

Iron Charge States for the 89 largest SEP events and six flare-related events, as observed by ACE/SEPICA, 1997-2000

Ion: Fe
 Data source: /disks/data/acedata/level1/missionQstates2/
 Energy range (keV): 12644 18500
 Fan min, max: 1 3
 ssdmin, ssdmax: 0 1
 Threshold Q: 15
 Conditions: only ssd0 for 00 /115-156; D.Morris conversions_ v9 Yremap for >00/115,
 ssd01 factor applied to ssd0 data for 00/115-256
 ssd01 factor: 1.05 0

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SEP events
 Average of all events: 13.10
 uncert (all events): 0.20
 Average of events < 2000/115: 12.83
 uncert <2000/115: 0.26

Selected flare events
 Average of all events: 17.49
 uncert (all events): 1.35
 Average of events < 2000/115: 17.81
 uncert <2000/115: 1.57

Event Number	Start: yy	doy	s/c time	Stop: yy	doy	s/c time	mean Q	uncert Q	%>Qthresh	Quantity of Fe Ions
1	1997	308.7	6137690	1997	314.25	6617209	11.6	0.19	0.1354	3331
2	1997	318.4	6975769	1997	320	7114009	13.58	3.36	0.3077	13
3	1998	101.9	19806170	1998	103.5	19944410	14.94	2.32	0.5294	34
4	1998	107	20246810	1998	109	20419610	15.16	2.41	0.5312	32
5	1998	110.6	20557850	1998	114.7	20912090	10.19	0.49	0.0823	413
6	1998	119.4	21318170	1998	121.4	21490970	10.07	0.57	0.0262	267
7	1998	121.4	21490970	1998	122.25	21564410	10.44	0.54	0.0392	332
8	1998	122.5	21586010	1998	125.5	21845210	13.39	0.35	0.3205	1379
9	1998	126.5	21931610	1998	127.5	22018010	13.41	0.37	0.306	1193
10	1998	129.7	22208090	1998	130.3	22259928	10.64	2.02	0.1364	22
11	1998	136.1	22761050	1998	136.8	22821528	17.5	2.62	0.8438	32
12	1998	148.6	23841048	1998	149.4	23910172	11.72	0.59	0.1685	368
13	1998	154	24307610	1998	160.5	24869210	13.03	2.17	0.3824	34
14	1998	168	25517210	1998	169.6	25655448	10.6	0.64	0.0669	239
15	1998	170	25690010	1998	172	25862810	10.66	1.1	0.0741	81
16	1998	173.9	26026972	1998	178.7	26441690	11.54	1.33	0.1389	72
17	1998	185.1	26994648	1998	187.2	27176090	12.37	2.27	0.3871	31
18	1998	221.5	30139610	1998	224.5	30398810	13.15	2.12	0.375	40
19	1998	234.8	31288728	1998	236	31392410	11.54	2.18	0.1304	23
20	1998	250	32602010	1998	251.5	32731610	19.61	4.07	0.8947	19
21	1998	267.6	34122648	1998	268.5	34200408	10.48	0.73	0.101	198
22	1998	270	34330008	1998	271.5	34459608	16.08	0.64	0.615	561
23	1998	274	34675608	1998	275.5	34805208	9.84	0.25	0.0375	1415
24	1998	275.5	34805208	1998	277.2	34952092	9.56	0.85	0.0385	104
25	1998	290	36058008	1998	292	36230808	11.04	1.29	0.0952	63
26	1998	292.5	36274008	1998	293.6	36369048	10.9	2.62	0.2	15
27	1998	294.1	36412248	1998	295.3	36515928	11.62	2.42	0.1176	17
28	1998	310	37786008	1998	317	38390808	10.91	0.17	0.1075	3665
29	1999	177	57830808	1999	178	57917208	9.37	0.37	0.0215	557
30	1999	181.8	58245528	1999	182.9	58340572	17.64	1.68	0.8941	85
31	1999	182.9	58340572	1999	186	58608408	16.2	1.71	0.622	82
32	1999	186	58608408	1999	186.9	58686172	15.9	1.79	0.6618	68
33	1999	193	59213208	1999	197.5	59602008	17.9	3.59	0.75	20
34	1999	201	59904408	1999	203.5	60120408	17.42	2.27	0.7708	48
35	1999	206.3	60362328	1999	209.3	60621528	18.78	3.8	0.9444	18
36	1999	211.1	60777048	1999	212.5	60898008	9.6	1.99	0.05	20
37	1999	231.1	62505048	1999	233.95	62751292	14.74	1.99	0.52	50
38	2000	1	74160408	2000	2	74246808	10.13	1.95	0.0526	19
39	2000	10.9	75015768	2000	12	75110808	12.5	2.65	0.3158	19
40	2000	17.5	75586008	2000	23.25	76082808	13.13	1.32	0.3085	94
41	2000	27.4	76441368	2000	29.1	76588248	10.64	1.21	0.0857	70

42	2000	29.1	76588248	2000	30	76666008	9.87	1.69	0	27
43	2000	41.4	77650968	2000	42.6	77754648	10.01	0.98	0.025	80
44	2000	42.6	77754648	2000	43.5	77832408	9.7	0.51	0.0257	311
45	2000	43.7	77849688	2000	44.6	77927448	11.39	1.33	0.1692	65
46	2000	49	78307608	2000	51	78480408	9.83	1.88	0.0417	24
47	2000	51.9	78558168	2000	52.9	78644568	10.41	1.61	0.0857	35
48	2000	54.7	78800088	2000	57.1	79007448	10.35	1.76	0.037	27
49	2000	67.5	79906008	2000	68.7	80009688	19.31	3.09	0.875	32
50	2000	80	80986008	2000	82.4	81193368	16.41	2.97	0.6087	23
51	2000	82.6	81210648	2000	85.7	81478488	9.85	0.92	0.0485	103
52	2000	92.1	82031448	2000	94.6	82247448	17.32	2.47	0.8684	38
53	2000	95.9	82359768	2000	98.6	82593048	10.55	0.18	0.0999	3303
54	2000	107.9	83396568	2000	111.4	83698968	18.4	2.33	0.8654	52
55	2000	114.5	83966808	2000	118	84269208	17.01	1.8	0.7532	77
56	2000	119	84355608	2000	121	84528408	11.72	1.52	0.1852	54
57	2000	137.4	85945368	2000	138.6	86049048	10.69	0.74	0.1011	188
58	2000	139	86083608	2000	141	86256408	10.12	2.08	0	16
59	2000	143.5	86472408	2000	145.8	86671136	15.3	0.85	0.5392	293
60	2000	145.8	86671136	2000	149	86947608	17.2	1.16	0.7688	186
61	2000	156.5	87595608	2000	157.1	87647448	17.38	1.84	0.8056	72
62	2000	157.1	87647448	2000	158	87725208	12.88	3.03	0.4375	16
63	2000	159	87811608	2000	162	88070808	9.64	0.27	0.0158	1075
64	2000	163	88157208	2000	163.9	88234968	9.57	0.33	0.0176	681
65	2000	163.9	88234968	2000	165	88330008	9.92	0.54	0.043	302
66	2000	165	88330008	2000	166.5	88459608	10.5	1	0.0842	95
67	2000	166.7	88476888	2000	167.95	88584888	16.82	2.45	0.6316	38
68	2000	168	88589216	2000	169	88675616	13.89	1.3	0.4412	102
69	2000	169.2	88692888	2000	171	88848416	11.41	0.92	0.2089	158
70	2000	171	88848416	2000	171.6	88900240	9.94	2.05	0.1111	18
71	2000	175	89194016	2000	175.9	89271768	9.85	0.66	0.0464	194
72	2000	175.9	89271768	2000	176.9	89358168	15.68	1.57	0.5172	87
73	2000	177.7	89427288	2000	179.5	89582816	9.75	0.71	0.0809	173
74	2000	180.9	89703768	2000	182.2	89816088	10.17	0.61	0.0741	243
75	2000	191.25	90598016	2000	193.1	90757840	14.4	2.96	0.5	20
76	2000	193.1	90757840	2000	194.85	90909040	17.7	2.34	0.8444	45
77	2000	195.3	90947936	2000	200	91354016	10.47	0.47	0.1226	473
78	2000	201.2	91457688	2000	204	91699616	13.95	1.32	0.4414	111
79	2000	204.6	91751440	2000	205.9	91863768	11.26	1.75	0.1622	37
80	2000	223	93341216	2000	225.25	93535616	11.37	0.79	0.201	204
81	2000	225.5	93557216	2000	226.25	93622016	17.7	1.66	0.8144	97
82	2000	226.25	93622016	2000	230.25	93967616	11.13	0.53	0.1425	428
83	2000	249	95587616	2000	252.1	95855440	9.93	0.72	0.0255	157
84	2000	256.9	96270168	2000	264	96883616	10.24	0.12	0.0784	6796
85	2000	271.5	97531616	2000	273.5	97704416	15.34	1.7	0.6	70
86	2000	273.6	97713040	2000	276	97920416	17.46	3.1	0.7917	24
87	2000	277.4	98041368	2000	279.8	98248736	15.01	1.82	0.5085	59
88	2000	286.5	98827616	2000	288	98957216	10.54	0.74	0.1574	197
89	2000	290.6	99181840	2000	293.4	99423768	10.53	1.34	0.1207	58
90	1998	225.75	30506810	1998	229.3	30813528	17.68	3.33	0.8636	22 flare
91	1998	229.3	30813528	1998	230.3	30899928	17.44	3.71	0.7222	18 flare
92	1998	230.3	30899928	1998	232	31046810	18.5	4.78	1	10 flare
93	1998	251.875	32764010	1998	254.5	32990810	17.77	1.8	0.7952	83 flare
94	1999	219.917	61538836	1999	221.5	61675608	17.64	3.26	0.7273	22 flare

95	2000	122.5	84658008	2000	123.1	84709848	15.92	2.11	0.5192	52 flare
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