

Supporting Information

**Evaluating the Impact of Hartree-Fock Exact Exchange on the Performance of Global Hybrid Functionals for the Vertical Excited-State Energies of Fused-Ring Electron Acceptors using TD-DFT**

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**Table S1** Experimental excitation energies ( $E_{\text{max-exp}}$  in eV) and theoretical vertical transition energies ( $E_{\text{ver-theo}}$  in eV) of all FREAs computed with PCM-TD-DFT/6-31G(d,p) and exchange-correlation functionals in chloroform solvent

Molecule	$E_{\text{ver-theo}}$							$E_{\text{max-exp}}$
	B3PW91	mPW3PBE	B971	B972	mPW1PW91	mPW1LYP	mPW1PBE	
F(DPP)2B2	1.88	1.88	1.90	1.91	1.97	1.96	1.97	2.02
Cz-RH	2.28	2.28	2.30	2.31	2.38	2.37	2.38	2.48
Flu-RH	2.20	2.20	2.22	2.23	2.30	2.28	2.30	2.48
FRd2	2.12	2.12	2.14	2.15	2.23	2.21	2.23	2.44
ITDI	1.74	1.74	1.76	1.77	1.83	1.82	1.83	1.92
SiIDT-IC	1.97	1.97	1.99	2.00	2.05	2.04	2.05	1.94
IDIDT-C8	1.74	1.74	1.76	1.77	1.85	1.85	1.85	1.89
IDT-BOC6	1.72	1.72	1.74	1.75	1.84	1.83	1.84	1.80
ATT1	1.67	1.67	1.68	1.69	1.75	1.74	1.75	1.80
DC-IDT2T	1.66	1.66	1.68	1.68	1.75	1.74	1.75	1.77
BZIC	1.79	1.79	1.80	1.81	1.85	1.84	1.85	1.75
ITOIC	1.66	1.66	1.67	1.68	1.74	1.73	1.74	1.72
IDTOT2F	1.63	1.63	1.64	1.65	1.71	1.70	1.71	1.72
ITOIC-F	1.66	1.66	1.67	1.68	1.74	1.73	1.74	1.69
ITOIC-2F	1.63	1.63	1.65	1.66	1.72	1.71	1.72	1.68
IEICO	1.45	1.45	1.46	1.47	1.53	1.52	1.53	1.58
ATT2	1.49	1.49	1.50	1.50	1.56	1.55	1.56	1.57
IEICO-4F	1.43	1.43	1.44	1.44	1.50	1.49	1.50	1.54
m-ITIC	1.81	1.81	1.82	1.83	1.89	1.88	1.89	1.88
IT-DM	1.82	1.82	1.83	1.84	1.90	1.89	1.90	1.86
IT-M	1.82	1.82	1.83	1.84	1.90	1.88	1.90	1.86
ITCPTC	1.78	1.78	1.79	1.80	1.85	1.84	1.85	1.83
Cl-ITIC	1.78	1.78	1.79	1.80	1.86	1.85	1.86	1.79
Br-ITIC	1.78	1.78	1.79	1.80	1.86	1.85	1.86	1.79
NFBDT	1.74	1.74	1.75	1.76	1.82	1.81	1.82	1.76
ITIC2	1.68	1.68	1.70	1.71	1.77	1.76	1.77	1.74
ITVFFIC	1.64	1.64	1.66	1.66	1.72	1.71	1.72	1.65
INIC	1.73	1.73	1.75	1.75	1.82	1.81	1.82	1.79
INIC2	1.70	1.70	1.71	1.72	1.79	1.78	1.79	1.76
INIC1	1.71	1.71	1.72	1.73	1.80	1.78	1.80	1.75
INIC3	1.71	1.71	1.72	1.73	1.79	1.78	1.80	1.75
IPIC	1.69	1.69	1.70	1.71	1.77	1.76	1.77	1.63
IPIC-4F	1.67	1.67	1.68	1.69	1.75	1.74	1.75	1.60
IPIC-4Cl	1.65	1.65	1.66	1.67	1.73	1.72	1.73	1.57

**Table S2** Experimental  $\lambda_{\max}$  (in nm) and theoretical  $\lambda_{\text{ver-theo}}$  (in nm) of all FREAs computed with PCM-TD-DFT/6-31G(d,p) and exchange-correlation functionals in chloroform solvent

Molecule	$\lambda_{\text{ver-theo}}$							$\lambda_{\max}$
	B3LYP	B3PW91	mPW3PBE	X3LYP	B971	B972	B98	
F(DPP)2B2	660	658	658	649	654	650	654	615
Cz-RH	547	544	544	538	540	537	541	500
Flu-RH	566	563	563	557	559	556	560	500
FRd2	587	584	584	577	580	577	581	509
ITDI	715	711	711	702	706	702	707	647
SiIDT-IC	631	628	628	623	624	621	625	639
IDIDT-C8	714	712	711	698	703	700	705	655
IDT-BOC6	724	720	720	707	712	708	713	688
ATT1	745	741	741	734	737	732	738	690
DC-IDT2T	749	745	745	735	739	736	741	700
BZIC	696	692	692	688	689	686	690	710
ITOIC	752	748	748	739	742	739	744	722
IDTOT2F	766	762	762	752	755	752	757	723
ITOIC-F	751	747	747	738	741	738	742	732
ITOIC-2F	763	759	759	749	752	749	754	737
IEICO	858	853	853	843	847	843	849	785
ATT2	839	833	833	824	828	824	829	791
IEICO-4F	875	870	870	860	863	860	865	805
m-ITIC	688	686	685	678	681	678	682	660
IT-DM	685	683	682	675	678	675	679	665
IT-M	686	683	683	675	678	675	679	668
ITCPCTC	701	698	697	690	693	690	694	678
Cl-ITIC	699	696	696	688	691	688	692	691
Br-ITIC	700	697	697	689	692	689	693	692
NFBDT	715	712	712	703	707	704	708	703
ITIC2	739	736	736	726	730	727	731	714
ITVFFIC	758	755	754	745	748	746	749	750
INIC	720	716	715	706	710	707	711	692
INIC2	734	730	730	720	724	720	725	704
INIC1	730	726	726	717	720	717	721	710
INIC3	730	727	726	717	720	717	721	710
IPIC	737	734	734	725	728	725	729	761
IPIC-4F	747	744	743	734	737	735	738	776
IPIC-4Cl	760	751	751	741	745	742	746	790

**Table S3** Experimental  $\lambda_{\max}$  (in nm) and theoretical  $\lambda_{\text{ver-theo}}$  (in nm) of all FREAs computed with PCM-TD-DFT/6-31G(d,p) and exchange-correlation functionals in chloroform solvent

Molecule	$\lambda_{\text{ver-theo}}$	$\lambda_{\max}$
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	APF/ APFD	PBE0	mPW1PW91	mPW1LYP	mPW1PBE	M06	M05	M062X	Experiment
F(DPP)2B2	640	628	629	632	629	627	617	555	615
Cz-RH	529	520	520	524	520	523	515	452	500
Flu-RH	548	538	539	543	539	542	534	466	500
FRd2	567	556	556	561	556	560	553	470	509
ITDI	690	676	677	681	677	670	655	568	647
SiIDT-IC	614	605	605	609	605	605	591	532	639
IDIDT-C8	685	668	669	672	669	659	644	536	655
IDT-BOC6	692	674	675	679	675	668	650	535	688
ATT1	721	708	708	714	708	708	694	598	690
DC-IDT2T	722	707	708	713	708	700	682	586	700
BZIC	678	669	670	674	669	669	652	594	710
ITOIC	726	711	712	717	712	704	687	596	722
IDTOT2F	738	723	724	729	724	717	698	603	723
ITOIC-F	725	710	711	716	711	704	687	596	732
ITOIC-2F	736	721	722	727	721	714	696	602	737
IEICO	828	811	813	818	812	807	787	671	785
ATT2	808	792	794	801	793	786	766	664	791
IEICO-4F	844	827	829	835	828	825	804	555	805
m-ITIC	667	656	657	660	656	653	637	452	660
IT-DM	664	652	653	657	653	650	633	466	665
IT-M	665	653	654	658	654	651	634	470	668
ITCPTC	680	668	669	673	669	666	648	568	678
Cl-ITIC	677	665	666	670	666	663	647	532	691
Br-ITIC	678	666	667	671	667	665	648	536	692
NFBDT	693	681	682	684	681	680	665	535	703
ITIC2	715	701	702	705	702	700	683	598	714
ITVFFIC	733	719	720	724	720	715	694	586	750
INIC	694	679	680	685	680	674	655	594	692
INIC2	707	692	693	698	693	686	667	596	704
INIC1	704	689	690	695	690	683	664	603	710
INIC3	704	689	691	695	690	684	665	596	710
IPIC	713	700	701	705	700	696	679	602	761
IPIC-4F	722	708	710	713	709	705	688	671	776
IPIC-4Cl	729	721	716	720	716	711	694	664	790

**Table S4** Deviation ( $E_{\text{max-exp}} - E_{\text{ver-theo}}$ ) of theoretical value from experimental one for all FREAs<sup>a</sup>

Molecule	Deviation ( $E_{\text{max-exp}} - E_{\text{ver-theo}}$ ) (eV)
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	B3LYP	B3PW91	mPW3PBE	X3LYP	B971	B972	B98
F(DPP)2B2	0.14	0.14	0.14	0.11	0.12	0.11	0.12
Cz-RH	0.21	0.2	0.2	0.18	0.18	0.17	0.19
Flu-RH	0.29	0.28	0.28	0.25	0.26	0.25	0.27
FRd2	0.33	0.32	0.32	0.29	0.3	0.29	0.31
ITDI	0.19	0.18	0.18	0.15	0.16	0.15	0.17
SiIDT-IC	-0.03	-0.03	-0.03	-0.05	-0.05	-0.06	-0.04
IDIDT-C8	0.15	0.15	0.15	0.11	0.13	0.12	0.13
IDT-BOC6	0.09	0.08	0.08	0.05	0.06	0.05	0.06
ATT1	0.14	0.13	0.13	0.11	0.12	0.11	0.12
DC-IDT2T	0.11	0.11	0.11	0.08	0.09	0.09	0.1
BZIC	-0.03	-0.04	-0.04	-0.05	-0.05	-0.06	-0.05
ITOIC	0.07	0.06	0.06	0.04	0.05	0.04	0.05
IDTOT2F	0.1	0.09	0.09	0.07	0.08	0.07	0.08
ITOIC-F	0.04	0.03	0.03	0.01	0.02	0.01	0.02
ITOIC-2F	0.05	0.05	0.05	0.02	0.03	0.02	0.04
IEICO	0.13	0.13	0.13	0.11	0.12	0.11	0.12
ATT2	0.09	0.08	0.08	0.07	0.07	0.07	0.07
IEICO-4F	0.12	0.11	0.11	0.1	0.1	0.1	0.11
m-ITIC	0.08	0.07	0.07	0.05	0.06	0.05	0.06
IT-DM	0.05	0.04	0.04	0.02	0.03	0.02	0.03
IT-M	0.05	0.04	0.04	0.02	0.03	0.02	0.03
ITCPTC	0.06	0.05	0.05	0.03	0.04	0.03	0.04
Cl-ITIC	0.02	0.01	0.01	-0.01	0	-0.01	0
Br-ITIC	0.02	0.01	0.01	-0.01	0	-0.01	0
NFBDT	0.03	0.02	0.02	0	0.01	0	0.01
ITIC2	0.06	0.06	0.06	0.03	0.04	0.03	0.04
ITVFFIC	0.01	0.01	0.01	-0.01	-0.01	-0.01	-0.01
INIC	0.07	0.06	0.06	0.03	0.04	0.04	0.05
INIC2	0.07	0.06	0.06	0.04	0.05	0.04	0.05
INIC1	0.05	0.04	0.04	0.02	0.03	0.02	0.03
INIC3	0.05	0.04	0.04	0.02	0.03	0.02	0.03
IPIC	-0.05	-0.06	-0.06	-0.08	-0.07	-0.08	-0.07
IPIC-4F	-0.06	-0.07	-0.07	-0.09	-0.08	-0.09	-0.08
IPIC-4Cl	-0.06	-0.08	-0.08	-0.1	-0.09	-0.1	-0.09

<sup>a</sup> E<sub>ver-theo</sub> and E<sub>max-exp</sub> are the theoretical vertical and experimental maximum excitation energies, respectively.

**Table S5** Deviation (E<sub>max-exp</sub> - E<sub>ver-theo</sub>) of theoretical value from experimental one for all FREAs<sup>a</sup>

Molecule	Deviation (E <sub>max-exp</sub> - E <sub>ver-theo</sub> ) (eV)
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	APF /APFD	PBE0	mPW1PW91	mPW1LYP	mPW1PBE	M06	M05	M06-2X
F(DPP)2B2	0.08	0.05	0.05	0.06	0.05	0.04	0.01	-0.22
Cz-RH	0.14	0.10	0.1	0.11	0.1	0.11	0.07	-0.26
Flu-RH	0.22	0.18	0.18	0.2	0.18	0.19	0.16	-0.18
FRd2	0.25	0.21	0.21	0.23	0.21	0.23	0.2	-0.2
ITDI	0.12	0.09	0.09	0.1	0.09	0.07	0.03	-0.26
SiIDT-IC	-0.08	-0.11	-0.11	-0.1	-0.11	-0.11	-0.16	-0.39
IDIDT-C8	0.08	0.03	0.04	0.04	0.04	0.01	-0.04	-0.42
IDT-BOC6	0.01	-0.04	-0.04	-0.03	-0.04	-0.06	-0.11	-0.52
ATT1	0.08	0.05	0.05	0.06	0.05	0.05	0.01	-0.27
DC-IDT2T	0.05	0.02	0.02	0.03	0.02	0	-0.05	-0.35
BZIC	-0.08	-0.10	-0.1	-0.09	-0.1	-0.1	-0.15	-0.34
ITOIC	0.01	-0.02	-0.02	-0.01	-0.02	-0.04	-0.08	-0.36
IDTOT2F	0.04	0.00	0.01	0.02	0.01	-0.01	-0.06	-0.34
ITOIC-F	-0.02	-0.06	-0.05	-0.04	-0.05	-0.07	-0.11	-0.39
ITOIC-2F	0	-0.04	-0.04	-0.03	-0.04	-0.06	-0.1	-0.38
IEICO	0.08	0.05	0.05	0.06	0.05	0.04	0	-0.27
ATT2	0.04	0.00	0.01	0.02	0.01	-0.01	-0.05	-0.3
IEICO-4F	0.07	0.04	0.04	0.05	0.04	0.04	0	-0.27
m-ITIC	0.02	-0.01	-0.01	0	-0.01	-0.02	-0.07	-0.33
IT-DM	-0.01	-0.04	-0.04	-0.03	-0.04	-0.05	-0.1	-0.36
IT-M	0	-0.04	-0.04	-0.02	-0.04	-0.04	-0.1	-0.36
ITCPTC	0.01	-0.03	-0.02	-0.01	-0.02	-0.03	-0.08	-0.34
Cl-ITIC	-0.04	-0.07	-0.07	-0.06	-0.07	-0.08	-0.13	-0.39
Br-ITIC	-0.04	-0.07	-0.07	-0.06	-0.07	-0.07	-0.12	-0.39
NFBDT	-0.03	-0.06	-0.06	-0.05	-0.06	-0.06	-0.1	-0.37
ITIC2	0.01	-0.03	-0.03	-0.02	-0.03	-0.03	-0.08	-0.36
ITVFFIC	-0.04	-0.07	-0.07	-0.06	-0.07	-0.08	-0.14	-0.4
INIC	0	-0.04	-0.03	-0.02	-0.03	-0.05	-0.1	-0.4
INIC2	0.01	-0.03	-0.03	-0.02	-0.03	-0.05	-0.1	-0.4
INIC1	-0.01	-0.05	-0.05	-0.03	-0.05	-0.07	-0.12	-0.41
INIC3	-0.01	-0.05	-0.04	-0.03	-0.05	-0.06	-0.11	-0.41
IPIC	-0.11	-0.14	-0.14	-0.13	-0.14	-0.15	-0.2	-0.44
IPIC-4F	-0.12	-0.15	-0.15	-0.14	-0.15	-0.16	-0.2	-0.45
IPIC-4Cl	-0.13	-0.15	-0.16	-0.15	-0.16	-0.17	-0.22	-0.46

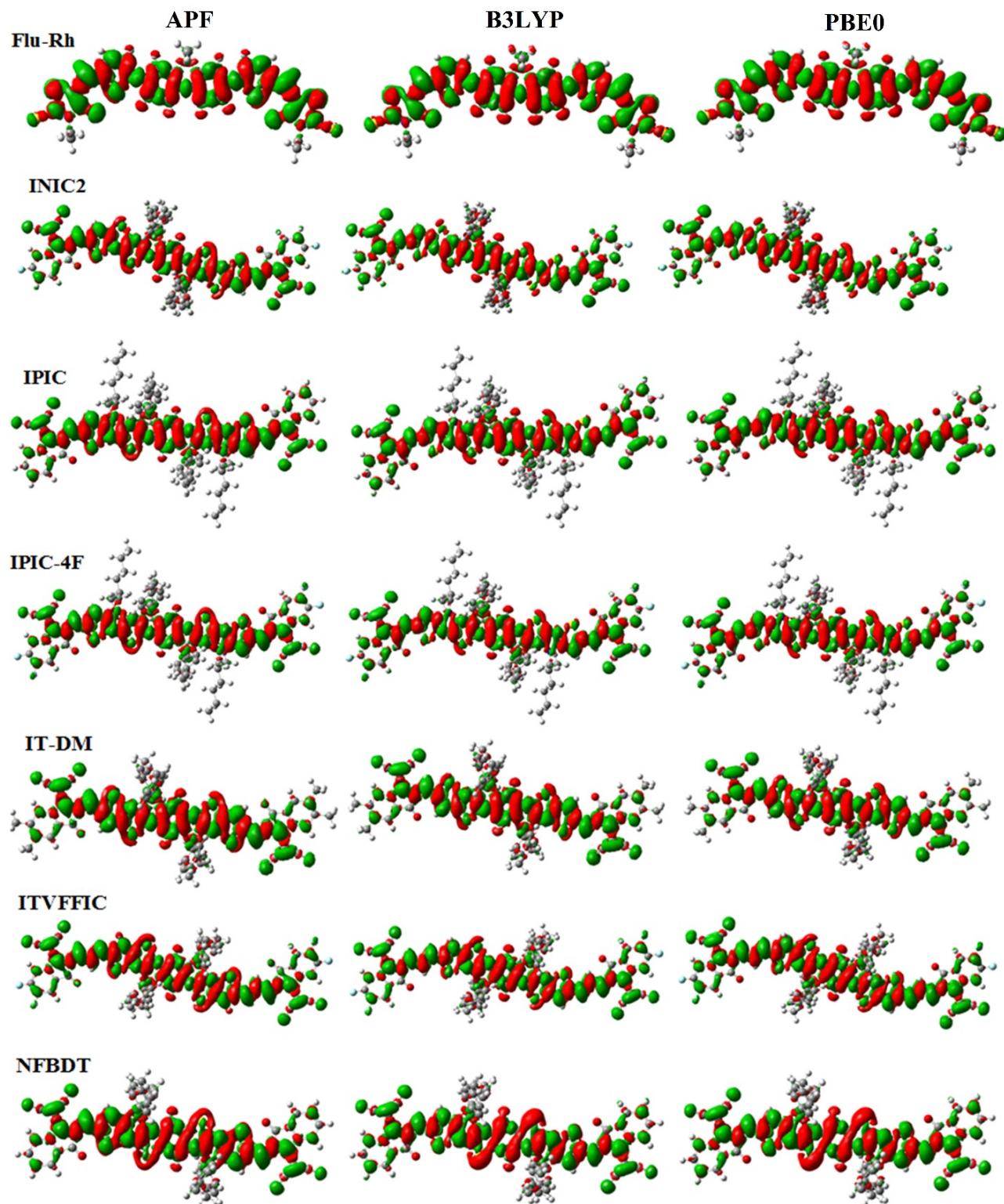
<sup>a</sup> E<sub>ver-theo</sub> and E<sub>max-exp</sub> are theoretical vertical and experimental maximum excitation energies, respectively.

**Table S6** Charge transfer calculated with B3LYP <sup>a</sup>, APF, and PBE0<sup>a</sup>

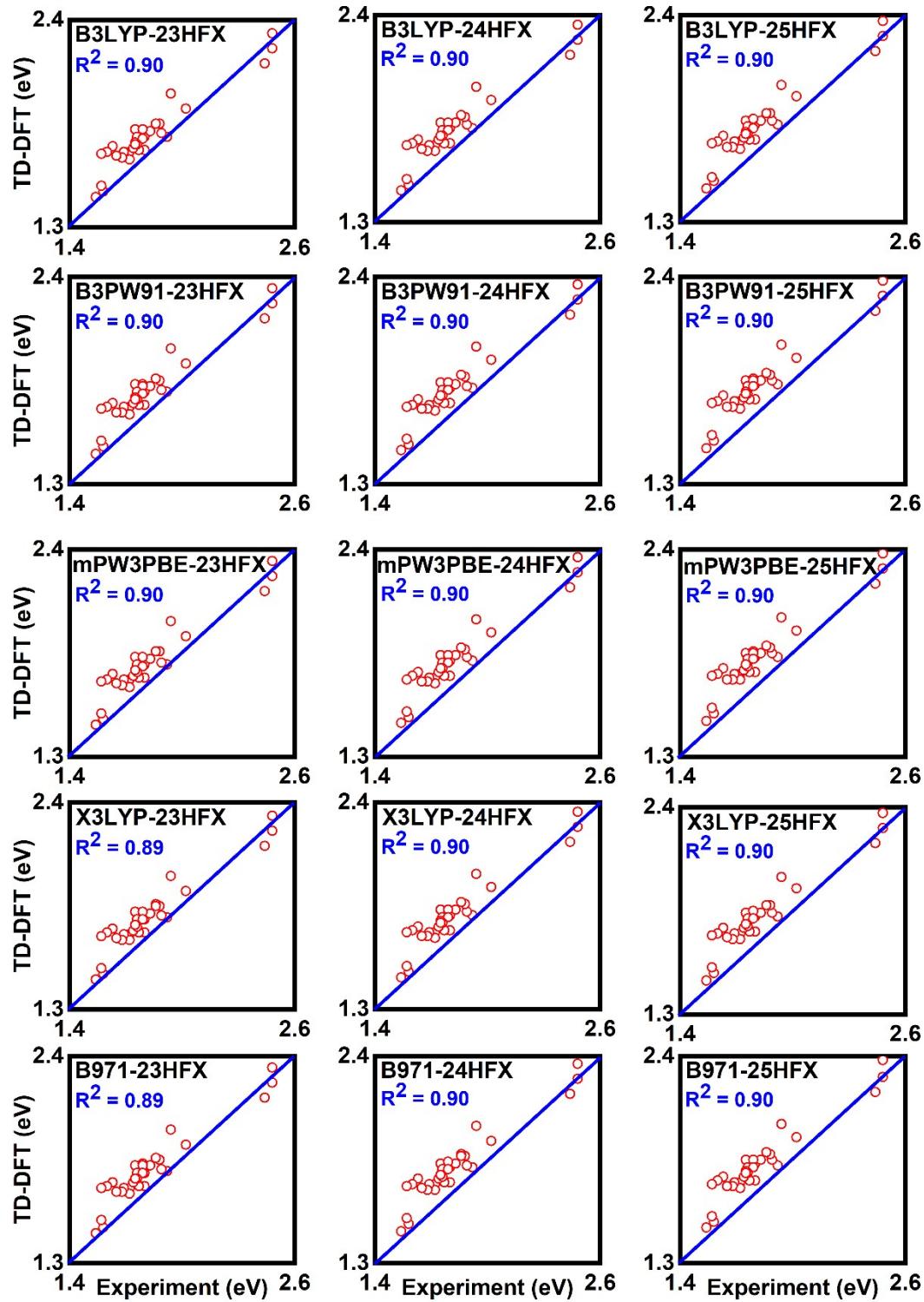
Molecule	B3LYP	APF	PBE0
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NFBDT	0.553	0.559	0.566
ITOIC-2F	0.637	0.642	0.648
INIC2	0.647	0.651	0.656
IEICO-4F	0.6	0.613	0.626
DC-IDT2T	0.647	0.650	0.659
IPIC	0.598	0.605	0.609
IPIC-4F	0.6	0.607	0.611
IT-DM	0.593	0.598	0.605
ITVFFIC	0.605	0.611	0.622
Flu-RH	0.521	0.523	0.527

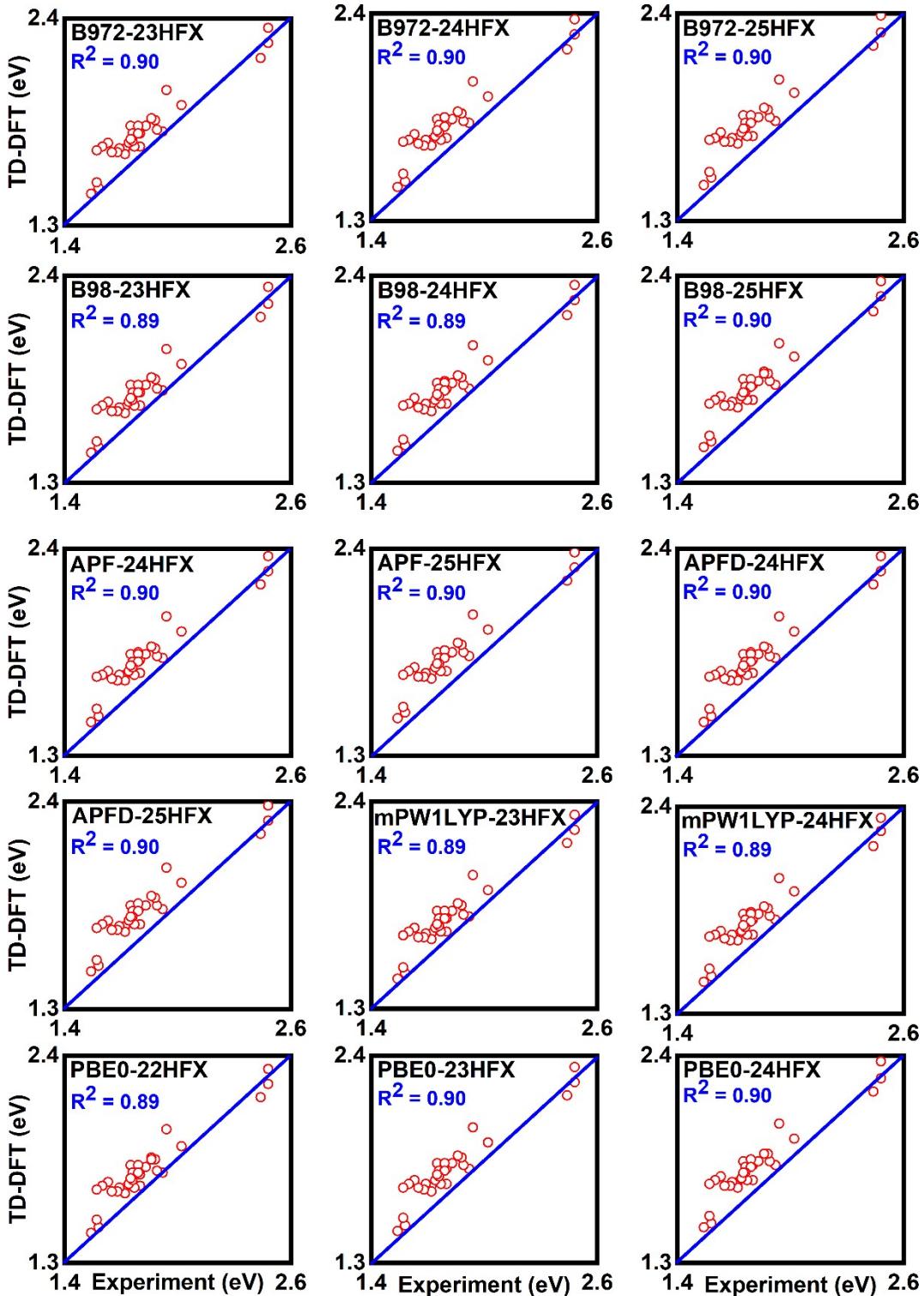
<sup>a</sup> The values for B3LYP and PBE0 have been taken from our previous study.<sup>1</sup>



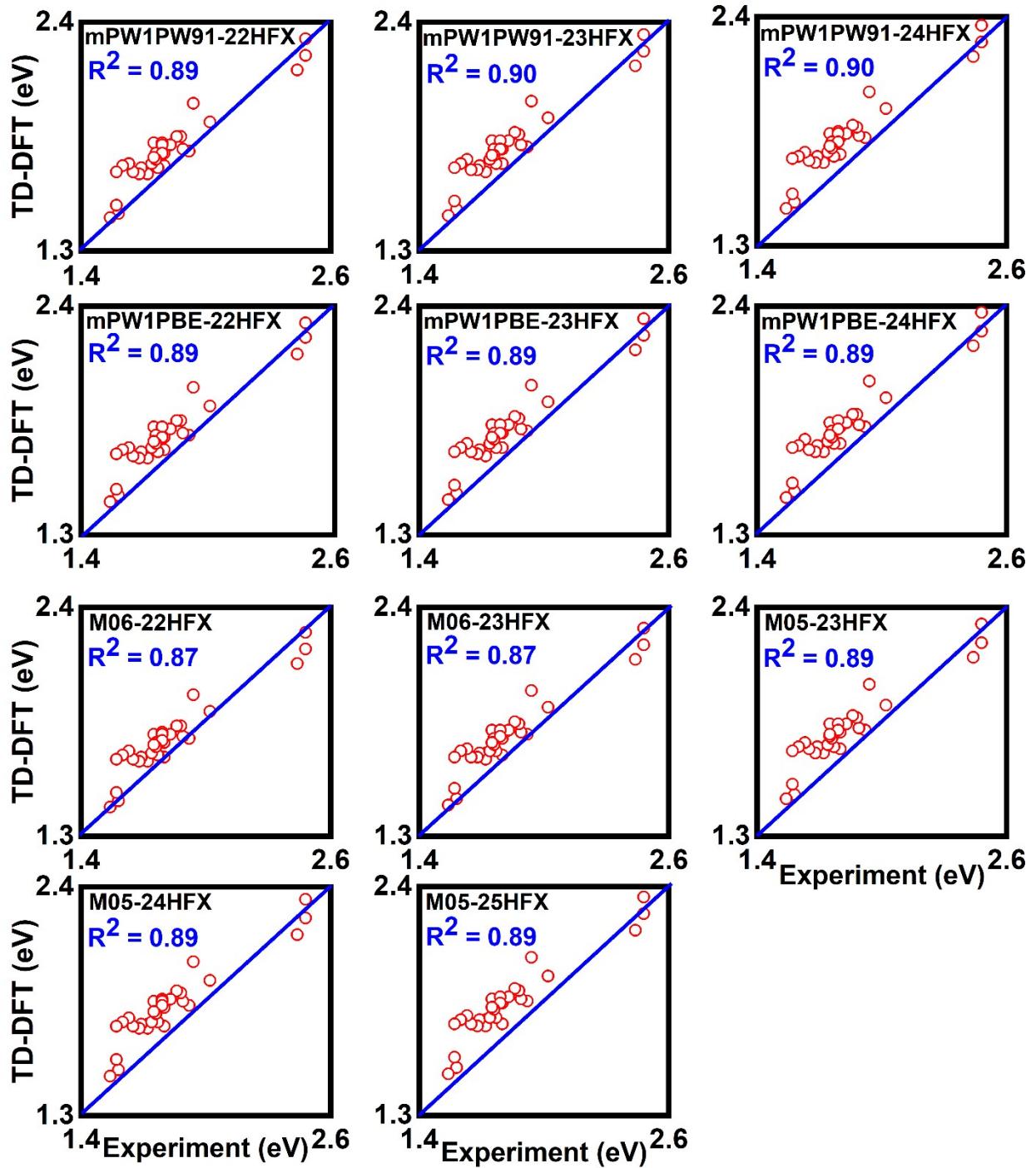
**Fig. S1** Plots of the density difference between the ground and excited states computed for Flu-Rh, INIC2, IPIC, IPIC-4F, IT-DM, ITVFFIC, and NFBDT obtained using PCM-TD-APF, PCM-TD-B3LYP, and PCM-TD-PBE0 (contour threshold: 0.0002 a.u.)



**Fig. S2** Comparison between experimental maximum transition energies ( $E_{\max-\text{exp}}$ ) and theoretical vertical excitation energies ( $E_{\text{ver-theo}}$ ) using B3LYP-23HFX, B3LYP-24HFX, B3LYP-25HFX, B3PW91-23HFX, B3PW91-24HFX, B3PW91-25HFX, mPW3PBE-23HFX, mPW3PBE-24HFX, mPW3PBE-25HFX, X3LYP-23HFX, X3LYP-24HFX, X3LYP-25HFX, B971-23HFX, B971-24HFX, and B971-25HFX. The solid line shows the theory-experiment perfect match.  $R^2$  is the determination coefficient.



**Fig. S3** Comparison between experimental maximum transition energies ( $E_{\text{max-exp}}$ ) and theoretical vertical excitation energies ( $E_{\text{ver-theo}}$ ) using B972-23HFX, B972-24HFX, B972-25HFX, B98-23HFX, B98-24HFX, B98-25HFX, APF-24HFX, APF-25HFX, APFD-24HFX, APFD-25HFX, mPW1LYP-23HFX, mPW1LYP-24HFX, PBE0-22HFX, PBE0-23HFX, and PBE0-24HFX. The solid line shows the theory-experiment perfect match.  $R^2$  is the determination coefficient.



**Fig. S4** Comparison between experimental maximum transition energies ( $E_{\max-\text{exp}}$ ) and theoretical vertical excitation energies ( $E_{\text{ver-theo}}$ ) using mPW1PW91-22HFX, mPW1PW91-23HFX, mPW1PW91-24HFX, mPW1PBE-22HFX, mPW1PBE-23HFX, mPW1PBE-24HFX, M06-22HFX, M06-23HFX, M05-23HFX, M05-24HFX and M05-25HFX. The solid line shows the theory-experiment perfect match.  $R^2$  is the determination coefficient.

**Table S7** Experimental maximum absorption wavelengths ( $\lambda_{\max}$  in nm), experimental transition energies ( $E_{\max-\text{exp}}$  in eV), theoretical vertical absorption wavelengths ( $\lambda_{\text{ver-theo}}$  in nm), and theoretical vertical transition energies ( $E_{\text{ver-theo}}$  in eV) of all FREAs computed in chloroform with PCM-TD-DFT-XC-HFX/6-31G(d,p)<sup>a</sup>

Molecule	$\lambda_{\text{ver-theo}}$ and $E_{\text{ver-theo}}$												$\lambda_{\max}$ and $E_{\max-\text{exp}}$	
	B3LYP		B3LYP-21HFX		B3LYP-22HFX		B3LYP-23HFX		B3LYP-24HFX		B3LYP-25HFX		Experiment	
	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
F(DPP)2B2	660	1.88	654	1.90	647	1.92	641	1.93	636	1.95	630	1.97	615	2.02
Cz-RH	547	2.27	542	2.29	537	2.31	532	2.33	528	2.35	524	2.37	500	2.48
Flu-RH	566	2.19	561	2.21	556	2.23	551	2.25	547	2.27	542	2.29	500	2.48
FRd2	587	2.11	582	2.13	576	2.15	571	2.17	566	2.19	562	2.21	509	2.44
ITDI	715	1.73	708	1.75	701	1.77	695	1.78	688	1.80	682	1.82	647	1.92
SiIDT-IC	631	1.97	627	1.98	622	1.99	618	2.01	614	2.02	610	2.03	639	1.94
IDIDT-C8	714	1.74	706	1.76	698	1.78	690	1.80	682	1.82	675	1.84	655	1.89
IDT-BOC6	724	1.71	715	1.73	706	1.76	697	1.78	689	1.80	681	1.82	688	1.80
ATT1	745	1.66	739	1.68	732	1.69	726	1.71	719	1.72	713	1.74	690	1.80
DC-IDT2T	749	1.66	742	1.67	734	1.69	727	1.71	720	1.72	714	1.74	700	1.77
BZIC	696	1.78	691	1.79	687	1.80	682	1.82	678	1.83	674	1.84	710	1.75
ITOIC	752	1.65	745	1.66	738	1.68	731	1.70	724	1.71	717	1.73	722	1.72
IDTOT2F	766	1.62	759	1.63	752	1.65	745	1.66	738	1.68	732	1.69	723	1.72
ITOIC-F	751	1.65	744	1.67	737	1.68	731	1.70	724	1.71	718	1.73	732	1.69
ITOIC-2F	763	1.63	756	1.64	749	1.66	742	1.67	736	1.68	729	1.70	737	1.68
IEICO	858	1.45	850	1.46	841	1.47	833	1.49	826	1.50	818	1.52	785	1.58
ATT2	839	1.48	831	1.49	824	1.50	817	1.52	810	1.53	803	1.54	791	1.57
IEICO-4F	875	1.42	867	1.43	859	1.44	852	1.46	844	1.47	837	1.48	805	1.54
m-ITIC	688	1.80	683	1.82	677	1.83	672	1.85	666	1.86	661	1.88	660	1.88
IT-DM	685	1.81	680	1.82	674	1.84	669	1.85	663	1.87	658	1.88	665	1.86
IT-M	686	1.81	680	1.82	675	1.84	669	1.85	664	1.87	659	1.88	668	1.86
ITCPTC	701	1.77	695	1.78	690	1.80	684	1.81	679	1.83	674	1.84	678	1.83
Cl-ITIC	699	1.77	693	1.79	687	1.80	682	1.82	676	1.83	671	1.85	691	1.79
Br-ITIC	700	1.77	694	1.79	688	1.80	683	1.82	677	1.83	672	1.85	692	1.79
NFBDT	715	1.73	708	1.75	702	1.77	697	1.78	691	1.79	685	1.81	703	1.76
ITIC2	739	1.68	732	1.69	725	1.71	719	1.72	713	1.74	707	1.75	714	1.74
ITVFFIC	758	1.64	752	1.65	746	1.66	739	1.68	734	1.69	728	1.70	750	1.65
INIC	720	1.72	713	1.74	706	1.76	699	1.77	693	1.79	687	1.80	692	1.79
INIC2	734	1.69	727	1.71	720	1.72	713	1.74	706	1.76	700	1.77	704	1.76
INIC1	730	1.70	723	1.72	716	1.73	710	1.75	703	1.76	697	1.78	710	1.75
INIC3	730	1.70	724	1.71	717	1.73	711	1.74	705	1.76	699	1.77	710	1.75
IPIC	737	1.68	731	1.70	724	1.71	718	1.73	711	1.74	706	1.76	761	1.63
IPIC-4F	747	1.66	740	1.68	734	1.69	728	1.70	722	1.72	716	1.73	776	1.60
IPIC-4Cl	760	1.63	753	1.66	746	1.68	740	1.69	733	1.71	727	1.72	790	1.57

<sup>a</sup>XC and HFX in PCM-TD-DFT-XC-HFX/6-31G(d,p) denote the exchange-correlation functional and percentage of Hartree-Fock exact-exchange, respectively.

**Table S8** Experimental maximum absorption wavelengths ( $\lambda_{\max}$  in nm), experimental transition energies ( $E_{\max-\text{exp}}$  in eV), theoretical vertical absorption wavelengths ( $\lambda_{\text{ver-theo}}$  in nm), and theoretical vertical transition energies ( $E_{\text{ver-theo}}$  in eV) of all FREAs computed in chloroform with PCM-TD-DFT-XC-HFX/6-31G(d,p)<sup>a</sup>

Molecule	$\lambda_{\text{ver-theo}}$ and $E_{\text{ver-theo}}$												$\lambda_{\max}$ and $E_{\max-\text{exp}}$	
	B3PW91		B3PW91-21HFX		B3PW91-22HFX		B3PW91-23HFX		B3PW91-24HFX		B3PW91-25HFX		Experiment	
	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
F(DPP)2B2	658	1.88	651	1.90	645	1.92	639	1.94	633	1.96	628	1.97	615	2.02
Cz-RH	544	2.28	539	2.30	534	2.32	529	2.34	525	2.36	521	2.38	500	2.48
Flu-RH	563	2.20	558	2.22	553	2.24	548	2.26	544	2.28	539	2.30	500	2.48
FRd2	584	2.12	578	2.15	573	2.16	568	2.18	563	2.20	558	2.22	509	2.44
ITDI	711	1.74	704	1.76	698	1.78	691	1.79	685	1.81	679	1.83	647	1.92
SIIDT-IC-IC	628	1.97	623	1.99	619	2.00	615	2.02	611	2.03	607	2.04	639	1.94
IDIDT-C8	712	1.74	703	1.76	695	1.78	687	1.80	680	1.82	672	1.85	655	1.89
IDT-BOC6	720	1.72	711	1.74	702	1.77	694	1.79	685	1.81	677	1.83	688	1.80
ATT1	741	1.67	734	1.69	727	1.71	721	1.72	715	1.73	709	1.75	690	1.80
DC-IDT2T	745	1.66	738	1.68	731	1.70	723	1.72	717	1.73	710	1.75	700	1.77
BZIC	692	1.79	688	1.80	683	1.82	679	1.83	674	1.84	670	1.85	710	1.75
ITOIC	748	1.66	741	1.67	734	1.69	727	1.71	720	1.72	713	1.74	722	1.72
IDTOT2F	762	1.63	755	1.64	748	1.66	741	1.67	734	1.69	728	1.70	723	1.72
ITOIC-F	747	1.66	740	1.68	733	1.69	727	1.71	720	1.72	714	1.74	732	1.69
ITOIC-2F	759	1.63	752	1.65	745	1.66	738	1.68	731	1.70	725	1.71	737	1.68
IEICO	853	1.45	845	1.47	837	1.48	829	1.50	821	1.51	813	1.53	785	1.58
ATT2	833	1.49	825	1.50	818	1.52	811	1.53	804	1.54	797	1.56	791	1.57
IEICO-4F	870	1.43	862	1.44	854	1.45	847	1.46	839	1.48	832	1.49	805	1.54
m-ITIC	686	1.81	680	1.82	674	1.84	669	1.85	664	1.87	658	1.88	660	1.88
IT-DM	683	1.82	677	1.83	671	1.85	666	1.86	660	1.88	655	1.89	665	1.86
IT-M	683	1.82	677	1.83	672	1.85	666	1.86	661	1.88	656	1.89	668	1.86
ITCPTC	698	1.78	692	1.79	686	1.81	681	1.82	676	1.83	671	1.85	678	1.83
Cl-ITIC	696	1.78	690	1.80	684	1.81	679	1.83	673	1.84	668	1.86	691	1.79
Br-ITIC	697	1.78	691	1.79	685	1.81	680	1.82	674	1.84	669	1.85	692	1.79
NFBDT	712	1.74	706	1.76	700	1.77	694	1.79	689	1.80	683	1.82	703	1.76
ITIC2	736	1.68	729	1.70	723	1.72	716	1.73	710	1.75	704	1.76	714	1.74
ITVFFIC	755	1.64	748	1.66	742	1.67	736	1.68	730	1.70	724	1.71	750	1.65
INIC	716	1.73	709	1.75	702	1.77	695	1.78	689	1.80	683	1.82	692	1.79
INIC2	730	1.70	723	1.72	716	1.73	709	1.75	702	1.77	696	1.78	704	1.76
INIC1	726	1.71	719	1.72	712	1.74	706	1.76	699	1.77	693	1.79	710	1.75
INIC3	727	1.71	720	1.72	713	1.74	707	1.75	701	1.77	695	1.78	710	1.75
IPIC	734	1.69	728	1.70	721	1.72	715	1.73	708	1.75	702	1.77	761	1.63
IPIC-4F	744	1.67	737	1.68	731	1.70	725	1.71	719	1.72	713	1.74	776	1.60
IPIC-4Cl	751	1.65	744	1.67	737	1.68	731	1.70	724	1.71	718	1.73	790	1.57

<sup>a</sup>XC and HFX in PCM-TD-DFT-XC-HFX/6-31G(d,p) denote the exchange-correlation functional and percentage of Hartree-Fock exact-exchange, respectively.

**Table S9** Experimental maximum absorption wavelengths ( $\lambda_{\max}$  in nm), experimental transition energies ( $E_{\max-\text{exp}}$  in eV), theoretical vertical absorption wavelengths ( $\lambda_{\text{ver-theo}}$  in nm), and theoretical vertical transition energies ( $E_{\text{ver-theo}}$  in eV) of all FREAs computed in chloroform with PCM-TD-DFT-XC-HFX/6-31G(d,p)<sup>a</sup>

Molecule	$\lambda_{\text{ver-theo}}$ and $E_{\text{ver-theo}}$												$\lambda_{\max}$ and $E_{\max-\text{exp}}$	
	mPW3PBE		mPW3PBE-21HFX		mPW3PBE-22HFX		mPW3PBE-23HFX		mPW3PBE-24HFX		mPW3PBE-25HFX		Experiment	
	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
F(DPP)2B2	658	1.88	651	1.90	645	1.92	639	1.94	633	1.96	628	1.97	615	2.02
Cz-RH	544	2.28	539	2.30	534	2.32	529	2.34	525	2.36	521	2.38	500	2.48
Flu-RH	563	2.20	558	2.22	553	2.24	548	2.26	544	2.28	539	2.30	500	2.48
FRd2	584	2.12	578	2.15	573	2.16	568	2.18	563	2.20	558	2.22	509	2.44
ITDI	711	1.74	704	1.76	698	1.78	691	1.79	685	1.81	679	1.83	647	1.92
SiIDT-IC	628	1.97	623	1.99	619	2.00	615	2.02	611	2.03	607	2.04	639	1.94
IDIDT-C8	711	1.74	703	1.76	695	1.78	687	1.80	679	1.83	672	1.85	655	1.89
IDT-BOC6	720	1.72	711	1.74	702	1.77	693	1.79	685	1.81	677	1.83	688	1.80
ATT1	741	1.67	734	1.69	728	1.70	721	1.72	715	1.73	709	1.75	690	1.80
DC-IDT2T	745	1.66	738	1.68	730	1.70	723	1.72	716	1.73	710	1.75	700	1.77
BZIC	692	1.79	687	1.80	683	1.82	678	1.83	674	1.84	670	1.85	710	1.75
ITOIC	748	1.66	741	1.67	733	1.69	726	1.71	720	1.72	713	1.74	722	1.72
IDTOT2F	762	1.63	755	1.64	747	1.66	741	1.67	734	1.69	727	1.71	723	1.72
ITOIC-F	747	1.66	740	1.68	733	1.69	726	1.71	720	1.72	714	1.74	732	1.69
ITOIC-2F	759	1.63	751	1.65	744	1.67	738	1.68	731	1.70	725	1.71	737	1.68
IEICO	853	1.45	845	1.47	836	1.48	828	1.50	821	1.51	813	1.53	785	1.58
ATT2	833	1.49	825	1.50	817	1.52	810	1.53	803	1.54	797	1.56	791	1.57
IEICO-4F	870	1.43	862	1.44	854	1.45	846	1.47	839	1.48	832	1.49	805	1.54
m-ITIC	685	1.81	680	1.82	674	1.84	668	1.86	663	1.87	658	1.88	660	1.88
IT-DM	682	1.82	676	1.83	671	1.85	665	1.86	660	1.88	655	1.89	665	1.86
IT-M	683	1.82	677	1.83	671	1.85	666	1.86	661	1.88	656	1.89	668	1.86
ITCPTC	697	1.78	692	1.79	686	1.81	681	1.82	675	1.84	670	1.85	678	1.83
Cl-ITIC	696	1.78	690	1.80	684	1.81	678	1.83	673	1.84	668	1.86	691	1.79
Br-ITIC	697	1.78	691	1.79	685	1.81	679	1.83	674	1.84	669	1.85	692	1.79
NFBDT	712	1.74	706	1.76	700	1.77	694	1.79	688	1.80	683	1.82	703	1.76
ITIC2	736	1.68	729	1.70	722	1.72	716	1.73	709	1.75	703	1.76	714	1.74
ITVFFIC	754	1.64	748	1.66	742	1.67	735	1.69	730	1.70	724	1.71	750	1.65
INIC	715	1.73	708	1.75	702	1.77	695	1.78	688	1.80	682	1.82	692	1.79
INIC2	730	1.70	722	1.72	715	1.73	708	1.75	702	1.77	695	1.78	704	1.76
INIC1	726	1.71	719	1.72	712	1.74	705	1.76	699	1.77	693	1.79	710	1.75
INIC3	726	1.71	719	1.72	713	1.74	706	1.76	700	1.77	694	1.79	710	1.75
IPIC	734	1.69	727	1.71	721	1.72	714	1.74	708	1.75	702	1.77	761	1.63
IPIC-4F	743	1.67	737	1.68	730	1.70	724	1.71	718	1.73	712	1.74	776	1.60
IPIC-4Cl	751	1.65	744	1.67	737	1.68	730	1.70	724	1.71	717	1.73	790	1.57

<sup>a</sup>XC and HFX in PCM-TD-DFT-XC-HFX/6-31G(d,p) denote the exchange-correlation functional and percentage of Hartree-Fock exact-exchange, respectively.

**Table S10** Experimental maximum absorption wavelengths ( $\lambda_{\max}$  in nm), experimental transition energies ( $E_{\max-\text{exp}}$  in eV), theoretical vertical absorption wavelengths ( $\lambda_{\text{ver-theo}}$  in nm), and theoretical vertical transition energies ( $E_{\text{ver-theo}}$  in eV) of all FREAs computed in chloroform with PCM-TD-DFT-XC-HFX/6-31G(d,p)<sup>a</sup>

Molecule	$\lambda_{\text{ver-theo}}$ and $E_{\text{ver-theo}}$												$\lambda_{\max}$ and $E_{\max-\text{exp}}$	
	X3LYP-20HFX		X3LYP		X3LYP-22HFX		X3LYP-23HFX		X3LYP-24HFX		X3LYP-25HFX		Experiment	
	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
F(DPP)2B2	661	1.88	649	1.91	648	1.91	642	1.93	636	1.95	631	1.97	615	2.02
Cz-RH	547	2.27	538	2.30	537	2.31	533	2.33	528	2.35	524	2.37	500	2.48
Flu-RH	566	2.19	557	2.23	556	2.23	551	2.25	547	2.27	542	2.29	500	2.48
FRd2	587	2.11	577	2.15	576	2.15	571	2.17	566	2.19	561	2.21	509	2.44
ITDI	714	1.74	702	1.77	701	1.77	694	1.79	688	1.80	682	1.82	647	1.92
SiIDT-IC	631	1.97	623	1.99	622	1.99	618	2.01	614	2.02	610	2.03	639	1.94
IDIDT-C8	713	1.74	698	1.78	697	1.78	689	1.80	681	1.82	674	1.84	655	1.89
IDT-BOC6	723	1.72	707	1.75	705	1.76	697	1.78	688	1.80	680	1.82	688	1.80
ATT1	746	1.66	734	1.69	732	1.69	726	1.71	720	1.72	713	1.74	690	1.80
DC-IDT2T	749	1.66	735	1.69	734	1.69	727	1.71	720	1.72	713	1.74	700	1.77
BZIC	696	1.78	688	1.80	687	1.80	682	1.82	678	1.83	674	1.84	710	1.75
ITOIC	752	1.65	739	1.68	737	1.68	730	1.70	724	1.71	717	1.73	722	1.72
IDTOT2F	765	1.62	752	1.65	751	1.65	744	1.67	737	1.68	731	1.70	723	1.72
ITOIC-F	751	1.65	738	1.68	737	1.68	730	1.70	724	1.71	717	1.73	732	1.69
ITOIC-2F	762	1.63	749	1.66	748	1.66	741	1.67	735	1.69	728	1.70	737	1.68
IEICO	858	1.45	843	1.47	841	1.47	833	1.49	826	1.50	818	1.52	785	1.58
ATT2	838	1.48	824	1.50	823	1.51	816	1.52	809	1.53	802	1.55	791	1.57
IEICO-4F	874	1.42	860	1.44	858	1.45	851	1.46	843	1.47	836	1.48	805	1.54
m-ITIC	688	1.80	678	1.83	677	1.83	671	1.85	666	1.86	661	1.88	660	1.88
IT-DM	685	1.81	675	1.84	674	1.84	668	1.86	663	1.87	658	1.88	665	1.86
IT-M	685	1.81	675	1.84	674	1.84	669	1.85	663	1.87	658	1.88	668	1.86
ITCPTC	700	1.77	690	1.80	689	1.80	684	1.81	679	1.83	673	1.84	678	1.83
Cl-ITIC	698	1.78	688	1.80	687	1.80	681	1.82	676	1.83	670	1.85	691	1.79
Br-ITIC	699	1.77	689	1.80	688	1.80	682	1.82	677	1.83	671	1.85	692	1.79
NFBDT	714	1.74	703	1.76	702	1.77	696	1.78	691	1.79	685	1.81	703	1.76
ITIC2	739	1.68	726	1.71	725	1.71	719	1.72	712	1.74	706	1.76	714	1.74
ITVFFIC	757	1.64	745	1.66	744	1.67	738	1.68	732	1.69	726	1.71	750	1.65
INIC	719	1.72	706	1.76	705	1.76	698	1.78	692	1.79	686	1.81	692	1.79
INIC2	733	1.69	720	1.72	719	1.72	712	1.74	705	1.76	699	1.77	704	1.76
INIC1	729	1.70	717	1.73	715	1.73	709	1.75	702	1.77	696	1.78	710	1.75
INIC3	729	1.70	717	1.73	716	1.73	710	1.75	703	1.76	697	1.78	710	1.75
IPIC	737	1.68	725	1.71	724	1.71	717	1.73	711	1.74	705	1.76	761	1.63
IPIC-4F	746	1.66	734	1.69	733	1.69	727	1.71	721	1.72	715	1.73	776	1.60
IPIC-4Cl	754	1.64	741	1.67	740	1.68	733	1.69	727	1.71	721	1.72	790	1.57

<sup>a</sup> XC and HFX in PCM-TD-DFT-XC-HFX/6-31G(d,p) denote the exchange-correlation functional and percentage of Hartree-Fock exact-exchange, respectively.

**Table S11** Experimental maximum absorption wavelengths ( $\lambda_{\max}$  in nm), experimental transition energies ( $E_{\max-\text{exp}}$  in eV), theoretical vertical absorption wavelengths ( $\lambda_{\text{ver-theo}}$  in nm), and theoretical vertical transition energies ( $E_{\text{ver-theo}}$  in eV) of all FREAs computed in chloroform with PCM-TD-DFT-XC-HFX/6-31G(d,p)<sup>a</sup>

Molecule	$\lambda_{\text{ver-theo}}$ and $E_{\text{ver-theo}}$												$\lambda_{\max}$ and $E_{\max-\text{exp}}$	
	B971-20HFX		B971		B971-22HFX		B971-23HFX		B971-24HFX		B971-25HFX		Experiment	
	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
F(DPP)2B2	661	1.88	654	1.90	647	1.92	641	1.93	635	1.95	630	1.97	615	2.02
Cz-RH	545	2.28	540	2.30	535	2.32	530	2.34	526	2.36	522	2.38	500	2.48
Flu-RH	564	2.20	559	2.22	554	2.24	549	2.26	545	2.28	541	2.29	500	2.48
FRd2	585	2.12	580	2.14	574	2.16	569	2.18	564	2.20	560	2.21	509	2.44
ITDI	712	1.74	706	1.76	699	1.77	693	1.79	686	1.81	680	1.82	647	1.92
SiIDT-IC	629	1.97	624	1.99	620	2.00	616	2.01	612	2.03	608	2.04	639	1.94
IDIDT-C8	712	1.74	703	1.76	695	1.78	687	1.80	680	1.82	672	1.85	655	1.89
IDT-BOC6	721	1.72	712	1.74	703	1.76	695	1.78	686	1.81	678	1.83	688	1.80
ATT1	744	1.67	737	1.68	730	1.70	724	1.71	717	1.73	711	1.74	690	1.80
DC-IDT2T	747	1.66	739	1.68	732	1.69	725	1.71	718	1.73	712	1.74	700	1.77
BZIC	694	1.79	689	1.80	684	1.81	680	1.82	676	1.83	671	1.85	710	1.75
ITOIC	750	1.65	742	1.67	735	1.69	728	1.70	721	1.72	715	1.73	722	1.72
IDTOT2F	763	1.63	755	1.64	748	1.66	741	1.67	735	1.69	728	1.70	723	1.72
ITOIC-F	748	1.66	741	1.67	734	1.69	728	1.70	721	1.72	715	1.73	732	1.69
ITOIC-2F	759	1.63	752	1.65	745	1.66	739	1.68	732	1.69	726	1.71	737	1.68
IEICO	856	1.45	847	1.46	839	1.48	831	1.49	823	1.51	816	1.52	785	1.58
ATT2	835	1.49	828	1.50	820	1.51	813	1.53	806	1.54	799	1.55	791	1.57
IEICO-4F	871	1.42	863	1.44	856	1.45	848	1.46	841	1.47	834	1.49	805	1.54
m-ITIC	686	1.81	681	1.82	675	1.84	670	1.85	664	1.87	659	1.88	660	1.88
IT-DM	683	1.82	678	1.83	672	1.85	667	1.86	661	1.88	656	1.89	665	1.86
IT-M	684	1.81	678	1.83	672	1.85	667	1.86	662	1.87	657	1.89	668	1.86
ITCPTC	699	1.77	693	1.79	688	1.80	682	1.82	677	1.83	672	1.85	678	1.83
Cl-ITIC	696	1.78	691	1.79	685	1.81	679	1.83	674	1.84	669	1.85	691	1.79
Br-ITIC	698	1.78	692	1.79	686	1.81	680	1.82	675	1.84	670	1.85	692	1.79
NFBDT	713	1.74	707	1.75	701	1.77	695	1.78	689	1.80	684	1.81	703	1.76
ITIC2	737	1.68	730	1.70	723	1.72	717	1.73	710	1.75	704	1.76	714	1.74
ITVFFIC	755	1.64	748	1.66	742	1.67	736	1.68	730	1.70	724	1.71	750	1.65
INIC	717	1.73	710	1.75	703	1.76	696	1.78	690	1.80	684	1.81	692	1.79
INIC2	731	1.70	724	1.71	717	1.73	710	1.75	703	1.76	697	1.78	704	1.76
INIC1	727	1.71	720	1.72	713	1.74	707	1.75	700	1.77	694	1.79	710	1.75
INIC3	727	1.71	720	1.72	714	1.74	707	1.75	701	1.77	695	1.78	710	1.75
IPIC	735	1.69	728	1.70	722	1.72	715	1.73	709	1.75	703	1.76	761	1.63
IPIC-4F	744	1.67	737	1.68	731	1.70	725	1.71	719	1.72	713	1.74	776	1.60
IPIC-4Cl	752	1.65	745	1.66	738	1.68	731	1.70	725	1.71	719	1.72	790	1.57

<sup>a</sup> XC and HFX in PCM-TD-DFT-XC-HFX/6-31G(d,p) denote the exchange-correlation functional and percentage of Hartree-Fock exact-exchange, respectively.

**Table S12** Experimental maximum absorption wavelengths ( $\lambda_{\max}$  in nm), experimental transition energies ( $E_{\max-\text{exp}}$  in eV), theoretical vertical absorption wavelengths ( $\lambda_{\text{ver-theo}}$  in nm), and theoretical vertical transition energies ( $E_{\text{ver-theo}}$  in eV) of all FREAs computed in chloroform with PCM-TD-DFT-XC-HFX/6-31G(d,p)<sup>a</sup>

Molecule	$\lambda_{\text{ver-theo}}$ and $E_{\text{ver-theo}}$												$\lambda_{\max}$ and $E_{\max-\text{exp}}$	
	B972-20HFX		B972		B972-22HFX		B972-23HFX		B972-24HFX		B972-25HFX		Experiment	
	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
F(DPP)2B2	657	1.89	650	1.91	644	1.93	638	1.94	632	1.96	627	1.98	615	2.02
Cz-RH	542	2.29	537	2.31	532	2.33	528	2.35	523	2.37	519	2.39	500	2.48
Flu-RH	561	2.21	556	2.23	551	2.25	546	2.27	542	2.29	538	2.30	500	2.48
FRd2	583	2.13	577	2.15	572	2.17	567	2.19	562	2.21	557	2.23	509	2.44
ITDI	709	1.75	702	1.77	695	1.78	689	1.80	683	1.82	677	1.83	647	1.92
SiIDT-IC	626	1.98	621	2.00	617	2.01	613	2.02	609	2.04	605	2.05	639	1.94
IDIDT-C8	708	1.75	700	1.77	692	1.79	684	1.81	677	1.83	669	1.85	655	1.89
IDT-BOC6	717	1.73	708	1.75	700	1.77	691	1.79	683	1.82	675	1.84	688	1.80
ATT1	739	1.68	732	1.69	726	1.71	719	1.72	713	1.74	707	1.75	690	1.80
DC-IDT2T	743	1.67	736	1.68	728	1.70	721	1.72	715	1.73	708	1.75	700	1.77
BZIC	691	1.79	686	1.81	681	1.82	677	1.83	673	1.84	668	1.86	710	1.75
ITOIC	746	1.66	739	1.68	731	1.70	724	1.71	718	1.73	711	1.74	722	1.72
IDTOT2F	759	1.63	752	1.65	745	1.66	738	1.68	731	1.70	725	1.71	723	1.72
ITOIC-F	745	1.66	738	1.68	731	1.70	724	1.71	718	1.73	712	1.74	732	1.69
ITOIC-2F	756	1.64	749	1.66	742	1.67	735	1.69	729	1.70	723	1.72	737	1.68
IEICO	851	1.46	843	1.47	835	1.49	827	1.50	819	1.51	811	1.53	785	1.58
ATT2	831	1.49	824	1.50	816	1.52	809	1.53	802	1.55	795	1.56	791	1.57
IEICO-4F	867	1.43	860	1.44	852	1.46	844	1.47	837	1.48	830	1.49	805	1.54
m-ITIC	684	1.81	678	1.83	672	1.85	667	1.86	662	1.87	657	1.89	660	1.88
IT-DM	681	1.82	675	1.84	670	1.85	664	1.87	659	1.88	654	1.90	665	1.86
IT-M	681	1.82	675	1.84	670	1.85	664	1.87	659	1.88	654	1.90	668	1.86
ITCPTC	696	1.78	690	1.80	685	1.81	679	1.83	674	1.84	669	1.85	678	1.83
Cl-ITIC	694	1.79	688	1.80	682	1.82	676	1.83	671	1.85	666	1.86	691	1.79
Br-ITIC	695	1.78	689	1.80	683	1.82	678	1.83	672	1.85	667	1.86	692	1.79
NFBDT	710	1.75	704	1.76	698	1.78	692	1.79	686	1.81	681	1.82	703	1.76
ITIC2	734	1.69	727	1.71	720	1.72	714	1.74	707	1.75	701	1.77	714	1.74
ITVFFIC	752	1.65	746	1.66	739	1.68	733	1.69	727	1.71	722	1.72	750	1.65
INIC	714	1.74	707	1.75	700	1.77	693	1.79	687	1.80	681	1.82	692	1.79
INIC2	728	1.70	720	1.72	713	1.74	707	1.75	700	1.77	694	1.79	704	1.76
INIC1	724	1.71	717	1.73	710	1.75	704	1.76	697	1.78	691	1.79	710	1.75
INIC3	724	1.71	717	1.73	711	1.74	704	1.76	698	1.78	692	1.79	710	1.75
IPIC	732	1.69	725	1.71	719	1.72	713	1.74	706	1.76	701	1.77	761	1.63
IPIC-4F	741	1.67	735	1.69	728	1.70	722	1.72	716	1.73	711	1.74	776	1.60
IPIC-4Cl	749	1.66	742	1.67	735	1.69	728	1.70	722	1.72	716	1.73	790	1.57

<sup>a</sup> XC and HFX in PCM-TD-DFT-XC-HFX/6-31G(d,p) denote the exchange-correlation functional and percentage of Hartree-Fock exact-exchange, respectively.

**Table S13** Experimental maximum absorption wavelengths ( $\lambda_{\max}$  in nm), experimental transition energies ( $E_{\max-\text{exp}}$  in eV), theoretical vertical absorption wavelengths ( $\lambda_{\text{ver-theo}}$  in nm), and theoretical vertical transition energies ( $E_{\text{ver-theo}}$  in eV) of all FREAs computed in chloroform with PCM-TD-DFT-XC-HFX/6-31G(d,p)<sup>a</sup>

Molecule	$\lambda_{\text{ver-theo}}$ and $E_{\text{ver-theo}}$												$\lambda_{\max}$ and $E_{\max-\text{exp}}$	
	B98-20HFX		B98-21HFX		B98		B98-23HFX		B98-24HFX		B98-25HFX		Experiment	
	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
F(DPP)2B2	661	1.88	654	1.90	648	1.91	642	1.93	636	1.95	631	1.97	615	2.02
Cz-RH	546	2.27	541	2.29	536	2.31	531	2.34	527	2.35	523	2.37	500	2.48
Flu-RH	565	2.19	560	2.21	555	2.23	550	2.25	546	2.27	541	2.29	500	2.48
FRd2	586	2.12	581	2.13	575	2.16	570	2.18	565	2.19	561	2.21	509	2.44
ITDI	714	1.74	707	1.75	700	1.77	694	1.79	687	1.80	681	1.82	647	1.92
SiIDT-IC	629	1.97	625	1.98	621	2.00	616	2.01	612	2.03	608	2.04	639	1.94
IDIDT-C8	713	1.74	705	1.76	697	1.78	689	1.80	681	1.82	674	1.84	655	1.89
IDT-BOC6	722	1.72	713	1.74	705	1.76	696	1.78	688	1.80	680	1.82	688	1.80
ATT1	745	1.66	738	1.68	732	1.69	725	1.71	719	1.72	713	1.74	690	1.80
DC-IDT2T	748	1.66	741	1.67	734	1.69	726	1.71	720	1.72	713	1.74	700	1.77
BZIC	694	1.79	690	1.80	685	1.81	681	1.82	676	1.83	672	1.85	710	1.75
ITOIC	751	1.65	744	1.67	737	1.68	730	1.70	723	1.72	716	1.73	722	1.72
IDTOT2F	764	1.62	757	1.64	750	1.65	743	1.67	736	1.68	730	1.70	723	1.72
ITOIC-F	749	1.66	742	1.67	736	1.68	729	1.70	723	1.72	716	1.73	732	1.69
ITOIC-2F	761	1.63	754	1.64	747	1.66	740	1.68	734	1.69	727	1.71	737	1.68
IEICO	857	1.45	849	1.46	841	1.47	833	1.49	825	1.50	818	1.52	785	1.58
ATT2	837	1.48	829	1.50	822	1.51	815	1.52	808	1.53	801	1.55	791	1.57
IEICO-4F	873	1.42	865	1.43	857	1.45	850	1.46	843	1.47	835	1.49	805	1.54
m-ITIC	687	1.80	682	1.82	676	1.83	671	1.85	666	1.86	660	1.88	660	1.88
IT-DM	684	1.81	679	1.83	673	1.84	668	1.86	662	1.87	657	1.89	665	1.86
IT-M	685	1.81	679	1.83	674	1.84	668	1.86	663	1.87	658	1.88	668	1.86
ITCPTC	700	1.77	694	1.79	689	1.80	683	1.82	678	1.83	673	1.84	678	1.83
Cl-ITIC	698	1.78	692	1.79	686	1.81	680	1.82	675	1.84	670	1.85	691	1.79
Br-ITIC	699	1.77	693	1.79	687	1.80	682	1.82	676	1.83	671	1.85	692	1.79
NFBDT	714	1.74	708	1.75	702	1.77	696	1.78	690	1.80	685	1.81	703	1.76
ITIC2	738	1.68	731	1.70	725	1.71	718	1.73	712	1.74	706	1.76	714	1.74
ITVFFIC	756	1.64	749	1.66	743	1.67	737	1.68	731	1.70	726	1.71	750	1.65
INIC	718	1.73	711	1.74	705	1.76	698	1.78	691	1.79	685	1.81	692	1.79
INIC2	732	1.69	725	1.71	718	1.73	711	1.74	705	1.76	698	1.78	704	1.76
INIC1	728	1.70	721	1.72	715	1.73	708	1.75	702	1.77	695	1.78	710	1.75
INIC3	728	1.70	721	1.72	715	1.73	709	1.75	702	1.77	696	1.78	710	1.75
IPIC	736	1.68	729	1.70	723	1.72	717	1.73	710	1.75	704	1.76	761	1.63
IPIC-4F	745	1.66	738	1.68	732	1.69	726	1.71	720	1.72	714	1.74	776	1.60
IPIC-4Cl	753	1.65	746	1.66	739	1.68	733	1.69	726	1.71	720	1.72	790	1.57

<sup>a</sup> XC and HFX in PCM-TD-DFT-XC-HFX/6-31G(d,p) denote the exchange-correlation functional and percentage of Hartree-Fock exact-exchange, respectively.

**Table S14** Experimental maximum absorption wavelengths ( $\lambda_{\max}$  in nm), experimental transition energies ( $E_{\max-\text{exp}}$  in eV), theoretical vertical absorption wavelengths ( $\lambda_{\text{ver-theo}}$  in nm), and theoretical vertical transition energies ( $E_{\text{ver-theo}}$  in eV) of all FREAs computed in chloroform with PCM-TD-DFT-XC-HFX/6-31G(d,p)<sup>a</sup>

Molecule	$\lambda_{\text{ver-theo}}$ and $E_{\text{ver-theo}}$												$\lambda_{\max}$ and $E_{\max-\text{exp}}$		
	APF-20HFX		APF-21HFX		APF-22HFX		APF		APF-24HFX		APF-25HFX		Experiment		
	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm
F(DPP)2B2	659	1.88	652	1.90	645	1.92	640	1.94	634	1.96	628	1.97	615	2.02	
Cz-RH	543	2.28	538	2.30	534	2.32	529	2.34	525	2.36	520	2.38	500	2.48	
Flu-RH	562	2.21	557	2.23	552	2.25	548	2.26	543	2.28	539	2.30	500	2.48	
FRd2	582	2.13	577	2.15	571	2.17	567	2.19	561	2.21	557	2.23	509	2.44	
ITDI	709	1.75	703	1.76	696	1.78	690	1.80	683	1.82	677	1.83	647	1.92	
SiIDT-IC	626	1.98	622	1.99	618	2.01	614	2.02	609	2.04	606	2.05	639	1.94	
IDIDT-C8	709	1.75	700	1.77	692	1.79	685	1.81	677	1.83	670	1.85	655	1.89	
IDT-BOC6	718	1.73	709	1.75	700	1.77	692	1.79	684	1.81	675	1.84	688	1.80	
ATT1	740	1.68	733	1.69	727	1.71	721	1.72	714	1.74	708	1.75	690	1.80	
DC-IDT2T	744	1.67	736	1.68	729	1.70	722	1.72	715	1.73	708	1.75	700	1.77	
BZIC	692	1.79	687	1.80	683	1.82	678	1.83	674	1.84	669	1.85	710	1.75	
ITOIC	747	1.66	740	1.68	732	1.69	726	1.71	718	1.73	712	1.74	722	1.72	
IDTOT2F	759	1.63	752	1.65	745	1.66	738	1.68	731	1.70	725	1.71	723	1.72	
ITOIC-F	745	1.66	738	1.68	731	1.70	725	1.71	718	1.73	712	1.74	732	1.69	
ITOIC-2F	756	1.64	749	1.66	742	1.67	736	1.68	729	1.70	722	1.72	737	1.68	
IEICO	852	1.46	844	1.47	836	1.48	828	1.50	820	1.51	812	1.53	785	1.58	
ATT2	830	1.49	822	1.51	815	1.52	808	1.53	801	1.55	794	1.56	791	1.57	
IEICO-4F	867	1.43	859	1.44	851	1.46	844	1.47	837	1.48	829	1.50	805	1.54	
m-ITIC	684	1.81	678	1.83	673	1.84	667	1.86	662	1.87	657	1.89	660	1.88	
IT-DM	681	1.82	675	1.84	669	1.85	664	1.87	659	1.88	654	1.90	665	1.86	
IT-M	681	1.82	676	1.83	670	1.85	665	1.86	659	1.88	654	1.90	668	1.86	
ITCPTC	696	1.78	690	1.80	685	1.81	680	1.82	674	1.84	669	1.85	678	1.83	
Cl-ITIC	694	1.79	688	1.80	682	1.82	677	1.83	671	1.85	666	1.86	691	1.79	
Br-ITIC	696	1.78	690	1.80	684	1.81	678	1.83	673	1.84	667	1.86	692	1.79	
NFBDT	711	1.74	705	1.76	699	1.77	693	1.79	687	1.80	682	1.82	703	1.76	
ITIC2	735	1.69	728	1.70	721	1.72	715	1.73	708	1.75	702	1.77	714	1.74	
ITVFFIC	751	1.65	745	1.66	739	1.68	733	1.69	727	1.71	721	1.72	750	1.65	
INIC	714	1.74	707	1.75	700	1.77	694	1.79	687	1.80	681	1.82	692	1.79	
INIC2	727	1.71	720	1.72	713	1.74	707	1.75	700	1.77	693	1.79	704	1.76	
INIC1	724	1.71	717	1.73	710	1.75	704	1.76	697	1.78	691	1.79	710	1.75	
INIC3	723	1.72	716	1.73	710	1.75	704	1.76	697	1.78	691	1.79	710	1.75	
IPIC	733	1.69	726	1.71	719	1.72	713	1.74	707	1.75	701	1.77	761	1.63	
IPIC-4F	741	1.67	734	1.69	728	1.70	722	1.72	716	1.73	710	1.75	776	1.60	
IPIC-4Cl	750	1.65	742	1.67	736	1.68	729	1.70	723	1.72	716	1.73	790	1.57	

<sup>a</sup> XC and HFX in PCM-TD-DFT-XC-HFX/6-31G(d,p) denote the exchange-correlation functional and percentage of Hartree-Fock exact-exchange, respectively.

**Table S15** Experimental maximum absorption wavelengths ( $\lambda_{\max}$  in nm), experimental transition energies ( $E_{\max-\text{exp}}$  in eV), theoretical vertical absorption wavelengths ( $\lambda_{\text{ver-theo}}$  in nm), and theoretical vertical transition energies ( $E_{\text{ver-theo}}$  in eV) of all FREAs computed in chloroform with PCM-TD-DFT-XC-HFX/6-31G(d,p)<sup>a</sup>

Molecule	$\lambda_{\text{ver-theo}}$ and $E_{\text{ver-theo}}$												$\lambda_{\max}$ and $E_{\max-\text{exp}}$	
	APFD-20HFX		APFD-21HFX		APFD-22HFX		APFD		APFD-24HFX		APFD-25HFX		Experiment	
	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
F(DPP)2B2	659	1.88	652	1.90	645	1.92	640	1.94	634	1.96	628	1.97	615	2.02
Cz-RH	543	2.28	538	2.30	534	2.32	529	2.34	525	2.36	520	2.38	500	2.48
Flu-RH	562	2.21	557	2.23	552	2.25	548	2.26	543	2.28	539	2.30	500	2.48
FRd2	582	2.13	577	2.15	571	2.17	567	2.19	561	2.21	557	2.23	509	2.44
ITDI	709	1.75	703	1.76	696	1.78	690	1.80	683	1.82	677	1.83	647	1.92
SiIDT-IC	626	1.98	622	1.99	618	2.01	614	2.02	609	2.04	606	2.05	639	1.94
IDIDT-C8	709	1.75	700	1.77	692	1.79	685	1.81	677	1.83	670	1.85	655	1.89
IDT-BOC6	718	1.73	709	1.75	700	1.77	692	1.79	684	1.81	675	1.84	688	1.80
ATT1	740	1.68	733	1.69	727	1.71	721	1.72	714	1.74	708	1.75	690	1.80
DC-IDT2T	744	1.67	736	1.68	729	1.70	722	1.72	715	1.73	708	1.75	700	1.77
BZIC	692	1.79	687	1.80	683	1.82	678	1.83	674	1.84	669	1.85	710	1.75
ITOIC	747	1.66	740	1.68	732	1.69	726	1.71	718	1.73	712	1.74	722	1.72
IDTOT2F	759	1.63	752	1.65	745	1.66	738	1.68	731	1.70	725	1.71	723	1.72
ITOIC-F	745	1.66	738	1.68	731	1.70	725	1.71	718	1.73	712	1.74	732	1.69
ITOIC-2F	756	1.64	749	1.66	742	1.67	736	1.68	729	1.70	722	1.72	737	1.68
IEICO	852	1.46	844	1.47	836	1.48	828	1.50	820	1.51	812	1.53	785	1.58
ATT2	830	1.49	822	1.51	815	1.52	808	1.53	801	1.55	794	1.56	791	1.57
IEICO-4F	867	1.43	859	1.44	851	1.46	844	1.47	837	1.48	829	1.50	805	1.54
m-ITIC	684	1.81	678	1.83	673	1.84	667	1.86	662	1.87	657	1.89	660	1.88
IT-DM	681	1.82	675	1.84	669	1.85	664	1.87	659	1.88	654	1.90	665	1.86
IT-M	681	1.82	676	1.83	670	1.85	665	1.86	659	1.88	654	1.90	668	1.86
ITCPTC	696	1.78	690	1.80	685	1.81	680	1.82	674	1.84	669	1.85	678	1.83
Cl-ITIC	694	1.79	688	1.80	682	1.82	677	1.83	671	1.85	666	1.86	691	1.79
Br-ITIC	696	1.78	690	1.80	684	1.81	678	1.83	673	1.84	667	1.86	692	1.79
NFBDT	711	1.74	705	1.76	699	1.77	693	1.79	687	1.80	682	1.82	703	1.76
ITIC2	735	1.69	728	1.70	721	1.72	715	1.73	708	1.75	702	1.77	714	1.74
ITVFFIC	751	1.65	745	1.66	739	1.68	733	1.69	727	1.71	721	1.72	750	1.65
INIC	714	1.74	707	1.75	700	1.77	694	1.79	687	1.80	681	1.82	692	1.79
INIC2	727	1.71	720	1.72	713	1.74	707	1.75	700	1.77	693	1.79	704	1.76
INIC1	724	1.71	717	1.73	710	1.75	704	1.76	697	1.78	691	1.79	710	1.75
INIC3	723	1.72	716	1.73	710	1.75	704	1.76	697	1.78	691	1.79	710	1.75
IPIC	733	1.69	726	1.71	719	1.72	713	1.74	707	1.75	701	1.77	761	1.63
IPIC-4F	741	1.67	734	1.69	728	1.70	722	1.72	716	1.73	710	1.75	776	1.60
IPIC-4Cl	750	1.65	742	1.67	736	1.68	729	1.70	723	1.72	716	1.73	790	1.57

<sup>a</sup> XC and HFX in PCM-TD-DFT-XC-HFX/6-31G(d,p) denote the exchange-correlation functional and percentage of Hartree-Fock exact-exchange, respectively.

**Table S16** Experimental maximum absorption wavelengths ( $\lambda_{\max}$  in nm), experimental transition energies ( $E_{\max-\text{exp}}$  in eV), theoretical vertical absorption wavelengths ( $\lambda_{\text{ver-theo}}$  in nm), and theoretical vertical transition energies ( $E_{\text{ver-theo}}$  in eV) of all FREAs computed in chloroform with PCM-TD-DFT-XC-HFX/6-31G(d,p)<sup>a</sup>

Molecule	$\lambda_{\text{ver-theo}}$ and $E_{\text{ver-theo}}$												$\lambda_{\max}$ and $E_{\max-\text{exp}}$	
	PBE0-20HFX		PBE0-21HFX		PBE0-22HFX		PBE0-23HFX		PBE0-24HFX		PBE0		Experiment	
	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
F(DPP)2B2	659	1.88	652	1.90	646	1.92	640	1.94	634	1.96	628	2.02	615	2.02
Cz-RH	543	2.28	538	2.30	533	2.33	529	2.34	524	2.37	520	2.48	500	2.48
Flu-RH	562	2.21	557	2.23	552	2.25	548	2.26	543	2.28	538	2.48	500	2.48
FRd2	581	2.13	576	2.15	570	2.18	565	2.19	560	2.21	556	2.44	509	2.44
ITDI	708	1.75	701	1.77	695	1.78	688	1.80	682	1.82	676	1.92	647	1.92
SiIDT-IC	626	1.98	621	2.00	617	2.01	613	2.02	609	2.04	605	1.94	639	1.94
IDIDT-C8	707	1.75	699	1.77	691	1.79	683	1.82	675	1.84	668	1.89	655	1.89
IDT-BOC6	716	1.73	707	1.75	699	1.77	690	1.80	682	1.82	674	1.8	688	1.80
ATT1	740	1.68	733	1.69	726	1.71	720	1.72	714	1.74	708	1.8	690	1.80
DC-IDT2T	743	1.67	735	1.69	728	1.70	721	1.72	714	1.74	707	1.77	700	1.77
BZIC	691	1.79	687	1.80	682	1.82	678	1.83	673	1.84	669	1.75	710	1.75
ITOIC	746	1.66	739	1.68	731	1.70	724	1.71	718	1.73	711	1.72	722	1.72
IDTOT2F	757	1.64	750	1.65	743	1.67	736	1.68	729	1.70	723	1.72	723	1.72
ITOIC-F	743	1.67	736	1.68	729	1.70	723	1.72	717	1.73	710	1.69	732	1.69
ITOIC-2F	754	1.64	747	1.66	740	1.68	733	1.69	727	1.71	721	1.68	737	1.68
IEICO	851	1.46	843	1.47	835	1.49	827	1.50	819	1.51	811	1.58	785	1.58
ATT2	828	1.50	820	1.51	813	1.53	806	1.54	799	1.55	792	1.57	791	1.57
IEICO-4F	865	1.43	857	1.45	849	1.46	842	1.47	835	1.49	827	1.54	805	1.54
m-ITIC	683	1.82	677	1.83	671	1.85	666	1.86	661	1.88	656	1.88	660	1.88
IT-DM	679	1.83	674	1.84	668	1.86	663	1.87	658	1.88	652	1.86	665	1.86
IT-M	680	1.82	674	1.84	669	1.85	663	1.87	658	1.88	653	1.86	668	1.86
ITCPTC	695	1.78	689	1.80	684	1.81	678	1.83	673	1.84	668	1.83	678	1.83
Cl-ITIC	693	1.79	687	1.80	681	1.82	676	1.83	670	1.85	665	1.79	691	1.79
Br-ITIC	694	1.79	688	1.80	683	1.82	677	1.83	672	1.85	666	1.79	692	1.79
NFBDT	710	1.75	704	1.76	698	1.78	692	1.79	686	1.81	681	1.76	703	1.76
ITIC2	734	1.69	727	1.71	720	1.72	713	1.74	707	1.75	701	1.74	714	1.74
ITVFFIC	749	1.66	742	1.67	736	1.68	730	1.70	724	1.71	719	1.65	750	1.65
INIC	712	1.74	705	1.76	698	1.78	692	1.79	685	1.81	679	1.79	692	1.79
INIC2	726	1.71	718	1.73	711	1.74	705	1.76	698	1.78	692	1.76	704	1.76
INIC1	722	1.72	715	1.73	708	1.75	701	1.77	695	1.78	689	1.75	710	1.75
INIC3	720	1.72	714	1.74	707	1.75	701	1.77	695	1.78	689	1.75	710	1.75
IPIC	732	1.69	725	1.71	718	1.73	712	1.74	706	1.76	700	1.63	761	1.63
IPIC-4F	739	1.68	732	1.69	726	1.71	720	1.72	714	1.74	708	1.6	776	1.60
IPIC-4Cl	748	1.66	741	1.67	734	1.69	728	1.70	722	1.72	721	1.57	790	1.57

<sup>a</sup> XC and HFX in PCM-TD-DFT-XC-HFX/6-31G(d,p) denote the exchange-correlation functional and percentage of Hartree-Fock exact-exchange, respectively.

**Table S17** Experimental maximum absorption wavelengths ( $\lambda_{\max}$  in nm), experimental transition energies ( $E_{\max-\text{exp}}$  in eV), theoretical vertical absorption wavelengths ( $\lambda_{\text{ver-theo}}$  in nm), and theoretical vertical transition energies ( $E_{\text{ver-theo}}$  in eV) of all FREAs computed in chloroform with PCM-TD-DFT-XC-HFX/6-31G(d,p)<sup>a</sup>

Molecule	$\lambda_{\text{ver-theo}}$ and $E_{\text{ver-theo}}$												$\lambda_{\max}$ and $E_{\max-\text{exp}}$	
	mPW1PW91-20HFX		mPW1PW91-21HFX		mPW1PW91-22HFX		mPW1PW91-23HFX		mPW1PW91-24HFX		mPW1PW91		Experiment	
	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
F(DPP)2B2	660	1.88	652	1.90	646	1.92	640	1.94	634	1.96	629	1.97	615	2.02
Cz-RH	544	2.28	539	2.30	534	2.32	529	2.34	525	2.36	520	2.38	500	2.48
Flu-RH	562	2.21	557	2.23	553	2.24	548	2.26	543	2.28	539	2.30	500	2.48
FRd2	582	2.13	576	2.15	571	2.17	566	2.19	561	2.21	556	2.23	509	2.44
ITDI	709	1.75	702	1.77	696	1.78	689	1.80	683	1.82	677	1.83	647	1.92
SiIDT-IC	626	1.98	622	1.99	618	2.01	613	2.02	609	2.04	605	2.05	639	1.94
IDIDT-C8	708	1.75	700	1.77	692	1.79	684	1.81	676	1.83	669	1.85	655	1.89
IDT-BOC6	717	1.73	709	1.75	700	1.77	691	1.79	683	1.82	675	1.84	688	1.80
ATT1	741	1.67	734	1.69	727	1.71	721	1.72	714	1.74	708	1.75	690	1.80
DC-IDT2T	744	1.67	736	1.68	729	1.70	722	1.72	715	1.73	708	1.75	700	1.77
BZIC	692	1.79	687	1.80	683	1.82	678	1.83	674	1.84	670	1.85	710	1.75
ITOIC	747	1.66	740	1.68	732	1.69	725	1.71	719	1.72	712	1.74	722	1.72
IDTOT2F	758	1.64	751	1.65	744	1.67	737	1.68	731	1.70	724	1.71	723	1.72
ITOIC-F	744	1.67	737	1.68	731	1.70	724	1.71	718	1.73	711	1.74	732	1.69
ITOIC-2F	755	1.64	748	1.66	741	1.67	735	1.69	728	1.70	722	1.72	737	1.68
IEICO	853	1.45	844	1.47	836	1.48	828	1.50	820	1.51	813	1.53	785	1.58
ATT2	829	1.50	822	1.51	814	1.52	807	1.54	800	1.55	794	1.56	791	1.57
IEICO-4F	867	1.43	859	1.44	851	1.46	843	1.47	836	1.48	829	1.50	805	1.54
m-ITIC	684	1.81	678	1.83	672	1.85	667	1.86	662	1.87	657	1.89	660	1.88
IT-DM	681	1.82	675	1.84	669	1.85	664	1.87	659	1.88	653	1.90	665	1.86
IT-M	681	1.82	675	1.84	670	1.85	664	1.87	659	1.88	654	1.90	668	1.86
ITCPTC	696	1.78	690	1.80	685	1.81	679	1.83	674	1.84	669	1.85	678	1.83
Cl-ITIC	694	1.79	688	1.80	682	1.82	677	1.83	671	1.85	666	1.86	691	1.79
Br-ITIC	695	1.78	689	1.80	684	1.81	678	1.83	673	1.84	667	1.86	692	1.79
NFBDT	711	1.74	705	1.76	699	1.77	693	1.79	687	1.80	682	1.82	703	1.76
ITIC2	735	1.69	728	1.70	721	1.72	714	1.74	708	1.75	702	1.77	714	1.74
ITVFFIC	750	1.65	744	1.67	738	1.68	732	1.69	726	1.71	720	1.72	750	1.65
INIC	713	1.74	706	1.76	700	1.77	693	1.79	687	1.80	680	1.82	692	1.79
INIC2	727	1.71	720	1.72	713	1.74	706	1.76	699	1.77	693	1.79	704	1.76
INIC1	723	1.72	716	1.73	709	1.75	703	1.76	696	1.78	690	1.80	710	1.75
INIC3	722	1.72	715	1.73	709	1.75	703	1.76	696	1.78	691	1.79	710	1.75
IPIC	733	1.69	726	1.71	719	1.72	713	1.74	707	1.75	701	1.77	761	1.63
IPIC-4F	740	1.68	734	1.69	727	1.71	721	1.72	715	1.73	710	1.75	776	1.60
IPIC-4Cl	749	1.66	742	1.67	736	1.68	729	1.70	722	1.72	716	1.73	790	1.57

<sup>a</sup> XC and HFX in PCM-TD-DFT-XC-HFX/6-31G(d,p) denote the exchange-correlation functional and percentage of Hartree-Fock exact-exchange.

**Table S18** Experimental maximum absorption wavelengths ( $\lambda_{\max}$  in nm), experimental transition energies ( $E_{\max-\text{exp}}$  in eV), theoretical vertical absorption wavelengths ( $\lambda_{\text{ver-theo}}$  in nm), and theoretical vertical transition energies ( $E_{\text{ver-theo}}$  in eV) of all FREAs computed in chloroform with PCM-TD-DFT-XC-HFX/6-31G(d,p)<sup>a</sup>

Molecule	$\lambda_{\text{ver-theo}}$ and $E_{\text{ver-theo}}$												$\lambda_{\max}$ and $E_{\max-\text{exp}}$	
	mPW1LYP-20HFX		mPW1LYP-21HFX		mPW1LYP-22HFX		mPW1LYP-23HFX		mPW1LYP-24HFX		mPW1LYP			
	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
F(DPP)2B2	663	1.87	655	1.89	649	1.91	643	1.93	637	1.95	632	1.96	615	2.02
Cz-RH	547	2.27	542	2.29	538	2.30	533	2.33	529	2.34	524	2.37	500	2.48
Flu-RH	566	2.19	561	2.21	556	2.23	552	2.25	547	2.27	543	2.28	500	2.48
FRd2	586	2.12	581	2.13	576	2.15	570	2.18	565	2.19	561	2.21	509	2.44
ITDI	713	1.74	706	1.76	700	1.77	693	1.79	687	1.80	681	1.82	647	1.92
SilDT-IC	630	1.97	626	1.98	622	1.99	618	2.01	613	2.02	609	2.04	639	1.94
IDIDT-C8	711	1.74	703	1.76	695	1.78	687	1.80	680	1.82	672	1.85	655	1.89
IDT-BOC6	722	1.72	713	1.74	704	1.76	696	1.78	687	1.80	679	1.83	688	1.80
ATT1	746	1.66	739	1.68	733	1.69	726	1.71	720	1.72	714	1.74	690	1.80
DC-IDT2T	748	1.66	741	1.67	734	1.69	726	1.71	720	1.72	713	1.74	700	1.77
BZIC	696	1.78	692	1.79	687	1.80	683	1.82	678	1.83	674	1.84	710	1.75
ITOIC	752	1.65	744	1.67	737	1.68	730	1.70	723	1.72	717	1.73	722	1.72
IDTOT2F	763	1.63	756	1.64	749	1.66	742	1.67	735	1.69	729	1.70	723	1.72
ITOIC-F	749	1.66	742	1.67	736	1.68	729	1.70	723	1.72	716	1.73	732	1.69
ITOIC-2F	760	1.63	753	1.65	746	1.66	740	1.68	733	1.69	727	1.71	737	1.68
IEICO	858	1.45	850	1.46	842	1.47	834	1.49	826	1.50	818	1.52	785	1.58
ATT2	837	1.48	829	1.50	822	1.51	814	1.52	807	1.54	801	1.55	791	1.57
IEICO-4F	872	1.42	864	1.44	857	1.45	849	1.46	842	1.47	835	1.49	805	1.54
m-ITIC	687	1.80	681	1.82	676	1.83	671	1.85	665	1.86	660	1.88	660	1.88
IT-DM	684	1.81	678	1.83	673	1.84	667	1.86	662	1.87	657	1.89	665	1.86
IT-M	684	1.81	679	1.83	673	1.84	668	1.86	663	1.87	658	1.88	668	1.86
ITCPTC	700	1.77	694	1.79	689	1.80	683	1.82	678	1.83	673	1.84	678	1.83
Cl-ITIC	697	1.78	691	1.79	686	1.81	680	1.82	675	1.84	670	1.85	691	1.79
Br-ITIC	699	1.77	693	1.79	687	1.80	681	1.82	676	1.83	671	1.85	692	1.79
NFBDT	713	1.74	707	1.75	701	1.77	695	1.78	690	1.80	684	1.81	703	1.76
ITIC2	738	1.68	731	1.70	724	1.71	718	1.73	711	1.74	705	1.76	714	1.74
ITVFFIC	754	1.64	748	1.66	742	1.67	736	1.68	730	1.70	724	1.71	750	1.65
INIC	718	1.73	711	1.74	704	1.76	698	1.78	691	1.79	685	1.81	692	1.79
INIC2	732	1.69	724	1.71	717	1.73	711	1.74	704	1.76	698	1.78	704	1.76
INIC1	728	1.70	721	1.72	714	1.74	707	1.75	701	1.77	695	1.78	710	1.75
INIC3	727	1.71	720	1.72	714	1.74	707	1.75	701	1.77	695	1.78	710	1.75
IPIC	736	1.68	730	1.70	723	1.72	717	1.73	711	1.74	705	1.76	761	1.63
IPIC-4F	744	1.67	737	1.68	731	1.70	725	1.71	719	1.72	713	1.74	776	1.60
IPIC-4Cl	753	1.65	746	1.66	739	1.68	733	1.69	726	1.71	720	1.72	790	1.57

<sup>a</sup> XC and HFX in PCM-TD-DFT-XC-HFX/6-31G(d,p) denote the exchange-correlation functional and percentage of Hartree-Fock exact-exchange, respectively.

**Table S19** Experimental maximum absorption wavelengths ( $\lambda_{\max}$  in nm), experimental transition energies ( $E_{\max-\text{exp}}$  in eV), theoretical vertical absorption wavelengths ( $\lambda_{\text{ver-theo}}$  in nm), and theoretical vertical transition energies ( $E_{\text{ver-theo}}$  in eV) of all FREAs computed in chloroform with PCM-TD-DFT-XC-HFX/6-31G(d,p)<sup>a</sup>

Molecule	$\lambda_{\text{ver-theo}}$ and $E_{\text{ver-theo}}$												$\lambda_{\max}$ and $E_{\max-\text{exp}}$	
	mPW1PBE-20HFX		mPW1PBE-21HFX		mPW1PBE-22HFX		mPW1PBE-23HFX		mPW1PBE-24HFX		mPW1PBE		Experiment	
	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
F(DPP)2B2	659	1.88	652	1.90	646	1.92	640	1.94	634	1.96	629	1.97	615	2.02
Cz-RH	543	2.28	538	2.30	534	2.32	529	2.34	524	2.37	520	2.38	500	2.48
Flu-RH	562	2.21	557	2.23	552	2.25	548	2.26	543	2.28	539	2.30	500	2.48
FRd2	582	2.13	576	2.15	571	2.17	566	2.19	561	2.21	556	2.23	509	2.44
ITDI	709	1.75	702	1.77	695	1.78	689	1.80	682	1.82	677	1.83	647	1.92
SiIDT-IC	626	1.98	622	1.99	617	2.01	613	2.02	609	2.04	605	2.05	639	1.94
IDIDT-C8	708	1.75	699	1.77	691	1.79	684	1.81	676	1.83	669	1.85	655	1.89
IDT-BOC6	717	1.73	708	1.75	700	1.77	691	1.79	683	1.82	675	1.84	688	1.80
ATT1	740	1.68	733	1.69	727	1.71	720	1.72	714	1.74	708	1.75	690	1.80
DC-IDT2T	743	1.67	736	1.68	729	1.70	721	1.72	714	1.74	708	1.75	700	1.77
BZIC	691	1.79	687	1.80	682	1.82	678	1.83	673	1.84	669	1.85	710	1.75
ITOIC	747	1.66	739	1.68	732	1.69	725	1.71	718	1.73	712	1.74	722	1.72
IDTOT2F	758	1.64	751	1.65	744	1.67	737	1.68	730	1.70	724	1.71	723	1.72
ITOIC-F	744	1.67	737	1.68	730	1.70	724	1.71	717	1.73	711	1.74	732	1.69
ITOIC-2F	755	1.64	748	1.66	741	1.67	734	1.69	728	1.70	721	1.72	737	1.68
IEICO	852	1.46	844	1.47	835	1.49	827	1.50	820	1.51	812	1.53	785	1.58
ATT2	829	1.50	821	1.51	814	1.52	807	1.54	800	1.55	793	1.56	791	1.57
IEICO-4F	866	1.43	858	1.45	850	1.46	843	1.47	836	1.48	828	1.50	805	1.54
m-ITIC	683	1.82	678	1.83	672	1.85	667	1.86	661	1.88	656	1.89	660	1.88
IT-DM	680	1.82	674	1.84	669	1.85	663	1.87	658	1.88	653	1.90	665	1.86
IT-M	681	1.82	675	1.84	669	1.85	664	1.87	659	1.88	654	1.90	668	1.86
ITCPTC	696	1.78	690	1.80	684	1.81	679	1.83	674	1.84	669	1.85	678	1.83
Cl-ITIC	693	1.79	688	1.80	682	1.82	676	1.83	671	1.85	666	1.86	691	1.79
Br-ITIC	695	1.78	689	1.80	683	1.82	678	1.83	672	1.85	667	1.86	692	1.79
NFBDT	711	1.74	704	1.76	698	1.78	693	1.79	687	1.80	681	1.82	703	1.76
ITIC2	734	1.69	727	1.71	721	1.72	714	1.74	708	1.75	702	1.77	714	1.74
ITVFFIC	750	1.65	743	1.67	737	1.68	731	1.70	725	1.71	720	1.72	750	1.65
INIC	713	1.74	706	1.76	699	1.77	693	1.79	686	1.81	680	1.82	692	1.79
INIC2	727	1.71	719	1.72	712	1.74	706	1.76	699	1.77	693	1.79	704	1.76
INIC1	722	1.72	715	1.73	709	1.75	702	1.77	696	1.78	690	1.80	710	1.75
INIC3	721	1.72	715	1.73	708	1.75	702	1.77	696	1.78	690	1.80	710	1.75
IPIC	732	1.69	725	1.71	719	1.72	713	1.74	706	1.76	700	1.77	761	1.63
IPIC-4F	740	1.68	733	1.69	727	1.71	721	1.72	715	1.73	709	1.75	776	1.60
IPIC-4Cl	749	1.66	742	1.67	735	1.69	729	1.70	722	1.72	716	1.73	790	1.57

<sup>a</sup> XC and HFX in PCM-TD-DFT-XC-HFX/6-31G(d,p) denote the exchange-correlation functional and percentage of Hartree-Fock exact-exchange, respectively.

**Table S20** Experimental maximum absorption wavelengths ( $\lambda_{\max}$  in nm), experimental transition energies ( $E_{\max-\text{exp}}$  in eV), theoretical vertical absorption wavelengths ( $\lambda_{\text{ver-theo}}$  in nm), and theoretical vertical transition energies ( $E_{\text{ver-theo}}$  in eV) of all FREAs computed in chloroform with PCM-TD-DFT-XC-HFX/6-31G(d,p)<sup>a</sup>

Molecule	$\lambda_{\text{ver-theo}}$ and $E_{\text{ver-theo}}$														$\lambda_{\max}$ and $E_{\max-\text{exp}}$			
	M06-20HFX		M06-21HFX		M06-22HFX		M06-23HFX		M06-24HFX		M06-25HFX		M06-26HFX		M06		Experiment	
	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
F(DPP)2B2	666	1.86	660	1.88	653	1.90	647	1.92	642	1.93	637	1.95	632	1.96	627	1.98	615	2.02
Cz-RH	554	2.24	549	2.26	544	2.28	540	2.30	535	2.32	531	2.34	527	2.35	523	2.37	500	2.48
Flu-RH	574	2.16	569	2.18	564	2.20	559	2.22	555	2.23	550	2.25	546	2.27	542	2.29	500	2.48
FRd2	594	2.09	589	2.11	583	2.13	578	2.15	573	2.16	569	2.18	564	2.20	560	2.21	509	2.44
ITDI	714	1.74	707	1.75	700	1.77	694	1.79	688	1.80	681	1.82	676	1.83	670	1.85	647	1.92
SiIDT-IC-IC	634	1.96	630	1.97	625	1.98	621	2.00	617	2.01	613	2.02	609	2.04	605	2.05	639	1.94
IDIDT-C8	712	1.74	704	1.76	696	1.78	688	1.80	680	1.82	673	1.84	666	1.86	659	1.88	655	1.89
IDT-BOC6	725	1.71	716	1.73	707	1.75	699	1.77	691	1.79	683	1.82	675	1.84	668	1.86	688	1.80
ATT1	752	1.65	745	1.66	738	1.68	732	1.69	725	1.71	719	1.72	714	1.74	708	1.75	690	1.80
DC-IDT2T	748	1.66	741	1.67	733	1.69	726	1.71	719	1.72	713	1.74	706	1.76	700	1.77	700	1.77
BZIC	700	1.77	695	1.78	691	1.79	686	1.81	682	1.82	677	1.83	673	1.84	669	1.85	710	1.75
ITOIC	752	1.65	745	1.66	737	1.68	730	1.70	723	1.72	717	1.73	710	1.75	704	1.76	722	1.72
IDTOT2F	763	1.63	756	1.64	749	1.66	742	1.67	736	1.68	729	1.70	723	1.72	717	1.73	723	1.72
ITOIC-F	749	1.66	742	1.67	736	1.68	729	1.70	723	1.72	716	1.73	710	1.75	704	1.76	732	1.69
ITOIC-2F	760	1.63	753	1.65	746	1.66	739	1.68	733	1.69	726	1.71	720	1.72	714	1.74	737	1.68
IEICO	862	1.44	854	1.45	845	1.47	837	1.48	829	1.50	822	1.51	814	1.52	807	1.54	785	1.58
ATT2	835	1.49	827	1.50	820	1.51	813	1.53	806	1.54	799	1.55	792	1.57	786	1.58	791	1.57
IEICO-4F	877	1.41	869	1.43	861	1.44	853	1.45	846	1.47	839	1.48	832	1.49	825	1.50	805	1.54
m-ITIC	691	1.79	685	1.81	679	1.83	674	1.84	668	1.86	663	1.87	658	1.88	653	1.90	660	1.88
IT-DM	688	1.80	682	1.82	676	1.83	670	1.85	665	1.86	660	1.88	655	1.89	650	1.91	665	1.86
IT-M	688	1.80	682	1.82	676	1.83	671	1.85	666	1.86	661	1.88	656	1.89	651	1.90	668	1.86
ITCPTC	703	1.76	697	1.78	691	1.79	686	1.81	681	1.82	676	1.83	670	1.85	666	1.86	678	1.83
Cl-ITIC	702	1.77	696	1.78	690	1.80	684	1.81	679	1.83	673	1.84	668	1.86	663	1.87	691	1.79
Br-ITIC	704	1.76	697	1.78	692	1.79	686	1.81	680	1.82	675	1.84	670	1.85	665	1.86	692	1.79
NFBDT	720	1.72	714	1.74	707	1.75	702	1.77	696	1.78	690	1.80	685	1.81	680	1.82	703	1.76
ITIC2	745	1.66	738	1.68	731	1.70	725	1.71	718	1.73	712	1.74	706	1.76	700	1.77	714	1.74
ITVFFIC	757	1.64	750	1.65	744	1.67	738	1.68	732	1.69	726	1.71	721	1.72	715	1.73	750	1.65
INIC	719	1.72	712	1.74	705	1.76	698	1.78	692	1.79	685	1.81	679	1.83	674	1.84	692	1.79
INIC2	733	1.69	725	1.71	718	1.73	711	1.74	705	1.76	698	1.78	692	1.79	686	1.81	704	1.76
INIC1	728	1.70	721	1.72	714	1.74	708	1.75	701	1.77	695	1.78	689	1.80	683	1.82	710	1.75
INIC3	727	1.71	720	1.72	714	1.74	708	1.75	701	1.77	695	1.78	690	1.80	684	1.81	710	1.75
IPIC	739	1.68	732	1.69	725	1.71	719	1.72	713	1.74	707	1.75	701	1.77	696	1.78	761	1.63
IPIC-4F	746	1.66	740	1.68	734	1.69	727	1.71	721	1.72	715	1.73	710	1.75	705	1.76	776	1.60
IPIC-4Cl	756	1.64	749	1.66	742	1.67	736	1.68	729	1.70	723	1.72	717	1.73	711	1.74	790	1.57

<sup>a</sup> XC and HFX in PCM-TD-DFT-XC-HFX/6-31G(d,p) denote the exchange-correlation functional and percentage of Hartree-Fock exact-exchange, respectively.

**Table S21** Experimental maximum absorption wavelengths ( $\lambda_{\max}$  in nm), experimental transition energies ( $E_{\max-\text{exp}}$  in eV), theoretical vertical absorption wavelengths ( $\lambda_{\text{ver-theo}}$  in nm), and theoretical vertical transition energies ( $E_{\text{ver-theo}}$  in eV) of all FREAs computed in chloroform with PCM-TD-DFT-XC-HFX/6-31G(d,p)<sup>a</sup>

Molecule	$\lambda_{\text{ver-theo}}$ and $E_{\text{ver-theo}}$												$\lambda_{\max}$ and $E_{\max-\text{exp}}$					
	M05-20HFX		M05-21HFX		M05-22HFX		M05-23HFX		M05-24HFX		M05-25HFX		M05-26HFX		M05	Experiment		
	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV	nm	eV		
F(DPP)2B2	660	1.88	653	1.90	647	1.92	641	1.93	636	1.95	631	1.97	626	1.98	617	2.01	615	2.02
Cz-RH	550	2.25	545	2.28	540	2.30	535	2.32	531	2.34	527	2.35	522	2.38	515	2.41	500	2.48
Flu-RH	569	2.18	564	2.20	559	2.22	555	2.23	550	2.25	546	2.27	542	2.29	534	2.32	500	2.48
FRd2	591	2.10	586	2.12	580	2.14	575	2.16	571	2.17	566	2.19	561	2.21	553	2.24	509	2.44
ITDI	705	1.76	698	1.78	691	1.79	684	1.81	678	1.83	672	1.85	666	1.86	655	1.89	647	1.92
SiIDT-IC-IC	624	1.99	620	2.00	615	2.02	611	2.03	607	2.04	603	2.06	599	2.07	591	2.10	639	1.94
IDIDT-C8	704	1.76	696	1.78	688	1.80	680	1.82	672	1.85	665	1.86	658	1.88	644	1.93	655	1.89
IDT-BOC6	715	1.73	706	1.76	698	1.78	689	1.80	681	1.82	673	1.84	665	1.86	650	1.91	688	1.80
ATT1	743	1.67	737	1.68	730	1.70	723	1.72	717	1.73	711	1.74	705	1.76	694	1.79	690	1.80
DC-IDT2T	738	1.68	730	1.70	722	1.72	715	1.73	708	1.75	701	1.77	695	1.78	682	1.82	700	1.77
BZIC	689	1.80	684	1.81	679	1.83	674	1.84	670	1.85	665	1.86	661	1.88	652	1.90	710	1.75
ITOIC	742	1.67	734	1.69	727	1.71	719	1.72	712	1.74	706	1.76	699	1.77	687	1.80	722	1.72
IDTOT2F	751	1.65	744	1.67	737	1.68	730	1.70	723	1.72	717	1.73	710	1.75	698	1.78	723	1.72
ITOIC-F	738	1.68	731	1.70	724	1.71	717	1.73	711	1.74	704	1.76	698	1.78	687	1.80	732	1.69
ITOIC-2F	749	1.66	741	1.67	734	1.69	728	1.70	721	1.72	715	1.73	708	1.75	696	1.78	737	1.68
IEICO	850	1.46	842	1.47	833	1.49	825	1.50	817	1.52	809	1.53	801	1.55	787	1.58	785	1.58
ATT2	821	1.51	813	1.53	806	1.54	798	1.55	791	1.57	785	1.58	778	1.59	766	1.62	791	1.57
IEICO-4F	863	1.44	855	1.45	847	1.46	839	1.48	832	1.49	825	1.50	818	1.52	804	1.54	805	1.54
m-ITIC	679	1.83	673	1.84	668	1.86	662	1.87	657	1.89	651	1.90	646	1.92	637	1.95	660	1.88
IT-DM	676	1.83	670	1.85	664	1.87	659	1.88	653	1.90	648	1.91	643	1.93	633	1.96	665	1.86
IT-M	677	1.83	671	1.85	665	1.86	659	1.88	654	1.90	649	1.91	644	1.93	634	1.96	668	1.86
ITCPTC	691	1.79	685	1.81	679	1.83	674	1.84	668	1.86	663	1.87	658	1.88	648	1.91	678	1.83
Cl-ITIC	691	1.79	685	1.81	679	1.83	674	1.84	668	1.86	662	1.87	657	1.89	647	1.92	691	1.79
Br-ITIC	693	1.79	687	1.80	681	1.82	675	1.84	670	1.85	664	1.87	659	1.88	648	1.91	692	1.79
NFBDT	712	1.74	705	1.76	699	1.77	693	1.79	687	1.80	681	1.82	675	1.84	665	1.86	703	1.76
ITIC2	736	1.68	728	1.70	721	1.72	714	1.74	708	1.75	701	1.77	695	1.78	683	1.82	714	1.74
ITVFFIC	742	1.67	735	1.69	729	1.70	723	1.72	717	1.73	711	1.74	705	1.76	694	1.79	750	1.65
INIC	707	1.75	699	1.77	692	1.79	685	1.81	678	1.83	673	1.84	666	1.86	655	1.89	692	1.79
INIC2	720	1.72	713	1.74	706	1.76	699	1.77	692	1.79	685	1.81	679	1.83	667	1.86	704	1.76
INIC1	716	1.73	709	1.75	702	1.77	695	1.78	688	1.80	682	1.82	676	1.83	664	1.87	710	1.75
INIC3	714	1.74	707	1.75	700	1.77	694	1.79	688	1.80	682	1.82	676	1.83	665	1.86	710	1.75
IPIC	729	1.70	722	1.72	715	1.73	709	1.75	702	1.77	696	1.78	690	1.80	679	1.83	761	1.63
IPIC-4F	736	1.68	729	1.70	722	1.72	716	1.73	710	1.75	704	1.76	699	1.77	688	1.80	776	1.60
IPIC-4Cl	746	1.66	739	1.68	732	1.69	725	1.71	718	1.73	712	1.74	706	1.76	694	1.79	790	1.57

<sup>a</sup> XC and HFX in PCM-TD-DFT-XC-HFX/6-31G(d,p) denote the exchange-correlation functional and percentage of Hartree-Fock exact-exchange, respectively.

**Table S22** Statistical analysis of transition wavelengths and energies using actual theoretical data for excited states of all FREAs<sup>a</sup>

Functional Used	With various HFX (%)	without fit						with linear fit			
		MSE		MAE		RMS		MAE		RMS	
		nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
B3LYP	B3LYP	-28	0.08	34	0.09	40	0.12	22	0.06	28	0.08
	B3LYP-21HFX	-21	0.06	30	0.08	36	0.11	22	0.06	28	0.08
	B3LYP-22HFX	-15	0.05	26	0.07	32	0.10	22	0.06	28	0.08
	B3LYP-23HFX	-9	0.03	22	0.06	29	0.09	21	0.06	28	0.07
	B3LYP-24HFX	-3	0.01	21	0.06	28	0.08	21	0.06	27	0.07
	B3LYP-25HFX	3	0.00	22	0.06	28	0.08	21	0.06	27	0.07
B3PW91	B3PW91	-24	0.07	32	0.09	37	0.11	22	0.06	28	0.08
	B3PW91-21HFX	-18	0.05	27	0.07	33	0.10	22	0.06	28	0.08
	B3PW91-22HFX	-11	0.04	24	0.07	30	0.09	21	0.06	28	0.08
	B3PW91-23HFX	-5	0.02	21	0.06	28	0.08	21	0.06	27	0.07
	B3PW91-24HFX	1	0.01	21	0.06	28	0.08	21	0.06	27	0.07
	B3PW91-25HFX	7	-0.01	22	0.06	28	0.08	20	0.06	27	0.07
mPW3PBE	mPW3PBE	-24	0.07	32	0.09	37	0.11	22	0.06	28	0.08
	mPW3PBE-21HFX	-18	0.05	27	0.07	33	0.10	22	0.06	28	0.08
	mPW3PBE-22HFX	-11	0.04	24	0.07	30	0.09	21	0.06	28	0.08
	mPW3PBE-23HFX	-5	0.02	21	0.06	28	0.08	21	0.06	28	0.07
	mPW3PBE-24HFX	1	0.00	21	0.06	28	0.08	21	0.06	27	0.07
	mPW3PBE-25HFX	7	-0.01	23	0.06	28	0.08	21	0.06	27	0.07

<sup>a</sup> MSE: mean signed error; MAE: mean absolute error; RMS: root mean squared error; HFX: percentage of Hartree-Fock exact exchange.

**Table S23** Statistical analysis of transition wavelengths and energies using actual theoretical data for excited states of all FREAs<sup>a</sup>

Functional Used	With various HFX (%)	without fit						with linear fit			
		MSE		MAE		RMS		MAE		RMS	
		nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
X3LYP	X3LYP-20HFX	-27	0.08	34	0.09	40	0.12	22	0.06	29	0.08
	X3LYP	-16	0.05	26	0.07	32	0.10	22	0.06	28	0.08
	X3LYP-22HFX	-14	0.04	25	0.07	32	0.10	22	0.06	28	0.08
	X3LYP-23HFX	-8	0.03	22	0.06	29	0.09	21	0.06	28	0.08
	X3LYP-24HFX	-2	0.01	21	0.06	28	0.08	21	0.06	27	0.07
	X3LYP-25HFX	4	0.00	22	0.06	28	0.08	21	0.06	27	0.07
B971	B971-20HFX	-26	0.07	33	0.09	38	0.11	22	0.06	29	0.08
	B971	-19	0.06	28	0.08	34	0.10	22	0.06	28	0.08
	B971-22HFX	-12	0.04	24	0.07	31	0.09	22	0.06	28	0.08
	B971-23HFX	-6	0.02	22	0.06	29	0.09	21	0.06	28	0.07
	B971-24HFX	0	0.01	21	0.06	28	0.08	21	0.06	27	0.07
	B971-25HFX	6	-0.01	22	0.06	28	0.08	21	0.06	27	0.07
B972	B972-20HFX	-22	0.06	30	0.08	36	0.11	22	0.06	28	0.08
	B972	-16	0.05	26	0.07	32	0.10	22	0.06	28	0.08
	B972-22HFX	-9	0.03	23	0.06	29	0.09	21	0.06	28	0.08
	B972-23HFX	-3	0.02	21	0.06	28	0.08	21	0.06	27	0.07
	B972-24HFX	3	0.00	22	0.06	28	0.08	21	0.06	27	0.07
	B972-25HFX	9	-0.02	23	0.06	29	0.08	21	0.06	27	0.07

<sup>a</sup> MSE: mean signed error; MAE: mean absolute error; RMS: root mean squared error; HFX: percentage of Hartree-Fock exact exchange.

**Table S24** Statistical analysis of transition wavelengths and energies using actual theoretical data for excited states of all FREAs<sup>a</sup>

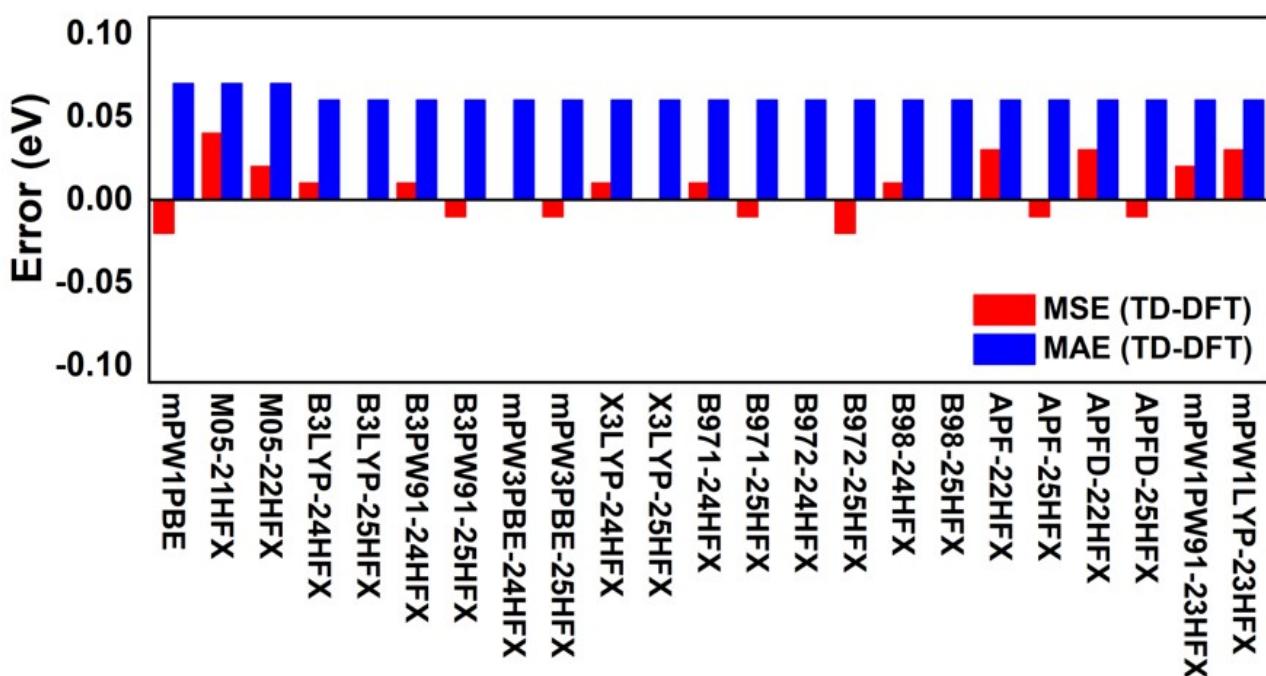
Functional Used	With various HFX (%)	without fit						with linear fit			
		MSE		MAE		RMS		MAE		RMS	
		nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
B98	B98-20HFX	-27	0.07	34	0.09	39	0.11	22	0.06	29	0.08
	B98-21HFX	-20	0.06	29	0.08	35	0.10	22	0.06	28	0.08
	B98	-14	0.04	25	0.07	31	0.09	22	0.06	28	0.08
	B98-23HFX	-7	0.03	22	0.06	29	0.09	21	0.06	28	0.08
	B98-24HFX	-1	0.01	21	0.06	28	0.08	21	0.06	28	0.07
	B98-25HFX	5	0.00	22	0.06	28	0.08	21	0.06	27	0.07

<sup>a</sup> MSE: mean signed error; MAE: mean absolute error; RMS: root mean squared error; HFX: percentage of Hartree-Fock exact exchange.

**Table S25** Statistical analysis of transition wavelengths and energies using actual theoretical data for excited states of all FREAs<sup>a</sup>

Functional Used	With various HFX (%)	without fit						with linear fit			
		MSE		MAE		RMS		MAE		RMS	
		nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
APF	APF-20HFX	-23	0.06	31	0.08	36	0.11	22	0.06	28	0.08
	APF-21HFX	-16	0.05	26	0.07	32	0.10	22	0.06	28	0.08
	APF-22HFX	-10	0.03	23	0.06	29	0.09	21	0.06	28	0.07
	APF	-4	0.02	21	0.06	28	0.08	21	0.06	28	0.07
	APF-24HFX	3	0.00	22	0.06	28	0.08	21	0.06	27	0.07
	APF-25HFX	9	-0.01	23	0.06	29	0.08	21	0.06	27	0.07
APFD	APFD-20HFX	-23	0.06	31	0.08	36	0.11	22	0.06	28	0.08
	APFD-21HFX	-16	0.05	26	0.07	32	0.10	22	0.06	28	0.08
	APFD-22HFX	-10	0.03	23	0.06	29	0.09	21	0.06	28	0.07
	APFD	-4	0.02	21	0.06	28	0.08	21	0.06	28	0.07
	APFD-24HFX	3	0.00	22	0.06	28	0.08	21	0.06	27	0.07
	APFD-25HFX	9	-0.01	23	0.06	29	0.08	21	0.06	27	0.07

<sup>a</sup> MSE: mean signed error; MAE: mean absolute error; RMS: root mean squared error; HFX: percentage of Hartree-Fock exact exchange.



**Fig. S5** MAEs and MSEs obtained from experimental data and that calculated with PCM-TD/6-31G(d,p) using new version of functionals with the best performing HFX ratio.

**Table S26** Statistical analysis of transition wavelengths and energies using actual theoretical data for excited states of all FREAs<sup>a</sup>

Functional Used	With various HFX (%)	without fit						with linear fit			
		MSE		MAE		RMS		MAE		RMS	
		nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
PBE0	PBE0-20HFX	-21	0.06	30	0.08	36	0.11	22	0.06	28	0.08
	PBE0-21HFX	-15	0.05	26	0.07	32	0.10	22	0.06	28	0.08
	PBE0-22HFX	-8	0.03	23	0.06	29	0.09	22	0.06	28	0.08
	PBE0-23HFX	-2	0.01	21	0.06	28	0.08	21	0.06	28	0.07
	PBE0-24HFX	4	0.00	22	0.06	28	0.08	21	0.06	27	0.07
	PBE0	10	-0.02	23	0.07	29	0.08	21	0.06	27	0.07
mPW1PW91	mPW1PW91-20HFX	-22	0.06	30	0.08	36	0.11	22	0.06	29	0.08
	mPW1PW91-21HFX	-16	0.05	26	0.07	32	0.10	22	0.06	28	0.08
	mPW1PW91-22HFX	-9	0.03	23	0.06	30	0.09	22	0.06	28	0.08
	mPW1PW91-23HFX	-3	0.02	21	0.06	28	0.08	21	0.06	28	0.07
	mPW1PW91-24HFX	3	0.00	22	0.06	28	0.08	21	0.06	27	0.07
	mPW1PW91	9	-0.02	23	0.06	29	0.08	21	0.06	27	0.07
mPW1LYP	mPW1LYP-20HFX	-27	0.07	33	0.09	39	0.12	23	0.06	29	0.08
	mPW1LYP-21HFX	-20	0.06	29	0.08	35	0.10	22	0.06	28	0.08
	mPW1LYP-22HFX	-14	0.04	25	0.07	31	0.10	22	0.06	28	0.08
	mPW1LYP-23HFX	-7	0.03	22	0.06	29	0.09	21	0.06	28	0.08
	mPW1LYP-24HFX	-1	0.01	21	0.06	28	0.08	21	0.06	28	0.07
	mPW1LYP	5	0.00	22	0.06	28	0.08	21	0.06	27	0.07
mPW1PBE	mPW1PBE-20HFX	-22	0.06	30	0.08	36	0.11	22	0.06	29	0.08
	mPW1PBE-21HFX	-15	0.05	26	0.07	32	0.10	22	0.06	28	0.08
	mPW1PBE-22HFX	-9	0.03	23	0.06	29	0.09	22	0.06	28	0.08
	mPW1PBE-23HFX	-3	0.02	21	0.06	28	0.08	21	0.06	28	0.07
	mPW1PBE-24HFX	3	0.00	22	0.06	28	0.08	21	0.06	27	0.07
	mPW1PBE	9	-0.02	23	0.07	29	0.08	21	0.06	27	0.07

<sup>a</sup> MSE: mean signed error; MAE: mean absolute error; RMS: root mean squared error; HFX: percentage of Hartree-Fock exact exchange.

**Table S27** Statistical analysis of transition wavelengths and energies using actual theoretical data for excited states of all FREAs<sup>a</sup>

Functional Used	With various HFX (%)	without fit						with linear fit			
		MSE		MAE		RMS		MAE		RMS	
		nm	eV	nm	eV	nm	eV	nm	eV	nm	eV
M05	M05-20HFX	-19	0.06	29	0.08	36	0.11	24	0.07	30	0.08
	M05-21HFX	-12	0.04	25	0.07	33	0.10	24	0.07	30	0.08
	M05-22HFX	-6	0.02	23	0.07	31	0.10	23	0.07	30	0.08
	M05-23HFX	1	0.01	23	0.07	30	0.09	23	0.07	29	0.08
	M05-24HFX	7	-0.01	25	0.07	31	0.09	23	0.07	29	0.08
	M05-25HFX	13	-0.02	27	0.08	33	0.09	23	0.07	29	0.08
	M05-26HFX	18	-0.04	30	0.08	35	0.10	23	0.06	29	0.08
	M05	29	-0.07	36	0.10	42	0.11	23	0.06	29	0.08
M06	M06-20HFX	-30	0.08	36	0.10	42	0.12	23	0.06	29	0.08
	M06-21HFX	-23	0.07	31	0.08	37	0.11	23	0.06	29	0.08
	M06-22HFX	-16	0.05	26	0.07	33	0.10	22	0.06	29	0.08
	M06-23HFX	-10	0.03	23	0.07	30	0.10	22	0.06	28	0.08
	M06-24HFX	-4	0.02	21	0.06	29	0.09	22	0.06	28	0.08
	M06-25HFX	2	0.00	22	0.06	29	0.09	22	0.06	28	0.08
	M06-26HFX	8	-0.01	24	0.07	30	0.09	21	0.06	28	0.08
	M06	13	-0.03	26	0.07	31	0.09	21	0.06	28	0.07

<sup>a</sup> MSE: mean signed error; MAE: mean absolute error; RMS: root mean squared error; HFX: percentage of Hartree-Fock exact exchange.

## Cartesian Coordinates

Below are the cartesian coordinates for all the studied set of FREAs optimized in chloroform solvent using DFT-PBE0/6-31G(d,p) and PCM solvent model. All data is in Å. These cartesian coordinates have been taken from our previous study.<sup>1</sup>

### Cz-RH

0 1  
C -1.10965700 -2.20947800 0.12249400  
C -0.70982400 -3.56983600 0.08260400  
C 0.71252000 -3.57044500 -0.11732300  
C 1.10952100 -2.21043300 -0.18593600  
N -0.00325700 -1.40518500 -0.05647400  
C 1.67983900 -4.57176000 -0.24160800  
C 3.00344100 -4.21529300 -0.42532000  
C 3.39690600 -2.85774900 -0.49287600  
C 2.43867900 -1.84428600 -0.36971700  
C -2.43521800 -1.84226000 0.32923100  
C -3.39062900 -2.85497100 0.47797300  
C -2.99674300 -4.21287000 0.42311500  
C -1.67443100 -4.57035100 0.23198000  
C -0.00045600 0.03695400 -0.04118100  
C 4.80662600 -2.53026000 -0.68733500  
C -4.79647000 -2.52529000 0.69522300  
S 5.45359400 -1.01113700 -0.16562700  
C 7.04724900 -1.41694300 -0.75113500  
C 7.03393200 -2.69269000 -1.30812700  
C 5.78321500 -3.31805200 -1.27310900  
C -5.76147600 -3.30386300 1.31165900  
C -7.01103200 -2.67717100 1.36217600  
C -7.03497700 -1.40988100 0.78645400  
S -5.45335900 -1.01422800 0.16278700  
C 8.24364100 -0.64306300 -0.70779500  
C -8.23134400 -0.63525200 0.75676300  
C 8.54283700 0.60108200 -0.24155000  
C -8.53926000 0.60182300 0.27759000  
C 7.65131300 1.56776800 0.39103800  
N 8.35404900 2.73321100 0.72634900  
C 9.67957100 2.77433200 0.41077000  
S 10.16662800 1.27685100 -0.34974000  
S -10.15932400 1.28199200 0.41124200  
C -9.68811500 2.76521500 -0.38626000  
N -8.37020600 2.71656100 -0.73128700  
C -7.66114000 1.55639900 -0.39116200  
O -6.47543900 1.42023500 -0.64630900  
O 6.46011700 1.43695200 0.62223500  
C -7.67607600 3.81641000 -1.39631500  
C 7.64619100 3.84605800 1.35423500  
C 7.06954300 4.80642400 0.32726300  
C -7.07341400 4.79467100 -0.40169700  
S -10.74307200 4.00752700 -0.65707600  
S 10.73011400 4.01976500 0.68440300  
H 1.40032500 -5.61956500 -0.18306200  
H 3.76070300 -4.98936000 -0.48972200  
H 2.72927500 -0.80046200 -0.43622000  
H -2.72331900 -0.79861500 0.40715400  
H -3.75205100 -4.98667100 0.50980300  
H -1.39318300 -5.61856300 0.19181300  
H -0.94891300 0.40877400 -0.43312200  
H 0.14908800 0.43420200 0.96860800  
H 0.79456500 0.40879400 -0.69018900  
H 7.92435700 -3.13929400 -1.73789800  
H 5.58695600 -4.29896100 -1.68917200  
H -5.55714600 -4.27842400 1.73865600  
H -7.89274500 -3.11640400 1.81679000  
H 9.08106700 -1.18497900 -1.14657100  
H -9.05966800 -1.16913400 1.22191800

H	-6.90040900	3.35478200	-2.01085600
H	-8.40431900	4.30660800	-2.04538300
H	6.85503700	3.39705500	1.95827800
H	8.35943700	4.34731300	2.01144500
H	6.54415300	5.61745000	0.83904700
H	7.86161400	5.24429100	-0.28559500
H	6.35675800	4.29499400	-0.32492600
H	-6.55958800	5.59505200	-0.94122300
H	-7.84972700	5.24532500	0.22199600
H	-6.34561600	4.29424500	0.24237900

## Flu-RH

0 1

C	-1.17353200	-2.01317500	-0.01464600
C	-0.72823000	-0.67892900	-0.00992100
C	0.72822400	-0.67892700	0.00952100
C	1.17352300	-2.01317400	0.01461800
C	-0.00000600	-2.97990300	0.00012700
C	1.65003500	0.36735000	0.02307800
C	3.00448600	0.06957100	0.03968700
C	3.46843800	-1.26007600	0.04296400
C	2.52349300	-2.30523100	0.03062000
C	-2.52350300	-2.30523400	-0.03056200
C	-3.46844500	-1.26008000	-0.04320700
C	-3.00449000	0.06956800	-0.04030200
C	-1.65003900	0.36734700	-0.02376800
C	-0.01557300	-3.85819600	1.25962300
C	0.01555800	-3.85856100	-1.25911600
C	4.89706600	-1.56039800	0.05890100
C	-4.89707300	-1.56040200	-0.05906700
S	6.08134500	-0.29322000	0.06192400
C	7.40064400	-1.43396000	0.08268800
C	6.90045600	-2.73273700	0.08571200
C	5.50477200	-2.80630900	0.07242700
C	-5.50477700	-2.80631300	-0.07261100
C	-6.90046300	-2.73274400	-0.08580600
C	-7.40065200	-1.43396800	-0.08269800
S	-6.08135400	-0.29322700	-0.06195300
C	8.80364500	-1.18268900	0.09723200
C	-8.80365400	-1.18269700	-0.09715300
C	9.55707300	-0.04809000	0.10163600
C	-9.55708200	-0.04809700	-0.10148000
C	9.10322500	1.33915200	0.08903900
N	10.19995300	2.21168600	0.11156700
C	11.44220600	1.65104600	0.12519500
S	11.31837500	-0.09341700	0.12488700
S	-11.31838600	-0.09342000	-0.12463600
C	-11.44221300	1.65104400	-0.12486600
N	-10.19995800	2.21168000	-0.11139400
C	-9.10323000	1.33914500	-0.08889300
O	7.95173400	1.74204200	0.06484400
S	12.89219700	2.44250300	0.14634600
C	9.97330200	3.65461100	0.08739500
C	9.91799700	4.20027900	-1.32974800
S	-12.89219900	2.44250400	-0.14625700
O	-7.95173600	1.74203200	-0.06480600
C	-9.97330200	3.65460800	-0.08737600
C	-9.91786700	4.20040400	1.32971300
H	1.32356400	1.40313900	0.02150800
H	3.71785700	0.88891700	0.05081400
H	2.85454600	-3.33942900	0.03300700
H	-2.85456000	-3.33943100	-0.03262600
H	-3.71786000	0.88891100	-0.05168500
H	-1.32356400	1.40313600	-0.02249000
H	-0.90053300	-4.50249000	1.26687300
H	0.86897500	-4.50240500	1.28878700
H	-0.02683500	-3.24713300	2.16636400
H	0.90052200	-4.50285200	-1.26618900
H	-0.86898500	-4.50278600	-1.28808900
H	0.02681000	-3.24775800	-2.16603300
H	7.55322900	-3.59924300	0.09806800
H	4.96073200	-3.74267700	0.07346400
H	-4.96073400	-3.74268000	-0.07374900
H	-7.55323400	-3.59925100	-0.09817400
H	9.37091200	-2.11284500	0.10880600
H	-9.37092300	-2.11285200	-0.10872200
H	9.02739400	3.81878200	0.60769300
H	10.78217900	4.11376900	0.65909500

H	9.74043700	5.27881700	-1.29925000
H	10.86083000	4.02300700	-1.85358500
H	9.10483200	3.73574400	-1.89356600
H	-9.02744000	3.81872800	-0.60777300
H	-10.78222800	4.11371800	-0.65904600
H	-9.74031100	5.27894000	1.29909900
H	-10.86065000	4.02317900	1.85365300
H	-9.10464800	3.73592200	1.89349800

## FR-d2

	0 1		
C	-0.72674600	-2.52718200	-0.30557000
C	-1.39870900	-1.30622400	-0.48530600
C	-0.42614600	-0.19846700	-0.85764300
C	0.89125300	-0.95735800	-0.86897000
C	0.69644500	-2.31073400	-0.54329800
C	2.16103100	-0.47757500	-1.13462600
C	3.26638800	-1.34720100	-1.08195000
C	3.05505600	-2.69816400	-0.75246200
C	1.78120900	-3.18372400	-0.48651800
C	-1.43535800	-3.67375100	0.04993000
C	-2.81117300	-3.58692100	0.21366400
C	-3.49992600	-2.37420300	0.02671500
C	-2.77017000	-1.22349300	-0.32187100
C	-0.74676800	0.38723700	-2.24050100
C	-0.42209900	0.91530000	0.19973300
C	4.61006000	-0.83645800	-1.40271900
C	-7.88049500	-2.35434900	0.40620300
C	4.80234200	0.13774700	-2.36310400
C	6.06791100	0.67607800	-2.68447100
C	7.23647900	0.26462000	-2.07391700
C	7.10285300	-0.76029100	-1.08239000
C	5.80001600	-1.29968300	-0.74882800
C	-7.11707800	-1.21470200	0.81881100
C	-5.67361800	-1.20979000	0.69425600
C	-4.96515500	-2.34171300	0.16932100
C	-5.75160500	-3.41915500	-0.19059300
C	-7.15920900	-3.42783600	-0.07802200
N	8.09905300	-1.32417900	-0.39880000
S	7.42201900	-2.41615100	0.59317800
N	5.85607200	-2.23836400	0.20006400
N	-7.60389200	-0.10403600	1.37382800
S	-6.33150200	0.85391500	1.68781500
N	-5.11799700	-0.08528500	1.15467400
C	-9.32337500	-2.42027700	0.49539000
C	10.59014200	1.44092200	-2.16896100
C	10.25324300	1.78710900	-3.46649700
C	8.91428800	1.41022100	-3.65171600
C	8.50724300	0.83878500	-2.46215600
O	9.51908600	0.86058300	-1.56848700
O	-10.03281200	-1.27472300	0.42532700
C	-11.34834500	-1.59375700	0.52550000
C	-11.47516600	-2.96491500	0.66994400
C	-10.17639700	-3.49672200	0.64012000
C	11.85061400	1.61307000	-1.53876700
C	12.29420800	1.42895500	-0.26536000
C	-12.38883100	-0.62817000	0.50945100
C	-12.41183100	0.70792400	0.25098100
S	-13.89413000	1.64265800	0.44381600
C	-13.12196700	3.13113200	-0.05342200
N	-11.82038800	2.90211800	-0.36971700
C	-11.33826800	1.58266700	-0.24494800
S	13.99903200	1.63371400	0.13563200
C	13.73727800	1.24866000	1.82156100
N	12.42085000	0.99753300	2.04682300
C	11.53768900	1.10448000	0.95318200
O	10.33877000	0.96820000	1.08319400
O	-10.20378500	1.28362400	-0.55554700
S	-13.92928900	4.57294100	-0.11165900
S	14.96793900	1.21038500	2.92488200
C	-10.91027000	3.95212400	-0.81782200
C	11.88186300	0.69034500	3.36872500
C	11.48963000	1.94510600	4.13112200
C	-10.16954300	4.59476500	0.34313200
H	2.31623400	0.57576100	-1.35458300
H	3.90305600	-3.37131700	-0.71102100

H	1.64215900	-4.23271300	-0.24053800
H	-0.92678300	-4.62025100	0.20980500
H	-3.36453400	-4.46901300	0.52151800
H	-3.29001400	-0.28219300	-0.46428700
H	-0.00204000	1.13941000	-2.52042300
H	-0.75374500	-0.39248300	-3.00736700
H	-1.72836000	0.87184700	-2.23312000
H	-1.40105600	1.40295400	0.24579000
H	-0.19052200	0.51628900	1.19115600
H	0.32392100	1.67725100	-0.04818300
H	3.94256400	0.50732500	-2.91286200
H	6.11349000	1.45847700	-3.43583000
H	-5.27594600	-4.29360900	-0.62310600
H	-7.69359900	-4.30635200	-0.42633100
H	10.91386900	2.25125100	-4.18552400
H	8.32200300	1.50575900	-4.54989900
H	-12.40590600	-3.50238900	0.78683900
H	-9.88654000	-4.53187500	0.74607100
H	12.59666400	1.95548300	-2.25378200
H	-13.34538900	-1.07950500	0.76661100
H	-10.21409600	3.47231400	-1.50882700
H	-11.51001400	4.68467600	-1.36130200
H	11.01413500	0.04979800	3.19847100
H	12.64848000	0.12455300	3.90192900
H	11.08760500	1.66853400	5.10974700
H	12.35566900	2.59342300	4.28728700
H	10.72032700	2.50208800	3.59007500
H	-9.49579500	5.36875500	-0.03485900
H	-10.86904000	5.06070500	1.04215400
H	-9.57183100	3.85309900	0.87978900

## F(DPP)2B2

O			
C	-1.11560800	-1.79419100	-0.15507400
C	-0.52656100	-0.61462100	-0.64522300
C	0.92201600	-0.77371800	-0.61134100
C	1.21758900	-2.04969100	-0.09853300
C	-0.05496500	-2.80795000	0.24348500
C	1.95075300	0.09202800	-0.98012600
C	3.26600800	-0.32716200	-0.83730000
C	3.57735800	-1.59944700	-0.32326700
C	2.52859800	-2.46114700	0.05084000
C	-2.48997300	-1.91202800	-0.07068500
C	-3.30854400	-0.84446600	-0.48665200
C	-2.70498400	0.32884600	-0.97520400
C	-1.32496400	0.45262400	-1.05437100
C	-0.12656700	-3.12881600	1.74361800
C	-0.17598400	-4.09782900	-0.58056300
C	4.96297200	-2.03369500	-0.17449900
C	-4.75984900	-0.97131500	-0.40720000
S	6.25198200	-0.88816900	-0.03299800
C	7.45511900	-2.14694200	0.09401400
C	6.84498100	-3.39165100	0.02263500
C	5.45052600	-3.32533200	-0.12862900
C	-5.51975200	-2.12572200	-0.38960700
C	-6.90077900	-1.89280800	-0.30701500
C	-7.22943900	-0.54519800	-0.25743200
S	-5.78019400	0.42511200	-0.30657100
C	8.84046900	-1.79942000	0.23184400
C	-8.56851500	-0.04409400	-0.17453000
N	-8.93911300	1.28714700	-0.11095100
C	-10.35341600	1.43878100	-0.03394000
C	-10.85101700	0.08540500	-0.06168800
C	-9.74272900	-0.79369300	-0.14244000
C	9.45408900	-0.56255300	0.06828100
C	10.84729500	-0.70191200	0.28594400
C	11.11732300	-2.07577300	0.61804500
N	9.84267000	-2.70064400	0.56498200
C	9.18675700	0.80897700	-0.28830800
N	10.47114000	1.42495000	-0.27260400
C	11.46636500	0.52734400	0.07004600
C	-12.02592800	-0.65818800	-0.07462700
N	-11.65130900	-1.99308500	-0.14866600
C	-10.23927400	-2.14298100	-0.19178500
O	12.14199000	-2.68762200	0.91084000

O	8.16093100	1.42434200	-0.54929100
C	12.86535800	0.81770000	0.17597000
C	13.82990800	-0.10636700	0.55154700
C	15.12920400	0.42471500	0.57486900
C	15.19112400	1.75814000	0.22137500
S	13.61211100	2.35887900	-0.15731100
O	-10.89814700	2.53233900	0.04639900
O	-9.69218400	-3.24213500	-0.24691500
C	-8.09282800	2.45619800	-0.09575800
C	-12.48675000	-3.16885400	-0.10226000
C	9.71857100	-4.09025800	0.93395300
C	10.59228800	2.83312900	-0.56509600
C	-13.38611400	-0.20201300	-0.02800900
S	-13.73027600	1.47010600	0.33986000
C	-15.43624300	1.22502200	0.19955600
C	-15.71772900	-0.08753700	-0.12068700
C	-14.57136000	-0.88955400	-0.24821500
C	16.36818500	2.62117100	0.14416100
C	-16.37933100	2.32323000	0.40598600
C	16.26582600	4.01452900	0.27442100
C	17.39663400	4.81855600	0.20210600
C	18.65238600	4.24826200	0.00628400
C	18.76710400	2.86533900	-0.12295100
C	17.63819700	2.05861400	-0.06031800
C	-16.00005400	3.66020300	0.21235400
C	-16.91049800	4.69092100	0.41116500
C	-18.21803900	4.40832800	0.79966300
C	-18.60679400	3.08417500	0.99431500
C	-17.69746200	2.05138900	0.80522400
H	1.73693900	1.07804400	-1.38242700
H	4.06979800	0.33470300	-1.14780800
H	2.75657500	-3.43466900	0.47654900
H	-2.94299000	-2.81190600	0.33616500
H	-3.33066300	1.14831000	-1.31820700
H	-0.88360300	1.36750700	-1.43883800
H	-1.07690700	-3.61437900	1.98724700
H	0.68199200	-3.80944600	2.02879300
H	-0.03976800	-2.21996400	2.34542900
H	-1.12570800	-4.60013700	-0.37026000
H	-0.12800400	-3.88702700	-1.65252200
H	0.63368700	-4.79021200	-0.32865300
H	7.38336800	-4.32804100	0.04303400
H	4.82169000	-4.20132300	-0.23660600
H	-5.08588300	-3.11594900	-0.46493500
H	-7.66372800	-2.66675500	-0.29383600
H	13.57105900	-1.13142700	0.80320200
H	16.00182000	-0.14488700	0.87249200
H	-8.76347600	3.31441300	-0.02641700
H	-7.42486200	2.45859800	0.77018100
H	-7.50616800	2.53950400	-1.01493600
H	-13.17700900	-3.12717600	0.74376000
H	-13.04756200	-3.30626000	-1.03184600
H	-11.81274200	-4.01773800	0.02142200
H	10.68470600	-4.38488600	1.34625100
H	8.94299100	-4.22702600	1.69127200
H	9.50609100	-4.72428000	0.06756200
H	11.20210600	3.00821500	-1.45591700
H	9.57902900	3.19072700	-0.75623900
H	11.00918200	3.38482400	0.28212500
H	-16.72326300	-0.45392500	-0.29166300
H	-14.62055600	-1.93227800	-0.52570900
H	15.29582300	4.47010700	0.45525200
H	17.29689400	5.89459900	0.30881100
H	19.53587400	4.87716800	-0.04701200
H	19.74073400	2.41211900	-0.28420700
H	17.73597800	0.98534000	-0.19161500
H	-14.99037300	3.89297600	-0.11542500
H	-16.59846600	5.71896500	0.25313800
H	-18.92914000	5.21459800	0.95218100
H	-19.62149700	2.85443200	1.30589400
H	-18.00208500	1.02552000	0.98885500

## ITDI

0 1

C	1.06458400	-2.12073000	-0.18799300
C	1.81095000	-0.96015400	0.12297100
C	3.20104300	-1.33576400	0.04759000

C	3.33504300	-2.66796100	-0.29432700
C	1.97702100	-3.30869500	-0.48375400
C	-0.31393500	-2.07455100	-0.20574900
C	-0.97966100	-0.86935800	0.09897100
C	-0.21936100	0.27304800	0.40742100
C	1.16786600	0.24042900	0.41879400
S	4.71343900	-0.56299400	0.28048200
C	5.56042900	-2.05045100	-0.09631700
C	4.67332700	-3.08094400	-0.37892600
C	1.78784000	-3.81525700	-1.92108200
C	1.74962600	-4.44932700	0.51925300
C	6.99368800	-2.12234300	-0.09154900
C	7.77640200	-3.27303400	-0.14825400
C	9.14287300	-3.00058600	-0.15142600
C	9.45397100	-1.64344300	-0.06174200
S	7.98478700	-0.70490700	-0.02750600
C	-2.43687700	-0.82684200	0.09614700
S	-3.29768000	0.66511700	-0.11407900
C	-4.84363800	-0.12281200	0.01904400
C	-4.67292800	-1.48242100	0.20397800
C	-3.32389200	-1.87580300	0.24601600
C	-8.45851600	1.34481300	-0.14250300
C	-7.54068800	2.39641800	-0.25311800
C	-6.20841200	2.00270200	-0.21007000
C	-6.06564800	0.62507000	-0.06495800
S	-7.60175400	-0.17377700	0.01434100
C	10.76907200	-1.12921000	-0.15442500
C	-9.84803700	1.60632400	-0.16410900
C	11.30869700	0.12832400	-0.06534500
C	-10.96931500	0.81358200	-0.07130600
C	12.61189100	0.36638600	-0.75152400
C	12.72484600	1.83470800	-0.90209100
C	11.64024700	2.45355400	-0.25640300
C	10.83966200	1.40983700	0.41847900
C	-12.35642400	1.26125900	-0.10451100
C	-13.21184100	0.06152700	0.04142000
C	-12.38905100	-1.06904800	0.15409500
C	-10.97517800	-0.65288800	0.08777400
C	9.99871400	1.62076200	1.49275800
C	-12.83583400	2.54923000	-0.24375300
O	13.38999600	-0.47841300	-1.15602300
O	-10.00683500	-1.39584700	0.15407100
C	13.69334500	2.56119100	-1.57459000
C	13.55997800	3.94783700	-1.61666500
C	12.47664400	4.57179500	-0.99349600
C	11.51070900	3.84033200	-0.30166900
C	-14.59735000	-0.10034800	0.08284600
C	-15.11203900	-1.38789700	0.23556200
C	-14.27869000	-2.50314800	0.34569000
C	-12.89485000	-2.34897400	0.30503400
C	9.59447700	0.56546400	2.35824100
N	9.29844600	-0.26612800	3.11607800
C	9.60129600	2.91736600	1.92603400
N	9.24584600	3.96183600	2.29550600
C	-14.22195400	2.87609700	-0.26459400
N	-15.33862700	3.20262900	-0.28878200
C	-12.01420000	3.70403100	-0.38354200
N	-11.38783400	4.67821900	-0.50053200
H	-0.89022500	-2.95520500	-0.47467700
H	-0.72616900	1.19885200	0.66478700
H	1.73356300	1.13374800	0.66474000
H	5.00298900	-4.07799100	-0.64774200
H	0.77843600	-4.21631300	-2.05573700
H	1.93965200	-3.01099400	-2.64593000
H	2.50045500	-4.61688000	-2.13905100
H	2.45802900	-5.26344800	0.33655500
H	1.87986200	-4.10209200	1.54773900
H	0.73778900	-4.85343100	0.41619900
H	7.35639600	-4.27074000	-0.17717100
H	9.91428500	-3.76098300	-0.20597900
H	-5.50246000	-2.17135600	0.32104200
H	-3.00551100	-2.89761200	0.41498900
H	-7.86689600	3.42555700	-0.35941800
H	-5.37062200	2.68736800	-0.27675900
H	11.49853600	-1.87249300	-0.48250700
H	-10.02618500	2.67142400	-0.27628800
H	14.52433700	2.05177500	-2.05232600
H	14.29761600	4.54916000	-2.13881200
H	12.38117200	5.65190800	-1.04639100
H	10.68112300	4.35384700	0.16850400

H	-15.27935800	0.73564100	0.00141700
H	-16.18885600	-1.52148400	0.26908100
H	-14.71417100	-3.49050400	0.46335300
H	-12.22008500	-3.19517000	0.38832600

## SiDT-IC

0 1

C	-0.47726400	1.33102100	-0.00018700
C	-1.36881400	0.22524300	-0.00012100
C	-0.89006900	-1.09257200	-0.00002600
C	0.47705900	-1.33076000	0.00000800
C	1.36861100	-0.22498200	-0.00005400
C	0.88986600	1.09283200	-0.00015400
Si	1.46006600	-2.95395300	0.00014600
C	3.07409700	-1.98785600	0.00010000
C	2.76845500	-0.62311300	-0.00000100
Si	-1.46027200	2.95421300	-0.00030000
C	-3.07430400	1.98811700	-0.00023100
C	-2.76865700	0.62337400	-0.00014900
C	-1.19524900	3.97094600	-1.55374700
C	1.19500700	-3.97067100	1.55359700
C	1.19507100	-3.97092600	-1.55315000
C	-1.19524100	3.97116800	1.55300100
C	4.45482900	-2.18386200	0.00013500
C	5.21362900	-1.00321100	0.00006800
S	4.15195300	0.39535200	-0.00004200
C	-4.45503600	2.18412500	-0.00022700
C	-5.21382300	1.00346500	-0.00014800
S	-4.15214900	-0.39509600	-0.00008300
C	6.62777500	-1.06784800	0.00008100
C	-6.62796700	1.06801400	-0.00008200
C	7.62876500	-0.12449700	0.00003700
C	-7.62879500	0.12450600	0.00000100
C	-9.06497500	0.38134100	0.00010000
C	-9.74903400	-0.93151300	-0.00003000
C	-8.78025700	-1.94599600	-0.00011700
C	-7.43562600	-1.33904800	-0.00008100
C	9.06491200	-0.38157500	0.00005200
C	9.74920400	0.93114200	0.00006800
C	8.78062800	1.94580600	0.00003300
C	7.43588500	1.33910100	0.00000300
C	11.10012400	1.28192300	0.00010700
C	11.43524200	2.63588500	0.00010800
C	10.45806400	3.63386100	0.00006900
C	9.10804100	3.29106000	0.00003200
C	-11.09988300	-1.28258500	-0.00006800
C	-11.43472300	-2.63661600	-0.00018400
C	-10.45734600	-3.63439600	-0.00025900
C	-9.10739700	-3.29131700	-0.00022700
O	-6.37631700	-1.94811200	-0.00012800
C	-9.71509000	1.59975000	0.00033600
O	6.37670800	1.94839100	-0.00003600
C	9.71495500	-1.60002100	0.00003300
C	-11.13296300	1.73616300	0.00042900
N	-12.28356300	1.90979800	0.00051300
C	-9.05919000	2.86401200	0.00054800
N	-8.57280200	3.92156300	0.00072900
C	11.13283100	-1.73640000	0.00004800
N	12.28347000	-1.90977700	0.00006600
C	9.05907700	-2.86429400	-0.00001600
N	8.57288700	-3.92193600	-0.00007000
H	-1.59359400	-1.92272500	0.00002400
H	1.59339000	1.92298600	-0.00020200
H	-1.89043300	4.81614700	-1.58286200
H	-0.17720900	4.37268000	-1.58271500
H	-1.35122500	3.36764200	-2.45236300
H	1.89017200	-4.81588700	1.58272500
H	0.17695800	-4.37238300	1.58255600
H	1.35098600	-3.36736600	2.45221100
H	1.35104200	-3.36775700	-2.45185600
H	1.89027200	-4.81611700	-1.58213000
H	0.17703900	-4.37268500	-1.58206400
H	-0.17719100	4.37287900	1.58192100
H	-1.89040300	4.81639200	1.58198400
H	-1.35124300	3.36800000	2.45170400
H	4.94197000	-3.15428300	0.00020500

H	-4.94218100	3.15454500	-0.00026700
H	6.95175600	-2.10412400	0.00014100
H	-6.95208000	2.10425500	-0.00010600
H	11.88908800	0.54156200	0.00013800
H	12.48396500	2.91644500	0.00013900
H	10.75560300	4.67781300	0.00007000
H	8.32463200	4.04238900	0.00000200
H	-11.88900700	-0.54240500	-0.00001600
H	-12.48338900	-2.91738900	-0.00021800
H	-10.75467300	-4.67840800	-0.00034600
H	-8.32383500	-4.04248700	-0.00028800

## IDIDT-C8

0 1			
C	-4.18491500	-1.71369200	-0.02138900
C	-2.83441500	-1.45841900	0.08234400
C	-2.38077300	-0.19284500	0.51190400
C	-3.28832300	0.81534600	0.83751900
C	-4.64535300	0.54887700	0.73260300
C	-5.11775200	-0.70645100	0.30599600
C	-1.66816300	-2.39817600	-0.21453900
C	-0.48079400	-1.49101300	0.08649000
C	-0.94284000	-0.25230000	0.50653200
C	0.93697100	-1.53580800	0.07946800
C	1.48065100	-0.33181900	0.50278000
S	0.30754700	0.86883400	0.90480000
C	2.06162600	-2.50418300	-0.26782200
C	3.28767200	-1.65719200	0.06543100
C	2.91942900	-0.36876900	0.50900800
C	4.61790200	-2.00403000	-0.03543400
C	5.61483000	-1.06789100	0.31289700
C	5.22818100	0.21140800	0.75281200
C	3.89211100	0.57050800	0.85177600
C	-1.72800200	-3.60996000	0.72885200
C	-1.71128200	-2.86155800	-1.67726000
C	2.07389200	-2.86527600	-1.76190100
C	2.04320800	-3.77784300	0.58812900
C	-6.54384400	-0.97800900	0.20187400
C	7.01852700	-1.43797900	0.21811600
S	-7.69676600	0.30608100	0.07335800
C	-9.03480400	-0.81828700	0.01663700
C	-8.54952100	-2.12928300	0.08456900
C	-7.16477700	-2.22259800	0.18650700
C	7.56578300	-2.71437200	0.20641800
C	8.95720600	-2.71531200	0.08641900
C	9.51929300	-1.44161200	0.03356500
S	8.25942600	-0.23977600	0.08663400
C	-10.42559600	-0.57711900	-0.08576600
C	10.89729600	-1.19967900	-0.19504300
C	-11.19403300	0.56144400	-0.16062600
C	-12.64799600	0.62395500	-0.25759300
C	-13.02792800	2.05449200	-0.29083200
C	-11.86293400	2.83319000	-0.22746700
C	-10.68581800	1.94709600	-0.14775300
C	11.67218000	-0.07124700	-0.24043700
C	12.93851000	-0.13984400	-1.02789400
C	13.31762000	1.26405400	-1.30278500
C	12.42772900	2.12563400	-0.63789100
C	11.49982500	1.30760700	0.17112900
O	13.50538500	-1.14599200	-1.41320000
O	-9.52075900	2.30998200	-0.08391500
C	10.80862600	1.74960800	1.28024500
C	-13.54660100	-0.42340000	-0.31508600
C	-14.26723100	2.69161600	-0.36864500
C	-14.29812200	4.08608000	-0.38100000
C	-13.12840500	4.84667600	-0.31838900
C	-11.88815100	4.21742900	-0.24029800
C	14.34961400	1.73970700	-2.09472800
C	14.48161500	3.11945700	-2.23865800
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N	9.87840000	0.14948400	3.08614200
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N	10.59858200	4.23936500	1.95060000

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 H 4.90447100 -2.98589800 -0.40182100  
 H 5.98927300 0.92837000 1.04767200  
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 H -1.68913900 -3.29725700 1.77573700  
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 H -0.89295500 -3.55474300 -1.88843600  
 H -2.64919800 -3.38788700 -1.87995800  
 H -1.63653000 -2.01451600 -2.36434900  
 H 1.19730000 -3.46162000 -2.02634700  
 H 2.08199300 -1.96656000 -2.38445900  
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 H 1.17825600 -4.39925400 0.34270300  
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 H 2.00867500 -3.53829400 1.65422600  
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 H -10.96663300 -1.51822800 -0.10464400  
 H 11.44163100 -2.08977200 -0.51723400  
 H -15.19733500 2.14113800 -0.41843300  
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 H 15.02579200 1.04626200 -2.58481800  
 H 15.27609000 3.52799200 -2.85527300  
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 C -1.31851200 -0.39878600 -0.02117500  
 C -0.99291500 0.97842400 -0.03583900  
 C 0.32802300 1.39070000 -0.02826400  
 C -2.76023100 -0.48373800 -0.00810300  
 C -3.32835000 0.77192500 0.00080800  
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 C -2.43763600 2.66575300 -1.32142500  
 C -3.41200500 3.66993300 -1.37376100  
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 C -2.94139800 4.09363400 -3.71865300  
 C 2.82883400 -2.26457900 -2.46137900  
 C 2.74626500 -3.02596600 -3.62399400  
 C 2.08530200 -4.25557800 -3.64135100  
 C 1.50226600 -4.69479000 -2.44884800  
 C 1.58417300 -3.93936200 -1.28503000  
 C 2.25169300 -2.70976100 -1.27093600  
 C 3.39109900 -3.69696500 1.30863100

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C	2.92030900	-4.14153900	3.64996100
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C	1.72786700	-2.39955800	2.44283300
C	2.43119600	-2.67862300	1.27076100
C	2.02592900	-5.09241300	-4.88806000
C	3.15799600	-4.94067200	4.90016200
C	-1.98822500	5.15706200	4.80680900
C	-3.19113500	4.87197000	-4.97948500
C	6.64582400	0.92503400	0.01955700
C	-6.64487500	-0.91869000	0.04293400
C	7.12104000	2.22780100	-0.28906200
C	8.47386300	2.49932100	-0.25000200
C	9.43467200	1.50932700	0.05132200
C	8.95644400	0.22287500	0.40822800
C	7.59237700	-0.04090300	0.38994200
C	-7.12162000	-2.22284200	-0.25742000
C	-8.47344500	-2.49660600	-0.20208500
C	-9.43271700	-1.50748900	0.10705700
C	-8.95283200	-0.21834500	0.45182100
C	-7.58947600	0.04740100	0.41823900
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C	-9.44835800	1.97026500	1.23966600
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C	-10.80051600	-1.92944800	0.16821500
C	12.03059200	1.31884800	0.08053200
C	-12.02861100	-1.32379800	0.17623500
C	13.18435600	2.15315500	0.54760500
C	14.31094200	1.22076300	0.75498200
C	13.92924900	-0.06353600	0.33460200
C	12.56286300	0.00558900	-0.22966500
C	-13.17175600	-2.15952200	0.66633900
C	-14.29708600	-1.22938000	0.89012700
C	-13.92643600	0.05429800	0.45815700
C	-12.57013400	-0.01336100	-0.13009800
C	15.56186100	1.48482200	1.28851500
C	16.45421600	0.42324200	1.42031600
C	16.08069000	-0.86252000	1.02190800
C	14.82533800	-1.12291600	0.47151000
C	-15.53742000	-1.49454800	1.44730600
C	-16.42991800	-0.43467800	1.59147200
C	-16.06695000	0.85054900	1.18171600
C	-14.82254100	1.11198600	0.60757300
O	13.17762000	3.35305600	0.75507400
C	12.01444800	-0.92757900	-1.08169600
O	-13.15799800	-3.35857200	0.87844700
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N	9.90488200	-0.49473900	-2.51147000
C	12.63136800	-2.17719400	-1.37431700
N	13.09533300	-3.21386800	-1.62781300
C	-10.87409000	0.66945900	-1.77269100
N	-9.95247100	0.48368800	-2.45793900
C	-12.66674300	2.16285900	-1.28486600
N	-13.13935800	3.19625000	-1.53576800
H	-0.58836500	-2.43941000	-0.00446800
H	0.58856600	2.44515300	-0.03063600
H	-5.36019100	1.61840900	-0.03159000
H	5.36096300	-1.61232300	-0.04363900
H	-0.99881700	5.70404600	2.32247900
H	-1.16908500	4.34916900	0.28223500
H	-3.28621700	1.32585500	2.46850800
H	-3.12986300	2.69299000	4.50415200
H	-1.40532700	2.84623400	-4.55751500
H	-0.97033500	1.60531800	-2.48587300
H	-3.97937200	3.91426600	-0.47972700
H	-4.42236600	5.14184200	-2.55886800
H	3.34898900	-1.31158000	-2.48491500
H	3.20747200	-2.65423100	-4.53595400
H	0.97644400	-5.64665700	-2.42968300
H	1.13190400	-4.31716000	-0.37224100
H	3.95165900	-3.93896000	0.40973700
H	4.38134000	-5.19883100	2.47355900
H	1.40524500	-2.88107900	4.50798500

H	0.98312700	-1.60989600	2.45139000
H	2.14155500	-4.47951100	-5.78601700
H	2.82659200	-5.84156300	-4.89791700
H	1.07733200	-5.63215000	-4.96195100
H	4.21709000	-5.18670100	5.02159700
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H	-2.79229900	5.90254100	4.81771500
H	-4.25891400	5.05924300	-5.12749900
H	-2.69370500	5.84852000	-4.94545700
H	-2.81307800	4.34134100	-5.85725400
H	8.83326800	3.49436300	-0.48578300
H	7.24036500	-1.01579500	0.69813500
H	-8.83353800	-3.49327700	-0.42985000
H	-7.23620000	1.02455400	0.71771100
H	5.67016200	5.01523700	-1.12592400
H	7.09756300	4.92775400	-0.05947300
H	7.23820700	4.48218600	-1.78824100
H	10.36539700	-2.50240800	1.46682700
H	8.79827400	-1.91115700	2.08102000
H	8.94549400	-2.47919000	0.38787000
H	-5.67577100	-5.00730200	-1.11243300
H	-7.09228500	-4.92522600	-0.03105200
H	-7.25115700	-4.47391300	-1.75681000
H	-10.35574500	2.51235000	1.50464100
H	-8.78107300	1.93011300	2.10751600
H	-8.94740000	2.48201800	0.41075900
H	10.91596800	3.00693400	0.22321200
H	-10.90725200	-3.00826700	0.30592400
H	15.82297800	2.49363000	1.59273700
H	17.44216600	0.59070500	1.83775900
H	16.78225200	-1.68238400	1.14188100
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H	-15.79038900	-2.50283900	1.76001100
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C	-1.03794900	-0.92915700	0.28177300
C	0.26080400	-1.40392200	0.26946400
C	-2.72890700	0.61337400	0.25067100
C	-3.36054200	-0.61440800	0.23090100
C	-2.34102900	-1.74172400	0.27164400
C	2.72895500	-0.61335800	0.25086400
C	3.36059300	0.61442800	0.23151800
C	2.34108000	1.74173500	0.27244300
C	-2.35985300	-2.62405500	-0.98127300
C	-2.56755700	-2.54404800	1.55982100
C	2.36008700	2.62441400	-0.98022700
C	2.56740900	2.54370000	1.56088100
C	1.78945800	3.90058500	-0.95665500
C	1.72552900	4.67518500	-2.10996400
C	2.23042500	4.20821500	-3.32646600
C	2.79435900	2.93022900	-3.34591900
C	2.85817700	2.15020600	-2.19560400
C	1.83777600	2.30808800	2.72598000
C	2.12578100	3.00009600	3.90067500
C	3.14930200	3.94655800	3.95437100
C	3.88429800	4.17381000	2.78549400
C	3.60046700	3.48765500	1.61204700
C	-1.78926500	-3.90024200	-0.95795500
C	-1.72516500	-4.67452900	-2.11147200
C	-2.22984100	-4.20721400	-3.32792400
C	-2.79373800	-2.92920000	-3.34712200
C	-2.85772600	-2.14949500	-2.19660900
C	-1.83807800	-2.30885700	2.72507000
C	-2.12633000	-3.00120200	3.89953900
C	-3.14994700	-3.94754400	3.95281700
C	-3.88475800	-4.17444500	2.78372300

C	-3.60069600	-3.48797800	1.61054700
C	-2.19391600	-5.05995900	-4.56449300
C	-3.44188200	-4.71552200	5.21073700
C	3.44059600	4.71441800	5.21251100
S	3.83875200	-1.91906500	0.24832100
C	5.19530800	-0.80384500	0.22995200
C	4.75822900	0.51575900	0.22413700
S	-3.83870600	1.91907700	0.24837300
C	-5.19526200	0.80386600	0.22953800
C	-4.75817400	-0.51573700	0.22339100
C	2.19466400	5.06134200	-4.56277600
C	-6.54775400	1.27167300	0.20023700
C	6.54780200	-1.27165100	0.20058600
C	-7.06130900	2.55188700	0.45376700
C	-8.47359500	2.58992700	0.32463400
C	-9.07864900	1.37838600	-0.01941200
S	-7.82146200	0.16881500	-0.20066900
C	7.06137500	-2.55184800	0.45414200
C	8.47365000	-2.58989400	0.32490200
C	9.07867500	-1.37837000	-0.01925300
S	7.82147000	-0.16881300	-0.20048900
C	-6.52218800	3.81947200	0.83506800
C	-7.49642200	4.76076300	0.97133900
S	-9.11619400	4.16639700	0.65387300
C	6.52227800	-3.81940800	0.83555700
C	7.49652000	-4.76069400	0.97179900
S	9.11626900	-4.16635000	0.65417500
C	-10.47689500	1.23495700	-0.18343200
C	10.47690900	-1.23495200	-0.18340000
C	-11.28206400	0.17820100	-0.50407700
C	11.28205500	-0.17822200	-0.50418700
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N	-12.03537000	-1.97942900	-1.05557000
C	-13.22332100	-1.32806200	-1.03012200
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C	10.89892800	1.19206800	-0.78508900
N	12.03531900	1.97935700	-1.05594000
C	13.22327000	1.32798800	-1.03053700
S	13.02826700	-0.35825700	-0.62649300
O	9.77229800	1.66078300	-0.79667200
O	-9.77232500	-1.66082300	-0.79655200
C	-14.49778600	-1.82897800	-1.27269500
C	14.49771500	1.82888400	-1.27325100
C	-11.83228400	-3.39489200	-1.37783000
C	-11.72144000	-3.63888900	-2.87340500
C	11.83221100	3.39478500	-1.37834000
C	11.72121900	3.63861700	-2.87393200
C	-7.36430800	6.17474800	1.34670100
O	-8.30894900	6.93274200	1.43994600
O	-6.09335600	6.51650600	1.56913300
C	-5.88628400	7.88244100	1.94206100
C	7.36443300	-6.17465900	1.34724600
O	8.30907900	-6.93265200	1.44045500
O	6.09349800	-6.51640100	1.56980200
C	5.88645300	-7.88231500	1.94282100
C	-14.81685100	-3.16273100	-1.62834700
N	-15.13958500	-4.24122000	-1.92769300
C	-15.59597200	-0.93477000	-1.17059600
N	-16.48772800	-0.19096100	-1.08356700
C	14.81675500	3.16261700	-1.62900200
N	15.13944700	4.24107900	-1.92849000
C	15.59590900	0.93468400	-1.17117200
N	16.48767500	0.19088900	-1.08413000
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H	0.46959800	-2.46938000	0.25205300
H	1.40022700	4.30022000	-0.02448100
H	1.27635900	5.66438900	-2.06193800
H	3.19185400	2.53556400	-4.27799200
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H	1.03503400	1.57743900	2.72500000
H	1.53901100	2.79658400	4.79331500
H	4.69255800	4.90129700	2.79469800
H	4.18385200	3.69574000	0.71919500
H	-1.40020500	-4.30014400	-0.02582400
H	-1.27603600	-5.66376100	-2.06364600
H	-3.19106200	-2.53426300	-4.27915300
H	-3.29857200	-1.15827600	-2.24994000
H	-1.03524700	-1.57830500	2.72442900
H	-1.53964600	-2.79803900	4.79231400
H	-4.69303400	-4.90192100	2.79256600

H	-4.18391500	-3.69578900	0.71752300
H	-1.35475300	-5.76067800	-4.54228600
H	-3.11129000	-5.65303200	-4.65943400
H	-2.10739900	-4.44972100	-5.46784000
H	-3.00190100	-5.71892000	5.17025600
H	-3.03170800	-4.21220800	6.09010100
H	-4.51834800	-4.84199300	5.35983600
H	3.03584800	4.20757300	6.09237600
H	4.51672400	4.84690300	5.35861400
H	2.99461000	5.71528100	5.17475600
H	5.44008800	1.35897000	0.23361400
H	-5.44002400	-1.35896000	0.23253800
H	3.11102400	5.65622900	-4.65615000
H	2.11060100	4.45128200	-5.46646800
H	1.35413700	5.76046500	-4.54151500
H	-5.47771600	4.04174100	1.01105900
H	5.47781800	-4.04164900	1.01165600
H	-11.00371200	2.17384200	-0.01419800
H	11.00373800	-2.17382800	-0.01415100
H	-10.90237300	-3.66750500	-0.87545800
H	-12.64062100	-3.97052300	-0.92711200
H	-11.54730500	-4.70330600	-3.05183500
H	-12.63557800	-3.35460500	-3.40016900
H	-10.88211200	-3.07846300	-3.29300500
H	10.90235000	3.66745600	-0.87590900
H	12.64059400	3.97046400	-0.92776200
H	11.54708000	4.70301700	-3.05246300
H	12.63529800	3.35426300	-3.40076000
H	10.88184000	3.07815700	-3.29338500
H	-4.81216300	7.98785300	2.08434100
H	-6.23513400	8.55101100	1.15212600
H	-6.41918800	8.11036800	2.86767700
H	4.81235400	-7.98769200	2.08529200
H	6.23514400	-8.55092600	1.15285000
H	6.41951300	-8.11022300	2.86835200

## DC-IDT2T

0 1			
C	1.28809700	0.48474300	0.00952000
C	1.05284800	-0.91126900	0.04064300
C	0.23798700	1.40750600	-0.02671300
C	-1.05283500	0.91128700	-0.04030600
C	-1.28808300	-0.48472500	-0.00919700
C	-0.23797200	-1.40748900	0.02703600
C	-2.36947600	1.70177900	-0.06445200
C	-3.37047400	0.55830300	-0.02570100
C	-2.71890200	-0.65899700	-0.01294900
C	-4.76754000	0.43530100	-0.03772700
C	-5.17881800	-0.89006100	-0.02759400
S	-3.80522400	-1.98439400	-0.01250800
C	2.36948900	-1.70176000	0.06486500
C	3.37048800	-0.55828400	0.02613400
C	2.71891700	0.65901500	0.01331100
C	4.76755300	-0.43528600	0.03830100
C	5.17883500	0.89007300	0.02818800
S	3.80524300	1.98441300	0.01292600
C	2.42253600	-2.59978700	-1.17594600
C	2.58674800	-2.48414300	1.36664200
C	-2.42246200	2.59977000	1.17638800
C	-2.58680000	2.48419900	-1.36619500
C	1.85768600	-3.87862800	-1.14856900
C	1.82310100	-4.66840800	-2.29247500
C	2.35325400	-4.21494400	-3.50348100
C	2.91247100	-2.93522300	-3.52678300
C	2.94671500	-2.13975100	-2.38559300
C	3.62413600	-3.42111100	1.44349200
C	3.89784000	4.08849800	2.63031800
C	3.14806000	-3.84832500	3.78679500
C	2.12096100	-2.90730800	3.70772800
C	1.84304800	-2.23427500	2.52003800
C	-1.85767100	3.87863400	1.14900500
C	-1.82302600	4.66838000	2.29293800
C	-2.35305800	4.21485300	3.50396900
C	-2.91221800	2.93510500	3.52727600
C	-2.94652300	2.13967000	2.38606500
C	-3.62422400	3.42114300	-1.44297100
C	-3.89799000	4.08856500	-2.62975400

C	-3.14824200	3.84845700	-3.78627500
C	-2.12111100	2.90748000	-3.70727900
C	-1.84313200	2.23440500	-2.51962000
C	2.34834600	-5.08458900	-4.72878300
C	3.42652600	-4.59726700	5.05921000
C	-2.34808600	5.08444800	4.72930800
C	-3.42683200	4.59741900	-5.05864900
C	6.51530700	1.40788500	0.02785600
C	-6.51528700	-1.40787700	-0.02712700
S	-7.88252700	-0.34218900	0.01901600
C	-9.00041200	-1.68971900	-0.00716300
C	-8.28731600	-2.89480000	-0.04855800
C	-6.90657700	-2.74535000	-0.05969700
S	7.88252200	0.34221700	-0.01946400
C	9.00043200	1.68970600	0.00770100
C	8.28736100	2.89476300	0.05019900
C	6.90662100	2.74532300	0.06146400
C	-10.41322600	-1.69931300	0.01255200
C	10.41324500	1.69928800	-0.01220900
C	-11.37374000	-0.71322200	0.05112200
C	11.37373300	0.71320600	-0.05161500
C	-12.81773800	-0.90638800	0.06871300
C	-13.44325600	0.43568800	0.09187000
C	-12.43039300	1.40626400	0.09645900
C	-11.11469700	0.73840800	0.07381600
C	12.81773300	0.90635500	-0.06921500
C	13.44322200	-0.43571600	-0.09337400
C	12.43033800	-1.40626800	-0.09856500
C	11.11465900	-0.73840200	-0.07535300
C	-14.77689500	0.84571100	0.10876100
C	-15.05187700	2.21330100	0.12989900
C	-14.03161300	3.16677600	0.13494900
C	-12.69795000	2.76450500	0.11805900
C	14.77685100	-0.84575700	-0.11062500
C	15.05180300	-2.21333800	-0.13270400
C	14.03151800	-3.16678800	-0.13834000
C	12.69786500	-2.76450000	-0.12110200
O	-10.02792800	1.29818100	0.07310400
O	10.02787900	-1.29815500	-0.07498500
C	13.52172700	2.09535000	-0.06986300
C	-13.52170700	-2.09539700	0.070114400
C	14.94382800	2.16921300	-0.08869900
N	16.10104600	2.29146100	-0.10345400
C	12.92163400	3.38670600	-0.05552300
N	12.48111600	4.46422200	-0.04499900
C	-14.94380900	-2.16927800	0.08883300
N	-16.10102600	-2.29154200	0.10351800
C	-12.92158400	-3.38675000	0.05681900
N	-12.48103800	-4.46426300	0.04713900
H	0.42989100	2.47620800	-0.04201800
H	-0.42987800	-2.47619000	0.04235800
H	-5.46412000	1.26624000	-0.05784200
H	5.46412900	-1.26622500	0.05858600
H	1.44975800	-4.26778500	-0.21995800
H	1.37722200	-5.65897300	-2.24160100
H	3.33021300	-2.55136500	-4.45453900
H	3.38569500	-1.14786900	-2.44170200
H	4.21966900	-3.63813900	0.56084800
H	4.71016800	-4.81089800	2.65974500
H	1.52365900	-2.69279500	4.59076300
H	1.03814100	-1.50637800	2.49931000
H	-1.44983700	4.26784000	0.22037300
H	-1.37719500	5.65896600	2.24205700
H	-3.32986800	2.55120000	4.45505400
H	-3.38545300	1.14776700	2.44217500
H	-4.21972600	3.63812000	-0.56029300
H	-4.71033800	4.81094500	-2.65912500
H	-1.52382600	2.69302700	-4.59034000
H	-1.03819500	1.50653900	-2.49895000
H	1.50134000	-5.77624000	-4.72415100
H	2.29732700	-4.48642600	-5.64282200
H	3.26171100	-5.68865000	-4.78561100
H	4.49925400	-4.75839200	5.20063000
H	3.04353000	-4.05987700	5.93077600
H	2.95009900	-5.58473600	5.04671500
H	-1.50133500	5.77640800	4.72444300
H	-3.26165900	5.68816500	4.78645200
H	-2.29656300	4.48626200	5.64330500
H	-4.49965600	4.75750900	-5.20054800
H	-2.95141300	5.58536700	-5.04569200

H	-3.04289400	4.06060700	-5.93015400
H	-8.79503100	-3.85324500	-0.07065200
H	-6.20746900	-3.57312300	-0.09397100
H	8.79509400	3.85318200	0.07304000
H	6.20752800	3.57307200	0.09664700
H	-10.77996900	-2.72094900	-0.00836600
H	10.78001100	2.72090000	0.00941700
H	-15.59796000	0.14107900	0.10530400
H	-16.08711900	2.53993400	0.14262300
H	-14.28228200	4.22283200	0.15181300
H	-11.88227100	3.48073000	0.12116200
H	15.59793300	-0.14114500	-0.10674000
H	16.08703700	-2.53998500	-0.14570600
H	14.28216300	-4.22283800	-0.15592800
H	11.88217000	-3.48070400	-0.12464000

## BZIC

0 1			
C	1.22606400	1.27659200	-0.25496400
C	0.85743700	-0.09873200	-0.20173100
C	-0.52077100	-0.46456000	-0.22948200
C	-1.52322300	0.54130900	-0.09777700
C	-1.14032000	1.90975200	-0.07575100
C	0.21473200	2.27396600	-0.20502600
N	-1.13608700	-1.69835300	-0.37124500
C	-2.49357000	-1.49539100	-0.28842600
C	-2.75404900	-0.13036900	-0.10806100
C	2.62882400	1.30493800	-0.27486200
C	3.08213200	-0.01965000	-0.18992700
N	2.00563400	-0.87479800	-0.13712400
N	-1.87393300	3.02714700	0.00681800
N	-0.96437300	3.98378000	-0.06675800
N	0.29706400	3.61072500	-0.19892500
C	-1.34070700	5.37966200	-0.07679200
C	-0.57884000	-2.92833400	-0.90370900
C	2.14184800	-2.22438900	0.38575400
C	-3.64127700	-2.28294400	-0.39994100
C	-4.79861900	-1.51618100	-0.25626400
S	-4.43720200	0.19622800	-0.03282100
S	3.93107800	2.41529000	-0.30533200
C	5.09801300	1.08948300	-0.17569900
C	4.46958600	-0.15484200	-0.12906400
C	-6.10096100	-2.04893300	-0.42409300
C	6.46743400	1.43280000	-0.25613500
C	-7.36106400	-1.53525100	-0.26456600
C	7.63502200	0.71982300	-0.12527700
C	-8.46530300	-2.16405600	-1.04678000
C	-9.56621800	-1.17501800	-1.05362900
C	-9.21641900	-0.08226400	-0.24112600
C	-7.91528200	-0.37166800	0.39797700
C	-10.76754700	-1.22718300	-1.74086900
C	-11.63563100	-0.14331000	-1.62455800
C	-11.29045800	0.95543200	-0.83385200
C	-10.08759200	0.99963500	-0.12839800
C	8.85185400	1.33042500	-0.74095400
C	9.85249900	0.24715300	-0.83161700
C	9.33583100	-0.91066200	-0.22694800
C	8.01379400	-0.59027900	0.35906600
C	11.10340600	0.27781100	-1.42451100
C	11.85438000	-0.89606000	-1.42783400
C	11.34444400	-2.05910700	-0.84663300
C	10.09010600	-2.08308300	-0.23567500
C	-7.46024400	0.19306100	1.57155600
C	7.39562000	-1.32807500	1.35089900
O	-8.43820400	-3.24263400	-1.61143300
O	8.97034800	2.47700200	-1.13321600
C	-6.42891700	-0.40401800	2.35089300
N	-5.63457700	-0.90420500	3.03791400
C	-8.08409600	1.31604900	2.18532900
N	-8.56368800	2.24072600	2.70354300
C	6.32223300	-0.82447800	2.13411800
N	5.45921800	-0.43848700	2.81272200
C	7.85702200	-2.60670600	1.77610300
N	8.18854400	-3.66060200	2.14126500
H	-2.25024800	5.49237800	0.51096800
H	-0.52851500	5.95632900	0.36300300
H	-1.51883900	5.71521900	-1.10159900

H	-0.34461000	-3.64907700	-0.11622100
H	-1.30843800	-3.37563400	-1.58162500
H	0.31837400	-2.70877900	-1.48147700
H	2.99677100	-2.24799500	1.06459400
H	1.25610600	-2.48781600	0.96233200
H	2.29883400	-2.95933200	-0.40755000
H	-3.67355100	-3.35324100	-0.56634700
H	5.00977000	-1.09194300	-0.10752500
H	-6.10936800	-3.03680900	-0.88896400
H	6.66565700	2.45584600	-0.58472600
H	-11.01071400	-2.09187700	-2.35031600
H	-12.58391100	-0.14726000	-2.15282100
H	-11.97258000	1.79711000	-0.76425300
H	-9.84788200	1.86770500	0.47322900
H	11.47266200	1.19519600	-1.87201200
H	12.83775500	-0.91117700	-1.88714400
H	11.93594100	-2.96918200	-0.86812800
H	9.72596400	-3.00393900	0.20215400

## ITOIC

0 1			
C	-1.01900500	-0.94599700	0.03285000
C	-1.30505600	0.44072100	0.05837200
C	-0.28747400	1.39998400	0.08705200
C	1.02046100	0.95046200	0.09744100
C	1.30645300	-0.43618300	0.06873700
C	0.28893200	-1.39547100	0.04182400
C	-2.30655800	-1.78315100	0.01924900
C	2.30815400	1.78742500	0.11336600
C	-2.74181300	0.56631600	0.05863800
C	-3.34671100	-0.67513600	0.05452400
C	-4.74550700	-0.60209400	0.04504000
C	-5.20610500	0.70889400	0.04900800
S	-3.87158300	1.85601700	0.04852500
C	2.74311400	-0.56181000	0.06272900
C	3.34820700	0.67949800	0.07013700
C	4.74706000	0.60615000	0.06813300
C	5.20725400	-0.70491200	0.05322300
S	3.87245200	-1.85168600	0.04689800
C	-2.32352800	-2.67361700	1.26647900
C	-2.50147200	-2.58228700	-1.27567300
C	2.32398100	2.68440500	-1.12922500
C	-1.71827500	-3.93398100	1.24585000
C	-1.65509900	-4.71467200	2.39485600
C	-2.19523900	-4.27014600	3.60470500
C	-2.79387600	-3.00823100	3.62171700
C	-2.85729400	-2.22224100	2.47526600
C	-3.50867100	-3.55247000	-1.34260600
C	-3.76537600	-4.23612000	-2.52390400
C	-3.02749700	-3.98024200	-3.68473200
C	-2.03005800	-3.00719600	-3.61541400
C	-1.76967000	-2.31745500	-2.43324600
C	1.72418600	3.94715500	-1.10011900
C	1.65921200	4.73332000	-2.24533000
C	2.19206900	4.29199000	-3.45952500
C	2.78528600	3.02762700	-3.48491600
C	2.85038100	2.23612600	-2.34244100
C	-2.16026800	-5.13150000	4.83541000
C	-3.28746300	-4.74553500	-4.95136700
C	2.15476400	5.15879100	-4.68630800
C	3.29615400	4.72228900	5.09911000
C	3.51539600	3.54571100	1.48486500
C	3.77358600	4.22286000	2.66951700
C	3.03403400	3.96401000	3.82869000
C	2.03324900	2.99488300	3.75397700
C	1.77126400	2.31171200	2.56824800
C	2.50488000	2.57927300	1.41248400
C	-9.07447000	1.26805100	0.05572100
C	-8.44032000	2.52585600	0.06962700
C	-7.03654400	2.45277300	0.07909100
C	-6.56906800	1.14243400	0.04874800
S	-7.87253600	-0.00630500	0.04447300
C	-10.47665900	1.19533500	-0.01271000
C	-11.37140000	0.14542100	-0.03770400
C	-11.02569100	-1.27804500	0.11044100
C	-12.29932300	-2.02400500	0.15018600
C	-13.36705100	-1.12422100	0.01386600

C	-12.81797800	0.24323900	-0.141113700
O	-9.90766800	-1.76624200	0.20140700
C	-13.58126000	1.37070800	-0.38153200
C	-12.48678700	-3.38674100	0.30366200
C	-13.79448500	-3.86772600	0.32621700
C	-14.86830600	-2.98498200	0.19658600
C	-14.67373800	-1.61212100	0.03802500
C	9.07485800	-1.26823800	0.00518600
C	8.43963400	-2.52506200	0.04252700
C	7.03623900	-2.45000700	0.07103300
C	6.56983600	-1.13942900	0.03593000
S	7.87427900	0.00753400	-0.00108200
O	6.19894400	-3.51873600	0.10923800
C	10.47559700	-1.19808900	-0.08973900
C	11.37084200	-0.14969000	-0.14385300
C	11.03023700	1.27573800	-0.00270300
C	12.30575000	2.01962400	0.00668200
C	13.36914500	1.11663200	-0.14191600
C	12.81479500	-0.25087500	-0.27566200
O	9.91488600	1.76684800	0.10389600
C	13.57082500	-1.38122400	-0.52528500
C	12.49861300	3.38331300	0.14434700
C	13.80738800	3.86186600	0.13784000
C	14.87698900	2.97587400	-0.00394900
C	14.67694000	1.60204600	-0.14655800
O	-9.15632400	3.66348600	0.11423700
O	-6.19976100	3.52239900	0.09531400
O	9.15522500	-3.66266300	0.09043500
C	-8.92280600	4.59447900	-0.95274800
C	-6.24418200	4.28564400	1.30788500
C	6.25074500	-4.26213800	1.33404700
C	8.90299200	-4.60911200	-0.95839800
C	-13.04567400	2.67129500	-0.60444100
N	-12.66496700	3.75349600	-0.80277300
C	-15.00264500	1.35535400	-0.46198600
N	-16.16334800	1.40111400	-0.53586800
C	14.99025600	-1.36915200	-0.63514000
N	16.14908300	-1.41752300	-0.73293600
C	13.02803300	-2.68158400	-0.73151200
N	12.64126300	-3.76374700	-0.91796600
H	-0.51739500	2.46129100	0.09852200
H	0.51900200	-2.45672300	0.02877900
H	-5.41128200	-1.45821800	0.03393500
H	5.41323600	1.46195200	0.07941700
H	-1.30134400	-4.31632000	0.31839500
H	-1.17873400	-5.69122100	2.34887000
H	-3.22023700	-2.63144200	4.54848500
H	-3.32754300	-1.24450300	2.52564200
H	-4.09391900	-3.78215700	-0.45627300
H	-4.55483300	-4.98375800	-2.54558200
H	-1.44270000	-2.77999900	-4.50196000
H	-0.98816500	-1.56432200	-2.42015700
H	1.31262700	4.32688700	-0.16920800
H	1.18677800	5.71145000	-2.19295300
H	3.20556900	2.65301900	-4.41531900
H	3.31563100	1.25637700	-2.39972200
H	-3.05604100	-5.76057800	4.90036700
H	-1.29422500	-5.79920600	4.83125300
H	-2.12202400	-4.52638500	5.74551100
H	-4.35627600	-4.93086100	-5.09315600
H	-2.91479900	-4.20706000	-5.82671900
H	-2.79006900	-5.72246700	-4.93019000
H	3.05158200	5.78636700	-4.75154400
H	2.11220000	4.55765600	-5.59883200
H	1.29001100	5.82810100	-4.67635100
H	4.36619600	4.89612700	5.24626600
H	2.80913500	5.70444500	5.07906200
H	2.91416600	4.18469800	5.97097600
H	4.10199700	3.77776200	0.60004500
H	4.56557000	4.96768700	2.69521400
H	1.44441300	2.76560200	4.63904100
H	0.98691100	1.56161800	2.55079900
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H	-15.53408400	-0.96275700	-0.05742700
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H	11.64584300	4.04594300	0.25438700
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H	-7.24607600	4.69030800	1.47800300
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H	7.85498000	-4.91732700	-0.96922700
H	9.17328100	-4.17453600	-1.92509300
H	13.99966900	4.92490800	0.24448300
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H	-15.88244700	-3.37174300	0.21915800
H	-13.98263300	-4.93010600	0.44601200

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C	0.97433900	-2.74972700	-0.19761200
C	2.45062700	-2.37845500	-0.16266700
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C	-0.49248600	3.47166400	1.06619700
C	-0.69623000	3.53388200	-1.48856700
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C	-1.00829200	4.89735900	-1.55805800
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C	-0.32467200	4.99964800	-3.88769600
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C	0.10219400	-5.78755600	-5.14739900
C	-1.02021400	-5.29406500	4.69961100
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C	4.77787300	2.18849400	-0.20654100
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S	4.25017900	-0.51981400	-0.22859600
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S	-7.40663100	1.36648600	0.04435900
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C	11.59526900	1.07155500	0.14079500
C	10.62979500	0.07934300	0.65911400
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C	9.31069700	-0.88145600	2.49256200
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H	1.07369200	-6.67119200	-2.75549900
H	-0.35716000	-3.12943000	-4.69845700
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C -3.18521700  3.81820400  3.75674100
C -2.15427100  2.88123600  3.67990300
C -1.86676500  2.21419300  2.49109200
C  1.86780200 -3.87770800  1.11335300
C  1.83206000 -4.67318900  2.25324900
C  2.35688700 -4.22396700  3.46816300
C  2.91184100 -2.94259100  3.49945200
C  2.94721200 -2.14148200  2.36223400
C -2.34683300  5.09449700 -4.74770900
C -3.47418300  4.56069700  5.03062100
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C  3.47103800 -4.55928700 -5.09162100
C  3.64475400 -3.40147400 -1.46877600
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C  3.18255100 -3.81826900 -3.81676300
C  2.15156400 -2.88154200 -3.73808400
C  1.86497300 -2.21571900 -2.54829000
C  2.60355900 -2.46859200 -1.39227600
C -9.01311700 -1.63761000 -0.07496000
C -8.32590000 -2.86810200 -0.10557000
C -6.92713400 -2.73570400 -0.10322500
C -6.51577200 -1.40666900 -0.04848300
S -7.86627500 -0.31392800 -0.03157300
C -10.41621100 -1.62726100 -0.02227800
C -11.35819800 -0.61861600  0.01815700
C -11.07409200  0.82148500 -0.07244700
C -12.38028200  1.51127400 -0.08241400
C -13.40603900  0.56151000  0.01057600
C -12.79880200 -0.78621300  0.09992300
O -9.98177200  1.36651000 -0.14092200
C -13.51828000 -1.95526700  0.26292600
C -12.61783200  2.87285000 -0.17249800
C -13.93927400  3.28250400 -0.17027900
C -14.97583100  2.34791700 -0.08035800
C -14.73535200  0.98636100  0.01223800
C  9.01308500  1.63761100 -0.01529100
C  8.32519500  2.86748900 -0.05745600
C  6.92662500  2.73370800 -0.07008900
C  6.51589700  1.40433900 -0.02037500
S  7.86691000  0.31292700  0.01797200
O  6.04484300  3.76572800 -0.11105000
C  10.41540800  1.62892000  0.05428700
C  11.35804100  0.62167600  0.11161400
C  11.07638400 -0.81941700  0.02993200
C  12.38324200 -1.50794600  0.04137100

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C	13.40690300	-0.55632500	0.13832500
C	12.79741700	0.79152200	0.20861600
O	9.98538500	-1.36614100	-0.04565500
C	13.51407100	1.96268600	0.36902800
C	12.62317400	-2.87001600	-0.03380700
C	13.94488100	-3.27824100	-0.01209700
C	14.97939200	-2.34180600	0.08200700
C	14.73649400	-0.97974500	0.15974100
F	-14.25744900	4.57096300	-0.25471900
F	-16.22679300	2.80187100	-0.08582500
F	14.26524600	-4.56707500	-0.08129400
F	16.23077000	-2.79443500	0.09560500
O	-8.99457900	-4.03203800	-0.17590100
O	-6.04531600	-3.76794900	-0.13235200
O	8.99409000	4.03117000	-0.12585700
C	-8.72619500	-4.97777100	0.86994700
C	-6.04811500	-4.51000800	-1.35911300
C	6.04957700	4.49347500	-1.34665100
C	8.71006900	4.98584500	0.90741200
C	-12.93415600	-3.24563600	0.409113300
N	-12.51239200	-4.32260700	0.54109400
C	-14.93989200	-1.99589600	0.32384400
N	-16.09969300	-2.07789100	0.37714900
C	14.93483600	2.00517000	0.44616000
N	16.09382800	2.08899600	0.51265000
C	12.92748400	3.25395500	0.49613200
N	12.50359200	4.33183700	0.61302400
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H	0.41992200	2.47566000	0.02935600
H	-5.46599200	1.23956800	0.00276100
H	5.46684300	-1.24256700	-0.06537400
H	-1.46281600	4.25978700	-0.23916300
H	-1.38708200	5.66057200	-2.25410000
H	-3.32073000	2.55665800	-4.48900000
H	-3.37971300	1.14395800	-2.48220900
H	-4.23668700	3.61758900	0.52358200
H	-4.74399500	4.77985100	2.62428200
H	-1.56151900	2.66513400	4.56562000
H	-1.05916200	1.48924000	2.47213100
H	1.46393300	-4.26358600	0.18159000
H	1.38942100	-5.66488100	2.19618800
H	3.32522800	-2.56184400	4.43044900
H	3.38270400	-1.14844500	2.42438300
H	-3.26256800	5.69485600	4.80557100
H	-1.50294900	5.78989600	-4.73633200
H	-2.28941600	4.50093300	-5.66438800
H	-4.54855400	4.71450000	5.16780500
H	-3.091175800	4.02250100	5.90194300
H	-3.00407500	5.55124800	5.02397500
H	3.26490100	-5.70275900	4.74487400
H	2.29723500	-4.50597100	5.60603100
H	1.50477500	-5.79235800	4.67960900
H	4.54591500	-4.70494200	-5.23383700
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H	3.08046500	-4.02452100	-5.96143100
H	4.23653700	-3.62085600	-0.58419200
H	4.74225100	-4.78099000	-2.68640900
H	1.55807000	-2.66466300	-4.62315000
H	1.05721500	-1.49095300	-2.52773900
H	-10.79112100	-2.64728100	-0.02283400
H	-11.80848700	3.59160000	-0.24240400
H	-15.58517800	0.31959400	0.07823100
H	10.78918000	2.64935600	0.05337900
H	11.81540900	-3.59020400	-0.10712800
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H	-9.33441000	-5.85150700	0.64040400
H	-7.66783800	-5.24691000	0.89782200
H	-9.02941500	-4.56137900	1.83484600
H	-7.02946800	-4.95681500	-1.54295700
H	-5.77472500	-3.86300300	-2.19835700
H	-5.30076900	-5.29439500	-1.23990100
H	7.03163500	4.93749300	-1.53380900
H	5.77702600	3.83674000	-2.17847500
H	5.30254900	5.27966800	-1.23773500
H	9.32235900	5.85720300	0.67972000
H	7.65166000	5.25572500	0.91672600
H	8.99825900	4.57779000	1.88048300

## IEICO

0 1

C	1.12281500	0.82504000	-0.01410400
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C	-1.12278400	-0.82499800	0.01454600
C	-1.24601600	0.58448100	-0.05519400
C	-0.12413300	1.42038000	-0.06616600
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C	-2.49852100	-1.50837700	-0.00560400
C	2.65629600	-0.87355500	0.11048400
C	3.40229900	0.28943400	0.09818000
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C	5.08663800	-1.30158800	0.19578100
S	3.62651500	-2.28441200	0.18319200
C	-2.65627200	0.87359200	-0.11001900
C	-3.40226600	-0.28939900	-0.09775000
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C	-5.08662100	1.30160500	-0.19531700
S	-3.62651100	2.28444600	-0.18266600
C	2.57415800	2.41511900	1.23979200
C	2.83006400	2.25744300	-1.29051800
C	-2.57408700	-2.41501300	-1.23945800
C	2.08611000	3.72475200	1.18459200
C	2.07190300	4.52983600	2.31780700
C	2.54776200	4.06201300	3.54614400
C	3.03072600	2.75281300	3.59708200
C	3.04345900	1.94149700	2.46625300
C	3.93417800	3.11778900	-1.32641000
C	4.30942600	3.75065900	-2.50417500
C	3.59838700	3.55126800	-3.69256300
C	2.50452000	2.68612500	-3.65415000
C	2.12480100	2.04757800	-2.47537800
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C	-3.04332900	-1.94127600	-2.46592700
C	2.56665100	4.94706400	4.76029200
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C	-3.59846400	-3.55146700	3.69278700
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C	-2.12479700	-2.04775700	2.47571300
C	-2.83005700	-2.25747600	1.29085700
C	8.85938700	-2.30609300	0.27817100
C	8.10241500	-3.47651900	0.34373600
C	6.72416400	-3.24558200	0.34337600
C	6.38754300	-1.88632900	0.24483100
S	7.81671400	-0.91492400	0.17378800
C	10.26527800	-2.29134700	0.14548500
C	11.20776300	-1.29252500	0.09036400
C	12.48910400	-1.59973500	-0.60660600
C	13.10747200	-0.28944300	-0.91116400
C	12.327763400	0.73418600	-0.34578000
C	11.22924300	0.11326500	0.42656500
O	12.90995900	-2.70153300	-0.91179100
C	10.54169800	0.72169700	1.45976300
C	14.25054800	-0.02427900	-1.64623800
C	14.61204500	1.30846600	1.83689200
C	13.83471700	2.33415000	-1.29479700
C	12.69265300	2.06484300	-0.53902300
C	-8.85937500	2.30605300	-0.27809600
C	-8.10242800	3.47650700	-0.34334500
C	-6.72416300	3.24559800	-0.34279300
C	-6.38753100	1.88633900	-0.24445000
S	-7.81669900	0.91489400	-0.17382200
C	-10.26529300	2.29126500	-0.14561800
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C	-12.32767200	-0.73435000	0.34496100
C	-11.22919200	-0.11332500	-0.42716100
O	-12.91019000	2.70129200	0.91123100
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N	10.66924300	3.25080000	1.98656200
C	-10.63070900	-2.11393100	-1.74095400
N	-10.66892100	-3.25064800	-1.98746000
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N	-9.26980900	0.61117800	-3.27424200
H	0.23213100	-2.49995900	0.11265000
H	-0.23210400	2.50000100	-0.11220400
H	5.54252100	0.82765400	0.14182200
H	-5.54248200	-0.82764300	-0.14140100
H	1.72304100	4.12535600	0.24222000
H	1.68612800	5.54403700	2.24510300
H	3.40590200	2.35753500	4.53811600
H	3.42360400	0.927118300	2.54390300
H	4.50172000	3.30171000	-0.41817700
H	5.17118000	4.41411200	-2.50090900
H	1.93454000	2.50482100	-4.56231200
H	1.27024800	1.37830600	-2.48621600
H	-1.72306200	-4.12533300	-0.24198700
H	-1.68610200	-5.54386100	-2.24500300
H	-3.40568400	-2.35711700	-4.53782300
H	-3.42343500	-0.92694300	-2.54350600
H	3.50182800	5.51679200	4.81683700
H	1.74663100	5.67040100	4.74001100
H	2.48584700	4.36314700	5.68131000
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H	3.57262800	3.77032200	-5.83834300
H	3.62259500	5.29779400	-4.95440700
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H	-2.47964900	-4.362992200	-5.68090800
H	-1.75019200	-5.67389900	-4.73717300
H	-5.07632900	-4.30143200	5.07395000
H	-3.62999400	-5.30028900	4.95133500
H	-3.56693000	-3.77480900	5.83803400
H	-4.50172400	-3.30166300	0.41839700
H	-5.17124100	-4.41422700	2.50098800
H	-1.93455500	-2.50525600	4.56261800
H	-1.27018200	-1.37856500	2.48661700
H	8.56467500	-4.45477400	0.39231200
H	10.68743700	-3.27261000	-0.08019700
H	14.83627200	-0.84003500	-2.05828800
H	12.11043900	2.88334700	-0.13401600
H	-8.56469300	4.45476300	-0.39182300
H	-10.68750200	3.27249500	0.08011900
H	-14.83659800	0.83961500	2.05727800
H	-12.11041500	-2.88348100	0.13294700
O	5.73921900	-4.15623500	0.41264900
O	-5.73923400	4.15630200	-0.41170500
C	6.12352200	-5.52061800	0.49817300
C	-6.12359400	5.52065100	-0.49748600
H	5.19761900	-6.09185100	0.55012900
H	6.69161100	-5.82374500	-0.38802500
H	6.71790600	-5.70336300	1.39988800
H	-6.69201900	5.82382300	0.38848200
H	-5.19770900	6.09194200	-0.54914700
H	-6.71767300	5.70327500	-1.39942700
H	14.12301500	3.36726600	-1.46268700
H	15.49904700	1.55409000	-2.41249100
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H	-15.49937200	-1.55457000	2.41110300

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C	1.41940100	-0.31831100	-0.11217900
C	0.61461900	0.82423800	-0.16332200
C	-0.75625200	0.64455900	-0.14023700
C	-1.30891400	-0.65697400	-0.05986600
C	-0.50415900	-1.79971200	-0.01214400
C	0.86677700	-1.62001600	-0.03430100
C	-1.85258600	1.72012200	-0.16544000
C	-3.09089000	0.84322500	-0.07211600

C	-2.73989600	-0.49154100	-0.03245100
C	1.96338600	-2.69559800	-0.00595700
C	3.20269200	-1.81789700	-0.07796100
C	2.85043000	-0.48269500	-0.12603500
C	-4.47817300	1.05029800	-0.05832500
C	-5.18331300	-0.14476400	0.00559800
S	-4.10340600	-1.52721700	0.03960000
C	4.58833800	-2.02200500	-0.07910600
C	5.29499200	-0.82629500	-0.13341100
S	4.21243300	0.55434200	-0.16560400
C	1.78860400	-3.59998200	-1.23155600
C	2.01020800	-3.48652300	1.30725400
C	-1.66486000	2.63787000	1.04788700
C	-1.91371300	2.49848200	-1.48586500
C	0.92155400	-4.69634600	-1.18268800
C	0.68793200	-5.47241200	-2.31208100
C	1.31266600	-5.18797600	-3.52992700
C	2.17496000	-4.09054900	-3.57433000
C	2.40941000	-3.30820800	-2.44738600
C	2.78458700	-4.64992500	1.38520400
C	2.91456200	-5.34251600	2.58217600
C	2.27741600	-4.90268300	3.74720600
C	1.51373900	-3.73758100	3.66638000
C	1.38114200	-3.03850900	2.46898000
C	-0.79388600	3.73003500	0.97779500
C	-0.54855300	4.51997300	2.09484300
C	-1.16579400	4.25453800	3.32083700
C	-2.03246400	3.16176500	3.38625500
C	-2.27819400	2.36503400	2.27173300
C	-2.69465700	3.65741000	-1.56713100
C	-2.83771200	4.33909600	-2.76867000
C	-2.20690100	3.89302400	-3.93491300
C	-1.43576000	2.73327700	-3.85028100
C	-1.29049500	2.04449800	-2.64823700
C	1.08513100	-6.04986500	-4.73943000
C	2.39352100	-5.67327700	5.03175400
C	-2.33841000	4.65224000	-5.22471600
C	-0.92613800	5.13222200	4.51654000
C	-6.60269100	-0.31581300	0.05550700
C	6.71322300	-0.64785700	-0.15346700
S	-7.37271600	-1.80841900	-0.35637100
C	-8.98661200	-1.20990100	-0.06375100
C	-8.91070300	0.13138600	0.35691900
C	-7.57703100	0.61351700	0.41269900
S	7.78040900	-1.96225800	0.20825700
C	9.23105000	-1.01022900	0.01614400
C	8.87665600	0.30385800	-0.33992900
C	7.47175100	0.48958500	-0.42525600
C	9.59148200	1.47103300	-0.73494100
C	8.74630300	2.49113400	-1.06309800
S	7.05267500	2.09648800	-0.93413700
C	-9.83974900	1.09030100	0.85477300
C	-9.21755300	2.24497000	1.23285400
S	-7.48582500	2.23272700	1.02763200
C	10.47391100	-1.66366500	0.13252000
C	-10.05560900	-2.12077700	-0.17587900
C	11.75550200	-1.19365100	0.31296300
C	-11.41869800	-1.95274300	-0.27214500
C	12.87274500	-2.09444900	-0.09405900
C	14.09345900	-1.25994400	-0.08811800
C	13.77345600	0.02163600	0.39046700
C	12.34584900	0.03671800	0.78607100
C	-12.227174400	-3.11394600	0.11507600
C	-13.65055600	-2.59083800	0.22144800
C	-13.66425800	-1.24304400	-0.17509800
C	-12.30428500	-0.86905100	-0.62845000
C	15.37362600	-1.60084600	-0.49045800
C	16.362223700	-0.62014600	-0.42792500
C	16.05290300	0.66219700	0.02984400
C	14.76497600	0.99902500	0.44971900
C	-14.79170700	-3.24710200	0.65052000
C	-15.98237500	-2.52422500	0.70093700
C	-16.00552100	-1.17954300	0.32525800
C	-14.85696300	-0.52447600	-0.12226200
O	12.78295600	-3.26816200	-0.40761700
C	11.77033200	0.95872600	1.64144700
C	-12.00742800	0.21283100	-1.43736800
O	-11.88464000	-4.25058900	0.33819000
C	9.08484200	3.85567800	-1.50543800
O	8.24978300	4.69292600	-1.77814700

O	10.40233600	4.04551400	-1.56613100
C	10.81123300	5.35271600	-1.98337300
C	-9.82082400	3.47173800	1.78327800
O	-9.17391800	4.45194600	2.08888800
O	-11.14384500	3.36496200	1.90060000
C	-11.80513800	4.52204300	2.42384400
C	10.51148300	0.74286100	2.26672800
N	9.50698900	0.57355600	2.82907800
C	12.43759000	2.13651900	2.08157300
N	12.94596100	3.11628300	2.45029700
C	-10.77210100	0.33235500	-2.13155500
N	-9.79046300	0.43259900	-2.74817000
C	-12.95132000	1.22847700	-1.75921100
N	-13.69148500	2.08440800	-2.03098300
H	1.05300500	1.81634300	-0.21543000
H	-0.94239400	-2.79193200	0.04058000
H	-4.95943800	2.01865100	-0.13154100
H	5.07359300	-2.99154700	-0.05376400
H	0.43101600	-4.95425000	-0.24831200
H	0.00772200	-6.31820700	-2.24482300
H	2.67354500	-3.84022300	-4.50775100
H	3.08272700	-2.45922400	-2.52070300
H	3.28530400	-5.02355500	0.49612200
H	3.52291600	-6.24342700	2.61267300
H	1.01170700	-3.36479700	4.55596300
H	0.78283200	-2.13307700	2.44751600
H	-0.30979300	3.97380300	0.03625000
H	0.13449200	5.36198000	2.01123800
H	-2.52626000	2.92701500	4.32621900
H	-2.95524300	1.52057200	2.36125700
H	-3.19008500	4.03621000	-0.67726100
H	-3.45158700	5.23609800	-2.80178700
H	-0.93751400	2.35664200	-4.74038800
H	-0.68619000	1.14311800	-2.62377500
H	0.07539500	-6.46985900	-4.74595800
H	1.22698700	-5.48471100	-5.66467400
H	1.78733900	-6.89180400	-4.76029200
H	3.39046100	-6.10838800	5.14728300
H	2.19561600	-5.03681500	5.89829100
H	1.67403400	-6.50018800	5.06078200
H	-3.34686300	5.05804200	-5.34740400
H	-1.64296300	5.49938300	-5.25527100
H	-2.11854500	4.01644500	-6.08639700
H	0.08875800	5.53972100	4.51537500
H	-1.61786000	5.98298900	4.52462000
H	-1.07387500	4.58344900	5.45066700
H	10.66660800	1.56694400	-0.78838800
H	-10.90724400	0.94939000	0.94719300
H	10.452244500	-2.74429900	-0.02603300
H	-9.78114700	-3.17481100	-0.09152200
H	15.58524800	-2.60506600	-0.84417200
H	17.37659300	-0.84932800	-0.73917500
H	16.83084200	1.41879500	0.06204500
H	14.56089500	2.00395100	0.79757600
H	-14.74469900	-4.29280100	0.93804400
H	-16.89638300	-3.00410600	1.03653800
H	-16.93819100	-0.62663000	0.38028500
H	-14.91104400	0.51949200	-0.40460800
H	11.89950000	5.33598700	-1.97355100
H	10.43894400	5.56511800	-2.98776500
H	10.43310200	6.10766400	-1.29105200
H	-12.86245800	4.26550600	2.45545800
H	-11.43494100	4.75168700	3.42522300
H	-11.63898600	5.38191400	1.77162400

## IEICO4F

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C	1.22623900	-0.62576000	0.04596300
C	0.07870800	-1.42535900	0.00672100
C	-1.14799000	-0.78892300	-0.03517900
C	-1.22609800	0.62562000	-0.04598500
C	-0.07856600	1.42521700	-0.00675600
C	2.54364300	1.42697900	0.10146500
C	-2.54350300	-1.42712100	-0.10147900
C	2.62557700	-0.96162300	0.10916500
C	3.40728700	0.17731000	0.15961700

C	4.77681400	-0.10179100	0.21573700
C	5.03966200	-1.46890200	0.21138500
S	3.55044300	-2.40405400	0.13238400
C	-2.62543500	0.96148100	-0.10916500
C	-3.40714900	-0.17745300	-0.15959800
C	-4.77668100	0.10164900	-0.21553500
C	-5.03953500	1.46876200	-0.21107000
S	-3.55030300	2.40391100	-0.13215800
C	2.62863800	2.28485800	1.36900900
C	2.91966800	2.21129000	-1.16175800
C	-2.62851000	-2.28498900	-1.36902800
C	2.19609500	3.61478600	1.35308500
C	2.19070000	4.37771000	2.51525000
C	2.62013600	3.84550700	3.73441900
C	3.04670000	2.51584800	3.74603800
C	3.05046600	1.74674500	2.58612400
C	4.058333900	3.02576700	-1.15288200
C	4.47348200	3.68697900	-2.30148200
C	3.76931700	3.56294300	-3.50396600
C	2.63989600	2.74372500	-3.51009100
C	2.22021300	2.07697400	-2.36100700
C	-2.19591600	-3.61491000	-1.35312600
C	-2.19053300	-4.37782400	-2.51528600
C	-2.62002300	-3.84562100	-3.73444900
C	-3.04663200	-2.51598700	-3.74604500
C	-3.05039500	-1.74688700	-2.58611800
C	2.64902700	4.68402300	4.98097500
C	4.20240200	4.30701600	-4.73545300
C	-2.64888400	-4.68416700	-4.98098500
C	-4.20226200	-4.30721000	4.73541200
C	-4.05813900	-3.02599200	1.15286500
C	-4.47323700	-3.68723700	2.30144600
C	-3.76908000	-3.56315300	3.50394800
C	-2.63972400	-2.74387300	3.51007900
C	-2.22007000	-2.07708400	2.36098800
C	-2.91950200	-2.21144100	1.16174700
C	8.77716900	-2.59458700	0.30049000
C	7.98284900	-3.74268400	0.28515900
C	6.61353500	-3.46850900	0.27784100
C	6.32060200	-2.09480300	0.25254600
S	7.77986600	-1.16664100	0.26228000
C	10.18338000	-2.61517500	0.19161800
C	11.15490100	-1.64117900	0.22192500
C	12.43482400	-1.93059900	-0.48015800
C	13.09878500	-0.61957700	-0.66272200
C	12.34358200	0.37622900	-0.02410900
C	11.20958600	-0.26960200	0.67193700
O	12.83170300	-3.01245600	-0.87378300
C	10.51620600	0.27995300	1.73389300
C	14.26570300	-0.34206100	-1.35618600
C	14.66485100	0.98177800	-1.41500900
C	13.91403200	1.98527700	-0.79327100
C	12.75589900	1.70638000	-0.08455200
C	-8.77703200	2.59451900	-0.29988200
C	-7.98268200	3.74259600	-0.28382900
C	-6.61338200	3.46840200	-0.27661600
C	-6.32046800	2.09467200	-0.25210100
S	-7.77973800	1.16653300	-0.26255400
C	-10.18323200	2.61514100	-0.19102900
C	-11.15487600	1.64126700	-0.22171600
C	-12.43474300	1.93060900	0.48049200
C	-13.09892500	0.61962100	0.66251600
C	-12.34388400	-0.37605000	0.02351000
C	-11.20975600	0.26987800	-0.67223900
O	-12.83145000	3.01236300	0.87457700
C	-10.51638100	-0.27940000	-1.73434500
C	-14.26594900	0.34205500	1.35578500
C	-14.66537800	-0.98172400	1.41399800
C	-13.91472900	-1.98510200	0.79185000
C	-12.75649300	-1.70614300	0.08333200
C	9.74713700	-0.51424500	2.62915800
N	9.16062000	-1.14766800	3.40926100
C	10.64043900	1.64444100	2.11716700
N	10.71234600	2.76019200	2.44017600
C	-10.64066300	-1.64377400	-2.11802200
N	-10.71256400	-2.75943600	-2.44134100
C	-9.74725900	0.51501400	-2.62936600
N	-9.16068300	1.14860800	-3.40928500
H	0.15152900	-2.50886800	0.00727100
H	-0.15138200	2.50872700	-0.00730300

H	5.56109000	0.64599200	0.25929700
H	-5.56095700	-0.64614000	-0.25900300
H	1.86997000	4.06416300	0.41924000
H	1.84902200	5.40929200	2.47286200
H	3.38417600	2.07090400	4.67911800
H	3.38567100	0.71479000	2.63330500
H	4.62224700	3.15132900	-0.23246000
H	5.36202200	4.31296800	-2.26357500
H	2.07358700	2.62086200	-4.43028500
H	1.33883700	1.44502600	-2.40720200
H	-1.86974600	-4.06427700	-0.41929300
H	-1.84881900	-5.40939500	-2.47291700
H	-3.38415200	-2.07105000	-4.67911200
H	-3.38564000	-0.71494400	-2.63328500
H	3.60231200	5.21787400	5.07358300
H	1.85512900	5.43618800	4.97459500
H	2.53202500	4.06994100	5.87815400
H	5.29275200	4.35336600	-4.81110400
H	3.81637600	3.83570900	-5.64321100
H	3.83537800	5.34014200	-4.72046500
H	-3.60141300	-5.21953300	-5.07260700
H	-2.53374600	-4.06990300	-5.87827500
H	-1.85380500	-5.43509900	-4.97541600
H	-5.29262700	-4.35009000	4.81305000
H	-3.83869900	-5.34152500	4.71855000
H	-3.81304100	-3.83817200	5.64297100
H	-4.62202400	-3.15159100	0.23243500
H	-5.36172600	-4.31329900	2.26352500
H	-2.07341800	-2.62098700	4.43027100
H	-1.33872200	-1.44509800	2.40719200
H	8.41325800	-4.73644000	0.28392400
H	10.58108900	-3.59097000	-0.09384200
H	14.84650300	-1.12240900	-1.83600900
H	12.21808500	2.52541600	0.37634100
H	-8.41307700	4.73635700	-0.28199900
H	-10.58085500	3.59084700	0.09485100
H	-14.84659900	1.12233100	1.83590500
H	-12.21883000	-2.52509100	-0.37789400
O	5.59988400	-4.34896900	0.27929000
O	-5.59971700	4.34884700	-0.27752300
C	5.93946000	-5.72814400	0.28824700
C	-5.93928100	5.72803300	-0.28529200
H	4.99513600	-6.27076800	0.29350600
H	6.51115700	-5.99622600	-0.60686800
H	6.51373200	-5.98300900	1.18547200
H	-6.51085800	5.99537200	0.61012200
H	-4.99495300	6.27065000	-0.29023400
H	-6.51367300	5.98364900	-1.18222700
F	-15.76890300	-1.33556600	2.06658400
F	-14.34390400	-3.23988300	0.89638900
F	15.76826100	1.33554900	-2.06783200
F	14.34292400	3.24010200	-0.89840000

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C	-1.36819000	-0.51610300	-0.03340900
C	-0.30748400	-1.42707000	-0.01338200
C	0.97615700	-0.91387100	-0.03054100
C	1.19139400	0.48531000	-0.05119800
C	0.13066800	1.39636600	-0.06265600
C	2.30344200	-1.68473200	-0.00302300
C	3.28283000	-0.52551200	-0.00272500
C	2.61898100	0.68461500	-0.04587000
C	-2.48063600	1.65424000	-0.06055600
C	-3.45983900	0.49540200	-0.02130600
C	-2.79573800	-0.71529800	-0.02140400
C	-4.85340200	0.30954200	-0.02129200
C	-5.22074500	-1.05234800	-0.00991300
S	-3.82682400	-2.10417800	-0.01514000
S	-6.24257900	1.31435700	-0.01762700
C	-7.31854600	-0.09318700	0.00563100
C	-6.59407000	-1.28619800	0.00394400
C	4.67625500	-0.34028100	-0.01461500

C	5.04450000	1.02077100	-0.05533100
S	3.65076200	2.07227800	-0.09404600
S	6.06482600	-1.34552700	0.01717400
C	7.14172300	0.06082800	-0.02010400
C	6.41814900	1.25370100	-0.05945100
C	-2.72932600	2.44330400	-1.35496300
C	-2.53005400	2.53439900	1.19414200
C	2.35044900	-2.52649500	1.27789000
C	2.55430500	-2.51333600	-1.27203800
C	-8.70460300	0.19983800	0.00376000
C	8.52730900	-0.23365300	-0.02861800
C	-9.83313100	-0.58987200	0.05287900
C	9.65651400	0.55619000	-0.01407500
C	11.02870800	0.05154700	-0.03254100
C	11.93305600	1.20313100	0.17513900
C	11.16097000	2.37080300	0.24129700
C	9.73053400	2.03237400	0.10766000
C	-11.20653100	-0.08749500	0.03873300
C	-12.10781700	-1.23877500	0.26229600
C	-11.33292600	-2.40347100	0.34356100
C	-9.90380800	-2.06378800	0.20136600
C	13.32053800	1.29782200	0.29645200
C	13.88670400	2.55974300	0.47590300
C	13.10302300	3.71471900	0.53198100
C	11.71815400	3.62656300	0.41390600
C	-13.49494600	-1.33563600	0.38682400
C	-14.05751500	-2.59637900	0.58475500
C	-13.27075300	-3.74837700	0.65660800
C	-11.88634600	-3.65812600	0.53528600
C	-2.05086000	2.13759800	-2.53609200
C	-2.33449900	2.79396900	-3.73700800
C	-3.33316500	3.77060300	-3.74342400
C	-4.02236300	4.08177600	-2.57601900
C	-3.72477300	3.42522300	-1.38625600
C	-3.08207200	2.06576400	2.38576700
C	-3.04286100	2.85684400	3.53257300
C	-2.45229600	4.11320600	3.50222200
C	-1.88960400	4.60441900	2.31870800
C	-1.93902400	3.80315700	1.17824600
C	1.76461500	-3.79659700	1.30122400
C	1.72935200	-4.52686900	2.48351200
C	2.27854600	-4.00474700	3.65121400
C	2.87233300	-2.74143400	3.65137200
C	2.89412100	-2.01503600	2.45635000
C	3.55936000	-3.48458500	-1.26975700
C	3.89303700	-4.20263200	-2.42116500
C	3.18657600	-3.93681200	-3.59633500
C	2.18358000	-2.97292400	-3.61398800
C	1.86800000	-2.25941300	-2.46177800
C	-1.56126200	2.47209200	-4.98538300
C	-1.25661600	5.96737600	2.27970000
C	3.49940500	-2.17853800	4.89614400
C	4.99952600	-5.21934600	-2.38848500
O	8.82019700	2.84758800	0.11468300
O	-8.99202500	-2.87724800	0.21978000
C	11.45810400	-1.24314200	-0.24897700
C	-11.64090000	1.20513800	-0.18022300
C	-13.01393900	1.58526100	-0.16822300
N	-14.11663400	1.95679300	-0.16906500
C	-10.79192700	2.31241300	-0.46786100
N	-10.14992700	3.25223400	-0.71185000
C	12.83002900	-1.62719300	-0.24140600
N	13.93196000	-2.00094000	-0.24502400
C	10.60314000	-2.34666600	-0.53358000
N	9.95471300	-3.28234500	-0.77653000
H	-0.48710700	-2.49733900	0.01830100
H	0.31035100	2.46705100	-0.06860500
H	-7.08852800	-2.24856100	0.01448300
H	6.91343100	2.21531200	-0.08779800
H	-8.89596000	1.26821200	-0.03325900
H	8.71786400	-1.30281500	-0.03682300
H	13.96441400	0.42911800	0.26096900
H	14.96475300	2.64153600	0.57410200
H	13.57829400	4.68088600	0.66986900
H	11.08035300	4.50392300	0.45509000
H	-14.14152000	-0.46956500	0.33938700
H	-15.13526400	-2.67957000	0.68508800
H	-13.74324800	-4.71371700	0.80907700
H	-11.24596900	-4.53297700	0.58820800
H	-1.28032200	1.37157600	-2.52930000

H	-3.57145300	4.28902700	-4.66880100
H	-4.79915100	4.84086000	-2.59009200
H	-4.25769000	3.68908300	-0.47740500
H	-3.54079600	1.08247300	2.42522400
H	-3.47984800	2.48514200	4.45500200
H	-2.42893700	4.72400500	4.40141800
H	-1.52134400	4.18549300	0.25015800
H	1.34833400	-4.21944700	0.39178700
H	1.27095200	-5.51167300	2.49356700
H	2.24859300	-4.58372400	4.57079100
H	3.34380200	-1.02520200	2.45328800
H	4.08629700	-3.70599000	-0.34450100
H	3.42300200	-4.49101300	-4.50111800
H	1.63806000	-2.77642900	-4.53265100
H	1.08362200	-1.51005000	-2.49040700
H	-1.17095900	1.45105000	-4.96272800
H	-2.18313700	2.58145500	-5.87822800
H	-0.70493400	3.14703300	-5.10113800
H	-1.98951600	6.74939400	2.50600400
H	-0.45654600	6.05320500	3.02257700
H	-0.82961100	6.18261000	1.29710100
H	3.06188800	-2.61788300	5.79652200
H	4.57589000	-2.38509700	4.92000400
H	3.37654600	-1.09309700	4.94990600
H	5.98044200	-4.73013700	-2.40259400
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## IT-DM

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C	1.84663800	2.30752000	2.50492900
C	2.10807500	3.02055300	3.67104400
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C	-2.15877400	-5.00584200	-4.85820700
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S	-3.83856200	1.90052400	0.07530100

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S	6.08238400	1.63222000	0.01377900
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C	-13.37722700	3.12957300	-0.23047800
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C	11.54517400	-1.28853900	-0.13055000
C	-10.70652300	2.43652000	-0.15213200
N	-10.05868300	3.40369300	-0.17170900
C	-12.93446900	1.59510200	-0.15701900
N	-14.06838600	1.85616600	-0.17908200
C	10.70656200	-2.43647400	-0.15285900

N	10.05872100	-3.40364100	-0.17273900
C	12.93450400	-1.59503400	-0.15732700
N	14.06843600	-1.85603800	-0.17936200
H	-0.39923200	-2.48266600	0.04440700
H	0.39923700	2.48268600	0.04400200
H	7.00198700	2.22810700	0.01450100
H	-7.00196100	-2.22811200	0.01493900
H	-4.16151500	3.71955300	0.43738700
H	-4.70213900	4.91587600	2.50877500
H	-1.72779700	2.64741800	4.60110200
H	-1.19798200	1.43070400	2.53932100
H	-1.43492000	4.21203000	-0.31753200
H	-1.35970900	5.54554200	-2.37610600
H	-3.38055500	2.40997900	-4.48665900
H	-3.43407300	1.05980500	-2.43845500
H	4.16141600	-3.71958400	0.43785100
H	4.70204400	-4.91565200	2.50938200
H	1.72793400	-2.64670400	4.60151000
H	1.19811200	-1.43024400	2.53957200
H	1.43452500	-4.21189100	-0.31697400
H	1.35926900	-5.54573500	-2.37530300
H	3.38107900	-2.41100200	-4.48616400
H	3.43456100	-1.06042300	-2.43819900
H	-2.91832200	5.53949900	5.04695800
H	-4.59094600	4.98256600	4.99455700
H	-3.36547500	4.04065400	5.86206000
H	-1.46855400	5.54810400	-4.89104600
H	-2.40111400	4.29970900	-5.73572700
H	-3.23100200	5.58985600	-4.86411700
H	2.92011700	-5.54019800	5.04643500
H	4.59165200	-4.97986900	4.99624900
H	3.36326900	-4.04074800	5.86266000
H	1.46461000	-5.54334400	-4.89366700
H	2.40843000	-4.30111000	-5.73487700
H	3.22657300	-5.59631400	-4.85952500
H	8.80264600	-1.29216400	-0.06614000
H	-8.80263200	1.29214700	-0.06613900
H	14.20052000	0.70044600	-0.11285700
H	11.70687500	4.53838900	0.00429100
H	-14.20052500	-0.70036100	-0.11310400
H	-11.70695900	-4.53835600	0.00402800

## Cl-ITIC

0 1			
C	-0.09044500	-1.42532800	0.04642500
C	1.14148100	-0.76424300	0.01254700
C	1.23357000	0.64784000	-0.03683400
C	0.09044900	1.42531700	-0.04676900
C	-1.14147800	0.76423100	-0.01289700
C	-1.23356700	-0.64785200	0.03648800
C	-2.49222200	1.26583900	-0.02546400
C	-3.40324400	0.22762300	-0.00645800
C	-2.69592800	-1.11467900	0.05301900
C	2.49222500	-1.26584900	0.02512800
C	3.40324600	-0.22763200	0.00613400
C	2.69592900	1.11466900	-0.05335300
C	-2.94688900	-1.98442800	-1.18384200
C	-3.09393100	-1.80945600	1.36259800
C	2.94688900	1.98444300	1.18348600
C	3.09393100	1.80942600	-1.36295000
C	-2.66051200	-3.35333200	-1.15707600
C	-2.80859500	-4.13473500	-2.29690200
C	-3.25098300	-3.58277000	-3.50292600
C	-3.53045400	-2.21506800	-3.52548000
C	-3.38060900	-1.42729500	-2.38788800
C	-2.35982900	-1.64381000	2.53829100
C	-2.79137800	-2.21166900	3.73364800
C	-3.96863900	-2.95959900	3.80030000
C	-4.70550400	-3.11452800	2.62263800
C	-4.27780000	-2.55256200	1.42553400
C	2.66052400	3.35334300	1.15669700
C	2.80861300	4.13476800	2.29651600
C	3.25099600	3.58282300	3.50254400
C	3.53044900	2.21511200	3.52512400
C	3.38059800	1.42732400	2.38755100
C	4.27780800	2.55249000	-1.42591500

C	4.70549800	3.11445600	-2.62304000
C	3.96860200	2.95956200	-3.80066800
C	2.79131600	2.21164300	-3.73399100
C	2.35979100	1.64379400	-2.53863700
S	-3.19808200	2.84544800	-0.05481500
C	-4.78372400	2.11544800	-0.04744100
C	-4.72526200	0.70799000	-0.01484100
C	-6.07989900	2.61371800	-0.07174800
C	-7.04586500	1.59722500	-0.05991700
S	-6.29637400	-0.00143400	-0.01446600
S	3.19808700	-2.84545900	0.05453900
C	4.78372900	-2.11545300	0.04722300
C	4.72526500	-0.70799600	0.01457900
C	6.07990300	-2.61372000	0.07160200
C	7.04587000	-1.59722700	0.05978900
S	6.29637800	0.00143200	0.01424500
C	-8.41660500	1.94382700	-0.08060500
C	8.41660800	-1.94382800	0.08058100
C	-9.58747300	1.21879600	-0.07494500
C	9.58747800	-1.21880000	0.07500100
C	-10.94198700	1.75848000	-0.09871800
C	-11.87551100	0.61107000	-0.07338700
C	-11.13149300	-0.57565900	-0.03992900
C	-9.68950100	-0.25100800	-0.04027500
C	10.94199100	-1.75848000	0.09895600
C	11.87551300	-0.61106100	0.07403400
C	11.13149800	0.57566600	0.04046300
C	9.68950800	0.25100700	0.04041200
C	-13.26935600	0.53242100	-0.07797000
C	-13.87255800	-0.72225200	-0.04943600
C	-13.10013800	-1.88537200	-0.01700200
C	-11.70922300	-1.83114600	-0.01163500
C	13.26935600	-0.53240300	0.07907900
C	13.87255900	0.72227700	0.05085200
C	13.10014200	1.88539400	0.01826500
C	11.70922900	1.83116000	0.01245800
O	-8.77846200	-1.06352900	-0.01637500
O	8.77847100	1.06352500	0.01631500
C	11.33642500	-3.08168400	0.13956800
C	-11.33641000	3.08167900	-0.13959100
C	-4.41569300	-3.59789100	5.08478300
C	-3.44677000	-4.43808900	-4.72244100
C	3.44682400	4.43813800	4.72205600
C	4.41554600	3.59788300	-5.08517500
Cl	-13.89384600	-3.42637100	0.01733200
Cl	13.89384900	3.42640100	-0.01569000
C	12.69930800	-3.49433800	0.15906600
N	13.79510200	-3.88550000	0.17641500
C	10.44120700	-4.18876000	0.16881500
N	9.75129900	-5.12595000	0.19452700
C	-12.69928900	3.49435600	-0.15888000
N	-13.79507400	3.88555000	-0.17603800
C	-10.44117400	4.18872600	-0.16938300
N	-9.75124300	5.12588600	-0.19555900
H	-0.14457000	-2.50931900	0.07781100
H	0.14457500	2.50930800	-0.07814700
H	-2.33121800	-3.81835600	-0.23213300
H	-2.57904600	-5.19646800	-2.24714500
H	-3.87341200	-1.75463000	-4.44887300
H	-3.60189400	-0.36540300	-2.44408500
H	-1.44170700	-1.06449300	2.52849600
H	-2.19817500	-2.06731800	4.63348300
H	-5.63107600	-3.68481600	2.64033500
H	-4.86827100	-2.70610000	0.52661900
H	2.33123600	3.81835700	0.23174800
H	2.57907400	5.19650200	2.24674000
H	3.87339600	1.75468900	4.44853000
H	3.60186600	0.36543100	2.44376400
H	4.86831200	2.70601600	-0.52701900
H	5.63108200	3.68472300	-2.64075300
H	2.19809300	2.06730100	-4.63381500
H	1.44165500	1.06449900	-2.52881300
H	-6.35010400	3.66332400	-0.09693600
H	6.35010800	-3.66332500	0.09683200
H	-8.52978400	3.02312200	-0.10646000
H	8.52978200	-3.02312200	0.10649000
H	-13.90015000	1.41108700	-0.10253000
H	-14.95410200	-0.80054600	-0.05233400
H	-11.09786800	-2.72657900	0.01344400
H	13.90014600	-1.41106800	0.10377800

H	14.95410100	0.80057800	0.05411500
H	11.09787500	2.72659100	-0.01272900
H	-4.06436500	-4.63444200	5.15135300
H	-4.02298400	-3.06361700	5.95406400
H	-5.50652500	-3.62047800	5.16032900
H	-2.72672700	-5.26069600	-4.75351200
H	-4.44891200	-4.88285200	-4.73259600
H	-3.34015200	-3.85436000	-5.64079700
H	2.72750900	5.26139800	4.75258900
H	3.33913900	3.85462700	5.64042900
H	4.44937000	4.88197800	4.73275700
H	5.50639000	3.62250500	-5.15981100
H	4.02459300	3.06230900	-5.95445400
H	4.06225400	4.63370400	-5.15272600

## Br-ITIC

0 1			
C	-0.15391100	-1.41930700	0.05902700
C	1.10631100	-0.81437900	0.01680100
C	1.26123500	0.59173900	-0.04482200
C	0.15391900	1.41929300	-0.05961200
C	-1.10630400	0.81436500	-0.01737700
C	-1.26122700	-0.59175300	0.04423500
C	-2.43335200	1.37569700	-0.03132300
C	-3.38965400	0.37936800	-0.00155700
C	-2.74289500	-0.99257300	0.06765700
C	2.43335900	-1.37570800	0.03079400
C	3.38966300	-0.37938000	0.00103100
C	2.74290100	0.99255800	-0.06823800
C	-3.03558600	-1.86116700	-1.16069500
C	-3.16834100	-1.65741300	1.38418900
C	3.03558800	1.86121000	1.16007200
C	3.16834800	1.65734400	-1.38479900
C	-2.80518100	-3.24039000	-1.12298100
C	-2.99118200	-4.02515000	-2.25483300
C	-3.41737400	-3.46615800	-3.46353600
C	-3.64110900	-2.08850000	-3.49700700
C	-3.45310400	-1.29740000	-2.36729400
C	-2.42618400	-1.51154200	2.55744600
C	-2.87933700	-2.04933200	3.75868700
C	-4.08656200	-2.74698400	3.83370900
C	-4.83111800	-2.88193700	2.65840700
C	-4.38228600	-2.34949100	1.45553700
C	2.80523700	3.24044800	1.12227200
C	2.99124100	4.02526300	2.25407600
C	3.41738000	3.46631900	3.46283100
C	3.64105600	2.08866300	3.49638700
C	3.45304900	1.29750000	2.36670800
C	4.38232100	2.34936100	-1.45618700
C	4.83114800	2.88177400	-2.65907700
C	4.08655200	2.74684900	-3.83435300
C	2.87929300	2.04925200	-3.75929100
C	2.42614900	1.51149600	-2.55803500
S	-3.06839600	2.98480300	-0.07333400
C	-4.68499500	2.32630300	-0.05649200
C	-4.68902100	0.91806700	-0.01160800
C	-5.95790700	2.88158100	-0.08289600
C	-6.96803900	1.90902200	-0.06111100
S	-6.28978900	0.27902400	-0.00279900
S	3.06839800	-2.98481400	0.07289200
C	4.68500000	-2.32631500	0.05609600
C	4.68902900	-0.91808100	0.01114500
C	5.95790800	-2.88159300	0.08264100
C	6.96804300	-1.90903700	0.06088900
S	6.28979800	-0.27904100	0.00242900
C	-8.32243300	2.31492800	-0.08296600
C	8.32243600	-2.31494200	0.08286300
C	-9.52346700	1.64086000	-0.07284100
C	9.52347000	-1.64087400	0.07283400
C	-10.85364300	2.23782600	-0.10062900
C	-11.83533700	1.13114500	-0.08146000
C	-11.14247300	-0.08616000	-0.04294400
C	-9.68816000	0.17672300	-0.03514400
C	10.85364300	-2.23783800	0.10082000
C	11.83533400	-1.13114600	0.08219600
C	11.14247400	0.08615800	0.04358900
C	9.68816600	-0.17673300	0.03529300

C	-13.23131100	1.11224200	-0.09512700
C	-13.88701500	-0.11613500	-0.07033400
C	-13.16551100	-1.31052300	-0.03245200
C	-11.77421600	-1.31560200	-0.01790700
C	13.23130200	-1.11223500	0.09641500
C	13.88700600	0.11615000	0.07203900
C	13.16550700	1.31053700	0.03402100
C	11.77421800	1.31560800	0.01894500
O	-8.81264400	-0.67369500	-0.00422200
O	8.81265500	0.67368200	0.00416800
C	11.19139800	-3.57677700	0.13745800
C	-11.19139300	3.57675600	-0.13764700
C	-4.55811300	-3.35394200	5.12459500
C	-3.65471200	-4.32366600	-4.67409800
C	3.65467700	4.32393100	4.67332700
C	4.55806700	3.35378400	-5.12526300
Br	-14.10021300	-2.94573000	-0.00050700
Br	14.10021200	2.94575300	0.00264200
C	12.53531300	-4.04725300	0.16263700
N	13.61322700	-4.48508100	0.18448700
C	10.24971400	-4.64485900	0.15471900
N	9.52035400	-5.55191200	0.17030700
C	-12.53530900	4.04724200	-0.16257400
N	-13.61321400	4.48510400	-0.18423100
C	-10.24969900	4.64481700	-0.15564300
N	-9.52034100	5.55186100	-0.17182000
H	-0.25643400	-2.49936000	0.10029500
H	0.25644200	2.49934700	-0.10087100
H	-2.49009000	-3.71002500	-0.19542000
H	-2.80490600	-5.09489400	-2.19669600
H	-3.97015600	-1.62259200	-4.42271500
H	-3.63148600	-0.22795200	-2.43184100
H	-1.48455900	-0.97139700	2.54131900
H	-2.27936200	-1.92108500	4.65648400
H	-5.77976800	-3.41271700	2.68262600
H	-4.98011800	-2.48636800	0.55876600
H	2.49019200	3.71004000	0.19467300
H	2.80501100	5.09501300	2.19586900
H	3.97006400	1.62279800	4.42212900
H	3.63138800	0.22804900	2.43132400
H	4.98018600	2.48622200	-0.55943500
H	5.77982400	3.41250400	-2.68332800
H	2.27928800	1.92102000	-4.65707000
H	1.48450100	0.97139100	-2.54187700
H	-6.18078100	3.94196500	-0.11661900
H	6.18077700	-3.94197600	0.11643500
H	-8.38902700	3.39792200	-0.11614100
H	8.38902600	-3.39793400	0.11609700
H	-13.82425800	2.01676000	-0.12435600
H	-14.97074500	-0.14701800	-0.08055900
H	-11.20187200	-2.23618300	0.01152700
H	13.82424400	-2.01675300	0.12577400
H	14.97073200	0.14704100	0.08270400
H	11.20187900	2.23619000	-0.01058600
H	-4.25583900	-4.40539700	5.19776800
H	-4.13729600	-2.83230700	5.98835700
H	-5.64851700	-3.32443100	5.20414600
H	-2.96296400	-5.17021600	-4.70629900
H	-4.67114800	-4.73480800	-4.67005900
H	-3.53857600	-3.75086800	-5.59812700
H	2.96143100	5.16922200	4.70660800
H	3.54071500	3.75068800	5.59734400
H	4.67034300	4.73695300	4.66811300
H	5.64850700	3.32492400	-5.20452700
H	4.13779100	2.83168200	-5.98900900
H	4.25515200	4.40503100	-5.19877600

## NFBDT

0	1		
C	0.98020900	-0.96876600	-0.00779400
C	1.34193100	0.41636000	0.00415100
C	3.50827200	2.51746200	1.34186400
C	3.69136000	2.62593800	-1.21461300
C	-3.69369400	-2.62568700	1.21956300
C	2.76329900	3.69670500	1.37381700
C	2.50854500	4.34716300	2.57955900
C	2.98524100	3.84458500	3.79008800

C	3.72398600	2.65649300	3.75318400
C	3.97992700	2.00424100	2.55473700
C	2.95605400	2.28231300	-2.34726200
C	2.99401000	3.07919400	-3.49101000
C	3.76596600	4.23854900	-3.54252000
C	4.50720800	4.57701000	-2.40338900
C	4.47231700	3.78844100	-1.26261400
C	-2.96359100	-2.27866600	2.35507100
C	-3.00401900	-3.07377600	3.49938800
C	-3.77235200	-4.23621600	3.54878200
C	-4.50930500	-4.57691900	2.40812900
C	-4.47221900	-3.78936100	1.26617900
C	2.73333300	4.55534300	5.08946200
C	3.80080200	5.10650200	-4.76833300
C	-3.79693900	-5.10856600	4.77166400
C	-2.72743500	-4.55922000	-5.08110900
C	-3.97288800	-2.00184000	-2.55036800
C	-3.71278000	-2.65288700	-3.74923100
C	-2.97645000	-3.84178100	-3.78493100
C	-2.50389300	-4.34637900	-2.57289000
C	-2.76217100	-3.69735600	-1.36780700
C	-3.50650400	-2.51701500	-1.33692900
C	8.63447400	0.27186000	0.03669400
C	9.68573800	-0.61900100	0.01948800
C	11.10527700	-0.29113400	0.04592700
C	11.85514400	-1.56819100	0.01016100
C	10.93782400	-2.62841800	-0.03440600
C	9.56580000	-2.08701200	-0.02994000
C	11.69418600	0.95779700	0.09726100
O	8.53664500	-2.74673700	-0.06157300
C	13.22127200	-1.85305600	0.01486300
C	13.62212900	-3.18884100	-0.02526400
C	12.69528200	-4.23237500	-0.06936900
C	11.32995200	-3.955529200	-0.07430400
C	-8.63502200	-0.27221300	-0.04122400
C	-9.68644200	0.61849900	-0.02573700
C	-11.10588700	0.29043300	-0.05482500
C	-11.85600200	1.56737400	-0.02022500
C	-10.93892100	2.62772400	0.02620500
C	-9.56681300	2.08651700	0.02415500
C	-11.69455800	-0.95855900	-0.10739100
O	-8.53782000	2.74639600	0.05781900
C	-13.22216100	1.85203600	-0.02733000
C	-13.62328700	3.18775400	0.01235200
C	-12.69667400	4.23141500	0.05833100
C	-11.33131300	3.95453200	0.06566300
C	-2.75875400	-0.56749300	0.01704700
C	-3.42171600	0.64057100	0.02996000
S	-2.38607100	2.02625300	0.03348800
C	-3.73420200	-1.74056000	-0.02946000
C	-5.05290400	-0.97008500	-0.03260700
C	-4.83001300	0.40662800	0.01376300
C	2.75807900	0.56769600	-0.01043400
C	3.42097800	-0.64040600	-0.02409900
S	2.38533300	-2.02606900	-0.02606400
C	3.73371900	1.74068600	0.03422200
C	5.05239400	0.97013100	0.03509500
C	4.82929700	-0.40657500	-0.01051400
C	-6.40519400	-1.27278100	-0.04943600
C	-7.22974700	-0.13206300	-0.02094200
S	-6.25851900	1.34158700	0.03628500
C	6.40476800	1.27267500	0.04911200
C	7.22914600	0.13186800	0.01916300
S	6.25765500	-1.34168800	-0.03581700
C	-0.33542900	-1.39221600	-0.00631800
C	-1.34261200	-0.41616300	0.00405700
C	-0.98091400	0.96895900	0.01625500
C	0.33472300	1.39240600	0.01489800
C	-13.10343700	-1.16511700	-0.13129700
N	-14.24412600	-1.39457200	-0.15297200
C	-10.97513700	-2.18692200	-0.14516500
N	-10.43429000	-3.21726600	-0.17813300
C	13.10312600	1.16423200	0.11845600
N	14.24386300	1.39364600	0.13791400
C	10.97494400	2.18622500	0.13626700
N	10.43419400	3.21658600	0.17025400
H	2.38811900	4.12693500	0.44999300
H	1.92845000	5.26670800	2.57336300
H	4.10736800	2.23581900	4.67979200
H	4.55626100	1.08321300	2.56298300

H	2.34703800	1.38379800	-2.34909400
H	2.40823500	2.78745500	-4.35920700
H	5.12184000	5.47403600	-2.41144000
H	5.04967600	4.08743500	-0.39194100
H	-2.35825400	-1.37765100	2.35845000
H	-2.42388900	-2.77827800	4.37016000
H	-5.12334500	-5.47431200	2.41582500
H	-5.04751500	-4.08968600	0.39459600
H	1.99708900	5.35440800	4.97181300
H	2.36721300	3.86472200	5.85574300
H	3.65431300	5.00591200	5.47665500
H	3.25389000	4.64957600	-5.59674800
H	3.35249400	6.08666900	-4.57102100
H	4.82934900	5.28540300	-5.09836300
H	-3.17841500	-6.00237100	4.62921700
H	-3.41437400	-4.57891900	5.64781800
H	-4.81150200	-5.45183900	4.99552700
H	-2.54814800	-3.85489600	-5.89866500
H	-1.86481300	-5.22685700	-5.00905400
H	-3.59294400	-5.16980900	-5.36415000
H	-4.54677300	-1.07928500	-2.55986000
H	-4.09028200	-2.22950100	-4.67694100
H	-1.92385600	-5.26604600	-2.56584000
H	-2.38936700	-4.12808400	-0.44326300
H	8.90475900	1.32279500	0.07147500
H	13.97323000	-1.07589300	0.04821400
H	14.68329900	-3.41790700	-0.02203100
H	13.04342400	-5.26009600	-0.09978100
H	10.58406000	-4.74318500	-0.10806900
H	-8.90510000	-1.32317200	-0.07680300
H	-13.97394100	1.07476500	-0.06218900
H	-14.68448300	3.41666400	0.00726500
H	-13.04502200	5.25907900	0.08832900
H	-10.58559700	4.74252700	0.10092700
H	-6.82695200	-2.27132800	-0.08309900
H	6.82671500	2.27117400	0.08170200
H	-0.59198600	-2.44543100	-0.01776400
H	0.59128100	2.44561700	0.02615400

## ITIC2

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C	-0.71237300	-1.11293100	0.29763900
C	-1.43693400	0.10297800	0.06921700
C	-0.67933400	1.27738700	-0.14396200
C	0.70874900	1.14431600	-0.13904100
C	1.43360700	-0.07245200	0.08551300
C	0.67582900	-1.24543600	0.30591800
S	1.75559500	2.51729500	-0.44650200
C	3.12554500	1.49779500	-0.23944200
C	2.84892300	0.17457300	0.04537300
S	-1.76001700	-2.48456200	0.60883800
C	-3.12941900	-1.46717500	0.38981700
C	-2.85196500	-0.14538700	0.10057600
C	4.53342700	1.71222700	-0.26580800
C	5.17475800	0.50693100	-0.00569400
C	4.15547100	-0.60010600	0.28715400
S	5.61397000	2.99754300	-0.54989900
C	6.98764500	1.91287600	-0.35442100
C	6.56118000	0.61230000	-0.06658400
C	-4.53781200	-1.67734200	0.42910100
C	-5.17799100	-0.47906800	0.13552600
C	-4.15752200	0.63159600	-0.13792600
S	-5.61910700	-2.95451100	0.74482100
C	-6.99253200	-1.88689100	0.47130300
C	-6.56508200	-0.59407000	0.15202500
C	4.35253500	-0.96714800	1.76627700
C	4.35026300	-1.74464700	-0.72003700
C	-4.35365800	1.75210400	0.89842500
C	-4.34572500	1.03364500	-1.60787900
C	5.51346900	-1.63692900	2.17690100
C	5.75620400	-1.89962200	3.51846400
C	4.85921500	-1.49347100	4.51225500
C	3.71636700	-0.80625100	4.10448500
C	3.46675300	-0.54576300	2.75832800

C	4.54616100	-3.07371500	-0.35808800
C	4.78010500	-4.04801400	-1.32862400
C	4.81012800	-3.73415500	-2.68535300
C	4.58841300	-2.39905500	-3.04565000
C	4.36866900	-1.42479600	-2.08414800
C	-4.34547700	1.40364300	2.25626500
C	-4.56435800	2.35310100	3.24235100
C	-4.81132600	3.69269900	2.91454500
C	-4.80786200	4.03530500	1.56480900
C	-4.57413500	3.08564300	0.56949400
C	-3.45126000	0.63818000	-2.60232500
C	-3.69035700	0.93166600	-3.94350700
C	-4.83148500	1.62573700	-4.34365900
C	-5.73793200	2.00513000	-3.34805800
C	-5.50558700	1.70902100	-2.01195500
C	5.11701500	-1.79981400	5.96008700
C	5.07832800	-4.77983300	-3.73042100
C	-5.06543100	4.71387900	3.98717800
C	-5.08202400	1.96152900	-5.78608100
C	1.22496100	-2.60300000	0.49477700
C	-1.22991500	2.63731300	-0.31179500
C	-1.65196600	3.27485200	-1.44837500
C	-1.95056500	4.64948700	-1.24021900
C	-1.74454800	5.06699500	0.04744100
S	-1.18099100	3.75548700	1.02251200
C	1.64575800	-3.21831200	1.64425400
C	1.93581400	-4.59868700	1.46520500
C	1.72495800	-5.04199000	0.18677300
S	1.16808900	-3.74834900	-0.81526500
C	8.28343500	2.47984500	-0.37653600
C	-8.28707500	-2.39816200	0.72532300
C	9.54101900	1.92765900	-0.36410700
C	-9.54422800	-1.88451300	0.51983800
C	10.65522300	2.80050600	0.10907600
C	11.78399000	1.89326400	0.40866800
C	11.43243300	0.58186500	0.04693400
C	10.09384500	0.60827400	-0.58423500
C	-10.64934700	-2.45084600	1.34700400
C	-11.76983300	-1.49150800	1.24034000
C	-11.42329200	-0.47233800	0.33702600
C	-10.09857000	-0.78626600	-0.24272400
C	13.00916800	2.19975700	0.97671700
C	13.90342500	1.15581900	1.20627100
C	13.55827000	-0.15447500	0.86758000
C	12.32958000	-0.45897000	0.28040000
C	-12.98479800	-1.50826000	1.90446900
C	-13.87331800	-0.46073200	1.66951500
C	-13.53302000	0.56718400	0.78710600
C	-12.31486700	0.57394200	0.10652300
O	10.61943200	4.00802400	0.26359500
C	9.59439400	-0.37046400	-1.42132900
O	-10.61248100	-3.46963200	2.01335900
C	-9.61176000	-0.27782700	-1.43124200
C	-8.53115200	-0.88228400	-2.13016900
N	-7.67777500	-1.38329000	-2.74185600
C	-10.22668500	0.79792200	-2.13213700
N	-10.68845700	1.68729300	-2.72370500
C	8.48833500	-0.14321000	-2.28527200
N	7.61372100	0.03064000	-3.03254800
C	10.22285000	-1.63492700	-1.60480600
N	10.70004700	-2.68354100	-1.76793100
H	7.25715700	-0.19404500	0.12652400
H	-7.25994800	0.22083500	-0.00598600
H	6.23983400	-1.96527200	1.43974500
H	6.66566300	-2.42510800	3.80009200
H	3.00427100	-0.46174500	4.85053900
H	2.56787400	-0.00106200	2.48859500
H	4.50453100	-3.36965600	0.68341800
H	4.94001900	-5.07661000	-1.01391900
H	4.60153100	-2.11686300	-4.09559200
H	4.21881200	-0.39456600	-2.39700500
H	-4.16732300	0.37010600	2.54364500
H	-4.55135900	2.05004300	4.28677800
H	-4.98796700	5.06784100	1.27485400
H	-4.55283600	3.40417900	-0.46579600
H	-2.55403000	0.08761500	-2.33923900
H	-2.97232900	0.60553500	-4.69204400
H	-6.64882100	2.53105400	-3.62421500
H	-6.24162200	2.01417600	-1.27433600
H	4.90126600	-2.85098900	6.18432700

H	6.16408100	-1.62326100	6.22456800
H	4.49161200	-1.18784700	6.61509700
H	5.10594300	-5.78205800	-3.29466000
H	4.30920700	-4.76934500	-4.50965500
H	6.03967500	-4.60484600	-4.22642300
H	-4.22557500	4.76984200	4.68808700
H	-5.21644300	5.70965800	3.56240600
H	-5.95523600	4.46079400	4.57411300
H	-4.91986200	3.02880800	-5.97660400
H	-4.41557000	1.40193200	-6.44726600
H	-6.11407800	1.73694600	-6.07248700
H	-1.73827100	2.77346300	-2.40479800
H	-2.30381700	5.31425800	-2.02141500
H	1.73572900	-2.69680100	2.58962100
H	2.28653100	-5.24916000	2.25948100
H	8.31940500	3.56707500	-0.27921900
H	-8.31943600	-3.33436100	1.28694200
H	13.25034100	3.22660500	1.23317700
H	14.87144100	1.35736300	1.65422200
H	14.26079700	-0.95850000	1.06399300
H	12.09338600	-1.48638600	0.03294800
H	-13.22258500	-2.31845000	2.58660100
H	-14.83332800	-0.43782700	2.17565200
H	-14.23124900	1.38226600	0.62365900
H	-12.08208000	1.38779200	-0.56894100
C	1.93482300	-6.41259300	-0.36602200
H	1.01384600	-6.82698600	-0.78870600
H	2.69137400	-6.41527900	-1.15786000
H	2.27357700	-7.08218600	0.42837600
C	-1.96360400	6.42442100	0.62839700
H	-1.04579300	6.83602800	1.06065500
H	-2.30553100	7.10804800	-0.15254500
H	-2.72130500	6.40606700	1.41897800

## ITVFFIC

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C	-1.26465700	-0.58313800	0.04229100
C	-0.16265400	-1.41790900	0.05839200
C	1.10194200	-0.82209100	0.01787000
C	1.26469000	0.58301300	-0.04312500
C	0.16268700	1.41778500	-0.05923000
C	2.42598500	-1.39125700	0.03217200
C	3.38756500	-0.40080300	0.00187600
C	2.74925500	0.97497100	-0.06393300
C	-2.42594900	1.39113900	-0.03294400
C	-3.38753100	0.40068800	-0.00260300
C	-2.74922500	-0.97509100	0.06312900
C	3.04668600	1.83690400	1.16795400
C	3.18148500	1.64110800	-1.37726400
C	-3.04668900	-1.83694800	-1.16880700
C	-3.18141600	-1.64130900	1.37642700
C	2.82230700	3.21736800	1.13661200
C	3.01320900	3.99652900	2.27148300
C	3.43855500	3.43059000	3.47732200
C	3.65631300	2.05187400	3.50455400
C	3.46339400	1.26636500	2.37167400
C	4.39665500	2.33133900	-1.44357000
C	4.85154900	2.86359500	-2.64452000
C	4.11183200	2.73000600	-3.82283400
C	2.90309800	2.03403200	-3.75291600
C	2.44406500	1.49678300	-2.55387500
C	-2.82226700	-3.21741600	-1.13755800
C	-3.01320900	-3.99651300	-2.27245800
C	-3.43863800	-3.43051200	-3.47824800
C	-3.65643700	-2.05180800	-3.50538500
C	-3.46347800	-1.26635500	-2.37246400
C	-2.44399700	-1.49702400	2.55302400
C	-2.90300100	-2.03437600	3.75205100
C	-4.11168800	-2.73039600	3.82194200
C	-4.85142200	-2.86395000	2.64361200
C	-4.39657000	-2.33160500	1.44270600
S	3.05780200	-3.00172100	0.07297000
C	4.67711500	-2.35505600	0.05388800
C	4.68218500	-0.94904200	0.00906400

C	5.95215900	-2.92772800	0.07908400
C	6.95364700	-1.96278100	0.05473500
S	6.29295700	-0.33251800	-0.00396900
S	-3.05776000	3.00160300	-0.07365300
C	-4.67707200	2.35495000	-0.05446100
C	-4.68214900	0.94893500	-0.00967700
C	-5.95211400	2.92763300	-0.07951300
C	-6.95360800	1.96269500	-0.05508500
S	-6.29293100	0.33242400	0.00350300
C	8.34612800	-2.22657200	0.07283500
C	-8.34608600	2.22651400	-0.07299700
C	9.35870700	-1.30268800	0.04964200
C	-9.35869000	1.30266100	-0.04969100
C	10.70404500	-1.73301400	0.07860800
C	-10.70401500	1.73304400	-0.07840600
C	11.81763800	-0.92082400	0.06234200
C	-11.81764500	0.92091000	-0.06189600
C	13.21549700	-1.31647000	0.09327500
C	14.02830500	-0.08067800	0.05416400
C	13.16855400	1.02421900	0.00226500
C	11.76469000	0.56009100	0.00523300
C	-13.21549000	1.31663300	-0.09247600
C	-14.02835900	0.08089900	-0.05279300
C	-13.16865600	-1.02404200	-0.00105000
C	-11.76476400	-0.56000100	-0.00463900
O	10.78115100	1.28238400	-0.03309100
C	13.73786000	-2.59419700	0.14992100
O	-10.78125300	-1.28234800	0.03338900
C	-13.73779200	2.59437500	-0.14935000
C	15.40923200	0.12428300	0.06234500
C	15.86557600	1.43117700	0.01710100
C	14.99270500	2.52351400	-0.03466700
C	13.62289600	2.33222700	-0.04273700
C	-15.40930200	-0.12397700	-0.06034400
C	-15.86571000	-1.43083300	-0.01465300
C	-14.99288500	-2.52321600	0.03693900
C	-13.62306100	-2.33201400	0.04438400
F	15.51555100	3.74525200	-0.07530200
F	17.17290100	1.67825700	0.02253400
F	-17.17305200	-1.67783200	-0.01946600
F	-15.51579000	-3.74491400	0.07802900
C	-4.58864400	-3.33729100	5.11086100
C	-3.68099300	-4.28177400	-4.69223300
C	4.58870500	3.33682300	-5.11182000
C	3.68090600	4.28190800	4.69126700
C	15.13418400	-2.87058000	0.17244600
N	16.26537900	-3.14341300	0.19241000
C	12.94800200	-3.77773600	0.19232500
N	12.34501300	-4.77257900	0.22908800
C	-15.13410600	2.87083900	-0.17148300
N	-16.26528700	3.14375300	-0.19112300
C	-12.94787300	3.77784900	-0.19244200
N	-12.34484400	4.77264700	-0.22974100
H	-0.27249700	-2.49729600	0.09934000
H	0.27253200	2.49717300	-0.10015600
H	2.50778500	3.69228200	0.21154500
H	2.83139700	5.06730500	2.21815300
H	3.98427300	1.58054400	4.42791500
H	3.63685400	0.19582600	2.43142000
H	4.98990300	2.46840300	-0.54368800
H	5.80068100	3.39375900	-2.66468700
H	2.30675500	1.90691400	-4.65331300
H	1.50152000	0.95812800	-2.54118500
H	-2.50768200	-3.69236900	-0.21253200
H	-2.83136800	-5.06728800	-2.21920500
H	-3.98446500	-1.58042700	-4.42869500
H	-3.63698900	-0.19582100	-2.43214300
H	-1.50147000	-0.95834000	2.54036100
H	-2.30665100	-1.90728800	4.65244600
H	-5.80052400	-3.39417200	2.66376000
H	-4.98981100	-2.46864400	0.54281500
H	6.16472100	-3.98990800	0.11342800
H	-6.16467000	3.98981600	-0.11379600
H	8.61149400	-3.28307700	0.11100400
H	-8.61143000	3.28302700	-0.11109300
H	9.15225900	-0.23755700	0.01064400
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H	10.84921500	-2.80895700	0.11827900
H	-10.84914400	2.80899400	-0.11803300
H	16.14039000	-0.67255000	0.10144900

H	12.93904800	3.17325000	-0.08235300
H	-16.14042800	0.67289500	-0.09927500
H	-12.93924800	-3.17307100	0.08386400
H	-4.26612500	-4.38180300	5.19618000
H	-4.18983200	-2.80116300	5.97624300
H	-5.68030600	-3.32901000	5.17574300
H	-2.98983700	-5.12853900	-4.73128000
H	-4.69758800	-4.69250900	-4.68661600
H	-3.56786000	-3.70438800	-5.61376400
H	5.68046500	3.33195600	-5.17514000
H	4.19282000	2.79836200	-5.97710800
H	4.26290400	4.38017100	-5.19893200
H	4.69746300	4.69274400	4.68556900
H	2.98967400	5.12860900	4.73033800
H	3.56789500	3.70454100	5.61282500

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C	0.83040200	1.11756200	-0.01093100
C	1.36152700	-0.19424300	-0.01206000
C	0.53703200	-1.32326000	-0.00389500
C	-1.94533100	-2.17433500	0.00887400
C	1.94533600	2.17433700	-0.00887500
C	-2.79737600	0.05781700	0.01577100
C	-3.16652600	-1.27160700	-0.00011700
C	2.79738000	-0.05781600	-0.01578000
C	3.16653100	1.27160800	0.00010900
C	-1.97922100	-3.01612500	1.29172400
C	-1.81386600	-3.02182300	-1.26138400
C	1.97922300	3.01614100	-1.29171500
C	-1.39481100	-2.56807600	2.47776200
C	-1.51320100	-3.30368400	3.65331000
C	-2.21839800	-4.50832300	3.68926500
C	-2.81080700	-4.94813100	2.50207300
C	-2.69463100	-4.21813700	1.32475400
C	-2.46918000	-2.66764000	-2.44189500
C	-2.27781300	-3.39756800	-3.61143300
C	-1.42582900	-4.50308900	-3.64561000
C	-0.76554200	-4.84964900	-2.46285100
C	-0.95570700	-4.12621200	-1.29142600
C	2.69461900	4.21816100	-1.32472700
C	2.81079000	4.94817100	-2.50203800
C	2.21839100	4.50837000	-3.68923600
C	1.51320800	3.30372100	-3.65329900
C	1.39482400	2.56809800	-2.47776100
C	-2.31668000	-5.31780200	4.95114800
C	-1.24540700	-5.30977600	-4.90014500
C	2.31665600	5.31786700	-4.95111000
C	1.24536000	5.30972200	4.90017200
C	0.95570900	4.12620100	1.29144400
C	0.76553800	4.84962300	2.46287200
C	1.42582300	4.50304800	3.64563500
C	2.27781000	3.39753500	3.61144700
C	2.46918400	2.66761900	2.44189800
C	1.81387200	3.02181100	1.26139300
C	-10.50735800	-0.62817900	-0.03583600
C	-11.46730600	0.35830600	-0.03636900
C	-11.20930400	1.81013900	-0.01021600
C	12.52472100	2.47775000	-0.01784800
C	-13.53728500	1.50713900	-0.04754000
C	-12.91189100	0.16514300	-0.06118100
O	-10.12246100	2.36913300	0.01400000
C	-13.61516200	-1.02348000	-0.09415500
C	-12.79260600	3.83606600	0.00013700
C	-14.12626500	4.23821200	-0.01202300
C	-15.14622900	3.28473900	-0.04144400
C	-14.87100000	1.91723200	-0.05954100
C	10.50736300	0.62817700	0.03582700
C	11.46730900	-0.35830900	0.03636500
C	11.20930600	-1.81014200	0.01020200
C	12.52472300	-2.47775400	0.01781800
C	13.53728800	-1.50714400	0.04751200
C	12.91189400	-0.16514800	0.06117600
O	10.12246200	-2.36913400	-0.01401000

C	13.61516700	1.02347400	0.09417700
C	12.79260600	-3.83607000	-0.00018300
C	14.12626500	-4.23821700	0.01196000
C	15.14623000	-3.28474500	0.04138000
C	14.87100300	-1.91723800	0.05949400
C	4.56616800	1.41419500	-0.00855500
C	5.23177900	0.17793000	-0.02189300
S	4.12652200	-1.16449600	-0.03841100
S	5.65977200	2.76968800	0.01551400
C	7.01867200	1.67055300	0.01354900
C	6.63083600	0.31979400	-0.00965100
C	-4.56616300	-1.41419400	0.00854800
C	-5.23177500	-0.17792900	0.02188600
S	-4.12651800	1.16449700	0.03840100
S	-5.65976700	-2.76968800	-0.01552600
C	-7.01866800	-1.67055300	-0.01356000
C	-6.63083200	-0.31979400	0.00964200
C	8.39812800	1.83968500	0.02743100
C	9.09342000	0.62281500	0.01763600
S	7.98130300	-0.75009800	-0.01324600
C	-8.39812300	-1.83968500	-0.02744300
C	-9.09341600	-0.62281600	-0.01764600
S	-7.98129900	0.75009700	0.01324000
C	-13.01405000	-2.31438500	-0.11147900
N	-12.57139100	-3.39093200	-0.12712900
C	-15.03729000	-1.09749100	-0.11619700
N	-16.19439400	-1.21967000	-0.13525600
C	13.01405500	2.31437900	0.11153800
N	12.57139800	3.39092600	0.12721900
C	15.03729400	1.09748300	0.11621400
N	16.19439900	1.21966200	0.13527000
H	-0.95685200	2.32459600	0.01074300
H	0.95685600	-2.32459500	-0.01075200
H	-0.84141400	-1.63415300	2.48978900
H	-1.04602700	-2.93066600	4.56156900
H	-3.37284500	-5.87899500	2.49679500
H	-3.15437400	-4.59838500	0.41671200
H	-3.13373300	-1.80859700	-2.45502600
H	-2.80323400	-3.09902700	-4.51541100
H	-0.09167100	-5.70311200	-2.45695700
H	-0.43890300	-4.43307200	-0.38654800
H	3.15435400	4.59840200	-0.41667900
H	3.37281800	5.87904100	-2.49674700
H	1.04604300	2.93070800	-4.56156400
H	0.84143800	1.63416800	-2.48980000
H	-2.17114700	-4.69458700	5.83748400
H	-3.28981000	-5.81024000	5.03452300
H	-1.55274100	-6.10398100	4.97404100
H	-1.94803600	-6.15100900	-4.93060900
H	-1.42327500	-4.70432100	-5.79301500
H	-0.23676200	-5.72758400	-4.96454300
H	1.55255200	6.10388200	-4.97409800
H	3.28969200	5.81051000	-5.03436800
H	2.17136000	4.69462000	-5.83746100
H	0.23640700	5.72672600	4.96500900
H	1.42413700	4.70450600	5.79302000
H	1.94731200	6.15153600	4.93020200
H	0.43891000	4.43307100	0.38656700
H	0.09166500	5.70308500	2.45698600
H	2.80323100	3.09898800	4.51542200
H	3.13374100	1.80857900	2.45502300
H	-10.87607900	-1.64902000	-0.05380100
H	-11.97725900	4.55228400	0.02296000
H	-15.69188100	1.21275200	-0.08207900
H	10.87608400	1.64901900	0.05378800
H	11.97725800	-4.55228700	-0.02300500
H	15.69188400	-1.21275900	0.08203000
H	8.91314500	2.79349000	0.04603400
H	-8.91314000	-2.79349100	-0.04604800
H	-14.37727000	5.29421100	0.00131900
H	-16.18145200	3.61147100	-0.05053200
H	16.18145300	-3.61147800	0.05045300
H	14.37726900	-5.29421600	-0.00139500

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C	1.36541200	-0.16263300	-0.01123700
C	0.56746300	-1.31073100	-0.00406600
C	-1.89459900	-2.21893300	0.00693900
C	1.89460100	2.21893300	-0.00688800
C	-2.79761400	-0.00695000	0.01369900
C	-3.13631400	-1.34463000	-0.00353800
C	2.79761600	0.00694900	-0.01366200
C	3.13631600	1.34462900	0.00357400
C	-1.91114300	-3.06126500	1.28980300
C	-1.74193100	-3.06392100	-1.26265100
C	1.91113800	3.06128100	-1.28974100
C	-1.33507300	-2.60298100	2.47596300
C	-1.43899300	-3.34180200	3.65096400
C	-2.12093700	-4.55973800	3.68617400
C	-2.70501600	-5.00996000	2.49874000
C	-2.60309600	-4.27697200	1.32205700
C	-2.40258900	-2.72520600	-2.44472500
C	-2.19230600	-3.45135300	-3.61340400
C	-1.31537400	-4.53727000	-3.64512100
C	-0.65013000	-4.86832900	-2.46069200
C	-0.85927900	-4.14885000	-1.29007500
C	2.60310100	4.27698100	-1.32198800
C	2.70501300	5.01002000	-2.49866400
C	2.12091500	4.55978100	-3.68609600
C	1.43896300	3.34184800	-3.65089300
C	1.33505200	2.60301500	-2.47590100
C	-2.20344100	-5.37198100	4.94740700
C	-1.11354700	-5.34011700	-4.89885400
C	2.20339900	5.37204000	-4.94732000
C	1.11353100	5.34005100	4.89894500
C	0.85925800	4.14881200	1.29016700
C	0.65011100	4.86827300	2.46079000
C	1.31538700	4.53721700	3.64520800
C	2.19234700	3.45132900	3.61346200
C	2.40262900	2.72519600	2.44477000
C	1.74194000	3.06390300	1.26271500
C	-10.48864300	-0.86244700	-0.03794100
C	-11.46971100	0.10401500	-0.03560200
C	-11.24234900	1.56176800	-0.00936300
C	-12.56933200	2.20019700	-0.01458700
C	-13.56178600	1.20937100	-0.04287200
C	-12.90783700	-0.12090000	-0.05753800
O	-10.16739100	2.14341200	0.01273700
C	-13.58994100	-1.32125200	-0.08845300
C	-12.86953400	3.55343400	0.00429300
C	-14.20606100	3.93486700	-0.00537500
C	-15.18325400	2.94338300	-0.03357700
C	-14.90385300	1.58126400	-0.05276500
C	10.48864600	0.86244700	0.03789300
C	11.46971400	-0.10401400	0.03555000
C	11.24235400	-1.56176800	0.00931200
C	12.56933700	-2.20019500	0.01450700
C	13.56179100	-1.20936800	0.04277700
C	12.90784000	0.12090200	0.05746700
O	10.16739600	-2.14341300	-0.01277000
C	13.58994300	1.32125500	0.08839200
C	12.86954100	-3.55343100	-0.00438600
C	14.20606800	-3.93486300	0.00525200
C	15.18326000	-2.94337800	0.03343700
C	14.90385800	-1.58125900	0.05263900
C	4.53235500	1.51878800	-0.00376300
C	5.22551600	0.29745400	-0.01785800
S	4.15097800	-1.06918500	-0.03664500
S	5.59576000	2.89813700	0.02224300
C	6.97875400	1.82913100	0.01961800
C	6.62072800	0.46989300	-0.00491500
C	-4.53235300	-1.51878900	0.00378900
C	-5.22551400	-0.29745500	0.01787800
S	-4.15097700	1.06918400	0.03667800
S	-5.59575800	-2.89813800	-0.02223400
C	-6.97875200	-1.82913200	-0.01962700
C	-6.62072600	-0.46989400	0.00491500
C	8.35386700	2.02810700	0.03319700
C	9.07585500	0.82627600	0.02182800
S	7.99384300	-0.57069300	-0.00953100
C	-8.35386500	-2.02810800	-0.03322500
C	-9.07585300	-0.82627700	-0.02186000

S	-7.99384100	0.57069300	0.00951800
C	-12.96475600	-2.60067800	-0.10507000
N	-12.50045000	-3.66794500	-0.11976700
C	-15.01062500	-1.41802800	-0.10836000
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C	12.96475600	2.60067900	0.10504600
N	12.50045100	3.66794600	0.11977000
C	15.01062700	1.41803200	0.10827700
N	16.16629000	1.55277600	0.12556300
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H	1.01042400	-2.30217200	-0.01124000
H	-0.79980500	-1.65856600	2.48880300
H	-0.97879900	-2.96068500	4.55942000
H	-3.24892800	-5.95155300	2.49282100
H	-3.05549700	-4.66541100	0.41378900
H	-3.08629000	-1.88133900	-2.45986500
H	-2.72235000	-3.16531500	-4.51872200
H	0.04276700	-5.70639400	-2.45285000
H	-0.33804700	-4.44374700	-0.38375300
H	3.05551900	4.66540500	-0.41372200
H	3.24893300	5.95157100	-2.49274100
H	0.97875600	2.96074500	-4.55934900
H	0.79977900	1.65860300	-2.48874600
H	-2.06858100	-4.74704100	5.83420200
H	-3.16736200	-5.88215800	5.03105900
H	-1.42530900	-6.14414800	4.96889900
H	-1.79649300	-6.19736300	-4.93058900
H	-1.30316100	-4.73929900	-5.79242700
H	-0.09539500	-5.73459700	-4.96062500
H	1.42511500	6.14405200	-4.96889800
H	3.16722900	5.88240600	-5.03086800
H	2.06875500	4.74707400	-5.83413000
H	0.09507200	5.73366800	4.96119300
H	1.30411800	4.73951000	5.79249500
H	1.79574500	6.19789700	4.93020600
H	0.33800200	4.44370400	0.38385600
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H	3.08635400	1.88134900	2.45989100
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H	-15.72809100	0.88103100	-0.07397800
H	10.83597900	1.89084100	0.05633500
H	15.72809600	-0.88102600	0.07383800
H	8.84801000	2.99282900	0.05213800
H	-8.84800700	-2.99283000	-0.05217500
H	-14.50744400	4.97641300	0.00827300
H	14.50745200	-4.97640900	-0.00840800
H	12.07214900	-4.28911600	-0.02614800
H	-12.07214200	4.28911700	0.02606800
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## INIC1

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C	0.80583000	1.13570800	-0.01012100
C	1.36512900	-0.16445200	-0.01030100
C	0.56570600	-1.31152200	-0.00299300
C	-1.89760700	-2.21641500	0.00679900
C	1.89761000	2.21641400	-0.00677900
C	-2.79753800	-0.00308500	0.01209600
C	-3.13810700	-1.34038800	-0.00440400
C	2.79754000	0.00308300	-0.01208600
C	3.13810900	1.34038600	0.00441200
C	-1.91574600	-3.05863800	1.28969100
C	-1.74545600	-3.06170700	-1.26267300
C	1.91574300	3.05865200	-1.28966100
C	-1.33986800	-2.60084800	2.47613000
C	-1.44501800	-3.33957200	3.65107500
C	-2.12804900	-4.55690700	3.68593500
C	-2.71198100	-5.00663100	2.49822900
C	-2.60883000	-4.27370500	1.32159200
C	-2.40549400	-2.72254900	-2.44496200
C	-2.19544600	-3.44897400	-3.61351600
C	-1.31936600	-4.53558100	-3.64488400

C	-0.65477000	-4.86711800	-2.46022100
C	-0.86370100	-4.14738500	-1.28973100
C	2.60882100	4.27372200	-1.32155000
C	2.71196600	5.00666300	-2.49817900
C	2.12803000	4.55695100	-3.68588700
C	1.44500600	3.33961000	-3.65104000
C	1.33986400	2.60087300	-2.47610500
C	-2.21177600	-5.36913500	4.94709600
C	-1.11767800	-5.33861200	-4.89852500
C	2.21173800	5.36919600	-4.94703900
C	1.11765700	5.33856400	4.89857100
C	0.86369600	4.14736300	1.28977700
C	0.65476600	4.86708200	2.46027000
C	1.31937500	4.53554000	3.64493000
C	2.19546800	3.44895000	3.61354500
C	2.40551600	2.72253400	2.44498000
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C	-10.48900300	-0.84807600	-0.03968700
C	-11.47362500	0.11569000	-0.03900900
C	-11.24189200	1.57264700	-0.01637000
C	-12.57287400	2.20735400	-0.02379100
C	-13.56926100	1.21637300	-0.04902000
C	-12.90969300	-0.11165400	-0.06016200
O	-10.16245400	2.14319500	0.00466500
C	-13.58691400	-1.31581800	-0.08778600
C	-12.91726700	3.54782600	-0.00969500
C	-14.25396000	3.92738400	-0.01996300
C	-15.23477200	2.93980000	-0.04455700
C	-14.91352600	1.58078100	-0.05943500
C	10.48900600	0.84807400	0.03964900
C	11.47362800	-0.11569100	0.03898200
C	11.24189600	-1.57264900	0.01635000
C	12.57287800	-2.20735500	0.02375700
C	13.56926500	-1.21637300	0.04897400
C	12.90969600	0.11165400	0.06012700
O	10.16245800	-2.14319700	-0.00467400
C	13.58691600	1.31581800	0.08776400
C	12.91727200	-3.54782700	0.00965800
C	14.25396600	-3.92738400	0.01990800
C	15.23477700	-2.93979900	0.04448700
C	14.91353100	-1.58077900	0.05936900
C	4.53434000	1.51241600	-0.00274800
C	5.22561500	0.28993700	-0.01571600
S	4.14910900	-1.07514100	-0.03379700
S	5.59982200	2.89027700	0.02214900
C	6.98124200	1.81902600	0.02058300
C	6.62101500	0.46007100	-0.00269000
C	-4.53433800	-1.51241800	0.00275000
C	-5.22561300	-0.28993900	0.01571800
S	-4.14910700	1.07513900	0.03380800
S	-5.59982000	-2.89027900	-0.02216500
C	-6.98124000	-1.81902800	-0.02060600
C	-6.62101300	-0.46007300	0.00267800
C	8.35634200	2.01558500	0.03393500
C	9.07665900	0.81213300	0.02385900
S	7.99199300	-0.58288100	-0.00599200
C	-8.35634000	-2.01558700	-0.03397200
C	-9.07665700	-0.81213500	-0.02389000
S	-7.99199100	0.58287800	0.00597900
C	-12.95495100	-2.59193600	-0.10056400
N	-12.48684600	-3.65769400	-0.11205600
C	-15.00644400	-1.42704300	-0.10785800
N	-16.15971700	-1.58155400	-0.12530200
C	12.95495200	2.59193500	0.10056800
N	12.48684800	3.65769300	0.11209000
C	15.00644600	1.42704400	0.10782700
N	16.15971900	1.58155700	0.12526300
H	-1.00742600	2.30350900	0.00934000
H	1.00742800	-2.30351100	-0.00932900
H	-0.80372800	-1.65693300	2.48922500
H	-0.98488200	-2.95888400	4.55973800
H	-3.25669400	-5.94772400	2.49204500
H	-3.06107200	-4.66174500	0.41307200
H	-3.08844500	-1.87808200	-2.46042000
H	-2.72494900	-3.16254100	-4.51902700
H	0.03751200	-5.70568300	-2.45211000
H	-0.34291600	-4.44260700	-0.38325900
H	3.06106800	4.66175200	-0.41302700
H	3.25667600	5.94775700	-2.49198600
H	0.98487000	2.95893000	-4.55970600

H	0.80373100	1.65695400	-2.48920800
H	-2.07693200	4.74431400	5.83397800
H	-3.17609800	-5.87864600	5.03023400
H	-1.43417500	-6.14182600	4.96895300
H	-1.80109200	-6.19548400	-4.93040000
H	-1.30671000	-4.73771900	-5.79217400
H	-0.09972700	-5.73365400	-4.95999900
H	1.43397400	6.14172000	-4.96899000
H	3.17596200	5.87890900	-5.03006400
H	2.07712800	4.74434600	-5.83393700
H	0.09940100	5.73275400	4.96051400
H	1.30764800	4.73794900	5.79220000
H	1.80034700	6.19603000	4.92997500
H	0.34290300	4.44258700	0.38331000
H	-0.03752600	5.70564000	2.45217000
H	2.72498400	3.16251800	4.51904800
H	3.08847900	1.87807600	2.46042800
H	-10.83517700	-1.87676400	-0.05639600
H	-15.71017600	0.85007600	-0.07832500
H	10.83517900	1.87676300	0.05634300
H	15.71018000	-0.85007400	0.07824500
H	8.85216300	2.97948600	0.05182200
H	-8.85216100	-2.97948800	-0.05186800
H	-14.51005000	4.98117300	-0.00870200
H	-16.27889700	3.23543100	-0.05235700
H	16.27890200	-3.23542900	0.05227200
H	14.51005600	-4.98117200	0.00864600
F	-11.97171000	4.48422000	0.01358900
F	11.97171500	-4.48422100	-0.01361000

### INIC3

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C	-0.77392400	1.15767800	-0.01365300
C	-1.36927000	-0.12636300	-0.00791200
C	-0.60196800	-1.29513600	0.00247800
C	0.77391700	-1.15776100	0.01295200
C	1.36925700	0.12628300	0.00722600
C	0.60195900	1.29505500	-0.00317200
C	-1.83491500	2.26846000	-0.01385000
C	1.83492400	-2.26853300	0.01314600
C	-2.79648100	0.08115600	-0.00753800
C	-3.09935600	1.42758100	0.00520800
C	2.79646900	-0.08122000	0.00694500
C	3.09935800	-1.42764100	-0.00577100
C	-1.83334200	3.10322100	-1.30198800
C	-1.65581200	3.11798800	1.24924700
C	1.83327700	-3.10340100	1.30121700
C	-1.27076200	2.62485800	-2.48666900
C	-1.35923300	3.35976200	-3.66546700
C	-2.01185700	4.59345800	-3.70612900
C	-2.58243000	5.06408600	-2.52001900
C	-2.49563000	4.33518700	-1.33961600
C	-2.32300400	2.80726800	2.43532800
C	-2.08950200	3.53644800	3.59777500
C	-1.18215200	4.59731500	3.61897800
C	-0.51078100	4.90033100	2.43047000
C	-0.74314200	4.17800300	1.26605000
C	2.49546300	-4.33542200	1.33876500
C	2.58219100	-5.06440800	2.51912100
C	2.01164700	-4.59381600	3.70525700
C	1.35913400	-3.36005700	3.66467700
C	1.27073400	-2.62506700	2.48592900
C	2.07752100	5.40064700	4.97158500
C	-0.95438700	5.40386300	4.86588100
C	2.07721300	-5.40110300	4.97065600
C	0.95476800	-5.40358800	-4.86687800
C	0.74320000	-4.17793900	-1.26700500
C	0.51094000	-4.90018400	-2.43148700
C	1.18245900	-4.59711900	-3.61991100
C	2.08984400	-3.53629800	-3.59854000
C	2.32325100	-2.80719600	-2.43601500
C	1.65592100	-3.11795700	-1.25003500
C	-10.46096300	1.13711300	0.04726300
C	-11.46623400	0.19531300	0.04431100
C	-11.27473400	-1.26532400	0.01768800
C	-12.62061300	-1.86992800	0.01766900
C	-13.58584800	-0.85501000	0.04507500
C	-12.89942800	0.45583800	0.06378800

O	-10.21911600	-1.87996400	-0.00136500
C	-13.55064900	1.67332100	0.09605100
C	-12.94044500	-3.21761800	-0.00514400
C	-14.28433500	-3.54459700	0.00016200
C	-15.26218900	-2.54395700	0.02794400
C	-14.93932900	-1.19714900	0.05047700
C	10.46097000	-1.13706000	-0.04669800
C	11.46622400	-0.19524300	-0.04367600
C	11.27469900	1.26538900	-0.01693100
C	12.62057000	1.87001200	-0.01665000
C	13.58582300	0.85511100	-0.04408100
C	12.89942300	-0.45574500	-0.06303300
O	10.21907000	1.88001300	0.00202200
C	13.55066200	-1.67321600	-0.09542000
C	12.94037900	3.21770300	0.00638500
C	14.28426400	3.54470300	0.00128800
C	15.26213700	2.54408100	-0.02651800
C	14.93930000	1.19727100	-0.04927500
C	4.49025300	-1.63868300	-0.00095700
C	5.21531100	-0.43588500	0.00742400
S	4.17779000	0.95882000	0.02339200
S	5.51690200	-3.04566000	-0.02399700
C	6.92761400	-2.01351400	-0.02664900
C	6.60519800	-0.64514400	-0.00653800
C	-4.49024800	1.63864000	0.00052900
C	-5.21532400	0.43585300	-0.00777200
S	-4.17782100	-0.95886800	-0.02385500
S	-5.51687200	3.04563300	0.02382500
C	-6.92759600	2.01350800	0.02670400
C	-6.60520500	0.64513300	0.00648300
C	8.29691100	-2.24822400	-0.03982400
C	9.05003400	-1.06528600	-0.03193300
S	8.00415600	0.35944000	-0.00516900
C	-8.29688700	2.24824100	0.04011900
C	-9.05003000	1.06531500	0.03232100
S	-8.00418000	-0.35942500	0.00535500
F	-14.68183700	-4.81269000	-0.02082800
F	-16.53797900	-2.92003900	0.03202100
F	16.53792100	2.92018300	-0.03039000
F	14.68174500	4.81279800	0.02250600
C	-12.89417700	2.93673200	0.11686100
N	-12.40470100	3.99262500	0.13492900
C	-14.96859100	1.80262500	0.11362900
N	-16.12153800	1.95928600	0.12911700
C	12.89420300	-2.93663000	-0.11646100
N	12.40474600	-3.99252800	-0.13471000
C	14.96860600	-1.80250300	-0.11289600
N	16.12155400	-1.95916400	-0.12830100
H	-1.07115700	-2.27437600	0.00043300
H	1.07114500	2.27429700	-0.00110500
H	-0.75843700	1.66777000	-2.49560800
H	-0.91003100	2.96290000	-4.57268100
H	-3.10337000	6.01855300	-2.51809200
H	-2.93656100	4.73965100	-0.43270900
H	-3.03024900	1.98320700	2.45866000
H	-2.62522800	3.27275900	4.50651600
H	0.20535200	5.71849800	2.41456000
H	-0.21637900	4.45113000	0.35609600
H	2.93637700	-4.73985700	0.43183600
H	3.10305400	-6.01891800	2.51713400
H	0.90996400	-2.96321600	4.57191700
H	0.75849800	-1.66793100	2.49493000
H	-1.95912900	4.76801700	-5.85526300
H	-3.02928600	5.93298900	-5.05625500
H	-1.28145600	6.15413400	4.99850600
H	-1.61242900	6.28054500	4.89234500
H	-1.15884000	4.81576200	5.76462100
H	0.07477600	5.76952300	4.92214300
H	1.28090800	-6.15433400	4.99762900
H	3.02881900	-5.93375200	5.05517800
H	1.95912500	-4.76848900	5.85438800
H	-0.07470900	-5.76827600	-4.92378700
H	1.16037200	-4.81578200	-5.76554500
H	1.61198100	-6.28090800	-4.89279700
H	0.21633300	-4.45110400	-0.35712300
H	-0.20523100	-5.71832100	-2.41571000
H	2.62568900	-3.27257400	-4.50720100
H	3.03053100	-1.98316300	-2.45922800
H	-10.78319900	2.17361200	0.06398700
H	-12.17584600	-3.98661600	-0.02642500

H	-15.74724100	-0.47761400	0.07074000
H	10.78322500	-2.17355400	-0.06337300
H	12.17576500	3.98668600	0.02767400
H	15.74722500	0.47775200	-0.06954500
H	8.76571000	-3.22560800	-0.05552400
H	-8.76566800	3.22563200	0.05591900

## IPIC

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C	12.46777600	3.39962300	-0.19575200
C	13.47026700	2.41900300	-0.20742800
C	14.80723300	2.81522700	-0.24050400
C	15.09634400	4.18059600	-0.26053600
C	14.08635100	5.14406200	-0.24861400
C	12.74855400	4.75471100	-0.21581600
C	11.14542400	2.74285400	-0.15845300
C	11.39074200	1.29125400	-0.14676900
C	12.82816700	1.08302200	-0.17865900
C	13.52408400	-0.11366900	-0.18345100
O	10.06504100	3.31588800	-0.14036000
C	-0.98010200	0.99660500	0.37733100
C	-1.31776100	-0.37456200	0.34662000
C	-0.34802000	-1.38199800	0.34944200
C	0.98010300	-0.99663300	0.37728100
C	1.31776200	0.374533500	0.34666800
C	0.34802100	1.38197100	0.34954200
C	-2.24468900	1.88229100	0.37846600
C	2.24468900	-1.88232000	0.37838000
C	-6.55627300	-0.63065300	-0.01537400
C	-6.94217200	0.73012600	-0.00670200
C	-8.31718900	0.90720200	-0.03924300
C	-9.01342500	-0.31489900	-0.07452700
S	-7.90494600	-1.70092500	-0.06711100
N	-5.82794900	1.54337400	0.05780200
C	-2.75204200	-0.44522800	0.25529700
C	-3.32315900	0.81290100	0.23184800
C	-4.73087700	0.71289300	0.09531700
C	-5.16462000	-0.63782800	0.04279100
S	-3.85602400	-1.77339300	0.13368500
C	-5.88442200	2.99777000	0.01823600
C	6.55627800	0.63064900	-0.01525700
C	6.94217800	-0.73013000	-0.00666900
C	8.31719500	-0.90720300	-0.03921500
C	9.01343100	0.31490000	-0.07442300
S	7.90495000	1.70092600	-0.06692500
N	5.82795500	1.54338300	0.05777400
C	2.75204500	0.44520700	0.25537000
C	3.32316200	-0.81292100	0.23184700
C	4.73088200	-0.71290400	0.09533600
C	5.16462500	0.63782000	0.04289800
S	3.85602800	1.77337900	0.13384700
C	5.88443100	-2.99777700	0.01812600
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C	-2.34249200	2.60616600	1.73185400
C	2.34246900	-2.60622700	1.73172600
C	-2.24233500	4.19873900	-0.77965400
C	-2.19094100	4.97394400	-1.94062500
C	-2.12641800	4.39119100	-3.20381200
C	-2.11494100	2.99131000	-3.26995000
C	-2.15538700	2.21845700	-2.11998600
C	-3.35951700	2.32728400	2.64639600
C	-3.41068100	2.95906300	3.88840700
C	-2.44768500	3.89058100	4.26957600
C	-1.42118400	4.16421800	3.35849400
C	-1.36720700	3.53622900	2.12225800
C	1.36714700	-3.53632500	2.12207900
C	1.42111100	4.16440000	3.35826900
C	2.44763200	-3.89086200	4.26936300
C	3.41066700	-2.95936800	3.88824200
C	3.35951500	-2.32750200	2.64627200
C	-2.06400800	5.22247600	-4.45344900
C	-2.50404700	4.58345200	5.60105300
C	2.50391900	-4.58376500	5.60082600
C	-5.81731200	3.62639500	-1.38458300
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C	2.19094600	-4.97383900	-1.94088700
C	2.12646700	-4.39101500	-3.20404400
C	2.11501800	-2.99112900	-3.27010300
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C	2.21865200	-2.80839600	-0.84941400
C	10.42042100	0.30751300	-0.10953100
C	-10.42041600	-0.30750600	-0.10963300
C	-12.46779900	-3.39959600	-0.19597400
C	-13.47028100	-2.41896600	-0.20760000
C	-14.80725100	-2.81517600	-0.24066700
C	-15.09637400	-4.18054200	-0.26074100
C	-14.08639000	-5.14401800	-0.24887000
C	-12.74858900	-4.75468100	-0.21608100
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C	-12.82816700	-1.08299300	-0.17879200
C	-13.52406800	0.11370700	-0.18354100
O	-10.06506200	-3.31588700	-0.14061200
C	12.91498800	-1.39992100	-0.15646100
N	12.46623600	-2.47430000	-0.13494300
C	14.94453400	-0.19981200	-0.21663300
N	16.10063500	-0.33344900	-0.24299400
C	-5.35039300	8.36254900	0.57297300
C	-6.05531500	7.44330000	-0.41618300
C	-5.58204400	5.99507500	-0.32877700
C	-6.29818700	5.08296400	-1.32145100
C	5.35035100	-8.36258500	0.57254700
C	6.05531100	-7.44328300	-0.41653200
C	5.58204000	-5.99506100	-0.32906500
C	6.29822100	-5.08289900	-1.32166400
C	-12.91495400	1.39994900	-0.15651700
N	-12.46618200	2.47432000	-0.13497700
C	-14.94451800	0.19987100	-0.21670600
N	-16.10061700	0.33352900	-0.24304900
H	15.62096400	2.10215200	-0.25064200
H	11.94004000	5.47904300	-0.20565300
H	-0.64196200	-2.42503400	0.29416200
H	0.64196500	2.42501100	0.29433900
H	-8.84024800	1.85658000	-0.03730300
H	-6.82403400	3.28099600	0.50707100
H	-5.07579400	3.38003000	0.64672900
H	8.84025500	-1.85658100	-0.03733400
H	6.82403100	-3.28103000	0.50696700
H	5.07578800	-3.38007400	0.64657700
H	-2.31167400	4.69806700	0.18053800
H	-2.20777900	6.05771400	-1.85224800
H	-2.07061900	2.50113500	-4.23968600
H	-2.14046600	1.13480100	-2.20584400
H	-4.12201500	1.59381900	2.40682100
H	-4.21783400	2.71208800	4.57359300
H	-0.64618200	4.87929600	3.62384300
H	-0.55043200	3.78423200	1.45320600
H	0.55036100	-3.78425600	1.45301400
H	0.64608600	-4.87947000	3.62357300
H	4.21784700	-2.71248600	4.57342900
H	4.12205000	-1.59406200	2.40673400
H	-2.19189200	6.28510300	-4.23281600
H	-1.10099100	5.09939500	-4.96150300
H	-2.84162600	4.92748900	-5.16556400
H	-2.73278600	5.64856000	5.48201000
H	-3.27184300	4.14783600	6.24515000
H	-1.54427600	4.51789100	6.12346100
H	2.73140300	-5.64912900	5.48170100
H	3.27251100	-4.14896600	6.24452300
H	1.54448600	-4.51712000	6.12372600
H	-4.76670900	3.61951500	-1.70117200
H	-6.51617500	3.33517500	-3.40540400
H	-6.29104600	1.82200000	-2.52267700
H	-7.69475000	2.84959900	-2.18368100
H	4.76676200	-3.61942000	-1.70134800
H	6.51627600	-3.33499900	-3.40551600
H	6.29112700	-1.82187000	-2.52271500
H	7.69481900	-2.84949100	-2.18373300
H	2.19203700	-6.28486100	-4.23316200
H	1.10101200	-5.09919300	-4.96172700
H	2.84162500	-4.92714200	-5.16586100
H	2.31162900	-4.69808200	0.18029400
H	2.20776300	-6.05761400	-1.85257000

H 2.07073200 -2.50090000 -4.23981300  
 H 2.14055000 -1.13467900 -2.20589300  
 H 10.78877100 -0.71353500 -0.10451900  
 H -10.78876200 0.71354400 -0.10456400  
 H -15.62097500 -2.10209400 -0.25076500  
 H -11.94008200 -5.47902100 -0.20595700  
 H -5.70964500 9.39303100 0.49061600  
 H -5.51624600 8.03392000 1.60495600  
 H -4.26820500 8.37280300 0.40095700  
 H -5.89831600 7.81163500 -1.43892400  
 H -7.13965800 7.48023000 -0.24523200  
 H -5.73192700 5.63799800 0.69931100  
 H -4.50051500 5.95528200 -0.51176800  
 H -6.20048800 5.51215500 -2.32762400  
 H -7.37620300 5.08431900 -1.09868300  
 H 5.70960300 -9.39306300 0.49014600  
 H 5.51616700 -8.03401300 1.60455400  
 H 4.26816900 -8.37282700 0.40049100  
 H 5.89834900 -7.81156200 -1.43930000  
 H 7.13964800 -7.48022500 -0.24554400  
 H 5.73188900 -5.63804100 0.69904800  
 H 4.50051800 -5.95525700 -0.51209100  
 H 6.20055200 -5.51203300 -2.32786400  
 H 7.37623000 -5.08427100 -1.09886200  
 H -14.34728900 -6.19766700 -0.26515700  
 H -16.13481200 -4.49630700 -0.28615800  
 H 16.13477800 4.49637100 -0.28595900  
 H 14.34723900 6.19771300 -0.26486800

## IPIC-4F

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 C 12.64276000 2.67423600 -0.03929300  
 C 13.58848100 1.64167600 -0.01948900  
 C 14.94758000 1.95851900 -0.02048400  
 C 15.29582900 3.29975400 -0.04126500  
 C 14.33753300 4.31781900 -0.06095800  
 C 12.98724700 4.01523500 -0.06014900  
 C 11.28495700 2.09257600 -0.03338100  
 C 11.45053700 0.63131000 -0.01020500  
 C 12.87373900 0.34378700 0.00017100  
 C 13.50638300 -0.88681900 0.02587700  
 O 10.24213000 2.73013400 -0.04611400  
 C -0.91918800 1.05324900 0.27248300  
 C -1.33752600 -0.29550200 0.24665100  
 C -0.42946300 -1.35887900 0.24617100  
 C 0.91918800 -1.05326000 0.27243200  
 C 1.33752600 0.29549200 0.24669100  
 C 0.42946400 1.35886900 0.24626300  
 C -2.12860700 2.01324000 0.27835700  
 C 2.12860600 -2.01325200 0.27826800  
 C -6.58690200 -0.24599100 -0.00662500  
 C -6.89311900 1.13537000 0.00562200  
 C -8.25525900 1.39202000 0.00644100  
 C -9.02233300 0.21151200 -0.00593900  
 S -7.99539800 -1.23665600 -0.02060300  
 N -5.73221600 1.88241900 0.03903300  
 C -2.77435600 -0.28141200 0.17555400  
 C -3.27117000 1.00833900 0.15959400  
 C -4.68484300 0.98987700 0.05407500  
 C -5.19747900 -0.33389700 0.01756700  
 S -3.95557000 -1.54367200 0.08303100  
 C -5.70516300 3.33748500 -0.00843000  
 C 6.58690600 0.24599700 -0.00652800  
 C 6.89312400 -1.13536400 0.00564200  
 C 8.25526300 -1.39201300 0.00645900  
 C 9.02233700 -0.21150500 -0.00585000  
 S 7.99540100 1.23666400 -0.02044500  
 N 5.73222000 -1.88241600 0.03899700  
 C 2.77435800 0.28140600 0.17561500  
 C 3.27117200 -1.00834300 0.15958600  
 C 4.68484600 -0.98987600 0.05408400  
 C 5.19748300 0.33390100 0.01765800  
 S 3.95557200 1.54367200 0.08317700  
 C 5.70517100 -3.33748000 -0.00853400  
 C -2.06740900 2.91925700 -0.96404300  
 C -2.16102900 2.76055700 1.62143100  
 C 2.16100300 -2.76065200 1.62129600  
 C -2.02769300 4.31014400 -0.91527800

C	-1.95137900	5.06540400	-2.08784000
C	-1.92425100	4.46215000	-3.34270900
C	-1.97780500	3.06249000	-3.38798500
C	-2.04284700	2.30892500	-2.22637200
C	-3.16469400	2.53939400	2.56590000
C	-3.15557200	3.19024900	3.79906600
C	-2.14338700	4.08401400	4.14152200
C	-1.13004400	4.29900800	3.20059900
C	-1.13620500	3.65214600	1.97299000
C	1.13616400	-3.65225300	1.97278700
C	1.12998900	-4.29920400	3.20034600
C	2.14332900	-4.08428600	4.14129400
C	3.15553000	-3.19051800	3.79890400
C	3.16466600	-2.53957200	2.56578300
C	-1.83201600	5.27175300	-4.60461300
C	-2.13630200	4.79866500	5.46253400
C	2.13617600	-4.79897900	5.46228300
C	-5.63821400	3.95335900	-1.41712200
C	-6.51467500	3.22629100	-2.43258500
C	5.63824600	-3.95329100	-1.41725500
C	6.51473700	-3.22619100	-2.43266800
C	1.83209700	-5.27148400	-4.60489500
C	2.02770000	-4.31008400	-0.91550200
C	1.95140700	-5.06527700	-2.08810700
C	1.92431000	-4.46195300	-3.34294300
C	1.97787600	-3.06229100	-3.38813900
C	2.04289800	-2.30879100	-2.22648200
C	2.06742800	-2.91919400	-0.96418800
C	10.42585300	-0.29822000	-0.00218200
C	-10.42584900	0.29822700	-0.00227500
C	-12.64275000	-2.67423000	-0.03950600
C	-13.58847300	-1.64167300	-0.01965700
C	-14.94757200	-1.95851900	-0.02065200
C	-15.29581800	-3.29975500	-0.04147800
C	-14.33752000	-4.31781700	-0.06121800
C	-12.98723500	-4.01523000	-0.06040900
C	-11.28494900	-2.09256800	-0.03357700
C	-11.45053200	-0.63130400	-0.01034600
C	-12.87373400	-0.34378400	0.00004200
C	-13.50638400	0.88681900	0.02578100
O	-10.24212000	-2.73012300	-0.04634900
C	12.83057100	-2.13920300	0.04808600
N	12.32529200	-3.18806400	0.06708700
C	14.92119900	-1.04035300	0.03431100
N	16.07160400	-1.21787600	0.04217000
C	-4.85714900	8.67147600	0.48434700
C	-5.65001200	7.78238400	-0.46500400
C	-5.23644400	6.31498800	-0.39535200
C	-6.03606800	5.43459600	-1.35222500
C	4.85706800	-8.67147700	0.48399500
C	5.64996400	-7.78235600	-0.46530100
C	5.23641700	-6.31495700	-0.39559600
C	6.03607700	-5.43453700	-1.35241200
C	-12.83057700	2.13920600	0.04801500
N	-12.32530700	3.18807100	0.06702700
C	-14.92119900	1.04034700	0.03422700
N	-16.07160600	1.21786100	0.04209500
H	15.74206000	1.22403800	-0.00624400
H	12.23672800	4.79818500	-0.07518400
H	-0.78497500	-2.38256800	0.19598500
H	0.78497700	2.38256100	0.19614600
H	-8.72098200	2.37072100	0.01730100
H	-6.61401000	3.67724600	0.50209400
H	-4.85992900	3.67449800	0.59730600
H	8.72098700	-2.37071400	0.01727000
H	6.61401100	-3.67726200	0.50198900
H	4.85992900	-3.67452200	0.59717300
H	-2.06601000	4.82638300	0.03757300
H	-1.91845300	6.14996600	-2.01525800
H	-1.96525400	2.55682400	-4.35064900
H	-2.07842500	1.22463000	-2.29680200
H	-3.96473700	1.83699100	2.35707700
H	-3.95450200	2.98829100	4.50823100
H	-0.31766700	4.98288700	3.43461900
H	-0.32808300	3.85656700	1.27905900
H	0.32804900	-3.85662300	1.27883300
H	0.31760800	-4.98309800	3.43430800
H	3.95446700	-2.98863300	4.50808100
H	3.96472800	-1.83717500	2.35701000
H	-1.94134200	6.34012200	-4.40236400

H	-0.86547400	5.12247100	-5.09902500
H	-2.60664000	4.98017900	-5.32116100
H	-2.33659900	5.86829800	5.33295900
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H	-1.16293400	4.71201800	5.95580600
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H	2.89691600	-4.39827800	6.13678300
H	1.16313500	-4.71135300	5.95603800
H	-4.59797000	3.88549400	-1.75963600
H	-6.40412500	3.69077500	-3.41739500
H	-6.24052300	2.17203800	-2.53109900
H	-7.57585000	3.27787300	-2.16285900
H	4.59800900	-3.88539800	-1.75978800
H	6.40420600	-3.69063500	-3.41749900
H	6.24059700	-2.17193200	-2.53114700
H	7.57590500	-3.27779300	-2.16292000
H	1.94142100	-6.33986400	-4.40270500
H	0.86556100	-5.12217500	-5.09931300
H	2.60673100	-4.97986800	-5.32141400
H	2.06598900	-4.82637600	0.03732100
H	1.91847000	-6.14984300	-2.01558700
H	1.96534900	-2.55657100	-4.35077500
H	2.07848600	-1.22449200	-2.29685000
H	10.73795400	-1.33779400	0.01021900
H	-10.73795000	1.33780100	0.01017600
H	-15.74205300	-1.22404100	-0.00637800
H	-12.23671400	-4.79817700	-0.07547900
H	-5.17374500	9.71679100	0.41514000
H	-4.98647400	8.35294100	1.52469200
H	-3.78537600	8.63281200	0.25931800
H	-5.52837300	8.14193100	-1.49563000
H	-6.72180600	7.86667100	-0.24032700
H	-5.35454400	5.96565500	0.63946800
H	-4.16712400	6.22825000	-0.62744400
H	-5.95174200	5.84959300	-2.36546300
H	-7.10378500	5.49632500	-1.09141200
H	5.17364800	-9.71679400	0.41474900
H	4.98637800	-8.35299000	1.52435800
H	3.78530000	-8.63278500	0.25894800
H	5.52834200	-8.14185800	-1.49594500
H	6.72175200	-7.86666900	-0.24060600
H	5.35449700	-5.96567000	0.63924200
H	4.16710300	-6.22819300	-0.62771100
H	5.95177100	-5.84948900	-2.36567000
H	7.10378700	-5.49629100	-1.09157400
F	-14.75780600	-5.57961200	-0.08065100
F	-16.57969100	-3.65096400	-0.04328300
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## IPIC-4Cl

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C	15.29582900	3.29975400	-0.04126500
C	14.33753300	4.31781900	-0.06095800
C	12.98724700	4.01523500	-0.06014900
C	11.28495700	2.09257600	-0.03338100
C	11.45053700	0.63131000	-0.01020500
C	12.87373900	0.34378700	0.00017100
C	13.50638300	-0.88681900	0.02587700
O	10.24213000	2.73013400	-0.04611400
C	-0.91918800	1.05324900	0.27248300
C	-1.33752600	-0.29550200	0.24665100
C	-0.42946300	-1.35887900	0.24617100
C	0.91918800	-1.05326000	0.27243200
C	1.33752600	0.29549200	0.24669100
C	0.42946400	1.35886900	0.24626300
C	-2.12860700	2.01324000	0.27835700
C	2.12860600	-2.01325200	0.27826800
C	-6.58690200	-0.24599100	-0.00662500
C	-6.89311900	1.13537000	0.00562200
C	-8.25525900	1.39202000	0.00644100
C	-9.02233300	0.21151200	-0.00593900
S	-7.99539800	-1.23665600	-0.02060300
N	-5.73221600	1.88241900	0.03903300

C	-2.77435600	-0.28141200	0.17555400
C	-3.27117000	1.00833900	0.15959400
C	-4.68484300	0.98987700	0.05407500
C	-5.19747900	-0.33389700	0.01756700
S	-3.95557000	-1.54367200	0.08303100
C	-5.70516300	3.33748500	-0.00843000
C	6.58690600	0.24599700	-0.00652800
C	6.89312400	-1.13536400	0.00564200
C	8.25526300	-1.39201300	0.00645900
C	9.02233700	-0.21150500	-0.00585000
S	7.99540100	1.23666400	-0.02044500
N	5.73222000	-1.88241600	0.03899700
C	2.77435800	0.28140600	0.17561500
C	3.27117200	-1.00834300	0.15958600
C	4.68484600	-0.98987600	0.05408400
C	5.19748300	0.33390100	0.01765800
S	3.95557200	1.54367200	0.08317700
C	5.70517100	-3.33748000	-0.00853400
C	-2.06740900	2.91925700	-0.96404300
C	-2.16102900	2.76055700	1.62143100
C	2.16100300	-2.76065200	1.62129600
C	-2.02769300	4.31014400	-0.91527800
C	-1.95137900	5.06540400	-2.08784000
C	-1.92425100	4.46215000	-3.34270900
C	-1.97780500	3.06249000	-3.38798500
C	-2.04284700	2.30892500	-2.22637200
C	-3.16469400	2.53939400	2.56590000
C	-3.15557200	3.19024900	3.79906600
C	-2.14338700	4.08401400	4.14152200
C	-1.13004400	4.29900800	3.20059900
C	-1.13620500	3.65214600	1.97299000
C	1.13616400	-3.65225300	1.97278700
C	1.12998900	-4.29920400	3.20034600
C	2.14332900	-4.08428600	4.14129400
C	3.15553000	-3.19051800	3.79890400
C	3.16466600	-2.53957200	2.56578300
C	-1.83201600	5.27175300	-4.60461300
C	-2.13630200	4.79866500	5.46253400
C	2.13617600	-4.79897900	5.46228300
C	-5.63821400	3.95335900	-1.41712200
C	-6.51467500	3.22629100	-2.43258500
C	5.63824600	-3.95329100	-1.41725500
C	6.51473700	-3.22619100	-2.43266800
C	1.83209700	-5.27148400	4.60489500
C	2.02770000	-4.31008400	-0.91550200
C	1.95140700	-5.06527700	-2.08810700
C	1.92431000	-4.46195300	-3.34294300
C	1.97787600	-3.06229100	-3.38813900
C	2.04289800	-2.30879100	-2.22648200
C	2.06742800	-2.91919400	-0.96418800
C	10.42585300	-0.29822000	-0.00218200
C	-10.42584900	0.29822700	-0.00227500
C	-12.64275000	-2.67423000	-0.03950600
C	-13.58847300	-1.64167300	-0.01965700
C	-14.94757200	-1.95851900	-0.02065200
C	-15.29581800	-3.29975500	-0.04147800
C	-14.33752000	-4.31781700	-0.06121800
C	-12.98723500	-4.01523000	-0.06040900
C	-11.28494900	-2.09256800	-0.03357700
C	-11.45053200	-0.63130400	-0.01034600
C	-12.87373400	-0.34378400	0.00004200
C	-13.50638400	0.88681900	0.02578100
O	-10.24212000	-2.73012300	-0.04634900
C	12.83057100	-2.13920300	0.04808600
N	12.32529200	-3.18806400	0.06708700
C	14.92119900	-1.04035300	0.03431100
N	16.07160400	-1.21787600	0.04217000
C	-4.85714900	8.67147600	0.48434700
C	-5.65001200	7.78238400	-0.46500400
C	-5.23644400	6.31498800	-0.395535200
C	-6.03606800	5.43459600	-1.35222500
C	4.85706800	-8.67147700	0.48399500
C	5.64996400	-7.78235600	-0.46530100
C	5.23641700	-6.31495700	-0.395559600
C	6.03607700	-5.43453700	-1.35241200
C	-12.83057700	2.13920600	0.04801500
N	-12.32530700	3.18807100	0.06702700
C	-14.92119900	1.04034700	0.03422700
N	-16.07160600	1.21786100	0.04209500
H	15.74206000	1.22403800	-0.00624400

H	12.23672800	4.79818500	-0.07518400
H	-0.78497500	-2.38256800	0.19598500
H	0.78497700	2.38256100	0.19614600
H	-8.72098200	2.37072100	0.01730100
H	-6.61401000	3.67724600	0.50209400
H	-4.85992900	3.67449800	0.59730600
H	8.72098700	-2.37071400	0.01727000
H	6.61401100	-3.67726200	0.50198900
H	4.85992900	-3.67452200	0.59717300
H	-2.06601000	4.82638300	0.03757300
H	-1.91845300	6.14996600	-2.01525800
H	-1.96525400	2.55682400	-4.35064900
H	-2.07842500	1.22463000	-2.29680200
H	-3.96473700	1.83699100	2.35707700
H	-3.95450200	2.98829100	4.50823100
H	-0.31766700	4.98288700	3.43461900
H	-0.32808300	3.85656700	1.27905900
H	0.32804900	-3.85662300	1.27883300
H	0.31760800	-4.98309800	3.43430800
H	3.95446700	-2.98863300	4.50808100
H	3.96472800	-1.83717500	2.35701000
H	-1.94134200	6.34012200	-4.40236400
H	-0.86547400	5.12247100	-5.09902500
H	-2.60664000	4.98017900	-5.32116100
H	-2.33659900	5.86829800	5.33295900
H	-2.89631700	4.39718300	6.13738900
H	-1.16293400	4.71201800	5.95580600
H	2.33530700	-5.86881100	5.33257900
H	2.89691600	-4.39827800	6.13678300
H	1.16313500	-4.71135300	5.95603800
H	-4.59797000	3.88549400	-1.75963600
H	-6.40412500	3.69077500	-3.41739500
H	-6.24052300	2.17203800	-2.53109900
H	-7.57585000	3.27787300	-2.16285900
H	4.59800900	-3.88539800	-1.75978800
H	6.40420600	-3.69063500	-3.41749900
H	6.24059700	-2.17193200	-2.53114700
H	7.57590500	-3.27779300	-2.16292000
H	1.94142100	-6.33986400	-4.40270500
H	0.86556100	-5.12217500	-5.09931300
H	2.60673100	-4.97986800	-5.32141400
H	2.06598900	-4.82637600	0.03732100
H	1.91847000	-6.14984300	-2.01558700
H	1.96534900	-2.55657100	4.35077500
H	2.07848600	-1.22449200	-2.29685000
H	10.73795400	-1.33779400	0.01021900
H	-10.73795000	1.33780100	0.01017600
H	-15.74205300	-1.22404100	-0.00637800
H	-12.23671400	-4.79817700	-0.07547900
H	-5.17374500	9.71679100	0.41514000
H	-4.98647400	8.35294100	1.52469200
H	-3.78537600	8.63281200	0.25931800
H	-5.52837300	8.14193100	-1.49563000
H	-6.72180600	7.86667100	-0.24032700
H	-5.35454400	5.96565500	0.63946800
H	-4.16712400	6.22825000	-0.62744400
H	-5.95174200	5.84959300	-2.36546300
H	-7.10378500	5.49632500	-1.09141200
H	5.17364800	-9.71679400	0.41474900
H	4.98637800	-8.35299000	1.52435800
H	3.78530000	-8.63278500	0.25894800
H	5.52834200	-8.14185800	-1.49594500
H	6.72175200	-7.86666900	-0.24060600
H	5.35449700	-5.96567000	0.63924200
H	4.16710300	-6.22819300	-0.62771100
H	5.95177100	-5.84948900	-2.36567000
H	7.10378700	-5.49629100	-1.09157400
Cl	-14.75780600	-5.57961200	-0.08065100
Cl	-16.57969100	-3.65096400	-0.04328300
Cl	16.57970200	3.65096100	-0.04306900
Cl	14.75782200	5.57961400	-0.08034900

## References

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