

Alpha Per F5 Ib supergiant

						EW	VT=0.0 abund	
6.00	4932.049	7.685	-1.884	0.00	-4.32	0.00	86.2	8.46
6.00	6655.517	8.537	-1.370	0.00	0.00	0.00	27.0	7.80
12.00	4571.096	0.000	-5.691	2.34	0.00	-6.97	54.8	7.35
12.00	4702.991	4.346	-0.666	8.72	-3.98	-6.69	259.1	8.70
12.00	5528.405	4.346	-0.620	8.72	-4.46	-6.98	248.4	8.55
12.00	5711.088	4.346	-1.833	8.71	0.00	0.00	57.7	7.41
14.00	5665.555	4.920	-2.040	8.53	-4.57	-7.30	34.7	7.72
14.00	5772.146	5.082	-1.750	8.62	-4.12	-7.23	44.7	7.78
14.00	5793.073	4.930	-2.060	8.53	-4.37	-7.31	55.5	8.17
14.00	6125.021	5.614	-1.464	7.90	-4.06	-7.13	54.0	8.15
14.00	6155.134	5.619	-0.754	7.90	-3.16	-7.13	57.9	7.48
14.00	6237.319	5.614	-0.975	7.91	-2.72	-7.13	46.5	7.47
14.01	5055.984	10.074	0.593	9.04	-4.78	0.00	52.1	7.21
14.01	6347.109	8.121	0.297	9.09	-5.04	0.00	181.9	7.73
14.01	6371.371	8.121	-0.003	9.08	-5.04	0.00	264.8	8.45
20.00	4283.011	1.886	-0.292	8.17	-6.00	-7.80	160.0	7.85
20.00	4425.437	1.879	-0.358	8.02	-5.61	-7.43	178.0	8.18
20.00	5581.965	2.523	-0.555	7.85	-6.07	-7.63	97.2	7.40
20.00	5588.749	2.526	0.358	7.85	-6.07	-7.63	199.2	7.98
20.00	5590.114	2.521	-0.571	7.85	-6.07	-7.63	72.4	6.65
20.00	5601.277	2.526	-0.523	7.85	-6.07	-7.63	104.2	7.55
20.00	5857.451	2.933	0.240	8.48	-5.42	-7.32	163.7	7.73
20.00	6122.217	1.886	-0.316	7.86	-5.32	-7.19	229.9	8.22
20.00	6162.173	1.899	-0.090	7.86	-5.32	-7.19	260.4	8.09
20.00	6166.439	2.521	-1.142	7.27	-5.00	-7.26	51.2	6.61
20.00	6439.075	2.526	0.390	7.65	-6.07	-7.70	242.5	8.37
20.00	6471.662	2.526	-0.686	7.64	-6.07	-7.70	121.4	8.14
20.00	6499.650	2.523	-0.818	7.64	-6.07	-7.70	80.0	7.10
21.01	4246.822	0.315	0.242	8.16	-6.37	-7.91	372.0	3.47
21.01	4431.352	0.605	-1.969	8.25	-6.68	-7.92	126.0	4.56
21.01	5031.021	1.357	-0.400	8.12	-6.71	-7.90	268.5	4.65
21.01	5239.813	1.455	-0.765	8.12	-6.37	-7.87	206.4	4.75
21.01	5526.790	1.768	0.024	8.33	-6.64	-7.87	284.4	4.32
21.01	5669.042	1.500	-1.200	8.16	-6.60	-7.93	184.8	4.97
22.01	4312.860	1.180	-1.100	8.46	-6.69	-7.91	340.0	5.56
22.01	4394.051	1.221	-1.780	8.47	-6.60	-7.94	257.0	5.87
22.01	4395.839	1.243	-1.930	8.47	-6.55	-7.90	252.0	6.02
22.01	4417.713	1.165	-1.190	8.23	-6.66	-7.93	315.0	5.66
22.01	4421.938	2.061	-1.660	8.41	-6.59	-7.94	201.0	6.31
22.01	4444.555	1.116	-2.240	8.21	-6.72	-7.93	256.0	6.64
22.01	4468.507	1.131	-0.600	8.21	-6.72	-7.93	361.0	5.33
22.01	4493.513	1.080	-3.020	8.44	-6.59	-7.92	145.0	6.50
22.01	4501.270	1.116	-0.770	8.20	-6.73	-7.93	355.0	5.47
22.01	4529.474	1.572	-1.640	8.36	-6.68	-7.89	265.0	6.32
22.01	4563.757	1.221	-0.690	8.22	-6.71	-7.96	280.6	5.23
22.01	4568.314	1.224	-2.940	8.22	-6.47	-7.90	171.1	6.94
22.01	4589.946	1.237	-2.940	8.22	-6.71	-7.96	282.6	7.50
22.01	4609.264	1.180	-3.430	8.20	-6.73	-7.93	131.2	6.99

22.01	4719.515	1.243	-3.280	8.20	-6.47	-7.90	91.6	6.02
22.01	4779.985	2.048	-1.260	8.26	-6.45	-7.94	234.1	6.27
22.01	4911.193	3.124	-0.610	8.31	-6.53	-7.89	156.4	6.00
22.01	5185.902	1.893	-1.490	8.37	-6.53	-7.91	274.7	6.35
22.01	5336.771	1.582	-1.590	8.21	-6.72	-7.95	276.2	6.28
22.01	5418.751	1.582	-2.000	8.20	-6.73	-7.95	201.8	6.33
22.01	5490.690	1.566	-2.430	8.43	-6.61	-7.95	127.9	5.88
22.01	6606.949	2.061	-2.790	8.22	-6.54	-7.94	52.6	4.88
22.01	6680.133	3.095	-1.855	8.38	-6.54	-7.89	39.7	4.58
24.00	4646.162	1.030	-0.700	7.23	-6.30	-7.75	149.8	8.12
24.00	4652.157	1.004	-1.030	7.21	-6.30	-7.75	120.4	7.95
24.00	4718.420	3.195	0.090	7.89	-5.23	-7.24	59.1	6.41
24.00	5787.918	3.322	-0.083	8.00	-4.55	-7.10	40.3	6.05
24.01	4812.337	3.864	-2.125	8.41	-6.63	-7.85	127.8	7.06
24.01	5237.329	4.073	-1.350	8.41	-6.64	-7.78	242.2	7.19
24.01	5305.853	3.827	-2.160	8.41	-6.60	-7.86	168.5	7.36
24.01	5308.408	4.071	-2.058	8.41	-6.64	-7.78	139.1	7.22
24.01	5310.686	4.072	-2.408	8.41	-6.64	-7.78	90.9	6.77
24.01	5313.563	4.074	-1.779	8.41	-6.64	-7.78	197.0	7.38
24.01	5334.869	4.072	-1.826	8.41	-6.64	-7.78	152.6	7.11
24.01	5478.365	4.178	-1.968	8.41	-6.63	-7.84	123.4	6.98
24.01	5510.702	3.827	-2.614	8.36	-6.65	-7.86	102.1	6.97
25.00	4265.923	2.941	-0.270	7.99	-5.93	-7.60	28.0	4.99
25.00	4754.042	2.282	-0.086	8.00	-5.46	-7.66	133.7	7.19
25.00	4783.427	2.298	0.042	8.00	-5.46	-7.66	138.4	7.13
25.00	6021.819	3.075	0.034	7.87	-5.36	-7.62	21.5	4.56
26.00	4157.780	3.417	-0.403	8.05	-4.32	-7.50	157.0	9.02
26.00	4174.913	0.915	-2.969	6.75	-6.15	-7.70	147.0	10.50
26.00	4210.343	2.482	-0.928	8.18	-5.41	-7.25	230.0	9.18
26.00	4250.119	2.469	-0.405	8.18	-5.41	-7.26	245.0	8.69
26.00	4266.964	2.727	-1.812	7.31	-6.22	-7.77	86.0	9.03
26.00	4267.826	3.111	-1.174	8.39	-5.78	-7.64	114.0	8.94
26.00	4285.442	3.237	-1.196	7.97	-6.09	-7.67	106.0	9.24
26.00	4365.896	2.990	-2.250	8.20	-5.85	-7.60	31.0	7.45
26.00	4383.545	1.485	0.200	8.01	-6.08	-7.67	377.0	7.62
26.00	4389.245	0.052	-4.583	4.22	-6.21	-7.80	54.0	7.85
26.00	4433.218	3.654	-0.700	7.91	-4.69	-7.17	125.0	9.34
26.00	4447.717	2.223	-1.342	8.65	-5.89	-7.51	185.0	8.68
26.00	4485.676	3.686	-1.020	7.91	-4.69	-7.17	93.0	9.04
26.00	4504.831	3.266	-2.270	7.84	-5.29	-7.14	36.0	7.87
26.00	4547.847	3.546	-1.012	7.79	-6.13	-7.64	82.3	8.62
26.00	4602.001	1.608	-3.154	8.16	-6.11	-7.67	49.4	7.66
26.00	4602.941	1.485	-2.209	8.16	-6.11	-7.79	188.7	9.31
26.00	4611.279	3.654	-0.457	8.20	-5.17	-7.54	145.2	9.13
26.00	4625.045	3.241	-1.340	7.89	-5.36	-7.18	83.3	8.65
26.00	4643.463	3.654	-1.147	8.36	-5.07	-7.24	89.9	8.83
26.00	4735.843	4.076	-1.325	8.14	-6.03	-7.77	42.9	7.83

26.00	4903.263	4.559	-3.090	8.34	-3.86	-7.29	137.5	12.01
26.00	4903.310	2.882	-0.926	8.18	-5.41	-7.26	137.5	8.75
26.00	4930.315	3.960	-1.201	8.01	-5.47	-7.26	78.3	8.84
26.00	4946.387	3.368	-1.170	7.90	-5.27	-7.20	115.7	9.29
26.00	4950.106	3.417	-1.670	7.90	-5.36	-7.19	93.4	9.32
26.00	4967.897	4.191	-0.487	8.47	-4.01	-7.52	111.5	8.67
26.00	4973.102	3.960	-0.950	8.18	-5.46	-7.26	105.3	9.12
26.00	4994.129	0.915	-3.080	7.24	-6.15	-7.74	138.4	9.72
26.00	5014.942	3.943	-0.303	8.17	-5.57	-7.27	142.6	9.17
26.00	5049.820	2.279	-1.355	8.21	-5.91	-7.59	184.1	9.01
26.00	5074.748	4.220	-0.200	8.38	-4.63	-7.19	137.8	9.03
26.00	5083.338	0.958	-2.958	7.24	-6.15	-7.74	169.3	10.15
26.00	5090.773	4.256	-0.400	8.38	-4.50	-7.17	98.9	8.70
26.00	5133.688	4.178	0.140	8.38	-4.35	-7.23	188.8	8.98
26.00	5141.739	2.424	-1.964	8.20	-5.88	-7.57	60.9	7.54
26.00	5151.911	1.011	-3.322	7.23	-6.15	-7.74	107.9	9.47
26.00	5162.273	4.178	0.020	8.38	-3.96	-7.24	195.6	9.04
26.00	5166.282	0.000	-4.195	3.03	-6.28	-7.83	91.3	8.79
26.00	5198.711	2.223	-2.135	8.23	-6.07	-7.59	92.1	8.52
26.00	5217.389	3.211	-1.070	8.05	-5.38	-7.22	96.2	8.54
26.00	5242.491	3.634	-0.967	7.85	-6.12	-7.58	93.3	8.83
26.00	5251.967	3.573	-3.869	5.78	-6.19	-7.82	33.6	9.63
26.00	5253.462	3.283	-1.573	8.04	-5.38	-7.20	50.0	7.56
26.00	5281.790	3.038	-0.834	8.18	-5.41	-7.27	220.7	9.34
26.00	5288.525	3.694	-1.508	7.73	-6.29	-7.60	36.4	7.45
26.00	5302.300	3.283	-0.720	8.04	-5.42	-7.21	168.7	9.24
26.00	5324.179	3.211	-0.103	8.04	-5.41	-7.24	106.6	7.79
26.00	5339.929	3.266	-0.647	8.04	-5.38	-7.22	153.7	9.03
26.00	5367.466	4.415	0.443	8.32	-4.54	-7.15	197.9	8.96
26.00	5383.369	4.312	0.645	8.30	-4.93	-7.22	224.0	8.85
26.00	5389.479	4.415	-0.410	8.32	-4.63	-7.16	55.4	7.57
26.00	5391.459	4.154	-0.782	8.47	-5.57	-7.53	74.7	8.31
26.00	5400.501	4.371	-0.160	8.31	-5.41	-7.19	124.0	8.98
26.00	5410.910	4.473	0.398	8.27	-4.88	-7.13	190.7	9.08
26.00	5415.199	4.386	0.642	8.30	-4.66	-7.18	223.8	8.89
26.00	5424.068	4.320	0.520	8.33	-4.57	-7.22	261.2	9.07
26.00	5434.524	1.011	-2.122	7.14	-6.22	-7.75	243.2	9.80
26.00	5445.042	4.386	-0.020	8.30	-4.63	-7.19	143.7	9.03
26.00	5466.396	4.371	-0.630	8.31	-4.58	-7.20	4.0	5.82
26.00	5506.779	0.990	-2.797	7.16	-6.22	-7.75	181.1	10.04
26.00	5522.446	4.209	-1.550	8.02	-5.57	-7.26	22.9	7.54
26.00	5543.147	3.695	-1.570	7.11	-6.13	-7.58	39.8	7.60
26.00	5543.936	4.217	-1.140	8.48	-5.57	-7.26	42.2	7.69
26.00	5554.894	4.548	-0.440	8.21	-4.95	-7.12	96.1	8.94
26.00	5562.706	4.435	-0.641	8.29	-4.63	-7.52	92.2	8.89
26.00	5565.704	4.608	-0.213	8.21	-5.06	-7.42	88.3	8.58
26.00	5576.089	3.430	-1.000	8.06	-5.39	-7.20	118.8	9.01
26.00	5633.946	4.991	-0.270	8.88	-5.07	-7.34	58.6	7.83
26.00	5638.262	4.220	-0.870	8.38	-5.34	-7.27	98.2	8.93
26.00	5652.318	4.260	-1.950	8.01	-5.57	-7.25	34.5	8.35

26.00	5679.023	4.652	-0.920	8.21	-5.06	-7.10	51.7	8.19
26.00	5752.032	4.549	-1.177	8.33	-4.69	-7.51	32.9	7.78
26.00	5806.725	4.607	-1.050	8.32	-4.71	-7.15	45.0	8.05
26.00	5809.217	3.883	-1.840	7.78	-5.29	-7.15	12.6	7.20
26.00	5816.373	4.548	-0.601	8.33	-4.33	-7.51	66.6	8.23
26.00	5862.357	4.549	-0.127	8.33	-4.63	-7.52	47.4	7.15
26.00	5905.671	4.652	-0.730	8.33	-4.76	-7.14	53.2	8.03
26.00	5984.815	4.733	-0.196	8.31	-5.02	-7.42	47.0	7.37
26.00	6003.011	3.881	-1.120	7.75	-5.38	-7.18	64.3	8.11
26.00	6020.169	4.607	-0.270	8.33	-5.41	-7.19	128.7	9.26
26.00	6024.058	4.548	-0.120	8.32	-5.06	-7.22	127.9	9.04
26.00	6027.051	4.076	-1.089	8.01	-6.03	-7.78	15.3	6.71
26.00	6056.005	4.733	-0.460	8.32	-4.95	-7.13	53.6	7.84
26.00	6065.482	2.608	-1.530	8.07	-6.29	-7.58	193.5	9.47
26.00	6127.906	4.143	-1.399	8.00	-6.02	-7.79	23.6	7.35
26.00	6170.506	4.795	-0.440	8.30	-5.02	-7.12	42.2	7.51
26.00	6213.430	2.223	-2.482	8.31	-6.16	-7.69	68.5	7.88
26.00	6230.722	2.559	-1.281	8.07	-6.09	-7.60	191.5	9.17
26.00	6252.555	2.404	-1.687	8.02	-6.07	-7.62	131.1	8.93
26.00	6335.330	2.198	-2.177	8.30	-6.16	-7.70	117.9	8.82
26.00	6336.823	3.686	-0.856	8.08	-5.38	-7.21	92.0	8.47
26.00	6355.028	2.845	-2.350	8.20	-5.89	-7.60	62.6	8.28
26.00	6358.633	4.143	-1.657	7.53	-6.02	-7.80	58.0	8.68
26.00	6393.600	2.433	-1.432	8.05	-6.06	-7.62	166.0	9.02
26.00	6411.648	3.654	-0.595	8.07	-5.38	-7.22	134.1	8.94
26.00	6419.949	4.733	-0.240	8.41	-4.24	-7.19	92.0	8.63
26.00	6421.350	2.279	-2.027	6.81	-6.13	-7.62	142.7	10.03
26.00	6430.845	2.176	-2.006	8.29	-6.16	-7.70	139.9	8.90
26.00	6750.152	2.424	-2.621	6.69	-6.13	-7.61	41.5	7.51

26.01	4416.830	2.778	-2.602	8.56	-6.53	-7.88	310.0	8.10
26.01	4508.288	2.856	-2.349	8.56	-6.53	-7.87	325.0	8.10
26.01	4520.224	2.807	-2.617	8.47	-6.53	-7.88	294.0	8.32
26.01	4576.340	2.844	-2.976	8.56	-6.53	-7.88	238.4	8.41
26.01	4620.521	2.828	-3.315	8.56	-6.53	-7.88	234.1	8.70
26.01	4635.316	5.956	-1.578	8.64	-6.56	-7.78	73.6	7.91
26.01	4893.820	2.828	-4.267	8.52	-6.53	-7.89	132.2	8.94
26.01	4923.927	2.891	-1.504	8.52	-6.50	-7.88	411.6	7.42
26.01	4993.358	2.807	-3.684	8.51	-6.53	-7.89	224.1	8.86
26.01	5018.440	2.891	-1.345	8.52	-6.50	-7.89	436.0	7.35
26.01	5234.625	3.221	-2.279	8.47	-6.53	-7.88	371.3	8.43
26.01	5256.938	2.891	-4.182	8.56	-6.50	-7.89	123.7	8.74
26.01	5325.553	3.221	-3.324	8.47	-6.53	-7.88	235.1	9.02
26.01	5362.869	3.199	-2.616	8.56	-6.53	-7.88	210.9	8.09
26.01	5425.257	3.199	-3.390	8.47	-6.53	-7.89	210.2	8.93
26.01	5427.826	6.724	-1.581	8.53	-6.50	-7.89	31.1	7.24
26.01	5534.847	3.245	-2.865	8.47	-6.51	-7.88	288.3	8.72
26.01	5991.376	3.153	-3.647	8.56	-6.52	-7.89	157.0	8.65

26.01	6149.258	3.889	-2.841	8.51	-6.52	-7.87	185.2	8.66
26.01	6238.392	3.889	-2.754	8.51	-6.52	-7.87	200.0	8.73
26.01	6247.557	3.892	-2.435	8.51	-6.52	-7.87	252.5	8.66
26.01	6248.898	5.511	-2.784	8.56	-6.59	-7.77	35.4	7.55
26.01	6369.462	2.891	-4.231	8.49	-6.50	-7.90	123.5	8.66
26.01	6383.722	5.553	-2.414	8.56	-6.59	-7.77	70.3	8.23
26.01	6432.680	2.891	-3.687	8.49	-6.50	-7.90	193.0	8.70
26.01	6516.080	2.891	-3.432	8.49	-6.50	-7.90	154.8	8.17

28.00	4904.407	3.542	-0.170	8.26	-5.15	-7.24	80.0	7.11
28.00	4937.341	3.606	-0.390	7.95	-4.06	-7.21	32.7	5.78
28.00	5082.339	3.658	-0.540	8.24	-4.89	-7.23	66.9	7.14
28.00	5084.089	3.679	0.030	8.12	-4.06	-7.22	106.4	7.61
28.00	5115.389	3.834	-0.110	7.86	-5.66	-7.25	79.0	7.37
28.00	5715.066	4.088	-0.352	8.12	-5.67	-7.70	76.1	7.62
28.00	6643.629	1.676	-2.300	8.00	-6.31	-7.73	88.8	7.58
29.00	5105.537	1.389	-1.516	0.00	0.00	0.00	55.0	4.56
30.00	4722.153	4.030	-0.338	0.00	0.00	0.00	81.0	5.67
30.00	4810.528	4.078	-0.137	0.00	0.00	0.00	97.2	5.97
38.01	4215.519	0.000	-0.145	0.00	0.00	-7.71	464.0	2.95
39.01	4883.684	1.084	0.070	0.00	0.00	0.00	276.5	3.97
39.01	5087.416	1.084	-0.170	0.00	0.00	0.00	216.9	4.02
39.01	5119.112	0.992	-1.360	0.00	0.00	0.00	69.9	3.24
39.01	5200.406	0.992	-0.570	0.00	0.00	0.00	171.2	4.08
39.01	5402.774	1.839	-0.510	0.00	0.00	0.00	56.6	2.55
40.01	5112.270	1.665	-0.850	0.00	0.00	0.00	61.6	3.51
56.01	4554.029	0.000	0.170	0.00	0.00	-7.65	366.8	2.97
56.01	4934.076	0.000	-0.150	0.00	0.00	-7.65	372.3	3.24
56.01	5853.668	0.604	-1.000	0.00	0.00	-7.58	253.7	4.31
56.01	6141.713	0.704	-0.076	0.00	0.00	-7.58	353.3	3.76
57.01	5114.559	0.235	-1.030	0.00	0.00	0.00	55.3	2.37
57.01	5290.818	0.000	-1.650	0.00	0.00	0.00	17.7	0.92
58.01	4364.652	0.495	-0.230	0.00	0.00	0.00	40.0	1.96
58.01	4382.165	0.684	0.200	0.00	0.00	0.00	55.0	2.50
58.01	4562.359	0.478	0.230	0.00	0.00	0.00	95.1	3.38
58.01	4628.161	0.516	0.200	0.00	0.00	0.00	52.4	2.21
60.01	5319.810	0.550	-0.140	0.00	-5.82	0.00	46.7	1.95
63.01	6645.064	1.380	0.120	0.00	0.00	0.00	34.0	0.83