TABLE XV. Adiabatic and isothermal elastic constants (in units of 10^{11} dyn/cm²) and the parameters Δ and λ of RbBr as a function of pressure (in kilobars) at 220°K.

Pressure	C_{11}^S	C_{11}^T	C_{12}^S	C_{12}^T	C_{44}	B^S	B^T	Δ	λ
0.001	3.369	3.322	0.471	0.424	0.386	1.437	1.390	0.0339	1.00000
0.200	3.397	3.350	0.474	0.426	0.385	1.448	1.401	0.0335	1.00048
0.400	3.424	3.377	0.478	0.431	0.384	1.460	1.413	0.0331	1.00095
0.600	3.453	3.407	0.480	0.434	0.383	1.471	1.425	0.0327	1.00142
0.800	3.481	3.435	0.483	0.436	0.382	1.482	1.436	0.0323	1.00189
1.000	3.511	3.465	0.486	0.439	0.380	1.494	1.448	0.0319	1.00235
1.200	3.538	3.492	0.490	0.444	0.379	1.505	1.460	0.0315	1.00281
1.400	3.568	3.522	0.492	0.447	0.378	1.518	1.472	0.0311	1.00327
1.600	3.594	3.549	0.495	0.450	0.377	1.528	1.483	0.0307	1.00372
1.800	3.622	3.576	0.499	0.453	0.376	1.540	1.494	0.0303	1.00417
2.000	3.648	3.603	0.502	0.457	0.374	1.551	1.506	0.0299	1.00462
2.200	3.676	3.631	0.504	0.460	0.373	1.562	1.517	0.0295	1.00506
2.400	3.704	3.660	0.506	0.462	0.372	1.572	1.528	0.0291	1.00550
2.615	3.732	3.688	0.509	0.464	0.371	1.584	1.539	0.0286	1.00597
2.800	3.758	3.714	0.508	0.465	0.370	1.591	1.548	0.0283	1.00637
3.000	3.785	3.742	0.509	0.466	0.368	1.601	1.558	0.0279	1.00680
3.200	3.812	2.769	0.510	0.467	0.367	1.611	1.568	0.0275	1.00723
3.415	3.837	3.794	0.514	0.471	0.366	1.621	1.579	0.0270	1.00769
3.610	3.864	3.822	0.515	0.472	0.365	1.631	1.589	0.0267	1.00811
3.810	3.892	3.850	0.516	0.473	0.363	1.642	1.599	0.0263	1.00853

of the pressure derivative of C_{12}, and such a discrepancy cannot be reconciled even when generous allowances are made for the uncertainties in the measurement and control of the experimental observables. We do not have an easy and definite explanation for this disagreement. However, we feel that the results of the present work are the more plausible of the two when the trend in the values of the pressure derivatives of the elastic constants of the other alkali halides having NaCl structure at room temperature is taken into consideration (Table XII). The sources of the data presented in Table XII are listed underneath this table.

TABLE XVI. Adiabatic and isothermal elastic constants (in units of 10^{11} dyn/cm²) and the parameters Δ and λ of RbBr as a function of pressure (in kilobars) at 180°K.

Pressure	C_{11}^S	C_{11}^T	C_{12}^S	C_{12}^T	C_{44}	B^S	B^T	Δ	λ
0.001	3.488	3.451	0.459	0.421	0.390	1.468	1.431	0.0262	1.00000
0.200	3.513	3.476	0.462	0.425	0.389	1.479	1.442	0.0259	1.00046
0.400	3.540	3.503	0.463	0.425	0.387	1.488	1.451	0.0256	1.00092
0.600	3.565	3.528	0.464	0.427	0.386	1.498	1.461	0.0252	1.00138
0.800	3.590	3.553	0.466	0.430	0.385	1.507	1.471	0.0249	1.00184
1.000	3.615	3.578	0.466	0.429	0.384	1.515	1.479	0.0246	1.00229
1.200	3.640	3.604	0.467	0.431	0.383	1.525	1.489	0.0243	1.00274
1.400	3.667	3.631	0.470	0.434	0.381	1.536	1.500	0.0240	1.00319
1.600	3.693	3.657	0.470	0.434	0.380	1.544	1.508	0.0236	1.00364
1.800	3.720	3.684	0.475	0.439	0.379	1.556	1.521	0.0233	1.00408
2.000	3.748	3.713	0.480	0.444	0.378	1.569	1.534	0.0230	1.00452
2.200	3.772	3.738	0.478	0.442	0.377	1.576	1.541	0.0227	1.00495
2.400	3.802	3.767	0.484	0.449	0.376	1.590	1.555	0.0224	1.00538

TABLE XVII. Adiabatic elastic constant (in units of 10^{11} dyn/cm^2) and parameter Δ and density (in units of g/cm^3) of RbI as a function of temperature (°K) as obtained in the present work (PW) and those obtained by Haussuhl.

Temperature (°K)	C_{11}		C_{12}		C_{44}		Bulk modulus	Δ	Density
	PW	Haussuhl	PW	Haussuhl	PW	Haussuhl			
300	2.556		0.382		0.278		1.107	0.0560	3.551
295	...	2.583	...	0.37	...	0.278			3.553
260	2.652		0.364		0.280		1.127	0.0474	3.569
240	2.699		0.358		0.281		1.138	0.0434	3.577
220	2.747		0.351		0.282		1.153	0.0395	3.585
200	2.798		0.342		0.283		1.160	0.0348	3.594
180	2.850		0.335		0.284		1.174	0.0309	3.602
160	2.891		0.329		0.285		1.183	0.0267	3.610
140	2.948		0.318		0.286		1.194	0.0227	3.618
120	2.988		0.314		0.287		1.206	0.0185	3.625

TABLE XVIII. Temperature derivatives of adiabatic elastic constants (in units of 10^7 dyn/cm^2 °K) of RbI at room temperature.

	Temperature (°K)	C_{11}	C_{12}	C_{44}	Bulk modulus
Present work	300	−24.16	3.28	−0.555	−5.87
Haussuhl	295	−24.95	3.22	−0.573	−6.17
Lewis *et al.*	300	−42.61	0.00	−0.530	−14.20

TABLE XIX. Adiabatic and isothermal elastic constants (in units of 10^{11} dyn/cm^2) and the parameters Δ and λ of RbI as a function of pressure (in kilobars) at 300°K.

Pressure	C_{11}^S	C_{11}^T	C_{12}^S	C_{12}^T	C_{44}	B^S	B^T	Δ	λ
0.001	2.557	2.498	0.377	0.318	0.277	1.103	1.045	0.0560	1.00000
0.200	2.584	2.526	0.379	0.321	0.276	1.114	1.056	0.0551	1.00064
0.400	2.612	2.554	0.382	0.323	0.275	1.125	1.067	0.0543	1.00126
0.600	2.640	2.582	0.384	0.326	0.274	1.136	1.078	0.0534	1.00189
0.800	2.667	2.610	0.387	0.330	0.273	1.147	1.090	0.0526	1.00250
1.000	2.697	2.640	0.389	0.331	0.272	1.158	1.101	0.0517	1.00311
1.200	2.722	2.666	0.391	0.335	0.271	1.168	1.112	0.0509	1.00372
1.400	2.749	2.693	0.395	0.339	0.270	1.180	1.124	0.0500	1.00432
1.600	2.776	2.720	0.397	0.341	0.269	1.190	1.134	0.0492	1.00491
1.800	2.804	2.748	0.400	0.343	0.268	1.201	1.145	0.0484	1.00550
2.000	2.831	2.776	0.403	0.347	0.267	1.212	1.157	0.0475	1.00608
2.200	2.857	2.802	0.405	0.351	0.266	1.222	1.168	0.0467	1.00666
2.400	2.883	2.829	0.408	0.357	0.265	1.233	1.179	0.0458	1.00723
2.600	2.910	2.856	0.410	0.357	0.264	1.244	1.190	0.0450	1.00780
2.800	2.936	2.883	0.413	0.360	0.263	1.254	1.201	0.0441	1.00836
3.000	2.963	2.910	0.416	0.363	0.262	1.265	1.212	0.0433	1.00892
3.200	2.988	2.936	0.418	0.366	0.261	1.275	1.223	0.0424	1.00947
3.400	3.013	2.962	0.421	0.370	0.260	1.285	1.234	0.0416	1.01002
3.600	3.040	2.989	0.424	0.373	0.258	1.296	1.245	0.0408	1.01056
3.800	3.066	3.016	0.426	0.376	0.258	1.306	1.256	0.0399	1.01110