

Supplementary Information For

“Stark effects of the fluorescence spectra in InP core and InP/ZnSe core/shell quantum dots under an external electric field”

Ning Du,^{a*} Hongshan Chen^a

^a College of Physics and Electronic Engineering, Northwest Normal University,
Lanzhou 730070, China

* E-mail: duning@nwnu.edu.cn

Explicit energy equations for fields oriented along the x, y, and z axes

$$\begin{aligned}
 E^{S0'}(F_x) &= E^{S0'}(0) - \mu_{0x}^{S0'} \times F_x - \frac{1}{2} \times \alpha_{xx}^{S0'} \times F_x^2 \\
 &= -722.2488 - 0.0000 \times F_x - \frac{1}{2} \times 4633.448 \times F_x^2 \quad (S1) \quad \text{For (InP)}_{77} \\
 &= -5181.2052 + 0.0015 \times F_x - \frac{1}{2} \times 3915.272 \times F_x^2 \quad (S2) \quad \text{For (InP)}_{10}(\text{ZnSe})_{67} \\
 &= -4054.2542 - 0.0000 \times F_x - \frac{1}{2} \times 4171.188 \times F_x^2 \quad (S3) \quad \text{For (InP)}_{27}(\text{ZnSe})_{50} \\
 E^{S1}(F_x) &= E^{S1}(0) - \mu_{0x}^{S1} \times F_x - \frac{1}{2} \times \alpha_{xx}^{S1} \times F_x^2 \\
 &= -722.1257 - 0.0000 \times F_x - \frac{1}{2} \times 5610.170 \times F_x^2 \quad (S4) \quad \text{For (InP)}_{77} \\
 &= -5181.1173 - 0.0008 \times F_x - \frac{1}{2} \times 4590.244 \times F_x^2 \quad (S5) \quad \text{For (InP)}_{10}(\text{ZnSe})_{67} \\
 &= -4054.1413 - 0.0000 \times F_x - \frac{1}{2} \times 5408.003 \times F_x^2 \quad (S6) \quad \text{For (InP)}_{27}(\text{ZnSe})_{50}
 \end{aligned}$$

$$\begin{aligned}
 E^{S0'}(F_y) &= E^{S0'}(0) - \mu_{0y}^{S0'} \times F_y - \frac{1}{2} \times \alpha_{yy}^{S0'} \times F_y^2 \\
 &= -722.2488 + 0.7011 \times F_y - \frac{1}{2} \times 4657.133 \times F_y^2 \quad (S7) \quad \text{For (InP)}_{77} \\
 &= -5181.2052 + 0.5701 \times F_y - \frac{1}{2} \times 3943.479 \times F_y^2 \quad (S8) \quad \text{For (InP)}_{10}(\text{ZnSe})_{67} \\
 &= -4054.2542 - 0.4083 \times F_y - \frac{1}{2} \times 4200.880 \times F_y^2 \quad (S9) \quad \text{For (InP)}_{27}(\text{ZnSe})_{50} \\
 E^{S1}(F_y) &= E^{S1}(0) - \mu_{0y}^{S1} \times F_y - \frac{1}{2} \times \alpha_{yy}^{S1} \times F_y^2 \\
 &= -722.1257 - 0.6652 \times F_y - \frac{1}{2} \times 5648.681 \times F_y^2 \quad (S10) \quad \text{For (InP)}_{77} \\
 &= -5181.1173 - 0.2025 \times F_y - \frac{1}{2} \times 4625.135 \times F_y^2 \quad (S11) \quad \text{For (InP)}_{10}(\text{ZnSe})_{67} \\
 &= -4054.1413 + 1.2451 \times F_y - \frac{1}{2} \times 5129.216 \times F_y^2 \quad (S12) \quad \text{For (InP)}_{27}(\text{ZnSe})_{50}
 \end{aligned}$$

$$\begin{aligned}
 E^{S0'}(F_z) &= E^{S0'}(0) - \mu_{0z}^{S0'} \times F_z - \frac{1}{2} \times \alpha_{zz}^{S0'} \times F_z^2 \\
 &= -722.2488 + 0.0391 \times F_z - \frac{1}{2} \times 4185.229 \times F_z^2 \quad (S13) \quad \text{For (InP)}_{77} \\
 &= -5181.2052 + 3.9311 \times F_z - \frac{1}{2} \times 3622.894 \times F_z^2 \quad (S14) \quad \text{For (InP)}_{10}(\text{ZnSe})_{67}
 \end{aligned}$$

$$=-4054.2542 - 1.0647 \times F_z - \frac{1}{2} \times 3785.502 \times F_z^2 \quad (\text{S15}) \quad \text{For (InP)}_{27}(\text{ZnSe})_{50}$$

$$E^{\text{S1}}(F_z) = E^{\text{S1}}(0) - \mu_{0z}^{\text{S1}} \times F_z - \frac{1}{2} \times a_{zz}^{\text{S1}} \times F_z^2$$

$$=-722.1257 + 0.2145 \times F_z - \frac{1}{2} \times 4754.469 \times F_z^2 \quad (\text{S16}) \quad \text{For (InP)}_{77}$$

$$=-5181.1173 + 1.1009 \times F_z - \frac{1}{2} \times 3860.934 \times F_z^2 \quad (\text{S17}) \quad \text{For (InP)}_{10}(\text{ZnSe})_{67}$$

$$=-4054.1413 - 0.8296 \times F_z - \frac{1}{2} \times 4219.542 \times F_z^2 \quad (\text{S18}) \quad \text{For (InP)}_{27}(\text{ZnSe})_{50}$$

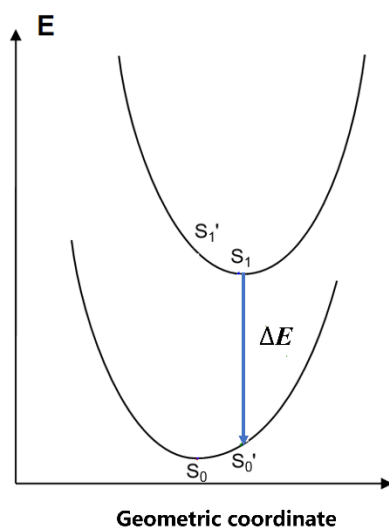


Figure S1. Schematic diagram of electron transition between the ground- and excited states.

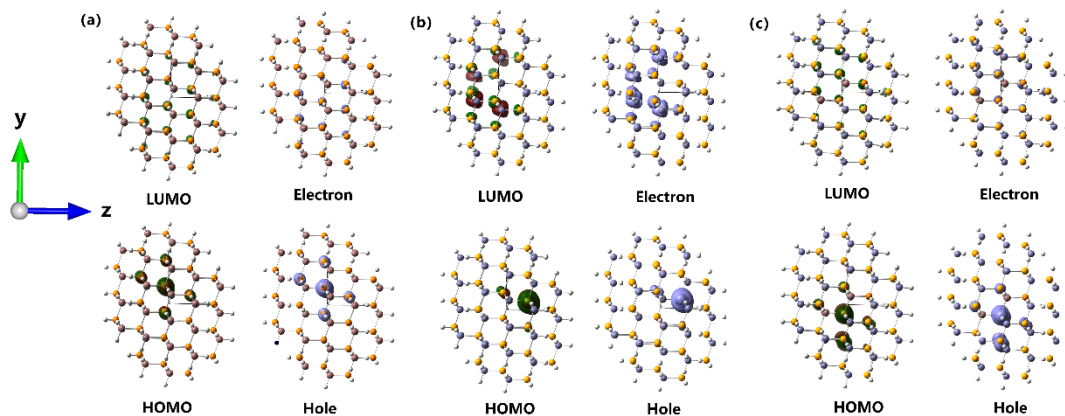


Figure S2. Electron and hole spatial distributions, HOMO, and LUMO at zero field of (a) $(\text{InP})_{77}\text{-E}$, (b) $(\text{InP})_{10}(\text{ZnSe})_{67}\text{-E}$ and (c) $(\text{InP})_{27}(\text{ZnSe})_{50}\text{-E}$ (the z -axis is pointing to the right and the x -axis is perpendicular to the paper and points inward).

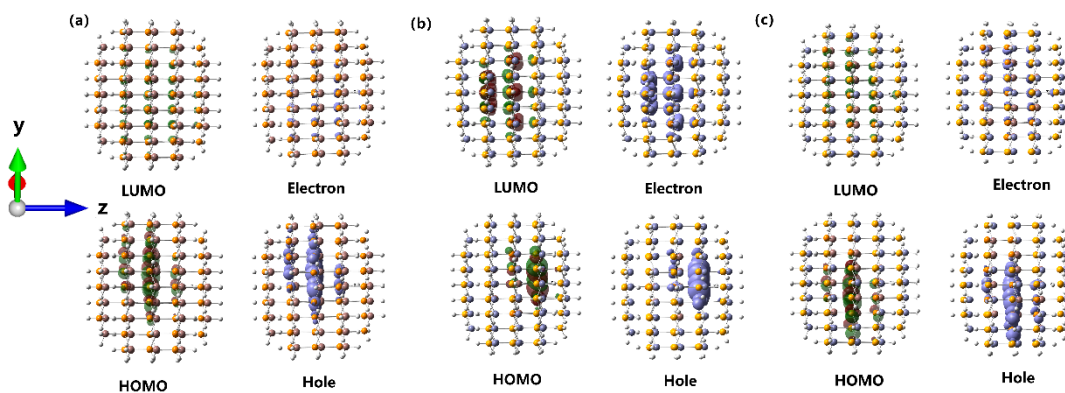


Figure S3. Electron and hole spatial distributions, HOMO, and LUMO at zero field of (a) $(\text{InP})_{77}\text{-E}$, (b) $(\text{InP})_{10}(\text{ZnSe})_{67}\text{-E}$ and (c) $(\text{InP})_{27}(\text{ZnSe})_{50}\text{-E}$ (the z -axis is pointing to the right and the oxy plane rotates relative to the z -axis by a certain angle).

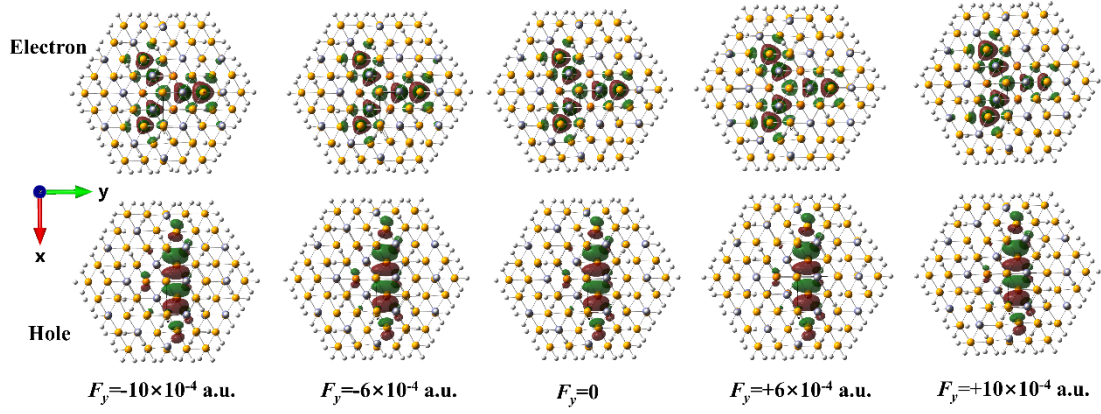


Figure S4 Distribution of holes and electrons under various electronic fields in the y-axis for $(\text{InP})_{10}(\text{ZnSe})_{67}\text{-E}$.

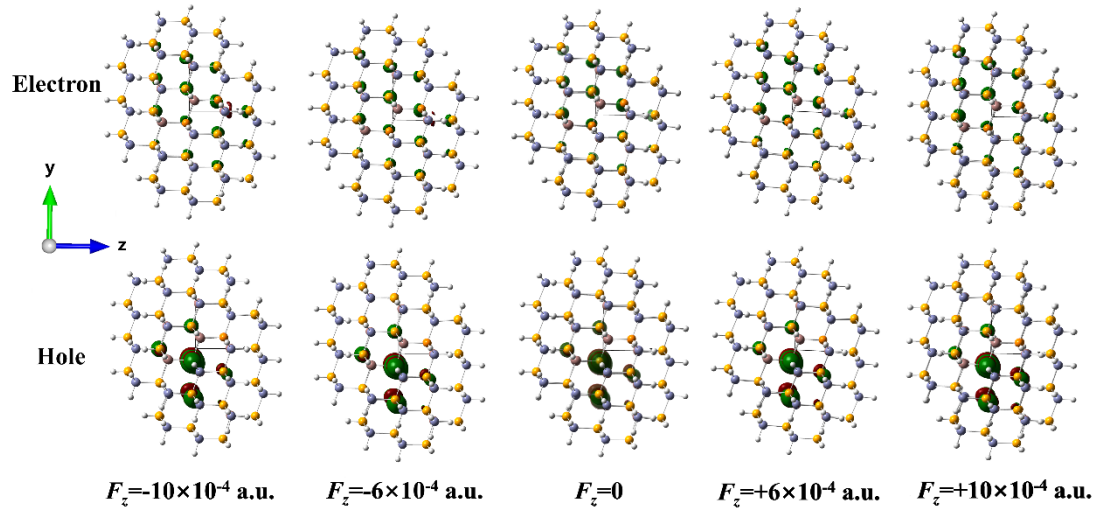


Figure S5 Distribution of holes and electrons under various electronic fields in the z-axis for $(\text{InP})_{27}(\text{ZnSe})_{50}\text{-E}$.

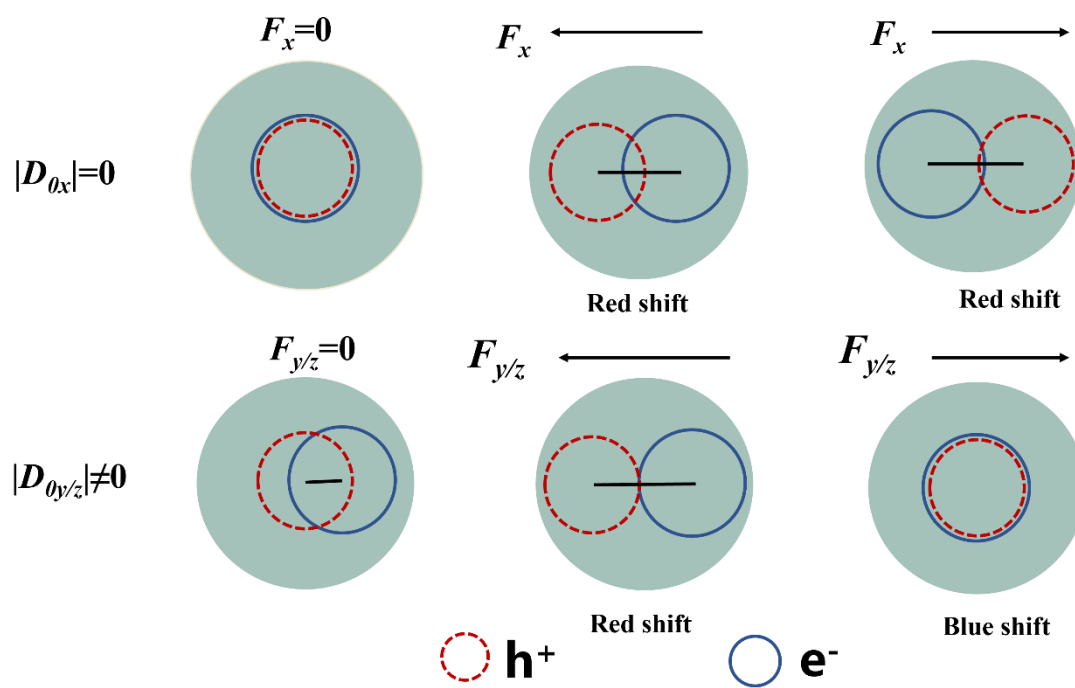


Figure S6. The interaction between the electric field and the dipole aligns.

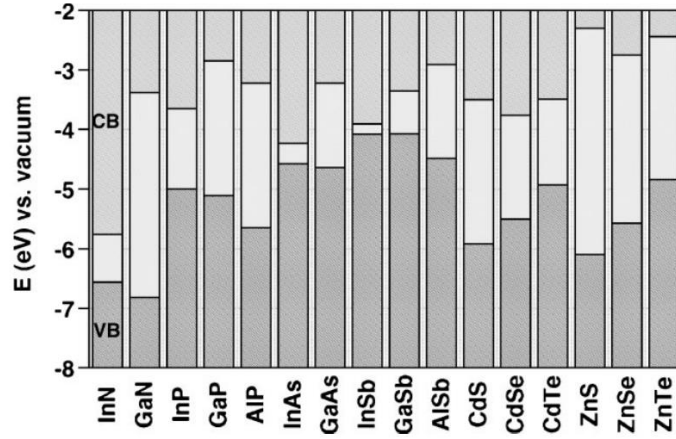


Figure S7. Electronic energy levels of selected III–V and II–VI semiconductors. Reproduced with permission from [Reiss, P.; Protiere, M.; Li, L., Core/Shell Semiconductor Nanocrystals. Small 2009, 5, 154-168]

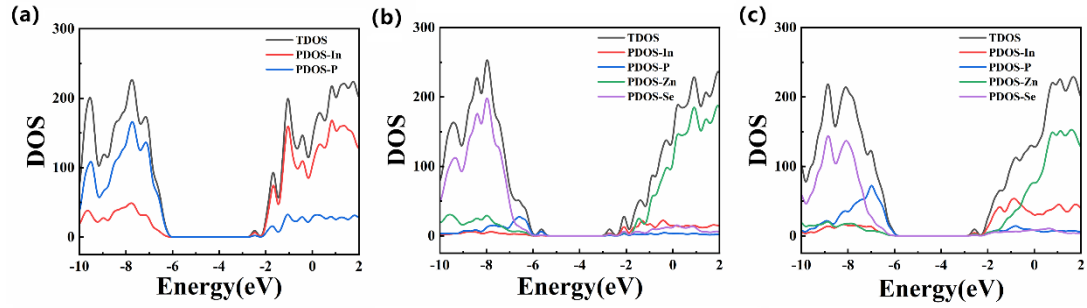


Figure S8. Total and atomic composition of the density of states for (a) $(\text{InP})_{77}\text{-E}$, (b) $(\text{InP})_{10}(\text{ZnSe})_{67}\text{-E}$, and (c) $(\text{InP})_{27}(\text{ZnSe})_{50}\text{-E}$.

Table S1. Computed DFT energy of S_0' -state and S_1 -state, energy differences of both states ΔE in the $(\text{InP})_{77}$ QDs under various electronic fields $F_i(i=x,y,z)$.

$F_i/\text{a.u.}$	$(\text{InP})_{77}\text{-E-x}$			$(\text{InP})_{77}\text{-E-y}$			$(\text{InP})_{77}\text{-E-z}$		
	$E(S_0')/\text{a.u.}$	$E(S_1)/\text{a.u.}$	$\Delta E/\text{eV}$	$E(S_0')/\text{a.u.}$	$E(S_1)/\text{a.u.}$	$\Delta E/\text{eV}$	$E(S_0')/\text{a.u.}$	$E(S_1)/\text{a.u.}$	$\Delta E/\text{eV}$
-0.0010	-722.2511	-722.1285	3.3354	-722.2518	-722.1279	3.3723	-722.2509	-722.1283	3.3362
-0.0008	-722.2503	-722.1275	3.3403	-722.2508	-722.1270	3.3698	-722.2502	-722.1274	3.3399
-0.0006	-722.2496	-722.1267	3.3440	-722.2501	-722.1264	3.3662	-722.2496	-722.1267	3.3431
-0.0004	-722.2492	-722.1262	3.3466	-722.2495	-722.1259	3.3614	-722.2492	-722.1262	3.3456
-0.0002	-722.2489	-722.1258	3.3482	-722.2490	-722.1257	3.3556	-722.2489	-722.1259	3.3475
0	-722.2488	-722.1257	3.3487	-722.2488	-722.1257	3.3487	-722.2488	-722.1257	3.3487
0.0002	-722.2489	-722.1258	3.3482	-722.2487	-722.1260	3.3407	-722.2489	-722.1258	3.3494
0.0004	-722.2492	-722.1262	3.3466	-722.2489	-722.1265	3.3317	-722.2491	-722.1260	3.3494
0.0006	-722.2496	-722.1267	3.3440	-722.2492	-722.1272	3.3216	-722.2495	-722.1265	3.3488
0.0008	-722.2503	-722.1275	3.3403	-722.2497	-722.1281	3.3103	-722.2501	-722.1271	3.3476
0.0010	-722.2511	-722.1285	3.3354	-722.2504	-722.1292	3.2981	-722.2509	-722.1279	3.3458

Table S2. Computed DFT energy of S_0' -state and S_1 -state, energy differences of both states ΔE in the $(\text{InP})_{10}(\text{ZnSe})_{67}$ QDs under various electronic fields $F_i(i=x,y,z)$.

$F_i/\text{a.u.}$	$(\text{InP})_{10}(\text{ZnSe})_{67}\text{-E-x}$			$(\text{InP})_{10}(\text{ZnSe})_{67}\text{-E-y}$			$(\text{InP})_{10}(\text{ZnSe})_{67}\text{-E-z}$		
	$E(S_0')/\text{a.u.}$	$E(S_1)/\text{a.u.}$	$\Delta E/\text{eV}$	$E(S_0')/\text{a.u.}$	$E(S_1)/\text{a.u.}$	$\Delta E/\text{eV}$	$E(S_0')/\text{a.u.}$	$E(S_1)/\text{a.u.}$	$\Delta E/\text{eV}$
-0.0010	-5181.2071	-5181.1196	2.3816	-5181.2077	-5181.1194	2.4019	-5181.2109	-5181.1203	2.4645
-0.0008	-5181.2064	-5181.1188	2.3849	-5181.2069	-5181.1186	2.4013	-5181.2095	-5181.1194	2.4503
-0.0006	-5181.2059	-5181.1181	2.3874	-5181.2062	-5181.1180	2.3999	-5181.2082	-5181.1187	2.4357
-0.0004	-5181.2055	-5181.1177	2.3893	-5181.2057	-5181.1176	2.3976	-5181.2070	-5181.1181	2.4210
-0.0002	-5181.2052	-5181.1174	2.3903	-5181.2054	-5181.1174	2.3945	-5181.2060	-5181.1176	2.4060
0	-5181.2052	-5181.1173	2.3907	-5181.2052	-5181.1173	2.3907	-5181.2052	-5181.1173	2.3907
0.0002	-5181.2052	-5181.1174	2.3903	-5181.2051	-5181.1174	2.3861	-5181.2045	-5181.1172	2.3752
0.0004	-5181.2055	-5181.1177	2.3892	-5181.2053	-5181.1178	2.3808	-5181.2039	-5181.1172	2.3594
0.0006	-5181.2059	-5181.1181	2.3874	-5181.2055	-5181.1183	2.3749	-5181.2035	-5181.1173	2.3433
0.0008	-5181.2064	-5181.1188	2.3848	-5181.2060	-5181.1189	2.3682	-5181.2032	-5181.1177	2.3270
0.0010	-5181.2071	-5181.1196	2.3814	-5181.2066	-5181.1198	2.3610	-5181.2031	-5181.1181	2.3104

Table S3. Computed DFT energy of S_0' -state and S_1 -state, energy differences of both states ΔE in the $(\text{InP})_{27}(\text{ZnSe})_{50}$ QDs under various electronic fields $F_i(i=x,y,z)$.

$F_i/\text{a.u.}$	$(\text{InP})_{27}(\text{ZnSe})_{50}\text{-E-x}$			$(\text{InP})_{27}(\text{ZnSe})_{50}\text{-E-y}$			$(\text{InP})_{27}(\text{ZnSe})_{50}\text{-E-z}$		
	$E(S_0')/\text{a.u.}$	$E(S_1)/\text{a.u.}$	$\Delta E/\text{eV}$	$E(S_0')/\text{a.u.}$	$E(S_1)/\text{a.u.}$	$\Delta E/\text{eV}$	$E(S_0')/\text{a.u.}$	$E(S_1)/\text{a.u.}$	$\Delta E/\text{eV}$
-0.0010	-4054.2563	-4054.1440	3.0565	-4054.2559	-4054.1451	3.0158	-4054.2550	-4054.1425	3.0610
-0.0008	-4054.2555	-4054.1430	3.0626	-4054.2552	-4054.1439	3.0293	-4054.2546	-4054.1419	3.0644
-0.0006	-4054.2550	-4054.1422	3.0673	-4054.2547	-4054.1429	3.0418	-4054.2542	-4054.1415	3.0672
-0.0004	-4054.2545	-4054.1417	3.0706	-4054.2544	-4054.1422	3.0533	-4054.2541	-4054.1413	3.0698
-0.0002	-4054.2543	-4054.1414	3.0726	-4054.2542	-4054.1416	3.0638	-4054.2541	-4054.1412	3.0718
0	-4054.2542	-4054.1413	3.0733	-4054.2542	-4054.1413	3.0733	-4054.2542	-4054.1413	3.0733
0.0002	-4054.2543	-4054.1414	3.0726	-4054.2544	-4054.1411	3.0818	-4054.2544	-4054.1415	3.0744
0.0004	-4054.2545	-4054.1417	3.0706	-4054.2547	-4054.1412	3.0893	-4054.2549	-4054.1419	3.0749
0.0006	-4054.2550	-4054.1422	3.0673	-4054.2552	-4054.1414	3.0957	-4054.2555	-4054.1425	3.0750
0.0008	-4054.2555	-4054.1430	3.0626	-4054.2559	-4054.1419	3.1011	-4054.2562	-4054.1433	3.0747
0.0010	-4054.2563	-4054.1440	3.0565	-4054.2567	-4054.1426	3.1055	-4054.2572	-4054.1442	3.0738

Table S4. The centroids of electrons and holes (R_{ei} and R_{hi} , unit:Å), electron-hole separation lengths ($D= R_{hi}-R_{ei}$, unit:Å), and exciton dipole moment ($p_i=qD_i$, unit:a.u.) in (InP)₇₇-E (where $i=x,y,z$).

$F_i/\text{a.u.}$	R_{hx}	R_{ex}	D_x	p_x	R_{hy}	R_{ey}	D_y	p_y	R_{hz}	R_{ez}	D_z	p_z
-0.0010	-0.819	0.952	-1.771	-3.206	1.172	0.563	0.610	1.103	-0.866	0.575	-1.441	-2.615
-0.0008	-0.654	0.764	-1.417	-2.570	1.363	0.354	1.009	1.830	-0.775	0.455	-1.230	-2.233
-0.0006	-0.489	0.574	-1.063	-1.930	1.541	0.148	1.394	2.531	-0.685	0.333	-1.019	-1.850
-0.0004	-0.326	0.383	-0.709	-1.288	1.708	-0.058	1.766	3.208	-0.597	0.211	-0.807	-1.467
-0.0002	-0.163	0.192	-0.355	-0.644	1.866	-0.261	2.126	3.865	-0.508	0.087	-0.595	-1.082
0	0.000	0.000	0.000	0.000	2.016	-0.461	2.477	4.502	-0.420	-0.037	-0.383	-0.696
0.0002	0.163	-0.192	0.355	0.644	2.161	-0.659	2.820	5.121	-0.332	-0.162	-0.170	-0.308
0.0004	0.326	-0.383	0.709	1.288	2.302	-0.853	3.154	5.725	-0.243	-0.287	0.044	0.081
0.0006	0.489	-0.573	1.063	1.930	2.439	-1.043	3.482	6.313	-0.153	-0.413	0.260	0.471
0.0008	0.654	-0.764	1.417	2.570	2.573	-1.230	3.803	6.887	-0.062	-0.538	0.476	0.864
0.0010	0.819	-0.952	1.771	3.206	2.706	-1.412	4.118	7.449	0.032	-0.662	0.694	1.259

Table S5. The centroids of electrons and holes (R_{ei} and R_{hi} , unit:Å), electron-hole separation lengths ($D= R_{hi}-R_{ei}$, unit:Å), and exciton dipole moment ($p_i=qD_i$, unit:a.u.) in (InP)₁₀(ZnSe)₆₇-E (where $i=x,y,z$).

$F_i/\text{a.u.}$	R_{hx}	R_{ex}	D_x	p_x	R_{hy}	R_{ey}	D_y	p_y	R_{hz}	R_{ez}	D_z	p_z
-0.0010	-0.279	0.647	-0.927	-1.722	1.079	0.690	0.389	0.722	2.807	-1.037	3.846	7.151
-0.0008	-0.222	0.518	-0.740	-1.375	1.088	0.529	0.558	1.037	2.816	-1.101	3.917	7.287
-0.0006	-0.166	0.388	-0.554	-1.029	1.096	0.374	0.722	1.341	2.826	-1.165	3.991	7.423
-0.0004	-0.109	0.259	-0.368	-0.684	1.104	0.224	0.880	1.635	2.835	-1.230	4.065	7.559
-0.0002	-0.052	0.130	-0.182	-0.338	1.112	0.080	1.032	1.922	2.844	-1.295	4.139	7.696
0	0.005	0.001	0.004	0.007	1.119	-0.059	1.179	2.190	2.853	-1.361	4.213	7.832
0.0002	0.062	-0.128	0.190	0.352	1.127	-0.192	1.319	2.454	2.861	-1.426	4.287	7.969
0.0004	0.118	-0.257	0.375	0.697	1.134	-0.320	1.455	2.706	2.869	-1.492	4.362	8.106
0.0006	0.175	-0.386	0.561	1.043	1.142	-0.443	1.585	2.948	2.877	-1.559	4.436	8.242
0.0008	0.232	-0.515	0.748	1.389	1.149	-0.561	1.709	3.181	2.884	-1.625	4.510	8.379
0.0010	0.289	-0.645	0.934	1.736	1.155	-0.674	1.829	3.405	2.892	-1.692	4.584	8.516

Table S6. The centroids of electrons and holes (R_{ei} and R_{hi} , unit:Å), electron-hole separation lengths ($D=R_{hi}-R_{ei}$, unit:Å), and exciton dipole moment ($p_i=qD_i$, unit:a.u.) in (InP)₂₇(ZnSe)₅₀-E (where $i=x,y,z$).

$F_i/\text{a.u.}$	R_{hx}	R_{ex}	D_x	p_x	R_{hy}	R_{ey}	D_y	p_y	R_{hz}	R_{ez}	D_z	p_z
-0.0010	-1.095	1.010	-2.105	-3.863	-2.463	1.648	-4.111	-7.528	-0.404	0.632	-1.037	-1.911
-0.0008	-0.888	0.812	-1.701	-3.124	-2.370	1.469	-3.839	-7.038	-0.372	0.529	-0.901	-1.661
-0.0006	-0.674	0.611	-1.285	-2.363	-2.277	1.284	-3.562	-6.538	-0.340	0.426	-0.766	-1.412
-0.0004	-0.453	0.409	-0.862	-1.586	-2.185	1.094	-3.280	-6.027	-0.308	0.323	-0.632	-1.164
-0.0002	-0.228	0.205	-0.432	-0.796	-2.094	0.898	-2.993	-5.505	-0.276	0.222	-0.498	-0.917
0	0.000	0.000	0.000	0.000	-2.003	0.697	-2.700	-4.972	-0.243	0.121	-0.365	-0.671
0.0002	0.228	-0.204	0.433	0.797	-1.913	0.490	-2.403	-4.427	-0.210	0.021	-0.232	-0.427
0.0004	0.453	-0.409	0.862	1.586	-1.822	0.277	-2.099	-3.870	-0.177	-0.077	-0.100	-0.183
0.0006	0.674	-0.611	1.285	2.363	-1.732	0.058	-1.790	-3.301	-0.143	-0.175	0.032	0.060
0.0008	0.888	-0.812	1.701	3.124	-1.641	-0.167	-1.474	-2.719	-0.108	-0.272	0.164	0.302
0.0010	1.095	-1.010	2.105	3.863	-1.549	-0.397	-1.152	-2.125	-0.072	-0.368	0.295	0.543

Table S7. The coordinates (Å) of (InP)₇₇-E, (InP)₁₀(ZnSe)₆₇-E, and (InP)₂₇(ZnSe)₅₀-E.

(InP) ₇₇ -E				(InP) ₁₀ (ZnSe) ₆₇ -E				(InP) ₂₇ (ZnSe) ₅₀ -E			
In	2.10	1.17	0.48	In	2.15	1.28	0.41	In	2.09	1.23	0.47
P	0.00	2.48	-0.45	P	0.00	2.45	-0.47	P	0.00	2.45	-0.45
P	2.09	-1.24	-0.44	P	2.06	-1.20	-0.42	P	2.08	-1.22	-0.43
In	-2.10	1.17	0.48	In	-2.15	1.28	0.42	In	-2.09	1.23	0.47
In	0.00	-2.50	0.46	In	0.00	-2.56	0.47	In	0.00	-2.53	0.46
P	-2.09	-1.24	-0.44	P	-2.05	-1.20	-0.42	P	-2.08	-1.22	-0.43
In	0.00	2.44	-3.05	In	0.00	2.38	-3.03	In	0.00	2.46	-3.07
In	2.11	-1.24	-3.03	In	2.04	-1.18	-2.98	In	2.08	-1.15	-3.02
P	2.09	1.23	3.05	P	1.99	1.31	2.99	P	2.11	1.24	3.05
P	0.00	0.00	-3.90	P	0.00	0.01	-4.00	P	0.00	0.02	-3.94
In	0.00	-0.03	3.94	In	0.00	-0.16	3.81	In	0.00	0.02	3.80
In	-2.11	-1.24	-3.03	In	-2.03	-1.18	-2.98	In	-2.08	-1.15	-3.02
P	-2.09	1.23	3.05	P	-1.99	1.31	2.99	P	-2.11	1.24	3.05
P	0.00	-2.46	3.05	P	0.00	-2.54	3.03	P	0.00	-2.46	3.06
P	4.17	2.46	-0.44	P	4.20	2.47	-0.45	P	4.23	2.42	-0.43
In	0.00	4.92	0.46	In	0.00	4.86	0.40	In	0.00	4.91	0.35
In	4.21	-2.47	0.45	In	4.14	-2.40	0.42	In	4.24	-2.53	0.49
P	-4.17	2.46	-0.44	P	-4.20	2.47	-0.45	P	-4.23	2.42	-0.43
P	0.00	-4.92	-0.43	P	0.00	-4.91	-0.44	P	0.00	-4.93	-0.45
In	-4.21	-2.47	0.45	In	-4.14	-2.40	0.42	In	-4.24	-2.53	0.49
In	4.21	2.44	-3.03	Zn	-6.28	-3.62	-6.35	Zn	-6.26	-3.61	-6.42
P	2.11	3.69	-3.90	Zn	-2.09	-3.63	-6.44	Zn	-2.08	-3.63	-6.44
P	4.22	0.00	-3.89	Zn	2.09	-3.63	-6.44	Zn	2.08	-3.63	-6.44
In	4.22	-0.01	3.91	Zn	6.28	-3.62	-6.35	Zn	6.26	-3.61	-6.42
In	2.11	3.67	3.91	Zn	8.37	-4.79	-2.92	Zn	8.41	-4.79	-2.92
P	0.00	4.90	3.04	Zn	8.39	2.41	-2.95	Zn	8.43	2.41	-2.99
P	-2.11	3.69	-3.90	Zn	8.37	4.83	0.47	Zn	8.43	4.86	0.50
P	4.21	-2.45	3.04	Zn	6.22	3.66	3.88	Zn	6.36	3.54	3.87
P	2.11	-3.69	-3.88	Zn	4.16	7.25	3.82	Zn	4.16	7.26	3.88
In	-2.11	3.67	3.91	Zn	6.30	6.07	-2.98	Zn	6.31	6.10	-3.03
In	-4.21	2.44	-3.03	Zn	4.25	4.74	0.40	In	4.10	4.84	0.38
In	2.11	-3.70	3.91	Zn	2.09	8.57	0.42	Zn	2.06	8.48	0.45
In	0.00	-4.92	-3.02	Zn	0.00	7.42	3.82	Zn	0.00	7.29	3.87
P	-4.22	0.00	-3.89	Zn	-4.16	7.25	3.82	Zn	-4.16	7.26	3.88
P	-2.11	-3.69	-3.88	Zn	-6.22	3.66	3.88	Zn	-6.36	3.54	3.87
In	-4.22	-0.01	3.91	Zn	-8.37	4.83	0.47	Zn	-8.43	4.86	0.50
In	-2.11	-3.70	3.91	Zn	-8.39	2.41	-2.95	Zn	-8.43	2.41	-2.99
P	-4.21	-2.45	3.04	Zn	-8.37	-4.79	-2.92	Zn	-8.41	-4.79	-2.92
In	4.21	4.90	0.44	Zn	-6.35	-1.19	-3.00	In	-6.18	-1.18	-2.91

In	6.30	1.22	0.44	Zn	-4.26	2.48	-2.85	In	-4.10	2.40	-3.01
P	2.11	6.14	-0.43	Zn	-6.30	6.07	-2.98	Zn	-6.31	6.10	-3.03
P	6.30	-1.21	-0.43	Zn	-4.25	4.74	0.40	In	-4.10	4.84	0.38
In	0.00	0.00	-6.49	Zn	-2.09	8.57	0.42	Zn	-2.06	8.48	0.45
P	-2.11	6.14	-0.43	Zn	0.00	9.68	-3.02	Zn	0.00	9.65	-2.97
P	4.22	-4.91	-0.43	Zn	-2.15	6.13	-3.05	In	-1.98	6.09	-3.01
In	-4.21	4.90	0.44	Zn	0.00	7.24	-6.42	Zn	0.00	7.27	-6.36
In	2.11	-6.15	0.44	Zn	2.15	6.13	-3.05	In	1.98	6.09	-3.01
P	0.00	-0.02	6.53	Zn	4.26	2.48	-2.85	In	4.10	2.40	-3.01
In	-6.30	1.22	0.44	Zn	6.35	-1.19	-3.00	In	6.18	-1.18	-2.91
In	-2.11	-6.15	0.44	Zn	4.18	0.00	-6.45	Zn	4.15	-0.01	-6.41
P	-6.30	-1.21	-0.43	Zn	2.09	3.62	-6.49	Zn	2.06	3.64	-6.40
P	-4.22	-4.91	-0.43	Zn	0.00	-0.01	-6.47	Zn	0.00	0.03	-6.42
In	2.11	6.13	-3.03	Zn	-2.09	3.62	-6.49	Zn	-2.06	3.64	-6.40
In	6.33	-1.23	-3.02	Zn	-4.18	0.00	-6.45	Zn	-4.15	-0.01	-6.41
P	6.30	1.24	3.03	Se	-4.21	-2.43	-7.23	Se	-4.19	-2.45	-7.26
P	4.23	4.89	3.03	Se	0.00	-2.46	-7.30	Se	0.00	-2.43	-7.27
In	-2.11	6.13	-3.03	Se	4.21	-2.43	-7.23	Se	4.19	-2.45	-7.26
In	4.23	-4.90	-3.02	Se	6.29	-3.63	-3.81	Se	6.29	-3.68	-3.86
P	-4.23	4.89	3.03	Se	8.41	0.01	-3.83	Se	8.41	-0.01	-3.85
P	2.10	-6.14	3.03	Se	8.36	2.42	-0.40	Se	8.42	2.46	-0.44
In	-6.33	-1.23	-3.02	Se	8.33	4.79	3.01	Se	8.36	4.91	3.01
In	-4.23	-4.90	-3.02	Se	6.24	3.61	6.43	Se	6.26	3.72	6.44
P	-6.30	1.24	3.03	Se	2.12	8.54	2.97	Se	2.10	8.46	3.04
P	-2.10	-6.14	3.03	Se	-2.12	8.54	2.97	Se	-2.10	8.46	3.04
In	2.09	3.67	-6.48	Se	-6.24	3.61	6.43	Se	-6.26	3.72	6.44
In	4.21	-0.01	-6.47	Se	-8.33	4.79	3.01	Se	-8.36	4.91	3.01
P	2.12	1.23	-7.29	Se	-8.36	2.42	-0.40	Se	-8.42	2.46	-0.44
In	-2.09	3.67	-6.48	Se	-8.41	0.01	-3.83	Se	-8.41	-0.01	-3.85
In	2.12	-3.65	-6.46	Se	-6.29	-3.63	-3.81	Se	-6.29	-3.68	-3.86
P	2.12	3.60	6.49	Se	-2.12	1.21	-7.32	Se	-2.10	1.22	-7.29
P	4.18	0.02	6.49	Se	2.12	1.21	-7.32	Se	2.10	1.22	-7.29
P	-2.12	1.23	-7.29	Se	4.25	0.04	-3.88	P	4.19	0.00	-3.94
P	0.00	-2.45	-7.29	Se	6.33	3.65	-3.82	Se	6.36	3.66	-3.84
In	0.00	2.43	7.35	Se	6.31	6.05	-0.43	Se	6.35	6.06	-0.46
In	2.12	-1.25	7.36	Se	4.15	4.88	2.99	Se	4.22	4.85	3.05
In	-4.21	-0.01	-6.47	Se	0.00	9.72	-0.48	Se	0.00	9.72	-0.39
In	-2.12	-3.65	-6.46	Se	-4.15	4.88	2.99	Se	-4.22	4.85	3.05
P	-2.12	3.60	6.49	Se	-6.31	6.05	-0.43	Se	-6.35	6.06	-0.46
P	2.06	-3.67	6.49	Se	-6.33	3.65	-3.82	Se	-6.36	3.66	-3.84
In	-2.12	-1.25	7.36	Se	-4.25	0.04	-3.88	P	-4.19	0.00	-3.94
P	-4.18	0.02	6.49	Se	0.00	4.85	-7.28	Se	0.00	4.87	-7.28

P	-2.06	-3.67	6.49	Se	2.16	3.69	-3.92	P	2.11	3.69	-3.93
P	6.34	3.68	-3.82	Se	4.24	7.29	-3.87	Se	4.24	7.31	-3.88
In	6.34	3.68	3.91	Se	2.17	6.16	-0.46	P	2.10	6.18	-0.43
P	0.00	7.36	-3.89	Se	-2.17	6.16	-0.46	P	-2.10	6.18	-0.43
P	6.34	-3.67	-3.88	Se	-4.24	7.29	-3.87	Se	-4.24	7.31	-3.88
In	0.00	7.35	3.87	Se	-2.16	3.69	-3.92	P	-2.11	3.69	-3.93
In	6.33	-3.66	3.88	Se	0.00	7.28	-3.87	P	0.00	7.40	-3.91
P	-6.34	3.68	-3.82	Se	4.20	-7.29	-3.86	Se	4.18	-7.27	-3.90
P	0.00	-7.38	-3.82	Se	0.00	-7.31	-3.86	Se	0.00	-7.31	-3.85
In	-6.34	3.68	3.91	Se	-4.20	-7.29	-3.86	Se	-4.18	-7.27	-3.90
In	0.00	-7.37	3.91	Se	-8.38	-4.80	-0.38	Se	-8.33	-4.88	-0.41
P	-6.34	-3.67	-3.88	Se	-8.31	-2.34	3.07	Se	-8.38	-2.44	3.01
In	-6.33	-3.66	3.88	Se	-6.10	1.23	3.00	P	-6.38	1.23	3.09
P	6.33	6.07	-0.46	Se	-6.25	-6.04	3.05	Se	-6.27	-6.09	3.02
P	8.36	2.49	-0.45	Se	-4.21	-4.94	-0.41	P	-4.22	-4.90	-0.45
In	2.09	8.56	0.44	Se	-4.15	-2.43	3.09	P	-4.25	-2.45	3.06
In	8.41	-2.43	0.44	Se	-4.11	0.00	6.44	Se	-4.18	0.06	6.49
P	0.00	4.92	-7.29	Se	-2.08	-3.70	6.45	Se	-2.08	-3.64	6.51
P	4.24	-2.45	-7.28	Se	-2.08	3.61	6.44	Se	-2.10	3.65	6.44
In	4.24	2.44	7.37	Se	0.00	-0.06	6.49	Se	0.00	0.01	6.53
In	-2.09	8.56	0.44	Se	2.08	3.61	6.44	Se	2.10	3.65	6.44
In	6.34	-6.08	0.45	Se	4.11	0.00	6.44	Se	4.18	0.06	6.49
P	-6.33	6.07	-0.46	Se	6.10	1.23	3.00	P	6.38	1.23	3.09
P	-4.24	-2.45	-7.28	Se	8.31	-2.34	3.07	Se	8.38	-2.44	3.01
P	2.07	-8.57	-0.45	Se	8.38	-4.80	-0.38	Se	8.33	-4.88	-0.41
In	-4.24	2.44	7.37	Se	6.25	-6.04	3.05	Se	6.27	-6.09	3.02
In	0.00	-4.93	7.37	Se	4.15	-2.43	3.09	P	4.25	-2.45	3.06
P	-8.36	2.49	-0.45	Se	2.08	-3.70	6.45	Se	2.08	-3.64	6.51
P	-2.07	-8.57	-0.45	Se	0.00	-7.33	6.41	Se	0.00	-7.29	6.48
In	-8.41	-2.43	0.44	Se	2.09	-6.12	3.00	P	2.17	-6.14	3.05
In	-6.34	-6.08	0.45	Se	4.21	-4.94	-0.41	P	4.22	-4.90	-0.45
In	6.33	6.13	-3.03	Se	2.09	-8.51	-0.46	Se	2.08	-8.56	-0.47
In	8.44	2.43	-3.03	Se	0.00	-9.73	2.95	Se	0.00	-9.75	2.99
P	4.22	7.32	-3.87	Se	-2.09	-8.51	-0.46	Se	-2.08	-8.56	-0.47
P	8.43	0.01	-3.85	Se	-2.09	-6.12	3.00	P	-2.17	-6.14	3.05
In	4.22	7.32	3.87	Zn	-8.39	-2.41	0.52	Zn	-8.31	-2.46	0.47
In	8.41	0.02	3.86	Zn	-8.11	0.04	3.94	Zn	-8.34	-0.02	3.86
P	2.12	8.52	3.01	Zn	-4.18	2.42	7.29	Zn	-4.22	2.52	7.30
P	8.39	-2.39	3.01	Zn	-6.27	-3.64	3.89	Zn	-6.28	-3.65	3.83
P	-2.12	8.52	3.01	Zn	-3.99	0.05	3.90	In	-4.25	0.02	3.78
P	-4.22	7.32	-3.87	Zn	-2.11	-1.32	7.30	Zn	-2.12	-1.19	7.33
P	6.29	-6.08	3.02	Zn	0.00	2.42	7.26	Zn	0.00	2.50	7.30

P	4.21	-7.34	-3.85	Zn	4.18	2.42	7.29	Zn	4.22	2.52	7.30
In	-4.22	7.32	3.87	Zn	2.11	-1.32	7.30	Zn	2.12	-1.19	7.33
In	-6.33	6.13	-3.03	Zn	0.00	-4.95	7.29	Zn	0.00	-4.88	7.35
In	4.21	-7.32	3.88	Zn	-1.97	-3.70	3.88	In	-2.15	-3.68	3.80
In	2.13	-8.58	-3.02	Zn	-4.15	-7.27	3.84	Zn	-4.19	-7.28	3.88
In	-8.44	2.43	-3.03	Zn	-6.34	-6.04	0.51	Zn	-6.20	-6.05	0.45
In	-2.13	-8.58	-3.02	Zn	-4.21	-4.91	-3.00	Zn	-4.18	-4.92	-2.88
P	-8.43	0.01	-3.85	Zn	-1.94	-6.09	0.40	In	-2.14	-6.02	0.47
P	-4.21	-7.34	-3.85	Zn	0.00	-7.35	3.86	In	0.00	-7.20	3.80
In	-8.41	0.02	3.86	Zn	1.97	-3.70	3.88	In	2.15	-3.68	3.80
In	-4.21	-7.32	3.88	Zn	3.99	0.05	3.90	In	4.25	0.02	3.78
P	-8.39	-2.39	3.01	Zn	8.11	0.04	3.94	Zn	8.34	-0.02	3.86
P	-6.29	-6.08	3.02	Zn	6.27	-3.64	3.89	Zn	6.28	-3.65	3.83
In	8.44	4.90	0.44	Zn	4.15	-7.27	3.84	Zn	4.19	-7.28	3.88
P	-8.40	-4.84	-0.44	Zn	1.94	-6.09	0.40	In	2.14	-6.02	0.47
In	6.34	-3.65	-6.45	Zn	0.00	-9.72	0.41	Zn	0.00	-9.75	0.41
In	0.00	7.34	-6.46	Zn	-2.10	-8.49	-3.01	Zn	-2.12	-8.49	-3.07
P	6.32	3.65	6.47	Zn	2.10	-8.49	-3.01	Zn	2.12	-8.49	-3.07
P	0.00	9.75	-0.45	Zn	4.21	-4.91	-3.00	Zn	4.18	-4.92	-2.88
P	8.40	-4.84	-0.44	Zn	6.34	-6.04	0.51	Zn	6.20	-6.05	0.45
In	-8.44	4.90	0.44	Zn	8.39	-2.41	0.52	Zn	8.31	-2.46	0.47
In	-6.34	-3.65	-6.45	Zn	6.16	1.35	0.40	In	6.26	1.15	0.56
In	0.00	-9.81	0.44	Zn	2.09	3.61	3.88	Zn	2.10	3.55	3.87
P	-6.32	3.65	6.47	Zn	-2.09	3.61	3.88	Zn	-2.10	3.55	3.87
P	0.00	-7.33	6.48	Se	6.35	-1.17	-0.41	P	6.31	-1.25	-0.38
P	8.43	4.88	3.00	Se	0.00	4.97	3.08	Se	0.00	4.86	3.04
In	0.00	9.78	-3.02	Se	-6.35	-1.17	-0.41	P	-6.31	-1.25	-0.38
In	8.44	-4.87	-3.01	Zn	-6.16	1.35	0.40	In	-6.26	1.15	0.56
P	-8.43	4.88	3.00	Zn	0.00	-4.95	-2.84	Zn	0.00	-4.91	-2.91
P	0.00	-9.78	3.01	Se	-2.10	-3.70	-3.88	Se	-2.09	-3.70	-3.87
In	-8.44	-4.87	-3.01	Se	2.10	-3.70	-3.88	Se	2.09	-3.70	-3.87
H	0.00	4.92	-8.77	H	0.00	4.90	-8.88	H	0.00	4.89	-8.87
H	9.54	1.75	0.07	H	9.65	1.64	0.15	H	9.71	1.67	0.12
H	6.31	7.46	0.05	H	6.31	7.56	0.12	H	6.27	7.58	0.09
H	0.00	-7.36	-5.30	H	0.00	-7.27	-5.47	H	0.00	-7.24	-5.45
H	-6.31	3.67	-5.30	H	-6.32	3.63	-5.43	H	-6.31	3.63	-5.45
H	6.31	3.67	-5.30	H	6.32	3.63	-5.43	H	6.31	3.63	-5.45
H	-3.28	-4.35	6.98	H	-3.40	-4.46	6.97	H	-3.41	-4.39	7.01
H	-5.39	-0.69	6.96	H	-5.48	-0.76	6.84	H	-5.51	-0.71	6.99
H	3.28	-4.35	6.98	H	3.40	-4.46	6.97	H	3.41	-4.39	7.01
H	-2.10	4.99	6.98	H	-2.06	5.12	6.99	H	-2.07	5.18	6.93
H	0.00	-2.46	-8.77	H	0.00	-2.53	-8.90	H	0.00	-2.47	-8.87

H	-2.13	1.24	-8.77	H	-2.18	1.23	-8.92	H	-2.11	1.23	-8.89
H	5.39	-0.69	6.96	H	5.48	-0.76	6.84	H	5.51	-0.71	6.99
H	2.10	4.99	6.98	H	2.06	5.12	6.99	H	2.07	5.18	6.93
H	2.13	1.24	-8.77	H	2.18	1.23	-8.92	H	2.11	1.23	-8.89
H	-1.19	-10.49	3.51	H	-1.30	-10.50	3.48	H	-1.32	-10.46	3.55
H	1.19	-10.49	3.51	H	1.30	-10.50	3.48	H	1.32	-10.46	3.55
H	-8.45	6.26	3.51	H	-8.40	6.28	3.59	H	-8.27	6.44	3.48
H	-9.64	4.20	3.50	H	-9.61	3.98	3.55	H	-9.72	4.28	3.57
H	9.64	4.20	3.50	H	9.61	3.98	3.55	H	9.72	4.28	3.57
H	8.45	6.26	3.51	H	8.39	6.28	3.59	H	8.27	6.44	3.48
H	1.19	-8.04	6.98	H	1.30	-8.09	6.95	H	1.33	-8.06	6.97
H	-1.19	-8.04	6.98	H	-1.30	-8.09	6.95	H	-1.33	-8.06	6.97
H	-7.53	2.97	6.96	H	-7.56	2.85	6.94	H	-7.57	3.04	7.06
H	-6.34	5.03	6.98	H	-6.27	5.10	7.00	H	-6.19	5.25	6.91
H	9.62	-5.52	0.06	H	9.70	-5.55	0.12	H	9.64	-5.63	0.12
H	0.00	11.14	0.04	H	0.00	11.25	0.00	H	0.00	11.23	0.14
H	6.34	5.03	6.98	H	6.27	5.10	7.00	H	6.19	5.25	6.91
H	7.53	2.97	6.96	H	7.55	2.85	6.94	H	7.57	3.04	7.06
H	-9.62	-5.52	0.06	H	-9.70	-5.55	0.12	H	-9.64	-5.63	0.12
H	-7.50	-6.77	3.51	H	-7.56	-6.78	3.60	H	-7.59	-6.84	3.52
H	-9.61	-3.08	3.50	H	-9.64	-3.02	3.66	H	-9.69	-3.21	3.52
H	-4.24	-7.35	-5.33	H	-4.23	-7.26	-5.46	H	-4.14	-7.21	-5.50
H	-5.42	-8.03	-3.38	H	-5.52	-8.03	-3.35	H	-5.50	-8.06	-3.45
H	-9.64	-0.68	-3.36	H	-9.71	-0.77	-3.32	H	-9.67	-0.85	-3.32
H	-8.47	-0.02	-5.32	H	-8.41	-0.01	-5.43	H	-8.34	-0.06	-5.45
H	5.42	-8.03	-3.38	H	5.52	-8.03	-3.35	H	5.50	-8.06	-3.45
H	4.24	-7.35	-5.33	H	4.23	-7.26	-5.46	H	4.14	-7.21	-5.50
H	7.50	-6.77	3.51	H	7.56	-6.78	3.60	H	7.59	-6.84	3.52
H	-4.21	7.35	-5.34	H	-4.23	7.30	-5.47	H	-4.19	7.31	-5.48
H	-4.22	8.72	-3.40	H	-4.22	8.81	-3.36	H	-4.20	8.83	-3.37
H	-2.13	9.91	3.51	H	-2.18	10.05	3.50	H	-2.11	9.96	3.60
H	9.61	-3.08	3.50	H	9.64	-3.02	3.66	H	9.69	-3.21	3.52
H	2.13	9.91	3.51	H	2.18	10.05	3.50	H	2.11	9.96	3.60
H	8.47	-0.02	-5.32	H	8.41	-0.01	-5.43	H	8.34	-0.06	-5.45
H	9.64	-0.68	-3.36	H	9.71	-0.77	-3.32	H	9.67	-0.85	-3.32
H	4.22	8.72	-3.40	H	4.22	8.81	-3.36	H	4.20	8.83	-3.37
H	4.21	7.35	-5.34	H	4.23	7.30	-5.47	H	4.19	7.31	-5.48
H	-3.28	-9.25	0.05	H	-3.40	-9.26	0.08	H	-3.41	-9.29	0.08
H	-9.54	1.75	0.07	H	-9.65	1.64	0.15	H	-9.71	1.67	0.12
H	3.28	-9.25	0.05	H	3.40	-9.26	0.08	H	3.41	-9.29	0.08
H	-4.24	-2.45	-8.75	H	-4.26	-2.46	-8.83	H	-4.20	-2.48	-8.86
H	-6.31	7.46	0.05	H	-6.31	7.56	0.12	H	-6.27	7.58	0.09

H	4.24	-2.45	-8.75	H	4.26	-2.46	-8.83	H	4.20	-2.48	-8.86
H	9.83	-1.59	-0.14	H	9.80	-1.63	-0.02	H	9.73	-1.71	-0.13
H	3.52	9.39	-0.14	H	3.46	9.39	-0.15	H	3.47	9.35	0.01
H	-6.35	-3.66	5.63	H	-6.27	-3.63	5.59	H	-6.33	-3.71	5.54
H	6.35	-3.66	5.63	H	6.27	-3.63	5.59	H	6.33	-3.71	5.54
H	0.00	7.38	5.62	H	0.00	7.47	5.52	H	0.00	7.24	5.57
H	-2.13	-1.25	9.11	H	-2.07	-1.29	8.99	H	-2.12	-1.24	9.02
H	-2.13	-5.29	-7.07	H	-2.14	-5.22	-7.02	H	-2.09	-5.25	-6.98
H	-5.65	0.81	-7.06	H	-5.58	0.76	-7.02	H	-5.57	0.70	-7.05
H	2.13	-1.25	9.11	H	2.07	-1.29	8.99	H	2.12	-1.24	9.02
H	0.00	2.44	9.10	H	0.00	2.35	8.96	H	0.00	2.45	8.99
H	2.13	-5.29	-7.07	H	2.14	-5.22	-7.02	H	2.09	-5.25	-6.98
H	-3.52	4.50	-7.06	H	-3.46	4.45	-7.07	H	-3.46	4.41	-7.05
H	5.65	0.81	-7.06	H	5.58	0.76	-7.02	H	5.57	0.70	-7.05
H	3.52	4.50	-7.06	H	3.46	4.45	-7.07	H	3.46	4.41	-7.05
H	-8.49	-6.51	-3.59	H	-8.46	-6.38	-3.50	H	-8.58	-6.30	-3.65
H	-9.88	-4.07	-3.59	H	-9.76	-4.01	-3.49	H	-9.73	-3.87	-3.46
H	9.88	-4.07	-3.59	H	9.76	-4.02	-3.49	H	9.73	-3.87	-3.46
H	8.49	-6.51	-3.59	H	8.46	-6.38	-3.50	H	8.58	-6.30	-3.65
H	-1.40	10.63	-3.61	H	-1.35	10.51	-3.61	H	-1.34	10.60	-3.45
H	1.40	10.63	-3.61	H	1.35	10.51	-3.61	H	1.34	10.60	-3.45
H	0.00	-11.46	-0.15	H	0.00	-11.32	-0.17	H	0.00	-11.37	-0.08
H	-7.77	-2.85	-7.04	H	-7.67	-2.86	-6.94	H	-7.65	-2.80	-6.94
H	-6.38	-5.29	-7.06	H	-6.33	-5.20	-6.94	H	-6.41	-5.19	-7.00
H	-9.87	5.70	-0.17	H	-9.77	5.62	-0.07	H	-9.79	5.64	-0.16
H	1.40	8.18	-7.06	H	1.35	8.07	-7.01	H	1.34	8.06	-7.07
H	-1.40	8.18	-7.06	H	-1.35	8.07	-7.01	H	-1.34	8.06	-7.07
H	6.38	-5.29	-7.06	H	6.33	-5.20	-6.94	H	6.41	-5.19	-7.00
H	7.77	-2.85	-7.04	H	7.67	-2.86	-6.94	H	7.65	-2.80	-6.94
H	9.87	5.70	-0.17	H	9.77	5.62	-0.07	H	9.79	5.64	-0.16
H	-4.23	-7.38	5.62	H	-4.20	-7.38	5.53	H	-4.21	-7.37	5.59
H	-4.24	-8.98	3.33	H	-4.26	-8.88	3.32	H	-4.21	-8.93	3.45
H	-9.84	0.85	3.30	H	-9.54	0.89	3.61	H	-9.82	0.70	3.40
H	-8.46	0.06	5.61	H	-8.06	-0.03	5.64	H	-8.47	-0.08	5.56
H	-2.13	-10.23	-3.60	H	-2.14	-10.08	-3.60	H	-2.11	-10.11	-3.56
H	-9.87	3.28	-3.58	H	-9.79	3.19	-3.50	H	-9.83	3.17	-3.57
H	2.13	-10.23	-3.60	H	2.14	-10.08	-3.60	H	2.11	-10.11	-3.56
H	4.24	-8.98	3.33	H	4.26	-8.88	3.32	H	4.21	-8.93	3.45
H	4.23	-7.38	5.62	H	4.20	-7.38	5.53	H	4.21	-7.37	5.59
H	-7.77	6.94	-3.60	H	-7.68	6.88	-3.55	H	-7.72	6.87	-3.57
H	-4.26	7.36	5.62	H	-4.17	7.33	5.52	H	-4.26	7.26	5.57
H	-5.66	8.15	3.32	H	-5.56	8.08	3.36	H	-5.58	8.06	3.37

H	8.46	0.06	5.61	H	8.06	-0.03	5.64	H	8.47	-0.08	5.56
H	9.84	0.85	3.30	H	9.54	0.89	3.61	H	9.82	0.70	3.40
H	5.66	8.15	3.32	H	5.56	8.08	3.36	H	5.58	8.06	3.37
H	4.26	7.36	5.62	H	4.17	7.33	5.52	H	4.26	7.26	5.57
H	9.87	3.28	-3.58	H	9.79	3.19	-3.50	H	9.83	3.17	-3.57
H	7.77	6.94	-3.60	H	7.68	6.88	-3.55	H	7.72	6.87	-3.57
H	-6.37	-7.73	-0.13	H	-6.39	-7.64	-0.06	H	-6.28	-7.68	-0.06
H	-9.83	-1.59	-0.14	H	-9.80	-1.63	-0.02	H	-9.73	-1.71	-0.13
H	0.00	-4.92	9.12	H	0.00	-4.95	8.99	H	0.00	-4.92	9.04
H	-4.24	2.44	9.12	H	-4.17	2.40	8.99	H	-4.19	2.45	9.00
H	6.37	-7.73	-0.13	H	6.39	-7.64	-0.06	H	6.28	-7.68	-0.06
H	-3.52	9.39	-0.14	H	-3.46	9.39	-0.15	H	-3.47	9.35	0.01
H	4.24	2.44	9.12	H	4.17	2.40	8.99	H	4.19	2.45	9.00