

LaB₆ THERMODYNAMICS

[CAUTION: Data Very Sensitive to Constant Values Chosen]

T [K]	Radiated Pow Density [W/cm ²]	Emission Je [A/cm ²]	Je / RPD [mA/W]	Evaporation Rt [μm/hr]	Rm [gm/s*cm ²]	H_100μm [hours]	Je/Rm [Coul/kg]	# elect / LaB ₆ molec	T [K]
1500	20.1	2.5e-01	12	2.6e-05	3.4e-12	3,873,077	7.3e+13	1.5e+08	1500
1520	21.2	3.3e-01	16	4.4e-05	5.8e-12	2,277,633	5.8e+13	1.2e+08	1520
1540	22.3	4.5e-01	20	7.4e-05	9.7e-12	1,358,002	4.6e+13	9.8e+07	1540
1560	23.5	5.9e-01	25	1.2e-04	1.6e-11	820,494	3.7e+13	7.9e+07	1560
1580	24.7	7.9e-01	32	2.0e-04	2.6e-11	502,100	3.0e+13	6.4e+07	1580
1600	26.0	1.0e+00	40	3.2e-04	4.2e-11	311,055	2.4e+13	5.2e+07	1600
1620	27.3	1.3e+00	49	5.1e-04	6.7e-11	194,993	2.0e+13	4.3e+07	1620
1640	28.7	1.7e+00	61	8.1e-04	1.1e-10	123,637	1.6e+13	3.5e+07	1640
1660	30.1	2.2e+00	75	1.3e-03	1.7e-10	79,258	1.4e+13	2.9e+07	1660
1680	31.6	2.9e+00	91	1.9e-03	2.6e-10	51,350	1.1e+13	2.4e+07	1680
1700	33.1	3.7e+00	111	3.0e-03	3.9e-10	33,610	9.4e+12	2.0e+07	1700
1720	34.7	4.6e+00	134	4.5e-03	5.9e-10	22,217	7.9e+12	1.7e+07	1720
1740	36.4	5.9e+00	161	6.7e-03	8.8e-10	14,826	6.6e+12	1.4e+07	1740
1760	38.1	7.4e+00	193	1.0e-02	1.3e-09	9,985	5.6e+12	1.2e+07	1760
1780	39.8	9.2e+00	230	1.5e-02	1.9e-09	6,785	4.8e+12	1.0e+07	1780
1800	41.7	1.1e+01	274	2.2e-02	2.8e-09	4,650	4.0e+12	8.6e+06	1800
1820	43.5	1.4e+01	324	3.1e-02	4.1e-09	3,214	3.5e+12	7.4e+06	1820
1840	45.5	1.7e+01	382	4.5e-02	5.9e-09	2,239	3.0e+12	6.3e+06	1840
1860	47.5	2.1e+01	449	6.4e-02	8.3e-09	1,572	2.6e+12	5.4e+06	1860
1880	49.6	2.6e+01	525	9.0e-02	1.2e-08	1,112	2.2e+12	4.7e+06	1880
1900	51.7	3.2e+01	612	1.3e-01	1.7e-08	792	1.9e+12	4.1e+06	1900
1920	53.9	3.8e+01	711	1.8e-01	2.3e-08	569	1.7e+12	3.5e+06	1920
1940	56.2	4.6e+01	824	2.4e-01	3.2e-08	411	1.5e+12	3.1e+06	1940
1960	58.6	5.6e+01	951	3.3e-01	4.4e-08	299	1.3e+12	2.7e+06	1960
1980	61.0	6.7e+01	1095	4.6e-01	6.0e-08	219	1.1e+12	2.4e+06	1980
2000	63.5	8.0e+01	1256	6.2e-01	8.1e-08	161	9.8e+11	2.1e+06	2000
2020	66.1	9.5e+01	1437	8.4e-01	1.1e-07	119	8.7e+11	1.8e+06	2020
2040	68.7	1.1e+02	1640	1.1e+00	1.5e-07	89	7.7e+11	1.6e+06	2040
2060	71.5	1.3e+02	1866	1.5e+00	2.0e-07	67	6.8e+11	1.4e+06	2060
2080	74.3	1.6e+02	2117	2.0e+00	2.6e-07	50	6.0e+11	1.3e+06	2080
2100	77.2	1.8e+02	2396	2.6e+00	3.4e-07	38	5.4e+11	1.1e+06	2100
2120	80.2	2.2e+02	2705	3.4e+00	4.5e-07	29	4.8e+11	1.0e+06	2120
2140	83.2	2.5e+02	3047	4.5e+00	5.9e-07	22	4.3e+11	9.2e+05	2140
2160	86.4	3.0e+02	3423	5.8e+00	7.7e-07	17	3.9e+11	8.2e+05	2160
2180	89.6	3.4e+02	3837	7.6e+00	9.9e-07	13	3.5e+11	7.4e+05	2180
2200	93.0	4.0e+02	4291	9.7e+00	1.3e-06	10	3.1e+11	6.7e+05	2200
2220	96.4	4.6e+02	4789	1.2e+01	1.6e-06	8	2.8e+11	6.0e+05	2220
2240	99.9	5.3e+02	5333	1.6e+01	2.1e-06	6	2.6e+11	5.4e+05	2240
2260	103.5	6.1e+02	5927	2.0e+01	2.6e-06	5	2.3e+11	4.9e+05	2260
2280	107.3	7.1e+02	6574	2.6e+01	3.3e-06	4	2.1e+11	4.5e+05	2280
2300	111.1	8.1e+02	7277	3.2e+01	4.2e-06	3	1.9e+11	4.1e+05	2300
2320	115.0	9.2e+02	8040	4.0e+01	5.3e-06	2	1.7e+11	3.7e+05	2320
2340	119.0	1.1e+03	8866	5.0e+01	6.6e-06	2	1.6e+11	3.4e+05	2340
2360	123.1	1.2e+03	9760	6.3e+01	8.2e-06	2	1.5e+11	3.1e+05	2360
2380	127.3	1.4e+03	10725	7.8e+01	1.0e-05	1	1.3e+11	2.8e+05	2380
2400	131.7	1.5e+03	11765	9.6e+01	1.3e-05	1	1.2e+11	2.6e+05	2400
2420	136.1	1.8e+03	12885	1.2e+02	1.6e-05	1	1.1e+11	2.4e+05	2420
2440	140.7	2.0e+03	14088	1.5e+02	1.9e-05	1	1.0e+11	2.2e+05	2440
2460	145.4	2.2e+03	15380	1.8e+02	2.3e-05	1	9.6e+10	2.0e+05	2460
2480	150.1	2.5e+03	16764	2.2e+02	2.8e-05	0	8.8e+10	1.9e+05	2480
2500	155.0	2.8e+03	18244	2.6e+02	3.5e-05	0	8.2e+10	1.7e+05	2500