Supplementary Information for

From chemistry to mechanics: bulk modulus evolution of Li–Si and Li–Sn alloys via metallic electronegativity scale

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Table S1: Data for linear regression in Figure 1.

Alloys	χ_A	χ_B	Z	V (Å^3)	B (GPa)
Mg_3As_2	1.25	2.31	16	1932.11	49.4
$MgAs_4$	1.25	2.31	4	481.57	43.4
$Mg_{23}Ba_6$	1.25	0.90	4	3525.69	24.4
Mg_2Ba	1.25	0.90	4	406.91	21.5
Mg_2Ca	1.25	1.02	4	339.69	30.1
MgCd	1.25	2.88	2	85.43	45.8
$MgCd_3$	1.25	2.88	2	172.98	48.2
Mg_3Cd	1.25	2.88	2	173.85	41.5
$MgCu_2$	1.25	4.26	8	352.64	88.6
MgGa	1.25	2.44	16	634.80	48.7

Mg_2Ga	1.25	2.44	6	366.18	45.8
Mg_2Ga_5	1.25	2.44	4	546.43	52.4
$MgGa_2$	1.25	2.44	8	467.82	49.8
Mg_5Ga_2	1.25	2.44	4	583.05	43.9
Mg_2Ge	1.25	3.27	4	264.98	49.8
MgLa	1.25	1.60	1	62.38	34.1
Mg_2La	1.25	1.60	8	675.91	36
Mg_3La	1.25	1.60	4	421.88	37.2
Mg_2Ni	1.25	4.65	6	308.71	64.4
$MgNi_2$	1.25	4.65	8	317.66	123.2
Mg_2Pb	1.25	1.40	4	334.83	33.9
Mg_2Si	1.25	3.41	4	257.02	54.3
Mg_2Sn	1.25	2.86	4	317.91	40.5
MgY	1.25	1.67	1	55.00	41.1
$Mg_{24}Y_5$	1.25	1.67	2	1427.63	39.3
AgMg	3.77	1.25	1	37.06	63.76
AgSc	3.77	1.85	1	40.39	80.57
AgZn	3.77	3.22	1	31.52	99.2
AgCd	3.77	2.88	1	38.20	80.35
AuMg	3.78	1.25	1	36.33	82.92
AuSc	3.78	1.85	1	39.55	105.26
AuZn	3.78	3.22	1	32.13	122.2
AuCd	3.78	2.88	1	38.27	103.69
MnRh	4.58	4.31	1	24.24	178.9
MnPd	4.58	4.21	1	25.15	140.6
$MgZn_2$	1.25	3.22	4	203.15	64.66
Mg_4Zn_7	1.25	3.22	10	1896.47	59.12
$LiAl_3$	0.65	2.10	1	64.48	66.30
Li_2Ca	0.65	1.02	4	349.73	15.00
LiAl	0.65	2.10	8	249.45	47.80
LiMg	0.65	1.25	1	40.71	24.70
Li_3Sb	0.65	1.89	4	272.73	34.72
Li_3Bi	0.65	1.77	4	294.35	30.27