

Supplementary information

Table S1a.Experimental data for Fig 5

temp	a	a_err	b	b_err	c	c_err	al	al_err	be	be_err	ga	ga_err	vol	vol_err	size	size_err	strain	strain_err
30	9.70049	0.00034	9.69521	0.00026	7.01834	0.00013	90.6231	0.0022	89.1763	0.0028	120.1384	0.0018	570.768	0.029	266.9	4.7	0.114	0.0029
40	9.70189	0.00031	9.69694	0.00025	7.01852	0.00013	90.6072	0.0021	89.2022	0.0028	120.1309	0.0017	571.014	0.0028	269.3	4.6	0.1114	0.0029
50	9.70467	0.00039	9.69975	0.0003	7.01892	0.00013	90.578	0.0024	89.24	0.0031	120.1214	0.002	571.436	0.033	272.9	4.7	0.1107	0.0029
60	9.70621	0.00031	9.70141	0.00025	7.01922	0.00013	90.5584	0.0023	89.2722	0.0028	120.1134	0.0017	571.7	0.028	275.4	4.6	0.1088	0.0029
70	9.70875	0.00035	9.70441	0.00028	7.01974	0.00013	90.5356	0.0023	89.3047	0.0029	120.1069	0.0019	572.111	0.0031	275.7	4.5	0.1043	0.0028
80	9.71055	0.00036	9.70643	0.00028	7.01997	0.00013	90.5159	0.0026	89.3325	0.00032	120.0987	0.00018	572.406	0.031	280	4.6	0.1048	0.0028
90	9.71189	0.00038	9.70777	0.00031	7.02005	0.00013	90.4897	0.0027	89.3667	0.0032	120.0893	0.002	572.629	0.033	279.8	4.6	0.0979	0.0029
100	9.71456	0.00035	9.71077	0.00029	7.02035	0.00013	90.4575	0.0026	89.4136	0.0029	120.0746	0.0021	573.079	0.031	280.1	4.4	0.0926	0.003
110	9.71668	0.00045	9.71386	0.00034	7.021	0.00012	90.4212	0.0032	89.4508	0.0038	120.0654	0.0025	573.497	0.038	280.7	4.5	0.0894	0.0031
120	9.71795	0.00045	9.71482	0.00035	7.02119	0.00012	90.39	0.0033	89.4887	0.0039	120.0577	0.0025	573.692	0.038	281.2	4.1	0.0804	0.0031
130	9.72039	0.00048	9.71736	0.00037	7.02151	0.00012	90.3564	0.0034	89.5283	0.0041	120.0495	0.0027	574.064	0.04	281.2	4	0.0752	0.0032
140	9.72036	0.00039	9.71692	0.00029	7.02161	0.00011	90.3264	0.0031	89.5645	0.0039	120.0408	0.0022	574.098	0.033	283	4	0.0616	0.0036
150	9.72269	0.0006	9.7197	0.00037	7.02205	0.00011	90.283	0.004	89.6185	0.0054	120.0243	0.0033	574.536	0.046	286.1	4	0.0509	0.0039
160	9.72456	0.00048	9.72161	0.00036	7.02222	0.00011	90.2278	0.004	89.6898	0.0054	120.0304	0.0026	574.743	0.039	291.3	4.1	0.0422	0.0043
170	9.72737	0.00059	9.72571	0.00045	7.02271	0.00012	90.1684	0.0058	89.7699	0.0079	120.0277	0.0031	575.211	0.048	293.1	4.1	0.0321	0.0051
180	9.7296	0.0011	9.7269	0.001	7.02302	0.00011	90.13	0.011	89.829	0.014	120.0183	0.0079	575.5	0.1	304.4	4.3	0.0197	0.0069
190	9.731	0.0018	9.7289	0.0018	7.02366	0.00011	90.084	0.017	89.887	0.021	120.0180	0.013	575.75	0.17	313.1	4.4	0.0207	0.0071
200	9.7328	0.0017	9.7305	0.0014	7.02474	0.00011	90.064	0.018	89.916	0.02	120.0220	0.013	576.02	0.15	318.3	4.7	0.0096	0.0099
210	9.73379	0.00086	9.7313	0.0016	7.02519	0.00011	90.048	0.017	89.937	0.021	120.0190	0.02	576.18	0.16	319.3	4.6	0.0107	0.0095
220	9.736	0.0012	9.7332	0.0013	7.02598	0.00011	90.037	0.019	89.955	0.022	120.0260	0.018	576.45	0.15	317.4	4.6	0.0123	0.0087
230	9.73645	0.001	9.73306	0.0017	7.02671	0.00011	90.0292	0.027	89.9642	0.026	120.0268	0.0197	576.521	0.166	314.9	4.3	0.0169	0.008
240	9.73805	0.0013	9.7336	0.0045	7.02775	0.00011	90.024	0.042	89.984	0.029	120.0279	0.0345	576.727	0.342	312.6	4.4	0.0246	0.0058
250	9.7395	0.00129	9.73434	0.00276	7.02846	0.00011	90.0289	0.013	89.9857	0.028	120.0267	0.04361	576.922	0.302	310.3	4.2	0.02513	0.006

260	9.74116	0.00168	9.73674	0.00144	7.0294	0.00011	90.0298	0.0184	89.9865	0.01695	120.0280	0.023	577.232	0.188	313.8	4.1	0.0176	0.007
270	9.74244	0.00087	9.7368	0.0033	7.0303	0.00011	90.0366	0.0318	89.9923	0.0156	120.0295	0.036	577.373	0.0292	318.2	4.5	0.0258	0.0058
280	9.74363	0.00116	9.73848	0.00504	7.03104	0.00011	90.0364	0.0286	89.9910	0.0155	120.0293	0.039	577.609	0.382	317	4.2	0.0228	0.0058
290	9.7458	0.00115	9.74147	0.0079	7.03245	0.00011	90.0318	0.0266	90.0026	0.0189	120.0318	0.054	578.017	0.569	317.9	4.2	0.0255	0.0058
300	9.74709	0.00109	9.74198	0.00314	7.03324	0.00011	90.0320	0.02056	90.0009	0.01289	120.0317	0.0337	578.188	0.279	319.4	4.2	0.0236	0.0057
310	9.74808	0.00109	9.74361	0.00337	7.03362	0.00011	90.0352	0.01757	89.9943	0.0141	120.0342	0.01757	578.36	0.252	316.5	4.6	0.018	0.0073
320	9.74988	0.00106	9.74523	0.00398	7.03505	0.00011	90.0313	0.0288	89.9991	0.01214	120.0337	0.01745	578.684	0.0265	313.3	4.3	0.0226	0.0063
330	9.75124	0.00087	9.74625	0.00357	7.03585	0.00011	90.0319	0.01818	89.9936	0.0186	120.0322	0.03054	578.899	0.286	318.8	4.5	0.0176	0.0069
340	9.75239	0.0017	9.74689	0.00562	7.03663	0.00011	90.0289	0.0479	89.9953	0.01611	120.0358	0.04333	579.049	0.431	324.6	4.7	0.0195	0.0062
350	9.75357	0.00099	9.74854	0.006	7.03749	0.00011	90.0238	0.0293	89.9954	0.01886	120.0419	0.04308	579.253	0.441	321	4.4	0.0213	0.0067
360	9.7551	0.00079	9.74992	0.00494	7.03835	0.00012	90.0221	0.02847	89.9935	0.01219	120.0398	0.02278	579.509	0.326	317.1	4.5	0.01678	0.0069
370	9.75657	0.00084	9.75067	0.00409	7.03949	0.00011	90.0273	0.03616	89.9967	0.01728	120.0427	0.02883	579.717	0.3	321.4	4.6	0.01709	0.007
380	9.75783	0.00072	9.75233	0.00384	7.04035	0.00011	90.0246	0.02674	89.9979	0.01087	120.0455	0.03324	579.945	0.303	324.4	4.4	0.02123	0.00606
390	9.75893	0.00095	9.7532	0.00403	7.04087	0.00011	90.0228	0.02411	89.9921	0.01521	120.0416	0.0221	580.129	0.279	323.6	4.6	0.01788	0.00734
400	9.7605	0.00111	9.7547	0.00494	7.04174	0.00012	90.0317	0.03796	89.9959	0.01034	120.0399	0.03731	580.393	0.372	323.3	4.5	0.0187	0.00637
410	9.76191	0.00074	9.75691	0.00589	7.04295	0.00011	90.0197	0.03036	89.9965	0.01203	120.0469	0.04948	580.667	0.457	321.3	4.5	0.01577	0.0077
420	9.76311	0.00102	9.75785	0.00445	7.04365	0.00012	90.0173	0.0182	89.9907	0.00765	120.0411	0.02695	580.886	0.315	320.2	4.5	0.01507	0.00737
430	9.76449	0.00097	9.75872	0.00434	7.04448	0.00011	90.0208	0.03082	89.9911	0.01241	120.0420	0.027	581.084	0.308	322.5	4.6	0.0168	0.00748
440	9.76574	0.00083	9.75983	0.00299	7.04516	0.00012	90.0223	0.02631	89.9966	0.0167	120.0496	0.02636	581.236	0.241	323.9	4.9	0.01005	0.00877
450	9.76691	0.00078	9.76154	0.00606	7.04595	0.00011	90.0210	0.03239	89.9939	0.01498	120.0469	0.03758	581.488	0.426	322.2	4.7	0.01287	0.00855
460	9.76857	0.0007	9.76365	0.00326	7.04716	0.00012	90.0233	0.01898	89.9925	0.01308	120.0421	0.02305	581.84	0.241	320.2	5.1	0.0021	0.0121
470	9.76989	0.00107	9.76488	0.00451	7.04793	0.00011	90.0227	0.0246	89.9960	0.01233	120.0496	0.04163	582.011	0.369	327.9	5.3	0.0091	0.0097
480	9.77096	0.00079	9.76537	0.00477	7.04869	0.00012	90.0228	0.01998	89.9945	0.01239	120.0496	0.01239	582.167	0.354	326.1	4.8	0.01375	0.00827
490	9.77244	0.00067	9.76602	0.00556	7.04965	0.00011	90.0230	0.03062	89.9945	0.01134	120.0494	0.0359	582.375	0.395	322.3	4.7	0.01793	0.00687
500	9.7739	0.00101	9.76793	0.00353	7.05056	0.00013	90.0251	0.02219	89.9946	0.01269	120.0488	0.02817	582.654	0.275	318.5	4.7	0.01177	0.00852

Table S1(b). Experimental data for Fig. 6

temp	a	a_err	b	b_err	c	c_err	al	al_err	be	be_err	ga	ga_err	vol	vol_err	size	size_err	strain	strain_err
30	9.68663	0.00023	9.6946	0.00021	6.98485	0.00012	90.6204	0.0015	88.8713	0.0019	120.3659	0.0015	565.839	0.022	192	2	0.1162	0.0028
40	9.68842	0.00023	9.69518	0.00022	6.98517	0.00012	90.608	0.0016	88.8936	0.002	120.3539	0.0016	566.076	0.023	191.9	2	0.1115	0.0028
50	9.69028	0.00026	9.69653	0.00021	6.98575	0.00012	90.5948	0.0016	88.9182	0.0021	120.3440	0.0016	566.373	0.024	194.5	2.1	0.1154	0.0028
60	9.69182	0.00023	9.69787	0.00021	6.98594	0.00012	90.5793	0.0016	88.9514	0.0019	120.3236	0.0015	566.682	0.023	196.9	2.1	0.1107	0.0028
70	9.69414	0.00025	9.6988	0.00022	6.98646	0.00012	90.5675	0.0017	88.9753	0.0021	120.3129	0.0016	566.98	0.024	196.2	2.1	0.1113	0.0028
80	9.69612	0.00025	9.70031	0.00021	6.987	0.00012	90.5515	0.0016	89.0043	0.0021	120.2947	0.0016	567.388	0.023	193.6	2	0.1066	0.0028
90	9.69861	0.00025	9.70243	0.00023	6.98768	0.00012	90.5373	0.0017	89.0353	0.0021	120.2778	0.0017	567.766	0.024	196.7	2.1	0.1064	0.0029
100	9.69991	0.00028	9.70316	0.00023	6.988	0.00012	90.521	0.0017	89.0635	0.0023	120.2675	0.0017	567.973	0.025	197.4	2.1	0.1038	0.0029
110	9.70218	0.00028	9.70457	0.00024	6.98854	0.00012	90.5041	0.0017	89.0973	0.0023	120.2474	0.0017	568.356	0.026	202.2	2.2	0.1102	0.0028
120	9.70346	0.00028	9.7056	0.00026	6.98855	0.00012	90.4875	0.0018	89.127	0.0024	120.2319	0.0018	568.586	0.026	199	2.1	0.1043	0.0029
130	9.70567	0.00028	9.70698	0.0003	6.98901	0.00011	90.4673	0.0018	89.1683	0.0024	120.2137	0.0021	568.945	0.028	206.5	2.3	0.1069	0.0028
140	9.70795	0.00027	9.7092	0.00029	6.98973	0.00012	90.4508	0.0018	89.1963	0.0024	120.1979	0.0021	569.363	0.028	203.8	2.2	0.1017	0.003
150	9.70979	0.00029	9.71077	0.00029	6.99014	0.00012	90.4354	0.0019	89.2285	0.0026	120.1807	0.0021	569.701	0.028	203	2.2	0.0983	0.003
160	9.71158	0.00029	9.71189	0.00031	6.99063	0.00012	90.4216	0.0019	89.2597	0.0025	120.1638	0.002	570.014	0.029	208.2	2.3	0.1037	0.003
170	9.71397	0.003	9.71423	0.00034	6.99153	0.00012	90.4	0.0021	89.2986	0.0027	120.1471	0.0024	570.466	0.031	207	2.2	0.1017	0.0031
180	9.71601	0.00032	9.71573	0.00036	6.99196	0.00012	90.3844	0.0022	89.3347	0.0027	120.1328	0.0024	570.796	0.033	205.4	2.1	0.0989	0.0031
190	9.71791	0.00031	9.71727	0.0003	6.99245	0.00012	90.3692	0.0024	89.3705	0.0027	120.1170	0.0025	571.128	0.031	205.9	2.1	0.0984	0.0032
200	9.72032	0.00031	9.71745	0.00033	6.99278	0.00012	90.3558	0.0023	89.4114	0.0026	120.1026	0.0023	571.399	0.031	205.5	2.1	0.0925	0.0034
210	9.72241	0.00032	9.71851	0.00035	6.99358	0.00012	90.3429	0.0025	89.4506	0.0029	120.0942	0.0021	571.703	0.032	206.2	2.1	0.0902	0.0036
220	9.72453	0.00042	9.71939	0.00045	6.99392	0.00013	90.3236	0.003	89.493	0.0035	120.0847	0.0026	571.966	0.041	206.4	2.1	0.0941	0.0036
230	9.7261	0.00041	9.72113	0.00047	6.9944	0.00013	90.3117	0.0031	89.5362	0.0034	120.0726	0.0028	572.273	0.042	203.1	2	0.0839	0.0037
240	9.72752	0.00057	9.72246	0.00048	6.995	0.00012	90.292	0.0035	89.5762	0.0043	120.0637	0.0032	572.539	0.049	201.2	1.9	0.0779	0.0038
250	9.72754	0.00083	9.7233	0.00057	6.99526	0.00012	90.2817	0.0051	89.6066	0.0067	120.0455	0.0044	572.719	0.065	202	1.8	0.0693	0.004
260	9.729	0.0011	9.72604	0.00068	6.99572	0.00012	90.2548	0.0061	89.6503	0.0081	120.0322	0.0054	573.086	0.082	200.7	1.8	0.0611	0.0043

270	9.7307	0.00075	9.72891	0.00045	6.99651	0.00012	90.2351	0.0044	89.6807	0.006	120.0302	0.0034	573.431	0.056	201.6	1.9	0.0569	0.0047
280	9.7324	0.0015	9.73029	0.00091	6.99711	0.00013	90.2052	0.0058	89.7225	0.0074	120.0277	0.0076	573.68	0.12	202.5	1.8	0.0546	0.0047
290	9.7336	0.0015	9.731	0.0011	6.99789	0.00012	90.1843	0.0077	89.7519	0.0096	120.0283	0.0083	573.85	0.12	203.6	1.9	0.0499	0.0052
300	9.7348	0.0013	9.7319	0.00094	6.99876	0.00013	90.1808	0.0076	89.7592	0.0099	120.0266	0.0075	574.06	0.11	204.6	2	0.0449	0.0055
310	9.73636	0.00092	9.73412	0.00057	6.99958	0.00013	90.1779	0.0076	89.761	0.011	120.0293	0.0041	574.333	0.069	207.4	2	0.0438	0.0057
320	9.7384	0.0017	9.7364	0.0013	7.00067	0.00012	90.127	0.014	89.825	0.02	120.0290	0.01	574.68	0.14	204.7	1.9	0.0306	0.0075
330	9.7395	0.0022	9.7373	0.0018	7.00141	0.0013	90.111	0.016	89.849	0.022	120.0250	0.015	574.88	0.19	203.1	1.9	0.0404	0.0063
340	9.7408	0.0018	9.7384	0.0019	7.00229	0.00012	90.101	0.017	89.864	0.023	120.0250	0.015	575.1	0.18	200.8	1.8	0.0368	0.0067
350	9.7429	0.0023	9.741	0.0018	7.00355	0.00013	90.087	0.019	89.881	0.026	120.0310	0.018	575.45	0.2	203.2	1.7	0.0351	0.0068
360	9.7435	0.0024	9.7417	0.0021	7.00399	0.00012	90.08	0.021	89.888	0.028	120.0330	0.018	575.55	0.21	203.1	1.8	0.0302	0.0078
370	9.7444	0.0027	9.7433	0.0028	7.0049	0.00013	90.067	0.026	89.903	0.026	120.0350	0.025	575.76	0.27	204.4	1.7	0.034	0.0069
380	9.7497	0.0036	9.7473	0.0017	7.00639	0.00012	90.063	0.031	89.91	0.034	120.0470	0.02	576.36	0.26	205.2	1.8	0.0308	0.0076
390	9.7504	0.0027	9.7479	0.0025	7.00717	0.00013	90.062	0.034	89.912	0.027	120.0400	0.022	576.54	0.26	206	1.9	0.0407	0.0061
400	9.7518	0.0022	9.7494	0.0022	7.00824	0.00013	90.062	0.02	89.912	0.026	120.0440	0.017	576.78	0.21	207.3	1.8	0.032	0.0076
410	9.7535	0.0032	9.7508	0.0011	7.00926	0.00013	90.066	0.025	89.909	0.029	120.0440	0.024	577.04	0.24	206.7	1.8	0.0352	0.0068
420	9.7535	0.003	9.7507	0.0012	7.00983	0.00013	90.066	0.028	89.912	0.034	120.0420	0.027	577.1	0.25	207.2	1.8	0.0338	0.0072
430	9.7538	0.003	9.7513	0.0021	7.0105	0.00014	90.062	0.029	89.916	0.041	120.0400	0.021	577.22	0.25	205.8	1.9	0.0378	0.0071
440	9.7538	0.002	9.7517	0.0017	7.01128	0.00013	90.057	0.027	89.92	0.032	120.0420	0.017	577.29	0.19	202.2	1.8	0.0326	0.0076
450	9.7561	0.0019	9.7537	0.0026	7.0125	0.00013	90.056	0.022	89.916	0.024	120.0500	0.019	577.61	0.22	203.8	1.8	0.03	0.0077
460	9.7574	0.0021	9.7548	0.003	7.01346	0.00013	90.056	0.02	89.916	0.031	120.0510	0.021	577.81	0.25	204.3	1.8	0.0382	0.0039
470	9.7576	0.0022	9.755	0.003	7.01414	0.00013	90.052	0.023	89.919	0.028	120.0500	0.019	577.91	0.25	204.9	1.8	0.0388	0.0068
480	9.7577	0.0017	9.7552	0.0025	7.01463	0.00014	90.051	0.021	89.921	0.029	120.0510	0.016	577.96	0.21	203.9	1.8	0.0407	0.0065
490	9.7607	0.0018	9.758	0.0012	7.01568	0.00013	90.049	0.018	89.921	0.021	120.0530	0.014	578.37	0.15	204.7	1.8	0.0368	0.0072
500	9.7621	0.002	9.7592	0.0026	7.01697	0.00014	90.048	0.021	89.924	0.027	120.0530	0.02	578.64	0.23	205.9	1.9	0.0392	0.0067