

Exploring Polycyclic Aromatic Hydrocarbons for Sodium- and Potassium-Ion Battery Anodes: A DFT Approach

Pilankatta K. Ramya^{1,2} and Cherumuttathu H. Suresh^{1,2,3*}

¹Chemical Sciences and Technology Division, CSIR- National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram, Kerala, 695019, India.

²Academy of Scientific and Innovative Research (AcSIR), Ghaziabad, 201002, India.

³Srinivasa Ramanujan Institute for Basic Sciences, Kottayam, Kerala, 686501, India.

Table S1. The values of minimum MESP of PAHs (V_{\min} , kcal/mol), adsorption energies (E_1 , kcal/mol), binding distances (d_{Na^+}), change in MESP at the nucleus of Na^+ (ΔV_{Na^+} , kcal/mol), change in MESP at the nucleus of atoms of PAH (ΔV_{PAH}) and Mulliken charge on Na^+ (q_{Na^+}).

PAHs	Label	Ring type	V_{\min}	E_1	d_{Na^+}	ΔV_{Na^+}	ΔV_{PAH}	q_{Na^+}
Benzene	1	R	-18.4	-24.9	2.50	-42.3	103.9	0.831
Naphthalene	2	R	-17.5	-27.7	2.47	-48.2	91.2	0.850
Anthracene	3	R1	-17.1	-29.4	2.45	-52.6	81.0	0.852
Anthracene	3	R2	-15.4	-29.8	2.44	-52.6	83.0	0.865
Phenanthrene	4	R1	-17.2	-29.5	2.46	-51.8	81.8	0.854
Phenanthrene	4	R2	-17.0	-29.9	2.44	-52.4	83.4	0.870
Pyrene	5	R1	-16.5	-30.5	2.44	-54.2	80.3	0.862
Pyrene	5	R2	-16.5	-30.1	2.45	-52.8	81.3	0.880
Chrysene	6	R1	-16.9	-30.3	2.46	-54.2	74.2	0.854
Chrysene	6	R2	-16.7	-31.5	2.44	-55.7	76.6	0.872
Triphenylene	7	R1	-17.0	-30.5	2.46	-54.4	76.0	0.860
Triphenylene	7	R2		-31.6	2.42	-55.4	78.0	0.886
Tetracene	8	R1	-16.8	-30.6	2.44	-55.7	72.9	0.851
Tetracene	8	R2	-15.2	-31.2	2.42	-56.2	75.5	0.866

Perylene	9	R1	-16.4	-31.6	2.45	-56.0	74.4	0.870
Perylene	9	R2		-31.8	2.42	-56.2	76.3	0.894
Pentacene	10	R1	-15.0	-32.2	2.41	-58.8	69.2	0.865
Pentacene	10	R2	-14.5	-32.4	2.41	-59.3	70.1	0.867
Hexacene	11	R1	-14.8	-32.8	2.41	-60.5	63.8	0.865
Hexacene	11	R2	-14.3	-33.3	2.40	-61.6	65.1	0.866
Heptacene	12	R1	-14.3	-33.9	2.40	-63.1	60.7	0.865
Heptacene	12	R2	-13.9	-34.1	2.39	-63.7	61.2	0.865
Coronene	13	R1	-15.8	-32.2	2.43	-57.8	71.9	0.884
Coronene	13	R2		-32.6	2.42	-57.0	73.5	0.909
Peropyrene	14	R1	-15.9	-33.3	2.43	-60.1	68.5	0.884
Peropyrene	14	R2	-14.3	-34.1	2.40	-61.3	69.8	0.893
Terrylene	15	R1	-15.3	-34.3	2.42	-61.9	65.6	0.886
Terrylene	15	R2		-34.1	2.40	-62.1	65.3	0.895
Bisanthene	16	R1	-15.8	-33.8	2.42	-62.0	67.1	0.872
Bisanthene	16	R2	-14.4	-34.1	2.40	-62.0	68.3	0.889
Bisanthene	16	R3		-33.7	2.40	-60.4	69.0	0.906
C ₃₆ H ₁₆	17	R1	-15.3	-35.6	2.40	-67.1	61.1	0.867
C ₃₆ H ₁₆	17	R2	-13.9	-36.2	2.38	-67.9	62.7	0.887
C ₃₆ H ₁₆	17	R3		-35.2	2.39	-64.0	63.9	0.916
C ₃₆ H ₁₈	18	R1	-15.3	-35.7	2.40	-65.9	61.0	0.887
C ₃₆ H ₁₈	18	R2	-13.9	-36.0	2.39	-65.9	60.9	0.892
Quaterrylene	19	R1	-14.9	-35.8	2.41	-65.9	57.8	0.883
Quaterrylene	19	R2		-35.9	2.39	-66.5	58.5	0.896
Circumbiphenyl	20	R1	-15.0	-33.9	2.43	-61.8	60.3	0.885
Circumbiphenyl	20	R2		-34.9	2.41	-62.9	62.5	0.917
Circumpyrene	21	R1	-14.8	-34.3	2.42	-63.7	59.4	0.893
Circumpyrene	21	R2	-14.7	-35.0	2.41	-64.9	58.9	0.883

Circumpyrene	21	R3		-35.2	2.39	-64.3	61.0	0.921
C ₅₀ H ₁₈	22	R1	-14.6	-35.2	2.43	-64.9	55.2	0.890
C ₅₀ H ₁₈	22	R2	-12.7	-36.6	2.39	-66.9	58.0	0.929
C ₅₀ H ₁₈	22	R3		-36.2	2.40	-66.0	57.3	0.924
C ₆₀ H ₂₈	23	R1	-14.3	-38.0	2.39	-71.7	47.8	0.879
C ₆₀ H ₂₈	23	R2		-37.5	2.38	-71.6	45.8	0.890

Table S2. The values of minimum MESP of PAHs (V_{\min} , kcal/mol), adsorption energies (E_3 , kcal/mol), binding distances (d_K^+), change in MESP at the nucleus of K^+ (ΔV_K^+ , kcal/mol), change in MESP at the nucleus of atoms of PAH (ΔV_{PAH}) and Mulliken charge on K^+ (q_K^+).

PAHs	Label	Ring type	V_{\min}	E_3	d_K^+	ΔV_K^+	ΔV_{PAH}	q_K^+
Benzene	1	R	-18.4	-18.5	2.90	-30.2	95.4	0.903
Naphthalene	2	R	-17.5	-21.2	2.85	-35.2	85.3	0.912
Anthracene	3	R1	-17.1	-22.7	2.85	-38.9	76.7	0.914
Anthracene	3	R2	-15.4	-23.3	2.83	-38.5	78.1	0.921
Phenanthrene	4	R1	-17.2	-22.8	2.86	-38.3	77.5	0.914
Phenanthrene	4	R2	-17.0	-23.4	2.82	-39.1	78.9	0.921
Pyrene	5	R1	-16.5	-23.8	2.83	-40.1	76.1	0.921
Pyrene	5	R2	-16.5	-23.7	2.83	-39.3	77.1	0.930
Chrysene	6	R1	-16.9	-23.6	2.87	-40.3	70.8	0.916
Chrysene	6	R2	-16.7	-24.9	2.81	-41.9	72.9	0.923
Triphenylene	7	R1	-17.0	-24.0	2.90	-40.2	72.6	0.921
Triphenylene	7	R2		-25.2	2.80	-41.4	74.1	0.931
Tetracene	8	R1	-16.8	-24.5	2.81	-41.4	69.2	0.913
Tetracene	8	R2	-15.2	-23.7	2.84	-41.8	71.7	0.921
Perylene	9	R1	-16.4	-25.0	2.83	-42.0	70.9	0.925
Perylene	9	R2		-25.4	2.80	-42.0	72.6	0.938
Pentacene	10	R1	-15.0	-25.3	2.79	-44.2	66.0	0.920
Pentacene	10	R2	-14.5	-25.5	2.79	-44.3	66.8	0.923
Hexacene	11	R1	-14.8	-25.9	2.79	-45.9	61.0	0.919
Hexacene	11	R2	-14.3	-26.3	2.78	-46.4	62.3	0.922
Heptacene	12	R1	-14.3	-26.9	2.78	-48.0	58.2	0.920

Heptacene	12	R2	-13.9	-27.0	2.77	-48.3	58.7	0.921
Coronene	13	R1	-15.8	-25.5	2.83	-43.3	68.7	0.935
Coronene	13	R2		-26.2	2.81	-42.7	70.2	0.950
Peropyrene	14	R1	-15.9	-26.5	2.81	-45.7	65.8	0.933
Peropyrene	14	R2	-14.3	-27.4	2.78	-46.4	66.9	0.939
Terrylene	15	R1	-15.3	-27.5	2.80	-47.1	63.1	0.936
Terrylene	15	R2		-27.5	2.77	-47.2	62.8	0.940
Bisanthene	16	R1	-15.8	-26.7	2.82	-46.7	64.4	0.929
Bisanthene	16	R2	-14.4	-27.4	2.78	-46.9	65.6	0.938
Bisanthene	16	R3		-27.2	2.78	-45.9	66.2	0.948
C ₃₆ H ₁₆	17	R1	-15.3	-28.4	2.81	-51.1	59.1	0.926
C ₃₆ H ₁₆	17	R2	-13.9	-29.3	2.75	-51.7	60.4	0.939
C ₃₆ H ₁₆	17	R3		-28.6	2.77	-48.6	61.5	0.957
C ₃₆ H ₁₈	18	R1	-15.3	-28.7	2.78	-50.6	58.8	0.936
C ₃₆ H ₁₈	18	R2	-13.9	-29.1	2.76	-50.8	58.7	0.938
Quaterrylene	19	R1	-14.9	-28.8	2.80	-50.5	55.8	0.935
Quaterrylene	19	R2		-29.0	2.76	-50.9	56.5	0.942
Circumbiphenyl	20	R1	-15.0	-27.2	2.83	-47.1	58.2	0.937
Circumbiphenyl	20	R2		-28.4	2.78	-48.3	60.3	0.956
Circumpyrene	21	R1	-14.8	-27.5	2.83	-48.3	57.3	0.943
Circumpyrene	21	R2	-14.7	-28.2	2.80	-49.5	56.8	0.937
Circumpyrene	21	R3		-28.6	2.78	-49.0	58.9	0.960
C ₅₀ H ₁₈	22	R1	-14.6	-28.2	2.86	-49.8	53.4	0.940
C ₅₀ H ₁₈	22	R2	-12.7	-30.1	2.77	-51.7	56.2	0.966
C ₅₀ H ₁₈	22	R3		-29.7	2.77	-51.1	55.5	0.962
C ₆₀ H ₂₈	23	R1	-14.3	-30.8	2.79	-55.3	46.4	0.934
C ₆₀ H ₂₈	23	R2		-30.4	2.75	-55.6	44.4	0.935

Table S3. The values of minimum MESP of PAHs (V_{\min} , kcal/mol), adsorption energies (E_2 , kcal/mol), binding distances (d_{Na}), change in MESP at the nucleus of Na (ΔV_{Na} , kcal/mol), change in MESP at the nucleus of atoms of PAH (ΔV_{PAH}), Mulliken charge on Na (q_{Na}), and spin densities on Na (δ_{Na}).

PAHs	Label	Ring type	V_{\min}	E_2	d_{Na}	ΔV_{Na}	ΔV_{PAH}	q_{Na}	δ_{Na}
Benzene	1	R	-18.4	-2.6	2.97	-11.7	16.0	-0.069	1.008

Naphthalene	2	R	-17.5	-0.2	2.23	15.5	-18.4	0.708	0.054
Anthracene	3	R1	-17.1	-9.4	2.25	28.6	-16.3	0.772	0.001
Anthracene	3	R2	-15.4	-12.5	2.24	24.1	-15.1	0.776	0.022
Phenanthrene	4	R1	-17.2	1.7	2.26	13.9	-13.6	0.670	0.116
Phenanthrene	4	R2	-17.0	-0.7	2.22	24.2	-14.9	0.781	0.005
Pyrene	5	R1	-16.5	-6.0	2.24	29.6	-15.0	0.791	-0.003
Pyrene	5	R2	-16.5	-5.4	2.24	32.0	-14.2	0.810	-0.001
Chrysene	6	R1	-16.9	-0.1	2.24	19.5	-13.1	0.720	0.058
Chrysene	6	R2	-16.7	-3.3	2.25	25.4	-12.6	0.789	0.020
Triphenylene	7	R1	-17.0	2.2	2.28	11.7	-10.3	0.634	0.175
Triphenylene	7	R2		-2.0	3.02	-14.7	7.7	-0.031	1.002
Tetracene	8	R1	-16.8	-15.6	2.34	35.7	-14.3	0.794	0.006
Tetracene	8	R2	-15.2	-19.6	2.24	30.4	-12.8	0.798	0.007
Perylene	9	R1	-16.4	-13.4	2.26	33.5	-12.7	0.805	0.003
Perylene	9	R2		-14.2	2.25	36.1	-11.3	0.841	0.006
Pentacene	10	R1	-15.0	-24.0	2.26	34.8	-11.3	0.807	0.004
Pentacene	10	R2	-14.5	-25.5	2.25	33.3	-10.8	0.808	0.006
Hexacene	11	R1	-14.8	-26.8	2.27	37.7	-10.3	0.812	0.003
Hexacene	11	R2	-14.3	-29.1	2.26	36.0	-9.5	0.813	0.005
Heptacene	12	R1	-14.3	-31.3	2.27	38.2	-8.7	0.816	0.004
Heptacene	12	R2	-13.9	-32.2	2.26	37.5	-8.4	0.815	0.005
Coronene	13	R1	-15.8	-0.6	2.24	33.2	-11.4	0.820	-0.003
Coronene	13	R2		0.6	2.27	40.2	-10.0	0.867	0.002
Peropyrene	14	R1	-15.9	-14.1	2.29	39.9	-10.3	0.838	0.001
Peropyrene	14	R2	-14.3	-16.4	2.25	37.7	-9.2	0.853	-0.006
Terrylene	15	R1	-15.3	-21.0	2.27	39.7	-8.1	0.838	0.003
Terrylene	15	R2		-20.1	2.28	41.4	-8.4	0.857	0.005
Bisanthene	16	R1	-15.8	-26.5	2.27	38.1	-10.7	0.821	0.002

Bisanthene	16	R2	-14.4	-28.1	2.26	37.0	-9.6	0.845	-0.001
Bisanthene	16	R3		-27.3	2.28	41.4	-9.1	0.868	0.003
C ₃₆ H ₁₆	17	R1	-15.3	-38.4	2.28	38.4	-9.3	0.823	0.001
C ₃₆ H ₁₆	17	R2	-13.9	-40.8	2.28	36.6	-8.1	0.850	0.001
C ₃₆ H ₁₆	17	R3		-36.6	2.29	45.4	-7.1	0.891	0.002
C ₃₆ H ₁₈	18	R1	-15.3	-19.1	2.29	43.8	-7.3	0.848	-0.001
C ₃₆ H ₁₈	18	R2	-13.9	-19.9	2.26	41.9	-7.2	0.860	-0.006
Quaterrylene	19	R1	-14.9	-23.7	2.28	43.6	-6.5	0.844	0.002
Quaterrylene	19	R2		-23.8	2.28	44.8	-6.0	0.863	0.006
Circumbiphenyl	20	R1	-15.0	-2.9	2.29	42.2	-9.3	0.842	-0.001
Circumbiphenyl	20	R2		-5.5	2.34	45.5	-7.7	0.891	0.003
Circumpyrene	21	R1	-14.8	-13.9	2.30	45.3	-8.1	0.850	0.001
Circumpyrene	21	R2	-14.7	-13.1	2.30	46.5	-8.6	0.852	-0.002
Circumpyrene	21	R3		-14.3	2.31	48.4	-6.7	0.897	0.002
C ₅₀ H ₁₈	22	R1	-14.6	-11.6	2.30	47.0	-7.6	0.852	0.001
C ₅₀ H ₁₈	22	R2	-12.7	-13.8	2.28	46.3	-5.3	0.907	-0.003
C ₅₀ H ₁₈	22	R3		-13.0	2.30	48.5	-5.9	0.900	0.001
C ₆₀ H ₂₈	23	R1	-14.3	-27.0	2.30	48.2	-4.4	0.851	0.002
C ₆₀ H ₂₈	23	R2		-26.3	2.29	46.1	-5.5	0.863	0.003

Table S4. The values of minimum MESP of PAHs (V_{\min} , kcal/mol), adsorption energies (E_4 , kcal/mol), binding distances (d_K), change in MESP at the nucleus of K (ΔV_K , kcal/mol), change in MESP at the nucleus of atoms of PAH (ΔV_{PAH}), Mulliken charge on K (q_K), and spin densities on K (δ_K).

PAHs	Label	Ring type	V_{\min}	E_4	d_K	ΔV_K	ΔV_{PAH}	q_K	δ_K
Benzene	1	R	-18.4	-3.2	3.26	-9.9	18.1	-0.057	1.010

Naphthalene	2	R	-17.5	-7.0	2.56	1.4	-23.6	0.827	0.006
Anthracene	3	R1	-15.4	-20.4	2.58	7.6	-18.5	0.857	0.004
Phenanthrene	4	R1	-17.2	-5.3	2.66	7.7	-18.8	0.841	0.005
Phenanthrene	4	R2	-17.0	-7.7	2.56	5.9	-18.3	0.585	0.004
Pyrene	5	R1	-16.5	-14.5	2.60	11.1	-18.1	0.863	0.001
Pyrene	5	R2	-16.5	-14.4	2.61	13.2	-17.5	0.876	0.001
Chrysene	6	R1	-16.9	-7.6	2.60	8.5	-16.9	0.845	0.004
Chrysene	6	R2	-16.7	-11.7	2.61	8.3	-15.4	0.856	0.008
Triphenylene	7	R1	-17.0	-6.3	2.65	5.1	-14.4	0.808	0.044
Triphenylene	7	R2		-6.3	3.08	5.1	-14.4	0.817	0.055
Tetracene	8	R1	-15.2	-28.2	2.60	12.4	-15.5	0.869	0.002
Perylene	9	R1	-16.4	-22.5	2.66	15.0	-15.2	0.870	0.007
Perylene	9	R2		-24.0	2.61	15.9	-14.0	0.890	0.011
Pentacene	10	R1	-15.0	-33.0	2.61	15.9	-13.6	0.874	0.002
Pentacene	10	R2	-14.5	-34.3	2.61	15.4	-13.1	0.878	0.001
Hexacene	11	R1	-14.8	-36.0	2.67	19.3	-12.3	0.878	0.003
Hexacene	11	R2	-14.3	-38.1	2.62	17.8	-11.6	0.881	0.001
Heptacene	12	R1	-14.3	-40.6	2.62	19.5	-10.5	0.882	0.001
Heptacene	12	R2	-13.9	-41.4	2.62	19.3	-10.2	0.884	0.001
Coronene	13	R1	-15.8	-9.7	2.61	15.0	13.9	0.886	0.001
Coronene	13	R2		-9.6	2.64	20.3	-12.7	0.915	0.003
Peropyrene	14	R1	-15.9	-23.9	2.72	21.2	-12.4	0.898	0.001
Peropyrene	14	R2	-14.3	-26.2	2.61	18.3	-11.5	0.904	-0.003
Terrylene	15	R1	-15.3	-30.8	2.63	19.8	-10.0	0.894	0.005
Terrylene	15	R2		-30.3	2.63	21.0	-10.4	0.904	0.008
Bisanthene	16	R1	-15.8	-36.2	2.69	20.2	-12.7	0.891	0.003
Bisanthene	16	R2	-14.4	-37.8	2.62	18.4	-11.9	0.903	-0.001
Bisanthene	16	R3		-37.5	2.63	20.9	-11.4	0.915	0.003

C ₃₆ H ₁₆	17	R1	-13.9	-50.4	2.61	17.9	-9.9	0.906	-0.001
C ₃₆ H ₁₆	17	R2		-47.2	2.65	24.7	-9.0	0.933	0.001
C ₃₆ H ₁₈	18	R1	-15.3	-29.1	2.66	24.2	-9.0	0.907	-0.001
C ₃₆ H ₁₈	18	R2	-13.9	-30.1	2.63	22.9	-9.1	0.911	-0.003
Quaterrylene	19	R1	-14.9	-33.7	2.65	24.1	-8.1	0.902	0.003
Quaterrylene	19	R2		-34.3	2.64	24.8	-7.7	0.914	0.008
Circumbiphenyl	20	R1	-15.0	-12.8	2.69	24.7	-11.1	0.905	-0.001
Circumpyrene	21	R1	-14.8	-24.0	2.68	26.1	-9.8	0.910	0.002
Circumpyrene	21	R2	-14.7	-23.3	2.71	27.8	-10.2	0.912	-0.001
Circumpyrene	21	R3		-25.1	2.66	27.6	-8.5	0.937	0.002
C ₅₀ H ₁₈	22	R1	-14.6	-21.8	2.71	28.4	-9.1	0.913	0.002
C ₅₀ H ₁₈	22	R2	-12.7	-24.7	2.65	26.9	-6.9	0.945	-0.001
C ₅₀ H ₁₈	22	R3		-23.9	2.66	27.7	-7.4	0.940	0.002
C ₆₀ H ₂₈	23	R1	-14.3	-37.3	2.67	28.8	-5.6	0.909	0.002
C ₆₀ H ₂₈	23	R2		-36.6	2.65	26.3	-6.7	0.909	0.004

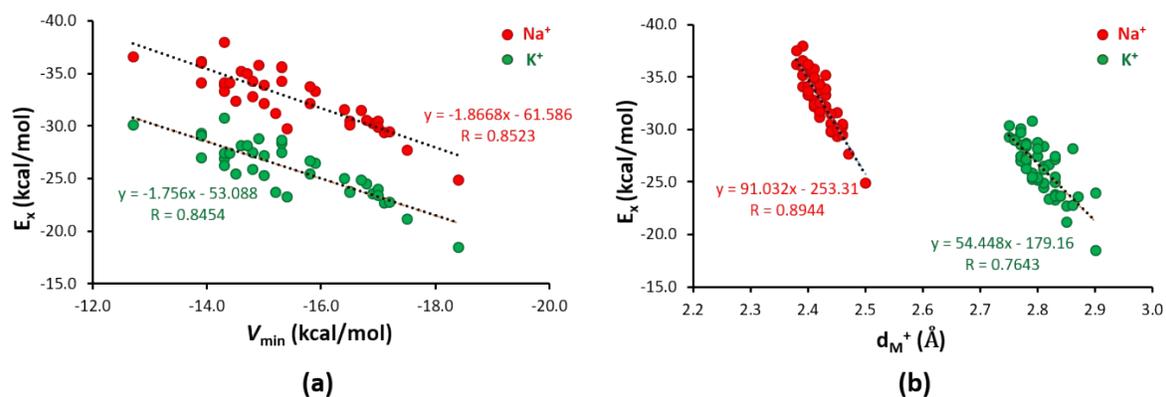


Figure S1. Correlation between (a) E_x and V_{min} and (b) E_x and d_M^+ of all PAHs.

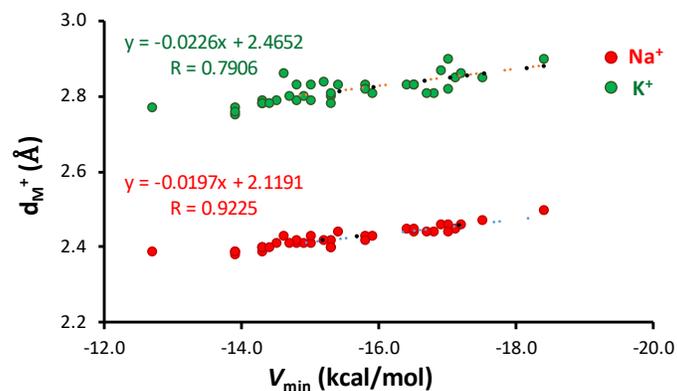


Figure S2. Correlation between V_{\min} and d_{M^+} of all complexes.

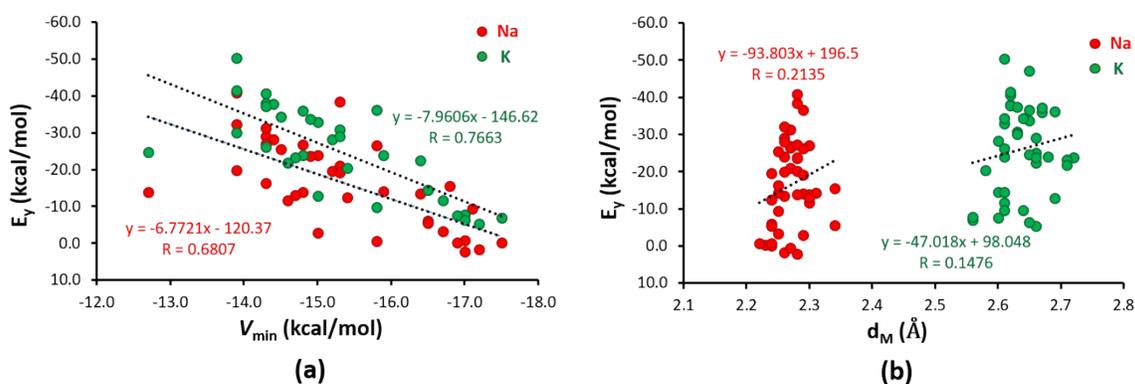


Figure S3. Correlation between (a) E_y and V_{\min} and (b) E_y and d_M of all complexes.

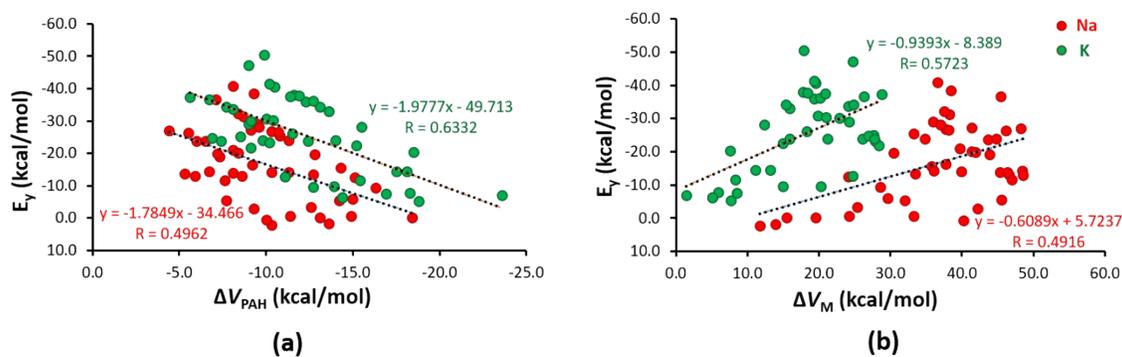


Figure S4. Correlation between (a) E_y and ΔV_{PAH} and (b) E_y and ΔV_M of all complexes.

Table S5. Natural population analysis, Mulliken charge and Hirshfeld charges of all *sbi* and *lbi* complexes.

Complex	Mulliken Charge	Natural Charge
1...Na	-0.069	-0.010
1...K	-0.057	-0.012
2...Na	0.708	0.904
2...K	0.827	0.953
4 _{R1} ...Na	0.670	0.850
4 _{R1} ...K	0.841	0.952
4 _{R2} ...Na	0.781	0.956
4 _{R2} ...K	0.585	0.961
13 _{R1} ...Na	0.820	0.968
13 _{R1} ...K	0.886	0.966
13 _{R2} ...Na	0.867	0.977
13 _{R2} ...K	0.915	0.966
7 _{R1} ...Na	0.634	0.799
7 _{R1} ...K	0.808	0.935

Table S6. Coordinates of optimized geometries of PAHs

1				2			
6	0.00000000	1.39012400	0.00000000	6	0.00000000	2.42207600	0.70681400
6	1.20388300	0.69506200	0.00000000	6	0.00000000	2.42207600	-0.70681400
6	-1.20388300	0.69506200	0.00000000	6	0.00000000	1.24111600	1.39632000
1	2.14298200	1.23725100	0.00000000	1	0.00000000	3.36504600	-1.24168600
1	-2.14298200	1.23725100	0.00000000	1	0.00000000	1.23785100	2.48164900
6	1.20388300	-0.69506200	0.00000000	6	0.00000000	1.24111600	-1.39632000
6	-1.20388300	-0.69506200	0.00000000	1	0.00000000	1.23785100	-2.48164900
1	2.14298200	-1.23725100	0.00000000	1	0.00000000	3.36504600	1.24168600
1	-2.14298200	-1.23725100	0.00000000	6	0.00000000	0.00000000	0.71034200
6	0.00000000	-1.39012400	0.00000000	6	0.00000000	0.00000000	-0.71034200
1	0.00000000	-2.47450200	0.00000000	6	0.00000000	-1.24111600	1.39632000
1	0.00000000	2.47450200	0.00000000	1	0.00000000	-1.23785100	2.48164900
				6	0.00000000	-1.24111600	-1.39632000
				6	0.00000000	-2.42207600	0.70681400

				1	0.000000000	-1.237851000	-2.481649000
				1	0.000000000	-3.365046000	1.241686000
				6	0.000000000	-2.422076000	-0.706814000
				1	0.000000000	-3.365046000	-1.241686000
3				4			
6	0.000000000	3.642945000	0.712518000	6	0.000000000	3.545076000	-0.295479000
6	0.000000000	3.642945000	-0.712518000	6	0.000000000	2.825332000	0.873844000
6	0.000000000	2.471077000	1.401629000	6	0.000000000	2.868741000	-1.523603000
1	0.000000000	4.588037000	-1.243550000	1	0.000000000	3.335447000	1.831702000
1	0.000000000	2.468453000	2.486815000	1	0.000000000	3.430688000	-2.450675000
6	0.000000000	2.471077000	-1.401629000	6	0.000000000	1.493900000	-1.560241000
1	0.000000000	2.468453000	-2.486815000	1	0.000000000	1.001366000	-2.524204000
1	0.000000000	4.588037000	1.243550000	1	0.000000000	4.628777000	-0.271066000
6	0.000000000	1.216649000	0.716438000	6	0.000000000	1.416084000	0.859178000
6	0.000000000	1.216649000	-0.716438000	6	0.000000000	0.674489000	2.087931000
6	0.000000000	0.000000000	1.396556000	6	0.000000000	0.728265000	-0.376324000
1	0.000000000	0.000000000	2.482788000	1	0.000000000	1.225982000	3.022418000
6	0.000000000	0.000000000	-1.396556000	6	0.000000000	-0.674489000	2.087931000
1	0.000000000	0.000000000	-2.482788000	6	0.000000000	-0.728265000	-0.376324000
6	0.000000000	-2.471077000	-1.401629000	1	0.000000000	-1.225982000	3.022418000
6	0.000000000	-1.216649000	-0.716438000	6	0.000000000	-1.416084000	0.859178000
6	0.000000000	-3.642945000	-0.712518000	6	0.000000000	-1.493900000	-1.560241000
1	0.000000000	-4.588037000	-1.243550000	1	0.000000000	-1.001366000	-2.524204000
6	0.000000000	-1.216649000	0.716438000	6	0.000000000	-2.825332000	0.873844000
6	0.000000000	-3.642945000	0.712518000	6	0.000000000	-2.868741000	-1.523603000
1	0.000000000	-4.588037000	1.243550000	1	0.000000000	-3.335447000	1.831702000
6	0.000000000	-2.471077000	1.401629000	1	0.000000000	-3.430688000	-2.450675000
1	0.000000000	-2.468453000	2.486815000	6	0.000000000	-3.545076000	-0.295479000
1	0.000000000	-2.468453000	-2.486815000	1	0.000000000	-4.628777000	-0.271066000
5				6			

6	-1.227212000	1.423212000	0.000000000	6	-0.153629000	-1.866119000	0.000001000
6	-2.456819000	0.675538000	0.000000000	6	0.425115000	-0.558377000	-0.000099000
6	0.000128000	0.713563000	0.000000000	6	1.863195000	-0.372457000	-0.000031000
1	-3.392471000	1.224964000	0.000000000	6	2.780534000	-1.448946000	-0.000030000
6	-2.456925000	-0.674645000	0.000000000	6	2.390833000	0.940166000	0.000007000
1	-3.392630000	-1.224113000	0.000000000	6	4.136138000	-1.233321000	-0.000024000
6	0.000000000	-0.713176000	0.000000000	6	3.788805000	1.138806000	0.000023000
6	-1.227533000	-1.422611000	0.000000000	1	4.814634000	-2.078874000	-0.000041000
6	1.227253000	-1.423259000	0.000000000	1	4.169793000	2.154952000	0.000082000
6	-1.205241000	-2.819045000	0.000000000	6	4.651327000	0.073976000	0.000005000
6	1.204277000	-2.819394000	0.000000000	1	5.723113000	0.235630000	0.000036000
1	-2.143786000	-3.363479000	0.000000000	6	1.494893000	2.049106000	0.000094000
1	2.142582000	-3.364229000	0.000000000	6	-0.425142000	0.558204000	-0.000108000
6	-0.000729000	-3.507469000	0.000000000	6	0.153599000	1.866045000	-0.000046000
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6	1.227754000	1.422948000	0.000000000	1	-1.910129000	-3.051750000	0.000193000
6	2.457424000	0.674491000	0.000000000	6	-2.391144000	-0.940215000	0.000062000
1	3.393287000	1.223595000	0.000000000	6	-1.863231000	0.372413000	-0.000089000
6	-1.204491000	2.819605000	0.000000000	1	1.910309000	3.051443000	0.000628000
1	-2.142978000	3.364063000	0.000000000	6	-3.788989000	-1.138790000	-0.000048000
6	0.000041000	3.507199000	0.000000000	1	-4.169835000	-2.154944000	-0.000077000
6	1.205154000	2.818951000	0.000000000	6	-4.651180000	-0.073558000	0.000065000
1	0.000159000	4.591408000	0.000000000	1	-5.722980000	-0.235242000	-0.000023000
1	3.392570000	-1.225343000	0.000000000	6	-2.780581000	1.449000000	-0.000130000
1	2.143745000	3.363431000	0.000000000	6	-4.135867000	1.233429000	0.000045000
				1	0.488310000	-2.736636000	0.000191000
				1	2.422933000	-2.470027000	-0.000066000
				1	-2.422315000	2.469820000	-0.000347000
				1	-4.814445000	2.079000000	0.000361000

7				8			
6	0.195734000	-3.746054000	0.001446000	6	-1.231042000	-1.399611000	0.000014000
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6	-0.748222000	-2.744579000	0.001540000	6	-1.231035000	1.399624000	0.000091000
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1	-1.791372000	-3.029329000	0.002826000	6	0.000000000	-0.719269000	0.000053000
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1	2.984978000	-1.864128000	-0.002224000	6	1.231050000	-1.399624000	0.000108000
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6	-0.387352000	-1.384707000	0.000305000	6	1.231051000	1.399626000	-0.000109000
6	0.981522000	-1.051139000	-0.000845000	1	1.231062000	2.485684000	-0.000239000
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1	0.122521000	3.517563000	0.002433000	1	3.695623000	-2.489729000	0.000361000
6	2.183179000	3.050882000	0.001020000	1	3.695624000	2.489725000	-0.000424000
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9				10			
6	1.229010000	3.561071000	0.000000000	6	0.000000000	2.458377000	1.401670000
6	2.410872000	2.876788000	0.000000000	1	0.000000000	2.458624000	2.487690000
6	-0.000055000	2.860464000	0.000000000	6	0.000000000	2.458377000	-1.401670000
6	2.414797000	1.472091000	0.000000000	1	0.000000000	2.458624000	-2.487690000
6	1.245773000	-0.739353000	0.000000000	6	0.000000000	1.219152000	0.721907000
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6	0.000057000	-1.437371000	0.000000000	6	0.000000000	0.000000000	-1.401416000
6	-1.229169000	-3.560787000	0.000000000	1	0.000000000	0.000000000	-2.487333000
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6	-2.414707000	-1.471663000	0.000000000	6	0.000000000	-1.219152000	-0.721907000
1	-3.354802000	-3.409323000	0.000000000	6	0.000000000	-3.657703000	-0.723040000
6	0.000061000	1.437375000	0.000000000	6	0.000000000	-1.219152000	0.721907000
6	-1.229175000	3.560788000	0.000000000	6	0.000000000	-3.657703000	0.723040000
6	-2.414707000	1.471658000	0.000000000	6	0.000000000	-2.458377000	1.401670000
6	-2.411018000	2.876241000	0.000000000	1	0.000000000	-2.458624000	2.487690000
6	-1.245456000	-0.739278000	0.000000000	1	0.000000000	-2.458624000	-2.487690000
6	1.229010000	-3.561074000	0.000000000	6	0.000000000	4.922697000	-1.406272000
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1	3.354600000	3.409954000	0.000000000	6	0.000000000	3.657703000	0.723040000
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1	3.373974000	-0.971618000	0.000000000	6	0.000000000	-6.087966000	0.717197000
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				6	0.000000000	-6.087966000	-0.717197000
				1	0.000000000	-7.034790000	-1.245051000
				1	0.000000000	-4.921255000	2.491425000
				1	0.000000000	-7.034790000	1.245051000
11				12			
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1	-1.228693000	-2.488114000	0.000000000	1	2.489575000	-2.453904000	0.000000000
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6	0.000000000	-0.723648000	0.000000000	6	0.724915000	-1.220642000	0.000000000
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1	1.229016000	2.488155000	0.000000000	1	-2.489677000	-0.000004000	0.000000000
6	1.226772000	-1.403227000	0.000000000	6	1.403665000	-0.000047000	0.000000000
1	1.226873000	-2.489102000	0.000000000	1	2.489499000	0.000027000	0.000000000
6	3.683321000	-1.404433000	0.000000000	6	1.403633000	2.453445000	0.000000000
6	2.440014000	-0.724623000	0.000000000	6	0.724871000	1.220769000	0.000000000
6	4.879935000	-0.726394000	0.000000000	6	0.724730000	3.661970000	0.000000000
6	2.440646000	0.722621000	0.000000000	6	-0.725073000	1.220778000	0.000000000
6	4.880571000	0.722262000	0.000000000	6	-0.724959000	3.662002000	0.000000000
6	3.684551000	1.401348000	0.000000000	6	-1.403842000	2.453457000	0.000000000
1	3.685766000	2.487336000	0.000000000	1	-2.489703000	2.453992000	0.000000000
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6	-3.684711000	-1.401376000	0.000000000	6	1.403792000	-4.908934000	0.000000000
6	-2.440141000	-0.722748000	0.000000000	6	0.724870000	-3.661883000	0.000000000
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6	7.311453000	0.714821000	0.000000000	6	-0.725553000	6.102908000	0.000000000
6	6.146450000	-1.409844000	0.000000000	6	1.403701000	4.908864000	0.000000000
1	6.144724000	-2.494937000	0.000000000	1	2.489675000	4.909525000	0.000000000
6	7.310820000	-0.721060000	0.000000000	6	0.725339000	6.102929000	0.000000000
1	8.257645000	-1.248933000	0.000000000	1	-2.489889000	4.909685000	0.000000000
1	6.146867000	2.489710000	0.000000000	6	-1.407936000	-7.371276000	0.000000000
1	8.258744000	1.241853000	0.000000000	6	1.407967000	-7.371230000	0.000000000
6	-6.147025000	1.409893000	0.000000000	6	0.718680000	-8.534357000	0.000000000
6	-6.147796000	-1.404612000	0.000000000	1	1.245622000	-9.481691000	0.000000000
6	-7.311478000	-0.715359000	0.000000000	6	-0.718611000	-8.534380000	0.000000000
1	-8.258498000	-1.242532000	0.000000000	1	-1.245521000	-9.481731000	0.000000000
6	-7.310892000	0.720919000	0.000000000	1	-2.493025000	-7.370103000	0.000000000
1	-8.257755000	1.248856000	0.000000000	1	2.493056000	-7.370024000	0.000000000
1	-6.145585000	2.494958000	0.000000000	6	1.408195000	7.371089000	0.000000000
1	-6.146973000	-2.489825000	0.000000000	6	-1.407746000	7.371287000	0.000000000
				1	-2.492811000	7.370804000	0.000000000
				6	-0.718046000	8.534323000	0.000000000
				6	0.719035000	8.534438000	0.000000000
				1	-1.245097000	9.481649000	0.000000000
				1	2.493282000	7.369245000	0.000000000
				1	1.246128000	9.481707000	0.000000000
13				14			
6	1.245132000	-3.518986000	0.000000000	6	0.000000000	0.000000000	5.652130000
6	2.424836000	-2.838200000	0.000000000	6	0.000000000	1.201262000	4.960326000

6	-0.000218000	-2.832044000	0.000000000	6	0.000000000	-1.201262000	4.960326000
6	3.669695000	0.681232000	0.000000000	6	0.000000000	-1.220702000	-3.563613000
6	2.452644000	-1.415941000	0.000000000	6	0.000000000	-2.447916000	-2.823424000
6	1.233620000	0.712254000	0.000000000	6	0.000000000	0.000000000	-2.843805000
6	3.669695000	-0.681232000	0.000000000	6	0.000000000	-2.451565000	-1.474151000
6	2.424837000	2.838200000	0.000000000	6	0.000000000	-1.234129000	0.706837000
6	2.452644000	1.415941000	0.000000000	6	0.000000000	-2.447916000	2.823424000
6	-0.000218000	2.832045000	0.000000000	6	0.000000000	-2.451565000	1.474151000
6	-0.000037000	1.424339000	0.000000000	6	0.000000000	0.000000000	2.843805000
6	1.233620000	-0.712254000	0.000000000	6	0.000000000	0.000000000	1.409587000
6	-1.244874000	3.518672000	0.000000000	6	0.000000000	1.220702000	3.563613000
6	-2.424942000	2.837785000	0.000000000	6	0.000000000	2.447916000	2.823424000
6	-2.452478000	1.415965000	0.000000000	6	0.000000000	2.451565000	1.474151000
1	-3.367027000	3.376041000	0.000000000	1	0.000000000	3.384011000	3.371965000
6	-0.000037000	-1.424339000	0.000000000	6	0.000000000	0.000000000	-1.409587000
6	-1.233380000	-0.712341000	0.000000000	6	0.000000000	1.220702000	-3.563613000
6	-1.244875000	-3.518672000	0.000000000	6	0.000000000	2.451565000	-1.474151000
6	-2.452478000	-1.415965000	0.000000000	6	0.000000000	2.447916000	-2.823424000
6	-2.424942000	-2.837784000	0.000000000	6	0.000000000	1.234129000	0.706837000
6	-1.233380000	0.712341000	0.000000000	6	0.000000000	-1.220702000	3.563613000
6	-3.669937000	0.681149000	0.000000000	1	0.000000000	3.384011000	-3.371965000
1	-4.607570000	1.227189000	0.000000000	1	0.000000000	-3.384011000	3.371965000
6	-3.669937000	-0.681148000	0.000000000	1	0.000000000	-3.384011000	-3.371965000
6	1.245132000	3.518986000	0.000000000	6	0.000000000	1.234129000	-0.706837000
1	-4.607570000	-1.227189000	0.000000000	6	0.000000000	-1.234129000	-0.706837000
1	-3.367027000	-3.376041000	0.000000000	1	0.000000000	-3.404375000	-0.963439000
1	1.239678000	4.604118000	0.000000000	1	0.000000000	-3.404375000	0.963439000
1	3.367369000	3.375793000	0.000000000	1	0.000000000	3.404375000	0.963439000
1	4.607499000	1.227051000	0.000000000	1	0.000000000	3.404375000	-0.963439000
1	4.607499000	-1.227051000	0.000000000	6	0.000000000	1.201262000	-4.960326000

1	3.367369000	-3.375793000	0.000000000	6	0.000000000	-1.201262000	-4.960326000
1	1.239678000	-4.604119000	0.000000000	1	0.000000000	-2.142727000	-5.499887000
1	-1.240313000	-4.603824000	0.000000000	6	0.000000000	0.000000000	-5.652130000
1	-1.240313000	4.603824000	0.000000000	1	0.000000000	0.000000000	-6.735785000
				1	0.000000000	2.142727000	-5.499887000
				1	0.000000000	2.142727000	5.499887000
				1	0.000000000	0.000000000	6.735785000
				1	0.000000000	-2.142727000	5.499887000
15				16			
6	0.000000000	1.229975000	5.724247000	6	-3.627967000	2.887266000	-0.000655000
6	0.000000000	2.413150000	3.632704000	6	-3.638836000	1.475154000	-0.000492000
6	0.000000000	2.410665000	5.036853000	6	-2.449938000	3.566737000	-0.000485000
6	0.000000000	0.000000000	3.603311000	1	-4.601108000	0.980188000	-0.000665000
6	0.000000000	0.000000000	5.026165000	1	-2.429686000	4.651182000	-0.000581000
6	0.000000000	-1.241460000	2.901601000	6	-2.478261000	0.737062000	-0.000151000
6	0.000000000	-2.413150000	3.632704000	1	-4.570810000	3.422044000	-0.000912000
6	0.000000000	-2.410665000	5.036853000	6	-1.214310000	2.859900000	-0.000220000
1	0.000000000	-3.372054000	3.132074000	6	-1.221286000	1.429315000	-0.000112000
6	0.000000000	-1.229975000	5.724247000	6	-0.000083000	3.539156000	-0.000052000
6	0.000000000	1.241460000	2.901601000	1	-0.000113000	4.624745000	-0.000060000
1	0.000000000	3.372054000	3.132074000	6	-0.000017000	0.728092000	-0.000017000
1	0.000000000	3.355067000	5.568825000	6	2.478223000	0.737177000	0.000171000
1	0.000000000	-3.355067000	5.568825000	6	1.221203000	1.429369000	0.000067000
6	0.000000000	1.230031000	-5.724230000	6	3.638756000	1.475313000	0.000628000
6	0.000000000	2.410657000	-5.036588000	1	4.601055000	0.980398000	0.000936000
6	0.000000000	0.000000000	-5.025980000	6	1.214159000	2.859959000	0.000146000
6	0.000000000	2.413099000	-3.632477000	6	3.627822000	2.887437000	0.000753000
6	0.000000000	1.236177000	-1.426049000	1	4.570645000	3.422248000	0.001085000
6	0.000000000	2.405934000	0.696122000	6	2.449770000	3.566852000	0.000460000
6	0.000000000	2.405883000	-0.696636000	1	2.429462000	4.651296000	0.000520000

6	0.000000000	0.000000000	0.714852000	6	2.478250000	-0.737060000	-0.000172000
6	0.000000000	0.000000000	-0.714957000	6	3.638836000	-1.475144000	-0.000622000
6	0.000000000	-1.236257000	1.425944000	1	4.601101000	-0.980163000	-0.000927000
6	0.000000000	-2.405934000	0.696122000	6	0.000010000	-0.728095000	0.000015000
6	0.000000000	-2.405883000	-0.696636000	6	1.221289000	-1.429314000	-0.000069000
1	0.000000000	-3.365628000	1.194933000	6	-2.478230000	-0.737182000	0.000154000
6	0.000000000	0.000000000	-3.603240000	6	-1.221204000	-1.429373000	0.000110000
6	0.000000000	-1.230031000	-5.724230000	6	3.627974000	-2.887248000	-0.000747000
6	0.000000000	-2.413099000	-3.632477000	6	1.214315000	-2.859897000	-0.000151000
6	0.000000000	-2.410657000	-5.036588000	6	2.449940000	-3.566725000	-0.000461000
6	0.000000000	-1.236177000	-1.426049000	1	2.429705000	-4.651170000	-0.000519000
6	0.000000000	1.236257000	1.425944000	6	-1.214154000	-2.859969000	0.000216000
1	0.000000000	-3.355319000	-5.568166000	6	0.000085000	-3.539157000	0.000044000
1	0.000000000	3.365628000	1.194933000	1	0.000127000	-4.624745000	0.000046000
1	0.000000000	3.355319000	-5.568166000	6	-3.638760000	-1.475322000	0.000500000
1	0.000000000	1.217325000	-6.808891000	1	-4.601056000	-0.980405000	0.000684000
1	0.000000000	-1.217325000	-6.808891000	6	-3.627819000	-2.887449000	0.000658000
6	0.000000000	-1.241396000	-2.901587000	6	-2.449770000	-3.566858000	0.000482000
6	0.000000000	1.241396000	-2.901587000	1	-4.570640000	-3.422266000	0.000912000
1	0.000000000	3.372022000	-3.131727000	1	4.570813000	-3.422030000	-0.001072000
1	0.000000000	3.365420000	-1.195913000	1	-2.429465000	-4.651304000	0.000581000
1	0.000000000	-3.365420000	-1.195913000				
1	0.000000000	-3.372022000	-3.131727000				
1	0.000000000	-1.217281000	6.808985000				
1	0.000000000	1.217281000	6.808985000				
17				18			
6	-1.222680000	-3.539017000	-0.000635000	6	0.000000000	0.000000000	3.553325000
1	-1.219126000	-4.624472000	-0.000788000	6	0.000000000	1.231050000	2.848684000
6	-1.231501000	-0.723640000	-0.000222000	6	0.000000000	-1.231050000	2.848684000
6	0.000000000	-2.855081000	-0.000744000	6	0.000000000	-1.221171000	-5.705901000

6	-0.000006000	-1.420623000	-0.000429000	6	0.000000000	-2.446705000	-4.964048000
6	1.222693000	-3.539024000	-0.000898000	6	0.000000000	0.000000000	-4.986985000
1	1.219113000	-4.624478000	-0.001169000	6	0.000000000	-2.449050000	-3.614150000
6	1.231512000	-0.723629000	-0.000253000	6	0.000000000	-1.227946000	-1.433939000
6	3.704308000	-0.736967000	0.000199000	6	0.000000000	-2.441876000	0.674484000
6	2.445890000	-1.428313000	-0.000260000	6	0.000000000	-2.441876000	-0.674484000
6	4.863130000	-1.477800000	0.000711000	6	0.000000000	0.000000000	0.721251000
1	5.826811000	-0.985484000	0.001468000	6	0.000000000	0.000000000	-0.721251000
6	2.432706000	-2.863670000	-0.000570000	6	0.000000000	1.227946000	1.433939000
6	4.848345000	-2.891789000	0.000371000	6	0.000000000	2.441876000	0.674484000
1	5.790614000	-3.427618000	0.000705000	6	0.000000000	2.441876000	-0.674484000
6	3.671302000	-3.570710000	-0.000363000	1	0.000000000	3.395272000	1.183572000
1	3.651186000	-4.655117000	-0.000695000	6	0.000000000	0.000000000	-3.553325000
6	-3.704312000	-0.736966000	0.000357000	6	0.000000000	1.221171000	-5.705901000
6	-2.445898000	-1.428314000	-0.000129000	6	0.000000000	2.449050000	-3.614150000
6	-4.863139000	-1.477817000	0.001424000	6	0.000000000	2.446705000	-4.964048000
1	-5.826829000	-0.985508000	0.002384000	6	0.000000000	1.227946000	-1.433939000
6	-2.432708000	-2.863660000	-0.000168000	6	0.000000000	-1.227946000	1.433939000
6	-4.848351000	-2.891799000	0.001425000	1	0.000000000	3.383727000	-5.510971000
1	-5.790622000	-3.427623000	0.002204000	1	0.000000000	-3.395272000	1.183572000
6	-3.671295000	-3.570710000	0.000493000	1	0.000000000	-3.383727000	-5.510971000
1	-3.651172000	-4.655117000	0.000382000	6	0.000000000	1.231050000	-2.848684000
6	-1.222680000	3.539018000	0.000271000	6	0.000000000	-1.231050000	-2.848684000
1	-1.219126000	4.624473000	0.000260000	1	0.000000000	-3.402002000	-3.103851000
6	-1.231498000	0.723640000	0.000042000	1	0.000000000	-3.395272000	-1.183572000
6	0.000000000	2.855081000	0.000320000	1	0.000000000	3.395272000	-1.183572000
6	-0.000004000	1.420623000	0.000163000	1	0.000000000	3.402002000	-3.103851000
6	1.222694000	3.539024000	0.000347000	6	0.000000000	1.201550000	-7.102576000
1	1.219114000	4.624479000	0.000340000	6	0.000000000	-1.201550000	-7.102576000
6	1.231516000	0.723629000	0.000064000	1	0.000000000	-2.142826000	-7.642399000

6	3.704311000	0.736967000	0.000128000	6	0.000000000	0.000000000	-7.794351000
6	2.445890000	1.428313000	0.000179000	1	0.000000000	0.000000000	-8.878296000
6	4.863130000	1.477798000	-0.000045000	1	0.000000000	2.142826000	-7.642399000
1	5.826813000	0.985485000	-0.000303000	6	0.000000000	0.000000000	4.986985000
6	2.432704000	2.863668000	0.000257000	6	0.000000000	-2.449050000	3.614150000
6	4.848344000	2.891790000	0.000008000	6	0.000000000	-2.446705000	4.964048000
1	5.790614000	3.427618000	-0.000111000	1	0.000000000	-3.383727000	5.510971000
6	3.671302000	3.570710000	0.000195000	6	0.000000000	-1.221171000	5.705901000
1	3.651187000	4.655117000	0.000195000	6	0.000000000	2.449050000	3.614150000
6	-3.704311000	0.736967000	-0.000142000	1	0.000000000	3.402002000	3.103851000
6	-2.445897000	1.428315000	0.000080000	6	0.000000000	2.446705000	4.964048000
6	-4.863136000	1.477817000	-0.001035000	6	0.000000000	1.221171000	5.705901000
1	-5.826824000	0.985503000	-0.001875000	1	0.000000000	3.383727000	5.510971000
6	-2.432708000	2.863661000	0.000074000	6	0.000000000	1.201550000	7.102576000
6	-4.848351000	2.891798000	-0.001042000	6	0.000000000	-1.201550000	7.102576000
1	-5.790622000	3.427623000	-0.001620000	6	0.000000000	0.000000000	7.794351000
6	-3.671295000	3.570710000	-0.000356000	1	0.000000000	0.000000000	8.878296000
1	-3.651173000	4.655118000	-0.000295000	1	0.000000000	-3.402002000	3.103851000
				1	0.000000000	-2.142826000	7.642399000
				1	0.000000000	2.142826000	7.642399000
19				20			
6	0.000000000	1.230058000	7.885757000	6	0.000000000	0.000000000	3.553412000
6	0.000000000	2.410913000	7.198259000	6	0.000000000	0.000000000	4.962348000
6	0.000000000	0.000000000	7.187515000	6	0.000000000	1.239709000	5.656888000
6	0.000000000	2.413572000	5.794282000	1	0.000000000	1.228671000	6.741803000
6	0.000000000	1.236417000	3.588564000	6	0.000000000	2.418987000	4.979762000
6	0.000000000	2.404694000	1.464472000	1	0.000000000	3.361828000	5.516426000
6	0.000000000	2.405642000	2.856752000	6	0.000000000	-1.233737000	2.841812000
6	0.000000000	0.000000000	1.449930000	6	0.000000000	1.233737000	2.841812000
6	0.000000000	0.000000000	2.878904000	6	0.000000000	-3.662949000	-2.835959000

6	0.000000000	-1.232386000	0.736021000	6	0.000000000	-2.465439000	-0.720357000
6	0.000000000	-2.404694000	1.464472000	1	0.000000000	-4.598464000	-3.385417000
6	0.000000000	-2.405642000	2.856752000	6	0.000000000	-2.418987000	4.979762000
1	0.000000000	-3.364282000	0.965605000	6	0.000000000	-1.239709000	5.656888000
6	0.000000000	0.000000000	5.764783000	1	0.000000000	-1.228671000	6.741803000
6	0.000000000	-1.230058000	7.885757000	6	0.000000000	-1.240980000	1.413733000
6	0.000000000	-2.413572000	5.794282000	6	0.000000000	0.000000000	-0.699598000
6	0.000000000	-2.410913000	7.198259000	6	0.000000000	-3.670754000	-1.475744000
6	0.000000000	-1.236417000	3.588564000	6	0.000000000	-3.670754000	1.475744000
6	0.000000000	1.232386000	0.736021000	6	0.000000000	-3.662949000	2.835959000
1	0.000000000	-3.355453000	7.730035000	6	0.000000000	-2.465439000	0.720357000
1	0.000000000	3.364282000	0.965605000	6	0.000000000	-2.444851000	3.558707000
1	0.000000000	3.355453000	7.730035000	6	0.000000000	-1.233737000	-2.841812000
1	0.000000000	1.217259000	8.970411000	6	0.000000000	-1.240980000	-1.413733000
1	0.000000000	-1.217259000	8.970411000	6	0.000000000	1.233737000	-2.841812000
6	0.000000000	-1.241698000	5.063350000	6	0.000000000	1.240980000	-1.413733000
6	0.000000000	1.241698000	5.063350000	6	0.000000000	0.000000000	0.699598000
1	0.000000000	3.372371000	5.293205000	6	0.000000000	2.444851000	-3.558707000
1	0.000000000	3.365675000	3.355200000	6	0.000000000	3.662949000	-2.835959000
1	0.000000000	-3.365675000	3.355200000	6	0.000000000	3.670754000	-1.475744000
1	0.000000000	-3.372371000	5.293205000	1	0.000000000	-4.598464000	3.385417000
6	0.000000000	1.230058000	-7.885757000	1	0.000000000	-3.361828000	5.516426000
6	0.000000000	2.410913000	-7.198259000	1	0.000000000	4.598464000	-3.385417000
6	0.000000000	0.000000000	-7.187515000	6	0.000000000	1.240980000	1.413733000
6	0.000000000	2.413572000	-5.794282000	6	0.000000000	2.465439000	0.720357000
6	0.000000000	1.236417000	-3.588564000	6	0.000000000	2.444851000	3.558707000
6	0.000000000	2.404694000	-1.464472000	6	0.000000000	3.670754000	1.475744000
6	0.000000000	2.405642000	-2.856752000	6	0.000000000	3.662949000	2.835959000
6	0.000000000	0.000000000	-1.449930000	6	0.000000000	2.465439000	-0.720357000
6	0.000000000	0.000000000	-2.878904000	6	0.000000000	0.000000000	-3.553412000

6	0.000000000	-1.232386000	-0.736021000	6	0.000000000	1.239709000	-5.656888000
6	0.000000000	-2.404694000	-1.464472000	1	0.000000000	1.228671000	-6.741803000
6	0.000000000	-2.405642000	-2.856752000	6	0.000000000	2.418987000	-4.979762000
1	0.000000000	-3.364282000	-0.965605000	1	0.000000000	3.361828000	-5.516426000
6	0.000000000	0.000000000	-5.764783000	6	0.000000000	-2.418987000	-4.979762000
6	0.000000000	-1.230058000	-7.885757000	6	0.000000000	-2.444851000	-3.558707000
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1	0.000000000	-3.365675000	-3.355200000				
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21				22			
6	3.541910000	-0.000008000	0.000000000	6	3.550549000	1.218284000	-0.000005000
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1	6.720725000	1.239562000	0.000000000	6	1.420129000	2.468814000	-0.000081000
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1	5.500224000	3.367349000	0.000000000	6	0.705885000	1.223588000	0.000035000
6	2.828918000	-1.233856000	0.000000000	6	0.705858000	-1.223641000	0.000002000
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23

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