ACE Cosmic Ray Isotope Spectrometer
Cosmic Ray Isotopic Composition (% of Element)
Measured at Solar Minimum (Dec 1997 through Sept 1999)

PRELIMINARY

$_{3}$Li	49–127 MeV/nuc	
^{6}Li	53.1	± 2.2
^{7}Li	46.9	± 2.2
$_{4}$Be	60–157 MeV/nuc	
^{7}Be	59.9	± 2.9
^{9}Be	36.2	± 3.1
^{10}Be	3.8	± 0.8
$_{5}$B	65–172 MeV/nuc	
^{10}B	30.0	± 0.6
^{11}B	70.0	± 0.6
$_{6}$C	75–199 MeV/nuc	
^{12}C	94.09	± 0.18
^{13}C	5.91	± 0.18
$_{7}$N	81–214 MeV/nuc	
^{14}N	48.9	± 0.5
^{15}N	51.1	± 0.5
$_{8}$O	88–236 MeV/nuc	
^{16}O	97.19	± 0.12
^{17}O	1.25	± 0.08
^{18}O	1.56	± 0.05
$_{9}$F	92–245 MeV/nuc	
^{19}F	100.	
$_{10}$Ne	98–264 MeV/nuc	
^{20}Ne	55.6	± 0.8
^{21}Ne	12.00	± 0.44
^{22}Ne	32.4	± 0.6
$_{11}$Na	103–278 MeV/nuc	
^{23}Na	100.	
$_{12}$Mg	110–298 MeV/nuc	
^{24}Mg	69.6	± 1.1
^{25}Mg	14.6	± 0.7
^{26}Mg	15.8	± 0.5
$_{13}$Al	114–310 MeV/nuc	
^{26}Al	4.22	± 0.36
^{27}Al	95.78	± 0.36
$_{14}$Si	121–330 MeV/nuc	
^{28}Si	86.92	± 0.36
^{29}Si	7.32	± 0.27
^{30}Si	5.76	± 0.21

$_{15}$P	124–339 MeV/nuc	
^{31}P	100.	
$_{16}$S	130–356 MeV/nuc	
^{32}S	69.3	± 2.4
^{33}S	13.3	± 1.0
^{34}S	16.7	± 1.9
^{36}S	0.79	± 0.29
$_{17}$Cl	132–363 MeV/nuc	
^{35}Cl	65.9	± 4.2
^{36}Cl	7.0	± 2.3
^{37}Cl	27.2	± 3.3
$_{18}$Ar	138–380 MeV/nuc	
^{36}Ar	38.0	± 0.9
^{37}Ar	20.8	± 2.4
^{38}Ar	35.9	± 2.7
^{40}Ar	5.2	± 1.0
$_{19}$K	141–389 MeV/nuc	
^{39}K	46.2	± 3.0
^{40}K	30.1	± 2.0
^{41}K	23.7	± 2.1
$_{20}$Ca	145–402 MeV/nuc	
^{40}Ca	34.2	± 1.8
^{41}Ca	8.5	± 0.6
^{42}Ca	17.9	± 0.9
^{43}Ca	19.2	± 1.3
^{44}Ca	19.7	± 0.6
^{46}Ca	0.259	± 0.036
^{48}Ca	0.085	± 0.021
$_{21}$Sc	147–408 MeV/nuc	
^{45}Sc	100.	
$_{22}$Ti	151–420 MeV/nuc	
^{44}Ti	1.00	± 0.21
^{46}Ti	30.4	± 2.1
^{47}Ti	30.9	± 1.2
^{48}Ti	30.0	± 1.8
^{49}Ti	6.7	± 1.4
^{50}Ti	1.00	± 0.23

$_{23}$V	154–430 MeV/nuc	
^{49}V	52.9	± 3.3
^{50}V	28.2	± 2.2
^{51}V	18.9	± 3.9
$_{24}$Cr	158–443 MeV/nuc	
^{50}Cr	18.7	± 1.9
^{51}Cr	27.9	± 2.8
^{52}Cr	42.8	± 2.2
^{53}Cr	7.0	± 0.8
^{54}Cr	3.7	± 0.5
$_{25}$Mn	162–454 MeV/nuc	
^{53}Mn	50.0	± 0.9
^{54}Mn	11.2	± 1.0
^{55}Mn	38.8	± 1.6
$_{26}$Fe	166–466 MeV/nuc	
^{54}Fe	8.53	± 0.21
^{55}Fe	4.72	± 0.34
^{56}Fe	83.38	± 0.46
^{57}Fe	2.89	± 0.34
^{58}Fe	0.48	± 0.13
$_{27}$Co	169–477 MeV/nuc	
^{57}Co	49.	± 7.
^{59}Co	51.	± 7.
$_{28}$Ni	175–496 MeV/nuc	
^{58}Ni	63.7	± 2.6
^{59}Ni		< 3.4
^{60}Ni	27.9	± 2.5
^{61}Ni	2.1	± 0.7
^{62}Ni	3.4	± 0.8
^{64}Ni	0.87	± 0.13
$_{29}$Cu	174–492 MeV/nuc	
^{63}Cu	66.	±15.
^{65}Cu	34.	±15.
$_{30}$Zn	179–509 MeV/nuc	
^{64}Zn	52.	±14.
^{66}Zn	30.	± 6.
^{68}Zn	17.	±12.

Values shown in red are based on wide-angle data set.
Upper limit reported due to spillover from adjacent isotopes.