-2.47214400	-1.51992200
8	-2.11259500	0.55402900	-1.44974300
8	0.38210600	-0.07122400	2.91901800
8	0.03978600	2.47072600	1.52134900
8	0.38054300	0.06972300	-2.91983900
8	2.52629000	2.00409900	0.04865200
8	0.73347200	-2.54399000	1.40001700
8	2.86870400	-0.47029900	-1.47616500
8	-2.11249000	0.48321400	1.47570400
8	2.86924200	-0.54185900	1.45017400
8	-4.42040200	-0.53743100	-0.01316100
8	-5.01779900	0.48973100	0.01201400

O2_000013

13	-2.98462400	0.36152800	0.00026200
13	0.65542200	1.09261900	2.12869200
13	-1.42041600	-1.10864500	2.13523900
13	-1.41945800	-1.09889200	-2.14054000
13	-0.91654600	2.56727600	0.00569900
13	0.65634000	1.10192400	-2.12370600
13	2.29851700	-0.36072700	-0.00039500
13	0.15021200	-2.54964600	-0.00541200
8	-0.73297200	-2.50545800	-1.46574700
8	-0.38180500	-0.00734900	2.92008600
8	-2.86840400	-0.50289800	-1.46536900
8	-0.73322700	-2.51245600	1.45501900
8	2.11283600	0.52217600	-1.46173600
8	2.11204600	0.51580700	1.46454800
8	-2.86899200	-0.50987300	1.46180600
8	-0.04073900	2.50350800	1.46704100
8	-0.38049800	0.00541000	-2.92051000
8	-2.52704100	2.00469700	0.00446700
8	1.75419700	-1.98603600	-0.00408500
8	-0.04048400	2.50955600	-1.45570200
8	5.01787800	0.49085600	0.00141900
8	4.42060400	-0.53677400	-0.00097500

O2_000014

13	-0.14997600	2.54979100	-0.00338700
13	-0.65619500	-1.09972300	-2.12476500
13	1.42002400	1.10098600	-2.13938600
13	1.42009600	1.10653200	2.13642600

13	-2.29861700	0.36073800	-0.00038200
13	-0.65608200	-1.09409500	2.12784400
13	0.91656500	-2.56728300	0.00331800
13	2.98464100	-0.36214300	0.00038200
8	2.86864600	0.50776600	1.46290300
8	0.38075000	-0.00244500	-2.92026700
8	0.73347500	2.51079700	1.45692500
8	2.86858300	0.50381000	-1.46448300
8	0.04046500	-2.50399800	1.46445000
8	0.04045000	-2.50794800	-1.45797800
8	0.73357800	2.50715700	-1.46355100
8	-2.11288800	-0.52080000	-1.46241900
8	0.38108700	0.00508900	2.92045800
8	-1.75388600	1.98597200	-0.00267200
8	2.52728900	-2.00532900	0.00253700
8	-2.11277600	-0.51666600	1.46416300
8	-5.01752300	-0.49132200	-0.00048700
8	-4.42049100	0.53636500	0.00033900

O2_000015

13	2.98444100	0.36175300	-0.00947700
13	-0.65568900	1.03737800	-2.15585400
13	1.42091700	-1.16293100	-2.10624100
13	1.41960800	-1.04308900	2.16799900
13	0.91556700	2.56642100	-0.07126600
13	-0.65649300	1.15612900	2.09492300
13	-2.29844200	-0.36109400	0.00949200
13	-0.14945600	-2.54853900	0.07025900
8	0.73385600	-2.46648100	1.52886700

8	0.38225300	-0.08182100	-2.91865300
8	2.86873100	-0.46453300	1.47795400
8	0.73361200	-2.54918500	-1.39085300
8	-2.11265500	0.55932100	1.44761400
8	-2.11254900	0.47753100	-1.47753000
8	2.86934800	-0.54717300	-1.44806900
8	0.03940800	2.46518200	-1.53032900
8	0.38040800	0.08038000	2.91961100
8	2.52603700	2.00404600	-0.05614000
8	-1.75359200	-1.98555500	0.05495100
8	0.04008800	2.54662900	1.39151200
8	-4.42037700	-0.53758300	0.01547100
8	-5.01780500	0.48944700	-0.01413500

O2_000016

13	1.42284900	-1.13649000	2.11995200
13	-2.29887800	-0.35964500	-0.00348100
13	-0.65215400	1.06587500	2.14313900
13	2.98503800	0.35948900	0.00282300
13	-0.15072400	-2.54836300	-0.03771100
13	1.41702600	-1.07118500	-2.15603800
13	-0.65733400	1.13023000	-2.10884700
13	0.91728100	2.56673600	0.03847000
8	2.52710800	2.00243000	0.03064000
8	-2.10921200	0.49734900	1.47258300
8	2.87183000	-0.53218900	1.45236100
8	0.04143800	2.48617100	1.49897900
8	0.37717600	0.04270000	-2.92092800
8	-2.11382700	0.54381900	-1.45261800

8	0.38677600	-0.04324600	2.91921600
8	-1.75474500	-1.98464000	-0.02982000
8	2.86688400	-0.48430200	-1.47448600
8	0.73201500	-2.53074600	1.42351800
8	0.04197200	2.52865100	-1.42409800
8	0.73232500	-2.48622500	-1.49738100
8	-4.42341700	-0.53814200	-0.00152600
8	-5.02386900	0.48756900	0.00630800

O2_000017

13	0.14978200	-2.54966500	-0.00036100
13	0.65574500	1.09715600	-2.12650300
13	-1.42069500	-1.10332500	-2.13776300
13	-1.41959800	-1.10394600	2.13817300
13	2.29861200	-0.36100200	-0.00094600
13	0.65663700	1.09653300	2.12608000
13	-0.91626200	2.56729500	0.00043300
13	-2.98459000	0.36223500	0.00069600
8	-2.86825900	-0.50592300	1.46422600
8	-0.38163900	-0.00093900	-2.92038200
8	-0.73308900	-2.50914500	1.46026700
8	-2.86915000	-0.50546200	-1.46316700
8	-0.03982100	2.50588700	1.46148800
8	-0.04061600	2.50617400	-1.46103100
8	-0.73420900	-2.50864300	-1.46029000
8	2.11265600	0.51881400	-1.46404000
8	-0.38030000	-0.00154700	2.92046800
8	1.75383600	-1.98617900	-0.00121700
8	-2.52699800	2.00537700	0.00085000

8	2.11299000	0.51824200	1.46246800
8	5.01721200	0.49140000	0.00229200
8	4.42048700	-0.53663700	-0.00162400

O2_000018

13	-0.91614100	2.56713100	-0.03541200
13	2.29848300	-0.36104500	0.00481900
13	0.65610000	1.12625900	2.11110200
13	-2.98451600	0.36207400	-0.00488800
13	0.65609300	1.06746400	-2.14111000
13	-1.42023900	-1.13327900	-2.12252600
13	0.14982900	-2.54952000	0.03483600
13	-1.42000500	-1.07377600	2.15296600
8	-2.86877500	-0.48539200	1.47069200
8	2.11247300	0.53857600	1.45588100
8	-2.52678700	2.00500700	-0.02802700
8	-0.38105700	0.03923600	2.92044300
8	-0.73348300	-2.52926600	-1.42598000
8	1.75386300	-1.98614300	0.02723600
8	-0.04039200	2.52619000	1.42675400
8	2.11282000	0.49839200	-1.47027100
8	-2.86866300	-0.52618500	-1.45631400
8	-0.03994300	2.48588400	-1.49566100
8	-0.73363700	-2.48799500	1.49436400
8	-0.38115500	-0.04143000	-2.91984200
8	5.01731800	0.49111400	-0.00718900
8	4.42056100	-0.53661200	0.00826100

O2_000019

13	-0.91545700	2.56588800	-0.08811400
13	-1.41965700	-1.02866600	2.17474600
13	-2.98446400	0.36156500	-0.01188900
13	0.65563900	1.02321500	-2.16252800
13	0.65648100	1.17001700	2.08727000
13	2.29846600	-0.36098500	0.01194600
13	0.14942600	-2.54791800	0.08694100
13	-1.42091800	-1.17686700	-2.09853000
8	-0.38244500	-0.10083800	-2.91792300
8	-2.86888100	-0.45470200	1.48104600
8	-0.03920500	2.45525200	-1.54645200
8	-2.86941700	-0.55704100	-1.44431400
8	1.75357400	-1.98506800	0.06818000
8	-0.73408400	-2.45624700	1.54485000
8	-2.52586700	2.00347900	-0.06948100
8	-0.38035600	0.09959300	2.91896500
8	2.11251400	0.46778800	-1.48060200
8	-0.04016000	2.55594000	1.37487600
8	-0.73334500	-2.55844100	-1.37430800
8	2.11267400	0.56907900	1.44389000
8	5.01796800	0.48886700	-0.01743800
8	4.42031600	-0.53781500	0.01896800

O2_000020

13	-0.91628500	2.56709000	-0.03181300
13	-1.42028100	-1.13030000	-2.12406600
13	0.65598900	1.07048800	-2.13962800
13	0.65616900	1.12335200	2.11260500

13	-2.98461500	0.36193900	-0.00434600
13	-1.41996700	-1.07682300	2.15148500
13	0.14993500	-2.54945900	0.03134500
13	2.29857400	-0.36091900	0.00433400
8	2.11264000	0.53666600	1.45667200
8	-0.38121800	-0.03736300	-2.91991200
8	-0.04037300	2.52420300	1.43017600
8	2.11274500	0.50056900	-1.46957600
8	-0.73350000	-2.49013100	1.49097100
8	-0.73344700	-2.52715600	-1.42937700
8	-0.04016700	2.48796500	-1.49220700
8	-2.86880400	-0.52424400	-1.45706800
8	-0.38100400	0.03520000	2.92038500
8	-2.52691200	2.00492200	-0.02506800
8	1.75396700	-1.98605600	0.02446200
8	-2.86879800	-0.48762000	1.47005000
8	4.42061900	-0.53667400	0.00677700
8	5.01753200	0.49099800	-0.00614800

SO2_000001

13	-0.50435800	-2.58465000	0.14394800
13	-3.06591300	0.78722800	0.78874500
13	-1.12611800	-0.79791900	2.47416700
13	1.96102700	-0.90475200	-0.90947500
13	-2.48321000	-1.06902900	-1.56065100
13	-0.28265000	0.77640900	-2.44935800
13	-0.87730800	2.62828100	-0.18990500
13	1.10296400	1.06859600	1.55615800
8	2.30807600	0.19642100	0.62610300

8	-2.60010700	0.02195600	2.24246300
8	1.07829800	-2.26759100	-0.36779500
8	0.27346300	0.16267800	2.71589700
8	-0.58084500	2.34564300	-1.83759700
8	-2.42432000	2.33449600	0.45973900
8	-0.88798400	-2.33486600	1.79276000
8	-3.52202000	-0.19416500	-0.52560600
8	1.20898700	0.05411300	-2.10640500
8	-1.79347700	-2.51063000	-0.97051800
8	0.45399200	2.46966900	0.87822300
8	-1.63989500	-0.20844000	-2.76505200
16	4.12434300	-0.07711300	0.43301600
8	3.78315100	-0.96436200	-0.80879500
8	4.66678900	1.20504100	0.03840400

SO2_000002

13	-1.10292900	-1.02454700	1.58492500
13	0.28254400	-0.84373600	-2.42631500
13	-1.96056400	0.88255000	-0.92865600
13	1.12923400	0.86468600	2.45134300
13	0.87593100	-2.63356500	-0.12016500
13	3.06473800	-0.76719200	0.80852400
13	2.48096300	1.02608800	-1.59108000
13	0.50608800	2.58893500	0.07501900
8	0.89400700	2.38320000	1.72896700
8	-1.20654500	-0.11073500	-2.09582000
8	-0.27162100	-0.08738400	2.71793400
8	-1.07841100	2.25971200	-0.42380200
8	3.51867600	0.17976600	-0.53137700

8	1.63912300	0.13196200	-2.77190300
8	-2.31038100	-0.17741800	0.63490300
8	0.58064300	-2.39719500	-1.77554400
8	2.60176200	0.03600700	2.24252700
8	-0.45535300	-2.44286000	0.94266700
8	1.79137700	2.48371900	-1.04145400
8	2.42305700	-2.32268000	0.52132600
16	-4.12619500	0.08702900	0.42916000
8	-4.66451800	-1.20565600	0.06442400
8	-3.78293500	0.94401900	-0.83325700

SO2_000003

13	0.28001400	-0.87036200	2.41784400
13	-1.10158900	-1.00713200	-1.59604000
13	-1.96163900	0.87011300	0.93934400
13	2.47988600	1.00824400	1.60265500
13	0.87814900	-2.63388200	0.09182600
13	3.06562300	-0.75779000	-0.81696600
13	1.13007600	0.89288000	-2.44141800
13	0.50637300	2.58899200	-0.04655800
8	1.79192000	2.47245900	1.06836100
8	-2.31030100	-0.17296000	-0.63611000
8	1.63598300	0.10275000	2.77316900
8	-1.07721600	2.25081000	0.44882200
8	2.60243400	0.06152200	-2.24165700
8	-0.27088400	-0.05627200	-2.71794000
8	-1.21055200	-0.13585100	2.09755400
8	-0.45263300	-2.43174800	-0.96947400
8	3.51810800	0.17359000	0.53434700

8	0.58090600	-2.41573500	1.74926700
8	0.89458500	2.40360000	-1.70289500
8	2.42536400	-2.31686400	-0.54642000
16	-4.12593000	0.09237700	-0.43101500
8	-4.66716200	-1.20320700	-0.08111600
8	-3.78364100	0.93517600	0.84125400

SO2_000004

13	-0.87761500	-2.63140300	-0.14821100
13	-2.48094200	1.04323100	-1.57960800
13	-3.06538600	-0.77480700	0.80109600
13	1.10229400	-1.04228300	1.57324400
13	-0.28198800	-0.81679600	-2.43617900
13	1.96139100	0.89118500	-0.92125400
13	-0.50469400	2.58739900	0.10217800
13	-1.12888700	0.83865500	2.46053500
8	0.27125600	-0.11737400	2.71659400
8	-3.51888900	0.18505100	-0.52978400
8	0.45394500	-2.45367800	0.91658800
8	-2.60241900	0.01395900	2.24305800
8	1.07907000	2.26280500	-0.40164700
8	-1.79192900	2.49464400	-1.01309300
8	-2.42430800	-2.32749200	0.49768800
8	-1.63809800	0.16350100	-2.77045300
8	2.30928800	-0.18563100	0.63143100
8	-0.58202400	-2.37619700	-1.80066300
8	-0.89114000	2.36435900	1.75428900
8	1.20841500	-0.08901900	-2.10024900
16	4.12520300	0.08253400	0.43198300

8	3.78366600	0.95115000	-0.82298000
8	4.66598000	-1.20581400	0.05607800

SO2_000005

13	-3.06457700	0.76576200	0.80999400
13	1.10166200	1.02248900	1.58604200
13	-1.13064200	-0.86865300	2.45018900
13	-2.47995300	-1.02362500	-1.59334100
13	-0.87638400	2.63377200	-0.11729800
13	-0.28152600	0.84697500	-2.42559000
13	1.96092700	-0.88127200	-0.92921000
13	-0.50565600	-2.58894300	0.07078500
8	-1.79073200	-2.48224700	-1.04568600
8	0.26996200	0.08370400	2.71737700
8	-3.51721700	-0.17909900	-0.53188300
8	-0.89454400	-2.38551700	1.72486900
8	1.20748300	0.11377300	-2.09528900
8	2.30981400	0.17742400	0.63506500
8	-2.60332900	-0.03962600	2.24329000
8	0.45432300	2.44192100	0.94611600
8	-1.63805900	-0.12815100	-2.77307600
8	-2.42335700	2.32164200	0.52402300
8	1.07916600	-2.25947000	-0.42658100
8	-0.58004200	2.39952800	-1.77274300
16	4.12594900	-0.08722400	0.43057700
8	3.78338100	-0.94304500	-0.83264200
8	4.66499700	1.20553900	0.06720400

SO2_000006

13 -0.87689600 -2.63184100 0.14628300
13 -2.48062900 1.04179000 1.58075200
13 -0.28193800 -0.81891400 2.43495400
13 1.10216800 -1.04055300 -1.57420500
13 -3.06541800 -0.77471600 -0.80121300
13 -1.12978000 0.84040100 -2.45954300
13 -0.50479300 2.58785100 -0.10005800
13 1.96145100 0.89184300 0.92048200
8 2.30967100 -0.18454400 -0.63243700
8 -1.63891000 0.15966900 2.77063900
8 0.45392000 -2.45273000 -0.91916400
8 1.20716600 -0.08866400 2.09828300
8 -0.89345600 2.36558200 -1.75171900
8 -1.79052400 2.49367300 1.01683300
8 -0.57992000 -2.37842100 1.79879400
8 -3.51869400 0.18550400 0.52954400
8 0.27100300 -0.11443500 -2.71645700
8 -2.42420000 -2.32732500 -0.49775400
8 1.07991200 2.26426300 0.40166100
8 -2.60259700 0.01413600 -2.24320400
16 4.12573900 0.08188600 -0.43134300
8 4.66462300 -1.20729800 -0.05506900
8 3.78375900 0.95104100 0.82312600

SO2_000007

13 -1.12892500 -0.85087400 2.45609400
13 1.96173600 -0.88753700 -0.92489000
13 -0.50424500 -2.58831900 0.09035700

13	-3.06575300	0.77131000	0.80392000
13	1.10166100	1.03468200	1.57818800
13	-0.87756700	2.63236500	-0.13566400
13	-0.28149500	0.82788800	-2.43186100
13	-2.48110500	-1.03524400	-1.58422600
8	-3.52011300	-0.18284800	-0.53080000
8	1.07979200	-2.26166100	-0.41125400
8	-2.60169700	-0.02399800	2.24192600
8	-1.79077700	-2.48886500	-1.02516100
8	-0.57981700	2.38456900	-1.78880600
8	1.20837000	0.09709800	-2.09990300
8	-0.89206000	-2.37363100	1.74325000
8	2.30902700	0.18279000	0.63221100
8	-2.42494000	2.32536700	0.50702900
8	0.27146000	0.10348400	2.71701100
8	-1.63879100	-0.14912200	-2.77074200
8	0.45317100	2.44954900	0.92939100
16	4.12527300	-0.08339000	0.43138900
8	4.66487600	1.20703400	0.06063200
8	3.78395100	-0.94742600	-0.82692800

SO2_000008

13	3.06513400	-0.75472400	0.81830000
13	0.50388400	2.58963300	0.04252300
13	2.47961500	1.00498600	-1.60495400
13	0.87690900	-2.63466500	-0.08788100
13	1.13079800	0.89615900	2.44046000
13	-1.10122800	-1.00528400	1.59724000
13	-1.96089400	0.87160600	-0.93875300

13	0.28192900	-0.87475100	-2.41616400
8	0.57983600	-2.41991800	-1.74590400
8	1.78784500	2.46841100	-1.07374100
8	2.42368700	-2.31355000	0.54923700
8	1.63951900	0.09495500	-2.77474700
8	-2.30999000	-0.17073500	0.63763400
8	-1.08156400	2.25628600	-0.45027900
8	3.51855600	0.17488000	-0.53376300
8	0.89463800	2.40493200	1.69833600
8	-0.45378400	-2.43175900	0.97333900
8	2.60371000	0.06518800	2.24325200
8	-1.20565000	-0.13552900	-2.09314900
8	-0.26997800	-0.05303000	2.71760500
16	-4.12591300	0.09118300	0.42910100
8	-4.66541100	-1.20539200	0.08064500
8	-3.78332900	0.93183500	-0.84417300

SO2_000009

13	-2.48183700	-1.01172700	1.59853400
13	1.96130800	-0.87531700	0.93612500
13	-0.50576700	-2.58924500	-0.05553600
13	-3.06576900	0.76064000	-0.81333900
13	-0.28015000	0.86121200	2.42016600
13	-0.87487100	2.63416400	0.09968700
13	1.10225100	1.01303100	-1.59235900
13	-1.13072300	-0.88438500	-2.44368300
8	-2.60353000	-0.05472100	-2.24057900
8	1.07825000	-2.25563500	0.44167000
8	-3.52194400	-0.17340000	0.53487800

8	-0.89354600	-2.39788600	-1.71135700
8	0.45615300	2.43747700	-0.96230700
8	2.30904100	0.17356700	-0.63503600
8	-1.79247900	-2.47293200	1.05816600
8	1.20993100	0.12649400	2.09765300
8	-2.42187300	2.31755700	-0.53906300
8	-1.63793000	-0.11029000	2.77228600
8	0.26968600	0.06639800	-2.71650300
8	-0.57797800	2.40929900	1.75641900
16	4.12529400	-0.09079800	-0.43073900
8	4.66495200	1.20396000	-0.07535800
8	3.78346000	-0.93939900	0.83752000

SO2_000010

13	-1.03994100	2.61070000	-0.00484200
13	1.93540900	-0.65972300	0.00137200
13	0.38303700	0.97947500	2.09989400
13	-3.32406700	0.63513500	-0.00055000
13	0.38169600	0.97266200	-2.10348500
13	-1.91760000	-0.98873200	-2.12934300
13	-0.49656300	-2.57386200	0.00420800
13	-1.91768600	-0.98037000	2.13305300
8	-3.30211000	-0.23804200	1.46452200
8	1.77759400	0.25963300	1.45649900
8	-2.70258000	2.22392400	-0.00331600
8	-0.76769900	0.00939000	2.90902200
8	-1.38307600	-2.45821200	-1.45276600
8	1.15494600	-2.19379800	0.00335500
8	-0.17265600	2.46109100	1.45461900

8	1.77602000	0.25647800	-1.45553200
8	-3.30119400	-0.24356700	-1.46226100
8	-0.17464700	2.45703200	-1.46506300
8	-1.38315400	-2.45171900	1.46049700
8	-0.76790800	-0.00155200	-2.90916200
16	5.09600400	-0.15896700	-0.00061200
8	4.89813600	1.26415600	-0.00021500
8	3.89935600	-1.01922100	0.00052600

SO2_000011

13	3.06581600	-0.78653500	0.78883000
13	0.50431200	2.58513800	0.14184700
13	2.48215600	1.06786600	-1.56226000
13	0.87810200	-2.62905000	-0.18758900
13	1.12701900	0.80100800	2.47306200
13	-1.10180800	-1.06788200	1.55689300
13	-1.96136000	0.90396500	-0.91015000
13	0.28118900	-0.77833300	-2.44853300
8	0.57947600	-2.34684300	-1.83491600
8	1.79275100	2.51010300	-0.97333100
8	2.42540100	-2.33456700	0.46106300
8	1.63898000	0.20542500	-2.76531600
8	-2.30699600	-0.19806800	0.62462700
8	-1.07841300	2.26657300	-0.36861800
8	3.52104700	0.19399400	-0.52642500
8	0.88910800	2.33767600	1.79079800
8	-0.45221600	-2.46994200	0.88166900
8	2.60039900	-0.02014900	2.24206900
8	-1.21045400	-0.05502100	-2.10782400

8	-0.27288100	-0.15919600	2.71482800
16	-4.12372000	0.07705500	0.43455000
8	-4.66763300	-1.20450800	0.04014000
8	-3.78369600	0.96412600	-0.80752700

SO2_000012

13	-0.28175300	0.85836600	-2.42151100
13	-3.06496200	0.76120800	0.81324400
13	-2.47950800	-1.01560200	-1.59811700
13	1.96129100	-0.87843800	-0.93323300
13	-0.87641700	2.63426700	-0.10489900
13	1.10165100	1.01573000	1.59012300
13	-1.13048200	-0.88009500	2.44611600
13	-0.50476000	-2.58946900	0.05960400
8	1.08054600	-2.25925000	-0.43607000
8	-3.51806600	-0.17772900	-0.53262200
8	1.20593000	0.12126300	-2.09406100
8	-1.78889400	-2.47604400	-1.05725400
8	0.26978500	0.07161300	2.71694800
8	-2.60326600	-0.05026500	2.24290900
8	-1.63927400	-0.11357600	-2.77396100
8	-2.42361600	2.31825500	0.53380500
8	2.30969600	0.17398100	0.63619600
8	-0.57880900	2.40800300	-1.76124900
8	-0.89433400	-2.39403200	1.71444000
8	0.45429300	2.43847500	0.95765100
16	4.12550200	-0.08803800	0.42995500
8	4.66331200	1.20680600	0.07213900
8	3.78347200	-0.93862000	-0.83719000

SO2_000013

13	-0.49625800	-2.57322200	0.00062700
13	-3.32457800	0.63373400	0.00020400
13	-1.91677700	-0.98421200	2.13212300
13	1.93581700	-0.65799100	-0.00023600
13	-1.91760100	-0.98568800	-2.13102900
13	0.38165600	0.97599000	-2.10207600
13	-1.04170600	2.61039900	-0.00080300
13	0.38238900	0.97713000	2.10127700
8	1.77736000	0.26006700	1.45567800
8	-3.30115500	-0.24132300	1.46410300
8	1.15493000	-2.19185200	0.00023800
8	-0.76683800	0.00448100	2.90951000
8	-0.17541700	2.45876600	-1.46064400
8	-2.70417800	2.22296600	-0.00055400
8	-1.38234000	-2.45467300	1.45753400
8	-3.30182600	-0.24253200	-1.46297300
8	1.77685800	0.25932600	-1.45653200
8	-1.38285900	-2.45586100	-1.45607200
8	-0.17518100	2.45931300	1.45895000
8	-0.76801800	0.00288700	-2.90910000
16	5.09696200	-0.15998600	0.00013200
8	4.90073400	1.26337600	-0.00041900
8	3.89922600	-1.01869600	-0.00012700

SO2_000014

13	-0.38220400	0.97722600	-2.10130800
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13	0.49638800	-2.57328300	-0.00057900
13	1.91725800	-0.98450500	-2.13175700
13	1.04141200	2.61056300	0.00067000
13	-1.93570800	-0.65785300	-0.00009700
13	-0.38194100	0.97619500	2.10195200
13	1.91729000	-0.98550700	2.13126100
13	3.32442000	0.63378600	-0.00006600
8	2.70383900	2.22293200	-0.00006700
8	1.38264500	-2.45502300	-1.45742300
8	0.17469700	2.45968000	-1.45900700
8	3.30171700	-0.24184400	-1.46363700
8	0.76728900	0.00274400	2.90916800
8	1.38274200	-2.45573800	1.45626700
8	0.76747000	0.00456500	-2.90888500
8	-1.15473800	-2.19168300	-0.00034100
8	0.17556400	2.45891200	1.46076400
8	-1.77725600	0.25986600	-1.45619100
8	3.30141100	-0.24202200	1.46339500
8	-1.77709700	0.25978600	1.45602300
16	-5.09679800	-0.16034200	-0.00011000
8	-4.90063200	1.26301700	-0.00002800
8	-3.89904200	-1.01902100	0.00006100

SO2_000015

13	-0.38215000	0.97432900	-2.10243000
13	-0.38210000	0.97830300	2.10101100
13	-1.93564900	-0.65825100	0.00066700
13	1.91751400	-0.98741900	-2.13016700
13	1.04103300	2.61044200	-0.00264000

13	3.32446600	0.63449400	-0.00110600
13	1.91729000	-0.98242900	2.13237700
13	0.49638900	-2.57356300	0.00261900
8	1.38367300	-2.45724400	-1.45376300
8	-1.77703900	0.26062900	1.45601700
8	0.76714500	0.00001900	-2.90854600
8	-1.15477000	-2.19211400	0.00166700
8	3.30127900	-0.23997800	1.46317800
8	0.76790000	0.00705900	2.90971700
8	-1.77733700	0.25818200	-1.45625200
8	0.17460200	2.46023200	1.45719200
8	3.30171500	-0.24275200	-1.46371000
8	0.17497000	2.45764300	-1.46248500
8	1.38223800	-2.45348000	1.45960000
8	2.70366700	2.22354800	-0.00229600
16	-5.09669300	-0.15986000	-0.00033100
8	-3.89914600	-1.01883700	0.00098600
8	-4.90029900	1.26346700	-0.00118200

SO2_000016

13	-1.12687300	-0.84575400	2.45792700
13	-0.87810300	2.63263200	-0.14044300
13	1.10259300	1.03965600	1.57482900
13	-0.50341300	-2.58826300	0.09548400
13	-3.06584100	0.77146600	0.80270500
13	-2.48209200	-1.03935200	-1.58111800
13	-0.28298300	0.82391500	-2.43216800
13	1.96143000	-0.88960600	-0.92392600
8	1.07960700	-2.26392600	-0.41090900

8	0.45474800	2.45320000	0.92240000
8	-0.88656000	-2.36983500	1.74897000
8	2.30903700	0.18313300	0.63166300
8	-1.63862800	-0.15619600	-2.76886600
8	-0.58350500	2.38203700	-1.79386400
8	0.27158400	0.11216800	2.71605100
8	-2.42413000	2.32505900	0.50516100
8	-1.79288200	-2.49147000	-1.01685900
8	-2.60133500	-0.02264800	2.24126800
8	1.20761700	0.09548500	-2.09833800
8	-3.52170500	-0.18332800	-0.53103900
16	4.12522600	-0.08299700	0.43067400
8	3.78372400	-0.94967300	-0.82567400
8	4.66430700	1.20685800	0.05709300

SO2_000017

13	-0.50489300	2.58861000	-0.07981500
13	1.10221700	-1.02798500	-1.58314000
13	1.96046000	0.88494300	0.92802000
13	-2.48098800	1.02893300	1.58883200
13	-1.12843800	0.86018400	-2.45357000
13	-3.06425600	-0.76825600	-0.80769500
13	-0.87580000	-2.63320000	0.12583600
13	-0.28250600	-0.83877100	2.42850600
8	-1.63928700	0.13748000	2.77173900
8	2.30855600	-0.17791600	-0.63403200
8	-1.79139300	2.48508400	1.03539400
8	1.20647600	-0.10591800	2.09725500
8	-2.42277300	-2.32307500	-0.51635700

8	0.45505700	-2.44517500	-0.93807000
8	1.07936200	2.26205600	0.42131200
8	0.27169200	-0.09340700	-2.71896400
8	-3.51869500	0.18063700	0.53071800
8	-0.89179300	2.37958000	-1.73361900
8	-0.58000200	-2.39357100	1.78062800
8	-2.60121100	0.03226900	-2.24310200
16	4.12471700	0.08547600	-0.42981600
8	3.78289000	0.94464000	0.83144600
8	4.66226500	-1.20713400	-0.06354800

SO2_000018

13	1.96232100	-0.90023100	0.91221800
13	-2.48053700	-1.06036500	1.56840200
13	-0.28130300	0.79068000	2.44390300
13	1.10114700	1.05943300	-1.56185400
13	-0.50376000	-2.58631100	-0.12901800
13	-1.12921000	-0.81377800	-2.46842100
13	-3.06608900	0.78293800	-0.79199600
13	-0.87917900	2.63057200	0.17473300
8	0.45147800	2.46457600	-0.89306800
8	-1.63794000	-0.19230800	2.76782000
8	2.30897800	0.19512500	-0.62795500
8	-0.58068400	2.35624500	1.82353600
8	-2.60230400	0.00902800	-2.24173400
8	-3.51937700	-0.19150400	0.52847700
8	1.20919700	0.06514200	2.10325500
8	-1.79111300	-2.50560600	0.98695000
8	0.27087600	0.14505800	-2.71422100

8	1.07990700	-2.26625500	0.37799300
8	-2.42648900	2.33304500	-0.47254000
8	-0.89103500	-2.34698300	-1.77863000
16	4.12539000	-0.07729000	-0.43383500
8	4.66775800	1.20638300	-0.04422600
8	3.78445900	-0.95964000	0.81156800

SO2_000019

13	-1.10185700	1.04178600	-1.57373800
13	3.06550300	0.77500500	-0.80034800
13	0.87653900	2.63191600	0.14710600
13	-1.96142300	-0.89167500	0.92122300
13	1.12987000	-0.83957300	-2.45996900
13	0.50471900	-2.58759100	-0.10182900
13	2.48081100	-1.04235800	1.58019000
13	0.28133400	0.81737100	2.43566000
8	-1.20849000	0.08777100	2.10077500
8	2.42372300	2.32747100	-0.49728600
8	-2.30880400	0.18524100	-0.63149800
8	0.57953100	2.37675500	1.79928000
8	1.79144200	-2.49364100	1.01394100
8	3.51938400	-0.18467300	0.53059200
8	-0.45429700	2.45424900	-0.91856900
8	2.60296300	-0.01426600	-2.24221000
8	-1.07922600	-2.26337600	0.40164900
8	-0.27045000	0.11620700	-2.71625600
8	1.63829500	-0.16156400	2.77043200
8	0.89191600	-2.36536700	-1.75383600
16	-4.12494900	-0.08245500	-0.43219900

8	-3.78370700	-0.95154200	0.82240500
8	-4.66506400	1.20621400	-0.05600000

SO2_000020

13	-0.28170300	0.83668700	2.42927700
13	1.10206400	1.02958400	-1.58199500
13	1.96098200	-0.88560800	0.92688800
13	-2.48079200	-1.03021200	1.58823300
13	-0.87552600	2.63319900	0.12815300
13	-3.06458600	0.76882400	-0.80649400
13	-1.12972300	-0.85774700	-2.45409700
13	-0.50525000	-2.58836100	-0.08199100
8	-1.79125900	-2.48608400	1.03391500
8	2.30910300	0.17926200	-0.63420000
8	-1.63875500	-0.13954400	2.77148600
8	1.07922300	-2.26164600	0.41823600
8	-2.60252200	-0.03000700	-2.24321600
8	0.27085600	0.09560900	-2.71774700
8	1.20726200	0.10398200	2.09739800
8	0.45510700	2.44656400	-0.93626300
8	-3.51892300	-0.18132000	0.53103200
8	-0.57914600	2.39200200	1.78260600
8	-0.89332700	-2.37774400	-1.73531900
8	-2.42252200	2.32315000	-0.51398500
16	4.12482400	-0.08595800	-0.43059400
8	4.66387700	1.20577400	-0.06334100
8	3.78249700	-0.94592700	0.83013000

Table S4

The XYZ values of the most energetically stable of gas/cluster configurations obtained at ω B97XD/Def2-TZVP level of theory

Al8O12

13	1.08240500	2.34299400	0.33994100
13	0.81024500	-1.01073500	-2.25763700
13	2.59224100	-0.23840600	0.03638600
13	-0.81024500	1.01073500	2.25763700
13	-0.69957300	1.57086900	-1.95397800
13	-2.59224100	0.23840600	-0.03638600
13	-1.08240500	-2.34299400	-0.33994100
13	0.69957300	-1.57086900	1.95397800

8	-0.07572900	-0.38298200	2.87887600
8	2.32582300	-0.85418200	-1.51854800
8	0.18615200	2.29231300	1.77578900
8	2.25026300	-1.23675900	1.36079600
8	-2.51193500	-1.43867300	-0.25708900
8	-0.18615300	-2.29231300	-1.77578900
8	2.51193500	1.43867300	0.25708900
8	0.07572900	0.38298200	-2.87887600
8	-2.32582300	0.85418200	1.51854800
8	0.26154700	2.67576100	-1.10342300
8	-0.26154700	-2.67576100	1.10342300
8	-2.25026300	1.23675900	-1.36079600

CO

6	0.00000000	0.00000000	-0.64166500
8	0.00000000	0.00000000	0.48124900

CO2

6	0.00000000	0.00000000	0.00000000
8	0.00000000	0.00000000	1.15574800
8	0.00000000	0.00000000	-1.15574800

CO2_AI8O12_9

13	-1.04308500	1.41828800	-2.12586400
13	-2.04038700	-2.11101100	0.00178200
13	-0.03302900	-1.39931500	-2.10819400
13	0.96914900	2.10570500	-0.00187300

13	-3.04541500	0.72215200	-0.00025600
13	-1.04316300	1.42196700	2.12356700
13	-0.03253200	-1.39576600	2.11023900
13	2.08090800	-0.73393600	0.00063100
8	2.23300400	0.98215400	-0.00176000
8	-1.22537000	-2.40935400	-1.45107300
8	0.15042800	2.41339900	-1.45273800
8	1.51907500	-1.42823200	-1.44973600
8	-0.54974900	0.00758000	2.91065500
8	-1.22338800	-2.40802900	1.45379400
8	-0.54831500	0.00340300	-2.91112800
8	-3.27968400	-0.95484200	0.00209000
8	0.15148900	2.41489600	1.44924000
8	-2.59787800	1.46696000	-1.45443100
8	1.52031400	-1.42438300	1.45340300
8	-2.59766200	1.47100600	1.45160900
6	4.80676700	-0.04055100	-0.00001100
8	5.53345100	0.83789800	-0.00051100
8	4.11398200	-0.98768100	0.00054200

CO_A18O12_17

13	-1.23520100	-1.23772300	-2.11602000
13	-1.24828700	2.44710300	-0.01114600
13	-2.97620600	-0.00923600	-0.00006800
13	0.50988600	-2.43094400	0.011105500
13	0.49861600	1.21080700	-2.11282100
13	2.34304900	0.01062900	0.00007100
13	0.49846300	1.22990500	2.10184300
13	-1.23536600	-1.21843800	2.12709500

8	-0.36430100	-2.50836300	1.46169800
8	-2.75380900	1.66967600	-0.00782800
8	-0.36394000	-2.52145300	-1.43907700
8	-2.74536400	-0.84058300	1.45729900
8	2.00879800	0.85403400	1.44754200
8	-0.38045500	2.52004600	1.44040500
8	-2.74523800	-0.85406800	-1.44965700
8	-0.38008300	2.50703400	-1.46303900
8	2.01490600	-1.66604900	0.00774900
8	-0.37123200	-0.01225100	-2.90141600
8	-0.37119100	0.01387000	2.90146400
8	2.00890900	0.84067800	-1.45513200
6	4.54406600	0.00223600	0.00001300
8	5.65815100	-0.00766600	-0.00003600

H2

1 0.00000000 0.00000000 0.37206600
1 0.00000000 0.00000000 -0.37206600

H2_AI8O12_1

13 -2.60542400 -0.06661400 -0.00138400
13 0.98395700 -2.42916600 0.01186500
13 -0.78476700 -1.25497400 -2.10981900
13 -0.88472300 2.42132400 -0.01181100
13 -0.78774500 -1.23542800 2.12025400
13 0.88483300 1.25810100 2.11813200
13 2.65437300 0.06953300 0.00145600
13 0.88783200 1.23839400 -2.12853400

8	-0.01520000	2.50688500	-1.46332400
8	0.11934900	-2.52228500	-1.44089300
8	-2.37334600	1.61800300	-0.00913100
8	0.05412000	-0.01484500	-2.90340700
8	2.40195700	0.90945900	1.45027600
8	2.46884000	-1.61372300	0.00918800
8	-2.30037700	-0.90619200	-1.44700200
8	0.11718800	-2.50884100	1.46409100
8	-0.01735700	2.52040000	1.44018100
8	-2.30257600	-0.89277000	1.45241000
8	2.40408400	0.89585500	-1.45551800
8	0.05016500	0.01194300	2.90338600
1	-4.70529600	-0.40039100	0.00218700
1	-4.67786900	0.35407000	-0.00631100

N2

7 0.00000000 0.00000000 0.54391500
7 0.00000000 0.00000000 -0.54391500

N2_AI8O12_3

13 0.51254300 -2.30819000 0.78075800
13 -2.96521800 -0.00026100 -0.00027100
13 -1.22897000 -0.48085300 2.40283000
13 2.33234900 0.00014600 0.00035500
13 -1.22829400 -1.84077500 -1.61783100
13 0.51235000 0.47802000 -2.38916700
13 -1.22895500 2.32133000 -0.78533500
13 0.51158200 1.83022200 1.60862900

8	2.01895800	1.25884200	1.10573500
8	-2.73687200	-0.32888800	1.64540500
8	2.01990200	-1.58666000	0.53759700
8	-0.36121900	0.93062400	2.74978800
8	-0.36053900	1.91610600	-2.18080600
8	-2.73685400	1.58920500	-0.53856900
8	-0.36137400	-1.91722300	2.17961700
8	-2.73630200	-1.26114500	-1.10754600
8	2.01956100	0.32807700	-1.64248700
8	-0.36008000	-2.84674500	-0.56907600
8	-0.36191900	2.84642100	0.57053100
8	-0.36110500	-0.92911600	-2.75028300
7	4.50885000	0.00063400	0.00020300
7	5.59353700	0.00061100	-0.00003500

NO

7 0.00000000 0.00000000 -0.60791900
8 0.00000000 0.00000000 0.53192900

NO2

7 0.00000000 -0.00000000 0.31832600
8 -0.00000000 1.09119200 -0.13926800
8 -0.00000000 -1.09119200 -0.13926800

NO2_AI8O12_13

13 0.19410800 0.10064400 -2.45942700
13 -0.07010500 -2.33671200 0.96954100

13	2.09590900	-0.48463300	-0.13618300
13	-1.08748400	2.36280500	-0.97583700
13	-1.86440200	-1.78841300	-1.36757400
13	-3.14047000	0.47653500	0.13865400
13	-1.35232600	-0.09046200	2.48080400
13	0.71020400	1.78247000	1.35666200
8	-0.04130500	2.84137800	0.26644100
8	1.51551800	-1.91905300	0.57779200
8	-0.40898900	1.68372800	-2.36955300
8	2.07051300	0.91903500	0.85084700
8	-2.86123400	0.26312600	1.79556300
8	-0.76755600	-1.67414800	2.36672900
8	1.70000000	-0.23199200	-1.77776500
8	-1.11900500	-2.83516800	-0.26604700
8	-2.67808900	1.94476500	-0.56819200
8	-0.93020800	-1.15678400	-2.62996700
8	-0.22696500	1.16597200	2.62755300
8	-3.20964100	-0.89955900	-0.84542800
7	4.80508800	0.23488300	0.04391500
8	5.95247100	0.40054800	0.11472500
8	4.13620700	-0.74349900	-0.19191500

NO_AI8O12_9

13	-0.65903700	1.51150700	1.82805800
13	2.96489900	0.29103500	-0.01584500
13	1.33958300	-0.67251700	2.32034500
13	-2.30072200	-0.29536300	0.01270900
13	0.97095900	2.48381900	-0.49614500
13	-0.59198200	0.67149900	-2.30751000

13	1.40731700	-1.51898700	-1.83684100
13	-0.22209200	-2.46732800	0.49635700
8	-1.80066900	-1.88741500	0.35089700
8	2.80578300	-0.26090600	1.57731000
8	-2.10573300	0.84675700	1.26507300
8	0.63161700	-2.15927900	1.92812000
8	0.42138100	-0.57770300	-2.84087700
8	2.85288400	-0.84113200	-1.27028000
8	0.32813500	0.58032500	2.84332100
8	2.55457500	1.89958000	-0.35138600
8	-2.06346200	0.27030600	-1.58005900
8	0.07843400	2.73806500	0.91963100
8	0.67813800	-2.73652900	-0.91479600
8	0.12417800	2.15965400	-1.92573700
7	-4.49816800	-0.43259800	-0.11127300
8	-5.29636700	0.34084500	0.09430800

O2

8 0.00000000 0.00000000 0.59689600
8 0.00000000 0.00000000 -0.59689600

O2_Al8O12_2

13 0.63542600 1.10740200 2.10956000
13 0.17721600 -2.52526900 0.00591200
13 -1.39690300 -1.10201900 2.12442300
13 -0.94017500 2.54111700 -0.00599000
13 2.28483100 -0.32714300 0.00075700
13 0.63547200 1.09746500 -2.11471600

13	-1.39686900	-1.11209300	-2.11922700
13	-2.96755000	0.32796500	-0.00079100
8	-2.53319900	1.96501300	-0.00473700
8	-0.69939900	-2.49196900	1.45637800
8	-0.07070900	2.49791000	1.44581400
8	-2.84382200	-0.52898900	1.45489400
8	-0.38078700	-0.00676800	-2.90184300
8	-0.69926100	-2.49893300	-1.44475100
8	-0.38079500	0.00688200	2.90192200
8	1.76376100	-1.94834500	0.00462500
8	-0.07058400	2.49107700	-1.45754300
8	2.08753400	0.54695400	1.45226100
8	-2.84378500	-0.53608600	-1.45227300
8	2.08762500	0.54007500	-1.45488100
8	5.00736900	0.48794100	-0.00082100
8	4.39994800	-0.53682900	0.00107100

SO2

16 0.00000000 0.00000000 0.36255500
8 0.00000000 1.22890400 -0.36255500
8 -0.00000000 -1.22890400 -0.36255500

SO2_AI8O12_2

13 1.11986900 1.35043000 1.32248800
13 -0.30043100 0.30249600 -2.54138900
13 1.92694400 -1.04678400 -0.74495200
13 -1.08105100 -0.31168500 2.56287100
13 -0.86418800 2.52516800 -0.66270900

13	-3.02989000	0.91456000	0.64252200
13	-2.47331900	-1.33297100	-1.30895400
13	-0.50245500	-2.49709600	0.61905300
8	-0.85766200	-1.93903800	2.18336900
8	1.18718500	-0.34069500	-2.09541800
8	0.31083600	0.66668000	2.62017200
8	1.06209500	-2.27669800	0.04359300
8	-3.49619700	-0.28723700	-0.45119900
8	-1.64922200	-0.71629400	-2.65149400
8	2.29949100	0.32214800	0.55038800
8	-0.58276400	1.94533000	-2.22008800
8	-2.54812700	0.44416900	2.19834400
8	0.46404500	2.58074600	0.39941000
8	-1.78896200	-2.63504100	-0.47327000
8	-2.39791500	2.36268600	0.02985700
16	4.05207900	-0.01738900	0.42383600
8	4.61760900	1.15409000	-0.16899400
8	3.73277500	-1.09025800	-0.63185400

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