

7037

Laurelite: Its crystal structure and relationship to  $\alpha$ -PbF<sub>2</sub>

Stefano Merlino, Marco Pasero, Natale Perchiazzi, and Anthony R. Kampf

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Tables 2+3

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Table 2 (to be deposited). Anisotropic displacement parameters for laurelite.

Atom	$U_{11}$	$U_{22}$	$U_{33}$	$U_{23}$	$U_{13}$	$U_{12}$
Pb1	0.0167(5)	0.0178(4)	0.0155(5)	0.0	0.0	0.0092(4)
Pb2	0.0185(6)	0.0172(4)	0.0140(4)	0.0	0.0	0.0097(4)
Pb3	0.0155(5)	0.0155(5)	0.0563(14)	0.0	0.0	0.0078(3)
Cl1	0.024(3)	0.024(3)	0.016(5)	0.0	0.0	0.012(2)
Cl2	0.022(3)	0.022(3)	0.024(6)	0.0	0.0	0.011(2)
F1	0.023(7)	0.023(7)	0.016(8)	0.0	0.0	0.017(6)
F2	0.027(8)	0.029(9)	0.014(8)	0.0	0.0	0.014(7)
F3	0.043(11)	0.028(9)	0.029(9)	0.0	0.0	0.005(9)
F4	0.029(8)	0.025(7)	0.017(7)	0.0	0.0	0.020(7)

Table 3 (to be deposited). List of observed and calculated squared structure factors. The Table was obtained through the "LIST 4" instruction in SHELXL-93 program. In the last column the flag "o" means reflection observed, the flag "<" means that  $F_o^2$  is less than  $4.5\sigma(F_o^2)$ , according to the "OMIT 9" instruction.

<i>h</i>	<i>k</i>	<i>l</i>	$F_c^2$	$F_o^2$	$\sigma(F_o^2)$	<i>s</i>
-1	1	0	271.10	238.17	39.13	o
0	1	0	285.78	235.91	30.61	o
1	1	0	2184.45	1944.24	89.19	o
-3	2	0	5454.35	5509.23	203.28	o
-2	2	0	1665.67	1474.42	108.21	o
-1	2	0	2219.02	2076.02	118.38	o
0	2	0	1784.96	1801.16	85.84	o
1	2	0	169172.39	184824.78	5236.65	o
2	2	0	523.52	553.03	62.69	o
-5	3	0	15546.04	14882.11	492.03	o
-4	3	0	4517.90	4423.29	182.15	o
-3	3	0	19399.97	17987.64	779.20	o
-2	3	0	169031.05	181678.89	7224.33	o
-1	3	0	5524.28	5400.68	271.39	o
0	3	0	19412.22	18433.91	564.88	o
1	3	0	2549.34	2194.87	116.06	o
2	3	0	3637.30	3243.78	160.51	o
3	3	0	4395.51	4134.90	207.23	o
-7	4	0	2444.42	2370.39	163.31	o
-6	4	0	21171.94	20853.24	679.39	o
-5	4	0	134592.58	151705.11	4315.17	o
-4	4	0	14419.73	13439.63	621.35	o
-3	4	0	2774.80	2370.39	156.90	o
-2	4	0	729.88	680.62	81.02	o
-1	4	0	4333.57	4017.60	232.90	o
0	4	0	14776.69	13825.74	457.98	o
1	4	0	1116.73	1130.40	94.75	o
2	4	0	70192.55	74937.80	2195.00	o
3	4	0	2048.59	1864.08	139.14	o
4	4	0	23798.91	23647.18	799.10	o
-9	5	0	17771.61	17987.64	652.75	o
-8	5	0	35148.38	35809.88	1127.99	o
-7	5	0	5181.84	4899.80	245.24	o
-6	5	0	858.16	739.35	91.21	o
-5	5	0	3670.80	3901.99	251.94	o
-4	5	0	1309.36	1057.49	113.93	o
-3	5	0	3256.04	2917.58	189.24	o
-2	5	0	15614.08	14792.60	673.74	o
-1	5	0	134084.19	153139.66	6131.36	o
0	5	0	3828.25	3370.56	174.18	o
1	5	0	22507.49	19909.07	653.20	o
2	5	0	15874.90	15516.29	551.02	o
3	5	0	8276.03	8574.12	358.65	o
4	5	0	4856.76	3765.49	381.13	o
5	5	0	1991.78	2264.27	190.77	o
-11	6	0	6048.26	5213.31	310.52	o
-10	6	0	2842.22	2515.67	217.20	o
-9	6	0	188.83	321.53	116.48	<
-8	6	0	5215.13	5481.99	272.06	o
-7	6	0	5386.91	5427.72	258.11	o
-6	6	0	5113.34	4772.04	314.84	o
-5	6	0	22364.54	20694.36	934.43	o
-4	6	0	70102.89	74937.81	3032.83	o
-3	6	0	4053.45	3810.72	256.83	o
-2	6	0	21340.42	20326.00	911.93	o
-1	6	0	1019.82	930.13	116.83	o
0	6	0	4980.12	4772.04	231.72	o
1	6	0	5249.66	4899.80	245.24	o
2	6	0	1734.08	1648.59	142.25	o
3	6	0	21393.04	22420.42	785.99	o
4	6	0	746.04	588.13	132.84	<
5	6	0	14754.56	14971.90	611.84	o
6	6	0	13487.04	15470.55	646.34	o
-13	7	0	807.11	864.11	162.84	o
-12	7	0	577.01	624.32	180.06	<
-11	7	0	2573.09	2026.10	202.06	o
-10	7	0	9213.08	8987.27	410.53	o
-9	7	0	6469.09	6624.24	324.38	o
-8	7	0	38113.30	35809.88	1143.13	o
-7	7	0	34310.70	37214.06	1626.19	o
-6	7	0	5475.39	5134.02	345.71	o
-5	7	0	15915.71	14569.99	719.50	o
-4	7	0	1970.81	2026.10	189.72	o
-3	7	0	2820.06	2317.03	196.52	o
-2	7	0	4797.22	4496.91	296.64	o
-1	7	0	5719.78	5400.68	342.94	o
0	7	0	34573.04	36508.60	1154.23	o
1	7	0	2175.22	2092.80	168.10	o
2	7	0	27162.93	27158.97	934.39	o
3	7	0	6563.85	6387.15	334.66	o
4	7	0	2077.38	2009.59	205.90	o
5	7	0	1183.76	0.00	0.16	<
6	7	0	2414.13	2424.36	237.56	o
7	7	0	2027.04	2334.75	239.40	o
-14	8	0	1219.13	930.13	228.75	<
-13	8	0	7251.62	7049.54	398.29	o
-12	8	0	3264.23	3370.56	277.73	o
-11	8	0	17987.90	18185.30	700.76	o
-10	8	0	8849.95	7329.94	356.20	o
-9	8	0	4654.93	4423.29	260.51	o
-8	8	0	2128.26	2246.82	241.53	o
-7	8	0	2565.64	2741.69	266.81	o
-6	8	0	1605.84	1574.84	188.25	o
-5	8	0	8661.97	8071.35	466.86	o
-4	8	0	23627.46	23197.30	1077.04	o
-3	8	0	35208.52	37926.28	1641.68	o
-2	8	0	5718.07	5646.45	362.55	o
-1	8	0	37684.05	36508.60	1610.70	o
0	8	0	2259.28	2229.43	173.50	o
1	8	0	3555.16	3521.55	239.34	o
2	8	0	1353.31	1231.39	178.81	o
3	8	0	1111.88	1105.82	150.41	o
4	8	0	4630.92	4620.96	343.10	o
5	8	0	444.26	690.24	193.07	<
6	8	0	8407.85	9022.14	503.77	o

-14	9	0	8987.96	8438.56	463.65	o	-7	12	0	1390.89	0.00	0.16	<
-13	9	0	1247.29	810.95	147.98	o	-6	12	0	13424.94	15653.90	868.81	o
-12	9	0	423.54	438.67	148.11	<	-5	12	0	564.34	401.03	212.42	<
-11	9	0	956.42	907.85	177.28	o	-4	12	0	3054.71	3810.72	358.65	o
-10	9	0	2094.34	2194.87	186.72	o	-3	12	0	449.04	169.68	162.27	<
-9	9	0	2526.85	2684.27	301.01	o	-2	12	0	1803.52	2059.31	294.77	o
-8	9	0	3607.34	3720.53	334.11	o	-1	12	0	1015.96	642.82	179.29	<
-7	9	0	27500.52	27951.89	1309.75	o	0	12	0	1198.57	874.94	221.86	<
-6	9	0	21828.88	24444.86	1148.99	o	-11	13	0	1883.93	1663.54	319.52	o
-5	9	0	4931.79	4398.89	367.40	o	-10	13	0	418.03	0.00	0.16	<
-4	9	0	17976.14	17742.08	879.05	o	-9	13	0	4063.94	4472.30	434.40	o
-3	9	0	88.61	192.92	127.59	<	-8	13	0	526.94	47.97	157.84	<
-2	9	0	6208.33	6594.37	435.24	o	-7	13	0	2205.12	2424.36	310.28	o
-1	9	0	4756.27	4925.56	361.11	o	-6	13	0	830.74	624.32	237.06	<
0	9	0	2414.50	2160.58	192.16	o	-5	13	0	7337.80	6654.18	521.78	o
1	9	0	6181.70	5536.54	315.71	o	-4	13	0	1219.94	99.16	190.22	<
2	9	0	1658.38	1708.81	201.19	o	-3	13	0	1422.67	1864.08	299.81	o
3	9	0	20769.58	21765.04	868.04	o	-2	13	0	14760.80	16070.40	931.62	o
4	9	0	4170.39	4040.92	317.86	o	-10	14	0	589.03	680.62	265.87	<
5	9	0	525.86	642.82	186.32	<	-9	14	0	572.85	494.20	294.37	<
-14	10	0	617.42	680.62	159.77	<	-8	14	0	8558.62	8574.12	680.49	o
-13	10	0	1289.23	1432.40	196.67	o	-7	14	0	2009.76	3017.66	356.82	o
-12	10	0	1769.28	1693.65	205.78	o	-6	14	0	1205.56	874.94	280.63	<
-11	10	0	2273.01	2143.53	207.84	o	-5	14	0	9038.74	9517.38	665.66	o
-10	10	0	22399.88	23085.51	1190.29	o	-4	14	0	620.29	0.00	0.16	<
-9	10	0	6071.17	5160.38	481.92	o	0	0	1	3913.35	5454.82	276.98	o
-8	10	0	1033.32	1069.47	212.42	o	-1	1	1	15026.06	15424.88	465.77	o
-7	10	0	6488.35	7267.16	508.14	o	0	1	1	15238.53	16919.79	366.58	o
-6	10	0	630.73	699.93	169.22	<	1	1	1	43672.40	43867.02	906.98	o
-5	10	0	2314.38	2076.02	246.85	o	-3	2	1	30348.92	30655.92	653.23	o
-4	10	0	2817.16	3478.07	300.51	o	-2	2	1	33529.63	33754.25	995.36	o
-3	10	0	9194.35	9517.38	566.79	o	-1	2	1	43591.30	42341.33	1226.55	o
-2	10	0	8680.71	7488.08	484.89	o	0	2	1	32866.33	35117.92	734.04	o
-1	10	0	2018.05	1976.78	246.29	o	1	2	1	8668.85	9661.31	233.13	o
0	10	0	22888.34	22475.47	840.07	o	2	2	1	4422.28	4521.58	138.12	o
1	10	0	2934.23	2878.02	261.10	o	-5	3	1	13486.02	13912.29	332.41	o
2	10	0	1771.43	1574.84	236.55	o	-4	3	1	53549.61	55302.96	1144.54	o
3	10	0	347.28	0.00	0.16	<	-3	3	1	12940.87	13227.48	426.89	o
4	10	0	470.10	810.95	201.38	<	-2	3	1	6503.55	9410.14	312.62	o
-13	11	0	14758.07	14658.83	642.13	o	-1	3	1	30215.27	30849.22	921.97	o
-12	11	0	1019.64	486.06	168.92	<	0	3	1	13392.70	13696.43	311.98	o
-11	11	0	665.42	203.78	207.34	<	1	3	1	2758.08	2780.30	100.73	o
-10	11	0	3181.94	2760.96	341.31	o	2	3	1	63788.76	58813.41	1224.04	o
-9	11	0	1484.54	1502.77	260.06	o	3	3	1	15614.35	15562.09	374.27	o
-8	11	0	1024.33	1081.52	228.37	o	-7	4	1	21928.60	22146.16	521.37	o
-7	11	0	1943.19	2042.67	269.40	o	-6	4	1	448.63	415.89	54.36	o
-6	11	0	14494.54	14569.99	809.77	o	-5	4	1	2088.20	2092.80	92.53	o
-5	11	0	6099.53	5729.58	424.15	o	-4	4	1	44873.43	43867.03	1300.86	o
-4	11	0	2271.19	2627.46	287.23	o	-3	4	1	2883.11	2646.33	127.44	o
-3	11	0	17899.17	18086.34	951.02	o	-2	4	1	4512.73	4301.95	174.84	o
-2	11	0	1071.12	1377.31	215.62	o	-1	4	1	53091.96	54442.23	1592.07	o
-1	11	0	2590.17	2370.39	276.04	o	0	4	1	44678.31	43100.80	911.78	o
0	11	0	594.15	502.40	158.50	<	1	4	1	23241.55	21710.87	494.24	o
1	11	0	186.54	344.33	156.42	<	2	4	1	1634.89	1848.25	94.41	o
2	11	0	1894.64	2442.49	256.82	o	3	4	1	810.90	719.51	68.01	o
-12	12	0	1277.66	821.44	229.81	<	4	4	1	9294.81	8952.47	266.65	o
-11	12	0	205.47	401.03	232.69	<	-9	5	1	119.56	108.90	85.74	<
-10	12	0	1737.49	2126.55	338.89	o	-8	5	1	1647.51	1604.14	104.06	o
-9	12	0	20791.98	25255.78	1305.75	o	-7	5	1	33631.13	32219.41	723.96	o
-8	12	0	4378.69	4746.69	416.19	o	-6	5	1	3444.67	3434.87	131.06	o

-5	5	1	1697.58	1574.84	108.69	o	-4	8	1	8620.23	8337.60	338.92	o
-4	5	1	23153.76	22475.47	705.32	o	-3	8	1	1436.92	1404.72	120.79	o
-3	5	1	64078.76	59707.89	1727.94	o	-2	8	1	3171.94	2858.34	179.33	o
-2	5	1	14389.42	13185.25	439.89	o	-1	8	1	621.31	624.32	113.01	o
-1	5	1	2108.24	2126.55	122.93	o	0	8	1	3627.62	3328.03	158.00	o
0	5	1	1384.84	1502.77	82.24	o	1	8	1	20643.57	19599.20	514.41	o
1	5	1	5830.78	5400.68	174.31	o	2	8	1	8513.26	8438.56	296.04	o
2	5	1	1022.98	832.01	71.46	o	3	8	1	2897.41	3370.56	187.10	o
3	5	1	37274.46	36508.60	827.42	o	4	8	1	564.60	544.42	114.57	o
4	5	1	5831.88	6039.61	225.76	o	5	8	1	6690.69	7392.99	315.94	o
5	5	1	5228.60	4848.49	202.27	o	6	8	1	3370.78	3698.15	235.54	o
-11	6	1	806.93	759.47	101.77	o	-14	9	1	378.48	454.20	140.65	<
-10	6	1	25385.76	25725.10	631.85	o	-13	9	1	1350.48	1404.72	137.72	o
-9	6	1	6018.53	5618.87	211.25	o	-12	9	1	8609.31	7744.61	295.19	o
-8	6	1	2973.24	2878.02	136.03	o	-11	9	1	7372.23	6896.13	267.62	o
-7	6	1	10680.38	10585.33	289.95	o	-10	9	1	3297.46	2897.77	156.37	o
-6	6	1	29688.09	28013.36	887.68	o	-9	9	1	6198.21	6096.86	324.86	o
-5	6	1	5497.61	5293.21	234.47	o	-8	9	1	20192.03	20853.24	750.41	o
-4	6	1	2093.55	1911.98	123.23	o	-7	9	1	3378.69	3370.56	215.49	o
-3	6	1	16043.95	15107.09	501.81	o	-6	9	1	1028.90	1093.64	131.80	o
-2	6	1	192.14	290.06	66.71	<	-5	9	1	5582.25	5107.73	266.64	o
-1	6	1	3579.77	3587.27	179.69	o	-4	9	1	57.87	84.39	93.62	<
0	6	1	28652.63	28321.71	641.23	o	-3	9	1	5791.61	5701.80	281.72	o
1	6	1	31999.40	30143.39	687.92	o	-2	9	1	11688.11	11394.12	449.91	o
2	6	1	10204.35	9625.23	285.00	o	-1	9	1	17084.07	16872.03	616.17	o
3	6	1	826.56	739.35	101.45	o	0	9	1	5957.34	6154.38	235.36	o
4	6	1	7640.31	8104.40	279.57	o	1	9	1	758.76	896.82	100.45	o
5	6	1	5718.08	6154.38	252.82	o	2	9	1	4967.31	5213.31	242.19	o
6	6	1	1486.33	1678.57	161.40	o	3	9	1	2806.13	3037.88	202.53	o
-13	7	1	7700.02	7744.61	308.32	o	4	9	1	1818.85	1770.11	171.77	o
-12	7	1	6855.04	7392.99	277.10	o	5	9	1	5178.99	5646.45	280.35	o
-11	7	1	1583.94	1739.32	129.52	o	-13	10	1	2009.40	1879.98	159.32	o
-10	7	1	7539.16	7488.08	259.62	o	-12	10	1	5491.77	5400.68	236.84	o
-9	7	1	11812.88	11121.22	327.50	o	-11	10	1	5304.42	4571.14	217.89	o
-8	7	1	607.32	652.17	79.31	o	-10	10	1	527.40	842.64	140.06	o
-7	7	1	1298.06	1531.40	143.79	o	-9	10	1	779.73	800.52	173.27	o
-6	7	1	30927.81	29952.30	958.70	o	-8	10	1	8848.89	8987.27	422.43	o
-5	7	1	1047.81	1155.24	105.55	o	-7	10	1	4241.08	4645.97	265.48	o
-4	7	1	835.45	652.17	79.31	o	-6	10	1	7675.71	8472.35	380.52	o
-3	7	1	23167.63	20800.21	678.52	o	-5	10	1	4920.89	4848.49	259.78	o
-2	7	1	32629.22	32219.41	1005.82	o	-4	10	1	25908.03	25372.70	862.98	o
-1	7	1	10610.72	10322.35	393.52	o	-3	10	1	8196.21	8071.35	360.19	o
0	7	1	1529.13	1193.01	89.74	o	-2	10	1	1138.92	1057.49	128.85	o
1	7	1	2393.69	2246.82	129.82	o	-1	10	1	3040.73	3264.75	226.40	o
2	7	1	2738.48	2997.51	154.29	o	0	10	1	767.44	759.47	123.71	o
3	7	1	4097.52	4182.29	194.02	o	1	10	1	4842.12	5081.50	249.74	o
4	7	1	15202.68	16257.26	473.27	o	2	10	1	5979.75	5701.80	277.46	o
5	7	1	2703.03	2897.77	180.57	o	3	10	1	1377.00	810.95	157.75	o
6	7	1	909.13	800.52	127.97	o	-13	11	1	43.21	69.88	82.09	<
7	7	1	354.35	438.67	157.09	<	-12	11	1	1121.91	1283.51	133.66	o
-14	8	1	810.12	699.93	140.31	o	-11	11	1	7102.20	7583.77	399.99	o
-13	8	1	5435.65	5107.73	250.39	o	-10	11	1	4777.03	5319.97	325.01	o
-12	8	1	2457.40	2388.32	163.93	o	-9	11	1	5100.12	5813.33	342.27	o
-11	8	1	464.17	256.07	103.94	<	-8	11	1	3210.35	3119.43	233.88	o
-10	8	1	1130.35	1093.64	106.58	o	-7	11	1	15358.83	17015.52	652.26	o
-9	8	1	17192.79	16351.10	428.92	o	-6	11	1	5325.09	5954.25	321.04	o
-8	8	1	3432.22	3456.44	218.22	o	-5	11	1	736.92	769.63	136.22	o
-7	8	1	2032.38	2460.68	173.79	o	-4	11	1	1731.84	1678.57	168.31	o
-6	8	1	9775.35	9268.11	381.45	o	-3	11	1	469.15	315.63	104.53	<
-5	8	1	36824.02	37214.06	1165.32	o	-2	11	1	7104.19	6896.13	352.34	o



-1	11	1	4984.20	4620.96	290.37	o	2	4	2	45666.71	50239.83	1090.89	o
0	11	1	7218.20	7744.61	295.19	o	3	4	2	1807.76	1693.65	109.71	o
1	11	1	3770.29	3698.15	223.45	o	4	4	2	15378.77	15977.37	423.99	o
2	11	1	723.49	454.20	142.97	<	-9	5	2	11942.78	12975.13	382.08	o
-12	12	1	3961.27	4721.41	325.95	o	-8	5	2	23175.79	24444.86	595.73	o
-11	12	1	3594.30	4350.28	315.52	o	-7	5	2	4642.08	4326.08	170.89	o
-10	12	1	5998.36	5674.09	357.33	o	-6	5	2	347.03	415.89	65.72	o
-9	12	1	2802.69	2917.58	248.09	o	-5	5	2	3223.79	3119.43	179.99	o
-8	12	1	490.27	386.45	154.00	<	-4	5	2	685.35	690.24	92.04	o
-7	12	1	2780.53	2571.26	238.56	o	-3	5	2	3582.03	3631.42	187.14	o
-6	12	1	1535.12	1618.89	181.98	o	-2	5	2	8262.80	8038.37	314.11	o
-5	12	1	7118.26	7173.49	371.97	o	-1	5	2	82395.20	98700.81	2885.99	o
-4	12	1	2802.36	2780.30	231.57	o	0	5	2	3352.05	3243.78	141.09	o
-3	12	1	8494.11	8779.48	427.04	o	1	5	2	14244.69	13312.13	358.31	o
-2	12	1	5344.86	5591.36	328.40	o	2	5	2	9501.99	9092.08	276.99	o
-1	12	1	1199.28	1205.74	166.11	o	3	5	2	6871.44	7111.38	253.00	o
0	12	1	4073.22	4301.95	229.79	o	4	5	2	3917.88	4620.96	203.95	o
-11	13	1	775.86	300.16	183.77	<	5	5	2	1723.41	1944.24	142.10	o
-10	13	1	1394.30	1021.94	190.55	o	-11	6	2	4059.27	3349.27	194.12	o
-9	13	1	1714.72	1560.29	216.37	o	-10	6	2	2723.53	2608.66	164.60	o
-8	13	1	6641.65	7267.16	407.80	o	-9	6	2	108.06	89.18	70.83	<
-7	13	1	722.19	749.38	159.04	o	-8	6	2	4285.97	4671.05	187.18	o
-6	13	1	7750.64	8337.60	426.11	o	-7	6	2	3108.69	3078.52	140.69	o
-5	13	1	5221.28	5618.87	331.58	o	-6	6	2	4446.69	4134.90	225.28	o
-4	13	1	1309.66	1244.32	174.77	o	-5	6	2	14220.73	13782.57	494.83	o
-3	13	1	2024.81	2042.67	216.21	o	-4	6	2	45618.66	51900.54	1554.47	o
-2	13	1	46.42	0.00	0.16	<	-3	6	2	3620.96	3456.44	189.47	o
-9	14	1	5133.17	5400.68	364.11	o	-2	6	2	12800.07	12192.07	445.34	o
-8	14	1	3730.52	3720.53	282.38	o	-1	6	2	435.79	494.20	86.10	o
-7	14	1	422.94	709.68	230.72	<	0	6	2	4379.54	4277.88	165.84	o
-6	14	1	687.72	896.82	191.55	o	1	6	2	4595.84	4596.01	180.72	o
-5	14	1	278.43	379.26	184.76	<	2	6	2	1179.23	1021.94	107.23	o
0	0	2	226519.55	202609.89	8168.32	o	3	6	2	14546.32	16023.85	443.49	o
-1	1	2	5.56	91.27	67.56	<	4	6	2	856.66	810.95	107.93	o
0	1	2	8.50	143.05	58.21	<	5	6	2	10302.54	10623.17	361.10	o
1	1	2	2197.72	2334.75	94.90	o	6	6	2	9545.97	10099.58	369.27	o
-3	2	2	4141.58	4253.88	143.22	o	-13	7	2	845.56	918.96	127.77	o
-2	2	2	634.95	699.93	72.46	o	-12	7	2	634.37	597.08	128.27	o
-1	2	2	2224.61	2571.26	131.75	o	-11	7	2	1962.57	2388.32	163.93	o
0	2	2	681.77	800.52	61.05	o	-10	7	2	6008.70	6039.61	241.34	o
1	2	2	101110.23	123138.88	2528.75	o	-9	7	2	5349.27	5454.82	214.55	o
2	2	2	41.88	151.98	66.07	<	-8	7	2	25611.70	24964.64	611.98	o
-5	3	2	8234.48	8472.35	245.37	o	-7	7	2	22713.56	24387.45	828.24	o
-4	3	2	3649.59	3698.15	135.99	o	-6	7	2	4772.72	4182.29	237.63	o
-3	3	2	9623.13	9589.21	343.08	o	-5	7	2	9604.61	9268.11	372.88	o
-2	3	2	100966.98	121852.84	3557.46	o	-4	7	2	1780.50	1960.48	155.12	o
-1	3	2	4163.80	4182.29	187.86	o	-3	7	2	2452.21	2160.58	149.80	o
0	3	2	9699.15	9915.78	258.73	o	-2	7	2	4347.10	4111.30	224.64	o
1	3	2	1330.50	1323.30	77.17	o	-1	7	2	3335.41	3306.87	192.89	o
2	3	2	3859.22	3587.27	136.49	o	0	7	2	22860.10	25489.89	618.38	o
3	3	2	3826.07	3587.27	148.38	o	1	7	2	1826.00	2009.59	130.22	o
-7	4	2	2206.59	2424.36	124.85	o	2	7	2	18580.50	18734.45	508.04	o
-6	4	2	12707.73	12975.13	341.75	o	3	7	2	4392.35	4229.95	201.98	o
-5	4	2	82692.93	98700.81	2040.70	o	4	7	2	2003.48	2009.59	168.12	o
-4	4	2	10115.68	9989.10	370.97	o	5	7	2	959.35	1130.40	134.00	o
-3	4	2	1383.75	1377.31	101.64	o	6	7	2	2051.92	2042.67	176.03	o
-2	4	2	141.04	148.82	75.77	<	-13	8	2	5038.18	5134.02	251.03	o
-1	4	2	3530.27	3720.53	177.19	o	-12	8	2	2835.39	2460.68	173.79	o
0	4	2	10399.46	9989.10	266.43	o	-11	8	2	12842.43	12395.78	390.06	o
1	4	2	596.34	671.07	65.69	o	-10	8	2	5971.16	4874.11	216.81	o

-9	8	2	3925.81	3901.99	181.46	o	0	11	2	587.04	597.08	132.38	o
-8	8	2	1295.88	1390.98	146.09	o	1	11	2	80.95	48.74	77.35	<
-7	8	2	2129.74	1816.79	169.88	o	-11	12	2	88.98	237.04	146.07	<
-6	8	2	1094.18	1118.08	127.41	o	-10	12	2	1597.68	1205.74	199.26	o
-5	8	2	7176.53	6774.61	310.29	o	-9	12	2	15025.25	16824.33	687.93	o
-4	8	2	15245.36	15242.88	554.23	o	-8	12	2	3019.64	3202.06	261.96	o
-3	8	2	23234.03	24675.20	824.57	o	-7	12	2	1122.15	842.64	177.77	o
-2	8	2	4645.42	4797.46	254.51	o	-6	12	2	9512.42	9661.31	466.27	o
-1	8	2	25364.57	25022.73	847.84	o	-5	12	2	618.54	570.45	133.83	<
0	8	2	1405.82	1309.97	112.40	o	-4	12	2	2657.71	2388.32	221.04	o
1	8	2	3330.12	3499.78	177.49	o	-3	12	2	507.22	325.50	130.01	<
2	8	2	1162.67	1021.94	117.46	o	-2	12	2	1119.86	964.06	155.26	o
3	8	2	908.40	1057.49	126.66	o	-1	12	2	625.31	680.62	130.45	o
4	8	2	3205.61	2858.34	187.31	o	-9	13	2	2854.10	2838.73	271.49	o
5	8	2	479.95	832.01	158.00	o	-8	13	2	554.11	423.41	183.38	<
-13	9	2	792.26	553.03	140.18	<	-7	13	2	1889.90	2281.79	232.48	o
-12	9	2	496.05	372.14	118.14	<	-6	13	2	869.62	661.58	189.02	<
-11	9	2	770.71	832.01	124.05	o	-5	13	2	5104.98	5481.99	337.45	o
-10	9	2	1734.84	1678.57	143.54	o	-4	13	2	773.23	323.51	137.81	<
-9	9	2	1487.57	1879.98	189.08	o	0	0	3	745.46	832.01	129.49	o
-8	9	2	3386.23	3901.99	250.44	o	-1	1	3	6204.27	6475.55	281.93	o
-7	9	2	18814.70	18835.17	692.69	o	0	1	3	6268.81	6475.55	199.35	o
-6	9	2	14815.60	16539.58	620.50	o	1	1	3	18997.87	19240.77	465.28	o
-5	9	2	3957.52	3948.03	239.41	o	-3	2	3	12370.46	13227.48	357.16	o
-4	9	2	12042.80	11354.93	458.27	o	-2	2	3	13984.24	13739.46	487.68	o
-3	9	2	43.01	208.00	105.99	<	-1	2	3	18875.50	18483.83	619.63	o
-2	9	2	5161.34	5160.38	276.70	o	0	2	3	13661.15	14658.83	375.99	o
-1	9	2	4034.73	4017.60	238.95	o	1	2	3	1906.20	1693.65	97.61	o
0	9	2	1406.19	1350.17	135.02	o	2	2	3	1344.75	1574.84	98.31	o
1	9	2	4122.55	3565.29	185.43	o	-5	3	3	5210.93	5591.36	204.79	o
2	9	2	1499.85	1531.40	143.79	o	-4	3	3	22596.35	24330.10	578.97	o
3	9	2	15007.27	15977.37	497.95	o	-3	3	3	4484.46	5003.22	247.81	o
4	9	2	2935.85	3434.87	220.95	o	-2	3	3	1322.07	1976.78	143.29	o
-12	10	2	1098.09	907.85	128.70	o	-1	3	3	12278.19	13269.77	482.37	o
-11	10	2	2013.39	2109.64	160.92	o	0	3	3	4606.69	4925.56	177.96	o
-10	10	2	16086.28	16539.58	668.30	o	1	3	3	1033.85	1105.82	91.08	o
-9	10	2	4052.91	3675.84	268.19	o	2	3	3	29854.96	29825.26	696.54	o
-8	10	2	934.62	907.85	147.95	o	3	3	3	7720.01	8337.60	265.25	o
-7	10	2	4321.98	4350.28	279.85	o	-7	4	3	11058.50	11909.72	351.70	o
-6	10	2	752.89	709.68	110.84	o	-6	4	3	58.47	231.97	72.86	<
-5	10	2	1972.51	1976.78	183.81	o	-5	4	3	455.58	510.67	83.88	o
-4	10	2	2698.15	2665.27	204.56	o	-4	4	3	20750.74	21387.23	724.59	o
-3	10	2	5996.11	6241.16	318.63	o	-3	4	3	1007.25	1142.78	113.39	o
-2	10	2	5858.43	4746.69	281.29	o	-2	4	3	1428.60	1663.54	136.81	o
-1	10	2	1686.26	1785.60	186.92	o	-1	4	3	22267.98	22751.75	761.31	o
0	10	2	16436.32	16919.79	492.98	o	0	4	3	20673.96	21602.72	514.93	o
1	10	2	1995.00	2143.53	162.20	o	1	4	3	10177.41	10434.65	306.47	o
2	10	2	1628.79	1488.56	160.52	o	2	4	3	385.63	510.67	110.96	o
-12	11	2	631.37	358.10	111.34	<	3	4	3	344.71	358.10	94.62	<
-11	11	2	642.53	719.51	169.03	<	4	4	3	3734.94	3810.72	185.20	o
-10	11	2	2188.56	1879.98	229.96	o	-9	5	3	332.67	137.39	104.46	<
-9	11	2	1359.30	1754.68	202.11	o	-8	5	3	545.43	477.99	90.96	o
-8	11	2	841.92	842.64	166.58	o	-7	5	3	18614.61	18483.83	499.56	o
-7	11	2	1886.88	1693.65	186.14	o	-6	5	3	1852.67	1770.11	115.23	o
-6	11	2	10114.60	10509.86	470.87	o	-5	5	3	565.77	527.41	103.09	o
-5	11	2	4101.30	4206.08	260.01	o	-4	5	3	10175.97	9989.10	400.70	o
-4	11	2	1723.12	1724.03	189.24	o	-3	5	3	30030.94	30143.39	972.87	o
-3	11	2	12779.82	12891.56	538.61	o	-2	5	3	5641.45	5536.54	273.41	o
-2	11	2	857.18	769.63	131.60	o	-1	5	3	460.43	325.50	97.74	<
-1	11	2	2268.49	2092.80	202.36	o	0	5	3	504.58	535.88	77.65	o

1	5	3	2133.01	2281.79	130.83	o	-7	9	3	1258.55	719.51	123.20	o
2	5	3	880.72	821.44	100.41	o	-6	9	3	273.86	303.35	155.22	<
3	5	3	19749.91	20588.78	543.81	o	-5	9	3	3028.77	2838.73	212.35	o
4	5	3	3105.33	3264.74	184.14	o	-4	9	3	195.33	207.47	121.42	<
5	5	3	2508.20	2246.82	159.00	o	-3	9	3	3404.89	3139.99	227.38	o
-11	6	3	293.15	446.40	139.44	<	-2	9	3	6239.56	6270.22	331.58	o
-10	6	3	14410.42	14569.99	448.03	o	-1	9	3	9927.26	9842.74	455.68	o
-9	6	3	3504.18	3264.74	177.44	o	0	9	3	2675.55	2424.36	165.16	o
-8	6	3	1211.11	1323.30	117.23	o	1	9	3	315.43	290.06	114.26	<
-7	6	3	4719.68	4696.19	199.07	o	2	9	3	2753.26	2534.13	187.81	o
-6	6	3	15735.59	15242.88	576.15	o	-11	10	3	3008.85	2589.93	178.30	o
-5	6	3	1967.96	2126.55	169.45	o	-10	10	3	111.06	126.84	114.77	<
-4	6	3	546.15	351.18	107.54	<	-9	10	3	333.20	415.89	156.25	<
-3	6	3	7904.67	7235.86	325.87	o	-8	10	3	5236.08	5160.38	329.95	o
-2	6	3	57.28	216.03	97.00	<	-7	10	3	2935.27	2515.67	223.49	o
-1	6	3	1785.86	1693.65	154.34	o	-6	10	3	4249.04	5107.73	320.83	o
0	6	3	15368.16	16539.58	450.57	o	-5	10	3	2372.32	2460.68	210.47	o
1	6	3	16345.05	16070.40	444.13	o	-4	10	3	14752.28	15061.96	602.62	o
2	6	3	4507.29	4040.92	190.72	o	-3	10	3	3759.89	3521.55	248.49	o
3	6	3	200.22	212.26	103.03	<	-2	10	3	477.63	264.37	140.82	<
4	6	3	4257.47	4496.91	224.94	o	-1	10	3	1362.70	1033.72	178.10	o
5	6	3	2588.63	2478.95	182.95	o	0	10	3	200.89	307.85	113.97	<
6	6	3	1256.49	1231.39	137.45	o	1	10	3	3306.13	3631.42	221.43	o
-12	7	3	4266.86	3971.15	231.55	o	-10	11	3	3272.22	2897.77	255.36	o
-11	7	3	620.46	624.32	140.01	<	-9	11	3	2828.63	3285.77	263.28	o
-10	7	3	3410.96	2997.51	191.81	o	-8	11	3	1407.28	1545.81	210.73	o
-9	7	3	6312.06	5785.34	236.21	o	-7	11	3	8981.95	9517.38	462.78	o
-8	7	3	66.40	212.26	103.03	<	-6	11	3	2381.29	2143.53	203.33	o
-7	7	3	306.05	238.17	115.75	<	-5	11	3	268.25	113.55	134.30	<
-6	7	3	15744.64	15699.91	594.38	o	-4	11	3	687.93	652.17	126.53	o
-5	7	3	879.42	918.96	128.62	o	-3	11	3	450.16	494.20	134.29	<
-4	7	3	392.63	130.17	121.02	<	-2	11	3	4486.53	3924.98	271.30	o
-3	7	3	11632.93	11276.75	456.69	o	-1	11	3	2830.50	2799.71	232.38	o
-2	7	3	18051.76	17693.17	641.78	o	-7	12	3	1512.98	1377.31	194.81	o
-1	7	3	4623.99	4746.69	265.38	o	-6	12	3	1297.06	1663.54	207.83	o
0	7	3	406.92	75.20	79.66	<	-5	12	3	4429.78	3994.34	288.04	o
1	7	3	856.38	918.96	106.21	o	0	0	4	64416.47	82144.34	3491.10	o
2	7	3	960.77	1270.37	124.87	o	-1	1	4	170.95	486.06	172.71	<
3	7	3	2785.10	3328.03	211.98	o	0	1	4	175.05	311.73	83.06	<
4	7	3	8918.57	9661.31	361.17	o	1	1	4	1539.39	1604.14	112.87	o
5	7	3	1493.68	1785.60	173.60	o	-3	2	4	2419.54	2741.69	143.41	o
-11	8	3	399.45	454.20	122.30	<	-2	2	4	219.07	188.35	105.15	<
-10	8	3	484.37	408.43	117.41	<	-1	2	4	1557.00	1678.57	155.27	o
-9	8	3	10019.36	9338.99	324.16	o	0	2	4	222.35	344.33	89.53	<
-8	8	3	2347.53	2684.27	222.82	o	1	2	4	34615.50	43100.80	976.72	o
-7	8	3	701.27	790.15	138.02	o	2	2	4	102.90	446.40	107.66	<
-6	8	3	4252.66	4645.97	274.91	o	-5	3	4	1933.50	1693.65	127.80	o
-5	8	3	19551.93	19547.79	712.43	o	-4	3	4	2272.51	2589.93	152.68	o
-4	8	3	3448.97	3434.87	224.52	o	-3	3	4	2272.70	2229.43	177.07	o
-3	8	3	461.39	661.58	147.60	<	-2	3	4	34546.93	42341.33	1357.99	o
-2	8	3	1291.27	1350.17	147.32	o	-1	3	4	2429.35	2957.41	211.81	o
-1	8	3	68.31	97.70	93.78	<	0	3	4	2361.74	2424.36	147.72	o
0	8	3	2526.93	2442.49	159.27	o	1	3	4	276.44	118.30	87.21	<
1	8	3	11617.95	11198.85	370.75	o	2	3	4	2951.65	3139.99	168.12	o
2	8	3	5037.39	5160.38	240.96	o	3	3	4	2384.95	2646.33	159.75	o
3	8	3	1245.35	1418.52	156.70	o	-7	4	4	1591.61	1517.05	136.46	o
-11	9	3	4669.25	4277.88	219.39	o	-6	4	4	3845.88	3765.49	184.10	o
-10	9	3	1488.41	1296.70	126.16	o	-5	4	4	28131.73	32949.01	791.56	o
-9	9	3	2803.48	2442.49	232.51	o	-4	4	4	4852.49	4951.38	272.54	o
-8	9	3	11416.37	11829.65	524.77	o	-3	4	4	234.94	68.35	87.70	<



-2	4	4	126.08	0.00	0.16	<	-8	9	4	2340.54	2352.54	236.06	o
-1	4	4	2204.55	2703.34	202.51	o	-7	9	4	7240.41	7939.84	426.26	o
0	4	4	4994.47	5239.88	217.17	o	-6	9	4	5619.76	5319.97	332.42	o
1	4	4	238.66	415.89	141.61	<	-5	9	4	2181.28	2646.33	221.24	o
2	4	4	16598.43	17987.64	497.82	o	-4	9	4	4457.38	4087.77	280.79	o
3	4	4	1226.27	1180.35	120.37	o	-3	9	4	114.70	292.57	152.43	<
4	4	4	5264.25	5646.45	252.05	o	-2	9	4	3011.16	2684.27	236.13	o
-9	5	4	4459.69	4398.89	232.36	o	-1	9	4	2404.54	2406.31	210.96	o
-8	5	4	8509.86	8038.37	300.74	o	-6	10	4	706.51	749.38	175.10	<
-7	5	4	2994.94	2741.69	168.75	o	-5	10	4	1273.96	1010.23	157.48	o
-6	5	4	92.53	494.20	132.51	<	-4	10	4	1898.36	2246.82	214.39	o
-5	5	4	2069.55	2109.64	184.14	o	0	0	5	50.71	0.00	0.16	<
-4	5	4	261.76	111.60	122.75	<	-1	1	5	1925.14	1976.78	187.40	o
-3	5	4	2818.27	3058.17	209.59	o	0	1	5	1947.88	1739.32	134.40	o
-2	5	4	1937.19	1770.11	172.84	o	1	1	5	6164.35	6241.16	254.60	o
-1	5	4	28041.17	33754.25	1125.14	o	-3	2	5	3842.49	3328.03	179.15	o
0	5	4	2135.88	2406.31	147.17	o	-2	2	5	4409.83	3675.84	262.55	o
1	5	4	4729.73	4423.29	214.34	o	-1	2	5	6085.31	5618.87	307.95	o
2	5	4	2827.21	2819.19	171.11	o	0	2	5	4297.50	4087.77	198.55	o
3	5	4	3969.44	3856.22	217.56	o	1	2	5	267.83	200.13	93.36	<
4	5	4	2181.65	2334.75	169.28	o	2	2	5	376.30	393.71	109.91	<
5	5	4	1148.61	1093.64	158.20	o	-5	3	5	1381.36	1363.71	135.69	o
-10	6	4	1919.35	1545.81	155.78	o	-4	3	5	7005.72	6926.68	279.17	o
-9	6	4	137.89	218.74	106.58	<	-3	3	5	1179.30	998.59	156.57	o
-8	6	4	2447.52	2665.27	166.38	o	-2	3	5	185.40	260.80	129.49	<
-7	6	4	813.69	821.44	106.38	o	-1	3	5	3793.79	3765.49	265.73	o
-6	6	4	2807.92	2722.48	225.95	o	0	3	5	1211.41	1309.97	132.99	o
-5	6	4	4786.37	4521.58	283.42	o	1	3	5	406.97	633.53	103.40	o
-4	6	4	16577.59	17987.64	676.93	o	2	3	5	9898.19	8745.08	313.68	o
-3	6	4	2319.71	1993.15	177.93	o	3	3	5	2659.26	2092.80	168.10	o
-2	6	4	3868.02	3971.15	255.71	o	-6	4	5	43.68	177.91	104.49	<
-1	6	4	118.61	58.41	96.33	<	-5	4	5	34.26	46.96	75.92	<
0	6	4	2808.51	2838.73	171.71	o	-4	4	5	6898.63	6835.24	379.74	o
1	6	4	2830.46	2703.34	174.40	o	-3	4	5	350.39	334.18	116.93	<
2	6	4	596.77	652.17	115.51	o	-2	4	5	411.23	351.18	137.72	<
3	6	4	5535.72	5813.33	267.12	o	-1	4	5	6856.81	7018.72	367.94	o
4	6	4	765.77	907.85	133.28	o	0	4	5	6872.79	6714.26	274.85	o
-9	7	4	3102.64	2878.02	179.95	o	1	4	5	3112.56	2799.71	177.48	o
-8	7	4	9577.64	9162.29	335.35	o	2	4	5	42.65	148.82	108.72	<
-7	7	4	8409.40	9232.77	452.06	o	-6	5	5	802.00	624.32	132.52	o
-6	7	4	2917.47	3349.27	239.25	o	-5	5	5	157.80	262.58	165.14	<
-5	7	4	2933.37	2858.34	222.44	o	-4	5	5	3135.31	3058.17	241.15	o
-4	7	4	1232.29	1105.82	156.45	o	-3	5	5	9985.18	9842.74	455.68	o
-3	7	4	1688.14	1801.16	181.28	o	-2	5	5	1527.42	1257.31	166.82	o
-2	7	4	2841.37	2703.34	217.72	o	-1	5	5	34.45	10.94	56.05	<
-1	7	4	909.15	633.53	150.03	<	0	5	5	174.78	194.45	83.12	<
0	7	4	8433.45	8642.30	311.83	o	1	5	5	496.80	588.13	142.69	<
1	7	4	1179.34	1118.08	127.41	o	-5	6	5	454.31	393.71	155.44	<
2	7	4	7147.97	6896.13	305.14	o	-4	6	5	68.75	176.44	118.38	<
-9	8	4	2315.73	2212.12	157.76	o	-3	6	5	2717.06	2264.27	208.98	o
-8	8	4	433.04	202.74	139.83	<	-2	6	5	100.53	10.46	54.23	<
-7	8	4	1324.85	1323.30	194.97	o	-1	6	5	717.73	853.34	153.34	o
-6	8	4	562.50	699.93	159.82	<							
-5	8	4	4140.82	3742.97	257.87	o							
-4	8	4	5194.36	4874.11	300.25	o							
-3	8	4	8555.67	8813.94	421.45	o							
-2	8	4	2602.37	2160.58	202.70	o							
-1	8	4	9522.80	9952.41	458.21	o							
0	8	4	494.12	328.16	112.51	<							
1	8	4	2304.45	2126.55	171.17	o							