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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PALEOMAGNETIC ORIENTATION OF CORE FROM DRILL HOLE USW GU-3 YUCCA MOUNTAIN, NEVADA: TIVA CANYON MEMBER OF THE PAINTBRUSH TUFF

By

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Denver Colorado
1984

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ABSTRACT

Orientations for 83 core segments of the Tiva Canyon Member of the Paintbrush Tuff from drill hole USW GU-3 at Yucca Mountain, Nevada, were determined by comparing the remanent directions from the core segments to a paleomagnetic reference direction. The mean direction of remanence for the Tiva Canyon Member (D=167.8, I=-41.5) from 9 surface localities at Yucca Mountain was taken as the reference direction. The core segments sampled include 16 which were acquired with an orienting barrel. For one run the orientation data (provided by American Coldset) were found to be in error by 180^{o}. Other discrepancies between the paleomagnetic orientations and the American Coldset data are attributed to errors in matching depths from the orientaion logs to corresponding positions on the core.

INTRODUCTION

One element of structural analysis in geology is the determination of the attitudes of various linear and planar features present in a mass of rock. In studies such as those being carried out in assessing Yucca Mountain as a possible nuclear waste repository site, it is important to determine the attitudes of the eutaxitic foliation in the ash-flow sheets, stratigraphic contacts, faults and fractures. The detailed geologic work at Yucca Mountain relies heavily on data acquired from drill core [Spengler and others, 1981; Maldonado and Koether, 1983; Scott and Castellanos, 1984]. If the drill core is unoriented then much information necessary for structural analysis is unavailable.

Some core runs obtained from drill holes USW G-1, G-2, GU-3, and G-4 have been oriented using a special orienting barrel which places a reference groove along the length of the core. This method of orientation has two major disadvantages. First, it is hard to determine the accuracy of the orientation data. Second, the method is time consuming and therefore expensive. Because of the expense, relatively few segments of core have been obtained using this method.

Paleomagnetic measurements provide another means of orienting core. In this method a paleomagnetic sample is obtained from a core segment in a manner which maintains the orientation of the sample with respect to the core segment. The direction of remanent magnetization of the sample is determined. This direction is then rotated about the drill hole axis inorder to bring the sample direction into good agreement with an independently

established reference direction. The core segment may then be oriented by applying the same rotation. Application of this method requires that the rocks possess a stable magnetization so that the direction of remanence of a sample can be unambiguously determined and that an appropriate reference direction can be established for the rock unit at the location of interest.

This report presents the results of the application of the paleomagnetic technique to the orientaion of 83 core segments from drill hole USW GU-3. All of these core segments are from the reversely magnetized Tiva Canyon Member of the Paintbrush Tuff.

PALEOMAGNETIC REFERENCE DIRECTION

The Miocene age Tiva Canyon Member of the Paintbrush Tuff occurs over most of the surface at Yucca Mountain. Sixty-three oriented samples of the Tiva Canyon were acquired from 9 localities (Figure 1). The remanent directions were determined for each sample by means of a spinner magnetometer. All samples were magnetically cleaned by alternating field (a.f.) demagnetization in peak fields of at least 10 millitesla (mT) and usually of 20 mT and remeasured. Results of these measurements are given in Appendix 1.

Mean directions, the half angles of the cone of 95% confidence (A_{95}) and the Fisher precision parameter (K) [McElhinny, 1967] for each of the sampling sites are presented in Table 1. Four samples, M79-7F, M79-26F, M79-26G, and JR81-8-1A, were not used in calculating the mean direction because their remanent directions differed significantly from the means defined by the other samples from the respective sites. One of these samples, M79-7F, appears to have a large secondary component of magnetization, possibly an isothermal remanence produced by a lightning strike, which is not entirely removed by the a.f. demagnetization. The other three rejected specimens are from nearly vertical exposures, and may have been affected to a small degree by rotation due to slumping which was undetected at the time of collection. Inclusion of these samples would change the mean directions for sites M79-7, M79-26, and JR81-8 to D=168.3, I=-45.8, D=169.1, I=-39.3, and D=175.7, I=-43.8, respectively.

The tight clustering of the site mean directions (Figure 2) indicates that there has been no relative rotational deformation of more than a few degrees between any of the sampling sites after emplacement of the Tiva Canyon Member. Because of the consistency of remanent directions from these surface localities, the Tiva Canyon Member from drill hole USW GU-3 is expected to possess a remanence of about the same direction as at these sampling sites. Therefore, the mean direction of D=167.8 and I=-41.5 (Table 1), obtained by averaging the 9 site means, is selected as the reference direction for this unit at the drill hole location. This direction is preferred to the mean direction of D=174.2 and I=-41.1 obtained by averaging results from the oriented specimens of the Tiva Canyon Member from drill hole USW GU-3 (Figure 2 and Appendix 2) because of uncertainty as to the magnitude of the errors involved in orientation of the various core segments obtained with the orienting barrel.

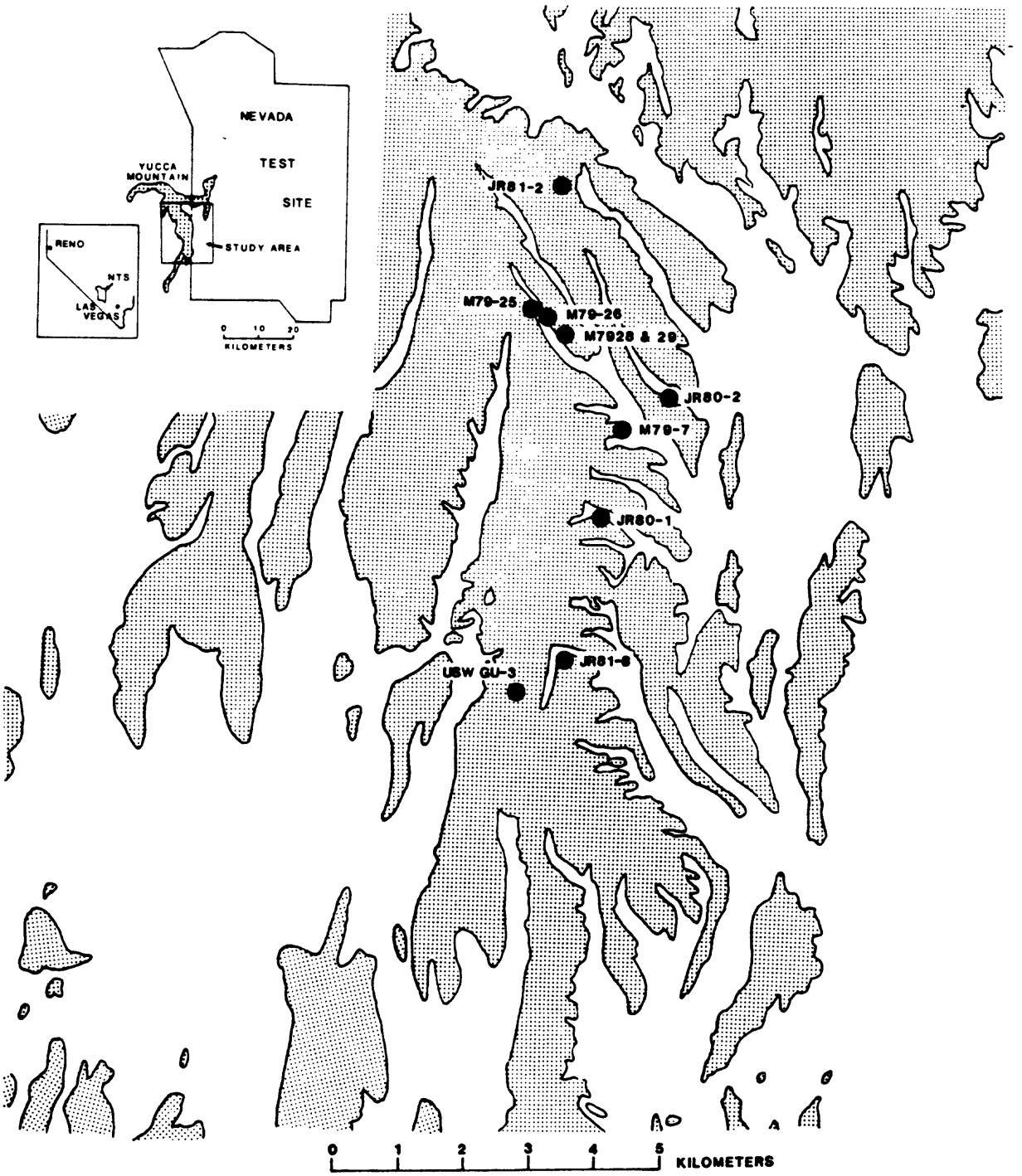

Figure 1. Location of outcrop sampling sites for the Tiva Canyon Member of the Paintbrush Tuff at Yucca Mountain and of drill hole USW GU-3. Shading indicates area where bedrock is largely exposed.

Table 1. -- Mean Remanent Directions for Surface Sites at Yucca Mountain

Site	Dec.	Inc.	N	A_{95}	K	af (mT)
M79-7	168.8	-43.6	5	3.6	457.7	20, 30, 40
M79-25	172.1	-40.6	7	3.6	281.3	20
M79-26	164.7	-38.8	5	4.8	256.2	20
M79-28	165.8	-40.9	6	3.5	359.0	20
M79-29	165.0	-41.3	8	1.5	1393.9	20
JR80-1	169.4	-44.9	7	2.8	461.3	20
JR80-2	164.7	-40.5	7	1.6	1396.4	20
JR81-2	167.9	-39.7	9	2.5	416.5	10
JR81-8	172.2	-42.8	5	2.3	1079.5	20
Mean of Site Means	167.8	-41.5	9	1.9	737.7	

Dec. and Inc. are the mean declination and inclination of remanence; N is the number of samples; A_{95} is the half angle of the cone of 95% confidence; K is the Fisher precision parameter; and af is the alternating field demagnetization level (millitesla) used in calculating the mean direction. No structural correction has been applied to the data.

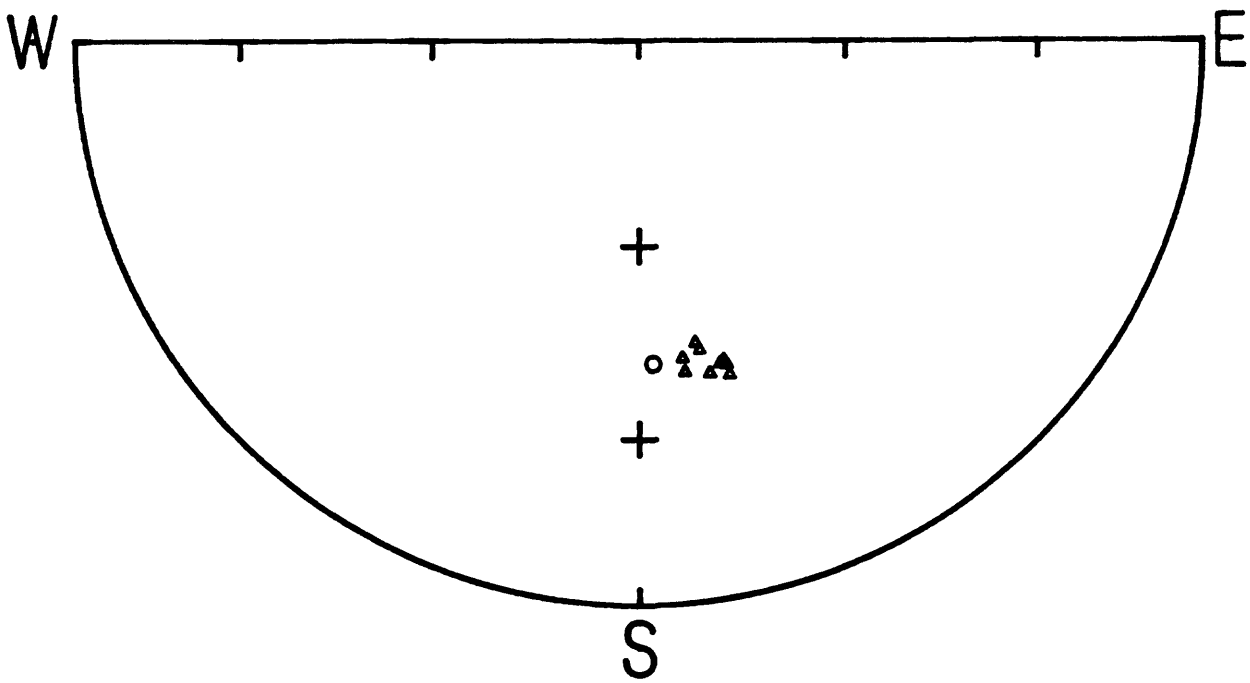

Figure 2. Equal area sterographic projection of the surface site mean remanent directions for the Tiva Canyon Member of the Paintbrush Tuff at Yucca Mountain (triangles) and the mean direction determined from oriented core from drill hole USW GU-3 (circle).

Declinations of all 59 samples used in calculating the reference direction are within 9° of the mean declination (Figure 3). Therefore, it is reasonable to expect that paleomagnetic orientations of individual core segments should for the most part be within 9° of their true orientation.

DRILL HOLE DATA

Sampling procedure: Eighty-three cylindrical paleomagnetic samples from drill hole USW GU-3 were collected by drilling with a 0.98-inch I.D. diamond core bit. The procedure for maintaining orientation between the core segments and paleomagnetic samples is detailed below. See Figure 4 for the geometric relationships between the core segment and the paleomagnetic specimen.

Step 1: A reference line of indelible ink is placed on the core segment to be sampled parallel to the core axis. If the core was taken with an orienting barrel then the reference groove is used as the reference line.

Step 2: A piece of gridded mylar is taped to the core segment so that one set of grid lines parallels the reference line.

Step 3: The core segment is clamped in a vice with the core axis horizontal and the reference line upwards. The grid lines on the mylar are used to center the reference line between the opposing jaws of the vice so that the plane defined by the reference line and the core axis is vertical.

Step 4: The vice and core segment are placed on a drill press and a cylindrical paleomagnetic sample is drilled so that its axis is vertical (i.e. parallel to the plane of the reference line and the core axis, and normal to the core axis -- see Figure 4).

Step 5: An orientation line is placed on the "down-hole" side of the paleomagnetic sample with a brass or copper rod so that the plane defined by the orientation line and the sample axis parallels the plane defined by the reference line and the core axis (Figure 4).

Step 6: The paleomagnetic sample is broken free from the core. Arrows pointing out of the sample hole are placed on both sides of the orientation line with indelible ink.

Step 7: A sample number consisting of an abbreviated hole identification and a depth in feet (i.e. GU3-42.6 denotes a sample from a depth of 42.6 ft in drill hole USW GU-3) is placed on the sample with indelible ink. The "GU" in the sample number is replaced by "OR" for samples from oriented core runs.

Laboratory procedures: The natural remanent magnetization of each sample was measured with a spinner magnetometer. All but seven samples were subjected to stepwise a.f. demagnetization to a maximum peak field of a least 50 mT. The seven samples not treated in this manner were demagnetized at a peak field of 10 mT and then sacrificed for other studies. The paleomagnetic data from unoriented core were obtained relative to a sample coordinate system which arbitrarily places the reference mark at 180° (due S). The data from oriented core segments were rotated to geographic coordinates as indicated by the orientation logs provided by American Coldset.

The results of the measurements are tabulated in Appendix 2. The remanence data for each progressively demagnetized sample were plotted on orthogonal demagnetization diagrams in which the north component is plotted against the east component, and the vertical component is plotted against the

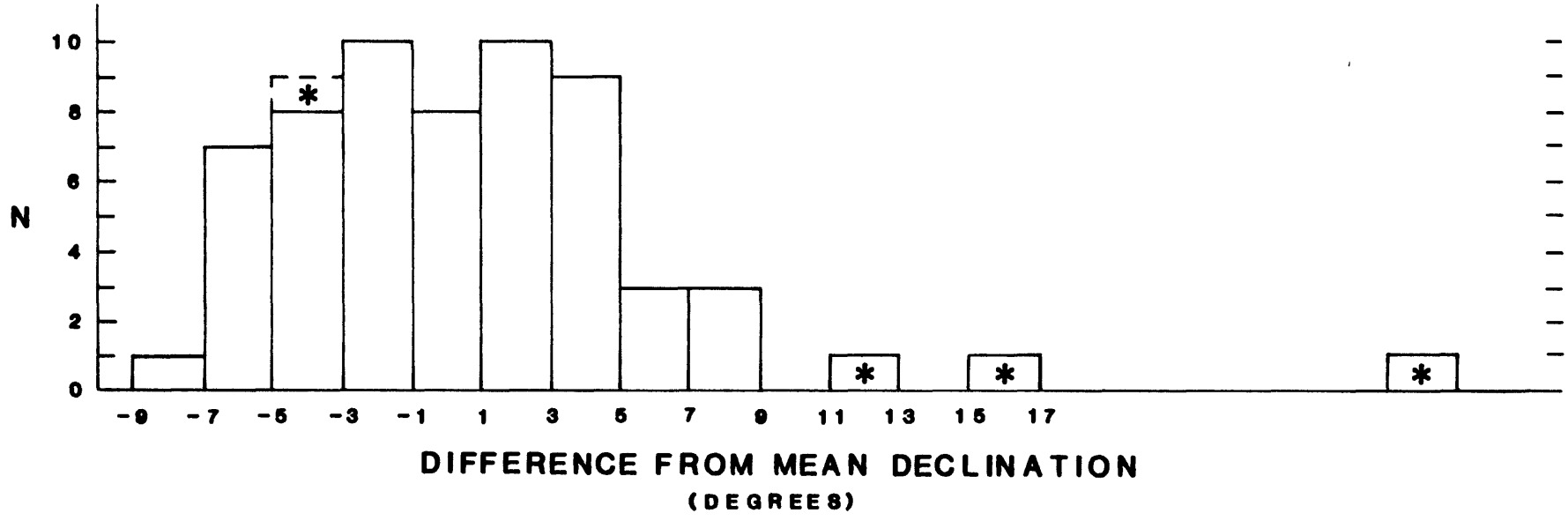

Figure 3. Histogram of declinations of remanent magnetization for outcrop samples of the Tiva Canyon Member of the Paintbrush tuff relative to the reference delination (167.8° -- see text). Astericks indicate the four samples not included in calculation of reference direction (see text).

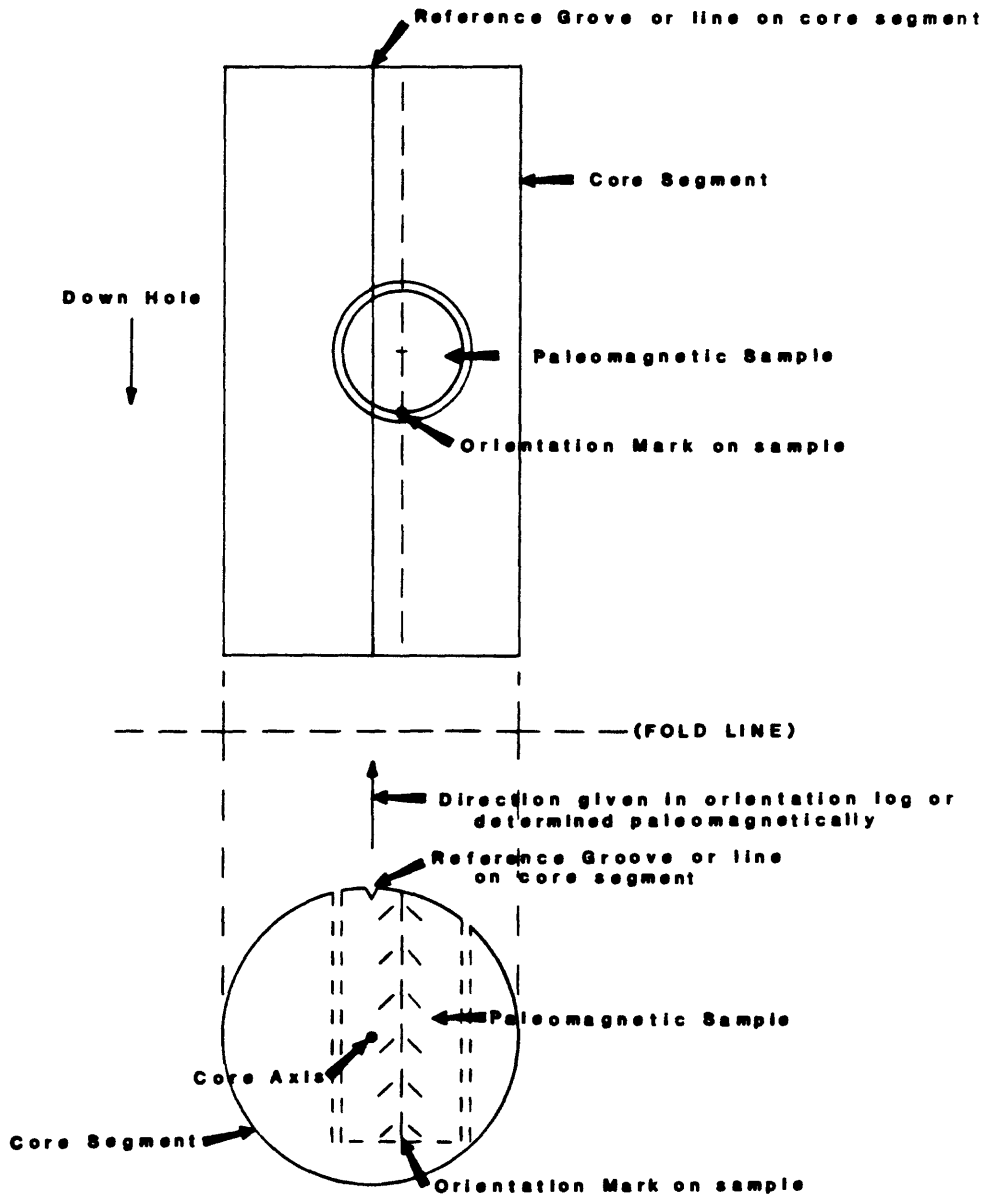

Figure 4. Schematic diagram showing the geometric relationship used to maintain orientation between paleomagnetic samples and core segments.

total horizontal component [Zijderveld, 1967; Roy and Park, 1974] (Figure 5 and Appendix 3). Remanent directions change little after demagnetization at 5 or 10 mT. Consequently, for the 7 samples that were not progressively demagnetized the stable direction of remanence was taken as that given by measurement after demagnetization at 10 mT. For the progressively demagnetized specimens a paleomagnetic direction was determined by averaging the direction of a number of measurements obtained after various demagnetization levels. The a.f. demagnetization levels chosen for inclusion in the mean are those for which the sample's remanence is deemed to decay in a nearly linear manner toward the origin as determined by inspection of the demagnetization diagrams (Figure 5 and Table 2).

RESULTS

Because drill hole USW GU-3 deviates by 1^{o} or less from vertical through the Tiva Canyon Member [Scott and Castellanos, 1984] a vertical axis of rotation was used to bring the sample directions into good agreement with the reference direction. As illustrated in Figure 5, this requires a rotation through an angle

$$= D_{ref} - D_{samp} ;$$

where D_{ref} is the declination of the reference direction for the unit, and D_{samp} is the remanence declination of the sample relative to the declination of the reference mark. The paleomagnetic orientation, OR, of the reference line on the core segment is then

$$OR = D_{mark} + D_{ref} - D_{samp} ;$$

where D_{mark} is either the assumed declination of the reference mark (180^{o} for unoriented samples) or the declination of the reference mark determined from the orientation logs provided by American Coldset. The paleomagnetically determined orientations are presented in Table 2.

Five samples from one oriented core run (samples OR3-108.3 to -112.0) were found to give declinations nearly 180° from the expected reference direction (D_{ref} = 167.8°). It has been assumed in the data presented (Table 5 and Appendices 2 and 3) that an error of 180° occurred in the acquisition of the reference groove orientation data for this core run. Therefore, the declinations of the remanence marks (D_{mark}) for these samples, given in Table 2 differ by 180° from those determined from the orientation logs. The samples affected by this error are denoted by the letter "M" following the sample number.

In addition, the remanent vectors for two specimens from unoriented core runs were found to have positive inclinations of about 40°. It is asssumed in the data presented that the arrows, placed on the core to denote the down-hole direction, pointed up instead of down. These samples are indicated by the letter "U" following the sample number.

The paleomagnetic orientations determined for 12 of the 16 oriented core segments sampled agree well (within 9°) with the orientation data provided by American Coldset (excluding the 180° error mentioned above). However the American Coldset data and the paleomagnetic orientations for samples

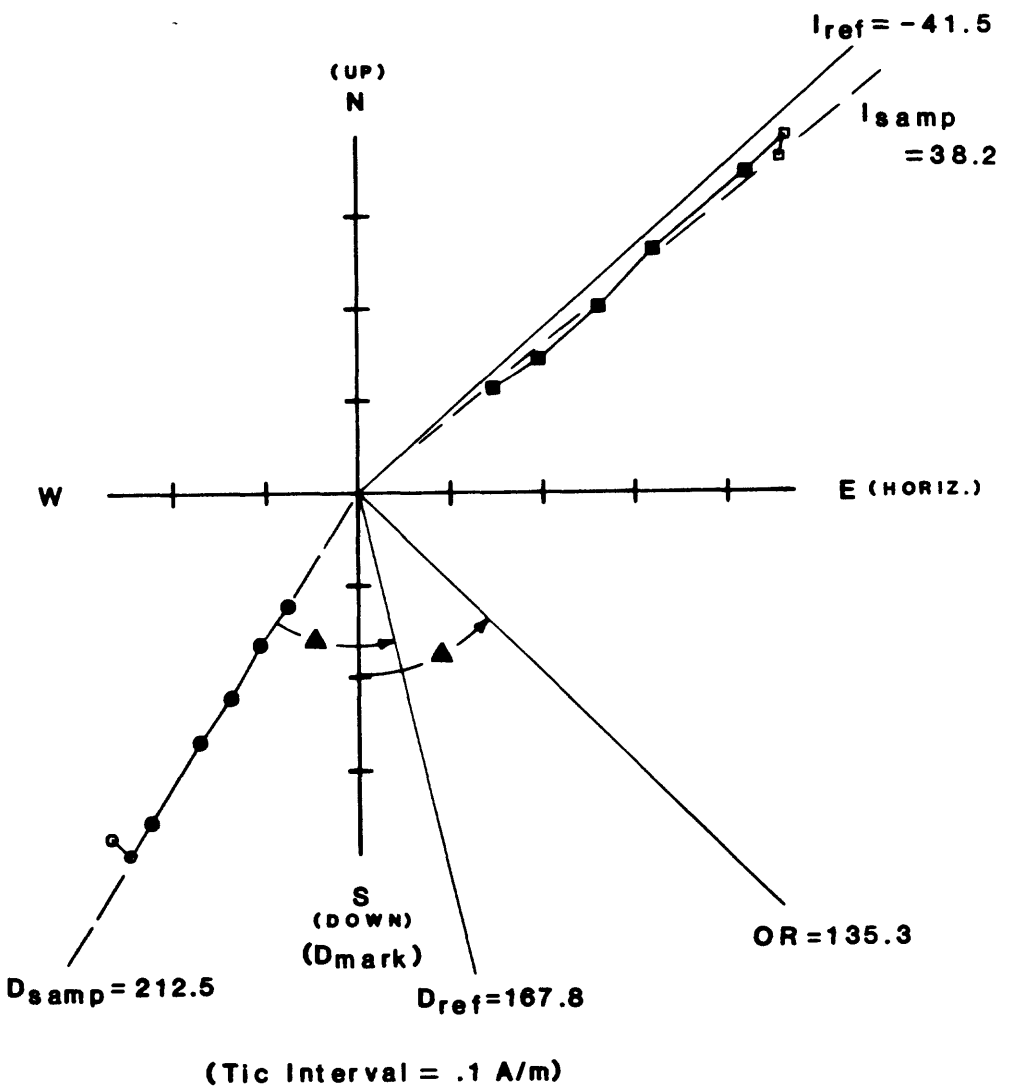

Figure 5. Orthogonal demagnetization diagram [Zijderveld, 1967; Roy and Park, 1974] for sample GU3-78.75 showing the relationship between the declinations of sample remanence (D_{samp}), the reference mark (D_{mark} -- arbitrarily set to 180° for this sample, see text), the reference direction (D_{ref}) used to determine the paleomagnetic orientation of the core segment. Circles indicate plot of north component versus east component; squares indicte total horizontal component versus vertical component. Solid symbols denote demagnetization (10 to 50 mT) levels used in computing remanent direction for the sample.

Table 2. -- Paleomagnetic Orientations of Drill Hole USW GU-3 Core Segments

Sample	AF Levels Used	I_{samp}	D_{samp}	D_{mark}	OR
GU3-42.6	40, 60, 80, 100	-44.6	67.3	180	280.5
GU3-47.25	30, 40, 50	-44.4	95.8	"	252.0
GU3-50.7	20, 30, 40, 50	-40.0	91.6	"	256.2
GU3-53.5	30, 40, 60, 80	-37.7	263.7	"	84.1
GU3-55.35	20, 30, 40, 50	-42.2	20.6	"	327.2
GU3-63.7	10, 20, 30, 40, 50	-42.8	267.1	"	80.7
GU3-64.4	20, 30, 40, 50	-47.8	177.1	"	170.7
GU3-65.75	10, 20, 30, 40, 50	-45.3	189.4	"	158.4
GU3-67.0	20, 30, 40, 50	-46.2	219.9	"	127.9
GU3-73.5	10, 20, 30, 40, 50	-37.0	118.7	"	229.1
GU3-74.5	20, 30, 40, 50	-40.2	257.2	"	90.6
GU3-78.75	10, 20, 30, 40, 50	-38.2	212.5	"	135.3
GU3-86.8	10, 20, 30, 40, 50	-36.4	300.7	"	47.1
GU3-89.3	5, 10, 20, 30, 50	-43.4	151.6	"	196.2
GU3-94.5	30, 40, 50	-38.5	32.1	"	315.7
GU3-99.25	10, 20, 30, 40, 50	-37.2	350.6	"	357.2
GU3-101.2	30, 40, 60, 80	-38.3	101.9	"	245.9
GU3-103.5	20, 30, 40, 50	-33.0	314.6	"	33.2
GU3-104.75	30, 40, 60, 80	-34.2	327.9	"	19.9
OR3-108.3M	10	-39.7	164.7	200	203.1
OR3-109.4M	20, 30, 40, 50	-39.1	169.2	202	200.6
OR3-110.2M	20, 30, 40, 50	-39.7	171.2	204	200.6
OR3-111.2M	30, 40, 50	-39.2	169.7	206	204.1
OR3-112.0M	30, 40, 50	-39.5	166.9	208	208.9

Sample	AF Levels Used	I_{samp}	D_{samp}	D_{mark}	OR
GU3-121.7	20, 30, 40, 50	-37.7	138.2	180	209.4
GU3-125.2	20, 30, 40, 50	-37.2	135.9	"	211.9
GU3-129.5	10, 20, 30, 40, 50	-38.9	101.9	"	245.9
GU3-130.4	20, 30, 40, 50	-41.3	220.9	"	126.9
GU3-134.0	20, 30, 50	-40.1	34.0	"	313.7
GU3-137.6	20, 30, 40	-37.9	163.1	"	184.7
GU3-139.0	5, 10, 20, 30, 40, 50	-39.6	57.3	"	290.5
OR3-142.3	10, 20, 30, 40, 50	-38.8	173.0	344	338.8
OR3-145.6	10, 20, 30, 40	-35.8	170.3	352	349.5
OR3-147.2*	40, 50	-39.1	171.0	359	355.8
OR3-148.8	30, 40, 50	-39.0	175.7	12	4.1
OR3-151.0	20, 30, 40	-39.7	182.8	29	14.0
GU3-152.0	10	-40.9	298.0	180	49.8
GU3-161.6U	40, 50	-36.8	106.7	"	241.1
GU3-168.8	20, 30, 40, 50	-35.1	83.9	"	263.9
GU3-172.4	30, 40, 50	-38.3	144.9	"	202.9
GU3-176.5	40, 50	-40.8	216.0	"	131.8
GU3-180.0	10, 20, 30, 50	-39.2	96.5	"	251.3
GU3-182.9	10, 20, 30, 40, 50	-38.8	78.1	"	269.7
GU3-187.1U	30, 40, 50	-40.3	254.9	"	92.9
GU3-188.6	10, 20, 30, 40, 50	-40.3	22.1	"	225.7
GU3-191.0	20, 30, 40, 50	-38.8	36.4	"	311.4
GU3-194.5	20, 30, 40	-36.6	68.6	"	279.2
GU3-197.3	10, 20, 30	-42.2	143.5	"	204.3
GU3-199.4	30, 40, 60	-36.5	284.2	"	63.6

Sample	AF Levels Used	I_{samp}	D_{samp}	D_{mark}	QR
GU3-203.6	10, 20, 30, 40, 50	-38.7	85.2	180	262.6
GU3-203.95	20, 30, 40	-39.5	171.3	"	176.5
GU3-205.85	20, 30, 40	-40.0	49.4	"	298.4
GU3-209.3	40, 50	-45.1	250.2	"	97.6
OR3-218.8	10, 20, 30, 40, 50	-44.7	161.3	107	113.5
OR3-219.3	30, 40, 50	-46.6	189.7	100	78.1
OR3-220.3	30, 40, 50	-44.7	175.9	90	81.9
OR3-221.0	30, 40, 50	-40.8	191.1	84	60.7
GU3-238.9	20, 30, 40, 50	-37.5	110.8	180	237.0
GU3-241.3	20, 30, 50	-44.7	243.2	"	104.6
GU3-254.4	20, 30, 40, 60, 80	-43.7	263.6	"	84.2
GU3-261.4	10	-41.3	341.1	"	6.7
GU3-265.3	5, 10, 20, 30	-44.1	174.3	"	173.5
GU3-268.95	20, 30, 40, 50	-43.5	18.3	"	329.5
GU3-270.6	30, 40, 50	-38.6	322.1	"	25.7
GU3-273.9	10, 20, 30, 40, 50	-41.3	29.4	"	318.4
GU3-275.25	30, 40, 50	-40.8	352.8	"	355.0
GU3-276.8	30, 40, 50	-43.5	21.4	"	326.4
GU3-281.2	30, 40, 50	-41.9	57.0	"	290.8
GU3-287.4	30, 40, 60, 80	-38.0	288.2	"	59.6
GU3-293.6	10	-42.9	116.4	"	231.4
GU3-301.6	40, 60, 80	-39.8	162.4	"	185.4
GU3-302.25	10, 20, 30, 40, 50	-40.4	63.2	"	284.6
GU3-312.8	30, 50	-36.9	100.2	"	247.6
GU3-317.8	20, 30, 40, 50	-43.7	310.1	"	37.7

Sample	AF Levels Used	I_{samp}	D_{samp}	D_{mark}	OR
GU3-322.3	20, 30, 40	-41.9	253.8	180	93.7
GU3-323.0	10	-42.2	8.6	"	339.2
GU3-330.6	30, 40, 60, 80, 100	-41.6	303.8	"	44.0
GU3-344.1	10, 20, 30, 40, 50	-33.0	69.5	"	278.3
OR3-345.8	20, 30, 40, 60, 80	-38.1	180.7	284	271.1
OR3-348.7	10	-38.1	175.4	269	261.4
GU3-354.6	20, 30, 40, 60, 80, 100	-41.2	93.8	180	254.0
GU3-361.2	10	-30.9	66.7	"	281.1
GU3-369.0	20, 30, 40, 60	-37.1	185.1	"	162.7

AF Levels Used are the alternating field demagnetization levels (millitesla) used to obtain the sample remanence direction; I_{samp} and D_{samp} are the inclination and declination of sample remanence relative to the declination of the reference mark, D_{mark} (180° for unoriented samples or determined from the American Coldset orientation logs -- see text); OR is the paleomagnetic orientation of the reference mark.

* The orienting core barrel places 3 assymetrically spaced scribe marks on the core. One of these is the reference groove. Sample OR3-147.2 was erroneously drilled using a scribe mark at an angle of 194° from the reference groove. The data has been corrected to give the orientation of the reference groove.

OR3-151.0, -219.3, -221.0, and -345.8 differ by 15°, 21.9°, 23.3°, and 12.9°, respectively. The data from American Coldset consists of an orientation and a depth. One problem in using this data is that it is difficult to accurately match a depth from the orientation log to a spot on the core. This is particularly true if a portion of the core run is rubble, or if a portion of the core has been placed out of sequence. The orientation logs for the core run from which samples OR3-218.8 through OR3-221.0 were obtained indicate that the reference groove rotated 52° in a counterclockwise direction over a 7 ft depth interval. The paleomagnetic orientations determined from the four samples in this interval indicate a 53° rotation (also counterclockwise) of the reference line over a distance of slightly more than 2 ft. Therefore, it is strongly suspected that the discrepancies may be largely due to mismatching depths on the core with those in the orientation log. Because the paleomagnetic orientations do not depend on determining a precise depth on the core, and because the Tiva Canyon Member of the Paintbrush Tuff has a well defined direction of remanent magnetization at this locality, the paleomagnetically determined orientations presented here are preferable to the data acquired with the orienting core barrel.

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Appendix 1.

Paleomagnetic Data for Outcrop Samples of the Tiva Canyon Member of the Paintbrush Tuff at Yucca Mountain.

SN = sample number

DN = alternating field demagnetization level

D = declination of remanence

I = inclination of remanence

J = intensity of remanence (Amperes/meter)

No structural correction has been applied to the data.

SITE M79-7

SN=M79-7A	DN=NRM	D=-23.4	I=-24.3	J=3.29E-4
SN=M79-7A	DN=10mT	D=169.3	I=-50.1	J=3.17E-4
SN=M79-7A	DN=20mT	D=169.3	I=-49.3	J=2.57E-4
SN=M79-7A	DN=30mT	D=169.6	I=-48.2	J=1.98E-4
SN=M79-7B	DN=NRM	D=197.5	I=-20.6	J=5.79E-4
SN=M79-7B	DN=10mT	D=170.9	I=-40.7	J=3.89E-4
SN=M79-7B	DN=20mT	D=169.3	I=-41.5	J=2.90E-4
SN=M79-7C	DN=NRM	D=178.4	I=-33.9	J=5.00E-4
SN=M79-7C	DN=10mT	D=167.7	I=-41.2	J=3.52E-4
SN=M79-7C	DN=20mT	D=166.5	I=-41.6	J=2.56E-4
SN=M79-7D	DN=NRM	D=191.6	I=-64.8	J=6.05E-4
SN=M79-7D	DN=10mT	D=170.0	I=-52.8	J=3.53E-4
SN=M79-7D	DN=20mT	D=166.9	I=-46.4	J=2.85E-4
SN=M79-7E	DN=NRM	D=232.1	I=65.8	J=1.42E-2
SN=M79-7E	DN=10mT	D=182.7	I=-14.2	J=2.60E-3
SN=M79-7E	DN=20mT	D=174.8	I=-33.9	J=2.32E-3
SN=M79-7E	DN=30mT	D=172.2	I=-38.9	J=1.88E-3
SN=M79-7E	DN=40mT	D=171.7	I=-40.4	J=1.55E-3
SN=M79-7F	DN=NRM	D=2.4	I=-69.0	J=3.42E-2
SN=M79-7F	DN=10mT	D=51.3	I=-83.0	J=7.23E-3
SN=M79-7F	DN=20mT	D=159.2	I=-68.9	J=3.24E-4
SN=M79-7F	DN=30mT	D=162.8	I=-61.1	J=2.22E-4
SN=M79-7F	DN=40mT	D=164.7	I=-56.5	J=1.63E-4

SITE M79-25

SN=M79-25A	DN=NRM	D=173.5	I=-39.2	J=6.07E-2
SN=M79-25A	DN=20mT	D=170.8	I=-38.2	J=4.92E-2
SN=M79-25B	DN=NRM	D=168.5	I=-38.3	J=6.20E-2
SN=M79-25B	DN=20mT	D=168.8	I=-39.2	J=5.52E-2
SN=M79-25C	DN=NRM	D=164.0	I=-43.8	J=6.49E-2
SN=M79-25C	DN=20mT	D=169.1	I=-43.9	J=5.81E-2
SN=M79-25D	DN=NRM	D=176.0	I=-40.3	J=8.45E-2
SN=M79-25D	DN=20mT	D=174.3	I=-40.0	J=7.55E-2
SN=M79-25E	DN=NRM	D=170.4	I=-36.2	J=1.28E-2
SN=M79-25E	DN=20mT	D=173.9	I=-36.9	J=7.52E-3
SN=M79-25F	DN=NRM	D=171.0	I=-36.9	J=1.80E-2
SN=M79-25F	DN=20mT	D=171.9	I=-37.1	J=1.09E-2
SN=M79-25G	DN=NRM	D=175.0	I=-48.1	J=4.62E-4
SN=M79-25G	DN=20mT	D=176.0	I=-49.0	J=2.66E-4

SITE M79-26

SN=M79-26A	DN=NRM	D=164.9	I=-40.3	J=2.23E-2
SN=M79-26A	DN=20mT	D=165.0	I=-40.4	J=1.16E-2
SN=M79-26B	DN=NRM	D=160.6	I=-38.3	J=2.43E-2
SN=M79-26B	DN=20mT	D=161.2	I=-39.0	J=1.23E-2
SN=M79-26C	DN=NRM	D=161.4	I=-35.3	J=1.10E-1
SN=M79-26C	DN=20mT	D=161.4	I=-35.1	J=8.90E-2
SN=M79-26D	DN=NRM	D=163.3	I=-43.2	J=7.74E-2
SN=M79-26D	DN=20mT	D=163.0	I=-43.4	J=5.00E-2
SN=M79-26E	DN=NRM	D=189.7	I=-36.8	J=2.03E-2
SN=M79-26E	DN=20mT	D=172.6	I=-35.7	J=1.17E-2
SN=M79-26F	DN=NRM	D=175.2	I=-42.2	J=9.93E-2
SN=M79-26F	DN=20mT	D=182.6	I=-41.7	J=7.42E-2
SN=M79-26G	DN=NRM	D=176.9	I=-38.1	J=2.79E-2
SN=M79-26G	DN=20mT	D=178.2	I=-37.9	J=1.62E-2

SITE M79-28

SN=M79-28A	DN=NRM	D=162.7	I=-26.1	J=1.76E-2
SN=M79-28A	DN=20mT	D=164.5	I=-39.3	J=5.95E-3
SN=M79-28B	DN=NRM	D=154.4	I=-46.9	J=1.25E-2
SN=M79-28B	DN=20mT	D=159.8	I=-43.6	J=5.36E-3
SN=M79-28C	DN=NRM	D=172.0	I=-39.0	J=1.26E-2
SN=M79-28C	DN=20mT	D=175.1	I=-40.3	J=6.75E-3
SN=M79-28D	DN=NRM	D=185.0	I=-40.8	J=8.12E-3
SN=M79-28D	DN=20mT	D=165.6	I=-38.9	J=5.43E-3
SN=M79-28E	DN=NRM	D=164.2	I=-43.4	J=1.14E-2
SN=M79-28E	DN=20mT	D=162.7	I=-41.3	J=5.69E-3
SN=M79-28F	DN=NRM	D=186.4	I=-45.6	J=8.83E-3
SN=M79-28F	DN=20mT	D=167.0	I=-41.5	J=4.94E-3

SITE M79-29

SN=M79-29A	DN=NRM	D=174.0	I=-46.1	J=8.18E-3
SN=M79-29A	DN=20mT	D=163.1	I=-41.2	J=3.66E-3
SN=M79-29B	DN=NRM	D=185.2	I=-50.9	J=7.65E-3
SN=M79-29B	DN=20mT	D=166.1	I=-44.0	J=4.25E-3
SN=M79-29C	DN=NRM	D=191.5	I=-52.6	J=5.81E-3
SN=M79-29C	DN=20mT	D=164.6	I=-43.0	J=4.04E-3
SN=M79-29D	DN=NRM	D=169.0	I=-41.3	J=6.53E-3
SN=M79-29D	DN=20mT	D=166.2	I=-42.3	J=4.01E-3
SN=M79-29E	DN=NRM	D=161.2	I=-24.4	J=3.82E-3
SN=M79-29E	DN=20mT	D=163.8	I=-39.5	J=2.55E-3
SN=M79-29F	DN=NRM	D=168.7	I=-38.0	J=6.26E-3
SN=M79-29F	DN=20mT	D=165.8	I=-40.4	J=3.25E-3
SN=M79-29G	DN=NRM	D=164.3	I=-32.1	J=5.85E-3
SN=M79-29G	DN=20mT	D=162.4	I=-39.8	J=3.62E-3
SN=M79-29H	DN=NRM	D=166.1	I=-32.6	J=5.67E-3
SN=M79-29H	DN=20mT	D=167.9	I=-39.9	J=3.10E-3

SITE JR80-1

SN=JR80-1-1	DN=NRM	D=174.5	I=-46.4	J=9.03E-3
SN=JR80-1-1	DN=10mT	D=172.2	I=-47.1	J=6.92E-3
SN=JR80-1-1	DN=20mT	D=172.0	I=-46.6	J=4.97E-3
SN=JR80-1-2	DN=NRM	D=171.2	I=-48.1	J=7.38E-3
SN=JR80-1-2	DN=10mT	D=165.4	I=-47.1	J=5.84E-3
SN=JR80-1-2	DN=20mT	D=164.8	I=-47.3	J=4.07E-3
SN=JR80-1-3	DN=NRM	D=177.2	I=-41.3	J=1.10E-2
SN=JR80-1-3	DN=10mT	D=167.5	I=-44.0	J=7.87E-3
SN=JR80-1-3	DN=20mT	D=167.4	I=-44.4	J=5.05E-3
SN=JR80-1-4	DN=NRM	D=194.3	I=-40.9	J=1.33E-2
SN=JR80-1-4	DN=10mT	D=174.8	I=-42.9	J=1.03E-2
SN=JR80-1-4	DN=20mT	D=173.8	I=-42.6	J=7.16E-3
SN=JR80-1-5	DN=NRM	D=161.0	I=-40.0	J=8.21E-3
SN=JR80-1-5	DN=10mT	D=169.6	I=-42.0	J=6.83E-3
SN=JR80-1-5	DN=20mT	D=170.5	I=-41.7	J=4.80E-3
SN=JR80-1-6	DN=NRM	D=168.5	I=-20.8	J=3.05E-2
SN=JR80-1-6	DN=10mT	D=170.0	I=-38.9	J=9.92E-3
SN=JR80-1-6	DN=20mT	D=170.3	I=-41.7	J=6.42E-3
SN=JR80-1-7	DN=NRM	D=134.3	I=-62.8	J=4.72E-2
SN=JR80-1-7	DN=10mT	D=156.8	I=-53.6	J=1.47E-2
SN=JR80-1-7	DN=20mT	D=166.5	I=-49.4	J=7.02E-3
SN=JR80-1-7	DN=30mT	D=166.5	I=-48.0	J=4.65E-3

SITE JR80-2

SN=JR80-2-1	DN=NRM	D=193.0	I=-34.2	J=3.50E-3
SN=JR80-2-1	DN=10mT	D=166.3	I=-38.2	J=2.64E-3
SN=JR80-2-1	DN=20mT	D=165.3	I=-39.7	J=1.87E-3
SN=JR80-2-2	DN=NRM	D=177.7	I=-42.9	J=3.71E-3
SN=JR80-2-2	DN=10mT	D=166.4	I=-40.2	J=3.33E-3
SN=JR80-2-2	DN=20mT	D=166.2	I=-39.9	J=2.42E-3
SN=JR80-2-3	DN=NRM	D=176.9	I=-39.5	J=3.39E-3
SN=JR80-2-3	DN=10mT	D=167.4	I=-39.6	J=2.46E-3
SN=JR80-2-3	DN=20mT	D=167.2	I=-39.4	J=1.77E-3
SN=JR80-2-4	DN=NRM	D=158.0	I=-10.7	J=4.12E-3
SN=JR80-2-4	DN=10mT	D=161.6	I=-38.7	J=1.90E-3
SN=JR80-2-4	DN=20mT	D=162.3	I=-40.0	J=1.42E-3
SN=JR80-2-5	DN=NRM	D=164.4	I=-18.6	J=2.55E-3
SN=JR80-2-5	DN=10mT	D=163.4	I=-37.6	J=1.69E-3
SN=JR80-2-5	DN=20mT	D=163.6	I=-38.7	J=1.29E-3
SN=JR80-2-6	DN=NRM	D=150.4	I=-40.0	J=7.39E-3
SN=JR80-2-6	DN=10mT	D=164.0	I=-41.8	J=3.25E-3
SN=JR80-2-6	DN=20mT	D=164.6	I=-42.1	J=2.40E-3
SN=JR80-2-7	DN=NRM	D=25.8	I=-56.7	J=2.58E-3
SN=JR80-2-7	DN=10mT	D=158.8	I=-44.5	J=1.78E-3
SN=JR80-2-7	DN=20mT	D=163.3	I=-43.6	J=1.41E-3

SITE JR81-2

SN=JR81-2-1	DN=NRM	D=168.5	I=-34.2	J=7.65E-3
SN=JR81-2-1	DN=5mT	D=170.1	I=-34.4	J=7.50E-3
SN=JR81-2-1	DN=10mT	D=170.1	I=-34.8	J=6.95E-3
SN=JR81-2-2	DN=NRM	D=161.2	I=-35.5	J=6.44E-3
SN=JR81-2-2	DN=5mT	D=161.9	I=-36.2	J=6.40E-3
SN=JR81-2-2	DN=10mT	D=161.3	I=-36.2	J=6.09E-3
SN=JR81-2-3	DN=NRM	D=166.4	I=-38.7	J=5.23E-3
SN=JR81-2-3	DN=5mT	D=167.1	I=-39.0	J=5.19E-3
SN=JR81-2-3	DN=10mT	D=167.2	I=-39.1	J=5.00E-3
SN=JR81-2-4	DN=NRM	D=168.7	I=-42.0	J=8.70E-3
SN=JR81-2-4	DN=5mT	D=169.4	I=-42.1	J=8.69E-3
SN=JR81-2-4	DN=10mT	D=169.4	I=-41.9	J=8.58E-3
SN=JR81-2-5	DN=NRM	D=171.3	I=-40.5	J=7.41E-3
SN=JR81-2-5	DN=5mT	D=171.5	I=-40.6	J=7.41E-3
SN=JR81-2-5	DN=10mT	D=171.9	I=-40.8	J=7.34E-3
SN=JR81-2-6	DN=NRM	D=169.0	I=-40.1	J=8.23E-3
SN=JR81-2-6	DN=5mT	D=169.2	I=-40.3	J=8.19E-3
SN=JR81-2-6	DN=10mT	D=169.3	I=-40.2	J=8.06E-3
SN=JR81-2-7	DN=NRM	D=172.3	I=-39.2	J=2.94E-3
SN=JR81-2-7	DN=5mT	D=172.0	I=-40.2	J=2.88E-3
SN=JR81-2-7	DN=10mT	D=171.9	I=-40.7	J=2.63E-3
SN=JR81-2-8	DN=NRM	D=170.0	I=-40.7	J=2.88E-3
SN=JR81-2-8	DN=5mT	D=169.6	I=-41.9	J=2.85E-3
SN=JR81-2-8	DN=10mT	D=168.7	I=-42.4	J=2.63E-3
SN=JR81-2-9	DN=NRM	D=161.6	I=-39.3	J=4.07E-3
SN=JR81-2-9	DN=5mT	D=161.7	I=-40.3	J=3.91E-3
SN=JR81-2-9	DN=10mT	D=161.7	I=-40.5	J=3.47E-3

SITE JR81-8

SN=JR81-8-1A	DN=NRM	D=173.7	I=-43.1	J=3.97E-3
SN=JR81-8-1A	DN=5mT	D=173.6	I=-43.1	J=3.95E-3
SN=JR81-8-1A	DN=10mT	D=194.9	I=-47.0	J=2.83E-3
SN=JR81-8-1A	DN=20mT	D=195.2	I=-47.0	J=1.98E-3
SN=JR81-8-2A	DN=NRM	D=170.9	I=-43.8	J=4.35E-3
SN=JR81-8-2A	DN=5mT	D=186.5	I=-34.1	J=3.42E-3
SN=JR81-8-2A	DN=10mT	D=185.6	I=-34.8	J=3.19E-3
SN=JR81-8-2A	DN=20mT	D=170.1	I=-44.7	J=2.92E-3
SN=JR81-8-3A	DN=NRM	D=174.6	I=-43.3	J=3.11E-3
SN=JR81-8-3A	DN=5mT	D=175.0	I=-42.9	J=3.11E-3
SN=JR81-8-3A	DN=10mT	D=175.3	I=-43.1	J=2.73E-3
SN=JR81-8-3A	DN=20mT	D=175.4	I=-43.1	J=1.71E-3
SN=JR81-8-4A	DN=NRM	D=169.5	I=-39.3	J=2.77E-3
SN=JR81-8-4A	DN=5mT	D=170.9	I=-39.6	J=2.76E-3
SN=JR81-8-4A	DN=20mT	D=171.0	I=-39.9	J=1.89E-3
SN=JR81-8-5	DN=NRM	D=171.8	I=-41.4	J=3.05E-3
SN=JR81-8-5	DN=5mT	D=172.3	I=-41.7	J=3.03E-3
SN=JR81-8-5	DN=10mT	D=171.8	I=-41.8	J=2.87E-3
SN=JR81-8-5	DN=20mT	D=171.9	I=-41.8	J=2.22E-3
SN=JR81-8-6	DN=NRM	D=172.3	I=-43.7	J=4.56E-3
SN=JR81-8-6	DN=5mT	D=172.1	I=-44.1	J=4.56E-3
SN=JR81-8-6	DN=10mT	D=172.0	I=-44.3	J=4.40E-3
SN=JR81-8-6	DN=20mT	D=172.4	I=-44.4	J=3.75E-3

Appendix 2.

Paleomagnetic Data for the Tiva Canyon Member of the Paintbrush Tuff from Drill Hole USW GU-3.

SN = sample number

M indicates 180° error in orientation of reference groove.

U indicates core segment was upside-down.

These errors have been corrected in the data presented.

DN = alternating field demagnetization level

D = declination of remanence relative to reference mark (see text)

I = inclination of remanence

J = intensity of remanence (Amperes/meter)

SN=GU3-42.6	DN=NRM	D=219.9	I=-21.8	J=2.12E+0
SN=GU3-42.6	DN=10mT	D=192.5	I=-60.3	J=5.82E-1
SN=GU3-42.6	DN=15mT	D=81.4	I=-55.6	J=3.88E-1
SN=GU3-42.6	DN=20mT	D=79.1	I=-52.5	J=3.63E-1
SN=GU3-42.6	DN=30mT	D=70.2	I=-46.9	J=3.06E-1
SN=GU3-42.6	DN=40mT	D=66.9	I=-45.4	J=2.58E-1
SN=GU3-42.6	DN=60mT	D=66.2	I=-43.6	J=1.92E-1
SN=GU3-42.6	DN=80mT	D=69.3	I=-44.1	J=1.66E-1
SN=GU3-42.6	DN=100mT	D=66.9	I=-45.3	J=1.54E-1
SN=GU3-47.25	DN=NRM	D=263.6	I=-35.6	J=1.50E+0
SN=GU3-47.25	DN=10mT	D=64.7	I=-60.2	J=7.28E-1
SN=GU3-47.25	DN=20mT	D=86.6	I=-46.7	J=6.33E-1
SN=GU3-47.25	DN=30mT	D=95.8	I=-42.7	J=5.26E-1
SN=GU3-47.25	DN=40mT	D=94.0	I=-40.9	J=3.87E-1
SN=GU3-47.25	DN=50mT	D=97.6	I=-40.7	J=3.36E-1
SN=GU3-50.7	DN=NRM	D=188.2	I=-20.6	J=1.31E+0
SN=GU3-50.7	DN=5mT	D=157.4	I=-35.6	J=7.94E-1
SN=GU3-50.7	DN=10mT	D=102.6	I=-42.9	J=5.15E-1
SN=GU3-50.7	DN=20mT	D=93.6	I=-41.3	J=3.88E-1
SN=GU3-50.7	DN=30mT	D=94.3	I=-40.7	J=3.12E-1
SN=GU3-50.7	DN=40mT	D=89.3	I=-39.3	J=2.25E-1
SN=GU3-50.7	DN=50mT	D=89.4	I=-38.8	J=1.81E-1
SN=GU3-53.5	DN=NRM	D=20.1	I=-17.0	J=1.40E+0
SN=GU3-53.5	DN=10mT	D=-84.6	I=-44.1	J=4.72E-1
SN=GU3-53.5	DN=20mT	D=266.3	I=-40.7	J=3.91E-1
SN=GU3-53.5	DN=30mT	D=263.2	I=-38.6	J=2.78E-1
SN=GU3-53.5	DN=40mT	D=258.2	I=-39.4	J=1.83E-1
SN=GU3-53.5	DN=60mT	D=265.6	I=-36.4	J=1.32E-1
SN=GU3-53.5	DN=80mT	D=267.5	I=-36.0	J=9.04E-2
SN=GU3-53.5	DN=100mT	D=269.6	I=-27.2	J=6.55E-2
SN=GU3-55.35	DN=NRM	D=135.6	I=-34.3	J=6.36E-1
SN=GU3-55.35	DN=5mT	D=65.0	I=-61.9	J=3.73E-1
SN=GU3-55.35	DN=10mT	D=25.7	I=-47.0	J=3.74E-1
SN=GU3-55.35	DN=20mT	D=22.6	I=-44.3	J=2.93E-1
SN=GU3-55.35	DN=30mT	D=20.3	I=-41.6	J=2.12E-1
SN=GU3-55.35	DN=40mT	D=20.6	I=-42.8	J=1.68E-1
SN=GU3-55.35	DN=50mT	D=18.9	I=-40.0	J=1.24E-1
SN=GU3-63.7	DN=NRM	D=-89.2	I=-47.2	J=2.92E-1
SN=GU3-63.7	DN=5mT	D=268.2	I=-43.1	J=3.10E-1
SN=GU3-63.7	DN=10mT	D=268.2	I=-42.7	J=2.95E-1
SN=GU3-63.7	DN=20mT	D=268.0	I=-42.2	J=2.28E-1
SN=GU3-63.7	DN=30mT	D=266.3	I=-42.6	J=1.87E-1
SN=GU3-63.7	DN=40mT	D=266.2	I=-42.9	J=1.59E-1
SN=GU3-63.7	DN=50mT	D=266.8	I=-43.6	J=1.40E-1

SN=GU3-64.4	DN=NRM	D=181.3	I=-51.5	J=2.78E-1
SN=GU3-64.4	DN=10mT	D=180.6	I=-47.7	J=2.83E-1
SN=GU3-64.4	DN=20mT	D=177.3	I=-47.0	J=2.31E-1
SN=GU3-64.4	DN=30mT	D=177.1	I=-47.7	J=1.77E-1
SN=GU3-64.4	DN=40mT	D=177.1	I=-48.1	J=1.52E-1
SN=GU3-64.4	DN=50mT	D=176.9	I=-48.2	J=1.41E-1
SN=GU3-65.75	DN=NRM	D=192.6	I=-48.5	J=2.76E-1
SN=GU3-65.75	DN=5mT	D=192.4	I=-48.4	J=2.77E-1
SN=GU3-65.75	DN=10mT	D=189.9	I=-45.2	J=2.79E-1
SN=GU3-65.75	DN=20mT	D=190.5	I=-45.4	J=2.30E-1
SN=GU3-65.75	DN=30mT	D=189.1	I=-44.9	J=1.77E-1
SN=GU3-65.75	DN=40mT	D=188.3	I=-45.5	J=1.53E-1
SN=GU3-65.75	DN=50mT	D=189.2	I=-45.6	J=1.42E-1
SN=GU3-67.0	DN=NRM	D=223.3	I=-48.5	J=2.76E-1
SN=GU3-67.0	DN=10mT	D=219.6	I=-45.2	J=2.80E-1
SN=GU3-67.0	DN=20mT	D=219.3	I=-46.0	J=2.20E-1
SN=GU3-67.0	DN=30mT	D=219.4	I=-46.5	J=1.81E-1
SN=GU3-67.0	DN=40mT	D=221.3	I=-46.1	J=1.63E-1
SN=GU3-67.0	DN=50mT	D=219.4	I=-46.3	J=1.45E-1
SN=GU3-73.5	DN=NRM	D=124.0	I=-40.0	J=2.34E-1
SN=GU3-73.5	DN=5mT	D=124.0	I=-40.1	J=2.34E-1
SN=GU3-73.5	DN=10mT	D=119.0	I=-37.0	J=2.45E-1
SN=GU3-73.5	DN=20mT	D=117.7	I=-37.1	J=2.05E-1
SN=GU3-73.5	DN=30mT	D=119.9	I=-35.9	J=1.65E-1
SN=GU3-73.5	DN=40mT	D=117.4	I=-37.4	J=1.32E-1
SN=GU3-73.5	DN=50mT	D=119.3	I=-37.4	J=1.14E-1
SN=GU3-74.5	DN=NRM	D=264.6	I=-41.8	J=2.20E-1
SN=GU3-74.5	DN=10mT	D=258.0	I=-40.4	J=2.28E-1
SN=GU3-74.5	DN=20mT	D=257.2	I=-39.6	J=1.93E-1
SN=GU3-74.5	DN=30mT	D=256.8	I=-39.8	J=1.54E-1
SN=GU3-74.5	DN=40mT	D=257.3	I=-40.4	J=1.34E-1
SN=GU3-74.5	DN=50mT	D=257.4	I=-41.0	J=1.14E-1
SN=GU3-78.75	DN=NRM	D=215.7	I=-38.5	J=5.86E-1
SN=GU3-78.75	DN=5mT	D=212.3	I=-39.8	J=6.04E-1
SN=GU3-78.75	DN=10mT	D=212.3	I=-39.6	J=5.46E-1
SN=GU3-78.75	DN=20mT	D=212.6	I=-39.6	J=4.14E-1
SN=GU3-78.75	DN=30mT	D=212.0	I=-37.7	J=3.30E-1
SN=GU3-78.75	DN=40mT	D=213.1	I=-36.5	J=2.43E-1
SN=GU3-78.75	DN=50mT	D=212.3	I=-37.8	J=1.84E-1
SN=GU3-86.8	DN=NRM	D=-57.6	I=-36.2	J=2.94E-1
SN=GU3-86.8	DN=10mT	D=-59.0	I=-36.7	J=2.74E-1
SN=GU3-86.8	DN=20mT	D=-59.7	I=-35.3	J=2.22E-1
SN=GU3-86.8	DN=30mT	D=-59.3	I=-36.2	J=1.72E-1
SN=GU3-86.8	DN=40mT	D=-59.0	I=-36.5	J=1.37E-1
SN=GU3-86.8	DN=50mT	D=-59.4	I=-37.3	J=1.10E-1

SN=GU3-89.3	DN=NRM	D=151.1	I=-44.6	J=1.34E+0
SN=GU3-89.3	DN=5mT	D=151.5	I=-44.0	J=1.29E+0
SN=GU3-89.3	DN=10mT	D=151.0	I=-43.5	J=1.16E+0
SN=GU3-89.3	DN=20mT	D=150.6	I=-42.9	J=8.40E-1
SN=GU3-89.3	DN=30mT	D=153.9	I=-43.1	J=5.42E-1
SN=GU3-89.3	DN=40mT	D=159.1	I=-45.3	J=3.90E-1
SN=GU3-89.3	DN=50mT	D=150.8	I=-43.6	J=2.87E-1
SN=GU3-94.5	DN=NRM	D=28.0	I=-35.8	J=2.90E-1
SN=GU3-94.5	DN=10mT	D=30.3	I=-37.1	J=2.61E-1
SN=GU3-94.5	DN=20mT	D=29.0	I=-38.4	J=2.08E-1
SN=GU3-94.5	DN=30mT	D=32.1	I=-37.9	J=1.68E-1
SN=GU3-94.5	DN=40mT	D=32.1	I=-38.3	J=1.34E-1
SN=GU3-94.5	DN=50mT	D=32.0	I=-39.2	J=9.91E-2
SN=GU3-99.25	DN=NRM	D=-8.6	I=-34.0	J=3.44E-1
SN=GU3-99.25	DN=5mT	D=-9.3	I=-36.6	J=3.33E-1
SN=GU3-99.25	DN=10mT	D=-8.6	I=-37.2	J=3.08E-1
SN=GU3-99.25	DN=20mT	D=-9.6	I=-37.5	J=2.55E-1
SN=GU3-99.25	DN=30mT	D=-7.7	I=-36.4	J=1.90E-1
SN=GU3-99.25	DN=40mT	D=-12.1	I=-37.5	J=1.18E-1
SN=GU3-99.25	DN=50mT	D=-8.9	I=-37.3	J=1.04E-1
SN=GU3-101.2	DN=NRM	D=88.6	I=-32.5	J=3.11E-1
SN=GU3-101.2	DN=10mT	D=94.4	I=-39.3	J=2.93E-1
SN=GU3-101.2	DN=20mT	D=97.5	I=-40.0	J=2.30E-1
SN=GU3-101.2	DN=30mT	D=101.2	I=-39.1	J=1.79E-1
SN=GU3-101.2	DN=40mT	D=99.8	I=-38.8	J=1.28E-1
SN=GU3-101.2	DN=60mT	D=103.5	I=-37.4	J=8.19E-2
SN=GU3-101.2	DN=80mT	D=103.1	I=-37.7	J=5.41E-2
SN=GU3-101.2	DN=100mT	D=91.9	I=-42.9	J=4.27E-2
SN=GU3-103.5	DN=NRM	D=-42.2	I=-26.2	J=2.94E-1
SN=GU3-103.5	DN=5mT	D=-43.7	I=-29.6	J=2.95E-1
SN=GU3-103.5	DN=10mT	D=-44.1	I=-31.7	J=2.82E-1
SN=GU3-103.5	DN=20mT	D=-45.5	I=-33.5	J=2.30E-1
SN=GU3-103.5	DN=30mT	D=-45.6	I=-32.0	J=1.70E-1
SN=GU3-103.5	DN=40mT	D=-45.7	I=-33.8	J=1.41E-1
SN=GU3-103.5	DN=50mT	D=-44.8	I=-32.8	J=1.01E-1
SN=GU3-104.75	DN=NRM	D=-30.1	I=-20.0	J=3.02E-1
SN=GU3-104.75	DN=10mT	D=-31.7	I=-28.5	J=2.81E-1
SN=GU3-104.75	DN=20mT	D=-31.1	I=-32.6	J=2.24E-1
SN=GU3-104.75	DN=30mT	D=-33.2	I=-34.7	J=1.78E-1
SN=GU3-104.75	DN=40mT	D=-29.9	I=-35.2	J=1.31E-1
SN=GU3-104.75	DN=60mT	D=-33.9	I=-30.9	J=7.15E-2
SN=GU3-104.75	DN=80mT	D=-31.5	I=-35.9	J=4.71E-2
SN=GU3-104.75	DN=100mT	D=-34.1	I=-24.9	J=3.76E-2
SN=OR3-108.3M	DN=NRM	D=160.2	I=-41.8	J=2.86E-1
SN=OR3-108.3M	DN=10mT	D=164.7	I=-39.7	J=2.81E-1

SN=OR3-109.4M	DN=NRM	D=162.7	I=-42.0	J=2.80E-1
SN=OR3-109.4M	DN=10mT	D=166.5	I=-40.4	J=2.64E-1
SN=OR3-109.4M	DN=20mT	D=169.6	I=-38.7	J=2.27E-1
SN=OR3-109.4M	DN=30mT	D=168.7	I=-40.0	J=1.75E-1
SN=OR3-109.4M	DN=40mT	D=169.7	I=-39.1	J=1.39E-1
SN=OR3-109.4M	DN=50mT	D=168.7	I=-38.7	J=1.06E-1
SN=OR3-110.2M	DN=NRM	D=163.1	I=-44.2	J=2.66E-1
SN=OR3-110.2M	DN=10mT	D=167.8	I=-41.4	J=2.56E-1
SN=OR3-110.2M	DN=20mT	D=172.3	I=-40.6	J=2.11E-1
SN=OR3-110.2M	DN=30mT	D=171.2	I=-40.5	J=1.62E-1
SN=OR3-110.2M	DN=40mT	D=169.5	I=-38.6	J=1.30E-1
SN=OR3-110.2M	DN=50mT	D=171.9	I=-39.2	J=1.03E-1
SN=OR3-111.2M	DN=NRM	D=159.6	I=-41.2	J=2.76E-1
SN=OR3-111.2M	DN=10mT	D=164.6	I=-39.8	J=2.67E-1
SN=OR3-111.2M	DN=20mT	D=166.6	I=-39.6	J=2.15E-1
SN=OR3-111.2M	DN=30mT	D=171.0	I=-39.6	J=1.55E-1
SN=OR3-111.2M	DN=40mT	D=168.5	I=-39.9	J=1.21E-1
SN=OR3-111.2M	DN=50mT	D=169.5	I=-38.2	J=9.20E-2
SN=OR3-112.0M	DN=NRM	D=157.4	I=-41.9	J=2.76E-1
SN=OR3-112.0M	DN=10mT	D=163.2	I=-39.9	J=2.63E-1
SN=OR3-112.0M	DN=20mT	D=169.2	I=-40.3	J=2.10E-1
SN=OR3-112.0M	DN=30mT	D=167.3	I=-39.2	J=1.70E-1
SN=OR3-112.0M	DN=40mT	D=166.8	I=-39.3	J=1.30E-1
SN=OR3-112.0M	DN=50mT	D=166.6	I=-40.1	J=1.00E-1
SN=GU3-121.7	DN=NRM	D=134.1	I=-38.9	J=3.00E-1
SN=GU3-121.7	DN=10mT	D=136.6	I=-38.9	J=2.95E-1
SN=GU3-121.7	DN=20mT	D=137.3	I=-37.9	J=2.38E-1
SN=GU3-121.7	DN=30mT	D=137.2	I=-37.8	J=1.91E-1
SN=GU3-121.7	DN=40mT	D=139.7	I=-38.4	J=1.45E-1
SN=GU3-121.7	DN=50mT	D=138.8	I=-36.6	J=1.15E-1
SN=GU3-125.2	DN=NRM	D=132.9	I=-37.9	J=3.26E-1
SN=GU3-125.2	DN=5mT	D=133.1	I=-37.7	J=3.21E-1
SN=GU3-125.2	DN=10mT	D=133.0	I=-37.5	J=3.04E-1
SN=GU3-125.2	DN=20mT	D=135.1	I=-38.1	J=2.37E-1
SN=GU3-125.2	DN=30mT	D=136.2	I=-38.1	J=1.76E-1
SN=GU3-125.2	DN=40mT	D=135.7	I=-36.6	J=1.36E-1
SN=GU3-125.2	DN=50mT	D=136.6	I=-35.8	J=1.03E-1
SN=GU3-129.5	DN=NRM	D=99.0	I=-39.4	J=3.76E-1
SN=GU3-129.5	DN=5mT	D=99.8	I=-39.6	J=3.73E-1
SN=GU3-129.5	DN=10mT	D=101.2	I=-40.4	J=3.48E-1
SN=GU3-129.5	DN=20mT	D=101.5	I=-39.2	J=2.85E-1
SN=GU3-129.5	DN=30mT	D=103.4	I=-38.5	J=2.28E-1
SN=GU3-129.5	DN=40mT	D=100.8	I=-38.3	J=1.65E-1
SN=GU3-129.5	DN=50mT	D=102.6	I=-38.0	J=1.28E-1

SN=GU3-130.4	DN=NRM	D=223.9	I=-43.1	J=3.24E-1
SN=GU3-130.4	DN=10mT	D=223.1	I=-42.8	J=3.10E-1
SN=GU3-130.4	DN=20mT	D=222.0	I=-41.1	J=2.65E-1
SN=GU3-130.4	DN=30mT	D=221.7	I=-42.3	J=2.00E-1
SN=GU3-130.4	DN=40mT	D=218.3	I=-41.4	J=1.60E-1
SN=GU3-130.4	DN=50mT	D=221.6	I=-40.5	J=1.30E-1
SN=GU3-134.0	DN=NRM	D=31.8	I=-38.8	J=3.62E-1
SN=GU3-134.0	DN=5mT	D=32.2	I=-39.6	J=3.56E-1
SN=GU3-134.0	DN=10mT	D=32.3	I=-40.6	J=3.34E-1
SN=GU3-134.0	DN=20mT	D=34.4	I=-40.2	J=2.78E-1
SN=GU3-134.0	DN=30mT	D=33.9	I=-40.1	J=2.01E-1
SN=GU3-134.0	DN=50mT	D=33.6	I=-40.0	J=1.58E-1
SN=GU3-137.6	DN=NRM	D=161.6	I=-42.9	J=3.81E-1
SN=GU3-137.6	DN=10mT	D=164.0	I=-41.3	J=3.62E-1
SN=GU3-137.6	DN=20mT	D=162.9	I=-39.1	J=2.69E-1
SN=GU3-137.6	DN=30mT	D=163.5	I=-37.4	J=1.99E-1
SN=GU3-137.6	DN=40mT	D=163.0	I=-37.1	J=1.52E-1
SN=GU3-137.6	DN=50mT	D=167.9	I=-38.4	J=1.11E-1
SN=GU3-139.0	DN=NRM	D=53.3	I=-38.7	J=4.66E-1
SN=GU3-139.0	DN=5mT	D=56.2	I=-39.2	J=4.58E-1
SN=GU3-139.0	DN=10mT	D=55.8	I=-40.4	J=4.15E-1
SN=GU3-139.0	DN=20mT	D=56.9	I=-39.2	J=2.99E-1
SN=GU3-139.0	DN=30mT	D=56.8	I=-41.0	J=2.13E-1
SN=GU3-139.0	DN=40mT	D=60.5	I=-38.9	J=1.58E-1
SN=GU3-139.0	DN=50mT	D=57.3	I=-39.0	J=1.31E-1
SN=OR3-142.3	DN=NRM	D=171.8	I=-31.6	J=5.35E-1
SN=OR3-142.3	DN=10mT	D=171.5	I=-38.3	J=4.66E-1
SN=OR3-142.3	DN=20mT	D=173.1	I=-39.0	J=3.28E-1
SN=OR3-142.3	DN=30mT	D=170.9	I=-38.8	J=2.51E-1
SN=OR3-142.3	DN=40mT	D=173.9	I=-39.2	J=1.85E-1
SN=OR3-142.3	DN=50mT	D=175.5	I=-38.7	J=1.42E-1
SN=OR3-145.6	DN=NRM	D=172.4	I=-30.5	J=4.28E-1
SN=OR3-145.6	DN=10mT	D=172.0	I=-35.0	J=3.55E-1
SN=OR3-145.6	DN=20mT	D=170.1	I=-35.9	J=2.70E-1
SN=OR3-145.6	DN=30mT	D=170.6	I=-35.7	J=1.95E-1
SN=OR3-145.6	DN=40mT	D=168.6	I=-36.4	J=1.52E-1
SN=OR3-145.6	DN=50mT	D=173.6	I=-32.9	J=1.05E-1
SN=OR3-147.2	DN=NRM	D=173.2	I=-47.5	J=3.89E-1
SN=OR3-147.2	DN=10mT	D=171.3	I=-43.3	J=3.77E-1
SN=OR3-147.2	DN=20mT	D=171.1	I=-41.1	J=2.95E-1
SN=OR3-147.2	DN=30mT	D=174.5	I=-39.7	J=2.38E-1
SN=OR3-147.2	DN=40mT	D=171.1	I=-39.2	J=1.71E-1
SN=OR3-147.2	DN=50mT	D=170.8	I=-38.9	J=1.34E-1

SN=OR3-148.8	DN=NRM	D=179.4	I=-35.5	J=5.08E-1
SN=OR3-148.8	DN=10mT	D=176.9	I=-38.8	J=4.14E-1
SN=OR3-148.8	DN=20mT	D=171.1	I=-40.2	J=3.12E-1
SN=OR3-148.8	DN=30mT	D=175.8	I=-38.9	J=2.26E-1
SN=OR3-148.8	DN=40mT	D=174.2	I=-38.5	J=1.84E-1
SN=OR3-148.8	DN=50mT	D=177.1	I=-39.6	J=1.31E-1
SN=OR3-151.0	DN=NRM	D=187.8	I=-37.0	J=5.03E-1
SN=OR3-151.0	DN=10mT	D=184.3	I=-40.1	J=4.23E-1
SN=OR3-151.0	DN=20mT	D=183.1	I=-39.7	J=3.10E-1
SN=OR3-151.0	DN=30mT	D=182.7	I=-39.8	J=2.31E-1
SN=OR3-151.0	DN=40mT	D=182.5	I=-39.7	J=1.66E-1
SN=OR3-151.0	DN=60mT	D=180.2	I=-38.7	J=1.10E-1
SN=OR3-151.0	DN=80mT	D=179.1	I=-32.1	J=7.42E-2
SN=OR3-151.0	DN=100mT	D=151.2	I=-46.1	J=4.42E-2
SN=GU3-152.0	DN=NRM	D=-50.8	I=-34.4	J=4.32E-1
SN=GU3-152.0	DN=10mT	D=-62.0	I=-40.9	J=2.85E-1
SN=GU3-161.6U	DN=NRM	D=97.40	I=-35.5	J=5.58E-1
SN=GU3-161.6U	DN=10mT	D=101.6	I=-38.4	J=4.24E-1
SN=GU3-161.6U	DN=20mT	D=102.3	I=-37.4	J=3.98E-1
SN=GU3-161.6U	DN=30mT	D=103.5	I=-37.5	J=3.00E-1
SN=GU3-161.6U	DN=40mT	D=107.4	I=-36.5	J=2.32E-1
SN=GU3-161.6U	DN=50mT	D=106.0	I=-37.1	J=1.78E-1
SN=GU3-168.8	DN=NRM	D=75.4	I=-34.2	J=6.04E-1
SN=GU3-168.8	DN=10mT	D=85.7	I=-37.3	J=4.02E-1
SN=GU3-168.8	DN=20mT	D=84.3	I=-35.2	J=3.75E-1
SN=GU3-168.8	DN=30mT	D=81.5	I=-34.7	J=2.78E-1
SN=GU3-168.8	DN=40mT	D=86.1	I=-35.5	J=2.04E-1
SN=GU3-168.8	DN=50mT	D=83.6	I=-34.8	J=1.57E-1
SN=GU3-172.4	DN=NRM	D=138.3	I=-42.7	J=5.85E-1
SN=GU3-172.4	DN=5mT	D=141.7	I=-42.1	J=6.17E-1
SN=GU3-172.4	DN=10mT	D=143.0	I=-40.6	J=5.85E-1
SN=GU3-172.4	DN=20mT	D=147.2	I=-40.4	J=4.33E-1
SN=GU3-172.4	DN=30mT	D=144.2	I=-38.5	J=3.44E-1
SN=GU3-172.4	DN=40mT	D=146.6	I=-38.0	J=2.50E-1
SN=GU3-172.4	DN=50mT	D=144.2	I=-38.4	J=2.03E-1
SN=GU3-176.5	DN=NRM	D=219.6	I=-44.6	J=6.14E-1
SN=GU3-176.5	DN=10mT	D=216.8	I=-43.2	J=4.27E-1
SN=GU3-176.5	DN=20mT	D=216.7	I=-44.4	J=4.03E-1
SN=GU3-176.5	DN=30mT	D=215.0	I=-44.1	J=3.15E-1
SN=GU3-176.5	DN=40mT	D=216.2	I=-41.5	J=2.52E-1
SN=GU3-176.5	DN=50mT	D=215.9	I=-40.0	J=2.02E-1

SN=GU3-180.0	DN=NRM	D=92.0	I=-37.2	J=6.30E-1
SN=GU3-180.0	DN=5mT	D=94.4	I=-40.0	J=6.50E-1
SN=GU3-180.0	DN=10mT	D=95.0	I=-39.8	J=5.91E-1
SN=GU3-180.0	DN=20mT	D=96.7	I=-39.3	J=4.43E-1
SN=GU3-180.0	DN=30mT	D=96.2	I=-39.4	J=3.20E-1
SN=GU3-180.0	DN=50mT	D=98.1	I=-38.3	J=2.45E-1
SN=GU3-182.9	DN=NRM	D=74.0	I=-38.2	J=6.43E-1
SN=GU3-182.9	DN=5mT	D=75.7	I=-40.3	J=6.43E-1
SN=GU3-182.9	DN=10mT	D=77.8	I=-39.6	J=4.02E-1
SN=GU3-182.9	DN=20mT	D=80.1	I=-39.6	J=3.11E-1
SN=GU3-182.9	DN=30mT	D=78.2	I=-38.5	J=2.75E-1
SN=GU3-182.9	DN=40mT	D=76.1	I=-37.8	J=2.31E-1
SN=GU3-182.9	DN=50mT	D=78.5	I=-38.7	J=1.68E-1
SN=GU3-187.1U	DN=NRM	D=264.2	I=-38.3	J=5.88E-1
SN=GU3-187.1U	DN=10mT	D=261.6	I=-40.7	J=4.15E-1
SN=GU3-187.1U	DN=20mT	D=261.0	I=-41.7	J=4.04E-1
SN=GU3-187.1U	DN=30mT	D=255.9	I=-40.7	J=3.11E-1
SN=GU3-187.1U	DN=40mT	D=255.2	I=-40.1	J=2.49E-1
SN=GU3-187.1U	DN=50mT	D=253.7	I=-40.0	J=1.90E-1
SN=GU3-188.6	DN=NRM	D=18.8	I=-37.5	J=7.52E-1
SN=GU3-188.6	DN=5mT	D=20.7	I=-41.2	J=7.42E-1
SN=GU3-188.6	DN=10mT	D=21.2	I=-41.4	J=6.62E-1
SN=GU3-188.6	DN=20mT	D=23.2	I=-40.7	J=5.07E-1
SN=GU3-188.6	DN=30mT	D=21.3	I=-40.2	J=3.34E-1
SN=GU3-188.6	DN=40mT	D=22.1	I=-39.8	J=2.51E-1
SN=GU3-188.6	DN=50mT	D=22.5	I=-39.3	J=1.91E-1
SN=GU3-191.0	DN=NRM	D=33.4	I=-36.3	J=6.85E-1
SN=GU3-191.0	DN=5mT	D=34.5	I=-38.7	J=6.83E-1
SN=GU3-191.0	DN=10mT	D=35.0	I=-39.1	J=6.30E-1
SN=GU3-191.0	DN=20mT	D=36.2	I=-40.3	J=4.62E-1
SN=GU3-191.0	DN=30mT	D=36.9	I=-38.7	J=3.59E-1
SN=GU3-191.0	DN=40mT	D=35.9	I=-38.5	J=2.45E-1
SN=GU3-191.0	DN=50mT	D=36.5	I=-37.5	J=1.89E-1
SN=GU3-194.5	DN=NRM	D=62.5	I=-35.4	J=6.37E-1
SN=GU3-194.5	DN=10mT	D=68.6	I=-39.9	J=3.98E-1
SN=GU3-194.5	DN=20mT	D=68.5	I=-37.6	J=3.89E-1
SN=GU3-194.5	DN=30mT	D=68.5	I=-36.4	J=2.89E-1
SN=GU3-194.5	DN=40mT	D=68.9	I=-35.8	J=2.17E-1
SN=GU3-194.5	DN=50mT	D=70.8	I=-38.2	J=1.58E-1

SN=GU3-197.3 DN=NRM D=141.9 I=-41.1 J=6.65E-1
SN=GU3-197.3 DN=5mT D=143.2 I=-42.6 J=6.89E-1
SN=GU3-197.3 DN=10mT D=143.6 I=-42.9 J=6.17E-1
SN=GU3-197.3 DN=20mT D=143.6 I=-42.6 J=4.40E-1
SN=GU3-197.3 DN=30mT D=143.3 I=-41.2 J=3.17E-1
SN=GU3-197.3 DN=40mT D=147.1 I=-40.1 J=2.36E-1
SN=GU3-197.3 DN=50mT D=149.1 I=-40.1 J=1.78E-1

SN=GU3-199.4 DN=NRM D=-73.4 I=-34.7 J=7.11E-1
SN=GU3-199.4 DN=10mT D=-81.6 I=-37.7 J=4.53E-1
SN=GU3-199.4 DN=20mT D=-79.1 I=-38.1 J=4.19E-1
SN=GU3-199.4 DN=30mT D=-75.6 I=-37.4 J=3.23E-1
SN=GU3-199.4 DN=40mT D=-75.0 I=-36.9 J=2.41E-1
SN=GU3-199.4 DN=60mT D=-76.7 I=-35.2 J=1.37E-1
SN=GU3-199.4 DN=80mT D=-74.1 I=-34.5 J=1.00E-1
SN=GU3-199.4 DN=100mT D=-87.0 I=-29.9 J=6.43E-2

SN=GU3-203.6 DN=NRM D=81.2 I=-36.9 J=7.51E-1
SN=GU3-203.6 DN=5mT D=83.4 I=-39.3 J=7.52E-1
SN=GU3-203.6 DN=10mT D=85.2 I=-39.1 J=6.65E-1
SN=GU3-203.6 DN=20mT D=84.1 I=-38.7 J=5.11E-1
SN=GU3-203.6 DN=30mT D=83.7 I=-38.7 J=3.77E-1
SN=GU3-203.6 DN=40mT D=87.6 I=-38.5 J=2.66E-1
SN=GU3-203.6 DN=50mT D=85.2 I=-38.3 J=2.11E-1

SN=GU3-203.95 DN=NRM D=166.6 I=-39.5 J=6.50E-1
SN=GU3-203.95 DN=5mT D=167.6 I=-41.2 J=6.83E-1
SN=GU3-203.95 DN=10mT D=168.0 I=-40.7 J=6.32E-1
SN=GU3-203.95 DN=20mT D=171.1 I=-40.1 J=4.92E-1
SN=GU3-203.95 DN=30mT D=172.7 I=-39.6 J=3.62E-1
SN=GU3-203.95 DN=40mT D=170.1 I=-38.9 J=2.68E-1
SN=GU3-203.95 DN=50mT D=167.1 I=-37.6 J=2.14E-1

SN=GU3-205.85 DN=NRM D=45.9 I=-33.3 J=7.87E-1
SN=GU3-205.85 DN=5mT D=46.6 I=-38.7 J=7.96E-1
SN=GU3-205.85 DN=10mT D=47.3 I=-39.3 J=7.08E-1
SN=GU3-205.85 DN=20mT D=50.9 I=-39.2 J=4.73E-1
SN=GU3-205.85 DN=30mT D=49.1 I=-40.3 J=3.12E-1
SN=GU3-205.85 DN=40mT D=48.3 I=-40.4 J=2.43E-1
SN=GU3-205.85 DN=50mT D=53.8 I=-38.2 J=1.74E-1

SN=GU3-209.3 DN=NRM D=253.9 I=-43.2 J=8.20E-1
SN=GU3-209.3 DN=10mT D=250.8 I=-45.1 J=5.73E-1
SN=GU3-209.3 DN=20mT D=248.7 I=-44.8 J=5.40E-1
SN=GU3-209.3 DN=30mT D=244.4 I=-43.9 J=4.34E-1
SN=GU3-209.3 DN=40mT D=249.4 I=-45.2 J=3.17E-1
SN=GU3-209.3 DN=50mT D=251.0 I=-45.0 J=2.49E-1

SN=OR3-218.8 DN=NRM D=165.9 I=-45.2 J=1.08E+0
SN=OR3-218.8 DN=10mT D=161.7 I=-45.5 J=7.22E-1
SN=OR3-218.8 DN=20mT D=161.5 I=-45.5 J=7.18E-1
SN=OR3-218.8 DN=30mT D=160.7 I=-44.7 J=5.46E-1
SN=OR3-218.8 DN=40mT D=161.5 I=-44.2 J=4.42E-1
SN=OR3-218.8 DN=50mT D=161.1 I=-43.4 J=3.52E-1

SN=OR3-219.3 DN=NRM D=188.8 I=-47.2 J=9.36E-1
SN=OR3-219.3 DN=10mT D=185.0 I=-47.5 J=5.54E-1
SN=OR3-219.3 DN=20mT D=185.0 I=-46.6 J=5.24E-1
SN=OR3-219.3 DN=30mT D=188.9 I=-46.8 J=4.06E-1
SN=OR3-219.3 DN=40mT D=189.5 I=-46.9 J=3.09E-1
SN=OR3-219.3 DN=50mT D=190.7 I=-46.1 J=2.27E-1

SN=OR3-220.3 DN=NRM D=185.7 I=-45.9 J=9.36E-1
SN=OR3-220.3 DN=10mT D=180.4 I=-46.2 J=5.26E-1
SN=OR3-220.3 DN=20mT D=179.7 I=-46.1 J=5.02E-1
SN=OR3-220.3 DN=30mT D=176.6 I=-45.3 J=3.58E-1
SN=OR3-220.3 DN=40mT D=176.3 I=-44.8 J=2.17E-1
SN=OR3-220.3 DN=50mT D=174.8 I=-44.0 J=1.83E-1

SN=OR3-221.0 DN=NRM D=190.4 I=-40.7 J=1.06E+0
SN=OR3-221.0 DN=10mT D=191.5 I=-41.8 J=6.55E-1
SN=OR3-221.0 DN=20mT D=189.1 I=-42.0 J=5.71E-1
SN=OR3-221.0 DN=30mT D=190.4 I=-41.2 J=4.30E-1
SN=OR3-221.0 DN=40mT D=191.1 I=-40.7 J=3.12E-1
SN=OR3-221.0 DN=50mT D=191.4 I=-40.6 J=2.35E-1

SN=GU3-238.9 DN=NRM D=107.0 I=-37.7 J=1.03E+0
SN=GU3-238.9 DN=10mT D=109.7 I=-38.7 J=9.33E-1
SN=GU3-238.9 DN=20mT D=110.5 I=-37.8 J=6.73E-1
SN=GU3-238.9 DN=30mT D=110.8 I=-37.3 J=4.76E-1
SN=GU3-238.9 DN=40mT D=110.9 I=-37.5 J=3.79E-1
SN=GU3-238.9 DN=50mT D=110.8 I=-37.4 J=2.97E-1

SN=GU3-241.3 DN=NRM D=247.1 I=-44.0 J=1.19E+0
SN=GU3-241.3 DN=5mT D=245.4 I=-44.3 J=1.20E+0
SN=GU3-241.3 DN=10mT D=246.2 I=-45.0 J=1.11E+0
SN=GU3-241.3 DN=20mT D=242.5 I=-44.4 J=8.05E-1
SN=GU3-241.3 DN=30mT D=242.9 I=-45.4 J=5.58E-1
SN=GU3-241.3 DN=40mT D=248.5 I=-45.0 J=3.91E-1
SN=GU3-241.3 DN=50mT D=244.2 I=-44.4 J=3.06E-1

SN=GU3-254.4 DN=NRM D=266.5 I=-42.5 J=1.30E+0
SN=GU3-254.4 DN=10mT D=264.0 I=-45.8 J=1.22E+0
SN=GU3-254.4 DN=20mT D=264.2 I=-43.3 J=8.46E-1
SN=GU3-254.4 DN=30mT D=264.0 I=-43.6 J=5.94E-1
SN=GU3-254.4 DN=40mT D=262.2 I=-44.6 J=4.19E-1
SN=GU3-254.4 DN=60mT D=263.8 I=-43.6 J=2.33E-1
SN=GU3-254.4 DN=80mT D=263.9 I=-43.2 J=1.50E-1
SN=GU3-254.4 DN=100mT D=-83.2 I=-40.2 J=1.16E-1

SN=GU3-261.4	DN=NRM	D=-17.7	I=-39.0	J=1.50E+0
SN=GU3-261.4	DN=10mT	D=-18.9	I=-41.3	J=1.35E+0
SN=GU3-265.3	DN=NRM	D=174.1	I=-44.1	J=1.41E+0
SN=GU3-265.3	DN=5mT	D=174.2	I=-44.1	J=1.40E+0
SN=GU3-265.3	DN=10mT	D=174.0	I=-43.5	J=1.27E+0
SN=GU3-265.3	DN=20mT	D=173.2	I=-44.2	J=9.24E-1
SN=GU3-265.3	DN=30mT	D=176.0	I=-44.4	J=6.64E-1
SN=GU3-265.3	DN=40mT	D=179.7	I=-44.8	J=5.03E-1
SN=GU3-265.3	DN=50mT	D=169.9	I=-44.2	J=3.45E-1
SN=GU3-268.95	DN=NRM	D=17.0	I=-41.7	J=1.50E+0
SN=GU3-268.95	DN=5mT	D=18.0	I=-42.1	J=1.46E+0
SN=GU3-268.95	DN=10mT	D=16.6	I=-43.0	J=1.30E+0
SN=GU3-268.95	DN=20mT	D=20.9	I=-42.9	J=9.32E-1
SN=GU3-268.95	DN=30mT	D=21.9	I=-43.6	J=6.91E-1
SN=GU3-268.95	DN=40mT	D=16.7	I=-42.8	J=4.66E-1
SN=GU3-268.95	DN=50mT	D=13.8	I=-44.5	J=3.36E-1
SN=GU3-270.6	DN=NRM	D=-37.0	I=-38.2	J=1.50E+0
SN=GU3-270.6	DN=10mT	D=-38.3	I=-39.5	J=1.27E+0
SN=GU3-270.6	DN=20mT	D=-33.3	I=-40.7	J=8.29E-1
SN=GU3-270.6	DN=30mT	D=-37.2	I=-39.9	J=4.83E-1
SN=GU3-270.6	DN=40mT	D=-38.0	I=-38.4	J=3.57E-1
SN=GU3-270.6	DN=50mT	D=-38.4	I=-37.6	J=2.58E-1
SN=GU3-273.9	DN=NRM	D=28.4	I=-37.6	J=1.07E+0
SN=GU3-273.9	DN=5mT	D=29.1	I=-39.9	J=1.04E+0
SN=GU3-273.9	DN=10mT	D=29.5	I=-40.6	J=9.20E-1
SN=GU3-273.9	DN=20mT	D=31.3	I=-41.4	J=6.47E-1
SN=GU3-273.9	DN=30mT	D=26.7	I=-41.5	J=4.48E-1
SN=GU3-273.9	DN=40mT	D=32.5	I=-40.9	J=3.31E-1
SN=GU3-273.9	DN=50mT	D=27.0	I=-41.9	J=2.28E-1
SN=GU3-275.25	DN=NRM	D=-8.5	I=-37.2	J=1.59E+0
SN=GU3-275.25	DN=5mT	D=-8.9	I=-39.0	J=1.55E+0
SN=GU3-275.25	DN=10mT	D=-9.5	I=-40.0	J=1.36E+0
SN=GU3-275.25	DN=20mT	D=-10.7	I=-40.5	J=9.49E-1
SN=GU3-275.25	DN=30mT	D=-4.9	I=-40.9	J=6.60E-1
SN=GU3-275.25	DN=40mT	D=-8.1	I=-41.2	J=3.62E-1
SN=GU3-275.25	DN=50mT	D=-8.7	I=-40.2	J=2.82E-1
SN=GU3-276.8	DN=NRM	D=16.2	I=-37.6	J=9.13E-1
SN=GU3-276.8	DN=5mT	D=18.0	I=-40.5	J=8.79E-1
SN=GU3-276.8	DN=10mT	D=16.7	I=-42.3	J=7.72E-1
SN=GU3-276.8	DN=20mT	D=15.1	I=-42.8	J=5.18E-1
SN=GU3-276.8	DN=30mT	D=20.7	I=-42.9	J=3.73E-1
SN=GU3-276.8	DN=40mT	D=21.7	I=-43.3	J=2.65E-1
SN=GU3-276.8	DN=50mT	D=21.7	I=-44.4	J=1.91E-1

SN=GU3-281.2	DN=NRM	D=53.7	I=-37.8	J=1.26E+0
SN=GU3-281.2	DN=10mT	D=58.7	I=-40.8	J=1.07E+0
SN=GU3-281.2	DN=20mT	D=60.7	I=-41.5	J=7.38E-1
SN=GU3-281.2	DN=30mT	D=57.5	I=-42.8	J=4.81E-1
SN=GU3-281.2	DN=40mT	D=57.2	I=-43.4	J=3.26E-1
SN=GU3-281.2	DN=50mT	D=56.3	I=-39.5	J=2.40E-1
SN=GU3-287.4	DN=NRM	D=-71.6	I=-36.9	J=1.11E+0
SN=GU3-287.4	DN=10mT	D=-73.7	I=-40.2	J=9.46E-1
SN=GU3-287.4	DN=20mT	D=-74.5	I=-38.2	J=6.49E-1
SN=GU3-287.4	DN=30mT	D=-71.2	I=-38.1	J=4.79E-1
SN=GU3-287.4	DN=40mT	D=-70.9	I=-38.7	J=3.42E-1
SN=GU3-287.4	DN=60mT	D=-74.1	I=-36.9	J=1.69E-1
SN=GU3-287.4	DN=80mT	D=-70.8	I=-38.1	J=1.18E-1
SN=GU3-287.4	DN=100mT	D=-88.5	I=-37.4	J=6.60E-2
SN=GU3-293.6	DN=NRM	D=114.4	I=-43.3	J=2.14E+0
SN=GU3-293.6	DN=10mT	D=116.4	I=-42.9	J=1.86E+0
SN=GU3-301.6	DN=NRM	D=167.1	I=-40.3	J=2.56E+0
SN=GU3-301.6	DN=10mT	D=167.6	I=-40.7	J=2.36E+0
SN=GU3-301.6	DN=20mT	D=171.3	I=-41.7	J=1.77E+0
SN=GU3-301.6	DN=30mT	D=164.6	I=-40.8	J=1.20E+0
SN=GU3-301.6	DN=40mT	D=162.5	I=-39.6	J=7.71E-1
SN=GU3-301.6	DN=60mT	D=161.9	I=-39.4	J=3.74E-1
SN=GU3-301.6	DN=80mT	D=162.8	I=-40.3	J=2.18E-1
SN=GU3-301.6	DN=100mT	D=165.9	I=-40.2	J=1.57E-1
SN=GU3-302.25	DN=NRM	D=59.3	I=-41.2	J=2.20E+0
SN=GU3-302.25	DN=5mT	D=60.2	I=-39.6	J=2.19E+0
SN=GU3-302.25	DN=10mT	D=62.0	I=-40.1	J=2.06E+0
SN=GU3-302.25	DN=20mT	D=62.0	I=-40.1	J=1.64E+0
SN=GU3-302.25	DN=30mT	D=63.8	I=-39.9	J=1.09E+0
SN=GU3-302.25	DN=40mT	D=65.2	I=-42.2	J=7.09E-1
SN=GU3-302.25	DN=50mT	D=63.1	I=-39.6	J=4.67E-1
SN=GU3-312.8	DN=NRM	D=95.7	I=-39.5	J=1.60E+0
SN=GU3-312.8	DN=10mT	D=97.2	I=-39.6	J=1.53E+0
SN=GU3-312.8	DN=20mT	D=95.1	I=-37.7	J=1.17E+0
SN=GU3-312.8	DN=30mT	D=100.2	I=-36.7	J=8.10E-1
SN=GU3-312.8	DN=40mT	D=92.8	I=-37.3	J=5.57E-1
SN=GU3-312.8	DN=50mT	D=100.3	I=-37.1	J=3.70E-1
SN=GU3-317.8	DN=NRM	D=-52.4	I=-43.7	J=2.00E+0
SN=GU3-317.8	DN=5mT	D=-52.3	I=-43.8	J=2.00E+0
SN=GU3-317.8	DN=10mT	D=-52.6	I=-43.9	J=1.91E+0
SN=GU3-317.8	DN=20mT	D=-51.0	I=-43.7	J=1.48E+0
SN=GU3-317.8	DN=30mT	D=-49.9	I=-43.7	J=1.01E+0
SN=GU3-317.8	DN=40mT	D=-49.5	I=-43.2	J=6.81E-1
SN=GU3-317.8	DN=50mT	D=-49.1	I=-44.3	J=4.45E-1

SN=GU3-322.3	DN=NRM	D=255.8	I=-40.7	J=2.39E+0
SN=GU3-322.3	DN=5mT	D=255.6	I=-40.9	J=2.38E+0
SN=GU3-322.3	DN=10mT	D=255.9	I=-40.9	J=2.26E+0
SN=GU3-322.3	DN=20mT	D=254.5	I=-41.3	J=1.79E+0
SN=GU3-322.3	DN=30mT	D=253.8	I=-42.0	J=1.22E+0
SN=GU3-322.3	DN=40mT	D=253.0	I=-42.4	J=8.12E-1
SN=GU3-322.3	DN=50mT	D=260.0	I=-43.2	J=5.29E-1
SN=GU3-323.0	DN=NRM	D=8.8	I=-41.6	J=2.45E+0
SN=GU3-323.0	DN=10mT	D=8.6	I=-42.2	J=2.28E+0
SN=GU3-330.6	DN=NRM	D=-55.3	I=-43.1	J=3.39E+0
SN=GU3-330.6	DN=10mT	D=-52.6	I=-42.3	J=3.32E+0
SN=GU3-330.6	DN=20mT	D=-54.4	I=-43.7	J=2.59E+0
SN=GU3-330.6	DN=30mT	D=-56.4	I=-42.9	J=1.61E+0
SN=GU3-330.6	DN=40mT	D=-56.2	I=-42.1	J=1.02E+0
SN=GU3-330.6	DN=60mT	D=-56.3	I=-41.3	J=4.52E-1
SN=GU3-330.6	DN=80mT	D=-55.3	I=-40.6	J=2.75E-1
SN=GU3-330.6	DN=100mT	D=-56.8	I=-40.9	J=1.66E-1
SN=GU3-344.1	DN=NRM	D=69.6	I=-32.7	J=9.03E+0
SN=GU3-344.1	DN=5mT	D=69.6	I=-32.6	J=9.09E+0
SN=GU3-344.1	DN=10mT	D=69.5	I=-32.9	J=9.02E+0
SN=GU3-344.1	DN=20mT	D=69.5	I=-32.9	J=8.79E+0
SN=GU3-344.1	DN=30mT	D=69.3	I=-33.3	J=8.44E+0
SN=GU3-344.1	DN=40mT	D=69.5	I=-33.0	J=8.03E+0
SN=GU3-344.1	DN=50mT	D=69.5	I=-33.1	J=7.84E+0
SN=OR3-345.8	DN=NRM	D=179.9	I=-37.3	J=7.79E+0
SN=OR3-345.8	DN=10mT	D=180.1	I=-37.3	J=7.71E+0
SN=OR3-345.8	DN=20mT	D=180.8	I=-37.9	J=7.44E+0
SN=OR3-345.8	DN=30mT	D=180.7	I=-38.0	J=7.19E+0
SN=OR3-345.8	DN=40mT	D=180.9	I=-38.2	J=6.86E+0
SN=OR3-345.8	DN=60mT	D=180.7	I=-38.1	J=6.40E+0
SN=OR3-345.8	DN=80mT	D=180.4	I=-38.3	J=5.96E+0
SN=OR3-345.8	DN=100mT	D=181.3	I=-38.4	J=5.59E+0
SN=OR3-348.7	DN=NRM	D=174.6	I=-37.6	J=4.23E+0
SN=OR3-348.7	DN=10mT	D=175.4	I=-38.1	J=4.14E+0
SN=GU3-354.6	DN=NRM	D=92.5	I=-41.5	J=2.72E+0
SN=GU3-354.6	DN=10mT	D=93.4	I=-41.4	J=2.65E+0
SN=GU3-354.6	DN=20mT	D=94.2	I=-40.8	J=2.25E+0
SN=GU3-354.6	DN=30mT	D=93.2	I=-41.3	J=1.67E+0
SN=GU3-354.6	DN=40mT	D=94.2	I=-40.6	J=1.22E+0
SN=GU3-354.6	DN=60mT	D=91.3	I=-42.0	J=8.67E-1
SN=GU3-354.6	DN=80mT	D=94.8	I=-41.2	J=7.49E-1
SN=GU3-354.6	DN=100mT	D=94.8	I=-41.0	J=6.30E-1
SN=GU3-361.2	DN=NRM	D=56.8	I=-32.9	J=1.71E+0
SN=GU3-361.2	DN=10mT	D=66.7	I=-30.9	J=1.59E+0

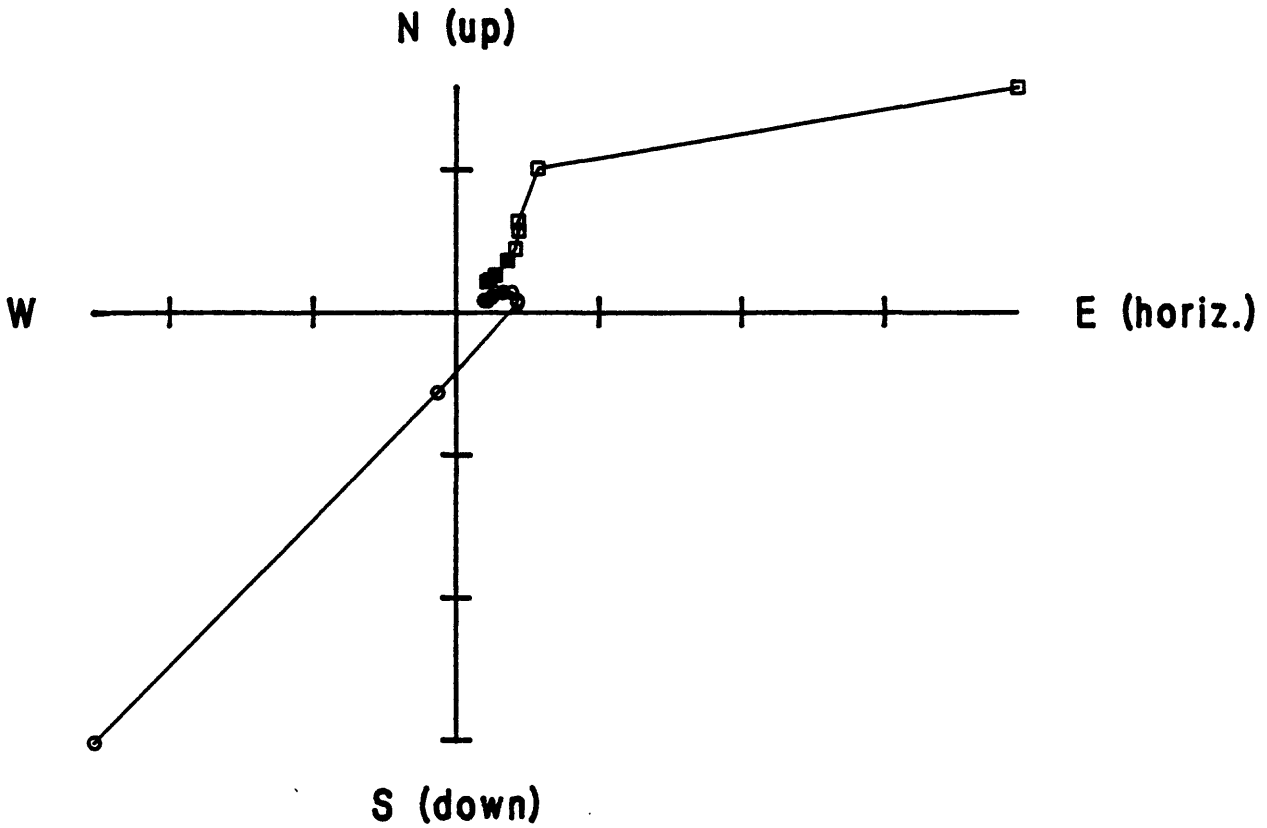
SN=GU3-369.0	DN=NRM	D=184.8	I=-35.7	J=2.68E-1
SN=GU3-369.0	DN=10mT	D=186.4	I=-37.1	J=2.45E-1
SN=GU3-369.0	DN=20mT	D=183.8	I=-37.4	J=1.49E-1
SN=GU3-369.0	DN=30mT	D=185.8	I=-35.6	J=7.51E-2
SN=GU3-369.0	DN=40mT	D=184.6	I=-36.6	J=4.23E-2
SN=GU3-369.0	DN=60mT	D=186.3	I=-38.9	J=2.06E-2
SN=GU3-369.0	DN=80mT	D=178.0	I=-36.0	J=1.40E-2
SN=GU3-369.0	DN=100mT	D=158.7	I=-36.6	J=9.81E-3

Appendix 3.

Orthogonal Demagnetization Diagrams for Progressive Alternating Field Demagnetization of Samples of the Tiva Canyon Member of the Paintbrush Tuff from Drill Hole USW GU-3.

Circles indicate plot of north component versus east component; squares indicate total horizontal component versus vertical component [Zijderveld , 1967; Roy and Park, 1974]. Solid symbols indicate demagnetization levels used in computing remanent direction for the sample (see text).

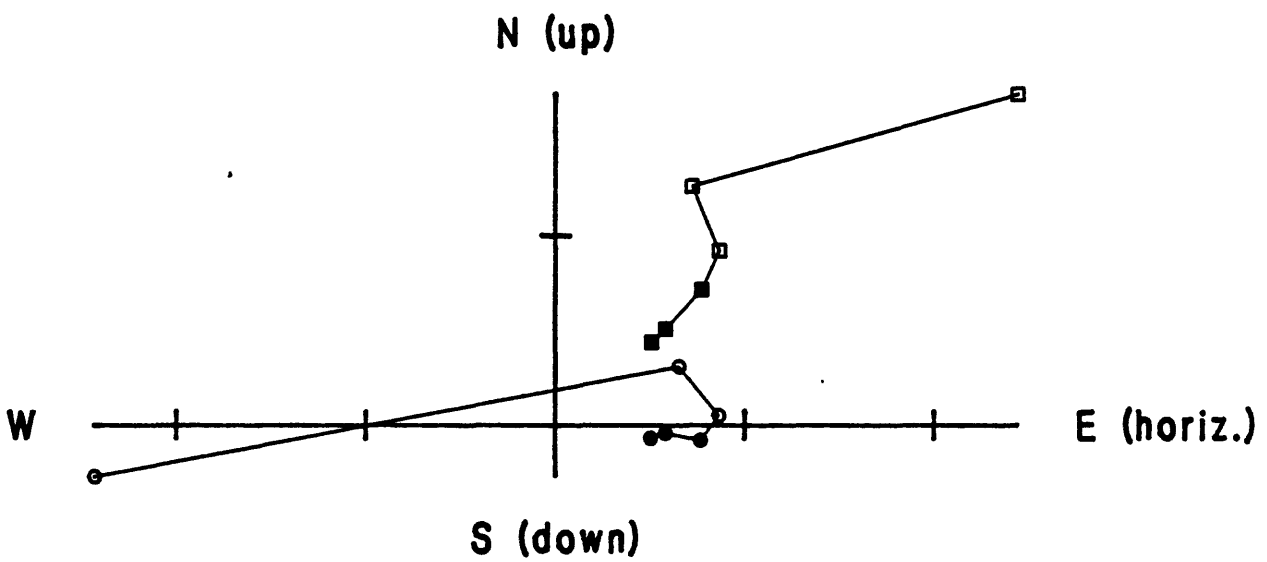
GU3-42.6



Demag. from NRM to 100mT

(Tic interval=.5 A/m)

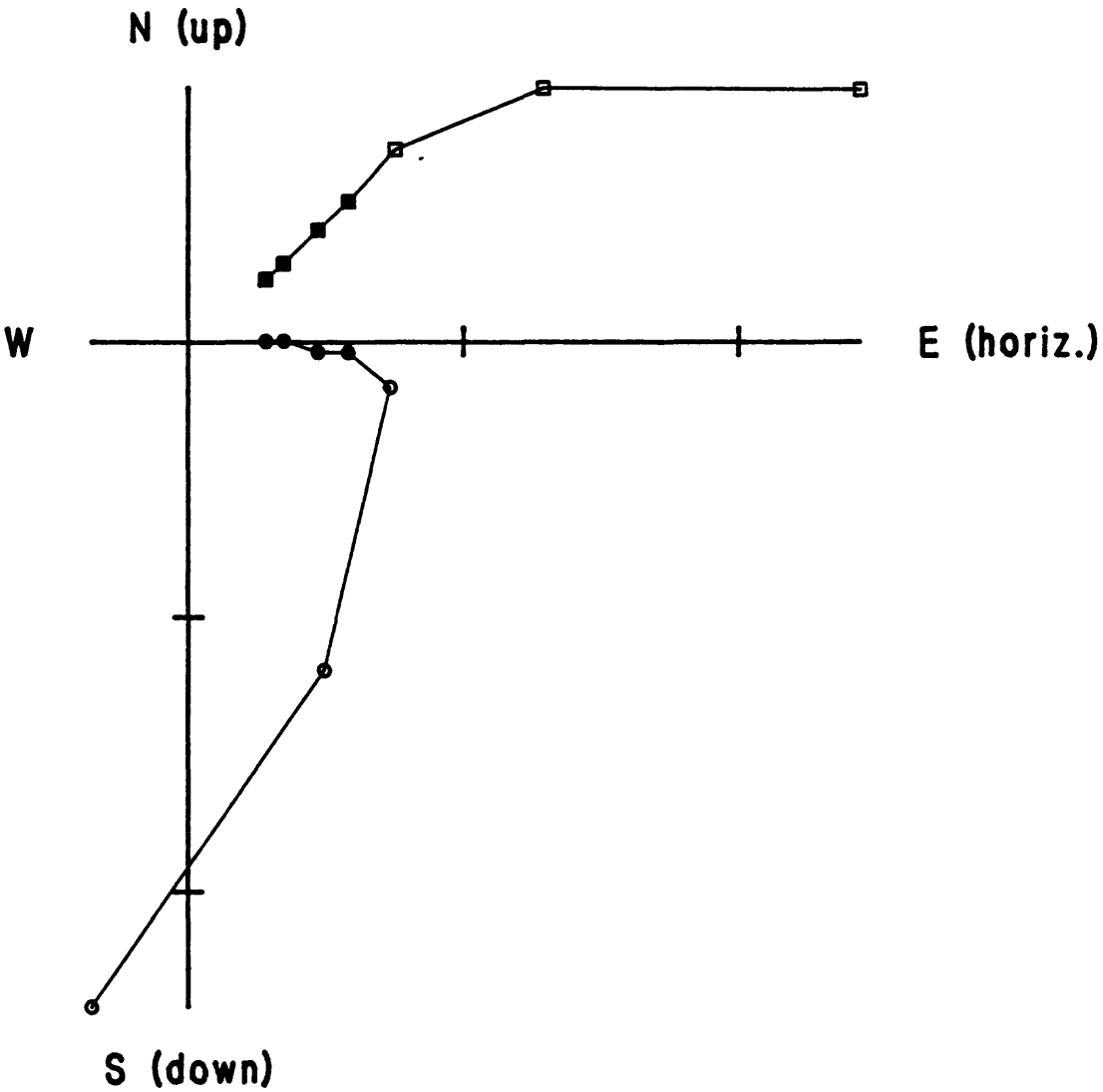
GU3-47.25



Demag. from NRM to 50mT

(Tic interval=.5 A/m)

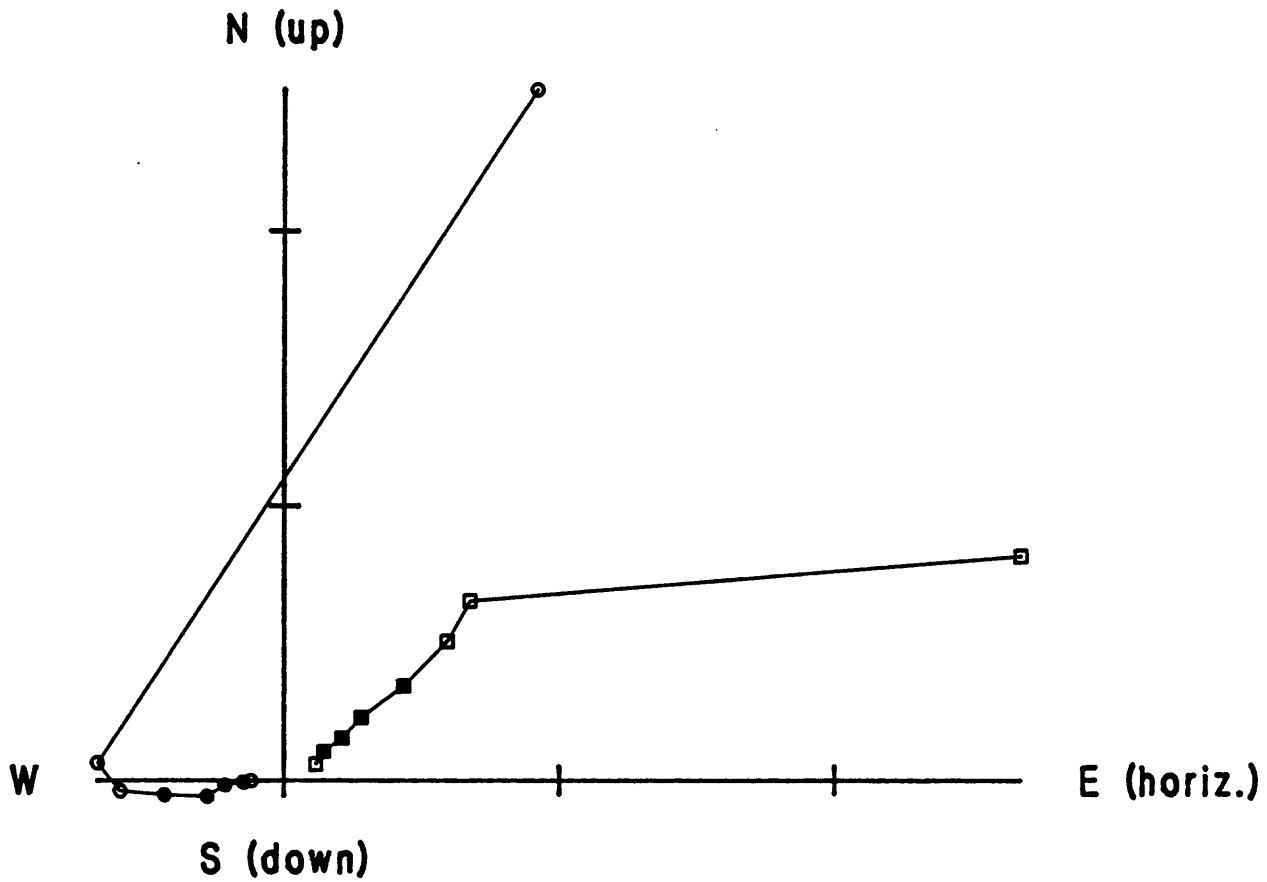
GU3-50.7



Demag. from NRM to 50mT

(Tic interval=.5 A/m)

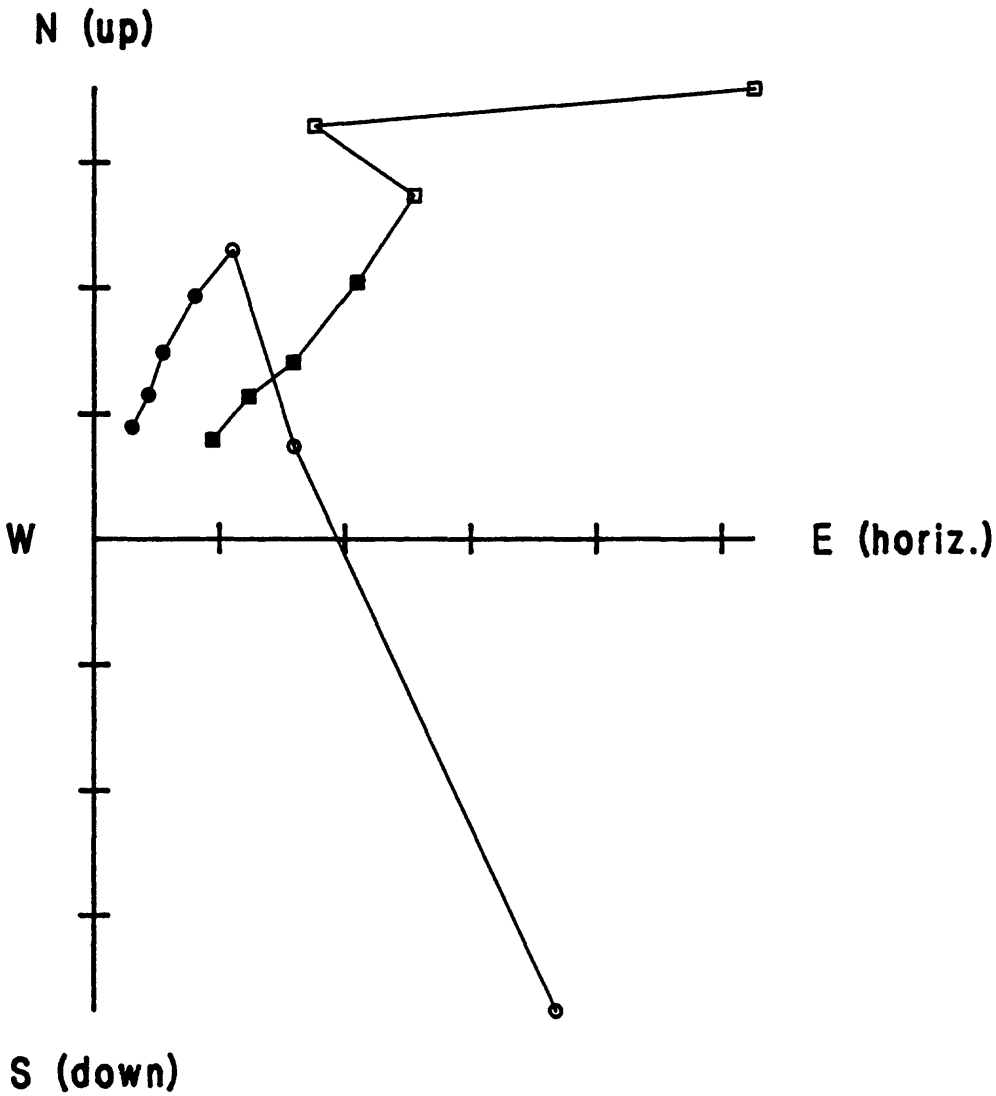
GU3-53.5



Demag. from NRM to 100mT

(Tic interval=.5 A/m)

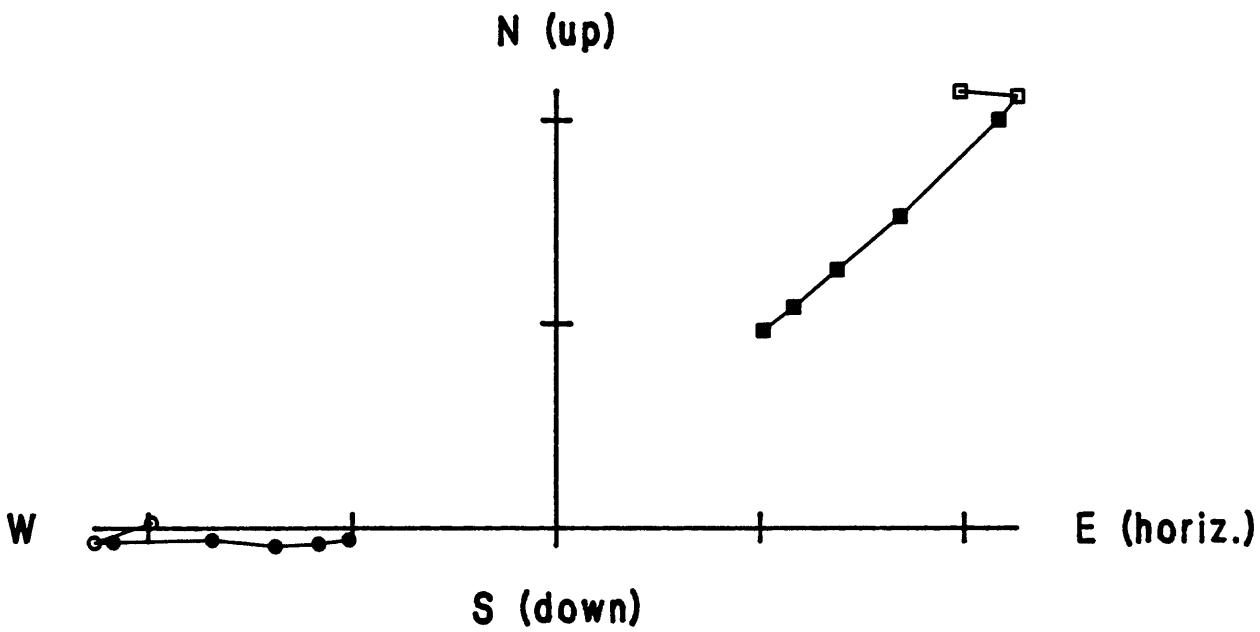
GU3-55.35



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

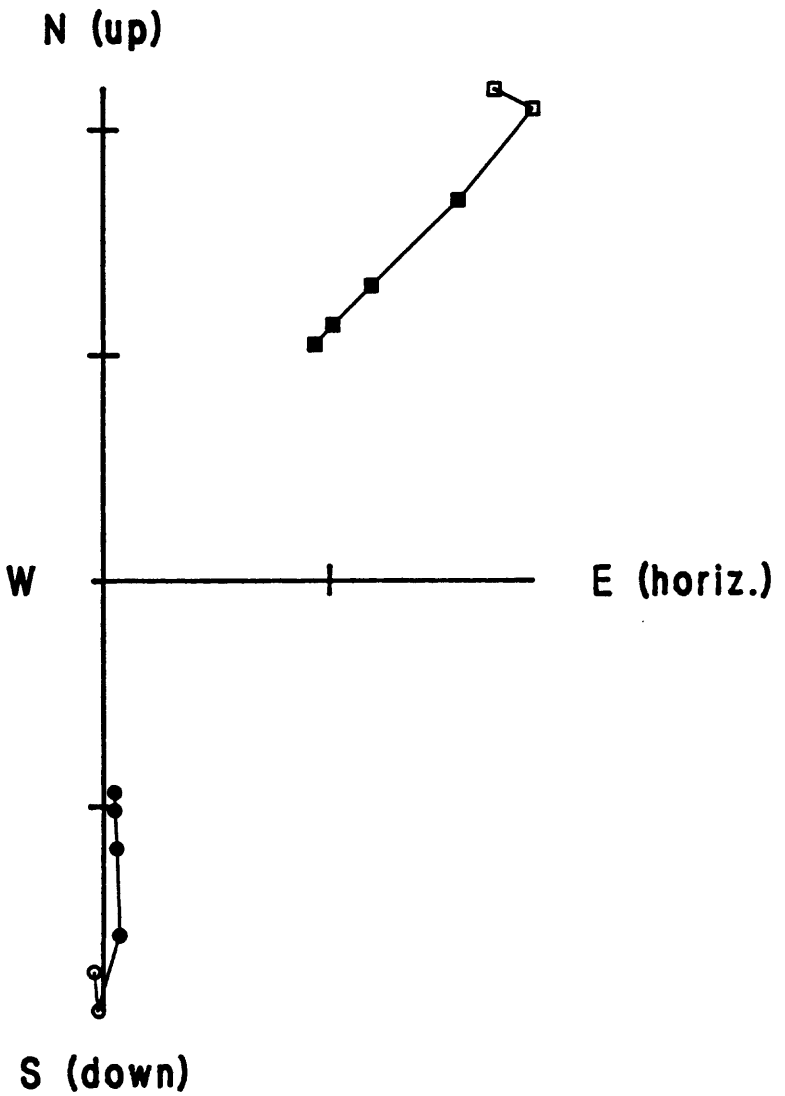
GU3-63.7



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

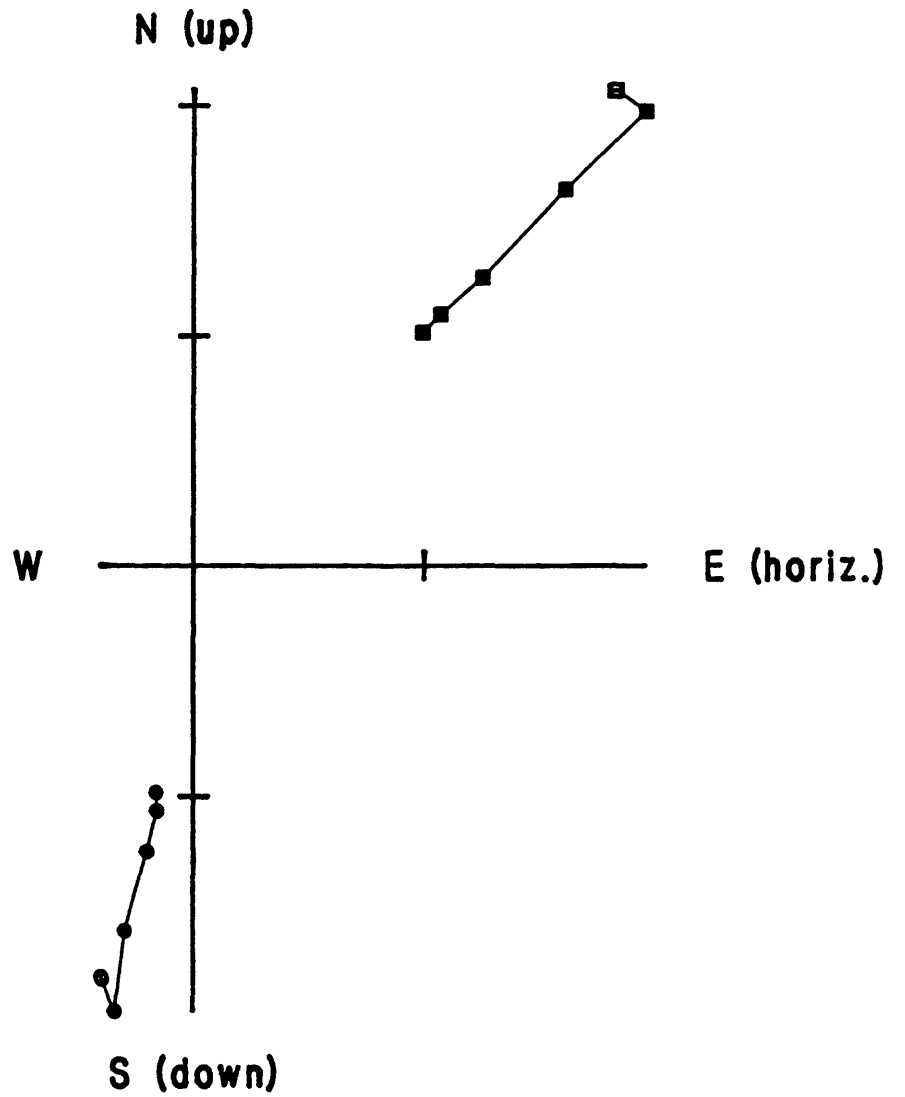
GU3-64.4



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

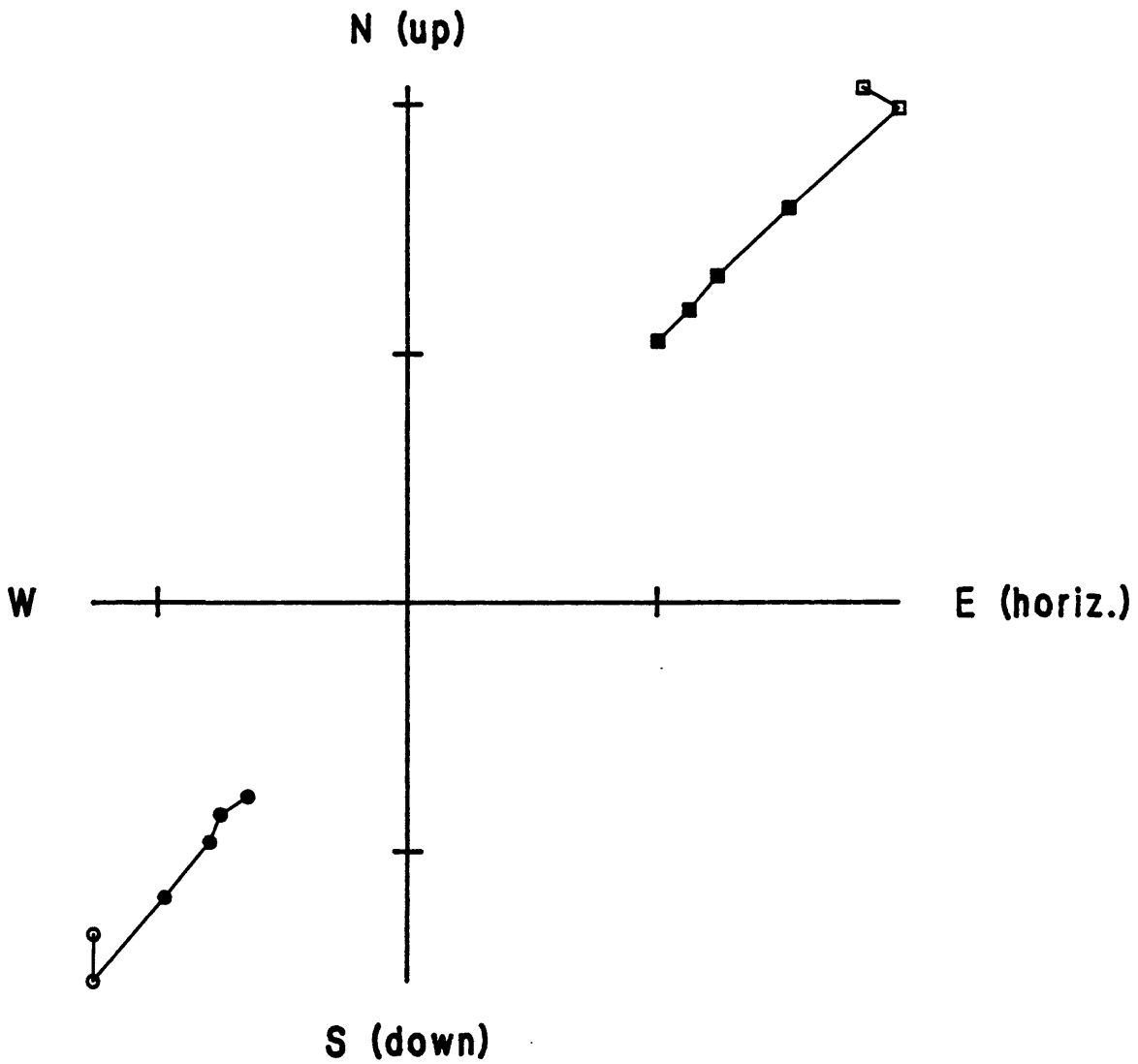
GU3-65.75



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

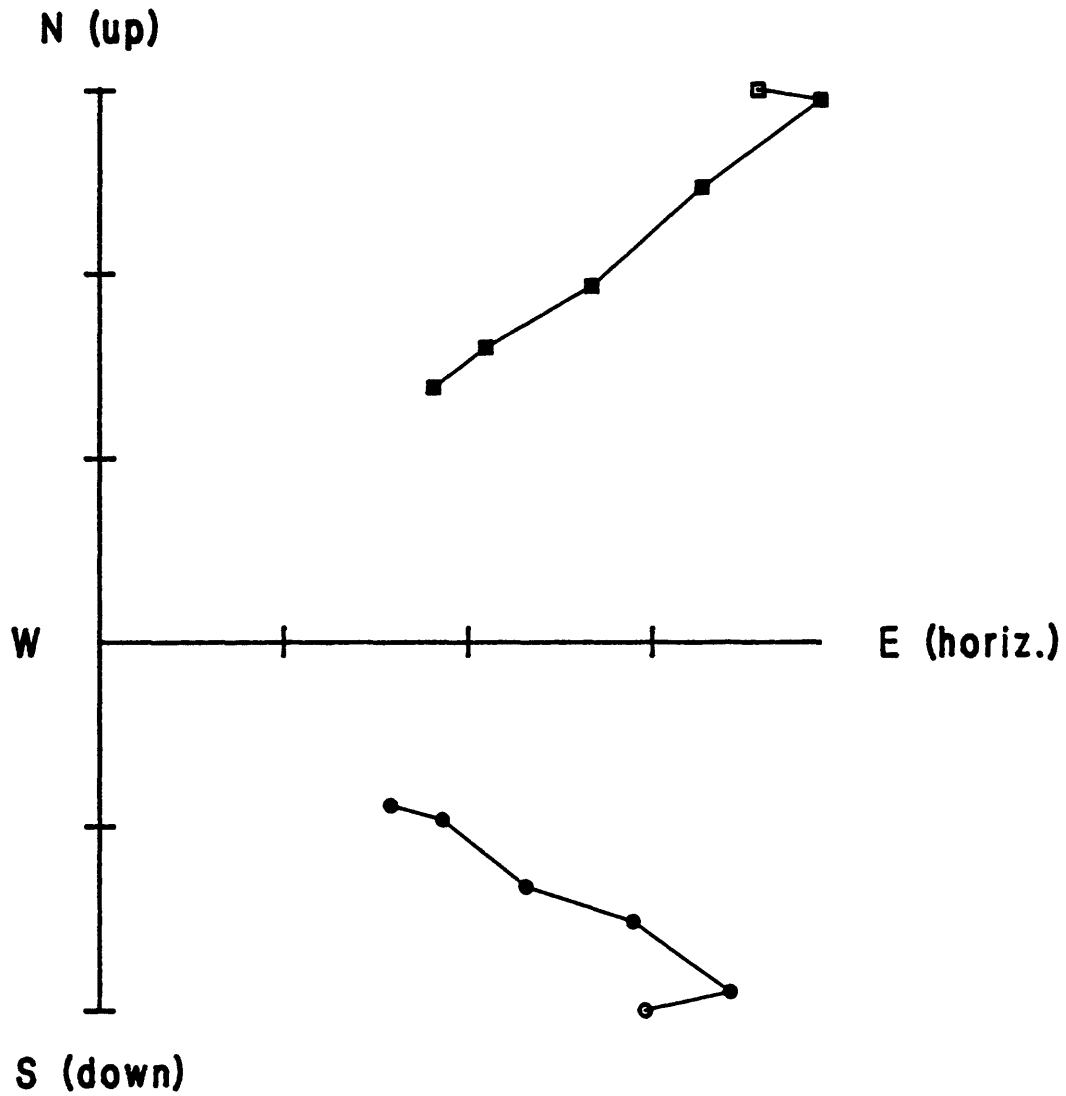
GU3-67.0



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

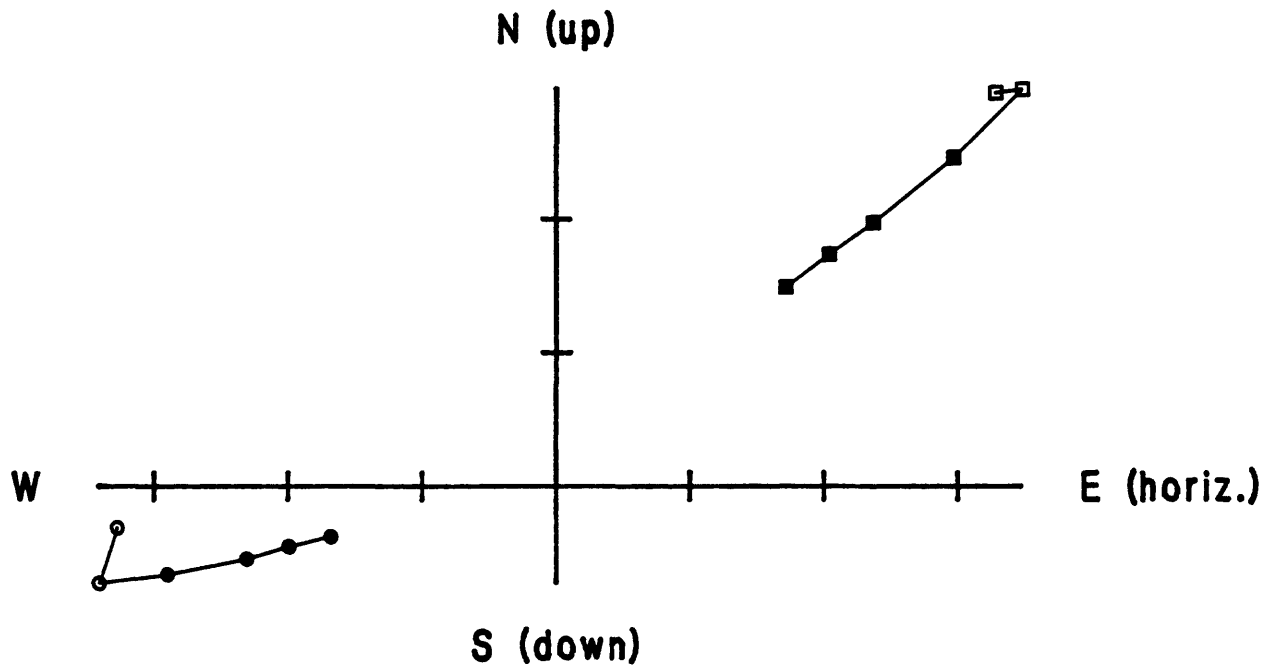
GU3-73.5



Demag. from NRM to 50mT

(Tic interval=.05 A/m)

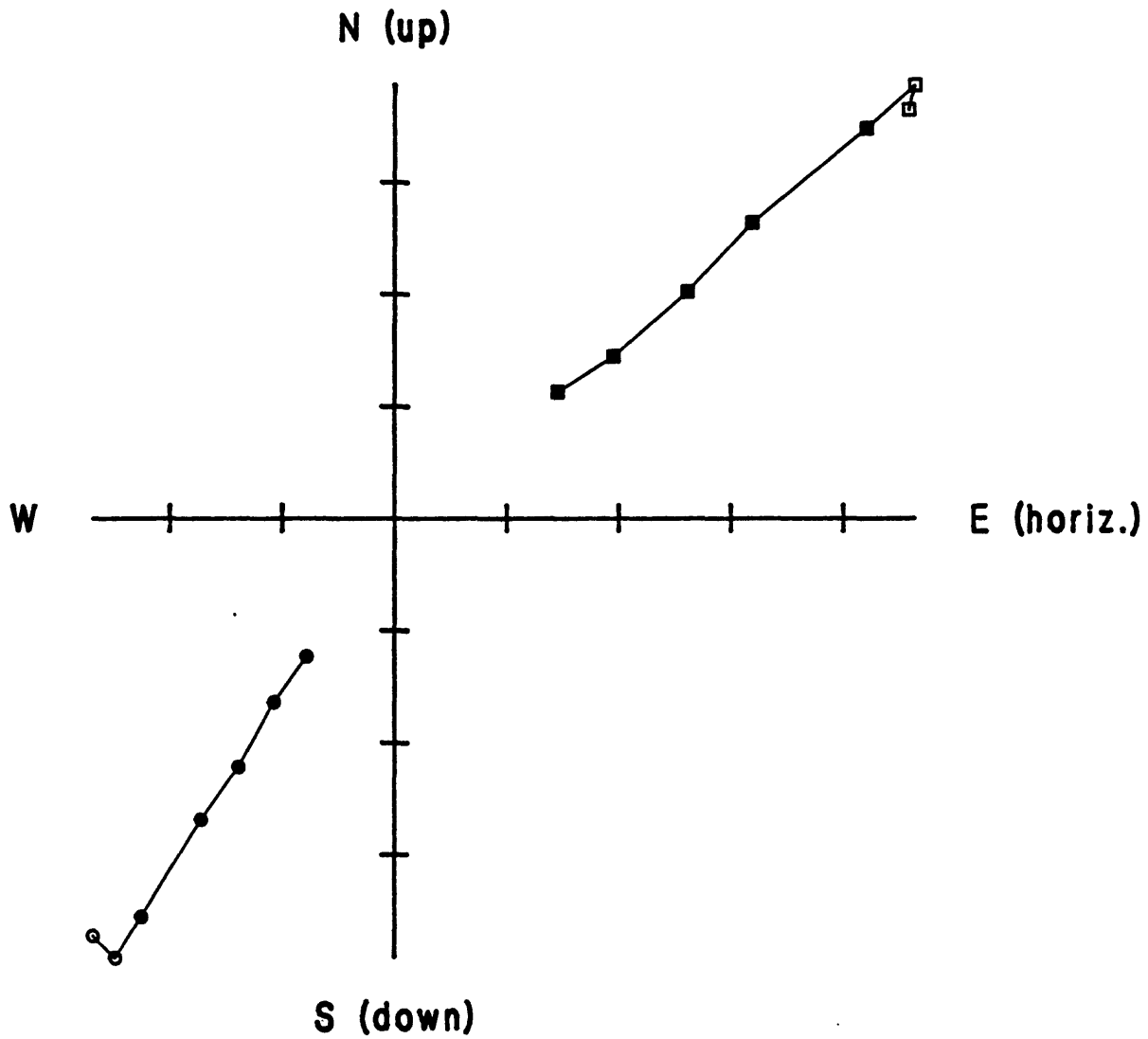
GU3-74.5



Demag. from NRM to 50mT

(Tic interval=.05 A/m)

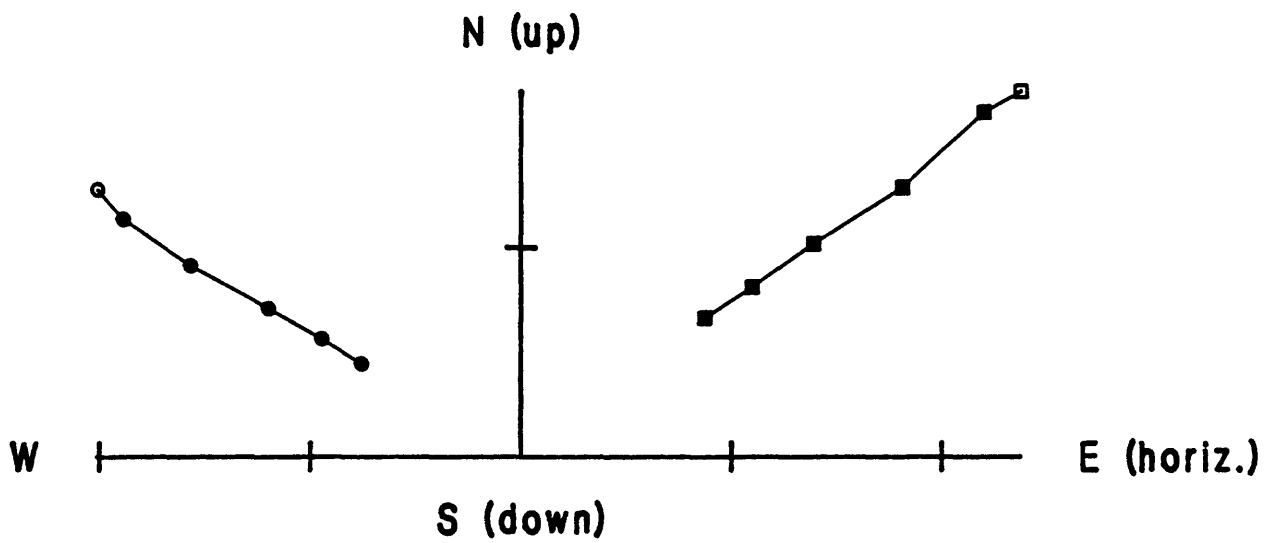
GU3-78.75



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

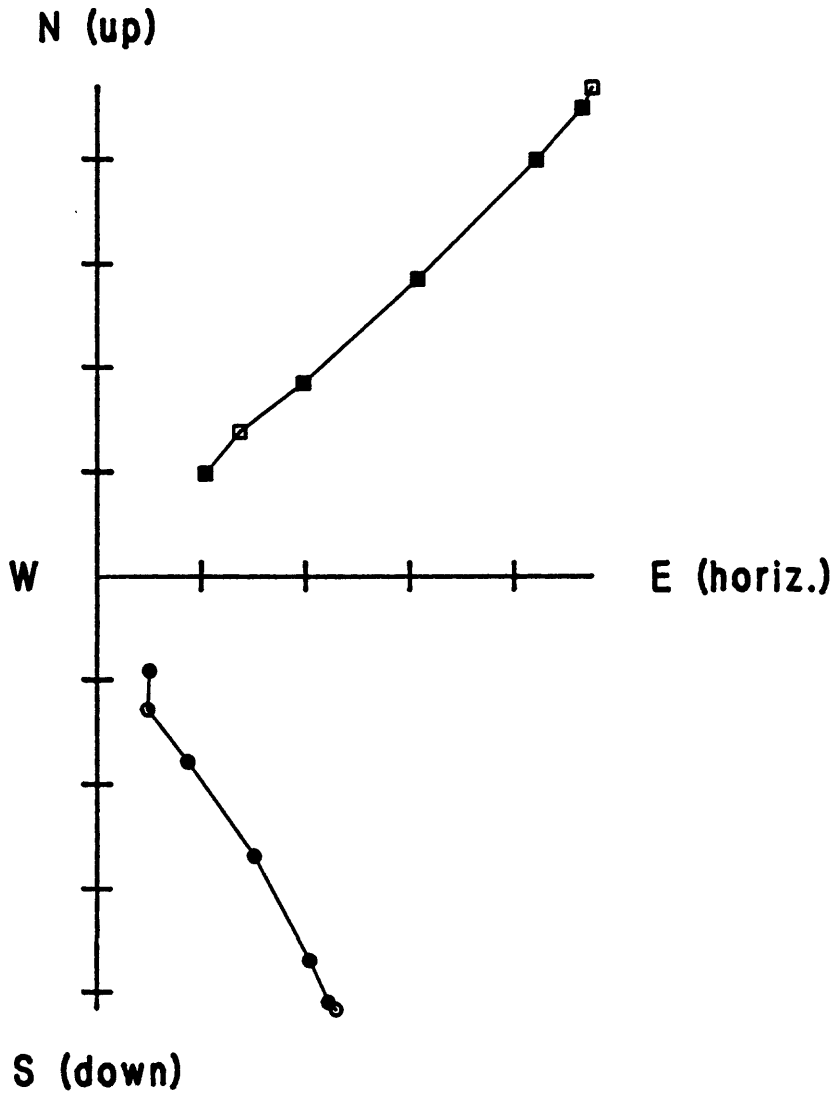
GU3-86.8



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

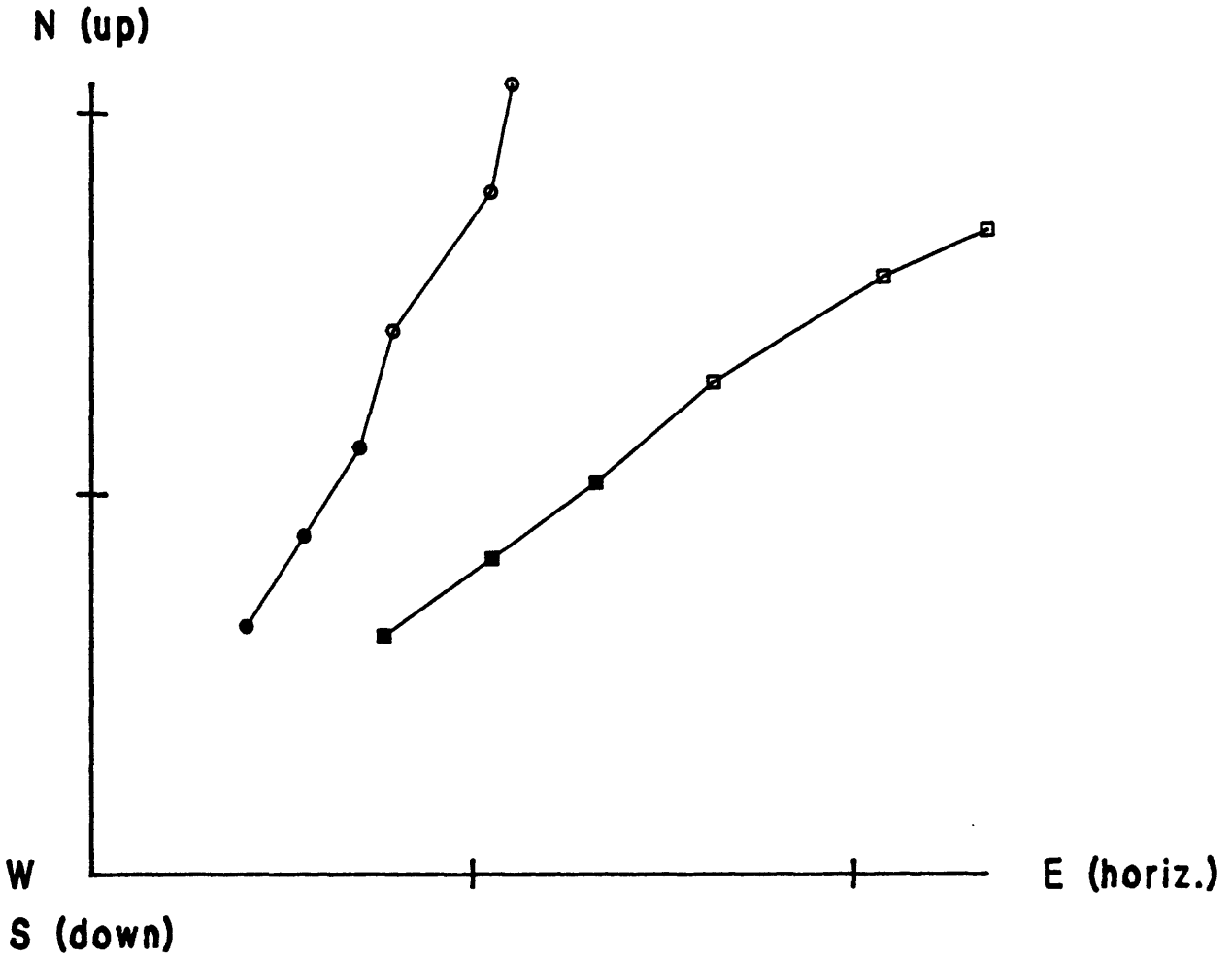
GU3-89.3



Demag. from NRM to 50mT

(Tic interval=.2 A/m)

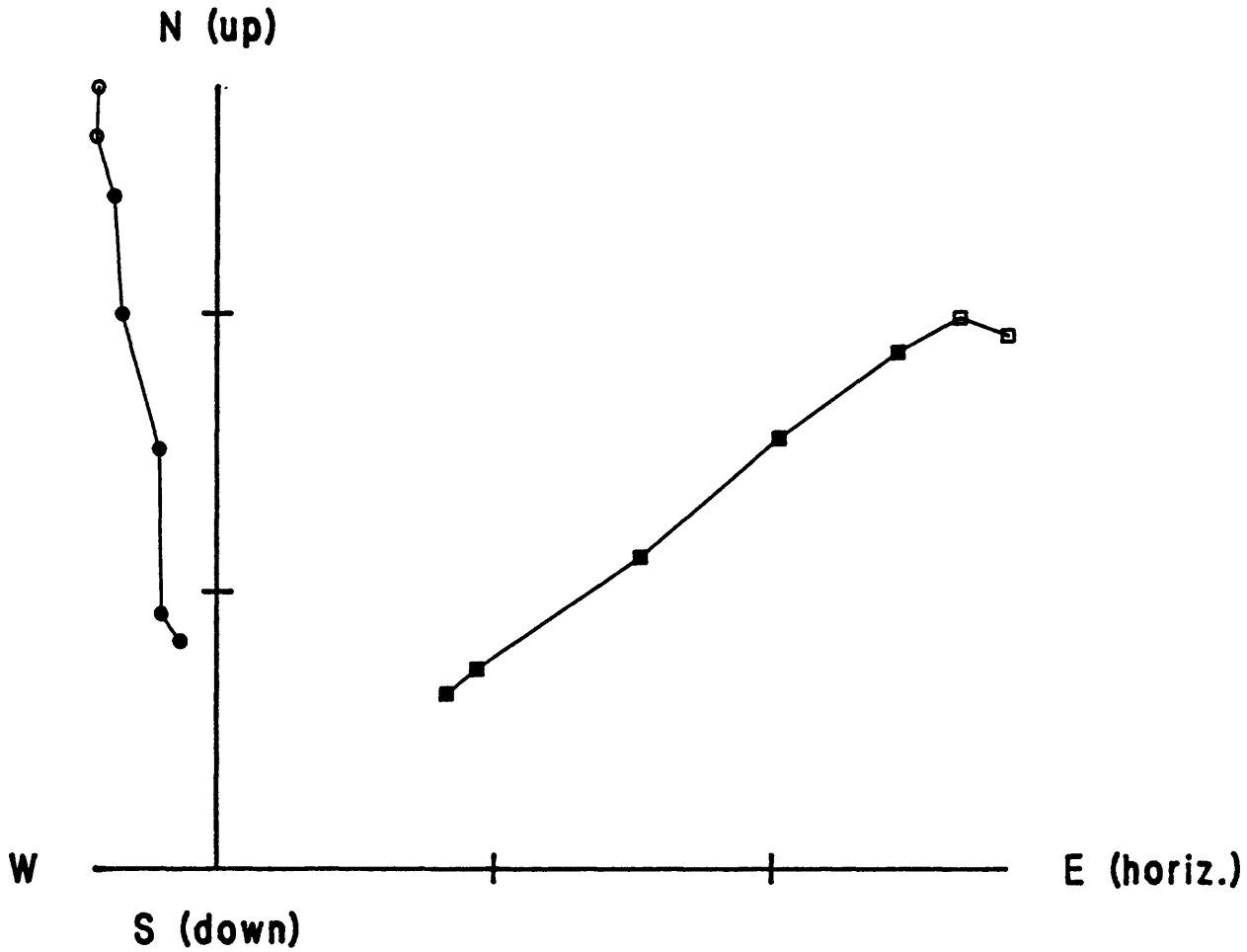
GU3-94.5



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

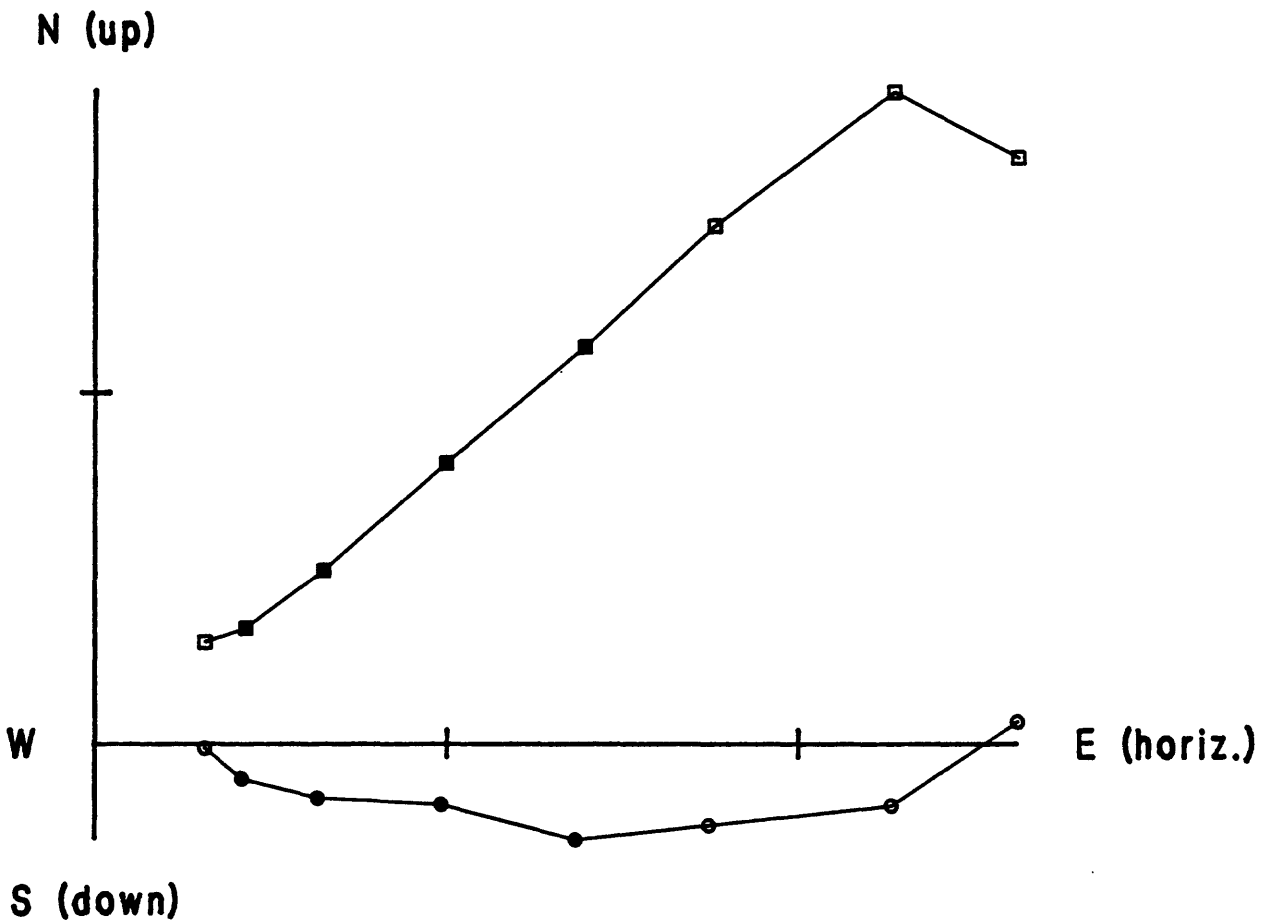
GU3-99.25



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

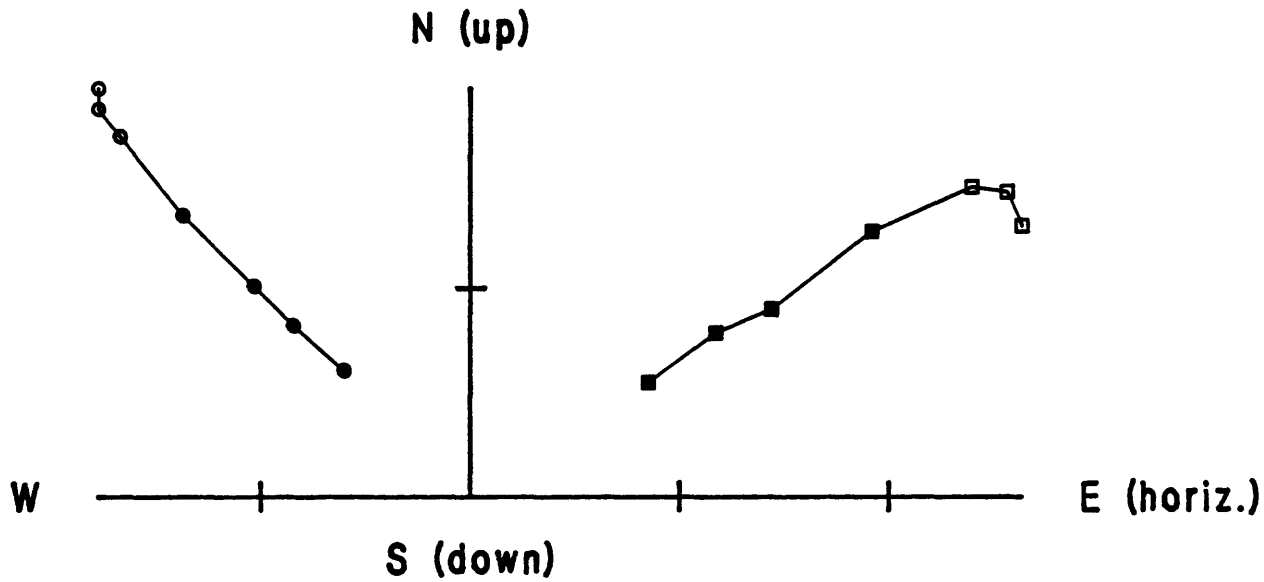
GU3-101.2



Demag. from NRM to 100mT

(Tic interval=.1 A/m)

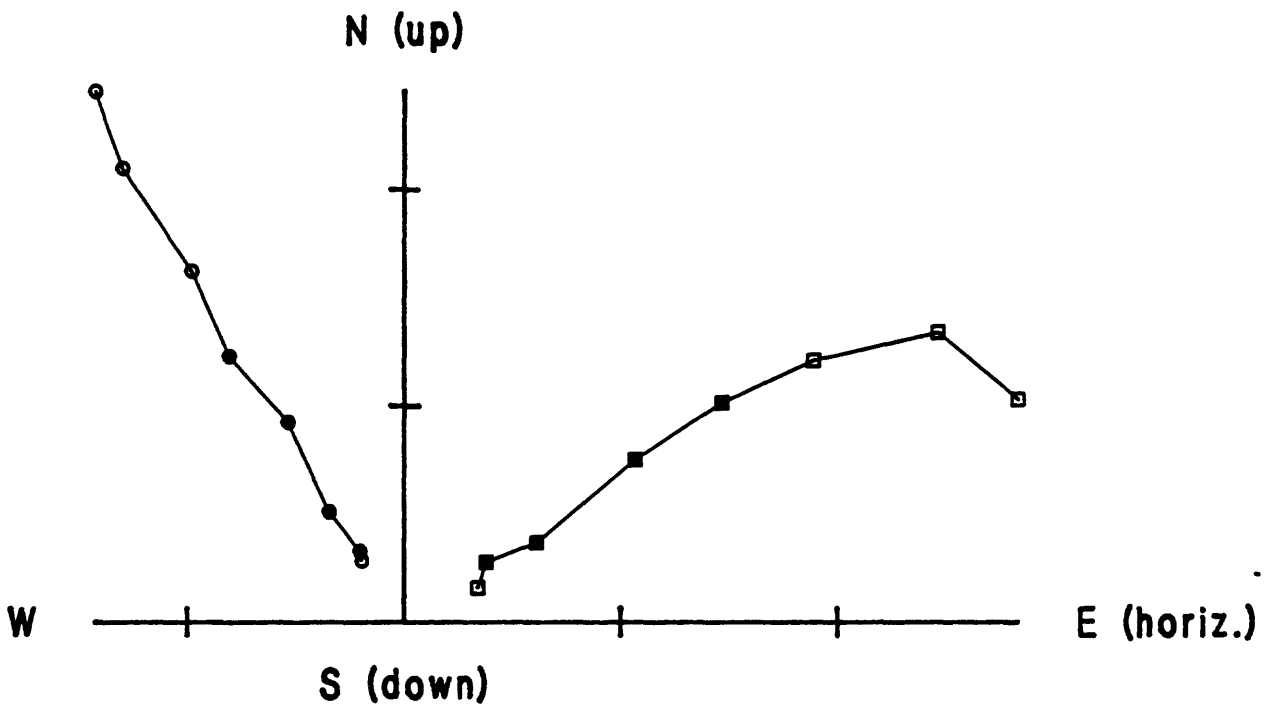
GU3-103.5



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

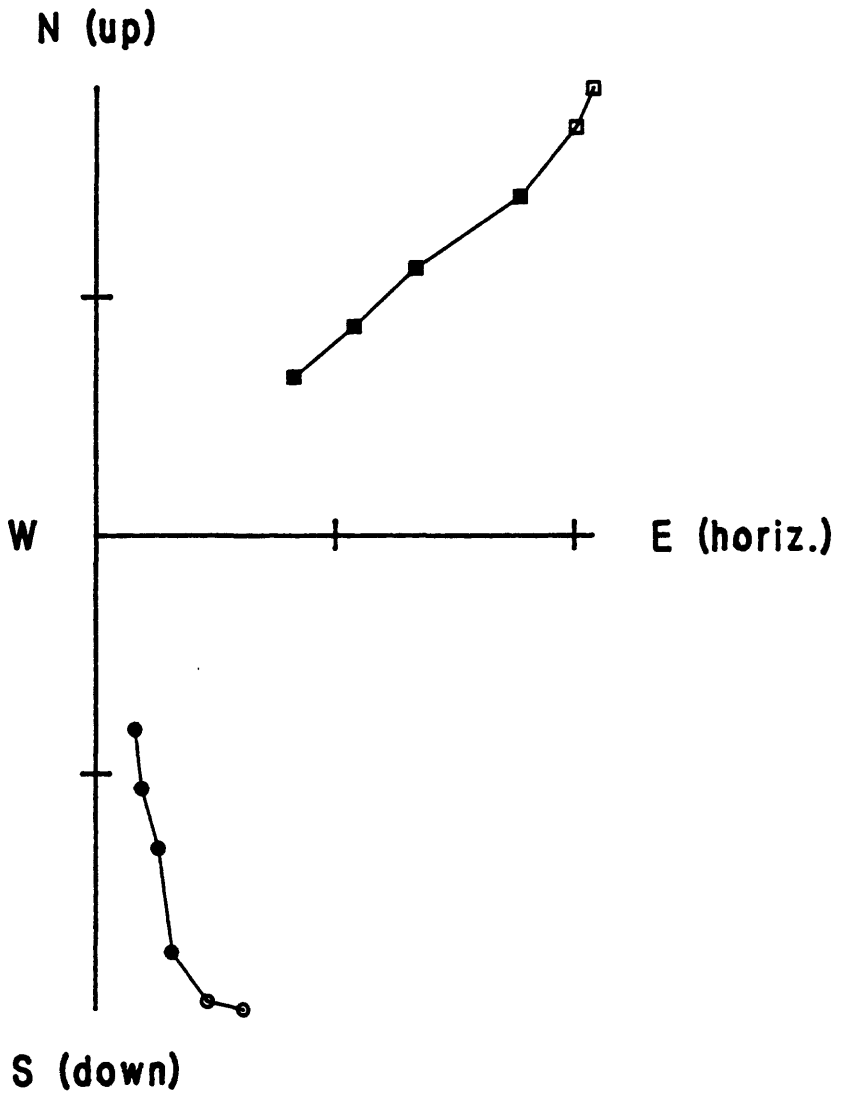
GU3-104.75



Demag. from NRM to 100mT

(Tic interval=.1 A/m)

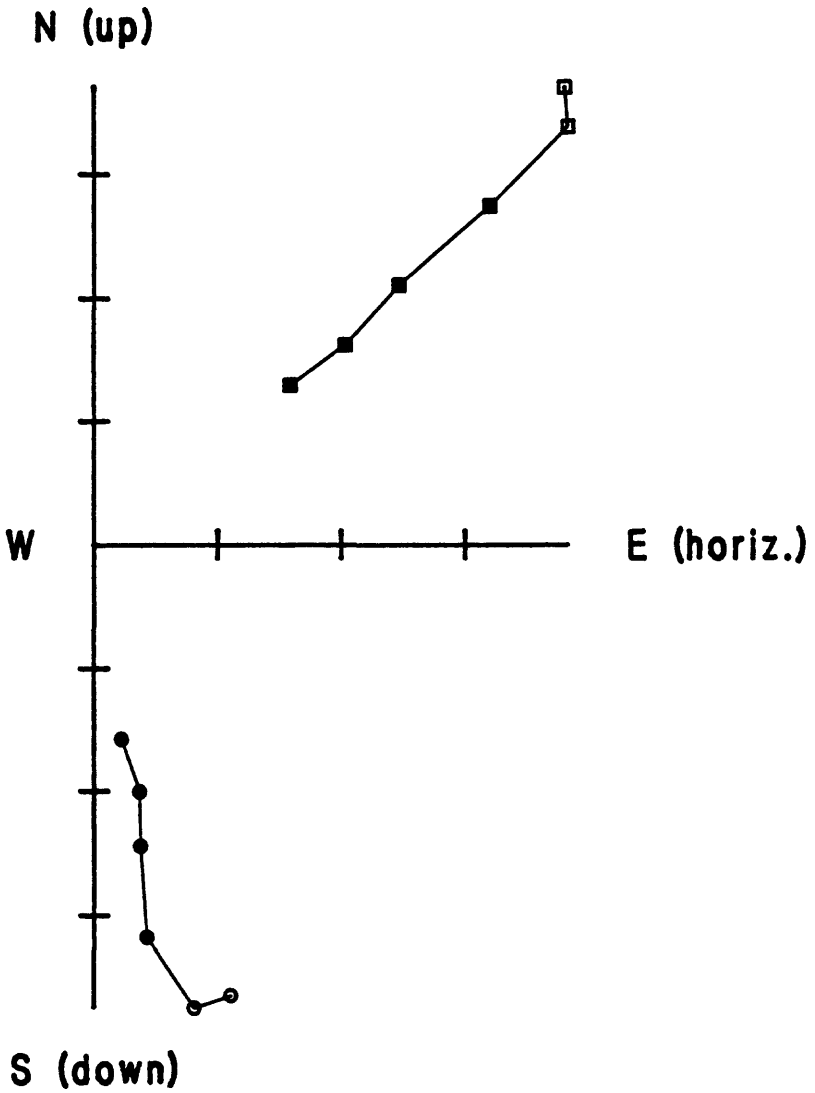
OR3-109.4M



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

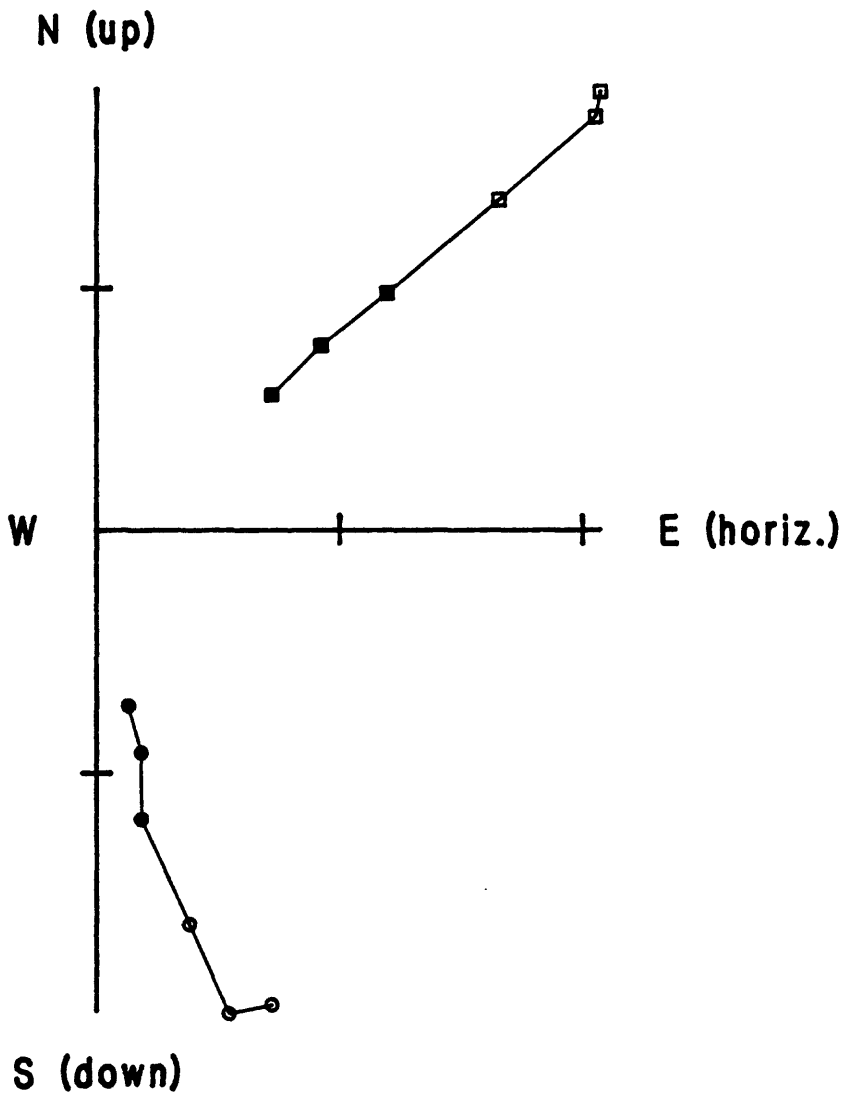
OR3-110.2M



Demag. from NRM to 50mT

(Tic interval=.05 A/m)

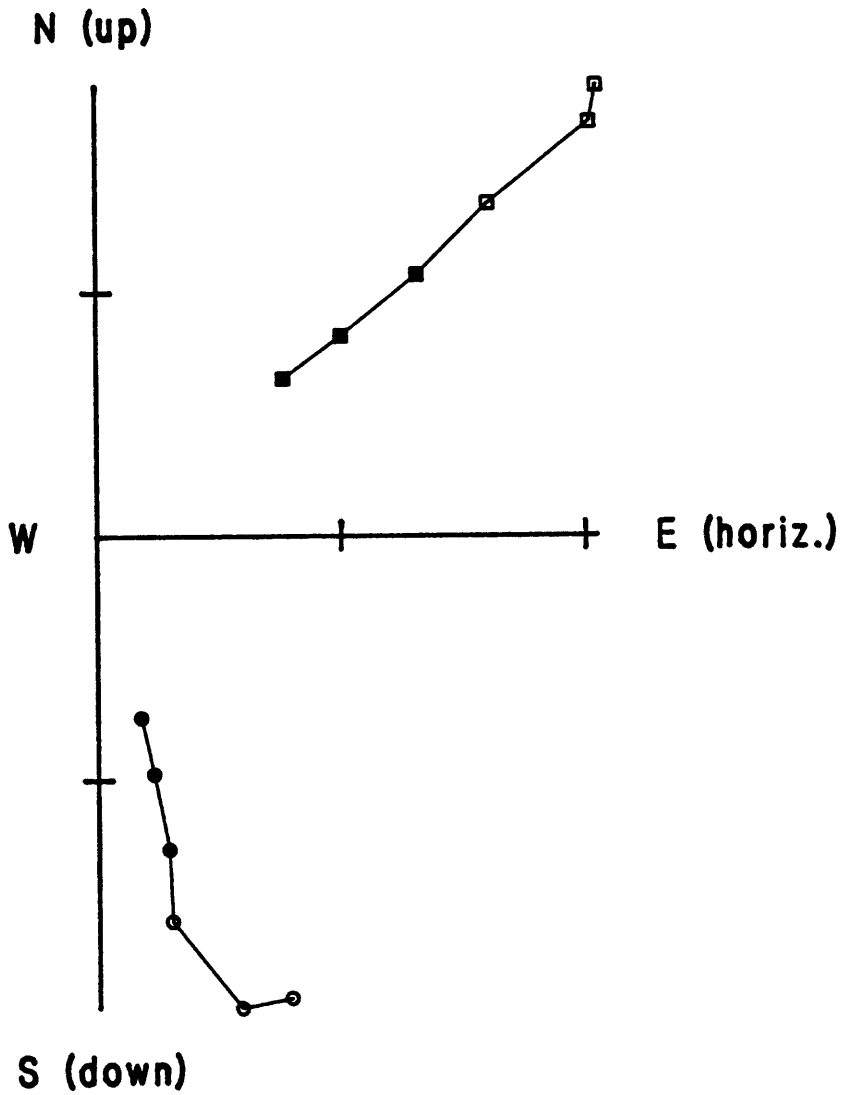
OR3-111.2M



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

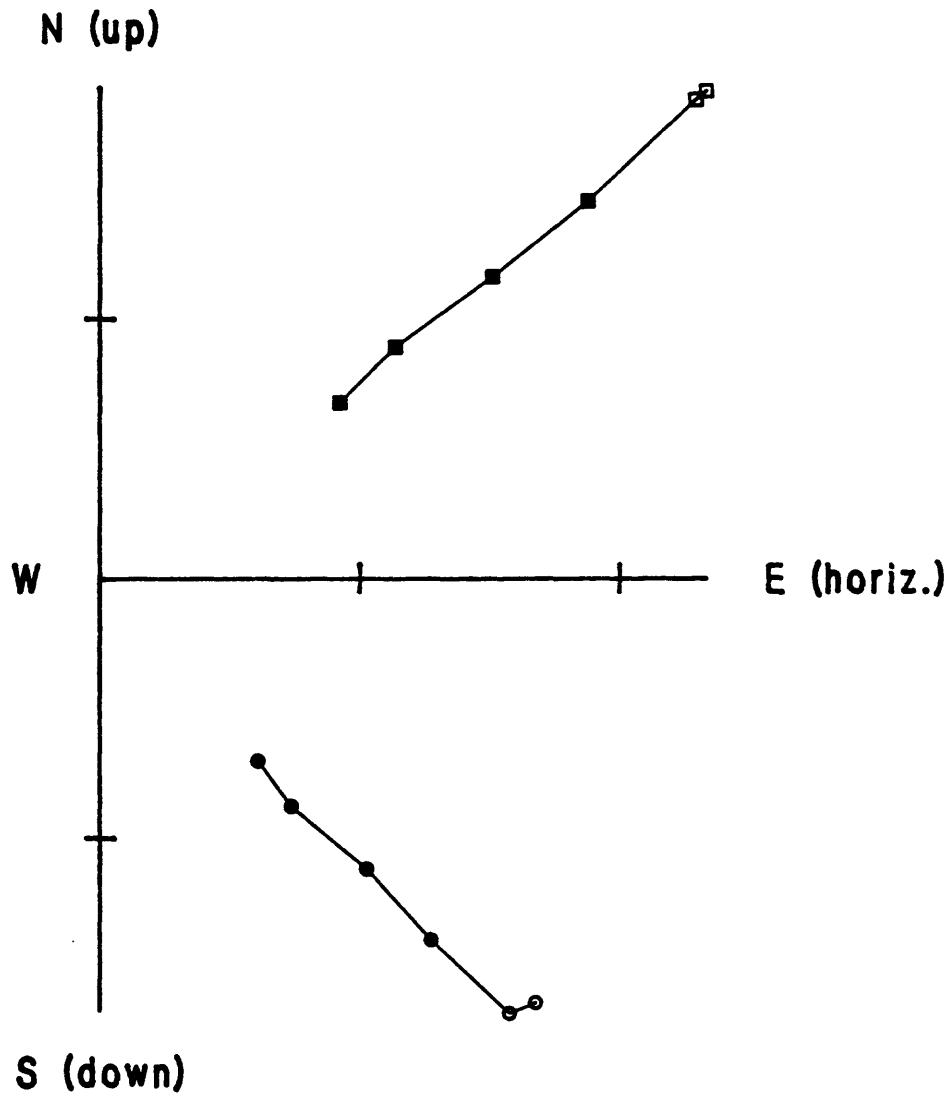
OR3-112.0M



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

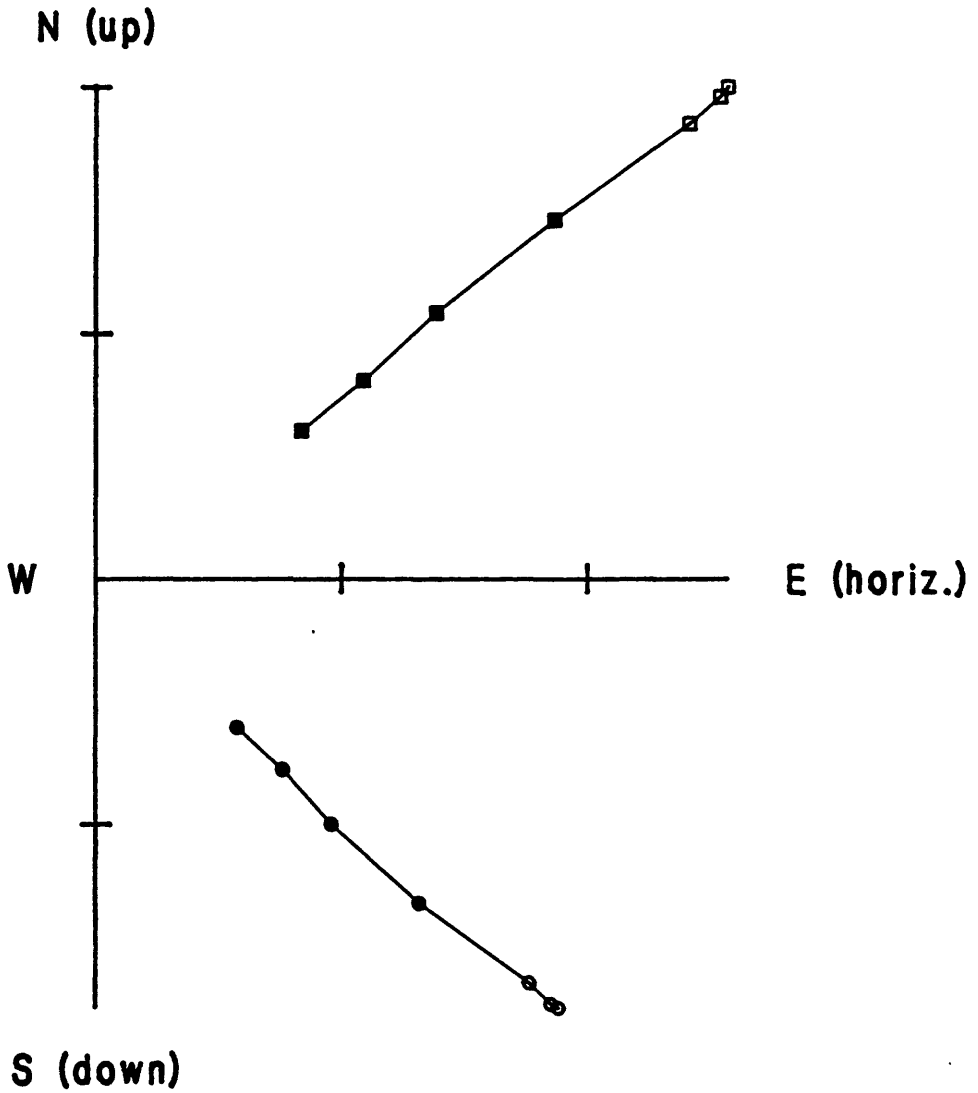
GU3-1 21.7



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

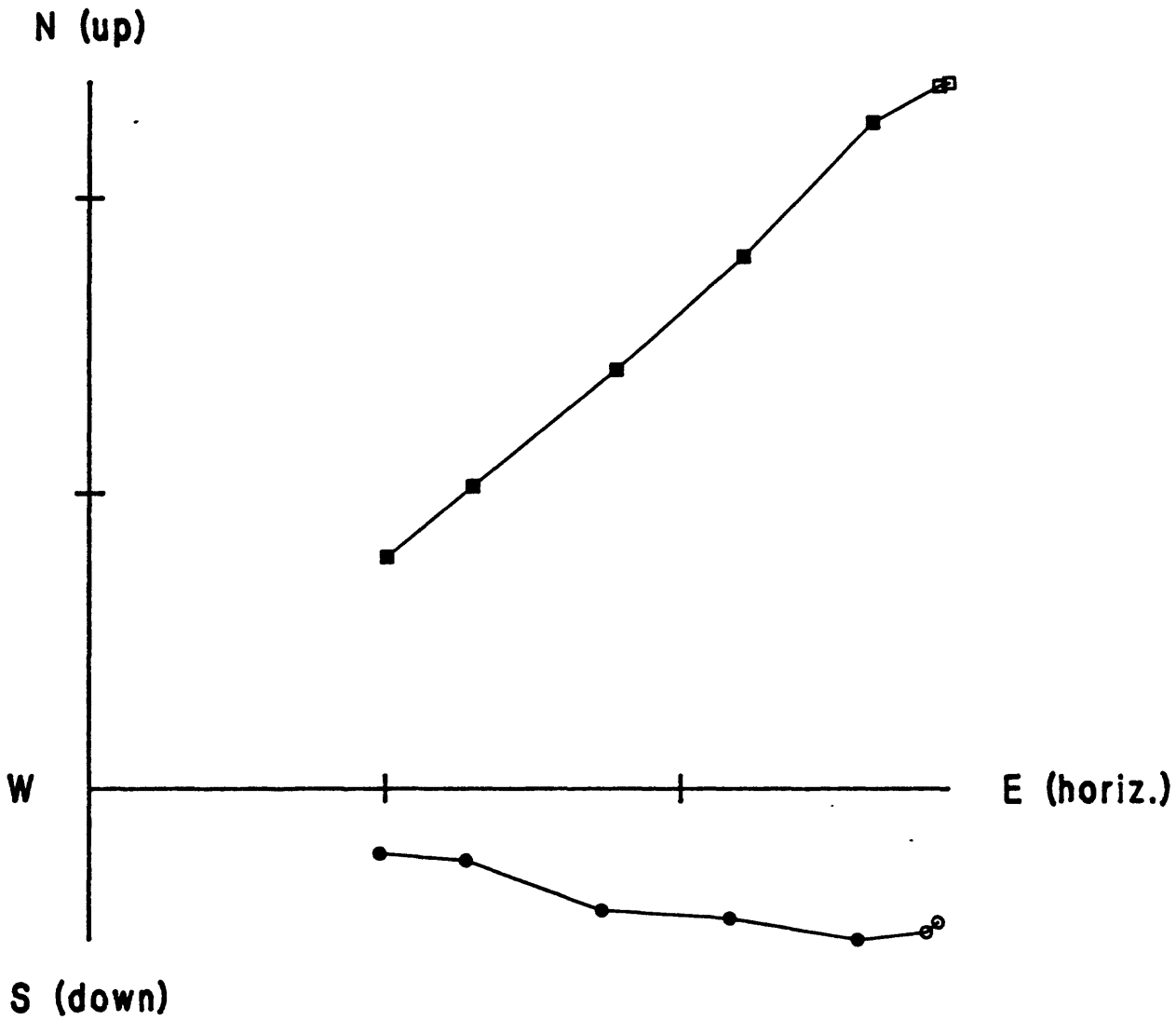
GU3-125.2



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

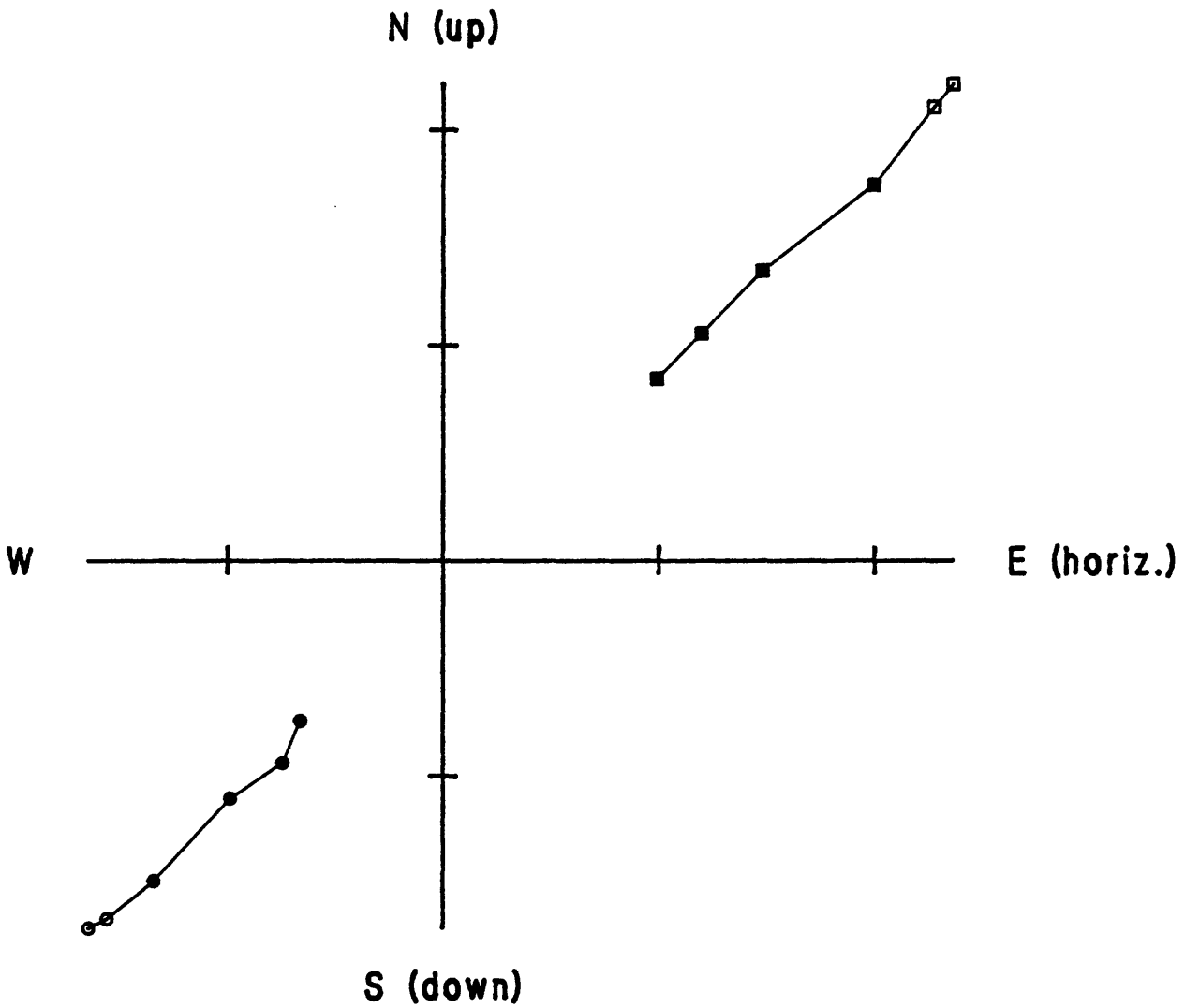
GU3-129.5



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

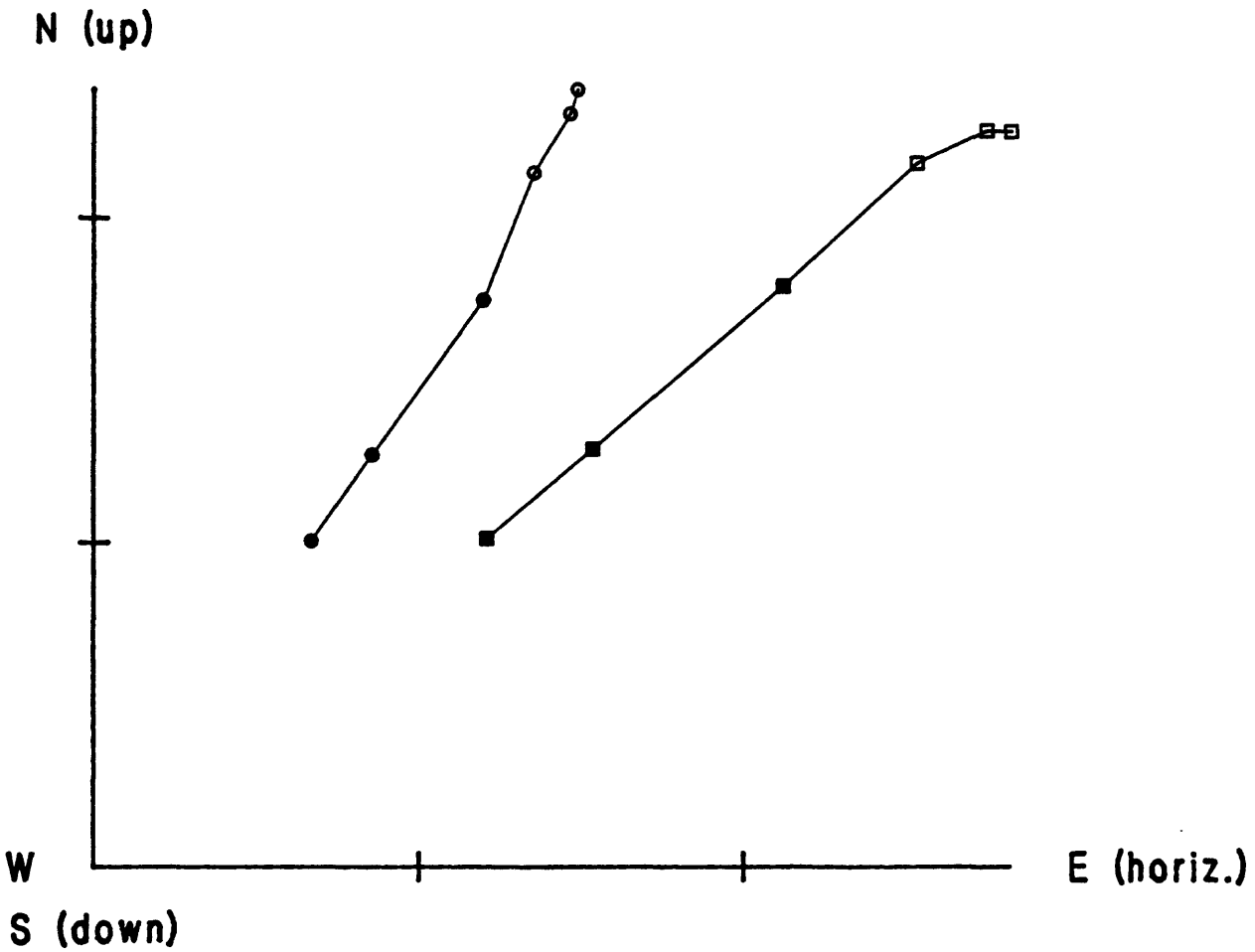
GU3-130.4



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

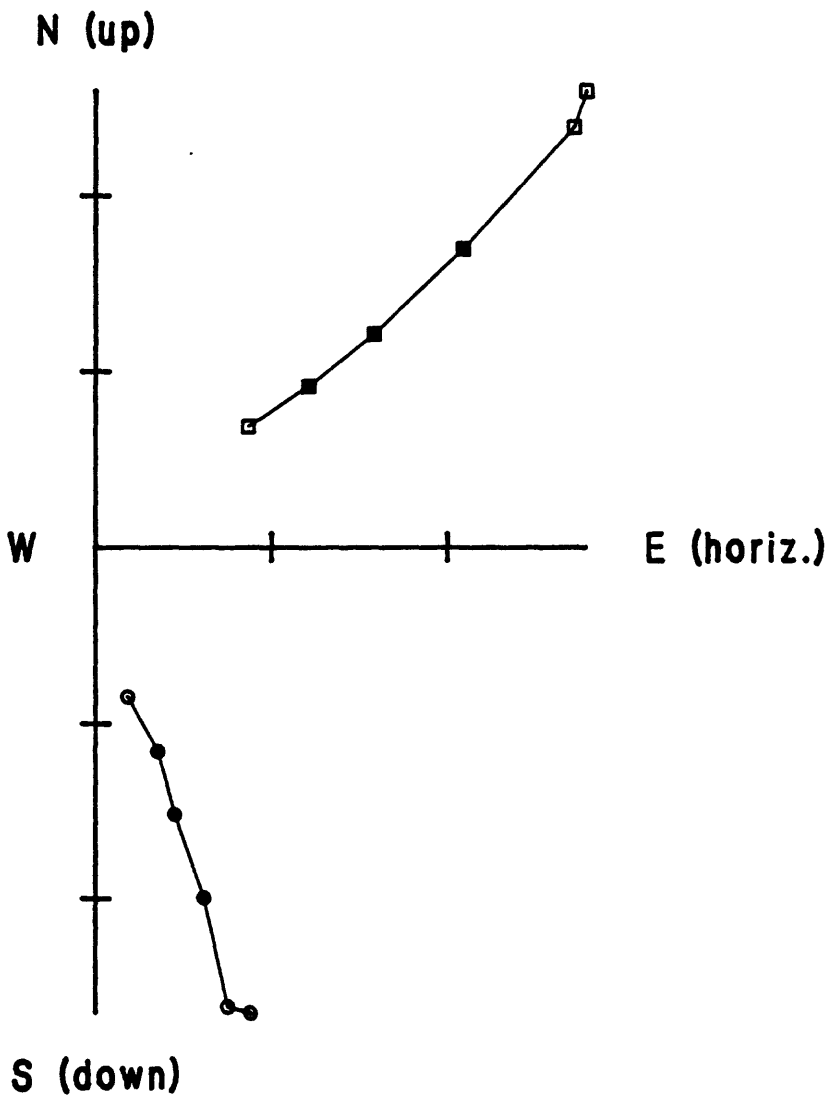
GU3-134.0



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

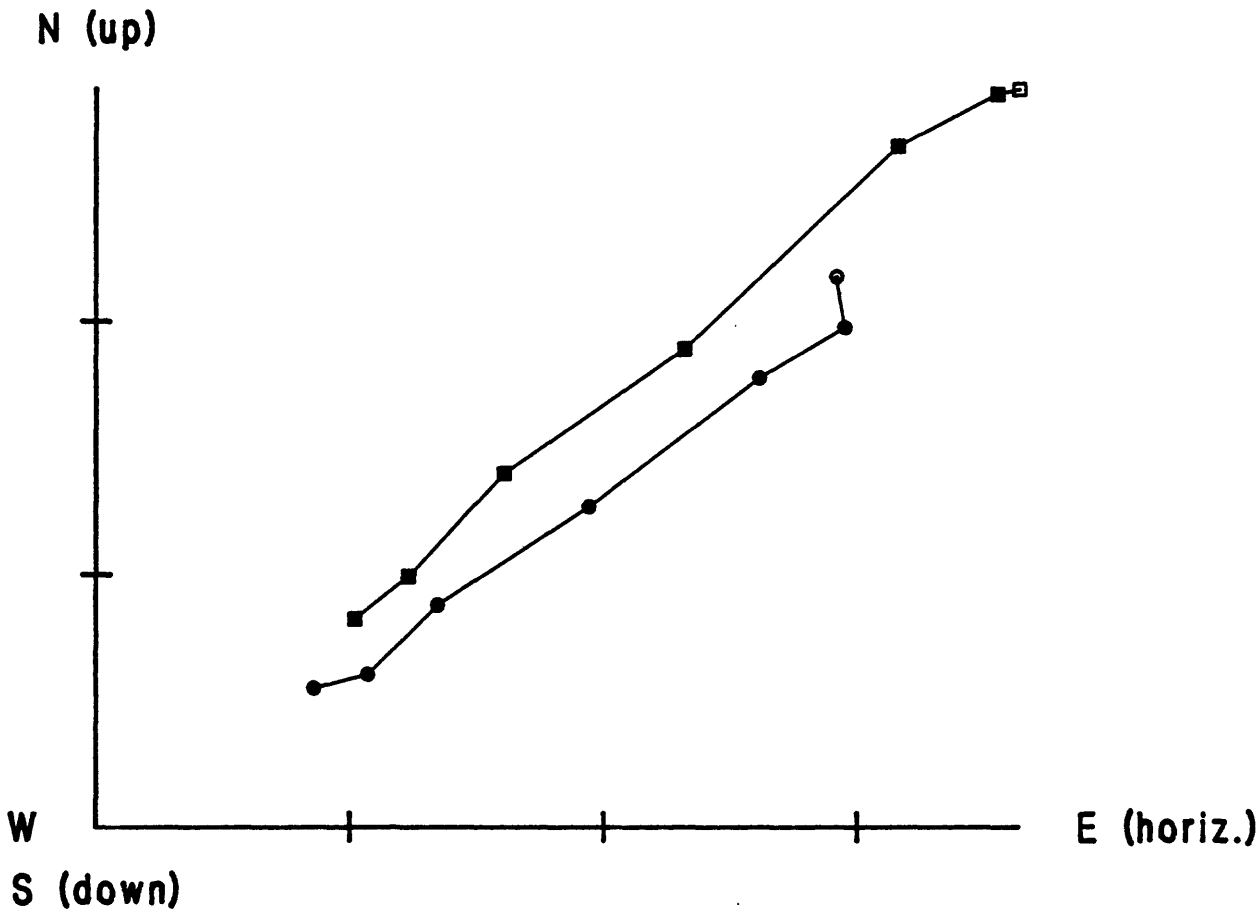
GU3-137.6



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

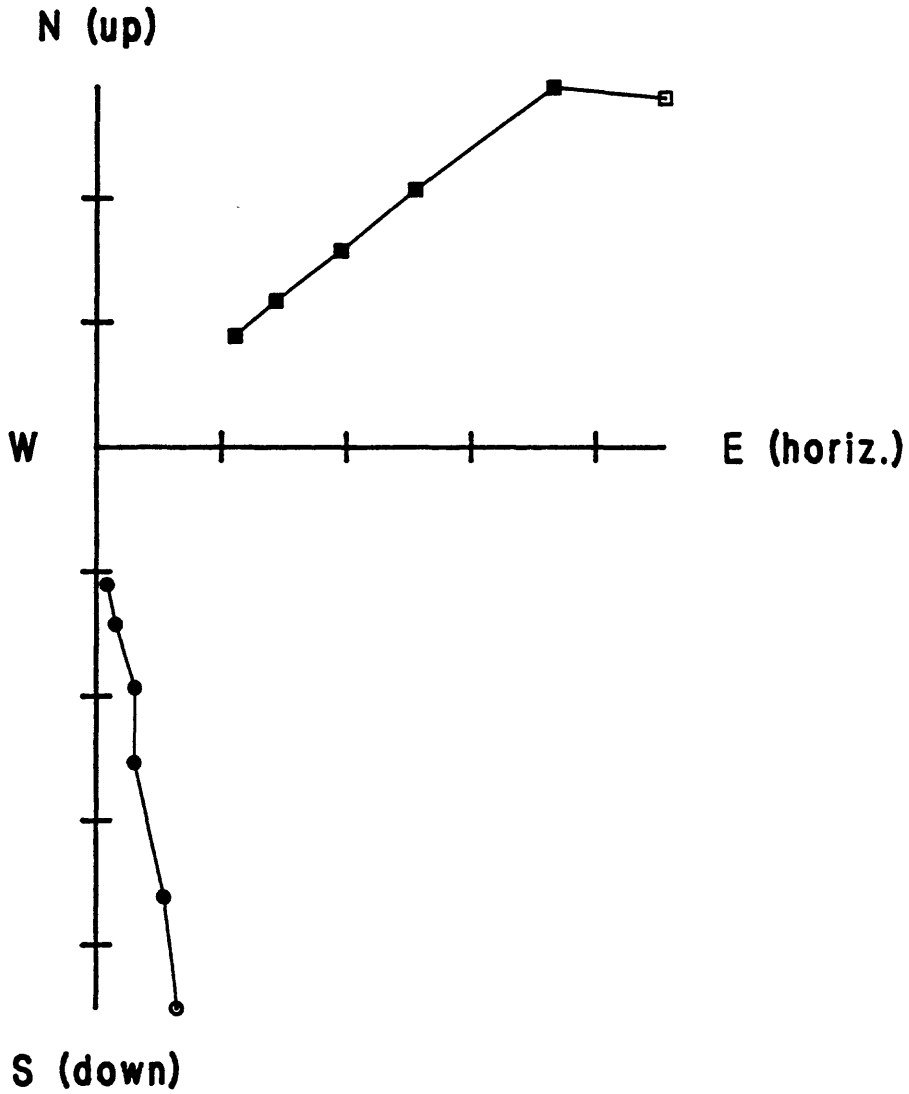
GU3-139.0



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

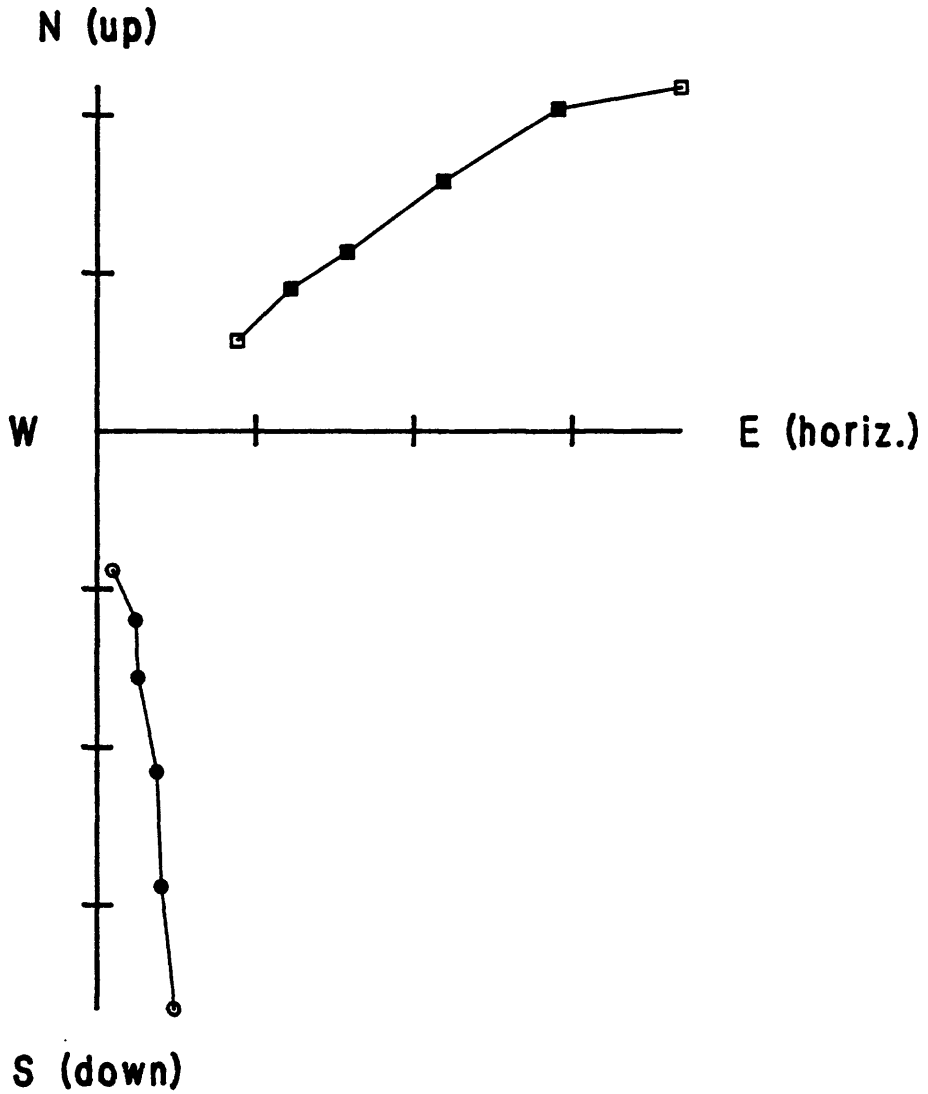
OR3-1 42.3



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

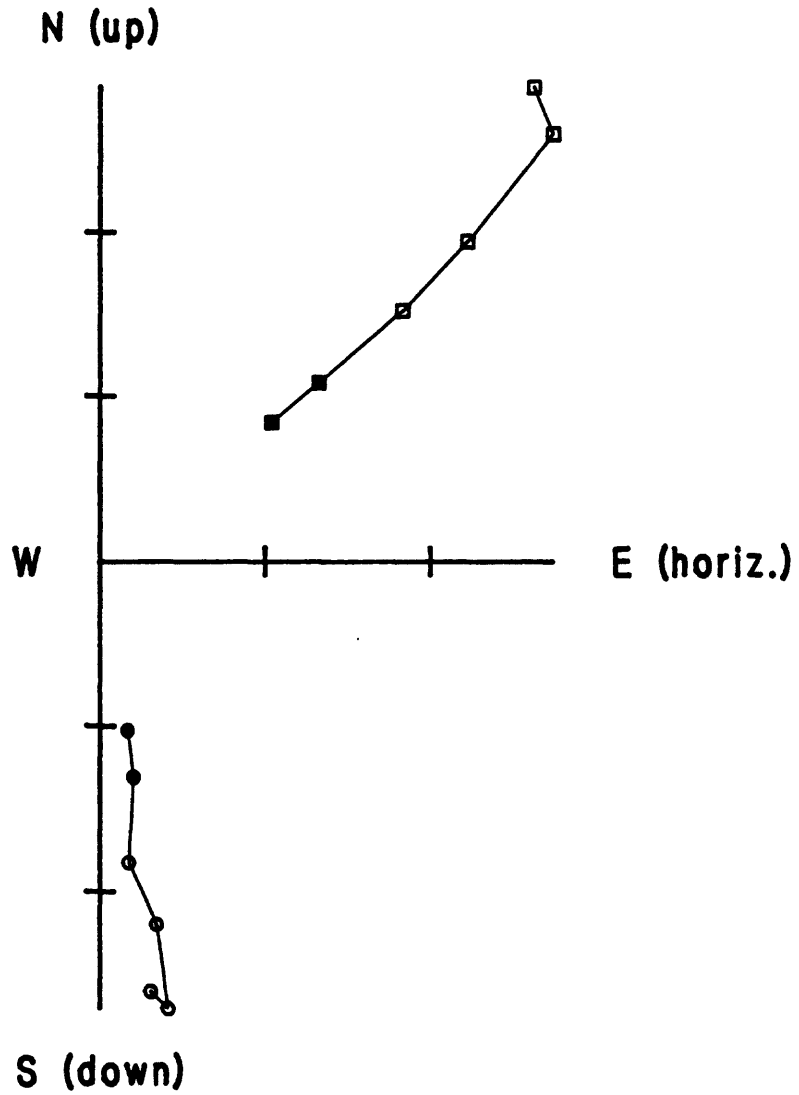
OR3-1 45.6



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

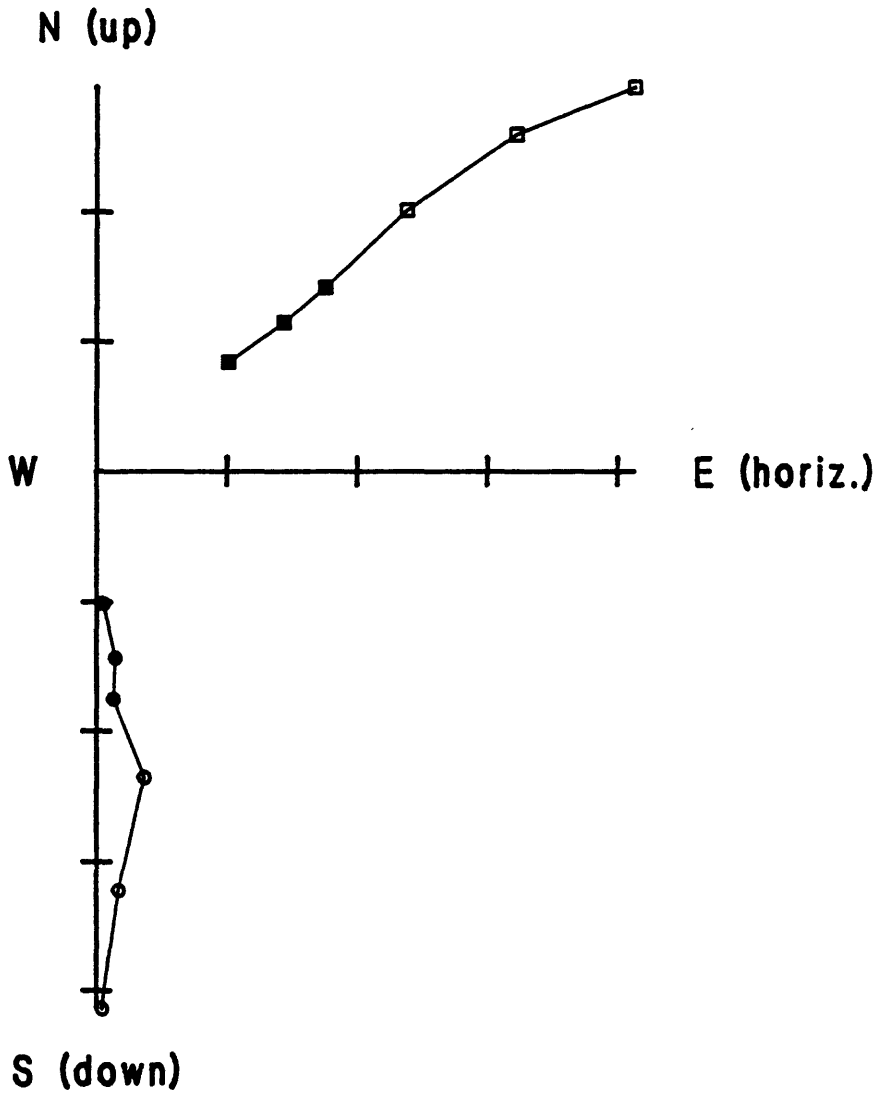
OR3-1 47.2



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

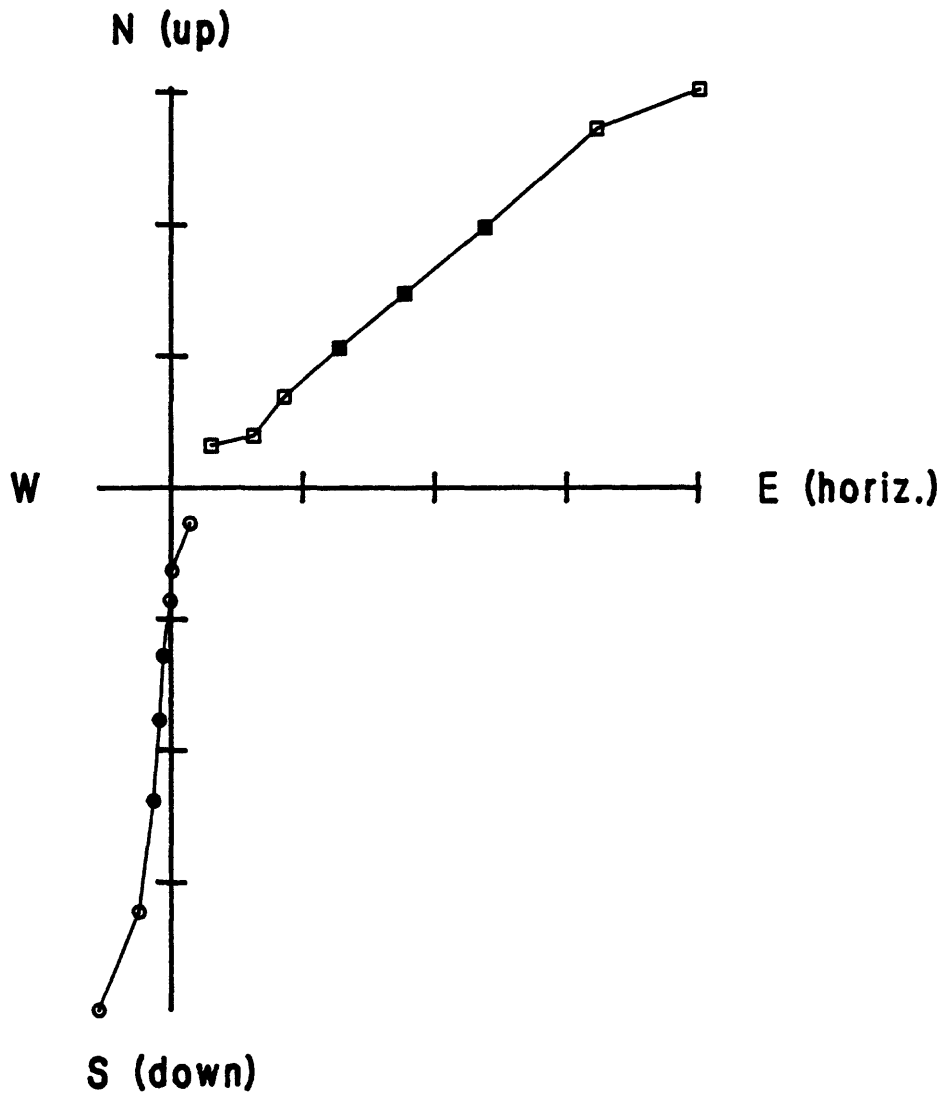
OR3-1 48.8



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

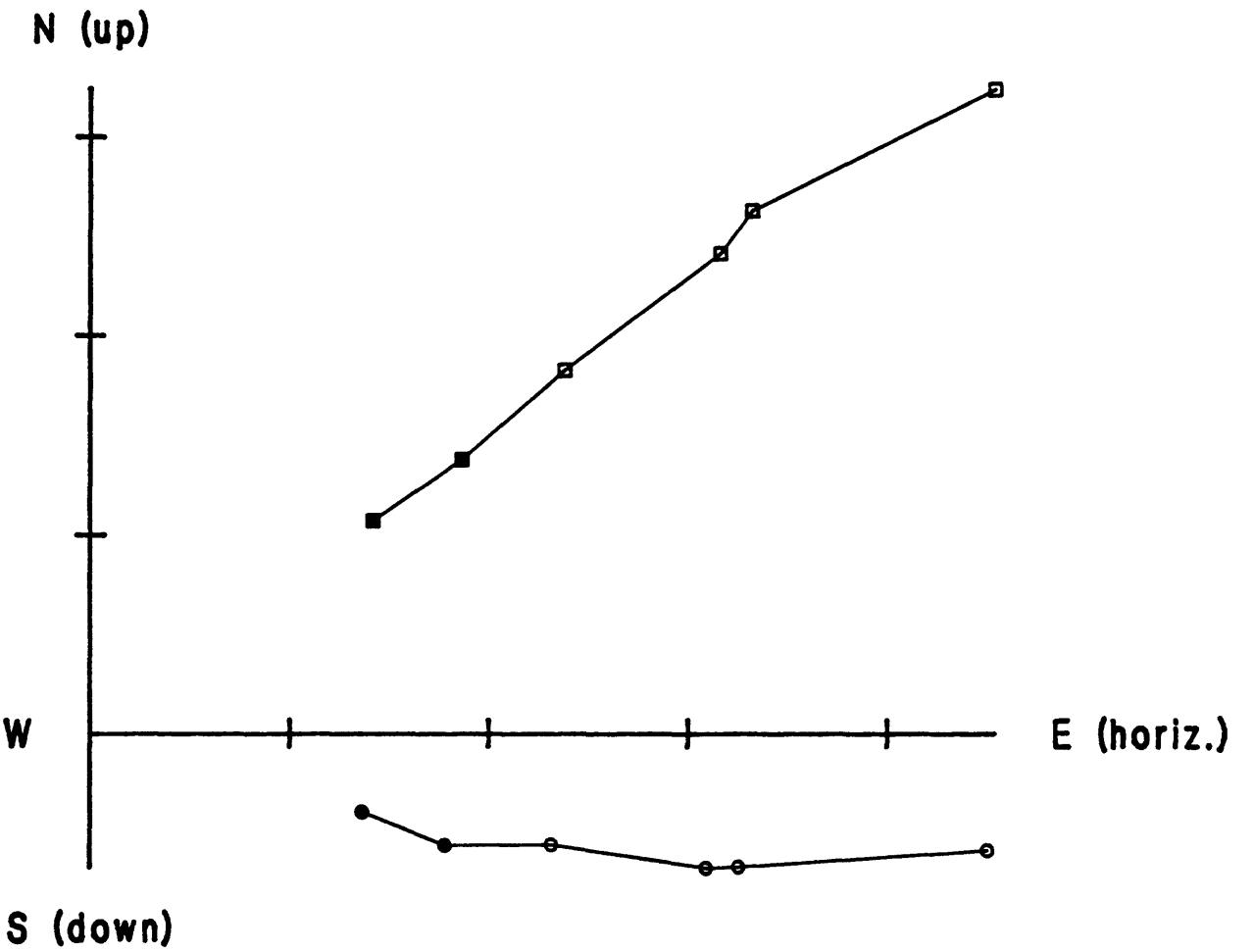
OR3-151.0



Demag. from NRM to 100mT

(Tic interval=.1 A/m)

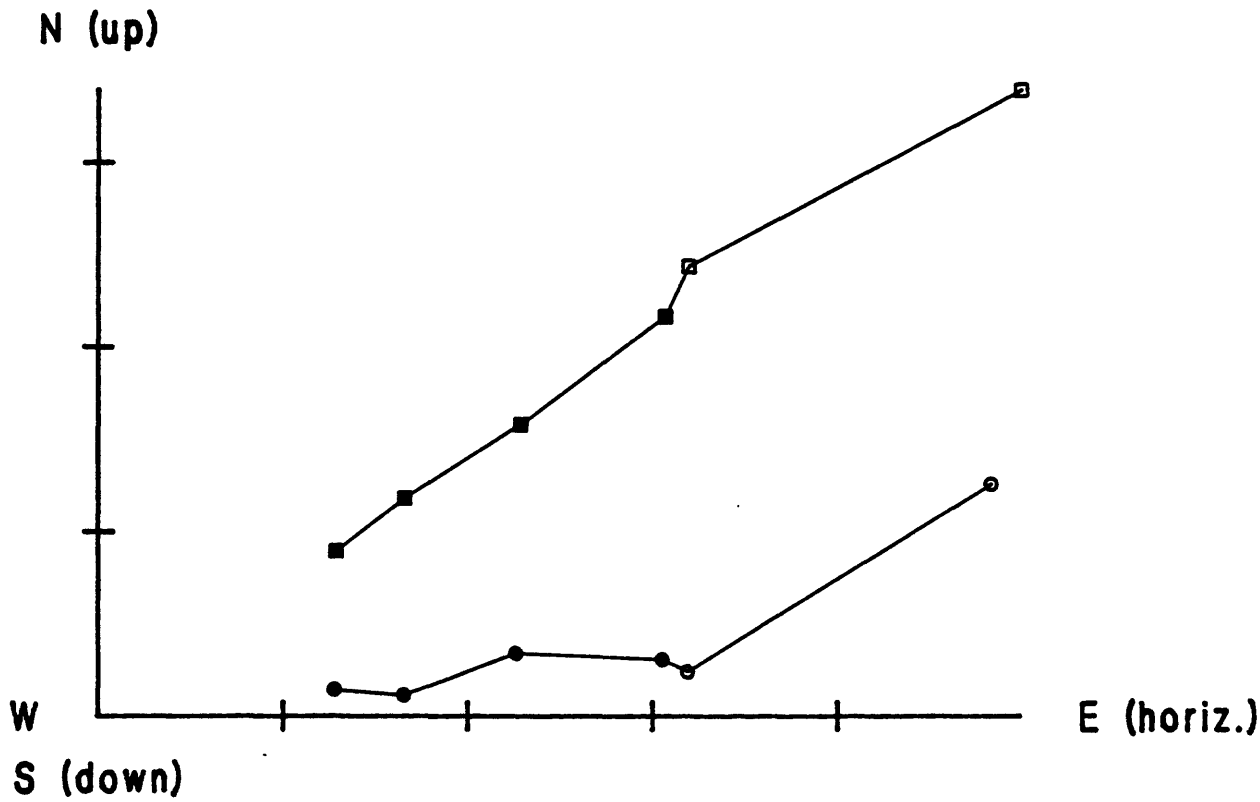
GU3-161.6U



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

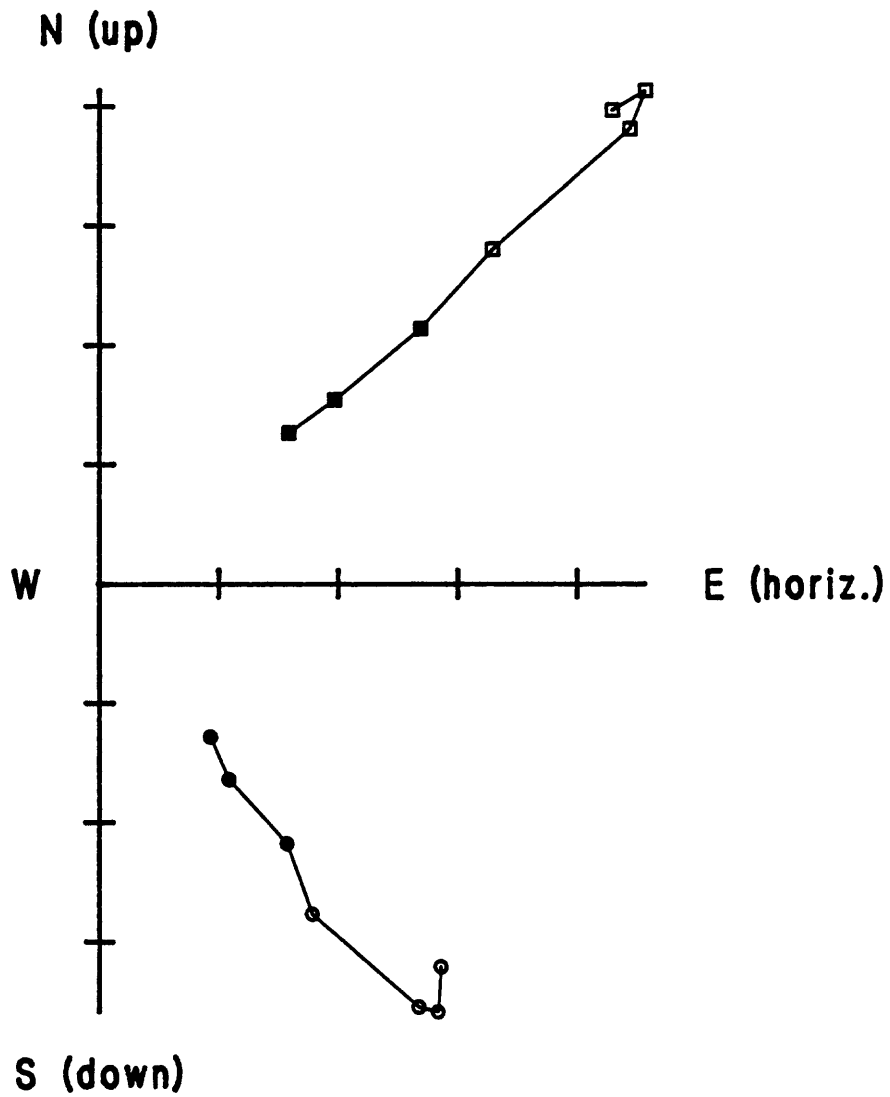
GU3-168.8



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

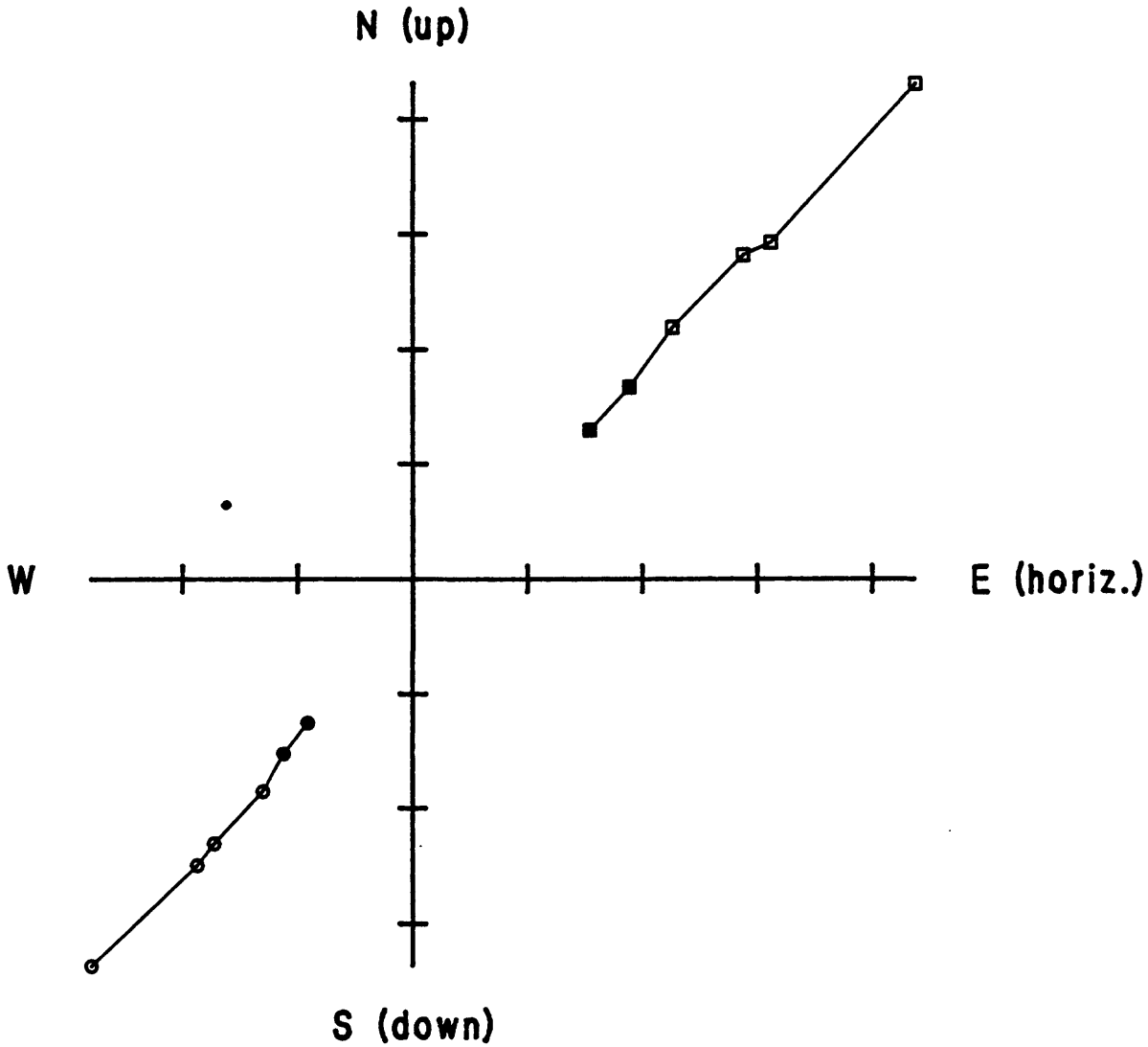
GU3-172.4



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

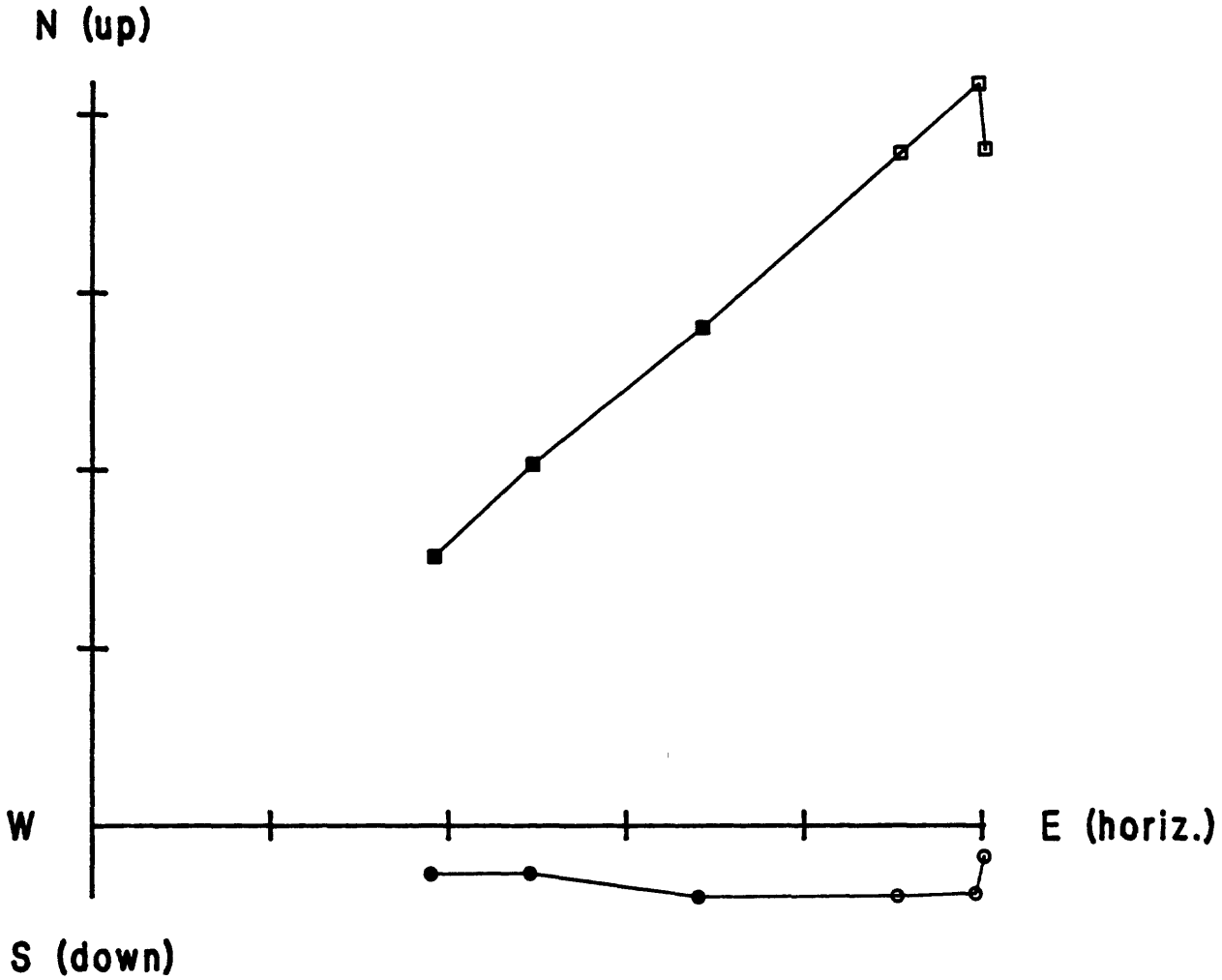
GU3-176.5



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

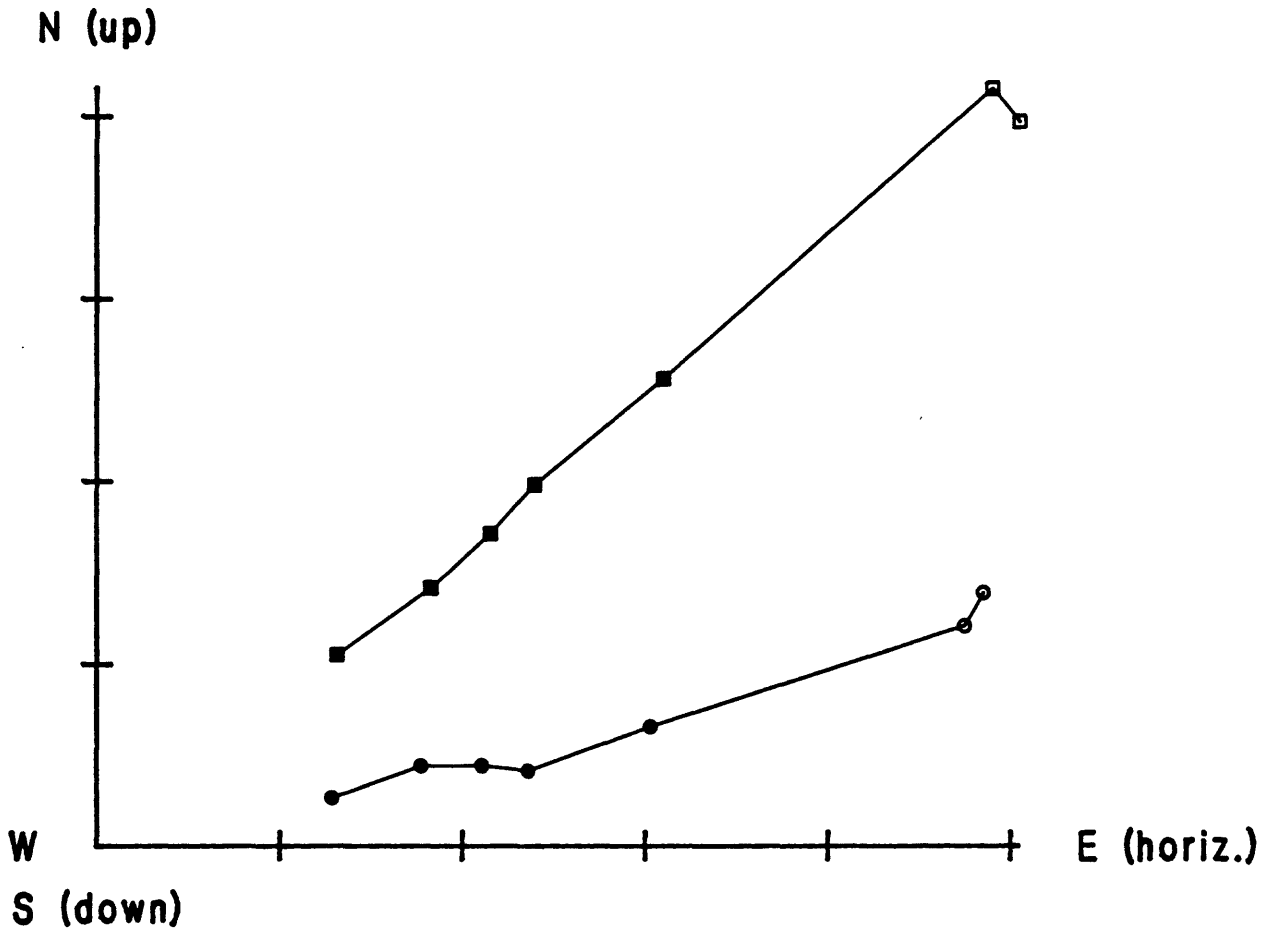
GU3-180.0



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

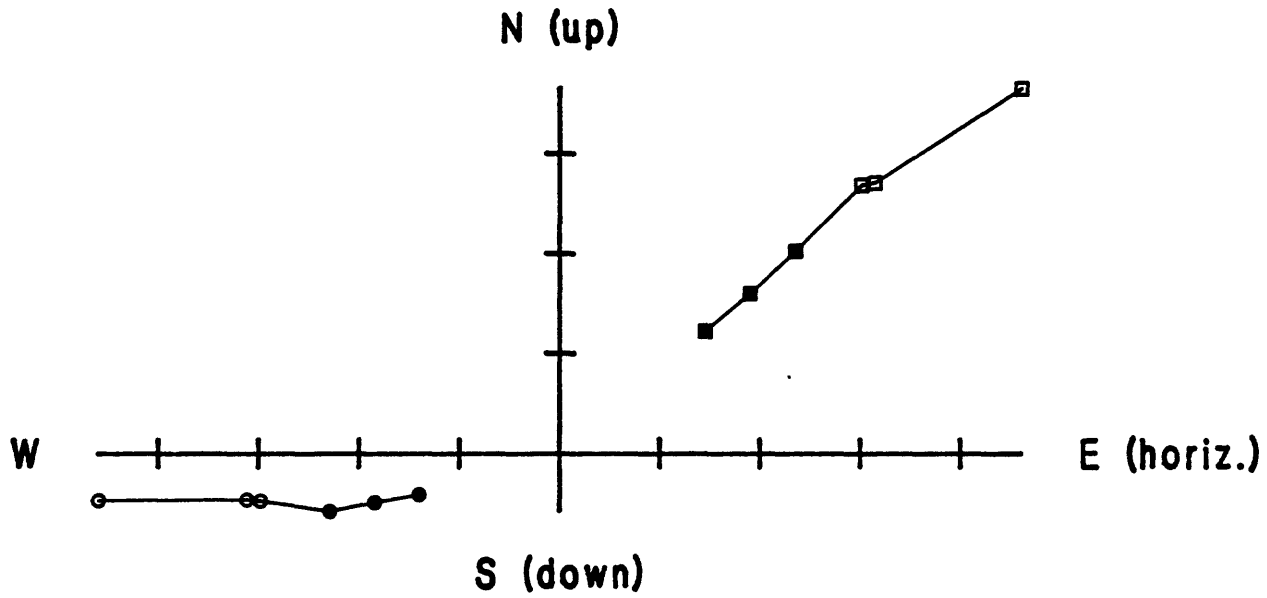
GU3-182.9



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

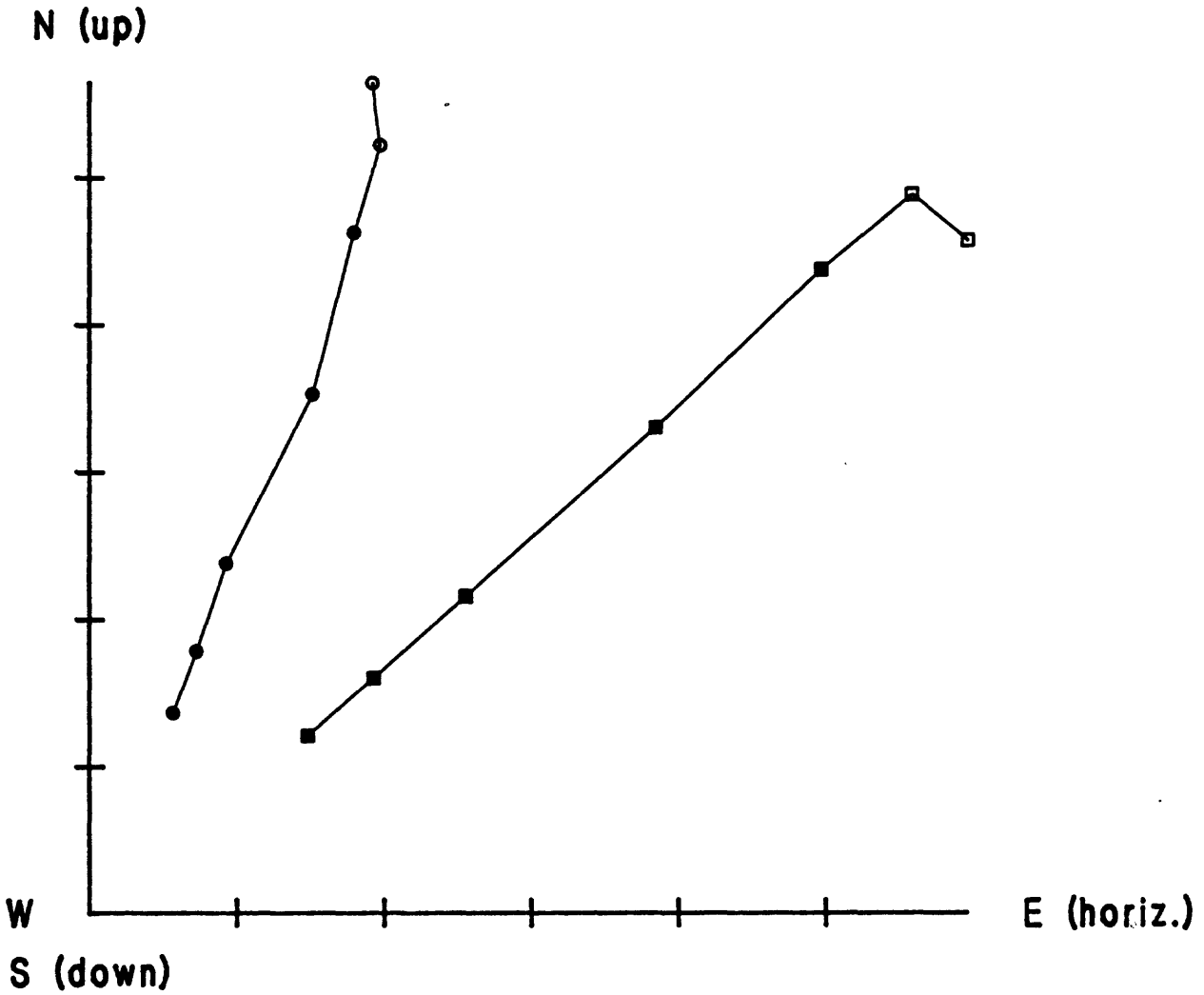
GU3-187.1U



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

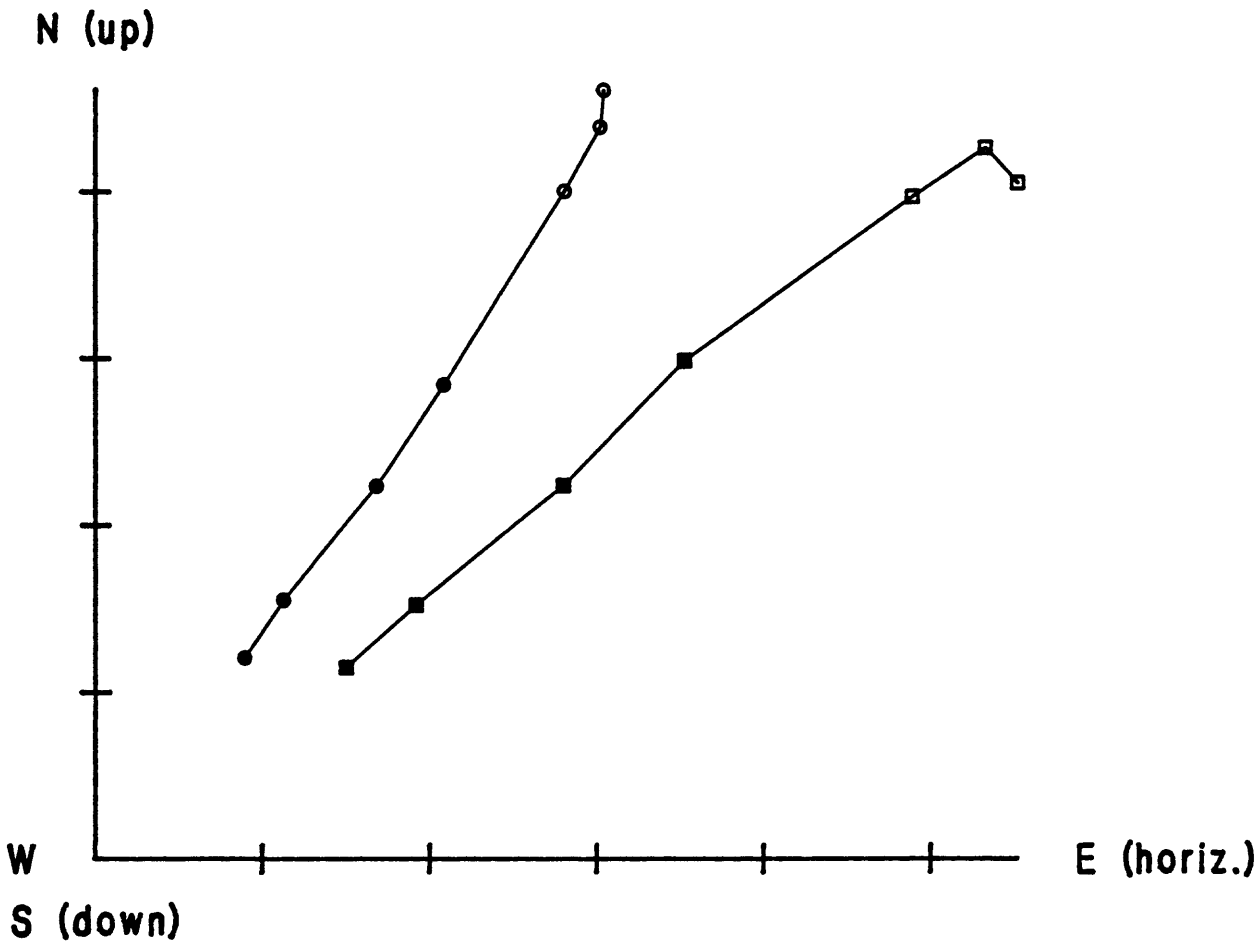
GU3-188.6



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

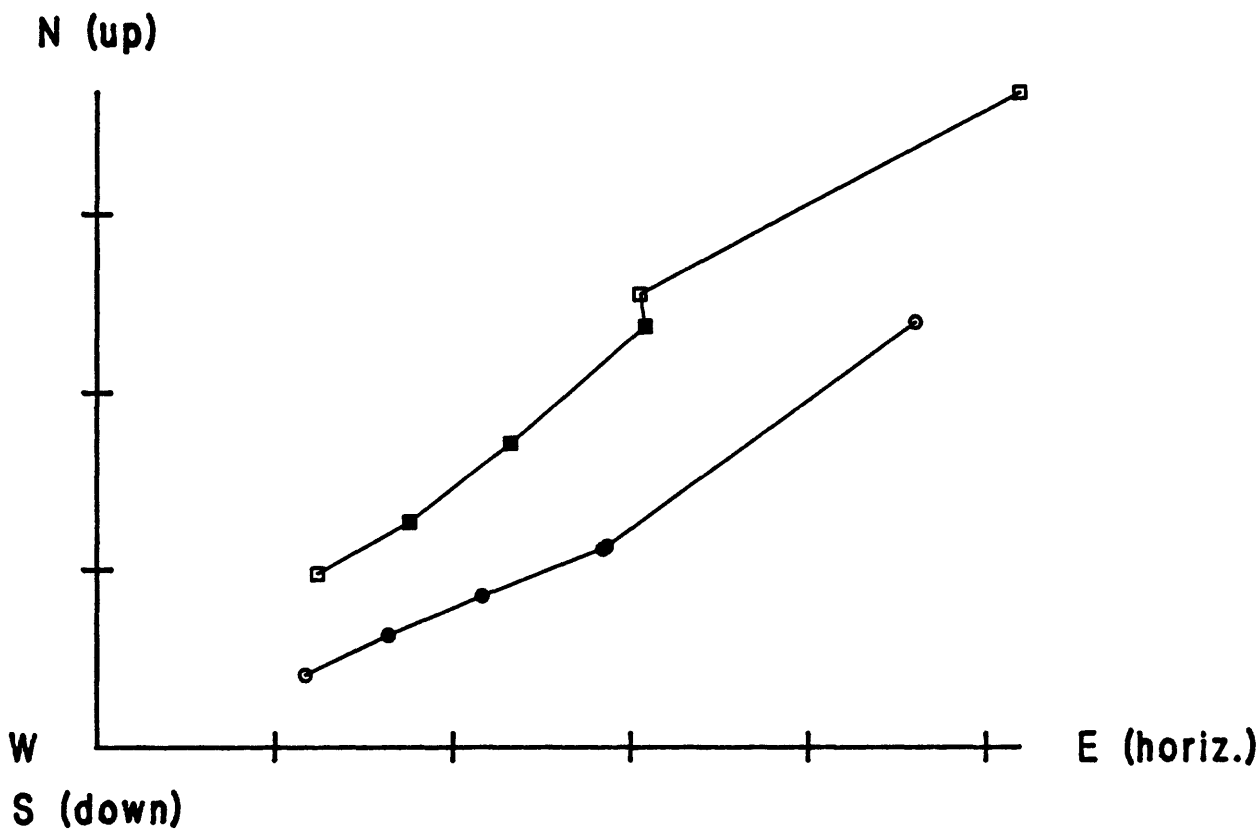
GU3-191.0



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

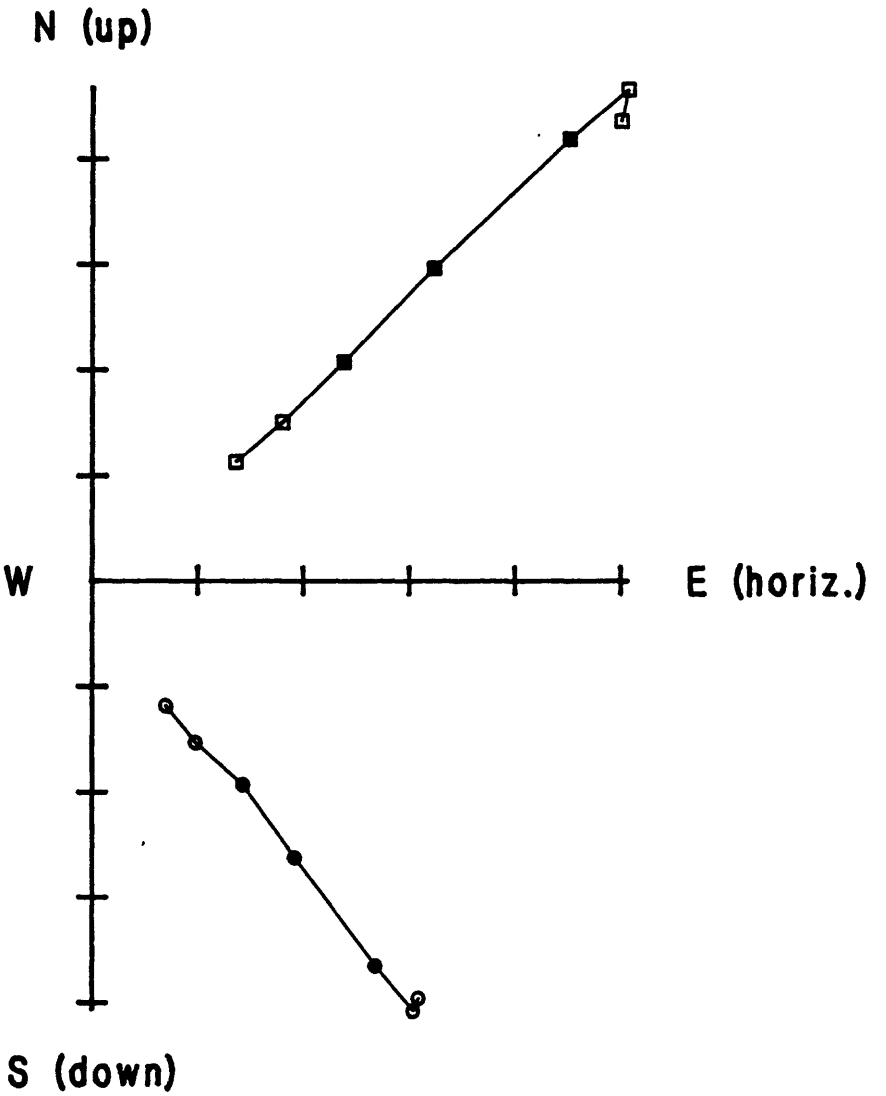
GU3-194.5



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

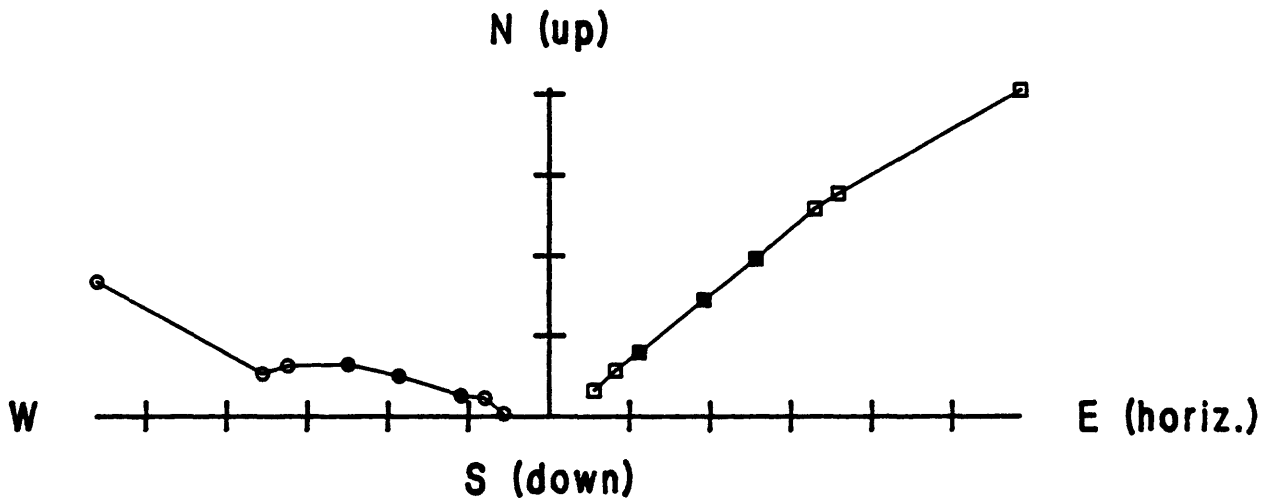
GU3-197.3



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

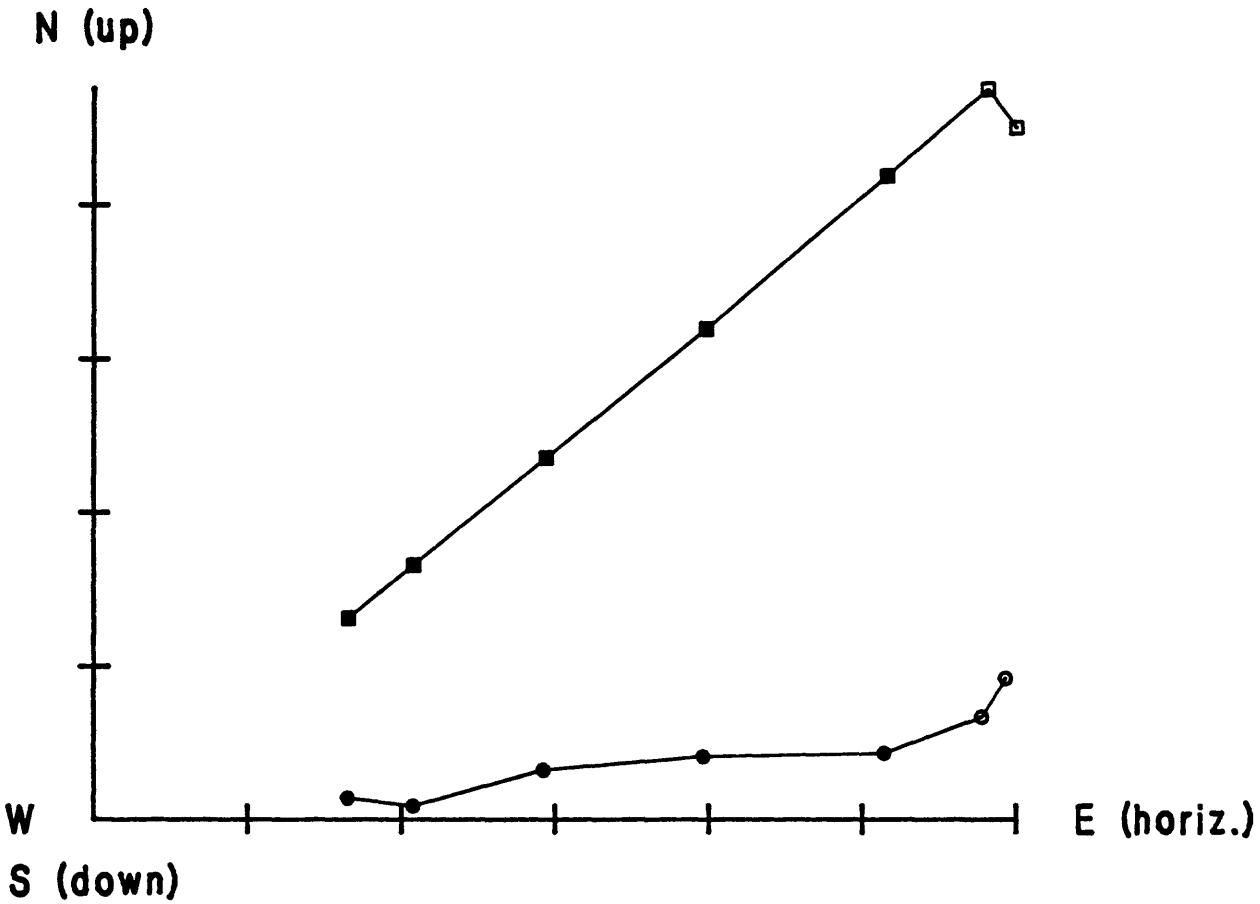
GU3-199.4



Demag. from NRM to 100mT

(Tic interval=.1 A/m)

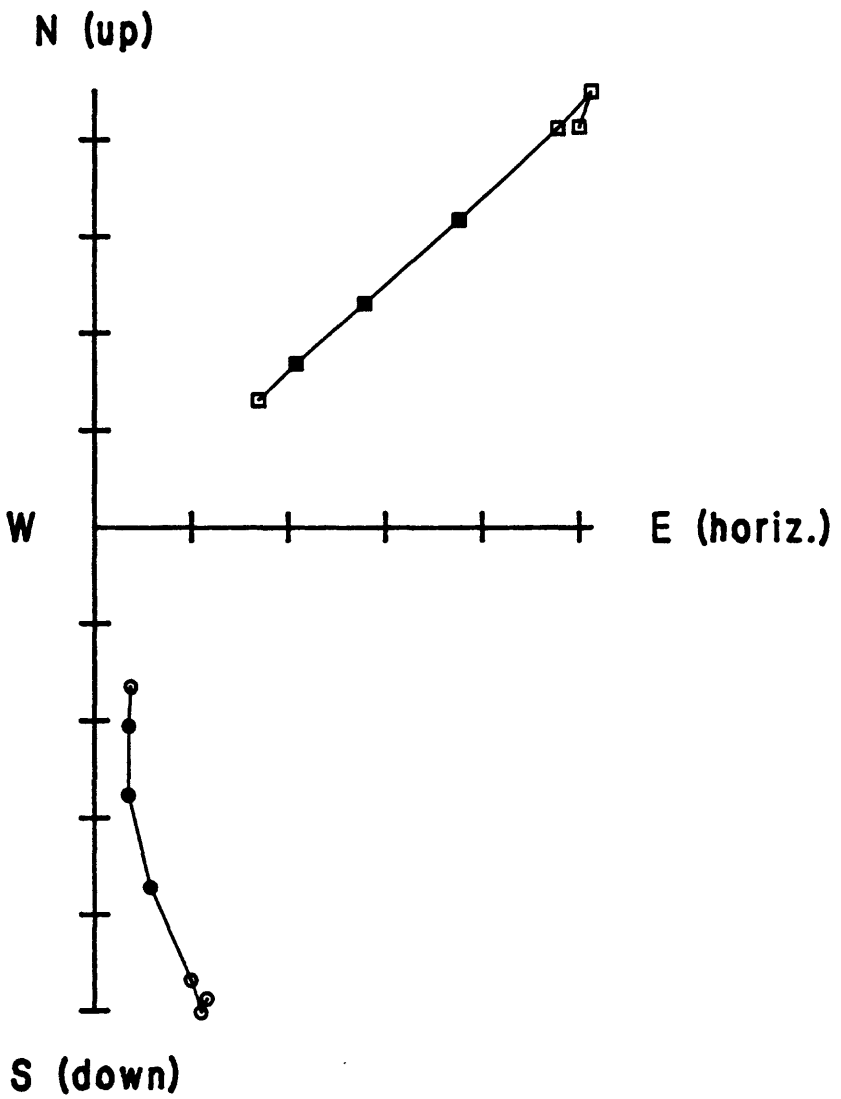
GU3-203.6



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

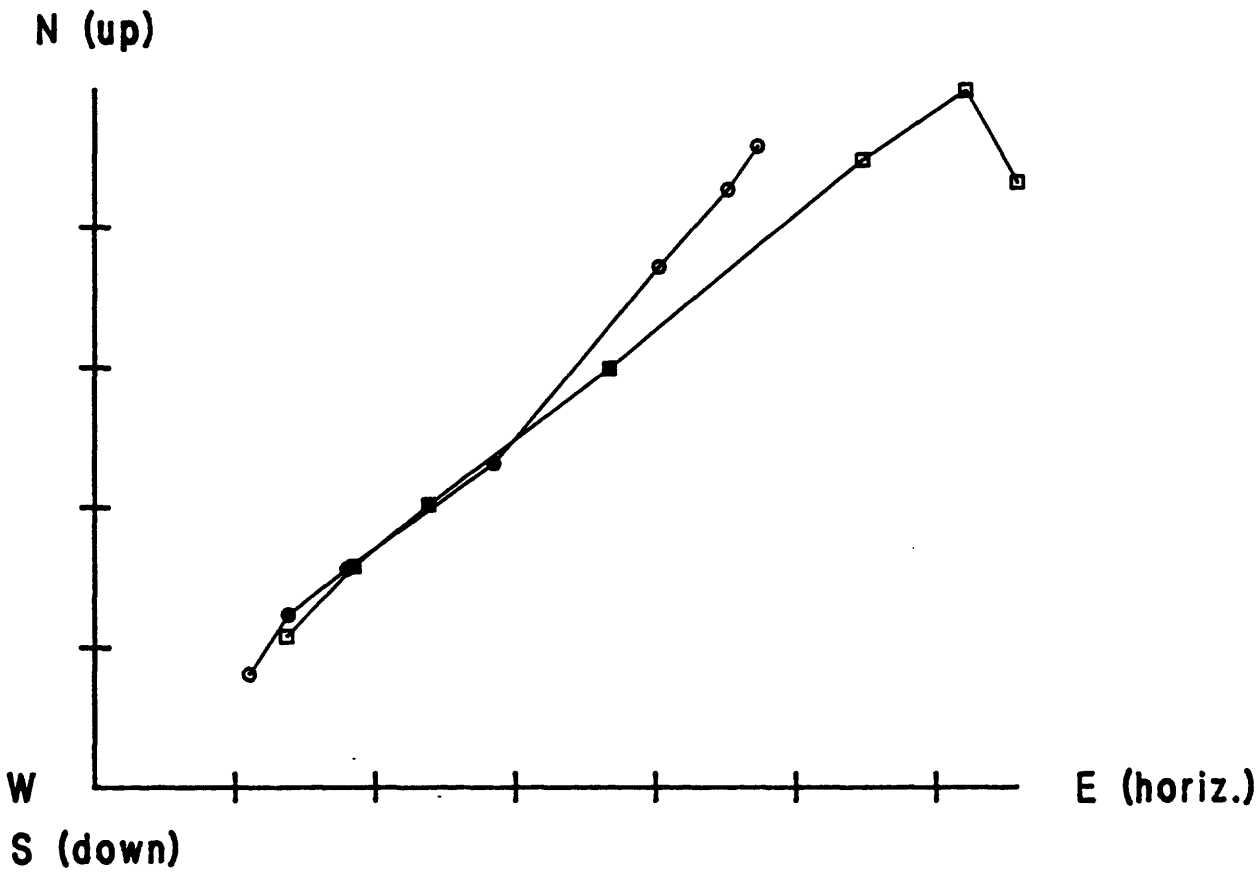
GU3-203.95



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

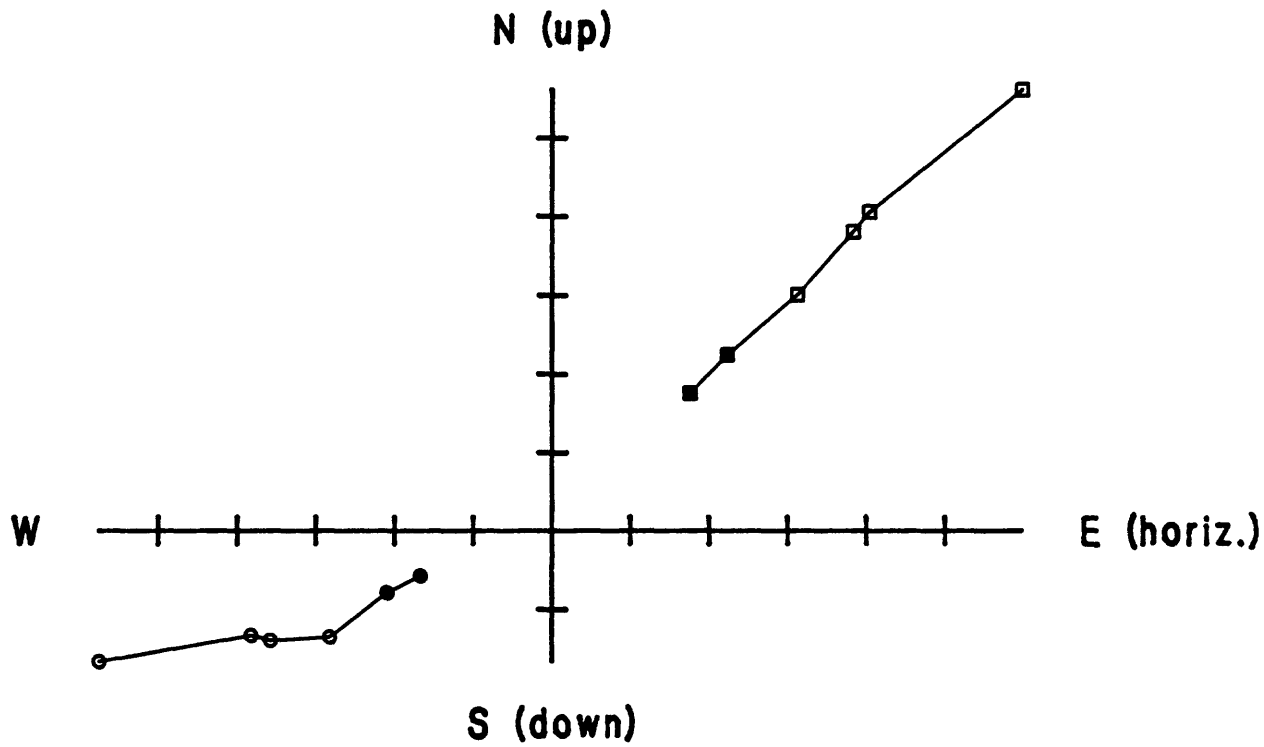
GU3-205.85



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

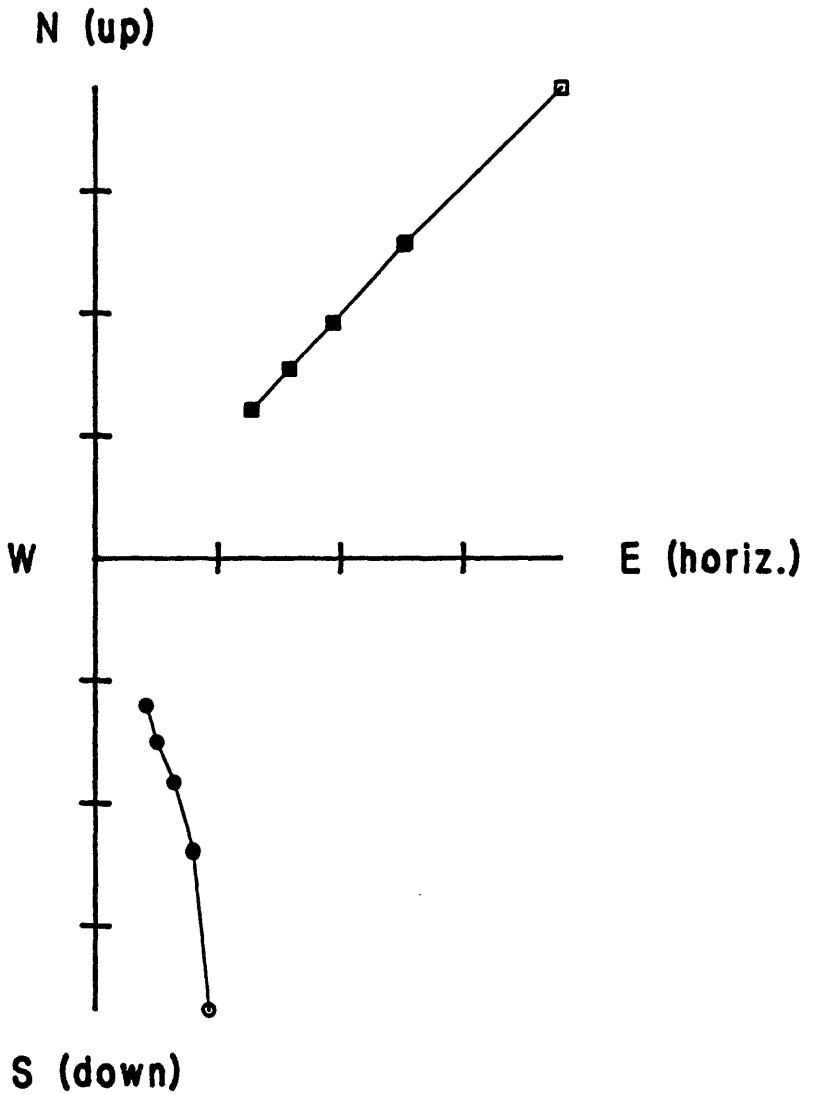
GU3-209.3



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

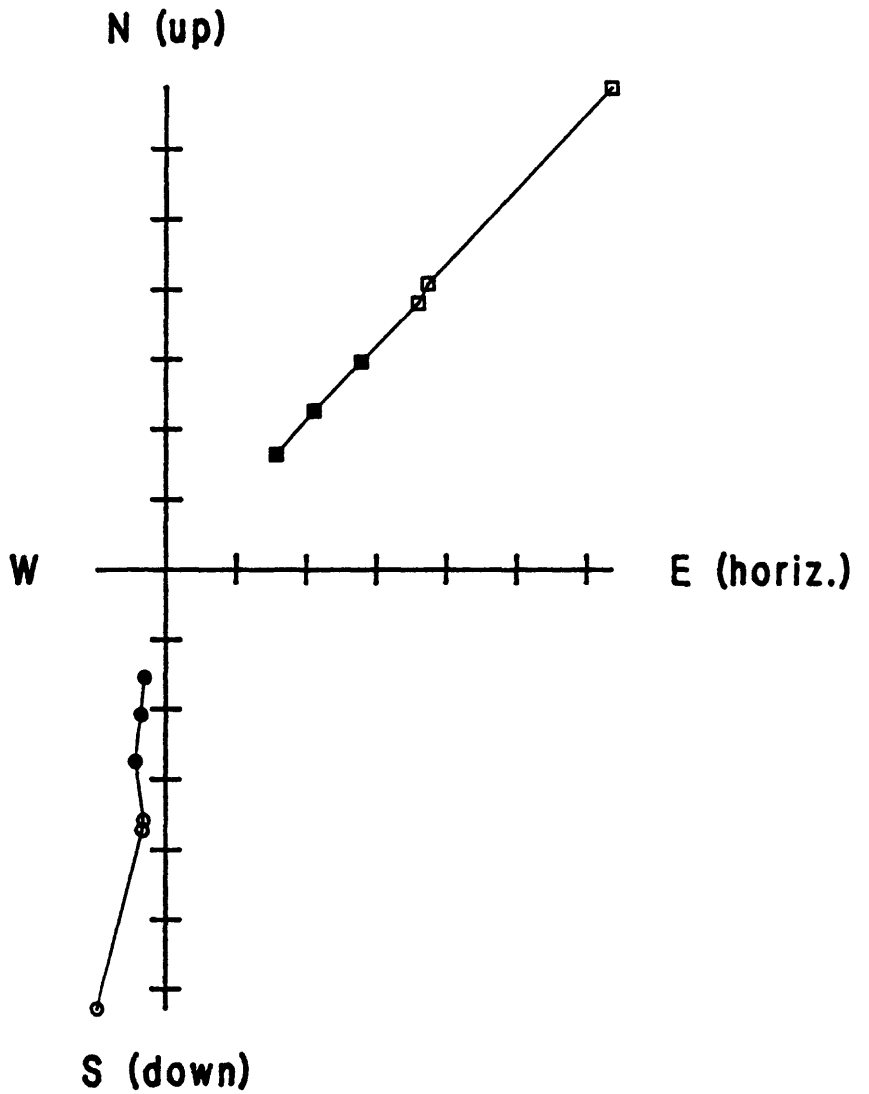
OR3-218.8



Demag. from NRM to 50mT

(Tic interval=.2 A/m)

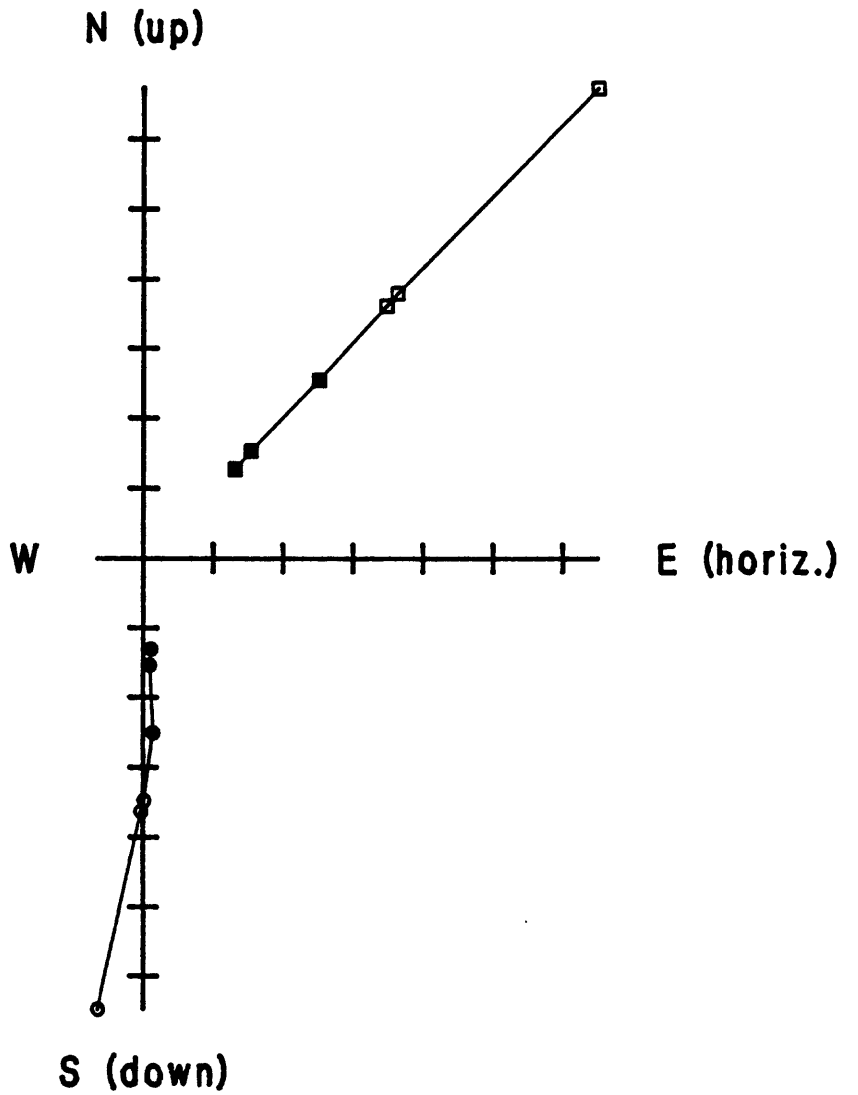
OR3-219.3



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

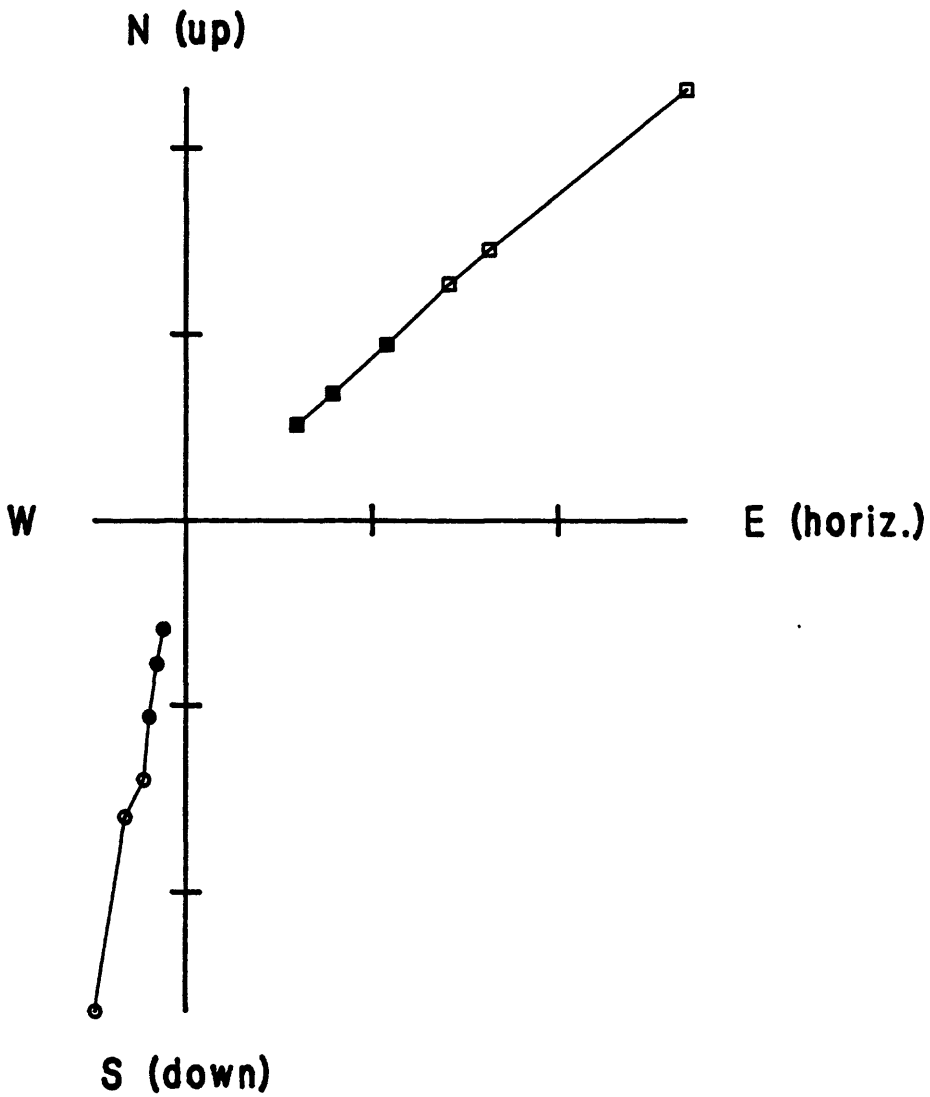
OR3-220.3



Demag. from NRM to 50mT

(Tic interval=.1 A/m)

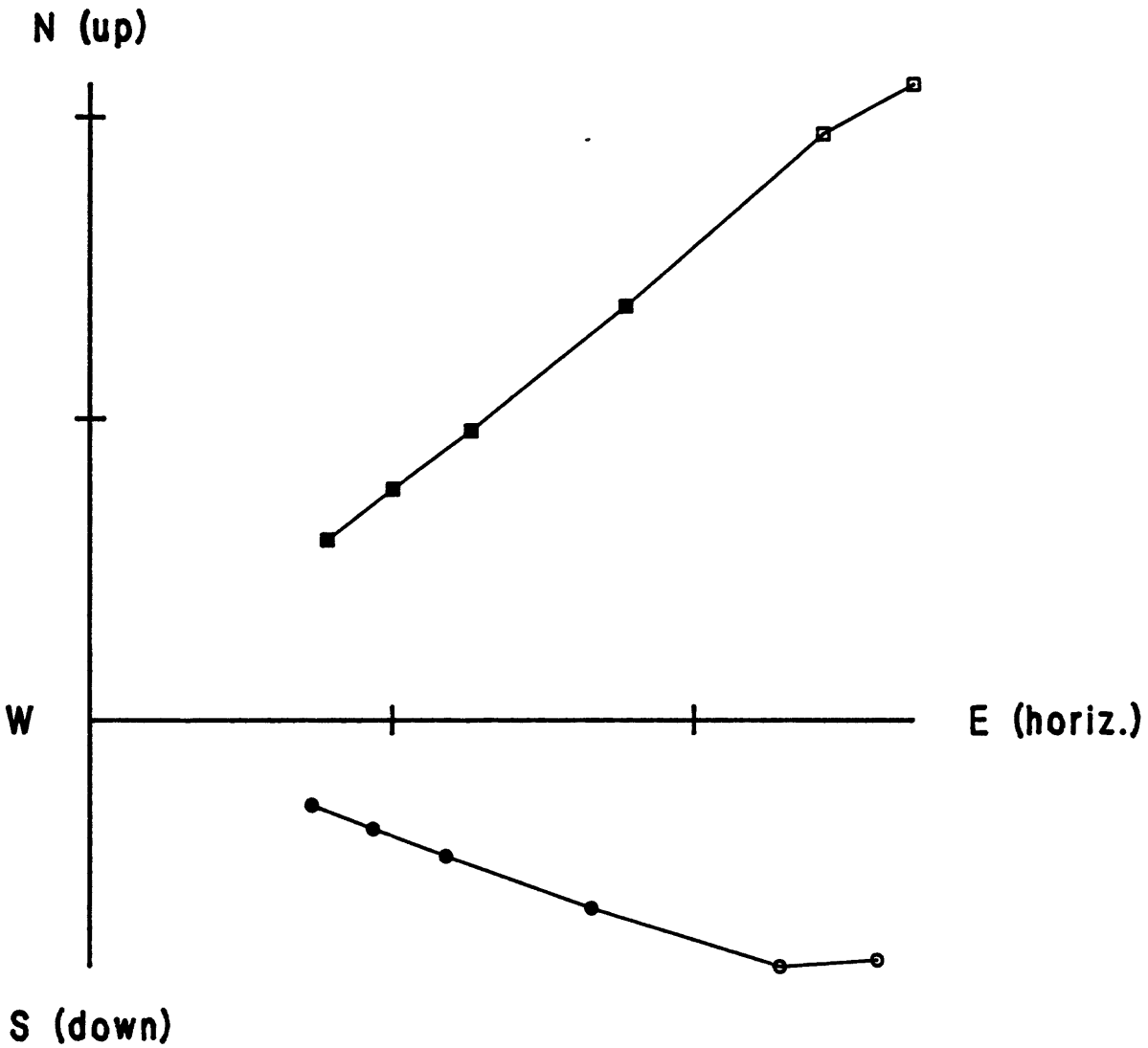
OR3-221.0



Demag. from NRM to 50mT

(Tic interval=.3 A/m)

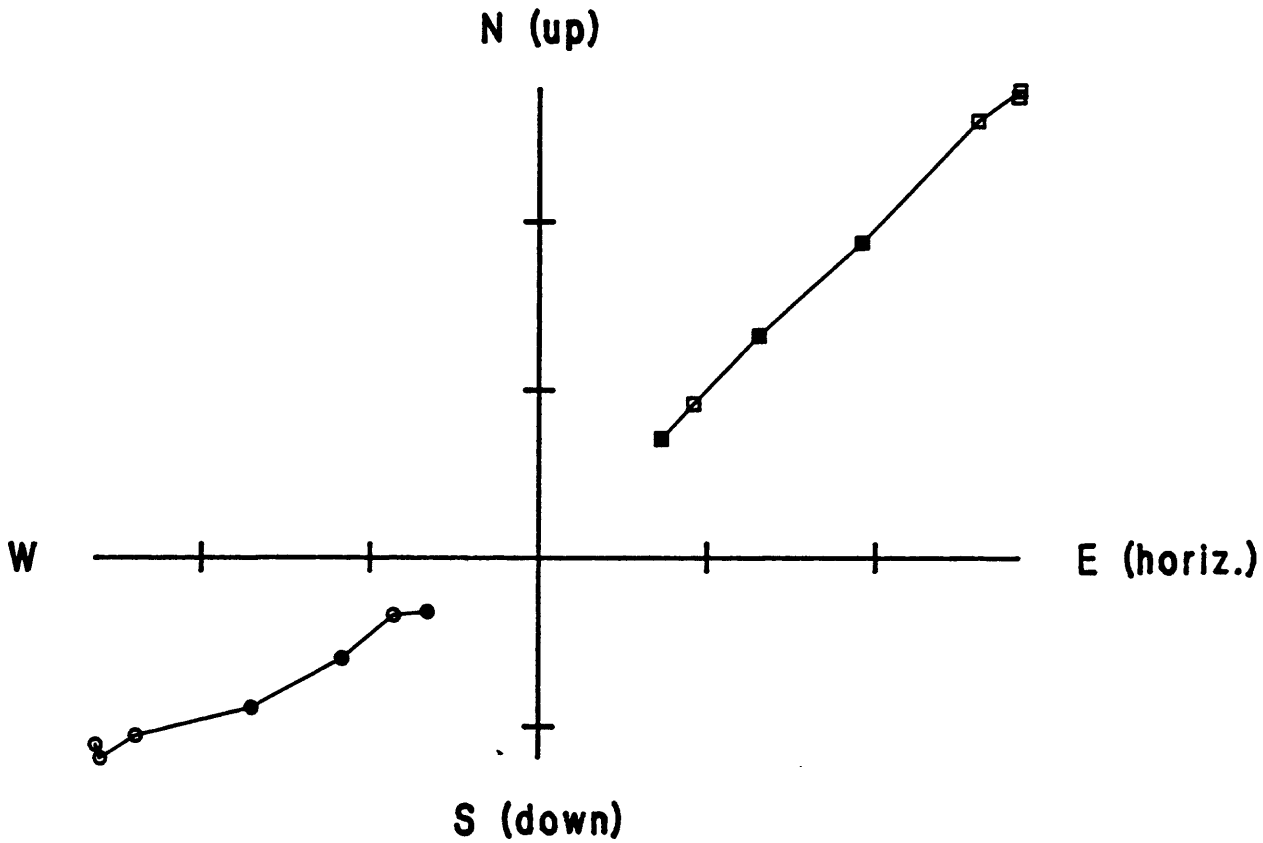
GU3-238.9



Demag. from NRM to 50mT

(Tic interval=.3 A/m)

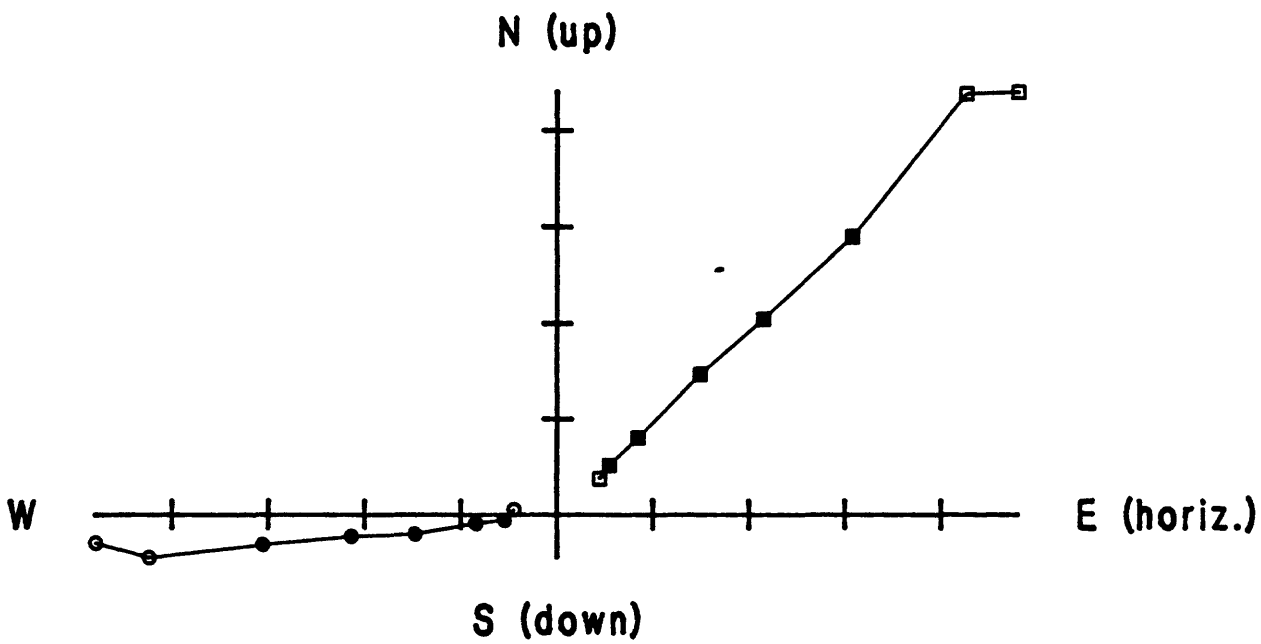
GU3-241.3



Demag. from NRM to 50mT

(Tic interval=.3 A/m)

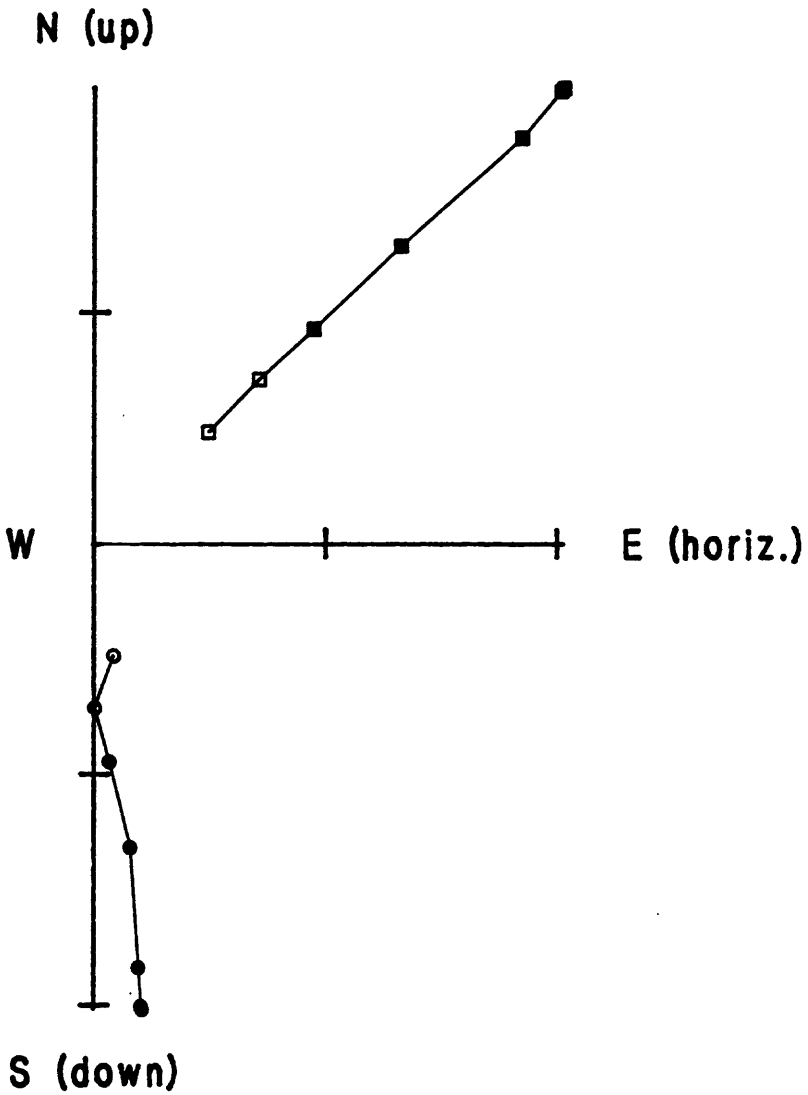
GU3-254.4



Demag. from NRM to 100mT

(Tic interval=.2 A/m)

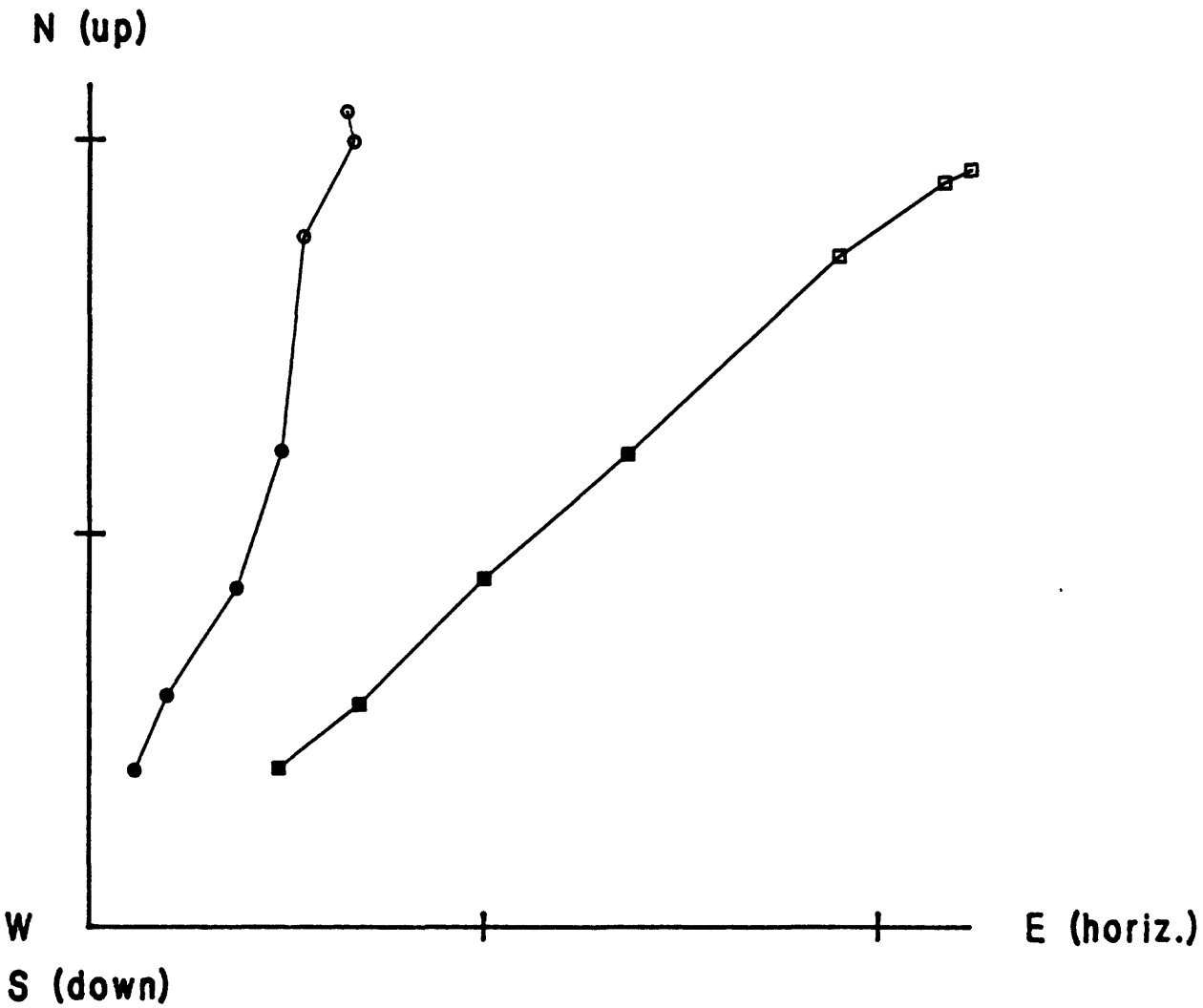
GU3-265.3



Demag. from NRM to 50mT

(Tic interval=.5 A/m)

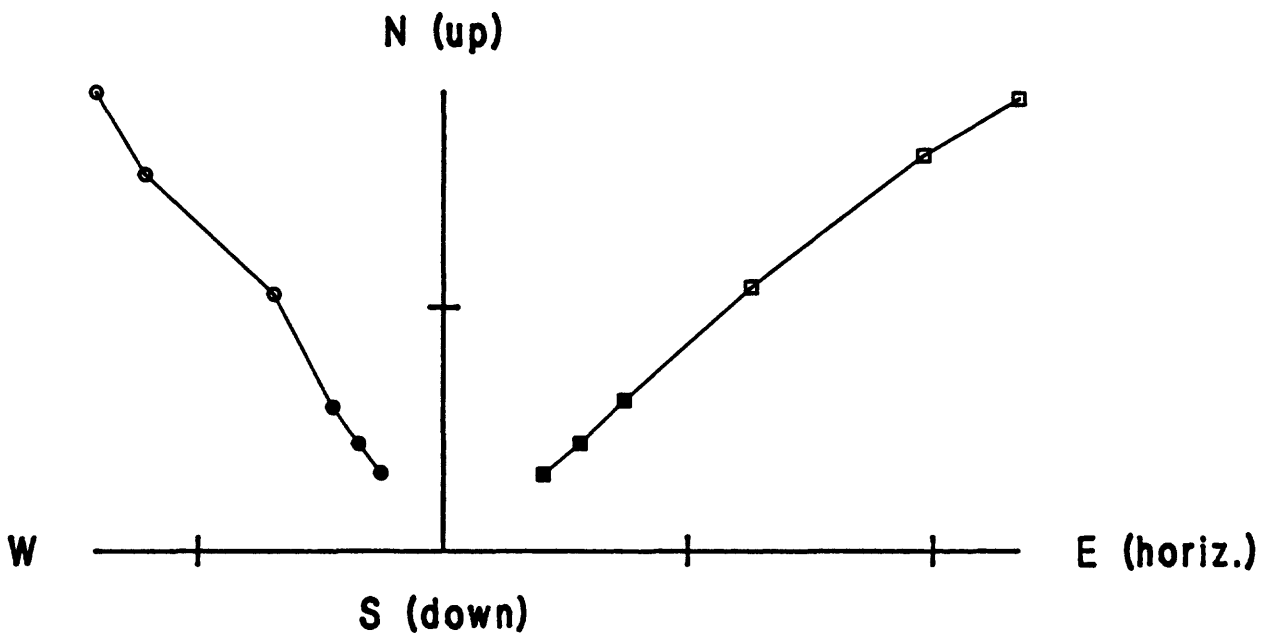
GU3-268.95



Demag. from NRM to 50mT

(Tic interval=.5 A/m)

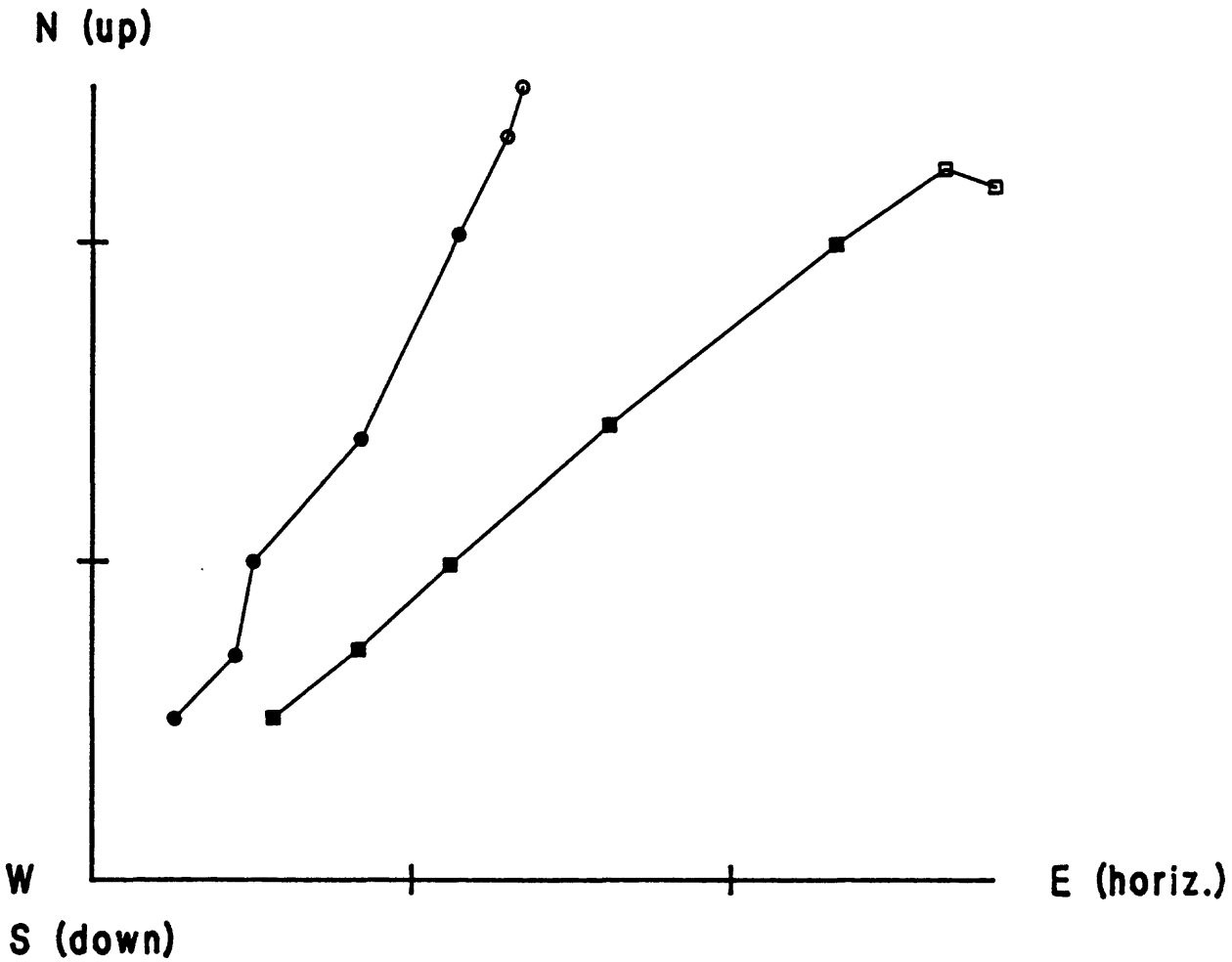
GU3-270.6



Demag. from NRM to 50mT

(Tic interval=.5 A/m)

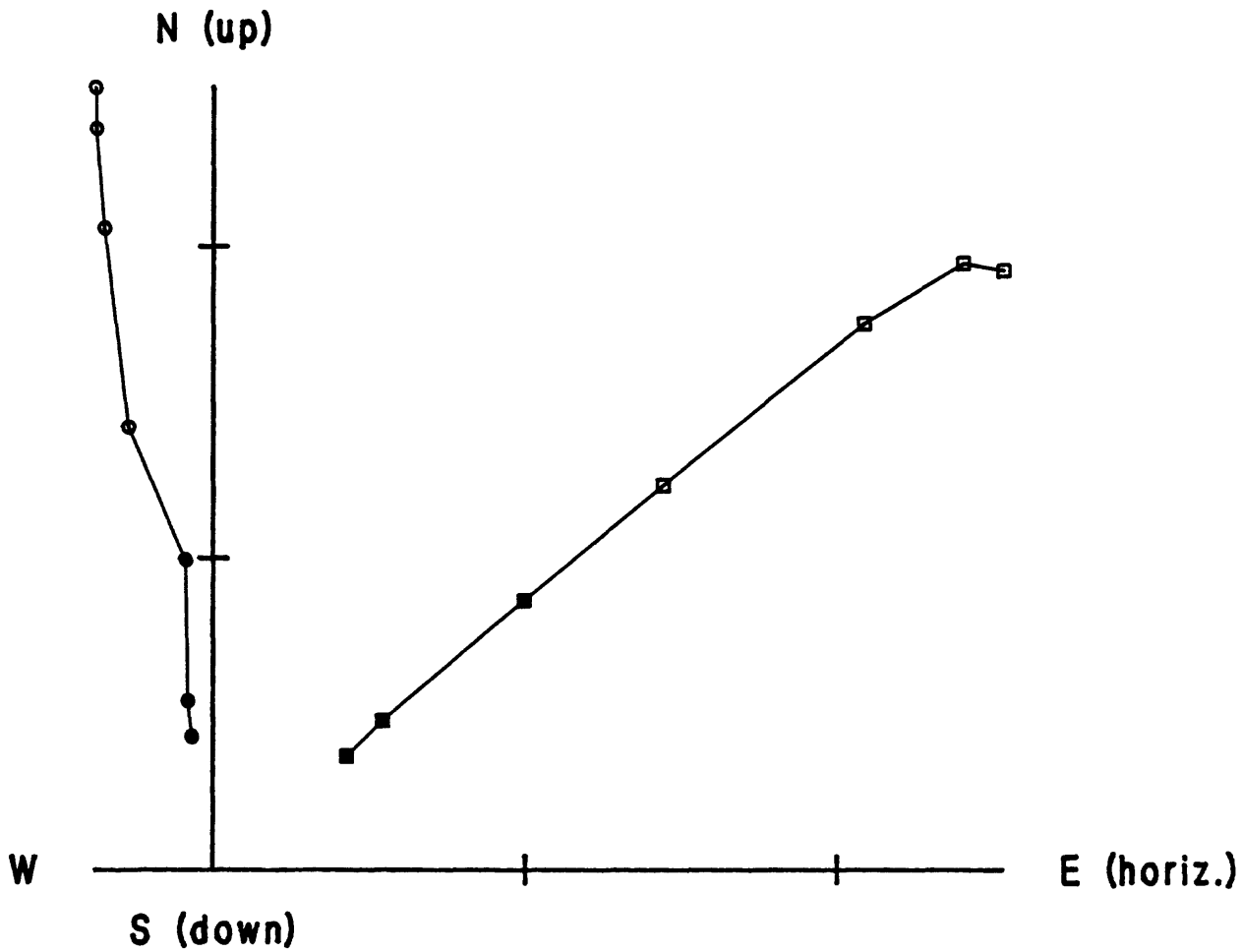
GU3-273.9



Demag. from NRM to 50mT

(Tic interval=.3 A/m)

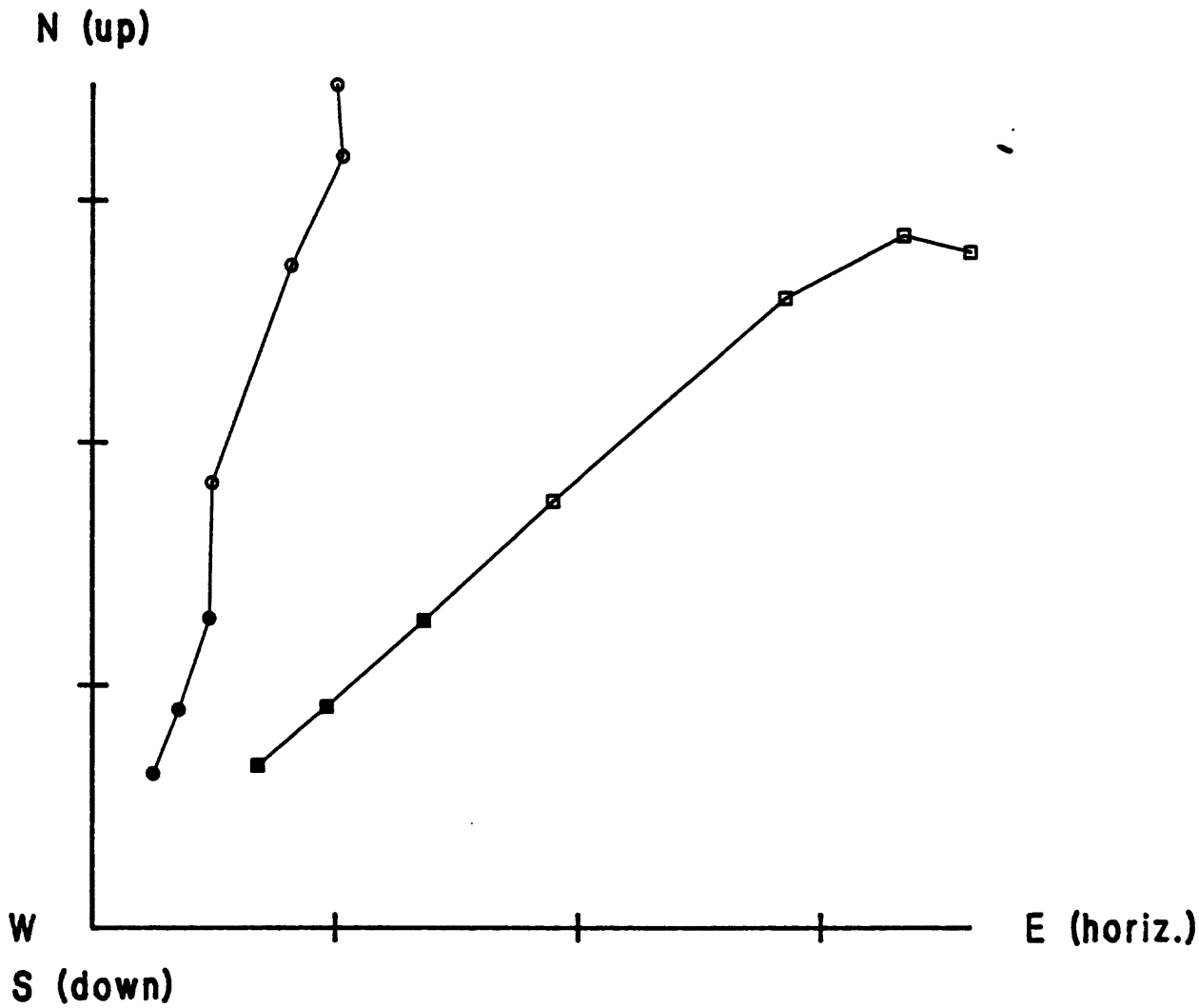
GU3-275.25



Demag. from NRM to 50mT

(Tic interval=.5 A/m)

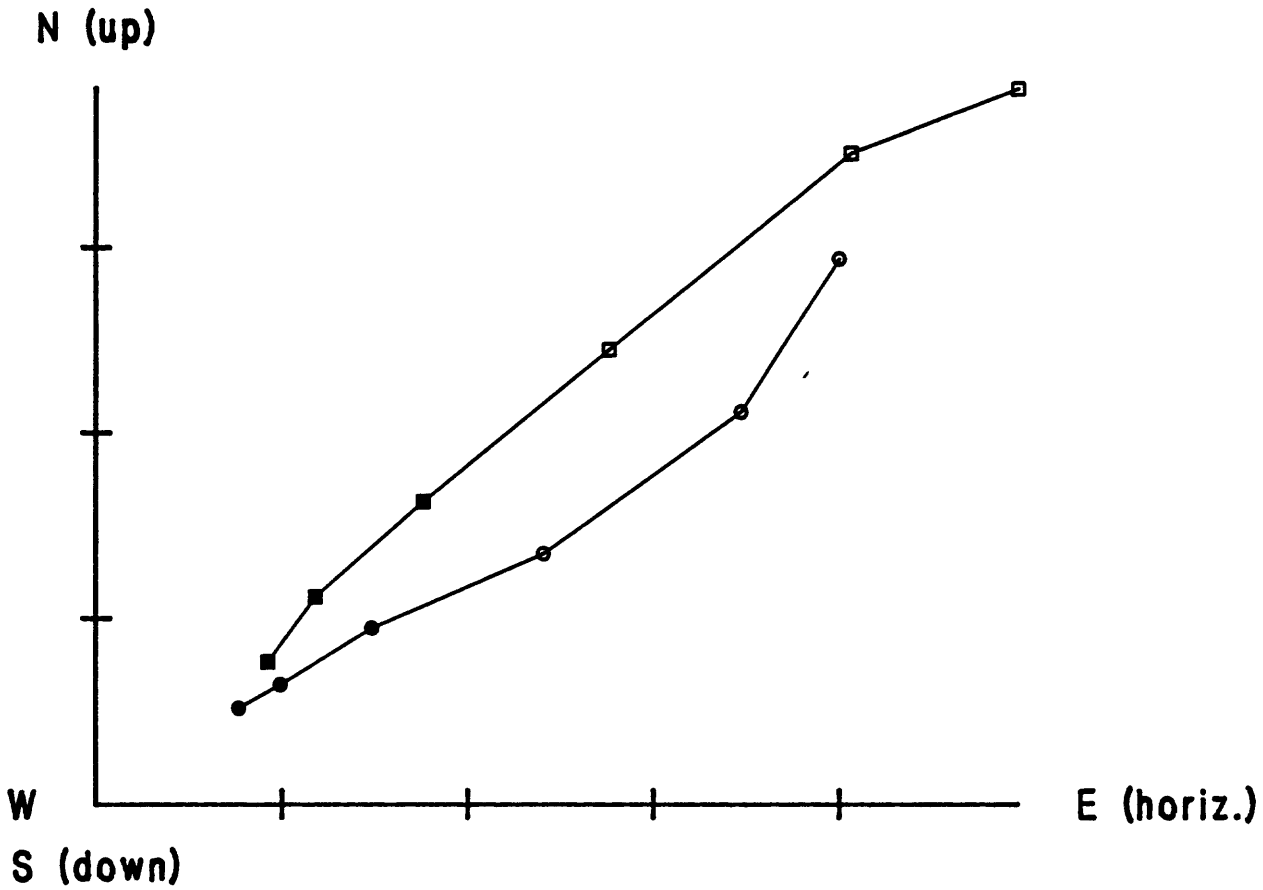
GU3-276.8



Demag. from NRM to 50mT

(Tic interval=.2 A/m)

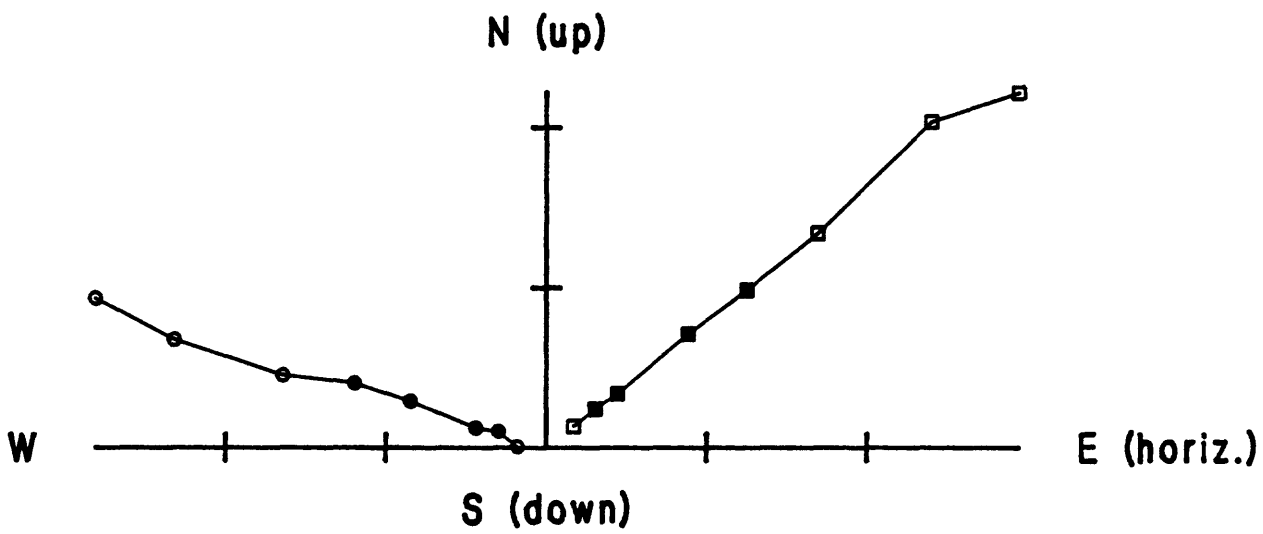
GU3-281.2



Demag. from NRM to 50mT

(Tic interval=.2 A/m)

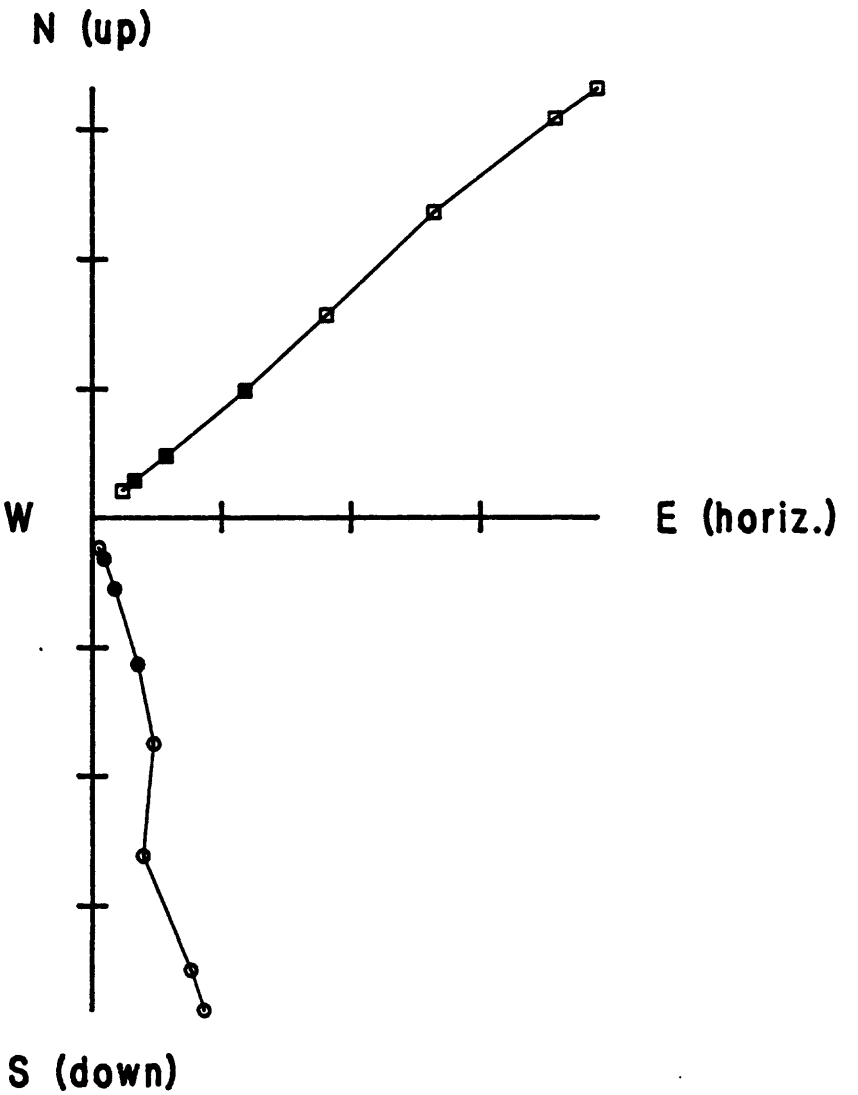
GU3-287.4



Demag. from NRM to 100mT

(Tic interval=.3 A/m)

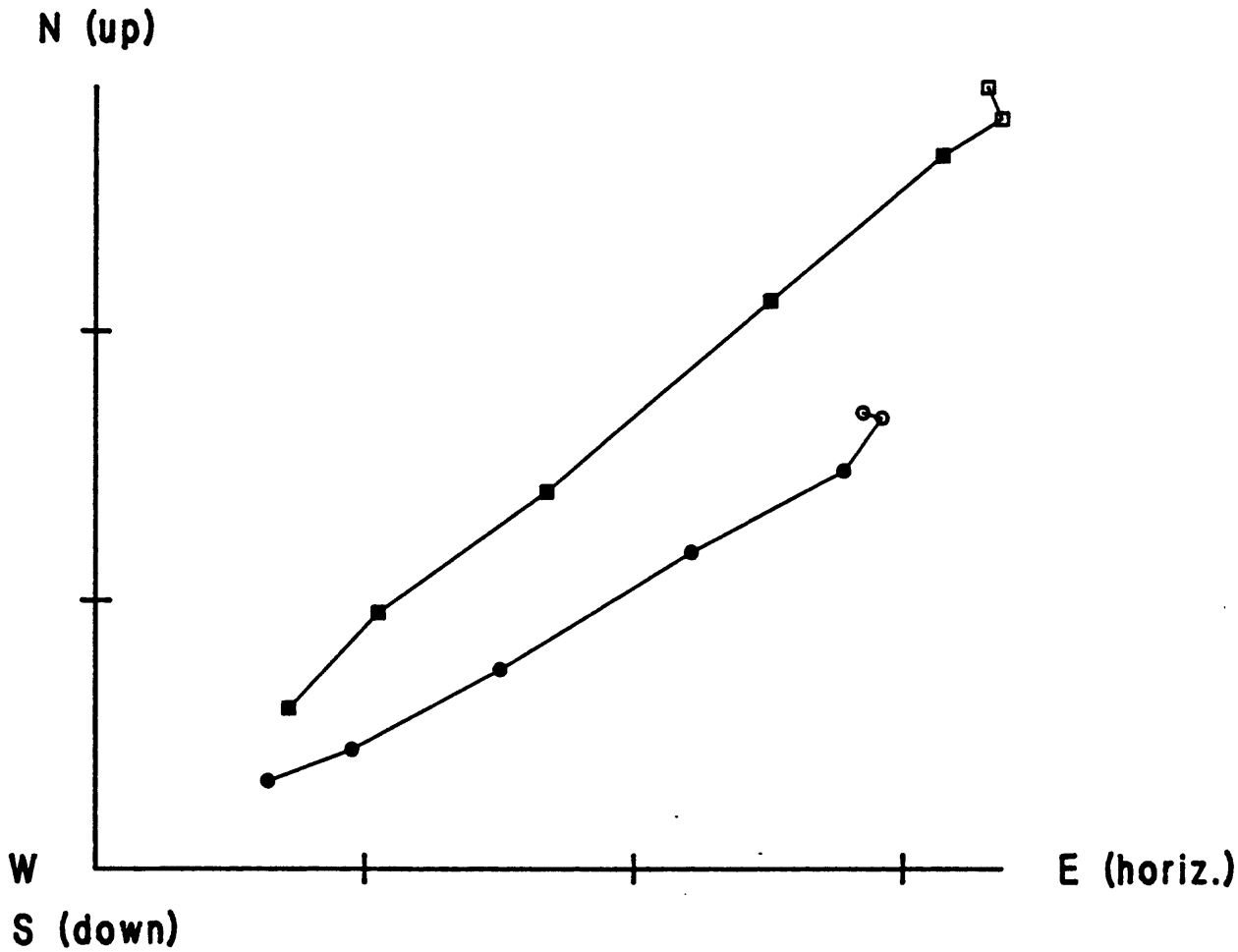
GU3-301.6



Demag. from NRM to 100mT

(Tic interval=.5 A/m)

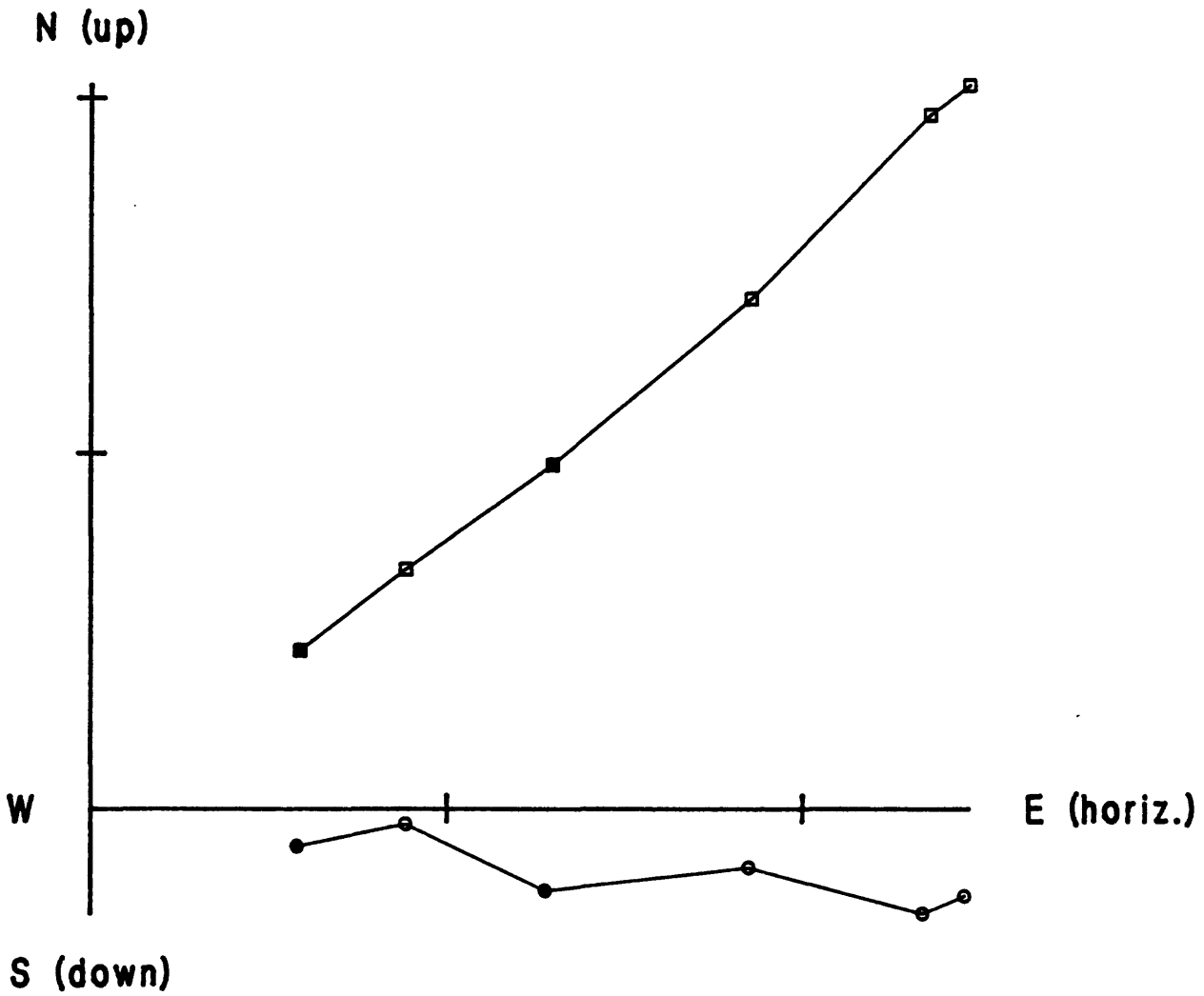
GU3-302.25



Demag. from NRM to 50mT

(Tic interval=.5 A/m)

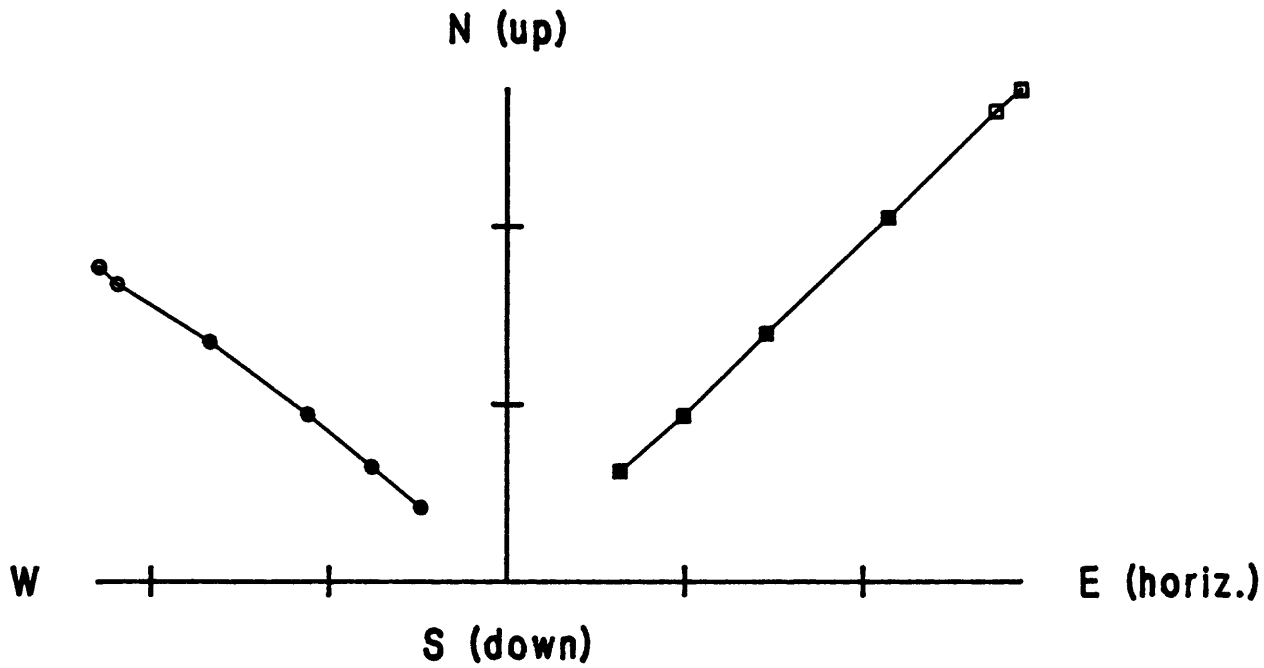
GU3-312.8



Demag. from NRM to 50mT

(Tic interval=.5 A/m)

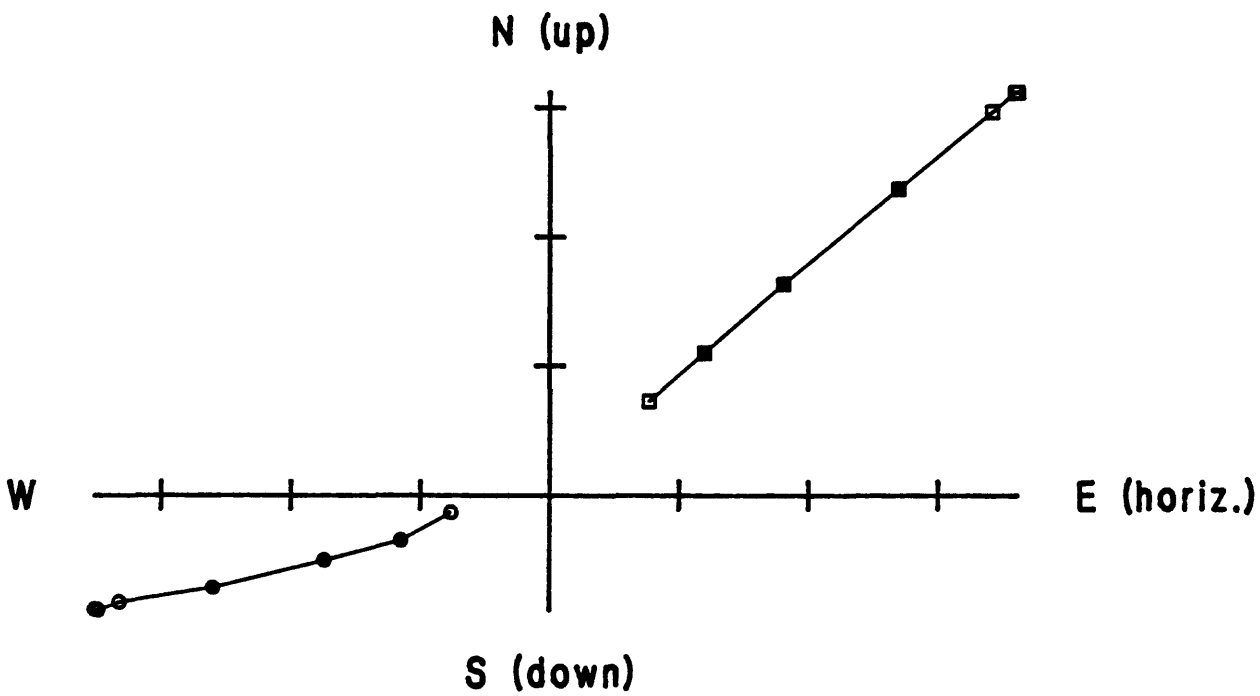
GU3-317.8



Demag. from NRM to 50mT

(Tic interval=.5 A/m)

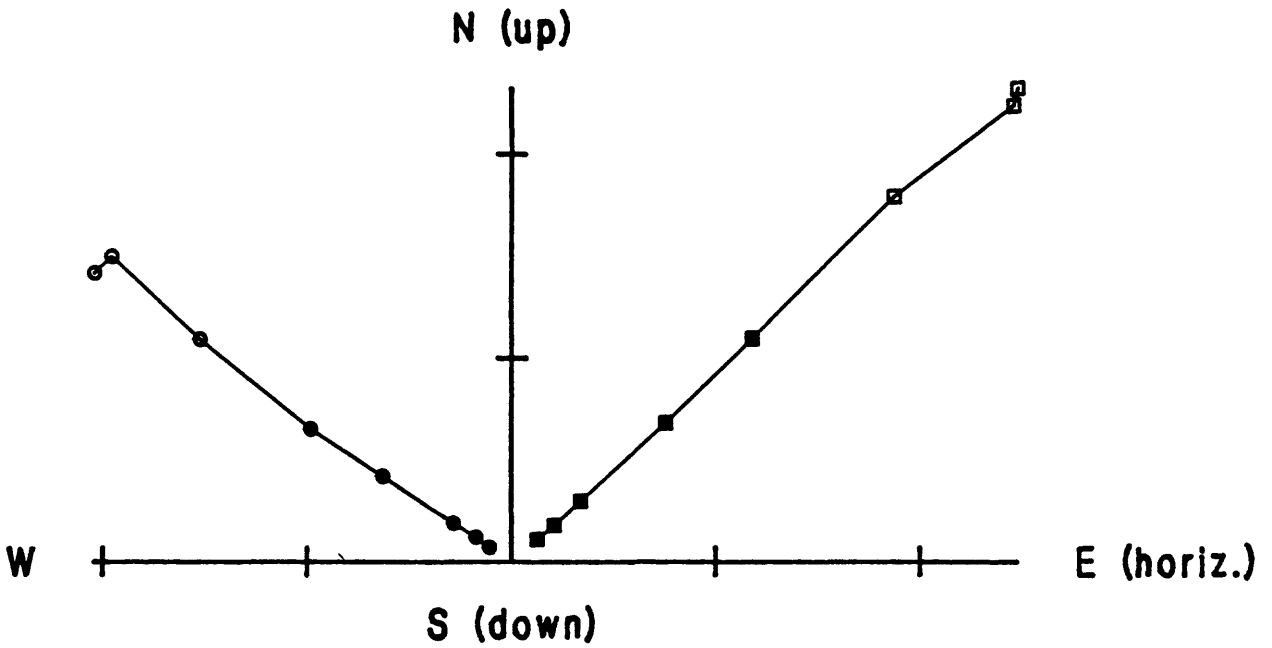
GU3-322.3



Demag. from NRM to 50mT

(Tic interval=.5 A/m)

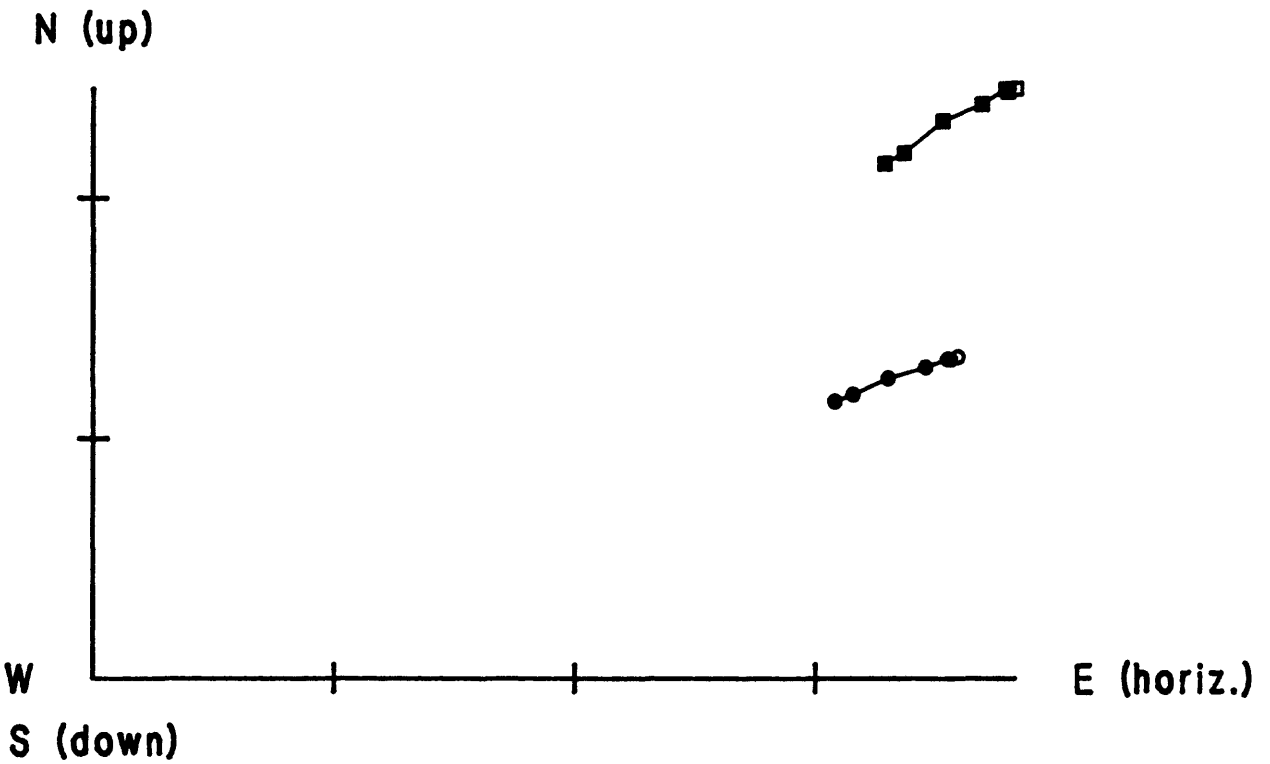
GU3-330.6



Demag. from NRM to 100mT

(Tic interval=1 A/m)

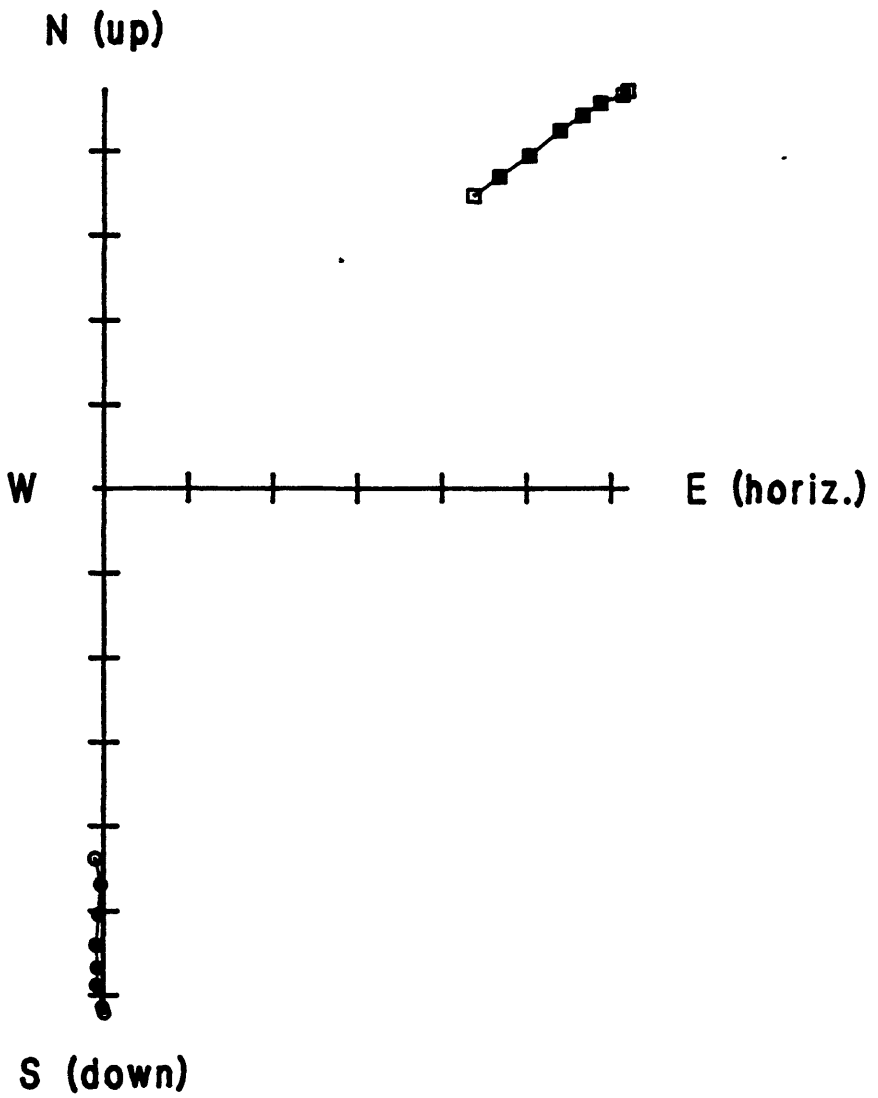
GU3-344.1



Demag. from NRM to 50mT

(Tic interval=2 A/m)

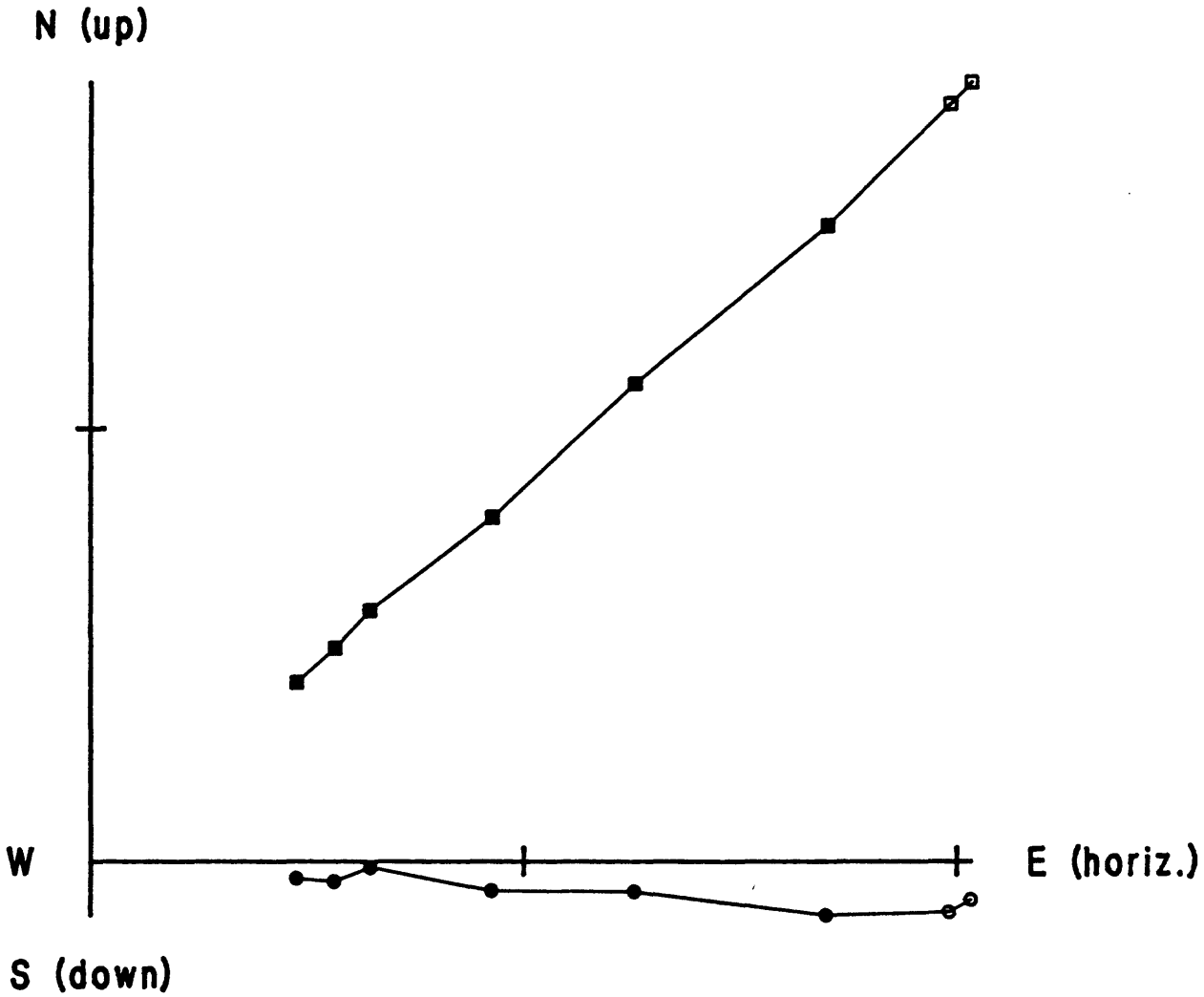
OR3-345.8



Demag. from NRM to 100mT

(Tic interval=1 A/m)

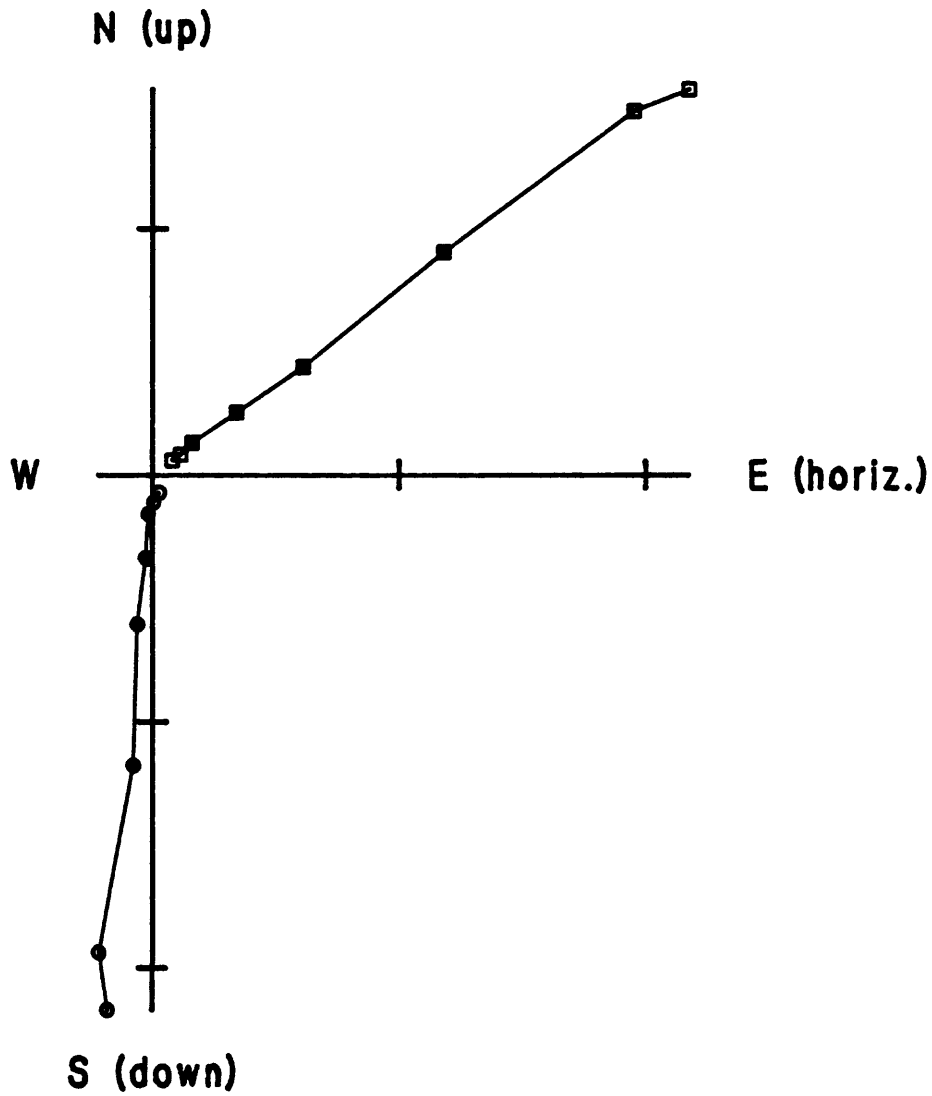
GU3-354.6



Demag. from NRM to 100mT

(Tic interval=1 A/m)

GU3-369.0



Demag. from NRM to 100mT

(Tic interval=.1 A/m)