

Supplemental Information- Regression Reports

The following data is intended for those who are familiar with multiple OLS and its limitations. A few characteristic elemental bulk properties were analyzed for statistical significance despite the lack of practical importance. Such properties include melting point, boiling point, and heat capacity; these properties were not reported in the manuscript. Please note that some properties apparently offer a negative contribution for specific elements during specific perturbations. An analysis of these trends is beyond the scope of the current manuscript.

Pump Rate

⁷Li

Summary of Fit

RSquare	0.692627
RSquare Adj	0.682493
Root Mean Square Error	0.294342
Mean of Response	2.697343
Observations (or Sum Wgts)	95

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t	VIF
Intercept	0.4690935	0.27402	1.71	0.0903	.
InMass	0.7947333	0.06853	11.60	<.0001	3.1692281
InMelting Point (C)	0.1098943	0.02966	3.71	0.0004	1.2266486
InS (J/Kmol)	-0.59386	0.121312	-4.90	<.0001	3.3094129

⁹Be

Summary of Fit

RSquare	0.501738
RSquare Adj	0.485836
Root Mean Square Error	0.458495
Mean of Response	2.215474
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.7671503	0.760815	2.32	0.0224
InMass	0.747607	0.100985	7.40	<.0001
InHeat Capacity (J/molK)	-0.666223	0.308979	-2.16	0.0336
InS (J/Kmol)	-0.393815	0.176536	-2.23	0.0281

¹¹B

Summary of Fit

RSquare	0.52898
RSquare Adj	0.513947
Root Mean Square Error	0.411119
Mean of Response	2.215083
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.6446892	0.805913	2.04	0.0441
InMass	0.5831159	0.062588	9.32	<.0001
In2nd ionization potential (eV)	0.2190636	0.080638	2.72	0.0079
InHeat Capacity (J/molK)	-0.947467	0.338281	-2.80	0.0062

²⁶Mg

Summary of Fit

RSquare 0.500967
 RSquare Adj 0.484694
 Root Mean Square Error 0.445634
 Mean of Response 2.341783
 Observations (or Sum Wgts) 96

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.554099	0.438841	-1.26	0.2099
InMass	0.5371449	0.05764	9.32	<.0001
InMelting Point (C)	-0.138878	0.057514	-2.41	0.0177
InBoiling Point (C)	0.197184	0.06983	2.82	0.0058

²⁷Al

Summary of Fit

RSquare 0.589585
 RSquare Adj 0.567035
 Root Mean Square Error 0.363778
 Mean of Response 2.977886
 Observations (or Sum Wgts) 97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t	VIF
Intercept	1.0351753	0.328165	3.15	0.0022	.
InMass	0.436183	0.04379	9.96	<.0001	1.2453944
In2nd ionization potential (eV)	0.070141	0.030658	2.29	0.0245	1.2824286
InMelting Point (C)	-0.11838	0.03634	-3.26	0.0016	1.3790031
InBoiling Point (C)	0.0717119	0.041728	1.72	0.0891	1.0840433
InElectronegativity	-0.125252	0.042173	-2.97	0.0038	1.5424197

⁴⁴Ca

Summary of Fit

RSquare 0.644481
 RSquare Adj 0.625159
 Root Mean Square Error 0.272845
 Mean of Response 3.217824
 Observations (or Sum Wgts) 98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.250324	0.827266	-0.30	0.7629
InMass	0.3258577	0.029705	10.97	<.0001
In1st ionization potential (eV)	0.0526454	0.023568	2.23	0.0279
In2nd ionization potential (eV)	-0.089321	0.028567	-3.13	0.0024
InMelting Point (C)	0.0708113	0.028108	2.52	0.0135
Inion mobility (C/Pa*s*A)	-0.055779	0.024828	-2.25	0.0271

⁴⁵Sc

Summary of Fit

RSquare 0.397499
 RSquare Adj 0.391223
 Root Mean Square Error 0.575652
 Mean of Response 2.092009
 Observations (or Sum Wgts) 98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.1708488	0.248306	0.69	0.4931
InMass	0.4687069	0.058895	7.96	<.0001

⁴⁸Ti

Summary of Fit

RSquare	0.463638
RSquare Adj	0.44652
Root Mean Square Error	0.518968
Mean of Response	2.055177
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.015165	0.236725	-0.06	0.9491
InMass	0.4378934	0.05304	8.26	<.0001
In1st ionization potential (eV)	-0.109212	0.047752	-2.29	0.0244
In2nd ionization potential (eV)	0.2305646	0.072609	3.18	0.0020

⁵¹V

Summary of Fit

RSquare	0.277963
RSquare Adj	0.2626
Root Mean Square Error	0.553386
Mean of Response	2.001378
Observations (or Sum Wgts)	97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.7577774	0.216683	3.50	0.0007
InMass	0.265903	0.053094	5.01	<.0001
InElectronegativity	-0.091347	0.045026	-2.03	0.0453

⁵²Cr

Summary of Fit

RSquare	0.593488
RSquare Adj	0.575814
Root Mean Square Error	0.369177
Mean of Response	2.945283
Observations (or Sum Wgts)	97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	4.3820235	1.085072	4.04	0.0001
InMass	0.4125891	0.037666	10.95	<.0001
In1st ionization potential (eV)	-0.164687	0.046177	-3.57	0.0006
InElectronegativity	-0.073338	0.037285	-1.97	0.0522
Inion mobility (C/Pa*s*A)	0.102478	0.034419	2.98	0.0037

⁵⁵Mn

Summary of Fit

RSquare	0.739158
RSquare Adj	0.708211
Root Mean Square Error	0.393878
Mean of Response	2.195843
Observations (or Sum Wgts)	67

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.1192258	0.499211	0.24	0.8121
InMass	0.5768688	0.055388	10.41	<.0001
In1st ionization potential (eV)	0.1639229	0.065374	2.51	0.0149
In2nd ionization potential (eV)	-0.150422	0.058728	-2.56	0.0130
InMelting Point (C)	-0.212632	0.077886	-2.73	0.0083
InG of form (kJ/mol)	0.1426783	0.040739	3.50	0.0009
InElectronegativity	-0.489343	0.07464	-6.56	<.0001

⁵⁷Fe

Summary of Fit

RSquare	0.655148
RSquare Adj	0.627716
Root Mean Square Error	0.37151
Mean of Response	2.467621
Observations (or Sum Wgts)	96

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.9170318	0.223151	4.11	<.0001
InMass	0.4309557	0.038104	11.31	<.0001
In1st ionization potential (eV)	-0.133942	0.050187	-2.67	0.0091
In2nd ionization potential (eV)	0.0821454	0.04333	1.90	0.0613
InMelting Point (C)	-0.057793	0.028737	-2.01	0.0474
InHeat Capacity (J/molK)	0.1300328	0.04162	3.12	0.0024
InS (J/Kmol)	-0.099067	0.031442	-3.15	0.0022
InElectronegativity	-0.232461	0.056247	-4.13	<.0001

⁵⁸Ni

Summary of Fit

RSquare	0.690171
RSquare Adj	0.665242
Root Mean Square Error	0.336548
Mean of Response	2.812905
Observations (or Sum Wgts)	95

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.344914	0.880085	-0.39	0.6961
InMass	0.4615725	0.037715	12.24	<.0001
InMelting Point (C)	-0.178588	0.054479	-3.28	0.0015
InHeat Capacity (J/molK)	-0.066427	0.032038	-2.07	0.0411
InH of form (kJ/mol)	0.1088107	0.058162	1.87	0.0647
InS (J/Kmol)	-0.101247	0.030795	-3.29	0.0015
InElectronegativity	-0.178241	0.052154	-3.42	0.0010
Inion mobility (C/Pa*s*A)	-0.058502	0.024944	-2.35	0.0213

⁵⁹Co

Summary of Fit

RSquare	0.388702
RSquare Adj	0.338595
Root Mean Square Error	0.559458
Mean of Response	1.895937
Observations (or Sum Wgts)	67

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.2466702	0.318832	0.77	0.4421
InMass	0.4100774	0.087511	4.69	<.0001
In2nd ionization potential (eV)	-0.144508	0.077986	-1.85	0.0687
InHeat Capacity (J/molK)	-0.206887	0.067682	-3.06	0.0033
InS (J/Kmol)	0.1776771	0.062038	2.86	0.0057
InCharge	-0.48338	0.244997	-1.97	0.0530

⁶³Cu

Summary of Fit

RSquare	0.620116
RSquare Adj	0.567718
Root Mean Square Error	0.11502
Mean of Response	2.559986
Observations (or Sum Wgts)	67

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
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Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	5.3954625	0.781771	6.90	<.0001
lnMass	0.0951125	0.022568	4.21	<.0001
ln1st ionization potential (eV)	0.0960194	0.023295	4.12	0.0001
lnBoiling Point (C)	-0.083949	0.027028	-3.11	0.0029
lnHeat Capacity (J/molK)	-0.136413	0.019325	-7.06	<.0001
lnG of form (kJ/mol)	0.0541865	0.028835	1.88	0.0652
lnS (J/Kmol)	0.0518719	0.019843	2.61	0.0114
Inion mobility (C/Pa*s*A)	0.0919091	0.025239	3.64	0.0006
lnCharge	-0.230971	0.06705	-3.44	0.0011

⁶⁴Zn

Summary of Fit

RSquare	0.248711
RSquare Adj	0.224476
Root Mean Square Error	0.434065
Mean of Response	2.075978
Observations (or Sum Wgts)	97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.4415842	0.362694	1.22	0.2265
lnMass	0.2091927	0.042444	4.93	<.0001
lnMelting Point (C)	0.0928639	0.04481	2.07	0.0410
lnElectronegativity	-0.165009	0.054446	-3.03	0.0032

⁶⁹Ga

Summary of Fit

RSquare	0.547916
RSquare Adj	0.522518
Root Mean Square Error	0.469593
Mean of Response	2.145815
Observations (or Sum Wgts)	95

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	7.9946893	2.507729	3.19	0.0020
lnMass	0.4502526	0.057229	7.87	<.0001
ln1st ionization potential (eV)	-0.203327	0.055848	-3.64	0.0005
lnG of form (kJ/mol)	0.1108988	0.050704	2.19	0.0314
lnElectronegativity	-0.434207	0.089855	-4.83	<.0001
Inion mobility (C/Pa*s*A)	0.2705695	0.077849	3.48	0.0008

⁷⁵As

Summary of Fit

RSquare	0.644025
RSquare Adj	0.61436
Root Mean Square Error	0.346273
Mean of Response	2.500204
Observations (or Sum Wgts)	79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-36.30026	5.544715	-6.55	<.0001
lnMass	0.2153396	0.055748	3.86	0.0002
ln1st ionization potential (eV)	-0.233045	0.081373	-2.86	0.0055
lnBoiling Point (C)	0.2056854	0.063005	3.26	0.0017
lnHeat Capacity (J/molK)	0.0923889	0.046647	1.98	0.0515
Inion mobility (C/Pa*s*A)	-1.136821	0.168249	-6.76	<.0001
lnCharge	1.3622586	0.226102	6.02	<.0001

⁷⁶Se

Summary of Fit

RSquare	0.653766
RSquare Adj	0.619631
Root Mean Square Error	0.396365
Mean of Response	2.236124
Observations (or Sum Wgts)	79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t	VIF
Intercept	-41.93518	5.887083	-7.12	<.0001	.
InMass	0.2672403	0.069048	3.87	0.0002	1.6393374
In2nd ionization potential (eV)	-0.119617	0.053754	-2.23	0.0292	1.1460819
InBoiling Point (C)	0.12701	0.047672	2.66	0.0095	1.676703
InHeat Capacity (J/molK)	0.077817	0.029536	2.63	0.0103	1.4593541
InH of form (kJ/mol)	0.126734	0.056033	2.26	0.0268	1.3466913
Inion mobility (C/Pa*s*A)	-1.294653	0.179494	-7.21	<.0001	4.8152094
InCharge	1.6631639	0.252142	6.60	<.0001	4.1311528

⁸⁵Rb

Summary of Fit

RSquare	0.545809
RSquare Adj	0.526274
Root Mean Square Error	0.434708
Mean of Response	1.926489
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-3.654415	1.637146	-2.23	0.0280
InMass	0.500754	0.051349	9.75	<.0001
InMelting Point (C)	0.0610134	0.036328	1.68	0.0964
InElectronegativity	0.1058753	0.060136	1.76	0.0816
Inion mobility (C/Pa*s*A)	-0.106296	0.051141	-2.08	0.0404

⁸⁸Sr

Summary of Fit

RSquare	0.545796
RSquare Adj	0.536234
Root Mean Square Error	0.459879
Mean of Response	1.800293
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.16004	0.189706	-0.84	0.4010
InMass	0.506369	0.047763	10.60	<.0001
In2nd ionization potential (eV)	0.0651953	0.03079	2.12	0.0368

⁸⁹Y

Summary of Fit

RSquare	0.606183
RSquare Adj	0.553674
Root Mean Square Error	0.552744
Mean of Response	1.631281
Observations (or Sum Wgts)	69

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-9.752629	4.086335	-2.39	0.0202
InMass	0.5438606	0.069293	7.85	<.0001
In1st ionization potential (eV)	-0.471422	0.164249	-2.87	0.0057
InMelting Point (C)	-0.318779	0.10133	-3.15	0.0026
InBoiling Point (C)	0.5178975	0.147015	3.52	0.0008
InS (J/Kmol)	0.146147	0.062762	2.33	0.0233

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Term	Estimate	Std Error	t Ratio	Prob> t
InElectronegativity	0.2940682	0.152369	1.93	0.0583
Inion mobility (C/Pa*s*A)	-0.24629	0.114133	-2.16	0.0349
InCharge	0.6852273	0.207357	3.30	0.0016

⁹⁰Zr

Summary of Fit

RSquare	0.572493
RSquare Adj	0.563199
Root Mean Square Error	0.450295
Mean of Response	1.805849
Observations (or Sum Wgts)	95

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.502897	0.213427	-2.36	0.0206
InMass	0.5512677	0.051951	10.61	<.0001
In2nd ionization potential (eV)	0.1743136	0.056897	3.06	0.0029

¹⁰²Ru

Summary of Fit

RSquare	0.652355
RSquare Adj	0.632824
Root Mean Square Error	0.474696
Mean of Response	1.641411
Observations (or Sum Wgts)	95

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.7255161	0.560043	1.30	0.1985
InMass	0.5550982	0.053436	10.39	<.0001
In2nd ionization potential (eV)	0.0966099	0.04461	2.17	0.0330
InMelting Point (C)	-0.332627	0.145797	-2.28	0.0249
InHeat Capacity (J/molK)	-0.368913	0.061719	-5.98	<.0001
IndH of form (kJ/mol)	0.2362419	0.126945	1.86	0.0660

¹⁰³Rh

Summary of Fit

RSquare	0.597394
RSquare Adj	0.559051
Root Mean Square Error	0.582429
Mean of Response	1.55485
Observations (or Sum Wgts)	70

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.7767965	0.554932	1.40	0.1665
InMass	0.6121641	0.066054	9.27	<.0001
In1st ionization potential (eV)	-0.117008	0.059611	-1.96	0.0541
In2nd ionization potential (eV)	-0.104155	0.056445	-1.85	0.0697
InMelting Point (C)	-0.497769	0.184079	-2.70	0.0088
IndH of form (kJ/mol)	0.345958	0.169963	2.04	0.0460
InCharge	0.4714566	0.161264	2.92	0.0048

¹⁰⁶Pd

Summary of Fit

RSquare	0.728071
RSquare Adj	0.709446
Root Mean Square Error	0.305738
Mean of Response	1.724263
Observations (or Sum Wgts)	79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	17.95529	3.592337	5.00	<.0001
InMass	0.4316235	0.035611	12.12	<.0001
InHeat Capacity (J/molK)	-0.117998	0.029127	-4.05	0.0001
IndG of form (kJ/mol)	-0.110103	0.040959	-2.69	0.0089
Inion mobility (C/Pa*s*A)	0.5260513	0.112618	4.67	<.0001
InCharge	-0.917602	0.167183	-5.49	<.0001

¹⁰⁹Ag

Summary of Fit

RSquare	0.512929
RSquare Adj	0.482863
Root Mean Square Error	0.569183
Mean of Response	1.639205
Observations (or Sum Wgts)	87

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	19.797935	4.595709	4.31	<.0001
InMass	0.4389462	0.070269	6.25	<.0001
InHeat Capacity (J/molK)	-0.115726	0.040247	-2.88	0.0052
InElectronegativity	-0.112096	0.060961	-1.84	0.0696
Inion mobility (C/Pa*s*A)	0.6200781	0.142302	4.36	<.0001
InCharge	-1.050365	0.235003	-4.47	<.0001

¹¹⁴Cd

Summary of Fit

RSquare	0.705873
RSquare Adj	0.689712
Root Mean Square Error	0.428231
Mean of Response	1.604357
Observations (or Sum Wgts)	97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.52412	0.39235	-1.34	0.1849
InMass	0.7213756	0.053961	13.37	<.0001
InBoiling Point (C)	-0.400707	0.100348	-3.99	0.0001
InHeat Capacity (J/molK)	-0.10387	0.036047	-2.88	0.0049
IndG of form (kJ/mol)	0.5325453	0.104566	5.09	<.0001
InS (J/Kmol)	-0.162564	0.052714	-3.08	0.0027

¹¹⁵In

Summary of Fit

RSquare	0.46196
RSquare Adj	0.456355
Root Mean Square Error	0.6061
Mean of Response	1.546286
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.570832	0.241096	-2.37	0.0199
InMass	0.5863751	0.064587	9.08	<.0001

¹²⁰Sn

Summary of Fit

RSquare	0.751835
RSquare Adj	0.736516
Root Mean Square Error	0.345318
Mean of Response	1.755163

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Observations (or Sum Wgts)	87			
Parameter Estimates				
Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-4.298995	1.435253	-3.00	0.0036
InMass	0.5815646	0.043676	13.32	<.0001
In1st ionization potential (eV)	0.1114397	0.030852	3.61	0.0005
InElectronegativity	-0.167933	0.046302	-3.63	0.0005
Inion mobility (C/Pa*s*A)	-0.113353	0.0458	-2.47	0.0154
InCharge	0.2863774	0.083487	3.43	0.0010

¹²¹Sb

Summary of Fit

RSquare	0.785487
RSquare Adj	0.767101
Root Mean Square Error	0.378316
Mean of Response	1.479579
Observations (or Sum Wgts)	77

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	7.0269111	2.714531	2.59	0.0117
InMass	0.69835	0.047325	14.76	<.0001
In1st ionization potential (eV)	0.3411119	0.105299	3.24	0.0018
IndH of form (kJ/mol)	-0.122959	0.063407	-1.94	0.0565
InS (J/Kmol)	0.0871876	0.039884	2.19	0.0322
InElectronegativity	-0.467015	0.088769	-5.26	<.0001
Inion mobility (C/Pa*s*A)	0.2631621	0.084024	3.13	0.0025

¹³⁰Te

Summary of Fit

RSquare	0.72799
RSquare Adj	0.712535
Root Mean Square Error	0.363389
Mean of Response	1.675089
Observations (or Sum Wgts)	94

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.8862719	1.352704	1.39	0.1667
InMass	0.717522	0.049574	14.47	<.0001
In2nd ionization potential (eV)	0.0620687	0.027925	2.22	0.0288
InHeat Capacity (J/molK)	0.0938998	0.044305	2.12	0.0369
InElectronegativity	-0.270033	0.093095	-2.90	0.0047
Inion mobility (C/Pa*s*A)	0.0952565	0.043081	2.21	0.0296

¹³³Cs

Summary of Fit

RSquare	0.660281
RSquare Adj	0.656743
Root Mean Square Error	0.47538
Mean of Response	1.567039
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-1.197786	0.208026	-5.76	<.0001
InMass	0.7575809	0.055461	13.66	<.0001

¹³⁸Ba

Summary of Fit

RSquare	0.637788
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RSquare Adj 0.629914
 Root Mean Square Error 0.485508
 Mean of Response 1.594636
 Observations (or Sum Wgts) 95

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-1.611588	0.27074	-5.95	<.0001
InMass	0.7954542	0.06304	12.62	<.0001
InS (J/Kmol)	0.1120345	0.054218	2.07	0.0416

¹⁴⁰Ce

Summary of Fit

RSquare 0.657081
 RSquare Adj 0.641494
 Root Mean Square Error 0.417238
 Mean of Response 1.688822
 Observations (or Sum Wgts) 70

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.918683	0.237544	-3.87	0.0003
InMass	0.6931098	0.063899	10.85	<.0001
In1st ionization potential (eV)	-0.148682	0.073484	-2.02	0.0471
InCharge	0.2790036	0.106589	2.62	0.0110

¹⁵²Sm

Summary of Fit

RSquare 0.609988
 RSquare Adj 0.579518
 Root Mean Square Error 0.386437
 Mean of Response 1.785802
 Observations (or Sum Wgts) 70

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-1.355655	0.514258	-2.64	0.0105
InMass	0.7606228	0.091406	8.32	<.0001
In1st ionization potential (eV)	-0.112227	0.065395	-1.72	0.0910
InMelting Point (C)	-0.095266	0.048552	-1.96	0.0541
InBoiling Point (C)	0.1066621	0.048562	2.20	0.0317
InCharge	0.303288	0.103856	2.92	0.0048

¹⁵³Eu

Summary of Fit

RSquare 0.605971
 RSquare Adj 0.581723
 Root Mean Square Error 0.395233
 Mean of Response 1.752594
 Observations (or Sum Wgts) 70

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-1.814327	0.472737	-3.84	0.0003
InMass	0.8301402	0.089256	9.30	<.0001
InMelting Point (C)	-0.100567	0.054548	-1.84	0.0698
InBoiling Point (C)	0.1221485	0.050952	2.40	0.0194
InCharge	0.3043065	0.098532	3.09	0.0030

¹⁵⁹Tb

Summary of Fit

RSquare 0.55786

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RSquare Adj 0.530651
 Root Mean Square Error 0.521616
 Mean of Response 1.781274
 Observations (or Sum Wgts) 70

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-1.369913	0.52739	-2.60	0.0116
InMass	0.9302625	0.115782	8.03	<.0001
In1st ionization potential (eV)	-0.455415	0.132949	-3.43	0.0011
InElectronegativity	0.3405728	0.114438	2.98	0.0041
InCharge	0.4206832	0.141332	2.98	0.0041

¹⁶⁶Er

Summary of Fit

RSquare 0.633992
 RSquare Adj 0.599134
 Root Mean Square Error 0.459819
 Mean of Response 1.798961
 Observations (or Sum Wgts) 70

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-1.849498	0.647178	-2.86	0.0058
InMass	0.8309567	0.097068	8.56	<.0001
In1st ionization potential (eV)	-0.282391	0.094854	-2.98	0.0041
In2nd ionization potential (eV)	0.1653063	0.089347	1.85	0.0690
InMelting Point (C)	0.2003149	0.082166	2.44	0.0176
InBoiling Point (C)	-0.172985	0.071606	-2.42	0.0186
InCharge	0.4309325	0.136261	3.16	0.0024

¹⁷⁸Hf

Summary of Fit

RSquare 0.625168
 RSquare Adj 0.606884
 Root Mean Square Error 0.601291
 Mean of Response 1.703779
 Observations (or Sum Wgts) 87

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-8.994706	2.732565	-3.29	0.0015
InMass	0.7117272	0.07463	9.54	<.0001
In2nd ionization potential (eV)	0.1441481	0.046703	3.09	0.0028
Inion mobility (C/Pa*s*A)	-0.239042	0.088483	-2.70	0.0084
InCharge	0.5781889	0.144809	3.99	0.0001

¹⁸⁴W

Summary of Fit

RSquare 0.786955
 RSquare Adj 0.775119
 Root Mean Square Error 0.321578
 Mean of Response 1.942903
 Observations (or Sum Wgts) 96

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	4.1075886	0.608632	6.75	<.0001
InMass	0.5326826	0.040813	13.05	<.0001
InMelting Point (C)	-0.956597	0.168253	-5.69	<.0001
InBoiling Point (C)	0.4360312	0.136158	3.20	0.0019
InHeat Capacity (J/molK)	-0.144379	0.04325	-3.34	0.0012
InElectronegativity	0.1574498	0.036166	4.35	<.0001

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¹⁹²Os

Summary of Fit

RSquare	0.82608
RSquare Adj	0.814168
Root Mean Square Error	0.109223
Mean of Response	2.839383
Observations (or Sum Wgts)	79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.5283645	0.774526	4.56	<.0001
lnMass	0.2243788	0.015624	14.36	<.0001
ln1st ionization potential (eV)	0.0468179	0.023525	1.99	0.0503
ln2nd ionization potential (eV)	0.1191629	0.047402	2.51	0.0141
lnS (J/Kmol)	0.0497355	0.017624	2.82	0.0061
Inion mobility (C/Pa*s*A)	0.0666192	0.025368	2.63	0.0105

¹⁹³Ir

Summary of Fit

RSquare	0.545462
RSquare Adj	0.535472
Root Mean Square Error	0.609016
Mean of Response	1.831738
Observations (or Sum Wgts)	94

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.723766	0.263166	-2.75	0.0072
lnMass	0.5360378	0.051881	10.33	<.0001
lnElectronegativity	-0.313659	0.07201	-4.36	<.0001

¹⁹⁵Pt

Summary of Fit

RSquare	0.938762
RSquare Adj	0.932167
Root Mean Square Error	0.208266
Mean of Response	1.942954
Observations (or Sum Wgts)	73

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-2.203486	0.217994	-10.11	<.0001
lnMass	0.9861453	0.039772	24.80	<.0001
ln1st ionization potential (eV)	0.0887948	0.034243	2.59	0.0117
ln2nd ionization potential (eV)	-0.079107	0.029763	-2.66	0.0099
lnHeat Capacity (J/molK)	-0.046843	0.024344	-1.92	0.0587
lnS (J/Kmol)	0.0602882	0.034496	1.75	0.0852
lnElectronegativity	0.0594845	0.026937	2.21	0.0308

¹⁹⁷Au

Summary of Fit

RSquare	0.648483
RSquare Adj	0.629482
Root Mean Square Error	0.192224
Mean of Response	2.451807
Observations (or Sum Wgts)	79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	13.205521	2.691878	4.91	<.0001
lnMass	0.1372548	0.024163	5.68	<.0001
lnG of form (kJ/mol)	-0.053232	0.029868	-1.78	0.0788
Inion mobility (C/Pa*s*A)	0.3382107	0.081842	4.13	<.0001
lnCharge	-0.558689	0.121357	-4.60	<.0001

²⁰²Hg

Summary of Fit

RSquare 0.609676
 RSquare Adj 0.596808
 Root Mean Square Error 0.541935
 Mean of Response 1.766364
 Observations (or Sum Wgts) 95

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.166556	0.235138	-0.71	0.4805
InMass	0.5315066	0.051606	10.30	<.0001
In1st ionization potential (eV)	-0.262593	0.130755	-2.01	0.0476
InHeat Capacity (J/molK)	0.192189	0.062896	3.06	0.0029

²⁰⁵Tl

Summary of Fit

RSquare 0.637497
 RSquare Adj 0.629784
 Root Mean Square Error 0.586733
 Mean of Response 1.748681
 Observations (or Sum Wgts) 97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.795594	0.208955	-3.81	0.0003
InMass	0.6488825	0.050818	12.77	<.0001
In1st ionization potential (eV)	0.1009187	0.032649	3.09	0.0026

²⁰⁸Pb

Summary of Fit

RSquare 0.632332
 RSquare Adj 0.624426
 Root Mean Square Error 0.589853
 Mean of Response 1.717234
 Observations (or Sum Wgts) 96

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-1.332831	0.250193	-5.33	<.0001
InMass	0.7297448	0.057702	12.65	<.0001
In2nd ionization potential (eV)	0.085388	0.03685	2.32	0.0227

²⁰⁹Bi

Summary of Fit

RSquare 0.780701
 RSquare Adj 0.758015
 Root Mean Square Error 0.442117
 Mean of Response 1.703546
 Observations (or Sum Wgts) 65

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-1.136959	0.410893	-2.77	0.0076
InMass	0.7273956	0.056431	12.89	<.0001
In2nd ionization potential (eV)	0.1931852	0.045208	4.27	<.0001
InMelting Point (C)	-0.147452	0.05784	-2.55	0.0135
InHeat Capacity (J/molK)	0.1354726	0.067163	2.02	0.0483
InElectronegativity	-0.347395	0.058917	-5.90	<.0001
InCharge	0.4425491	0.176523	2.51	0.0150

²³²Th

Summary of Fit

RSquare 0.69716
 RSquare Adj 0.687495
 Root Mean Square Error 0.534506
 Mean of Response 1.663952
 Observations (or Sum Wgts) 98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-1.563964	0.228441	-6.85	<.0001
lnMass	0.659685	0.049769	13.25	<.0001
lnS (J/Kmol)	0.1343575	0.050317	2.67	0.0089
lnElectronegativity	-0.194788	0.060877	-3.20	0.0019

²³⁸U

Summary of Fit

RSquare 0.8035
 RSquare Adj 0.794568
 Root Mean Square Error 0.41341
 Mean of Response 1.804777
 Observations (or Sum Wgts) 93

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-2.436157	0.441842	-5.51	<.0001
lnMass	1.3269737	0.071431	18.58	<.0001
lnBoiling Point (C)	-0.445288	0.086596	-5.14	<.0001
lnG of form (kJ/mol)	0.3274847	0.067143	4.88	<.0001
lnElectronegativity	0.1279921	0.047751	2.68	0.0088

Acetic

⁷Li

Summary of Fit

RSquare 0.38494
 RSquare Adj 0.363731
 Root Mean Square Error 0.360641
 Mean of Response 3.265835
 Observations (or Sum Wgts) 91

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t	VIF
Intercept	-1.714891	2.04073	-0.84	0.4030	.
ln2nd ionization potential (eV)	1.6824052	0.518824	3.24	0.0017	1.2217187
lnS (J/Kmol)	-0.461718	0.086366	-5.35	<.0001	1.1126113
lnElectronegativity	0.2348912	0.047624	4.93	<.0001	1.1171232

⁹Be

Summary of Fit

RSquare 0.115271
 RSquare Adj 0.106055
 Root Mean Square Error 0.490516
 Mean of Response 3.318261
 Observations (or Sum Wgts) 98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.1821925	0.062733	50.73	<.0001
ln2nd ionization potential (eV)	0.1393779	0.03941	3.54	0.0006

¹¹B

Summary of Fit

RSquare	0.411439
RSquare Adj	0.37522
Root Mean Square Error	0.463578
Mean of Response	2.972498
Observations (or Sum Wgts)	70

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.9982841	0.799833	1.25	0.2165
ln2nd ionization potential (eV)	0.4599337	0.101961	4.51	<.0001
lnMelting Point (C)	0.2503682	0.079018	3.17	0.0023
lnS (J/Kmol)	-0.267718	0.114972	-2.33	0.0230
lnCharge	0.2367336	0.118724	1.99	0.0504

²⁶Mg

Summary of Fit

RSquare	0.168595
RSquare Adj	0.159934
Root Mean Square Error	0.199395
Mean of Response	5.143259
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	4.7554077	0.090183	52.73	<.0001
lnMass	0.0897769	0.020348	4.41	<.0001

²⁷Al

Summary of Fit

RSquare	0.520859
RSquare Adj	0.483426
Root Mean Square Error	0.2229
Mean of Response	3.892322
Observations (or Sum Wgts)	70

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.9853835	0.194972	20.44	<.0001
ln1st ionization potential (eV)	-0.123054	0.043441	-2.83	0.0062
lnBoiling Point (C)	-0.309467	0.061554	-5.03	<.0001
lnHeat Capacity (J/molK)	0.0729706	0.026411	2.76	0.0075
lnH of form (kJ/mol)	0.4068698	0.061897	6.57	<.0001
lnCharge	0.1720326	0.062578	2.75	0.0078

⁴⁴Ca

Summary of Fit

RSquare	0.265987
RSquare Adj	0.258341
Root Mean Square Error	0.196387
Mean of Response	4.906971
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	4.4078841	0.086912	50.72	<.0001
lnMass	0.1211772	0.020545	5.90	<.0001

⁴⁵Sc

Summary of Fit

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RSquare 0.08108
 RSquare Adj 0.071407
 Root Mean Square Error 0.348964
 Mean of Response 3.746238
 Observations (or Sum Wgts) 97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.7538988	0.035531	105.65	<.0001
lnHeat Capacity (J/molK)	0.0969312	0.03348	2.90	0.0047

⁴⁸Ti

Summary of Fit

RSquare 0.201457
 RSquare Adj 0.149938
 Root Mean Square Error 0.447786
 Mean of Response 3.134685
 Observations (or Sum Wgts) 67

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-5.390994	2.367937	-2.28	0.0263
lnMass	-0.202629	0.077741	-2.61	0.0114
ln2nd ionization potential (eV)	0.2578823	0.075013	3.44	0.0011
ln ion mobility (C/Pa*s*A)	-0.274113	0.075444	-3.63	0.0006
lnCharge	0.7793257	0.279567	2.79	0.0070

⁵¹V

Summary of Fit

RSquare 0.381445
 RSquare Adj 0.333336
 Root Mean Square Error 0.640693
 Mean of Response 2.516733
 Observations (or Sum Wgts) 98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.3078325	0.700137	1.87	0.0650
lnMass	-0.203395	0.068332	-2.98	0.0037
ln1st ionization potential (eV)	0.2325066	0.104886	2.22	0.0292
ln2nd ionization potential (eV)	-0.116601	0.059934	-1.95	0.0548
lnMelting Point (C)	-0.214845	0.104623	-2.05	0.0429
lnHeat Capacity (J/molK)	-0.178809	0.054619	-3.27	0.0015
lnH of form (kJ/mol)	0.6291778	0.153798	4.09	<.0001
lnS (J/Kmol)	0.1207682	0.056773	2.13	0.0361

⁵²Cr

Summary of Fit

RSquare 9.14e-14
 RSquare Adj 9.14e-14
 Root Mean Square Error 0.226542
 Mean of Response 5.149789
 Observations (or Sum Wgts) 98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	5.1497885	0.022884	225.04	<.0001

⁵⁵Mn

Summary of Fit

RSquare 0
 RSquare Adj 0

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Root Mean Square Error 0.624581
 Mean of Response 2.960036
 Observations (or Sum Wgts) 98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.9600361	0.063092	46.92	<.0001

⁵⁷Fe

Summary of Fit

RSquare 0.465925
 RSquare Adj 0.413393
 Root Mean Square Error 0.521003
 Mean of Response 2.889798
 Observations (or Sum Wgts) 68

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-9.730123	4.989787	-1.95	0.0558
InMelting Point (C)	0.3591985	0.0819	4.39	<.0001
InBoiling Point (C)	-0.228081	0.079556	-2.87	0.0057
InHeat Capacity (J/molK)	-0.380586	0.071292	-5.34	<.0001
InS (J/Kmol)	0.206106	0.055628	3.71	0.0005
Inion mobility (C/Pa*s*A)	-0.356899	0.154704	-2.31	0.0245
InCharge	0.5539864	0.208774	2.65	0.0101

⁵⁸Ni

Summary of Fit

RSquare 0.308841
 RSquare Adj 0.26425
 Root Mean Square Error 0.54963
 Mean of Response 2.749584
 Observations (or Sum Wgts) 67

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.8814686	0.446629	4.21	<.0001
InMelting Point (C)	0.3874868	0.108852	3.56	0.0007
InBoiling Point (C)	-0.271794	0.086514	-3.14	0.0026
InHeat Capacity (J/molK)	0.1914757	0.065097	2.94	0.0046
InCharge	0.7224582	0.215826	3.35	0.0014

⁵⁹Co

Summary of Fit

RSquare 0.512961
 RSquare Adj 0.473039
 Root Mean Square Error 0.650337
 Mean of Response 2.358577
 Observations (or Sum Wgts) 67

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.4772008	0.529751	4.68	<.0001
InMass	-0.282289	0.097637	-2.89	0.0053
InMelting Point (C)	0.3973185	0.110229	3.60	0.0006
InBoiling Point (C)	-0.263438	0.107151	-2.46	0.0168
InHeat Capacity (J/molK)	-0.196368	0.079673	-2.46	0.0165
InCharge	0.9595505	0.272952	3.52	0.0008

⁶³Cu

Summary of Fit

RSquare 0.247382

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RSquare Adj 0.197208
 Root Mean Square Error 0.539795
 Mean of Response 2.859475
 Observations (or Sum Wgts) 97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.468072	1.614463	-0.29	0.7725
lnMass	0.1051041	0.059909	1.75	0.0828
ln1st ionization potential (eV)	0.168238	0.069554	2.42	0.0176
ln2nd ionization potential (eV)	0.1230709	0.050896	2.42	0.0176
lnBoiling Point (C)	-0.219398	0.06499	-3.38	0.0011
lnHeat Capacity (J/molK)	-0.30779	0.073494	-4.19	<.0001
Inion mobility (C/Pa*s*A)	-0.134391	0.049813	-2.70	0.0083

⁶⁴Zn

Summary of Fit

RSquare 0.142152
 RSquare Adj 0.1239
 Root Mean Square Error 0.488005
 Mean of Response 3.273576
 Observations (or Sum Wgts) 97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.1210172	0.069657	44.81	<.0001
ln2nd ionization potential (eV)	0.1575375	0.045839	3.44	0.0009
lnHeat Capacity (J/molK)	0.0627846	0.037071	1.69	0.0936

⁶⁹Ga

Summary of Fit

RSquare 0.188507
 RSquare Adj 0.153225
 Root Mean Square Error 0.595034
 Mean of Response 2.913313
 Observations (or Sum Wgts) 97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.5191849	0.39111	6.44	<.0001
ln1st ionization potential (eV)	-0.102696	0.057619	-1.78	0.0780
ln2nd ionization potential (eV)	0.1581421	0.058205	2.72	0.0079
lnMelting Point (C)	-0.093561	0.051446	-1.82	0.0722
lnG of form (kJ/mol)	0.1676316	0.062166	2.70	0.0083

⁷⁵As

Summary of Fit

RSquare 0.296376
 RSquare Adj 0.27786
 Root Mean Square Error 0.270397
 Mean of Response 4.019103
 Observations (or Sum Wgts) 79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.8659916	1.746445	0.50	0.6214
ln2nd ionization potential (eV)	0.1230542	0.023592	5.22	<.0001
Inion mobility (C/Pa*s*A)	-0.097153	0.05601	-1.73	0.0869

⁷⁶Se

Summary of Fit

RSquare 0.169983
 RSquare Adj 0.136782
 Root Mean Square Error 0.313734

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Mean of Response	4.5475			
Observations (or Sum Wgts)	79			
Parameter Estimates				
Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-10.74496	3.983631	-2.70	0.0086
lnBoiling Point (C)	0.0855974	0.036441	2.35	0.0215
lnion mobility (C/Pa*s*A)	-0.458631	0.120695	-3.80	0.0003
lnCharge	0.4183877	0.168952	2.48	0.0155

⁸⁵Rb

Summary of Fit

RSquare	0.474051
RSquare Adj	0.445467
Root Mean Square Error	0.600223
Mean of Response	2.570412
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.0990971	0.562821	1.95	0.0539
lnMass	0.192653	0.072774	2.65	0.0095
ln2nd ionization potential (eV)	0.5157469	0.165441	3.12	0.0024
lnBoiling Point (C)	-0.27704	0.057016	-4.86	<.0001
lnHeat Capacity (J/molK)	1.0807852	0.1818	5.94	<.0001
lnElectronegativity	0.2194735	0.111068	1.98	0.0511

⁸⁸Sr

Summary of Fit

RSquare	0.491374
RSquare Adj	0.467154
Root Mean Square Error	0.602117
Mean of Response	2.57203
Observations (or Sum Wgts)	67

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.8914495	0.176951	16.34	<.0001
lnHeat Capacity (J/molK)	0.1550389	0.080202	1.93	0.0577
lnElectronegativity	0.437058	0.083481	5.24	<.0001
lnCharge	0.6099014	0.239372	2.55	0.0133

⁸⁹Y

Summary of Fit

RSquare	0.477575
RSquare Adj	0.397883
Root Mean Square Error	0.616082
Mean of Response	2.635473
Observations (or Sum Wgts)	69

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-16.44362	4.622956	-3.56	0.0007
lnMass	0.1791919	0.073763	2.43	0.0182
ln1st ionization potential (eV)	-0.356826	0.191104	-1.87	0.0668
ln2nd ionization potential (eV)	-0.511102	0.153703	-3.33	0.0015
lnBoiling Point (C)	0.6315766	0.158134	3.99	0.0002
lnH of form (kJ/mol)	-0.273602	0.139625	-1.96	0.0548
lnS (J/Kmol)	0.3359514	0.077985	4.31	<.0001
lnElectronegativity	0.5275843	0.165602	3.19	0.0023
lnion mobility (C/Pa*s*A)	-0.496393	0.12989	-3.82	0.0003
lnCharge	1.2782341	0.260732	4.90	<.0001

⁹⁰Zr

Summary of Fit

RSquare	0.289045
RSquare Adj	0.235723
Root Mean Square Error	0.650518
Mean of Response	2.550798
Observations (or Sum Wgts)	87

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-9.816194	3.470405	-2.83	0.0059
InMass	0.2204691	0.078713	2.80	0.0064
InBoiling Point (C)	0.1582666	0.074701	2.12	0.0372
InHeat Capacity (J/molK)	-0.12589	0.054405	-2.31	0.0232
InS (J/Kmol)	0.1591649	0.068149	2.34	0.0220
Inion mobility (C/Pa*s*A)	-0.315135	0.106381	-2.96	0.0040
InCharge	0.3113026	0.185877	1.67	0.0979

¹⁰²Ru

Summary of Fit

RSquare	0.511858
RSquare Adj	0.483478
Root Mean Square Error	0.626903
Mean of Response	2.407097
Observations (or Sum Wgts)	92

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	6.3630871	1.7739	3.59	0.0006
InMass	0.2387496	0.075466	3.16	0.0022
InBoiling Point (C)	0.3448048	0.087266	3.95	0.0002
InHeat Capacity (J/molK)	-0.540595	0.079669	-6.79	<.0001
InElectronegativity	0.4177574	0.066634	6.27	<.0001
Inion mobility (C/Pa*s*A)	0.193691	0.056766	3.41	0.0010

¹⁰³Rh

Summary of Fit

RSquare	0.734461
RSquare Adj	0.699056
Root Mean Square Error	0.532736
Mean of Response	2.419281
Observations (or Sum Wgts)	69

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-8.684407	4.257364	-2.04	0.0458
InMass	0.2055675	0.057356	3.58	0.0007
InMelting Point (C)	0.4314474	0.150979	2.86	0.0059
InBoiling Point (C)	-0.280048	0.161217	-1.74	0.0875
InHeat Capacity (J/molK)	-0.275867	0.067177	-4.11	0.0001
InS (J/Kmol)	0.3541299	0.079367	4.46	<.0001
InElectronegativity	0.3239779	0.05453	5.94	<.0001
Inion mobility (C/Pa*s*A)	-0.292605	0.127475	-2.30	0.0252
InCharge	0.4644013	0.188719	2.46	0.0168

¹⁰⁶Pd

Summary of Fit

RSquare	0.288932
RSquare Adj	0.249428
Root Mean Square Error	0.657446
Mean of Response	2.583221
Observations (or Sum Wgts)	96

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Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.0763942	0.517472	4.01	0.0001
lnMass	0.209201	0.070543	2.97	0.0039
ln2nd ionization potential (eV)	0.1407217	0.073776	1.91	0.0597
lnMelting Point (C)	0.2442677	0.077839	3.14	0.0023
lnG of form (kJ/mol)	-0.322657	0.101698	-3.17	0.0021
lnElectronegativity	0.2414278	0.101909	2.37	0.0200

¹⁰⁹Ag

Summary of Fit

RSquare	0.149612
RSquare Adj	0.110514
Root Mean Square Error	0.684656
Mean of Response	2.698766
Observations (or Sum Wgts)	92

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.6223736	0.453539	5.78	<.0001
lnMass	0.1796319	0.07738	2.32	0.0226
ln2nd ionization potential (eV)	0.2042628	0.099737	2.05	0.0436
lnG of form (kJ/mol)	-0.159577	0.079903	-2.00	0.0489
lnCharge	-0.41859	0.180308	-2.32	0.0226

¹¹⁴Cd

Summary of Fit

RSquare	0.249948
RSquare Adj	0.217337
Root Mean Square Error	0.588812
Mean of Response	2.696636
Observations (or Sum Wgts)	97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	8.5069888	2.529156	3.36	0.0011
lnMass	0.269138	0.067737	3.97	0.0001
lnBoiling Point (C)	-0.206521	0.074261	-2.78	0.0066
lnElectronegativity	0.1001932	0.056335	1.78	0.0786
lnion mobility (C/Pa*s*A)	0.1587572	0.071506	2.22	0.0289

¹¹⁵In

Summary of Fit

RSquare	0.280525
RSquare Adj	0.24958
Root Mean Square Error	0.873983
Mean of Response	2.296821
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	11.843163	4.404253	2.69	0.0085
ln1st ionization potential (eV)	0.3563991	0.098828	3.61	0.0005
lnHeat Capacity (J/molK)	0.1692166	0.098073	1.73	0.0878
lnH of form (kJ/mol)	-0.17559	0.10423	-1.68	0.0954
lnion mobility (C/Pa*s*A)	0.2747392	0.136305	2.02	0.0467

¹²⁰Sn

Summary of Fit

RSquare	0.336878
RSquare Adj	0.30453
Root Mean Square Error	0.285307

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Mean of Response 3.547785
 Observations (or Sum Wgts) 87

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-2.098404	1.169498	-1.79	0.0765
lnMass	0.0750448	0.035868	2.09	0.0395
ln2nd ionization potential (eV)	-0.073218	0.02956	-2.48	0.0153
lnion mobility (C/Pa*s*A)	-0.168608	0.037064	-4.55	<.0001
lnCharge	0.2945812	0.067294	4.38	<.0001

¹²¹Sb

Summary of Fit

RSquare 0.264599
 RSquare Adj 0.224847
 Root Mean Square Error 0.457509
 Mean of Response 3.171204
 Observations (or Sum Wgts) 79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	4.0270578	0.335792	11.99	<.0001
ln1st ionization potential (eV)	0.3628372	0.103778	3.50	0.0008
ln2nd ionization potential (eV)	-0.094654	0.051986	-1.82	0.0727
lnMelting Point (C)	-0.195077	0.052345	-3.73	0.0004
lnCharge	0.2525542	0.146467	1.72	0.0888

¹³⁰Te

Summary of Fit

RSquare 0.371914
 RSquare Adj 0.332658
 Root Mean Square Error 0.221331
 Mean of Response 4.002681
 Observations (or Sum Wgts) 86

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	8.2118589	1.695131	4.84	<.0001
ln2nd ionization potential (eV)	0.0556076	0.017052	3.26	0.0016
lnBoiling Point (C)	0.0420279	0.024983	1.68	0.0964
lnElectronegativity	0.152521	0.058953	2.59	0.0115
lnion mobility (C/Pa*s*A)	0.1363974	0.052696	2.59	0.0114
lnCharge	-0.209346	0.077196	-2.71	0.0082

¹³³Cs

Summary of Fit

RSquare 0.354999
 RSquare Adj 0.334413
 Root Mean Square Error 0.690416
 Mean of Response 2.414241
 Observations (or Sum Wgts) 98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.5689926	0.528229	2.97	0.0038
ln2nd ionization potential (eV)	0.4647803	0.124503	3.73	0.0003
lnBoiling Point (C)	-0.358575	0.071151	-5.04	<.0001
lnHeat Capacity (J/molK)	1.4198728	0.211858	6.70	<.0001

¹³⁸Ba

Summary of Fit

RSquare 0.390582

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RSquare Adj 0.363193
 Root Mean Square Error 0.524004
 Mean of Response 2.854714
 Observations (or Sum Wgts) 94

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.3147628	0.458596	7.23	<.0001
InMelting Point (C)	-0.258445	0.069347	-3.73	0.0003
InBoiling Point (C)	0.2113444	0.066968	3.16	0.0022
InHeat Capacity (J/molK)	0.1580449	0.05087	3.11	0.0025
InElectronegativity	0.3249733	0.07202	4.51	<.0001

¹⁴⁰Ce

Summary of Fit

RSquare 0.17239
 RSquare Adj 0.134771
 Root Mean Square Error 0.87616
 Mean of Response 2.476142
 Observations (or Sum Wgts) 70

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.2645882	0.681977	4.79	<.0001
InMass	0.2509206	0.130448	1.92	0.0587
InMelting Point (C)	-0.305776	0.100086	-3.06	0.0032
InCharge	0.5289768	0.217293	2.43	0.0176

¹⁵²Sm

Summary of Fit

RSquare 0.452126
 RSquare Adj 0.433658
 Root Mean Square Error 0.707321
 Mean of Response 2.484808
 Observations (or Sum Wgts) 93

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.8916544	0.265535	3.36	0.0012
In1st ionization potential (eV)	0.2593455	0.072066	3.60	0.0005
InHeat Capacity (J/molK)	0.8707246	0.160412	5.43	<.0001
InS (J/Kmol)	0.2281589	0.078855	2.89	0.0048

¹⁵³Eu

Summary of Fit

RSquare 0.563899
 RSquare Adj 0.539937
 Root Mean Square Error 0.630686
 Mean of Response 2.542373
 Observations (or Sum Wgts) 97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	6.4760994	2.293061	2.82	0.0058
In1st ionization potential (eV)	0.3396811	0.062975	5.39	<.0001
InMelting Point (C)	-0.152588	0.067863	-2.25	0.0270
InHeat Capacity (J/molK)	0.3750706	0.089137	4.21	<.0001
InS (J/Kmol)	0.2328649	0.084494	2.76	0.0071
Inion mobility (C/Pa*s*A)	0.115273	0.067041	1.72	0.0889

¹⁵⁹Tb

Summary of Fit

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RSquare 0.360207
 RSquare Adj 0.299274
 Root Mean Square Error 0.719164
 Mean of Response 2.566893
 Observations (or Sum Wgts) 70

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-1.34662	1.048	-1.28	0.2035
In2nd ionization potential (eV)	-0.262942	0.144867	-1.82	0.0743
InBoiling Point (C)	0.231252	0.115114	2.01	0.0488
InHeat Capacity (J/molK)	0.6826328	0.179914	3.79	0.0003
InS (J/Kmol)	0.6599374	0.202019	3.27	0.0018
InElectronegativity	0.2845882	0.142781	1.99	0.0506
InCharge	0.4568077	0.218458	2.09	0.0406

¹⁶⁶Er

Summary of Fit

RSquare 0.319271
 RSquare Adj 0.254439
 Root Mean Square Error 0.820912
 Mean of Response 2.490042
 Observations (or Sum Wgts) 70

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-9.831733	6.709817	-1.47	0.1478
In2nd ionization potential (eV)	-0.210346	0.107281	-1.96	0.0543
InMelting Point (C)	0.3532491	0.104522	3.38	0.0012
InHeat Capacity (J/molK)	0.2239053	0.09496	2.36	0.0215
IndH of form (kJ/mol)	-0.360773	0.106036	-3.40	0.0012
Inion mobility (C/Pa*s*A)	-0.367756	0.206424	-1.78	0.0796
InCharge	0.8881476	0.350288	2.54	0.0137

¹⁷⁸Hf

Summary of Fit

RSquare 0.367732
 RSquare Adj 0.309497
 Root Mean Square Error 0.605333
 Mean of Response 2.460062
 Observations (or Sum Wgts) 84

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-7.310603	2.899015	-2.52	0.0138
InMass	-0.200112	0.086295	-2.32	0.0231
In1st ionization potential (eV)	-0.265275	0.085092	-3.12	0.0026
In2nd ionization potential (eV)	0.1912007	0.062489	3.06	0.0031
IndG of form (kJ/mol)	0.2582268	0.085624	3.02	0.0035
InElectronegativity	0.5364382	0.137935	3.89	0.0002
Inion mobility (C/Pa*s*A)	-0.302616	0.090966	-3.33	0.0014
InCharge	0.3066988	0.155677	1.97	0.0525

¹⁸⁴W

Summary of Fit

RSquare 0.447916
 RSquare Adj 0.425833
 Root Mean Square Error 0.367795
 Mean of Response 3.004446
 Observations (or Sum Wgts) 79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-1.961357	0.817775	-2.40	0.0190

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Term	Estimate	Std Error	t Ratio	Prob> t
InMass	0.362715	0.051184	7.09	<.0001
InH of form (kJ/mol)	0.5021696	0.111732	4.49	<.0001
InCharge	0.4305058	0.130089	3.31	0.0014

¹⁹²Os

Summary of Fit

RSquare	0.430695
RSquare Adj	0.391701
Root Mean Square Error	0.197637
Mean of Response	3.76388
Observations (or Sum Wgts)	79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	7.5568909	1.395385	5.42	<.0001
InMass	0.060631	0.031183	1.94	0.0557
InHeat Capacity (J/molK)	-0.075624	0.025361	-2.98	0.0039
InH of form (kJ/mol)	0.1104029	0.065942	1.67	0.0984
InS (J/Kmol)	0.0765118	0.033839	2.26	0.0267
Inion mobility (C/Pa*s*A)	0.1564023	0.04834	3.24	0.0018

¹⁹³Ir

Summary of Fit

RSquare	0.58574
RSquare Adj	0.550732
Root Mean Square Error	0.376189
Mean of Response	2.798629
Observations (or Sum Wgts)	78

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.412502	0.527817	-0.78	0.4371
InMass	0.2221666	0.05616	3.96	0.0002
InMelting Point (C)	-0.173574	0.081643	-2.13	0.0370
InBoiling Point (C)	0.3139923	0.055664	5.64	<.0001
InHeat Capacity (J/molK)	-0.116925	0.044505	-2.63	0.0105
InS (J/Kmol)	0.2634079	0.068155	3.86	0.0002
InCharge	0.6566977	0.145274	4.52	<.0001

¹⁹⁵Pt

Summary of Fit

RSquare	0.674876
RSquare Adj	0.652607
Root Mean Square Error	0.524127
Mean of Response	2.346603
Observations (or Sum Wgts)	79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	10.633562	3.686065	2.88	0.0051
InMass	0.4449925	0.074657	5.96	<.0001
InBoiling Point (C)	0.2396242	0.114688	2.09	0.0402
InHeat Capacity (J/molK)	-0.133706	0.055489	-2.41	0.0185
InS (J/Kmol)	0.406584	0.09087	4.47	<.0001
Inion mobility (C/Pa*s*A)	0.4116399	0.125355	3.28	0.0016

¹⁹⁷Au

Summary of Fit

RSquare	0.145995
RSquare Adj	0.126804
Root Mean Square Error	0.385775

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Mean of Response	3.26896			
Observations (or Sum Wgts)	92			
Parameter Estimates				
Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.3747036	0.096179	35.09	<.0001
lnS (J/Kmol)	0.0646393	0.030081	2.15	0.0344
lnElectronegativity	0.1206971	0.037542	3.21	0.0018

²⁰²Hg

Summary of Fit

RSquare	0.176454
RSquare Adj	0.139852
Root Mean Square Error	0.732749
Mean of Response	2.530592
Observations (or Sum Wgts)	95

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	9.3577532	2.763823	3.39	0.0011
ln1st ionization potential (eV)	-0.637357	0.177946	-3.58	0.0006
ln2nd ionization potential (eV)	0.1905119	0.069585	2.74	0.0075
lnMelting Point (C)	-0.209056	0.089717	-2.33	0.0220
lnion mobility (C/Pa*s*A)	0.1527845	0.078981	1.93	0.0562

²⁰⁵Tl

Summary of Fit

RSquare	0.57405
RSquare Adj	0.527583
Root Mean Square Error	0.7137
Mean of Response	2.348401
Observations (or Sum Wgts)	62

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	15.639571	6.370104	2.46	0.0173
lnMass	0.2935948	0.121792	2.41	0.0193
ln1st ionization potential (eV)	0.1824588	0.051565	3.54	0.0008
lnS (J/Kmol)	0.1368823	0.080291	1.70	0.0939
lnElectronegativity	-0.210701	0.089088	-2.37	0.0216
lnion mobility (C/Pa*s*A)	0.4826426	0.193021	2.50	0.0154
lnCharge	0.9573073	0.370369	2.58	0.0124

²⁰⁸Pb

Summary of Fit

RSquare	0.336668
RSquare Adj	0.293872
Root Mean Square Error	0.71208
Mean of Response	2.577177
Observations (or Sum Wgts)	67

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.6139714	0.41603	8.69	<.0001
ln2nd ionization potential (eV)	-0.142533	0.049425	-2.88	0.0054
lnG of form (kJ/mol)	-0.316419	0.081106	-3.90	0.0002
lnS (J/Kmol)	0.2011339	0.078676	2.56	0.0130
lnCharge	0.6659431	0.197453	3.37	0.0013

²⁰⁹Bi

Summary of Fit

RSquare	0.33238
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RSquare Adj 0.302374
 Root Mean Square Error 0.454296
 Mean of Response 2.983691
 Observations (or Sum Wgts) 94

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.5873187	0.271776	9.52	<.0001
InMass	0.183025	0.046557	3.93	0.0002
IndG of form (kJ/mol)	-0.205134	0.041268	-4.97	<.0001
InS (J/Kmol)	0.0967156	0.044044	2.20	0.0307
InElectronegativity	-0.262637	0.058787	-4.47	<.0001

²³²Th

Summary of Fit

RSquare 0.268306
 RSquare Adj 0.235047
 Root Mean Square Error 0.706107
 Mean of Response 2.63236
 Observations (or Sum Wgts) 70

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.0821626	0.334419	3.24	0.0019
InMass	0.2703447	0.074177	3.64	0.0005
InS (J/Kmol)	0.1674039	0.071029	2.36	0.0214
InCharge	0.2928901	0.173865	1.68	0.0968

²³⁸U

Summary of Fit

RSquare 0.589271
 RSquare Adj 0.550418
 Root Mean Square Error 0.673207
 Mean of Response 2.458439
 Observations (or Sum Wgts) 82

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.7531719	1.250075	3.00	0.0037
InMass	0.4757017	0.139558	3.41	0.0011
In2nd ionization potential (eV)	-0.210083	0.10543	-1.99	0.0500
InBoiling Point (C)	-0.755315	0.166153	-4.55	<.0001
IndG of form (kJ/mol)	0.3699116	0.158259	2.34	0.0221
InS (J/Kmol)	0.3967466	0.124373	3.19	0.0021
InElectronegativity	0.5179023	0.121245	4.27	<.0001
InCharge	0.4429326	0.176855	2.50	0.0145

Torch

⁷Li

Summary of Fit

RSquare 0.495338
 RSquare Adj 0.478134
 Root Mean Square Error 0.163071
 Mean of Response 3.820941
 Observations (or Sum Wgts) 92

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.8684634	0.180236	15.92	<.0001
InMelting Point (C)	-0.057042	0.015777	-3.62	0.0005
InHeat Capacity (J/molK)	-0.045864	0.016356	-2.80	0.0062
InS (J/Kmol)	0.3667962	0.044864	8.18	<.0001

⁹Be

Summary of Fit

RSquare 0.329022
 RSquare Adj 0.299849
 Root Mean Square Error 0.189738
 Mean of Response 3.549889
 Observations (or Sum Wgts) 97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t	VIF
Intercept	2.1288347	0.256266	8.31	<.0001	.
ln2nd ionization potential (eV)	-0.03952	0.016617	-2.38	0.0195	1.1717349
lnMelting Point (C)	0.0769632	0.028092	2.74	0.0074	1.2366642
lnS (J/Kmol)	0.2865063	0.046526	6.16	<.0001	1.0705843
lnElectronegativity	0.0426068	0.020998	2.03	0.0453	1.4055399

¹¹B

Summary of Fit

RSquare 0.503409
 RSquare Adj 0.475193
 Root Mean Square Error 0.111055
 Mean of Response 4.326334
 Observations (or Sum Wgts) 94

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	4.1836368	0.135674	30.84	<.0001
lnMass	0.1516052	0.017786	8.52	<.0001
ln1st ionization potential (eV)	0.0264724	0.013042	2.03	0.0454
lnH of form (kJ/mol)	-0.058861	0.017369	-3.39	0.0011
lnS (J/Kmol)	-0.088389	0.028945	-3.05	0.0030
lnElectronegativity	-0.088902	0.026906	-3.30	0.0014

²⁶Mg

Summary of Fit

RSquare 0
 RSquare Adj 0
 Root Mean Square Error 0.493139
 Mean of Response 2.271879
 Observations (or Sum Wgts) 98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.2718788	0.049815	45.61	<.0001

²⁷Al

Summary of Fit

RSquare 3.08e-14
 RSquare Adj 3.08e-14
 Root Mean Square Error 0.276251
 Mean of Response 2.995695
 Observations (or Sum Wgts) 98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.9956953	0.027906	107.35	<.0001

⁴⁴Ca

Summary of Fit

RSquare 0.112341
 RSquare Adj 0.093653

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Root Mean Square Error		0.225223		
Mean of Response		3.657432		
Observations (or Sum Wgts)		98		
Parameter Estimates				
Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.7361161	0.140811	26.53	<.0001
InMass	0.0773456	0.025742	3.00	0.0034
InS (J/Kmol)	-0.13	0.046524	-2.79	0.0063

⁴⁵Sc

Summary of Fit

RSquare		0		
RSquare Adj		0		
Root Mean Square Error		0.663016		
Mean of Response		1.821576		
Observations (or Sum Wgts)		98		
Parameter Estimates				
Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.8215761	0.066975	27.20	<.0001

⁴⁸Ti

Summary of Fit

RSquare		1.11e-15		
RSquare Adj		1.33e-15		
Root Mean Square Error		0.710773		
Mean of Response		1.783117		
Observations (or Sum Wgts)		98		
Parameter Estimates				
Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.7831172	0.071799	24.83	<.0001

⁵¹V

Summary of Fit

RSquare		0.070974		
RSquare Adj		0.050329		
Root Mean Square Error		0.678958		
Mean of Response		1.794319		
Observations (or Sum Wgts)		93		
Parameter Estimates				
Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.6519181	0.096925	17.04	<.0001
In1st ionization potential (eV)	0.1880287	0.081591	2.30	0.0235
InCharge	0.4785259	0.20397	2.35	0.0212

⁵²Cr

Summary of Fit

RSquare		0.104478		
RSquare Adj		0.095051		
Root Mean Square Error		0.37303		
Mean of Response		2.526425		
Observations (or Sum Wgts)		97		
Parameter Estimates				
Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.3307198	0.06993	33.33	<.0001
InS (J/Kmol)	0.1061682	0.03189	3.33	0.0012

⁵⁵Mn

Summary of Fit

RSquare 2.11e-15
RSquare Adj 2.11e-15
Root Mean Square Error 0.521441
Mean of Response 2.106978
Observations (or Sum Wgts) 98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.1069783	0.052673	40.00	<.0001

⁵⁷Fe

Summary of Fit

RSquare 3.94e-14
RSquare Adj 3.94e-14
Root Mean Square Error 0.244007
Mean of Response 3.491835
Observations (or Sum Wgts) 98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.4918349	0.024648	141.67	<.0001

⁵⁸Ni

Summary of Fit

RSquare 0
RSquare Adj 0
Root Mean Square Error 0.500063
Mean of Response 2.183523
Observations (or Sum Wgts) 98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.1835227	0.050514	43.23	<.0001

⁵⁹Co

Summary of Fit

RSquare 0
RSquare Adj 0
Root Mean Square Error 0.645321
Mean of Response 2.112315
Observations (or Sum Wgts) 98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.1123153	0.065187	32.40	<.0001

⁶³Cu

Summary of Fit

RSquare 0.215726
RSquare Adj 0.199039
Root Mean Square Error 0.591259
Mean of Response 1.994278
Observations (or Sum Wgts) 97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	8.1426704	1.596616	5.10	<.0001
lnS (J/Kmol)	0.2434057	0.064776	3.76	0.0003
Inion mobility (C/Pa*s*A)	0.2080176	0.05017	4.15	<.0001

⁶⁴Zn

Summary of Fit

RSquare 1.55e-15
 RSquare Adj 1.55e-15
 Root Mean Square Error 0.624616
 Mean of Response 2.184429
 Observations (or Sum Wgts) 98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.1844287	0.063096	34.62	<.0001

⁶⁹Ga

Summary of Fit

RSquare 0.145544
 RSquare Adj 0.117981
 Root Mean Square Error 0.735367
 Mean of Response 1.733514
 Observations (or Sum Wgts) 97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.5386438	0.646332	0.83	0.4068
InBoiling Point (C)	0.3819408	0.163634	2.33	0.0217
IndH of form (kJ/mol)	-0.388203	0.139351	-2.79	0.0065
InS (J/Kmol)	0.2131088	0.077714	2.74	0.0073

⁷⁵As

Summary of Fit

RSquare 0.348346
 RSquare Adj 0.303712
 Root Mean Square Error 0.388087
 Mean of Response 2.285338
 Observations (or Sum Wgts) 79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.5768863	0.248171	6.35	<.0001
InMass	0.1674768	0.060404	2.77	0.0071
InHeat Capacity (J/molK)	0.088459	0.050348	1.76	0.0831
InS (J/Kmol)	0.1843268	0.039745	4.64	<.0001
InElectronegativity	-0.438179	0.119079	-3.68	0.0004
InCharge	-0.435677	0.129623	-3.36	0.0012

⁷⁶Se

Summary of Fit

RSquare 0.123735
 RSquare Adj 0.07637
 Root Mean Square Error 0.180486
 Mean of Response 3.826908
 Observations (or Sum Wgts) 79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.6455898	0.113327	32.17	<.0001
InMass	0.0456459	0.026376	1.73	0.0877
InS (J/Kmol)	0.0600858	0.024239	2.48	0.0155
InElectronegativity	-0.139072	0.079793	-1.74	0.0855
InCharge	-0.105001	0.058411	-1.80	0.0763

⁸⁵Rb

Summary of Fit

RSquare 0.409867

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RSquare Adj 0.375951
 Root Mean Square Error 0.605905
 Mean of Response 1.765266
 Observations (or Sum Wgts) 93

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.0456	0.539734	0.08	0.9329
InMass	0.3545218	0.075183	4.72	<.0001
InMelting Point (C)	0.1301892	0.068018	1.91	0.0589
InBoiling Point (C)	-0.317524	0.072167	-4.40	<.0001
InHeat Capacity (J/molK)	1.0190602	0.157456	6.47	<.0001
InCharge	0.6414139	0.166078	3.86	0.0002

⁸⁸Sr

Summary of Fit

RSquare 0.189054
 RSquare Adj 0.154175
 Root Mean Square Error 0.699325
 Mean of Response 1.78034
 Observations (or Sum Wgts) 98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	7.628562	2.627292	2.90	0.0046
InMass	0.2002054	0.07561	2.65	0.0095
In2nd ionization potential (eV)	0.2015738	0.05232	3.85	0.0002
InMelting Point (C)	-0.127467	0.074329	-1.71	0.0897
Inion mobility (C/Pa*s*A)	0.1880869	0.078542	2.39	0.0186

⁸⁹Y

Summary of Fit

RSquare 0.164833
 RSquare Adj 0.136681
 Root Mean Square Error 0.683887
 Mean of Response 1.771743
 Observations (or Sum Wgts) 93

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.7872624	0.463029	6.02	<.0001
InMelting Point (C)	-0.119813	0.067467	-1.78	0.0792
InHeat Capacity (J/molK)	0.2865252	0.087129	3.29	0.0014
InElectronegativity	0.2192943	0.080332	2.73	0.0076

⁹⁰Zr

Summary of Fit

RSquare 0.358009
 RSquare Adj 0.30986
 Root Mean Square Error 0.467403
 Mean of Response 1.964459
 Observations (or Sum Wgts) 87

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.9603034	0.473708	2.03	0.0460
In2nd ionization potential (eV)	0.3313088	0.073745	4.49	<.0001
InMelting Point (C)	-0.158909	0.064421	-2.47	0.0158
InBoiling Point (C)	0.2219971	0.060666	3.66	0.0005
InHeat Capacity (J/molK)	-0.112651	0.038203	-2.95	0.0042
InS (J/Kmol)	0.1123154	0.04862	2.31	0.0235
InCharge	-0.40123	0.119048	-3.37	0.0012

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¹⁰²Ru

Summary of Fit

RSquare 0.316568
RSquare Adj 0.268325
Root Mean Square Error 0.678438
Mean of Response 1.612704
Observations (or Sum Wgts) 92

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.1994002	0.559512	3.93	0.0002
lnMass	0.3151726	0.082345	3.83	0.0002
ln1st ionization potential (eV)	0.189024	0.064442	2.93	0.0043
ln2nd ionization potential (eV)	-0.353447	0.069966	-5.05	<.0001
lnG of form (kJ/mol)	-0.292886	0.093866	-3.12	0.0025
lnS (J/Kmol)	0.2340986	0.085677	2.73	0.0076
lnElectronegativity	0.1600788	0.071912	2.23	0.0287

¹⁰³Rh

Summary of Fit

RSquare 0.341586
RSquare Adj 0.290148
Root Mean Square Error 0.623378
Mean of Response 1.678852
Observations (or Sum Wgts) 70

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.633866	0.723567	-0.88	0.3843
lnMass	0.2284734	0.065314	3.50	0.0009
ln2nd ionization potential (eV)	-0.146517	0.058727	-2.49	0.0152
lnMelting Point (C)	-0.533424	0.148791	-3.59	0.0007
lnBoiling Point (C)	0.7045971	0.175403	4.02	0.0002
lnCharge	0.4061536	0.162733	2.50	0.0152

¹⁰⁶Pd

Summary of Fit

RSquare 0.42429
RSquare Adj 0.376314
Root Mean Square Error 0.680023
Mean of Response 2.721495
Observations (or Sum Wgts) 79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.1202885	0.345457	6.14	<.0001
lnMass	0.3797827	0.081083	4.68	<.0001
ln1st ionization potential (eV)	-0.4887	0.115137	-4.24	<.0001
ln2nd ionization potential (eV)	0.373774	0.093964	3.98	0.0002
lnHeat Capacity (J/molK)	-0.125085	0.068205	-1.83	0.0708
lnS (J/Kmol)	-0.283534	0.086259	-3.29	0.0016
lnCharge	-0.458335	0.220212	-2.08	0.0410

¹⁰⁹Ag

Summary of Fit

RSquare 0.156258
RSquare Adj 0.117465
Root Mean Square Error 0.671856
Mean of Response 2.205683
Observations (or Sum Wgts) 92

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	10.440462	5.113007	2.04	0.0442

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Term	Estimate	Std Error	t Ratio	Prob> t
lnBoiling Point (C)	0.4524281	0.142923	3.17	0.0021
lnH of form (kJ/mol)	-0.241545	0.124083	-1.95	0.0548
lnion mobility (C/Pa*s*A)	0.3145819	0.158338	1.99	0.0501
lnCharge	-0.558848	0.256981	-2.17	0.0324

¹¹⁴Cd

Summary of Fit

RSquare	0.190184
RSquare Adj	0.164061
Root Mean Square Error	0.668079
Mean of Response	1.743512
Observations (or Sum Wgts)	97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.6834962	0.610416	4.40	<.0001
lnMass	0.2075843	0.074359	2.79	0.0064
lnBoiling Point (C)	-0.583631	0.15617	-3.74	0.0003
lnG of form (kJ/mol)	0.48939	0.159557	3.07	0.0028

¹¹⁵In

Summary of Fit

RSquare	0.169597
RSquare Adj	0.143095
Root Mean Square Error	0.577628
Mean of Response	2.046705
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.9615055	0.415377	4.72	<.0001
lnMass	0.1954605	0.062892	3.11	0.0025
lnMelting Point (C)	-0.099746	0.057798	-1.73	0.0877
lnHeat Capacity (J/molK)	0.1878025	0.068106	2.76	0.0070

¹²⁰Sn

Summary of Fit

RSquare	0.335356
RSquare Adj	0.285508
Root Mean Square Error	0.65104
Mean of Response	1.632055
Observations (or Sum Wgts)	87

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-1.285401	3.620246	-0.36	0.7235
lnMelting Point (C)	-0.361526	0.070934	-5.10	<.0001
lnBoiling Point (C)	-0.21498	0.097561	-2.20	0.0304
lnHeat Capacity (J/molK)	0.2224624	0.084827	2.62	0.0104
lnS (J/Kmol)	0.2096006	0.075923	2.76	0.0071
lnion mobility (C/Pa*s*A)	-0.186232	0.102004	-1.83	0.0716
lnCharge	0.5367236	0.1682	3.19	0.0020

¹²¹Sb

Summary of Fit

RSquare	0.360896
RSquare Adj	0.317122
Root Mean Square Error	0.373328
Mean of Response	2.59103
Observations (or Sum Wgts)	79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	20.262292	5.30535	3.82	0.0003
ln1st ionization potential (eV)	-0.267932	0.092336	-2.90	0.0049
ln2nd ionization potential (eV)	0.1580005	0.041327	3.82	0.0003
lnBoiling Point (C)	-0.133403	0.037904	-3.52	0.0007
ln ion mobility (C/Pa*s*A)	0.5164141	0.162018	3.19	0.0021
lnCharge	-0.750015	0.231898	-3.23	0.0018

¹³⁰Te

Summary of Fit

RSquare	0.091216
RSquare Adj	0.081749
Root Mean Square Error	0.54864
Mean of Response	2.280585
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.4928685	0.259745	5.75	<.0001
lnMass	0.2147405	0.069179	3.10	0.0025

¹³³Cs

Summary of Fit

RSquare	0.463886
RSquare Adj	0.412828
Root Mean Square Error	0.589668
Mean of Response	1.720068
Observations (or Sum Wgts)	93

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-11.7824	4.783835	-2.46	0.0158
lnMass	0.1913543	0.083301	2.30	0.0241
lnMelting Point (C)	0.1455403	0.060795	2.39	0.0189
lnBoiling Point (C)	-0.112065	0.100698	-1.11	0.2689
lnHeat Capacity (J/molK)	1.5445731	0.27067	5.71	<.0001
lnH of form (kJ/mol)	-0.280359	0.145927	-1.92	0.0581
lnS (J/Kmol)	-0.127847	0.059993	-2.13	0.0360
ln ion mobility (C/Pa*s*A)	-0.354988	0.143346	-2.48	0.0153
lnCharge	1.1206005	0.278334	4.03	0.0001

¹³⁸Ba

Summary of Fit

RSquare	0.380937
RSquare Adj	0.353114
Root Mean Square Error	0.697056
Mean of Response	1.561385
Observations (or Sum Wgts)	94

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.9802011	0.688743	1.42	0.1582
lnMass	0.3215792	0.103556	3.11	0.0025
lnMelting Point (C)	-0.409057	0.092201	-4.44	<.0001
lnBoiling Point (C)	0.3434056	0.089408	3.84	0.0002
lnElectronegativity	0.3334926	0.098715	3.38	0.0011

¹⁴⁰Ce

Summary of Fit

RSquare	0.467778
RSquare Adj	0.424956

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Root Mean Square Error 0.46431
Mean of Response 2.001917
Observations (or Sum Wgts) 95

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.5186305	0.565961	6.22	<.0001
lnMass	0.1183028	0.070141	1.69	0.0953
ln1st ionization potential (eV)	-0.126721	0.067843	-1.87	0.0651
ln2nd ionization potential (eV)	0.2272277	0.067988	3.34	0.0012
lnMelting Point (C)	-0.279163	0.055443	-5.04	<.0001
lnHeat Capacity (J/molK)	0.1665492	0.048562	3.43	0.0009
lnG of form (kJ/mol)	-0.15034	0.059188	-2.54	0.0129
lnS (J/Kmol)	0.0994303	0.050946	1.95	0.0542

¹⁵²Sm

Summary of Fit

RSquare 0.27597
RSquare Adj 0.25988
Root Mean Square Error 0.719181
Mean of Response 1.646178
Observations (or Sum Wgts) 93

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	4.6216513	2.409021	1.92	0.0582
lnMass	0.423714	0.091043	4.65	<.0001
Inion mobility (C/Pa*s*A)	0.1422599	0.070943	2.01	0.0479

¹⁵³Eu

Summary of Fit

RSquare 0.31139
RSquare Adj 0.296739
Root Mean Square Error 0.645339
Mean of Response 1.757023
Observations (or Sum Wgts) 97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	5.1995595	2.128604	2.44	0.0164
lnMass	0.3252886	0.0778	4.18	<.0001
Inion mobility (C/Pa*s*A)	0.1438107	0.061147	2.35	0.0208

¹⁵⁹Tb

Summary of Fit

RSquare 0.231951
RSquare Adj 0.184686
Root Mean Square Error 0.546323
Mean of Response 1.985917
Observations (or Sum Wgts) 70

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.197563	1.039653	-0.19	0.8499
lnMass	0.4012364	0.137692	2.91	0.0049
lnMelting Point (C)	-0.212222	0.126638	-1.68	0.0986
lnBoiling Point (C)	0.2667034	0.114135	2.34	0.0225
lnCharge	0.2815469	0.138718	2.03	0.0465

¹⁶⁶Er

Summary of Fit

RSquare 0.220755

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RSquare Adj 0.172802
Root Mean Square Error 0.633202
Mean of Response 1.728746
Observations (or Sum Wgts) 70

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.085946	0.514919	-0.17	0.8680
lnMass	0.2682788	0.135278	1.98	0.0516
ln1st ionization potential (eV)	-0.146284	0.087383	-1.67	0.0989
lnS (J/Kmol)	0.2298593	0.115109	2.00	0.0500
lnCharge	0.4961436	0.178194	2.78	0.0070

¹⁷⁸Hf

Summary of Fit

RSquare 0.367732
RSquare Adj 0.309497
Root Mean Square Error 0.605333
Mean of Response 2.460062
Observations (or Sum Wgts) 84

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-7.310603	2.899015	-2.52	0.0138
lnMass	-0.200112	0.086295	-2.32	0.0231
ln1st ionization potential (eV)	-0.265275	0.085092	-3.12	0.0026
ln2nd ionization potential (eV)	0.1912007	0.062489	3.06	0.0031
lnDG of form (kJ/mol)	0.2582268	0.085624	3.02	0.0035
lnElectronegativity	0.5364382	0.137935	3.89	0.0002
Inion mobility (C/Pa*s*A)	-0.302616	0.090966	-3.33	0.0014
lnCharge	0.3066988	0.155677	1.97	0.0525

¹⁸⁴W

Summary of Fit

RSquare 0.579202
RSquare Adj 0.55038
Root Mean Square Error 0.399865
Mean of Response 1.926882
Observations (or Sum Wgts) 79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	35.775031	5.114025	7.00	<.0001
ln1st ionization potential (eV)	-0.1056	0.057192	-1.85	0.0689
ln2nd ionization potential (eV)	0.1091002	0.060087	1.82	0.0735
lnDH of form (kJ/mol)	0.8071554	0.134382	6.01	<.0001
lnCharge	-1.750615	0.233759	-7.49	<.0001
Inion mobility (C/Pa*s*A)	1.1982589	0.165677	7.23	<.0001

¹⁹²Os

Summary of Fit

RSquare 0.263283
RSquare Adj 0.233815
Root Mean Square Error 0.610455
Mean of Response 1.689834
Observations (or Sum Wgts) 79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	10.25953	4.127228	2.49	0.0152
ln2nd ionization potential (eV)	1.0849811	0.23262	4.66	<.0001
lnDH of form (kJ/mol)	0.3036459	0.167748	1.81	0.0743
Inion mobility (C/Pa*s*A)	0.4287041	0.147593	2.90	0.0048

¹⁹³Ir

Summary of Fit

RSquare	0.351609
RSquare Adj	0.325674
Root Mean Square Error	0.607113
Mean of Response	1.829837
Observations (or Sum Wgts)	79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	7.0896519	4.065507	1.74	0.0853
lnMass	0.3101802	0.077305	4.01	0.0001
ln2nd ionization potential (eV)	0.8101554	0.236267	3.43	0.0010
ln ion mobility (C/Pa*s*A)	0.280107	0.130777	2.14	0.0355

¹⁹⁵Pt

Summary of Fit

RSquare	0.553388
RSquare Adj	0.527117
Root Mean Square Error	0.439187
Mean of Response	1.824471
Observations (or Sum Wgts)	73

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	31.680466	7.717228	4.11	0.0001
lnMass	0.3009236	0.094357	3.19	0.0022
lnElectronegativity	0.1583471	0.053036	2.99	0.0039
ln ion mobility (C/Pa*s*A)	0.9447048	0.228213	4.14	<.0001
lnCharge	-1.575996	0.368966	-4.27	<.0001

¹⁹⁷Au

Summary of Fit

RSquare	0.553388
RSquare Adj	0.527117
Root Mean Square Error	0.439187
Mean of Response	1.824471
Observations (or Sum Wgts)	73

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	31.680466	7.717228	4.11	0.0001
lnMass	0.3009236	0.094357	3.19	0.0022
lnElectronegativity	0.1583471	0.053036	2.99	0.0039
ln ion mobility (C/Pa*s*A)	0.9447048	0.228213	4.14	<.0001
lnCharge	-1.575996	0.368966	-4.27	<.0001

²⁰²Hg

Summary of Fit

RSquare	0.286197
RSquare Adj	0.240145
Root Mean Square Error	0.445281
Mean of Response	2.422536
Observations (or Sum Wgts)	67

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.4256801	0.327309	7.41	<.0001
lnMass	0.1102709	0.054469	2.02	0.0472
ln1st ionization potential (eV)	-0.370702	0.151782	-2.44	0.0175
lnS (J/Kmol)	0.140557	0.053937	2.61	0.0115
lnCharge	-0.823813	0.21557	-3.82	0.0003

²⁰⁵Tl

Summary of Fit

RSquare 0.277815
 RSquare Adj 0.253471
 Root Mean Square Error 0.560931
 Mean of Response 1.982076
 Observations (or Sum Wgts) 93

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	6.2074603	2.160512	2.87	0.0051
InMass	0.2658571	0.056726	4.69	<.0001
In1st ionization potential (eV)	0.0732958	0.031618	2.32	0.0227
Inion mobility (C/Pa*s*A)	0.1652788	0.066877	2.47	0.0154

²⁰⁸Pb

Summary of Fit

RSquare 0.367515
 RSquare Adj 0.321516
 Root Mean Square Error 0.524967
 Mean of Response 1.951681
 Observations (or Sum Wgts) 60

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.0794694	0.505216	0.16	0.8756
InMass	0.4473019	0.100768	4.44	<.0001
InHeat Capacity (J/molK)	0.1567524	0.086003	1.82	0.0738
InElectronegativity	0.132371	0.061569	2.15	0.0360
InCharge	0.3757269	0.165558	2.27	0.0272

²⁰⁹Bi

Summary of Fit

RSquare 0.18944
 RSquare Adj 0.172008
 Root Mean Square Error 0.647108
 Mean of Response 1.891913
 Observations (or Sum Wgts) 96

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.9011904	0.267307	3.37	0.0011
InMass	0.2299617	0.063356	3.63	0.0005
InHeat Capacity (J/molK)	0.1864344	0.072541	2.57	0.0118

²³²Th

Summary of Fit

RSquare 0.611075
 RSquare Adj 0.58069
 Root Mean Square Error 0.215097
 Mean of Response 2.561924
 Observations (or Sum Wgts) 70

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.022465	0.749631	-0.03	0.9762
InMass	0.139083	0.023112	6.02	<.0001
In2nd ionization potential (eV)	0.0773132	0.020118	3.84	0.0003
IndG of form (kJ/mol)	-0.149531	0.023055	-6.49	<.0001
Inion mobility (C/Pa*s*A)	-0.080966	0.023481	-3.45	0.0010
InCharge	0.2368441	0.064746	3.66	0.0005

²³⁸U

Summary of Fit

RSquare	0.576045
RSquare Adj	0.542129
Root Mean Square Error	0.369203
Mean of Response	2.168641
Observations (or Sum Wgts)	82

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	5.4103483	2.633301	2.05	0.0434
InMass	0.4588053	0.074147	6.19	<.0001
InHeat Capacity (J/molK)	0.1686541	0.069056	2.44	0.0169
IndG of form (kJ/mol)	0.2021182	0.058318	3.47	0.0009
InElectronegativity	0.1559187	0.050004	3.12	0.0026
Inion mobility (C/Pa*s*A)	0.1923159	0.082385	2.33	0.0223
InCharge	-0.297809	0.116629	-2.55	0.0127

NaCl

⁷Li

Summary of Fit

RSquare	0.344876
RSquare Adj	0.329987
Root Mean Square Error	0.757373
Mean of Response	2.414656
Observations (or Sum Wgts)	91

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	5.0083428	0.410816	12.19	<.0001
IndH of form (kJ/mol)	-0.410603	0.072423	-5.67	<.0001
InElectronegativity	0.5355441	0.099764	5.37	<.0001

⁹Be

Summary of Fit

RSquare	0.209916
RSquare Adj	0.1847
Root Mean Square Error	0.895693
Mean of Response	2.321309
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	7.0884642	1.026019	6.91	<.0001
In1st ionization potential (eV)	-0.267987	0.104826	-2.56	0.0122
InBoiling Point (C)	-0.278707	0.107652	-2.59	0.0112
InS (J/Kmol)	-0.751144	0.212687	-3.53	0.0006

¹¹B

Summary of Fit

RSquare	0.266881
RSquare Adj	0.243483
Root Mean Square Error	0.744114
Mean of Response	2.647933
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-18.46071	13.30987	-1.39	0.1687
In1st ionization potential (eV)	-0.243024	0.084612	-2.87	0.0050
InS (J/Kmol)	-0.663931	0.137495	-4.83	<.0001
Inion mobility (C/Pa*s*A)	-0.774676	0.443766	-1.75	0.0841

²⁶Mg

Summary of Fit

RSquare	0.195152
RSquare Adj	0.186768
Root Mean Square Error	0.440041
Mean of Response	4.589259
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.6533003	0.199023	18.36	<.0001
InMass	0.2166487	0.044905	4.82	<.0001

²⁷Al

Summary of Fit

RSquare	0
RSquare Adj	-2.2e-16
Root Mean Square Error	0.378466
Mean of Response	3.679815
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.6798153	0.038231	96.25	<.0001

⁴⁴Ca

Summary of Fit

RSquare	0.27736
RSquare Adj	0.262146
Root Mean Square Error	0.442307
Mean of Response	4.528927
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.9470145	0.276533	10.66	<.0001
InMass	0.1829002	0.050554	3.62	0.0005
InS (J/Kmol)	0.2711671	0.091367	2.97	0.0038

⁴⁵Sc

Summary of Fit

RSquare	0.227722
RSquare Adj	0.211463
Root Mean Square Error	0.939909
Mean of Response	2.225251
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.9568117	0.539956	5.48	<.0001
InMass	-0.476612	0.097654	-4.88	<.0001
InMelting Point (C)	0.198284	0.069179	2.87	0.0051

⁴⁸Ti

Summary of Fit

RSquare	0
RSquare Adj	0
Root Mean Square Error	0.890924
Mean of Response	2.771921
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.771921	0.089997	30.80	<.0001

⁵¹V

Summary of Fit

RSquare	0.224819
RSquare Adj	0.208499
Root Mean Square Error	0.476293
Mean of Response	4.274511
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.6578678	0.195645	18.70	<.0001
InMass	0.2032919	0.044367	4.58	<.0001
InS (J/Kmol)	-0.107091	0.040052	-2.67	0.0088

⁵²Cr

Summary of Fit

RSquare	0.537077
RSquare Adj	0.51695
Root Mean Square Error	0.586393
Mean of Response	2.392447
Observations (or Sum Wgts)	97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.5836025	0.440988	3.59	0.0005
InMass	-0.519643	0.060247	-8.63	<.0001
InMelting Point (C)	0.3090975	0.060838	5.08	<.0001
InS (J/Kmol)	0.1614323	0.053116	3.04	0.0031
InElectronegativity	-0.350481	0.059758	-5.87	<.0001

⁵⁵Mn

Summary of Fit

RSquare	0.437736
RSquare Adj	0.391649
Root Mean Square Error	0.093904
Mean of Response	4.972762
Observations (or Sum Wgts)	67

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.7915037	0.473793	8.00	<.0001
InMass	0.0633708	0.012535	5.06	<.0001
In2nd ionization potential (eV)	0.02585	0.012959	1.99	0.0505
In dG of form (kJ/mol)	-0.024526	0.009519	-2.58	0.0124
In ion mobility (C/Pa*s*A)	-0.030574	0.014416	-2.12	0.0380
InCharge	0.1044748	0.041192	2.54	0.0138

⁵⁷Fe

Summary of Fit

RSquare	0
RSquare Adj	0
Root Mean Square Error	0.57837
Mean of Response	3.411559
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.4115595	0.058424	58.39	<.0001

⁵⁸Ni

Summary of Fit

RSquare	0.279465
RSquare Adj	0.255711
Root Mean Square Error	0.690832
Mean of Response	2.652603
Observations (or Sum Wgts)	95

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.3131363	0.12573	18.40	<.0001
In1st ionization potential (eV)	-0.210966	0.058761	-3.59	0.0005
InHeat Capacity (J/molK)	-0.134278	0.06483	-2.07	0.0412
InElectronegativity	-0.258871	0.095439	-2.71	0.0080

⁵⁹Co

Summary of Fit

RSquare	0.399389
RSquare Adj	0.359788
Root Mean Square Error	0.888643
Mean of Response	2.177884
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-4.79907	2.722678	-1.76	0.0813
InMass	-0.316486	0.092585	-3.42	0.0009
In1st ionization potential (eV)	-0.2214	0.084354	-2.62	0.0102
InMelting Point (C)	0.5137515	0.150736	3.41	0.0010
InBoiling Point (C)	-0.242368	0.138718	-1.75	0.0840
InS (J/Kmol)	0.1763828	0.087174	2.02	0.0460
Inion mobility (C/Pa*s*A)	-0.193326	0.08112	-2.38	0.0192

⁶³Cu

Summary of Fit

RSquare	0.306977
RSquare Adj	0.292232
Root Mean Square Error	0.386932
Mean of Response	4.450294
Observations (or Sum Wgts)	97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	6.8240248	1.130925	6.03	<.0001
InMass	0.1841181	0.038697	4.76	<.0001
Inion mobility (C/Pa*s*A)	0.0956435	0.033399	2.86	0.0052

⁶⁴Zn

Summary of Fit

RSquare	0.179392
RSquare Adj	0.140315
Root Mean Square Error	0.381206
Mean of Response	4.389155
Observations (or Sum Wgts)	67

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	4.4693168	0.405304	11.03	<.0001
InMass	0.1253524	0.05557	2.26	0.0276
IndH of form (kJ/mol)	-0.13429	0.066781	-2.01	0.0486
InCharge	0.3909234	0.166729	2.34	0.0222

⁶⁹Ga

Summary of Fit

RSquare	0.393687
RSquare Adj	0.334049
Root Mean Square Error	0.732523
Mean of Response	2.628576
Observations (or Sum Wgts)	68

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	22.844634	6.193244	3.69	0.0005
ln1st ionization potential (eV)	-0.638199	0.17123	-3.73	0.0004
lnBoiling Point (C)	0.7821638	0.221949	3.52	0.0008
lnG of form (kJ/mol)	-0.711194	0.174708	-4.08	0.0001
lnElectronegativity	-0.474598	0.159094	-2.98	0.0041
Inion mobility (C/Pa*s*A)	0.7007255	0.206217	3.40	0.0012
lnCharge	-0.917995	0.273056	-3.36	0.0013

⁷⁵As

Summary of Fit

RSquare	0.275784
RSquare Adj	0.236638
Root Mean Square Error	0.830729
Mean of Response	2.766974
Observations (or Sum Wgts)	79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	19.965902	7.222932	2.76	0.0072
lnBoiling Point (C)	-0.451276	0.125058	-3.61	0.0006
lnHeat Capacity (J/molK)	-0.379731	0.096835	-3.92	0.0002
lnG of form (kJ/mol)	-0.291941	0.0961	-3.04	0.0033
Inion mobility (C/Pa*s*A)	0.3997936	0.212934	1.88	0.0644

⁷⁶Se

Summary of Fit

RSquare	0.06359
RSquare Adj	0.038948
Root Mean Square Error	0.564987
Mean of Response	3.212709
Observations (or Sum Wgts)	79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	17.323305	6.483133	2.67	0.0092
Inion mobility (C/Pa*s*A)	0.4332391	0.200566	2.16	0.0339
lnCharge	-0.659032	0.304176	-2.17	0.0334

⁸⁵Rb

Summary of Fit

RSquare	0.475751
RSquare Adj	0.439175
Root Mean Square Error	0.810304
Mean of Response	2.171559
Observations (or Sum Wgts)	93

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	4.6429654	0.912221	5.09	<.0001
ln1st ionization potential (eV)	-1.018044	0.338376	-3.01	0.0034
ln2nd ionization potential (eV)	0.5509242	0.284014	1.94	0.0557
lnHeat Capacity (J/molK)	1.2109517	0.28835	4.20	<.0001
lnG of form (kJ/mol)	-0.681078	0.118205	-5.76	<.0001
lnElectronegativity	0.9548129	0.23968	3.98	0.0001

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Term	Estimate	Std Error	t Ratio	Prob> t
InCharge	-0.584887	0.243018	-2.41	0.0182

⁸⁸Sr

Summary of Fit

RSquare	0.222224
RSquare Adj	0.197401
Root Mean Square Error	0.776948
Mean of Response	2.798967
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.4240363	0.464455	5.22	<.0001
InMelting Point (C)	0.4249455	0.096584	4.40	<.0001
IndH of form (kJ/mol)	-0.357396	0.087191	-4.10	<.0001
InS (J/Kmol)	-0.2173	0.086128	-2.52	0.0133

⁸⁹Y

Summary of Fit

RSquare	0.341694
RSquare Adj	0.303861
Root Mean Square Error	1.01366
Mean of Response	2.108629
Observations (or Sum Wgts)	93

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.8163843	0.615224	6.20	<.0001
In2nd ionization potential (eV)	-0.44387	0.174334	-2.55	0.0127
InHeat Capacity (J/molK)	-0.276462	0.134717	-2.05	0.0432
IndH of form (kJ/mol)	-0.181852	0.099376	-1.83	0.0707
InS (J/Kmol)	0.4805012	0.104761	4.59	<.0001
InElectronegativity	0.7584729	0.172193	4.40	<.0001

⁹⁰Zr

Summary of Fit

RSquare	0.215537
RSquare Adj	0.189676
Root Mean Square Error	1.046528
Mean of Response	2.120492
Observations (or Sum Wgts)	95

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.661666	0.823814	-0.80	0.4240
InBoiling Point (C)	0.2963314	0.106878	2.77	0.0067
InHeat Capacity (J/molK)	-0.269107	0.076506	-3.52	0.0007
InS (J/Kmol)	0.3033583	0.103878	2.92	0.0044

¹⁰²Ru

Summary of Fit

RSquare	0.271143
RSquare Adj	0.236436
Root Mean Square Error	0.704134
Mean of Response	2.043218
Observations (or Sum Wgts)	67

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.3832915	0.152903	15.59	<.0001
In1st ionization potential (eV)	-0.272911	0.079968	-3.41	0.0011
InHeat Capacity (J/molK)	-0.335686	0.106254	-3.16	0.0024

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Term	Estimate	Std Error	t Ratio	Prob> t
InCharge	-0.59378	0.275839	-2.15	0.0352

¹⁰³Rh

Summary of Fit

RSquare	0.600109
RSquare Adj	0.561409
Root Mean Square Error	0.569052
Mean of Response	2.706194
Observations (or Sum Wgts)	69

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.7470634	0.283775	6.16	<.0001
InMass	0.2118178	0.061507	3.44	0.0010
In1st ionization potential (eV)	-0.193384	0.059511	-3.25	0.0019
InHeat Capacity (J/molK)	-0.196508	0.07073	-2.78	0.0072
InS (J/Kmol)	0.3076263	0.072499	4.24	<.0001
InElectronegativity	0.1429629	0.054801	2.61	0.0114
InCharge	-0.726634	0.156898	-4.63	<.0001

¹⁰⁶Pd

Summary of Fit

RSquare	0.42429
RSquare Adj	0.376314
Root Mean Square Error	0.680023
Mean of Response	2.721495
Observations (or Sum Wgts)	79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.1202885	0.345457	6.14	<.0001
InMass	0.3797827	0.081083	4.68	<.0001
In1st ionization potential (eV)	-0.4887	0.115137	-4.24	<.0001
In2nd ionization potential (eV)	0.373774	0.093964	3.98	0.0002
InHeat Capacity (J/molK)	-0.125085	0.068205	-1.83	0.0708
InS (J/Kmol)	-0.283534	0.086259	-3.29	0.0016
InCharge	-0.458335	0.220212	-2.08	0.0410

¹⁰⁹Ag

Summary of Fit

RSquare	0.37819
RSquare Adj	0.342038
Root Mean Square Error	0.792798
Mean of Response	2.405896
Observations (or Sum Wgts)	92

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	27.358339	6.59337	4.15	<.0001
In1st ionization potential (eV)	-0.237737	0.08669	-2.74	0.0074
InMelting Point (C)	-0.372424	0.102817	-3.62	0.0005
InHeat Capacity (J/molK)	-0.141141	0.055917	-2.52	0.0134
Inion mobility (C/Pa*s*A)	0.7031916	0.206844	3.40	0.0010
InCharge	-1.19789	0.320285	-3.74	0.0003

¹¹⁴Cd

Summary of Fit

RSquare	0.374759
RSquare Adj	0.312234
Root Mean Square Error	0.40507
Mean of Response	3.289246

Observations (or Sum Wgts) 67

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.1727245	0.421716	7.52	<.0001
InMass	-0.145951	0.054057	-2.70	0.0090
InMelting Point (C)	0.1862563	0.064266	2.90	0.0052
InBoiling Point (C)	0.4241708	0.116419	3.64	0.0006
IndG of form (kJ/mol)	-0.762641	0.181832	-4.19	<.0001
InElectronegativity	-0.099364	0.04816	-2.06	0.0434
InCharge	0.6325631	0.205055	3.08	0.0031

¹¹⁵In

Summary of Fit

RSquare	0.114684
RSquare Adj	0.076605
Root Mean Square Error	0.909199
Mean of Response	2.421169
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.8173903	0.569859	4.94	<.0001
InMass	0.2084621	0.100262	2.08	0.0404
In1st ionization potential (eV)	0.2212009	0.102722	2.15	0.0339
In2nd ionization potential (eV)	0.1883601	0.080015	2.35	0.0207
IndH of form (kJ/mol)	-0.282084	0.11203	-2.52	0.0135

¹²⁰Sn

Summary of Fit

RSquare	0.391848
RSquare Adj	0.358062
Root Mean Square Error	0.345091
Mean of Response	3.398837
Observations (or Sum Wgts)	96

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	4.8807357	0.377147	12.94	<.0001
InMass	0.0862998	0.041873	2.06	0.0422
In2nd ionization potential (eV)	-0.199311	0.03376	-5.90	<.0001
InMelting Point (C)	-0.131724	0.033112	-3.98	0.0001
InBoiling Point (C)	-0.111781	0.037239	-3.00	0.0035
InHeat Capacity (J/molK)	0.0819092	0.04264	1.92	0.0579

¹²¹Sb

Summary of Fit

RSquare	0.418843
RSquare Adj	0.399684
Root Mean Square Error	0.87537
Mean of Response	2.186709
Observations (or Sum Wgts)	95

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	4.9243535	0.538753	9.14	<.0001
InMelting Point (C)	-0.541075	0.084451	-6.41	<.0001
InHeat Capacity (J/molK)	-0.159864	0.081349	-1.97	0.0524
InElectronegativity	-0.725146	0.143719	-5.05	<.0001

¹³⁰Te

Summary of Fit

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RSquare 0.296488
 RSquare Adj 0.274036
 Root Mean Square Error 0.550238
 Mean of Response 2.961254
 Observations (or Sum Wgts) 98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.9750098	0.477917	8.32	<.0001
InMass	0.2659428	0.071071	3.74	0.0003
In2nd ionization potential (eV)	0.0988108	0.038576	2.56	0.0120
InBoiling Point (C)	-0.292196	0.057417	-5.09	<.0001

¹³³Cs

Summary of Fit

RSquare 0.321443
 RSquare Adj 0.282446
 Root Mean Square Error 1.051133
 Mean of Response 2.041374
 Observations (or Sum Wgts) 93

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	4.8555311	1.232322	3.94	0.0002
In1st ionization potential (eV)	-1.067908	0.467439	-2.28	0.0248
InBoiling Point (C)	-0.432841	0.117276	-3.69	0.0004
InHeat Capacity (J/molK)	1.293084	0.437196	2.96	0.0040
InElectronegativity	0.6852722	0.31228	2.19	0.0309
InCharge	-0.575533	0.312893	-1.84	0.0693

¹³⁸Ba

Summary of Fit

RSquare 0.43121
 RSquare Adj 0.393912
 Root Mean Square Error 0.655015
 Mean of Response 2.100654
 Observations (or Sum Wgts) 66

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-5.063022	4.257766	-1.19	0.2390
InMelting Point (C)	-0.189697	0.09081	-2.09	0.0409
InElectronegativity	0.667167	0.10678	6.25	<.0001
Inion mobility (C/Pa*s*A)	-0.295507	0.131332	-2.25	0.0281
InCharge	-0.610105	0.27305	-2.23	0.0291

¹⁴⁰Ce

Summary of Fit

RSquare 0.106171
 RSquare Adj 0.077338
 Root Mean Square Error 0.76848
 Mean of Response 2.774885
 Observations (or Sum Wgts) 97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.9567797	0.358592	5.46	<.0001
In2nd ionization potential (eV)	0.37399	0.132481	2.82	0.0058
InHeat Capacity (J/molK)	-0.187317	0.085128	-2.20	0.0303
InElectronegativity	-0.247574	0.131704	-1.88	0.0633

¹⁵²Sm

Summary of Fit

RSquare 0.417108
 RSquare Adj 0.383608
 Root Mean Square Error 0.897001
 Mean of Response 2.153776
 Observations (or Sum Wgts) 93

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.2660954	0.6394	1.98	0.0508
InMass	0.6222756	0.132339	4.70	<.0001
In2nd ionization potential (eV)	-0.34873	0.137132	-2.54	0.0128
InH of form (kJ/mol)	-0.19585	0.075528	-2.59	0.0112
InS (J/Kmol)	0.3006542	0.104771	2.87	0.0052
InElectronegativity	0.4819404	0.152335	3.16	0.0021

¹⁵³Eu

Summary of Fit

RSquare 0.44948
 RSquare Adj 0.419232
 Root Mean Square Error 0.899837
 Mean of Response 2.082279
 Observations (or Sum Wgts) 97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.9662477	0.900985	2.18	0.0317
InMass	0.569364	0.136341	4.18	<.0001
In2nd ionization potential (eV)	-0.240078	0.131542	-1.83	0.0713
InMelting Point (C)	-0.30177	0.099267	-3.04	0.0031
InS (J/Kmol)	0.3171134	0.126734	2.50	0.0141
InElectronegativity	0.4148502	0.14262	2.91	0.0046

¹⁵⁹Tb

Summary of Fit

RSquare 0.369677
 RSquare Adj 0.342566
 Root Mean Square Error 0.8555
 Mean of Response 2.205393
 Observations (or Sum Wgts) 98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.717608	0.757894	-0.95	0.3462
InMass	0.4947864	0.151806	3.26	0.0016
In2nd ionization potential (eV)	-0.44924	0.133367	-3.37	0.0011
InS (J/Kmol)	0.6502757	0.222545	2.92	0.0044
InElectronegativity	0.2808909	0.130198	2.16	0.0336

¹⁶⁶Er

Summary of Fit

RSquare 0.400535
 RSquare Adj 0.342523
 Root Mean Square Error 0.868721
 Mean of Response 2.302872
 Observations (or Sum Wgts) 69

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-19.07119	6.980037	-2.73	0.0082
In2nd ionization potential (eV)	-0.327299	0.150943	-2.17	0.0340
InMelting Point (C)	0.176344	0.104644	1.69	0.0970
InS (J/Kmol)	0.564559	0.145984	3.87	0.0003
InElectronegativity	0.6351287	0.191312	3.32	0.0015

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Term	Estimate	Std Error	t Ratio	Prob> t
Inion mobility (C/Pa*s*A)	-0.619438	0.20806	-2.98	0.0041
InCharge	0.6652427	0.362697	1.83	0.0714

¹⁷⁸Hf

Summary of Fit

RSquare	0.48303
RSquare Adj	0.452973
Root Mean Square Error	0.707685
Mean of Response	2.222725
Observations (or Sum Wgts)	92

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.4002976	0.394094	6.09	<.0001
InMass	0.1634774	0.08468	1.93	0.0568
In2nd ionization potential (eV)	-0.216493	0.063298	-3.42	0.0010
InHeat Capacity (J/molK)	-0.284509	0.076168	-3.74	0.0003
InS (J/Kmol)	0.136379	0.073835	1.85	0.0682
InElectronegativity	0.5622137	0.088092	6.38	<.0001

¹⁸⁴W

Summary of Fit

RSquare	0.579227
RSquare Adj	0.550407
Root Mean Square Error	0.589876
Mean of Response	2.526861
Observations (or Sum Wgts)	79

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t	VIF
Intercept	16.004741	7.424802	2.16	0.0344	.
In2nd ionization potential (eV)	-0.290317	0.081076	-3.58	0.0006	1.330315
InMelting Point (C)	1.777266	0.241268	7.37	<.0001	1.4725231
InHeat Capacity (J/molK)	-0.358821	0.078996	-4.54	<.0001	1.4359238
Inion mobility (C/Pa*s*A)	0.8248213	0.243785	3.38	0.0012	4.01052
InCharge	-1.137931	0.344475	-3.30	0.0015	3.4814844

¹⁹²Os

Summary of Fit

RSquare	0.345594
RSquare Adj	0.307985
Root Mean Square Error	0.528283
Mean of Response	2.887681
Observations (or Sum Wgts)	93

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.8022861	0.783205	2.30	0.0238
InMass	0.1740485	0.057873	3.01	0.0034
In2nd ionization potential (eV)	-0.541505	0.213021	-2.54	0.0128
InHeat Capacity (J/molK)	-0.264458	0.062685	-4.22	<.0001
IndG of form (kJ/mol)	0.2911891	0.107935	2.70	0.0084
InElectronegativity	-0.128587	0.069418	-1.85	0.0674

¹⁹³Ir

Summary of Fit

RSquare	0.386835
RSquare Adj	0.344254
Root Mean Square Error	0.90206
Mean of Response	2.25172
Observations (or Sum Wgts)	78

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	14.86452	6.419899	2.32	0.0234
ln2nd ionization potential (eV)	-0.684921	0.385099	-1.78	0.0795
lnBoiling Point (C)	0.3461765	0.103834	3.33	0.0014
lnHeat Capacity (J/molK)	-0.460717	0.103819	-4.44	<.0001
lnS (J/Kmol)	0.4660109	0.14734	3.16	0.0023
Inion mobility (C/Pa*s*A)	0.4609659	0.217158	2.12	0.0372

¹⁹⁵Pt

Summary of Fit

RSquare	0.148086
RSquare Adj	0.120306
Root Mean Square Error	1.060863
Mean of Response	2.155825
Observations (or Sum Wgts)	96

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.035678	0.787858	-0.05	0.9640
lnMass	0.2607192	0.092331	2.82	0.0058
lnHeat Capacity (J/molK)	-0.230924	0.102636	-2.25	0.0268
lnG of form (kJ/mol)	0.2207406	0.120468	1.83	0.0701

¹⁹⁷Au

Summary of Fit

RSquare	0.065736
RSquare Adj	0.056004
Root Mean Square Error	0.950041
Mean of Response	2.582524
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.8511919	0.297308	6.23	<.0001
lnMass	0.1920334	0.073888	2.60	0.0108

²⁰²Hg

Summary of Fit

RSquare	0.262356
RSquare Adj	0.227643
Root Mean Square Error	0.781117
Mean of Response	2.485437
Observations (or Sum Wgts)	90

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-12.38094	3.16784	-3.91	0.0002
lnMass	0.1762799	0.088641	1.99	0.0500
lnHeat Capacity (J/molK)	0.2318294	0.094787	2.45	0.0165
lnElectronegativity	0.1792206	0.08485	2.11	0.0376
Inion mobility (C/Pa*s*A)	-0.447867	0.099664	-4.49	<.0001

²⁰⁵Tl

Summary of Fit

RSquare	0.298438
RSquare Adj	0.275807
Root Mean Square Error	0.855835
Mean of Response	2.374408
Observations (or Sum Wgts)	97

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
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Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.2341509	0.529054	4.22	<.0001
lnMass	0.3952054	0.074035	5.34	<.0001
ln2nd ionization potential (eV)	0.1426644	0.077592	1.84	0.0692
lnMelting Point (C)	-0.253233	0.070301	-3.60	0.0005

²⁰⁸Pb

Summary of Fit

RSquare	0.113586
RSquare Adj	0.104156
Root Mean Square Error	0.583855
Mean of Response	3.524778
Observations (or Sum Wgts)	96

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.4628675	0.31172	7.90	<.0001
lnMelting Point (C)	0.1653838	0.047652	3.47	0.0008

²⁰⁹Bi

Summary of Fit

RSquare	0.43334
RSquare Adj	0.366109
Root Mean Square Error	0.24952
Mean of Response	3.287196
Observations (or Sum Wgts)	67

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.0288561	1.283565	0.80	0.4260
ln1st ionization potential (eV)	0.0998902	0.039454	2.53	0.0140
ln2nd ionization potential (eV)	-0.109972	0.026866	-4.09	0.0001
lnMelting Point (C)	-0.103394	0.045079	-2.29	0.0254
lnHeat Capacity (J/molK)	0.1272989	0.039607	3.21	0.0021
lnH of form (kJ/mol)	0.131109	0.03725	3.52	0.0008
lnion mobility (C/Pa*s*A)	-0.079839	0.038931	-2.05	0.0447
lnCharge	-0.396701	0.103571	-3.83	0.0003

²³²Th

Summary of Fit

RSquare	0.253794
RSquare Adj	0.221699
Root Mean Square Error	0.602
Mean of Response	2.889736
Observations (or Sum Wgts)	98

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.9697839	0.400358	7.42	<.0001
ln1st ionization potential (eV)	-0.157685	0.067397	-2.34	0.0214
lnBoiling Point (C)	-0.099798	0.053205	-1.88	0.0638
lnS (J/Kmol)	0.1173096	0.060093	1.95	0.0539
lnElectronegativity	-0.233737	0.075214	-3.11	0.0025

²³⁸U

Summary of Fit

RSquare	0.325316
RSquare Adj	0.302574
Root Mean Square Error	0.743054
Mean of Response	2.381298
Observations (or Sum Wgts)	93

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Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.5244849	0.371674	6.79	<.0001
ln2nd ionization potential (eV)	-0.270662	0.104137	-2.60	0.0109
lnS (J/Kmol)	0.3834862	0.086236	4.45	<.0001
lnElectronegativity	0.4928469	0.121099	4.07	0.0001