NIKOL'SKIY, A. P.

"The Daily Variations in Disturbances of the Magnetic Field in High Latitude," Prob. Ark., No.4, pp 5-59, 1938

Translation 563374

NIKOL'SKIY, A. P.

Photographing Auroreo Borcoles in Tikhaya Bay.
Problemy Arktiki, 1939, no. 10/11, p 131-133.

NIKOL'SKIY, A.I.

"On the nature of geomagnetic disturbances." Priroda (11), rp 3-12, 1947.

Translation-D- 146077, 22 July 1954.

MIKOL'SKIY, A. P.

Mikol'Skiy, A. P. "The dual nature of magnetic disturbances at high latitudes", Problemy Arktiki, 1949, No. 2, p. 47-62, Bibliog: 21 items.

SO: U-2088, 12 Feb. 53, (Letopis' Zhurnal 'nykh Statey, No. 2, 1949).

NIKOL'SKIY, A. F.

Verbatim: - "On the nature of the average variations at high latitudes in the
disturbed magnetic field," Problemy Arktiki, 1948 (Published in 1949), No. 3
p. 79-94, - Bibliog: 15 items

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949.)

NIKOL'SKIY, A.

FD-2900

USSR/Geophysics - Magnetic field of USSR

Card 1/2   Pub. 45 - 11/11

Author   : Nikol'skiy, A. (reviewer)

Title   : Handbook on the variable magnetic field of the USSR

Periodical : Izv. AN SSSR, Ser. geofiz., Nov-Dec 1955, 561-565

Abstract   : Review of Spravochnik po peremennomu magnitnomu polyu SSSR, of 268
               pages, published 1954 in 600 copies by the Hydrometeorological Press
               for 16.30 rubles. The material of the handbook is given tabular form
               (112 tables) and also in the form of graphs (95 graphs), which give
               information on the variable magnetic field in all regions of the USSR,
               representing the data of 18 active magnetic observatories (12 of which
               disposed in the middle latitudes and 6 in the Arctic) and covering
               the period from 1938 to 1948. It was compiled by scientific associates
               of the Scientific Research Institute of Terrestrial Magnetism under
               the editorship of V. I. Afanas'yeva, and is valuable both for theo-
               retical investigations in geophysics and also for practical engineers
               working the field of geological prospecting by magnetic methods. The
               reviewer notes that the variableness of the Earth's magnetic field
               is due mainly to the action of the Sun. In the main this handbook
               is necessary for investigators of physical phenomena occurring in the

Card 2/2   FD-2900

Abstract   :   upper layers of the Earth's atmosphere at a height of 80-100 km and
                  higher; e.g. normal and abnormal ionization, polar lights, magnetic
                  disturbances, etc., radio wave propagation, etc.

Institution   :   -

Submitted   :   -

NIKOL'SKIY, A.F.

Concerning N.P.Ben'kova's and M.G. Borisova's article "Index K according to data of the Pavlovskii Magnetic Observatory for 1916-1939." Trudy NIIZM no.11:111-118 '55.   (MLRA 9:8)
                    (Magnetism, Terrestrial)

NIKOL'SKIY, A.P.

Geographic distribution of magnetic disturbances in the polar region of the Arctic. Dokl. AN SSSR 109 no.5:939-942 Ag. 1956.
(MLRA 9:10)

1. Arkticheskiy nauchno-issledovatel'skiy institut Glavsevmorputi. Predstavleno akademikom V.V. Shuleykinym.
        (Arctic regions--Magnetism, Terrestrial)

NIKOL'SKIY, A. M.

"Distribution of Magnetic Disturbances in the Arctic Region Near the Pole."

The Integration Association of Geomagentism and Aeronomy; Abstracts of the Reports at the XI General Assembly of the International Union of Geodesy and Geophysics) Moscow, Izd-vo AN SSSR, 1957. 46 p.

Abstract: Irregular changes in the magnetic field are the main indication of disturbances in teh high latitudes. The forms and amplitude of the daily rate of disturbances are determined by the effect of the earth's permanent magnetic field on the incoming jets of solar particles. The diurnal variations in high E latitudes are very complex. Observations near the pole suggest the existence of a second zone of increased intensity and frequency of magnetic disturbances close to 80° geomagnetic latitude. This is well in accord with the studies of auroral and ionospheric disturbances and fits the theoretical findings of Alfven.

NIKOL'SKIY, A.P., red.; DROZHZHINA, L.P., tekhn.red.

(Results of magnetic observations by polar observatories during
1954-1955) Rezul'taty magnitnykh nabliudenii poliarnykh observatorii.
Izd-vo "Morskoi transport" 1957. 147 p.(Leningrad. Arkticheskii
nauchno-issledovatel'skii institut. Trudy, vol. 212)   (MIRA 11:7)

        (Arctic regions—Magnetism, Terrestrial—Tables)

NIKOL'SKIY, A.P.

Distribution of magnetic disturbances in the Antarctic. Probl..Arkt.
no.2:241-244 '57.   (MIRA 11:12)
(Antarctic regions--Magnetism, Terrestrial--Secular variation)

NIKOL'SKIY, A.P.

37-11-6/18

AUTHOR: Nikol'skiy, A.P.

TITLE: Regarding N. P. Ben'kova's and M. G. Borisova's article
             "Index K Based on Data from the Pavlovsk Magnetic Observ-
             atory for the Years 1916-1939" (Po povodu stat'i
             N.P. Ben'kovoy 1 M. G. Borisovoy "Indeks K po dannym
             Pavlovskoy magnitnoy observatorii za 1916-1939 gg.")

PERIODICAL: Trudy Nauchno-issledovatel'skogo instituta zemnogo
             magnetizma, 1957, Nr 11(21), pp. 111-118 (USSR)

ABSTRACT: This is a review on the frequency distribution of mag-
             netic activity and the daily, yearly and 11-year cycles.
             The following authors are mentioned: Kalitina, G.N.,
             Mishin, V.M., and Kozik, S. M. There are 2 figures and
             4 references, all USSR.

AVAILABLE: Library of Congress

Card 1/1

PA - 2241

AUTHOR NIKOL'SKIY, A.P.

TITLE On the geographic Distribution of Radio Blackouts in High Latitudes
(K voprosu o geograficheskom rerpedelenii v vysokikh shirotakh
anomal'nogo pogloshcheniya radiovoln v atmosfere).

PERIODICAL Doklady Akademii Nauk SSSR, 1957,Vol112,Nr 4,pp 628-631 (U.S.S.R.)
Received 4/1957   Reviewed 5/1957

ABSTRACT The occurrance of these absorptions is in many cases connected with
the simultaneous occurrance of magnetic disturbances. This fact
allowed the assumption that the reason of these absorptions is the
penetrating of solar particles into the upper layers of the atmo-
sphere of the earth. One of the problems investigated hitherto only
little concerns the dependence of the time of the maximum (in the
daily course of the probability of the occurrance of absorptions)
on the geographical situation. Such absorptions have been found
mostly to occur during the first half of the day. Some previous
works bearing on the matter are discussed in short.
The author believes it best to choose such a time as corresponds to
the immediate maximum on the curve of daily distribution of absorp-
tion-probability. The author also carried out this. A table con-
tains these moments relative to local time and the same relative to
Greenwich-time. The maximum of absorption-probability (which occurs
during the first half of the day) agrees well with the time of the
occurrance of the maximum of matitutinal magnetic disturbances, for
those ionosphere-stations for which data concerning magnetic activity

Card 1/2

PA - 2251

AUTHOR NIKOL'SKIY, A.P.
TITLE   On the geographic Distribution of magnetic Disturbances in the Antarctic (K voprosu o geograficheskom raspredelenii magnitnykh vozmushchenyy v antarktike).

PERIODICAL Doklady Akademii Nauk SSSR, 1957,Vol 112,Nr 5,pp 846-848 (U.S.S.R.)
Received 4/1957   Reviewed 4/1957

ABSTRACT It would be of interest to verify to what extent the rules governing the geographic distribution of magnetic disturbances (such as are encountered in arctic regions) apply also in the antarctic. If the isolines of the simultaneous occurrence of matutinal magnetic disturbance in arctic regions have the shape of spirals, which wind themselves out of the pole of homogeneous magnetization in the direction of the hands of a clock, the spirals in antarctic regions must emerge from the pole in the opposite direction. Certain assumptions are now to be made concerning the rules possibly governing magnetic disturbances in the unexplored antarctic regions the accuracy of which could be verified by observations made in connection with the coming geophysical year. The system of spirals moving in an anticlockwise direction is here plotted in the antarctic in such a manner that the point of the homogeneous magnetization of the system of spirals agrees with the pole of the homogeneous magnetization of the antarctic. Furthermore, the system of spirals is turned in such a manner that it agrees best with the observed data. If the three o'clock spiral is plotted through Cape Dennison, the 20 o'clock

Card 1/ 3

PA - 2251

On the geographic Distribution of magnetic Disturbances in the
Antarctic.

ASSOCIATION   Institute for the Arctic Scientific Research of the Northern Main
              Sea Route.
PRESENTED BY V.V.SHULEYKIN, member of the Academy, on 23. 1. 1956
SUBMITTED   11. 9. 1955
AVAILABLE   Library of Congress

Card 3/3

VIKOL'SKIY, AP

20-1-22/54

AUTHOR   Nikol'skiy, A.P.

TITLE   On the Planetary Distribution of Ionospheric Magnetic Disturb-
               ances and Aurorae
               (O planetarnom raspredelenii magnitno- ionosfernykh vozmushcheniy
               i polyarnykh siyaniy)

PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol. 115, Nr 1, pp. 84 - 87
               (USSR)

ABSTRACT   The author finds out the possible location of the four Störmer's
               zones with increased penetration of protons into the terrestrial
               atmosphere in which an increased intensity of the magnetic iono-
               spheric disturbances as well as of aurorae are to be observed.
               The author starts from the known facts on the geographic distribu-
               tion of these phenomena. An analysis of the isochronous curves of
               the maximum of magnetic disturbances speaks in favour of the fact
               that on the Western hemisphere the protons can advance to a lati-
               tude of $40°$. From 8 - 12 o'clock (worldtime) favourable condi-
               tions for the advance of protons may even exist to equatorial
               areas of the earth. The author points at experimental data in
               favour of this unexpected consequence. The exact investigation
               of the experimental data on magnetic ionosperic disturbances
               made it possible to outline in first approximation the zone   A

Card 1/2

NIKOL'SKIY, A.P.

Diurnal distribution of irregular magnetic disturbances at high-latitude stations of the western and eastern hemispheres. Geomag. i aer. 4 no.5:968-971 S-O '64.   (MIRA 17:11)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.

NIKOL'SKIY, A. P.

"On the Determination of Daily Variations of Magnetic Activity,"

paper submitted, 5th Gen. Assembly, CSAGI, Intl. Geophysical Year, Moscow, 1-9 August 1958

NIKOLSKIY, A. F.,

"On the Methodic Problems Connected with Comparing Magnetic Disturbances of the Artic and Antarctic,"

paper presented at the 9th General Assembly of the IAU, Moscow, Aug 1958.

83343
S/169/60/000/007/015/016
A005/A001

9.9500

Translation from: Referativnyy zhurnal, Geofizika, 1960, No. 7, p. 209, # 8495

AUTHOR: Nikol'skiy, A.P.

TITLE: Magnetic Disturbances in the Arctic Circumpolar Region

PERIODICAL: V sb.: Probl. Severa, No. 1, Moscow, AN SSSR, 1958, pp. 116-132

TEXT: A large number of observations showed that the maximum nightly
magnetic disturbances at all stations of the globe occur at the local midnight
(± 2 hours). The nightly magnetic disturbances in the zone of polar aurorae
are most intense. The instants of occurrence of morning and daily maxima of
the magnetic activity vary for the various stations in wide limits; therefore,
the designations "morning" and "daily" are conditional. Analyzing the features
of the geographic distribution of the magnetic disturbances in the circumpolar
region allowed also the conclusion that a second internal zone of enhanced
intensity of magnetic disturbances must exist in addition to the zone earlier

Card 1/2

NIKOLSKIY, A. P.

"On the problem of diurnal distribution of irregular magnetic disturbances in high latitudes."

report presented at the Intl. Association of Geomagnetism and Aeronomy, Symposium on Rapid Geomagnetic Variations, Utrecht, Netherlands, 1-4 Sep 59.

NIKOL'SKIY, A.P.

Diurnal distribution of active periods of magnetic disturbances
in high latitudes. Magn.-ionsef. vosm. no.1:7-11 '59.
(MIRA 13:1)

(Magnetic storms)

NIKOL'SKIY, A.P.

Method of comparing magnetic disturbances in the Arctic and the Antarctic. Magn.-ionosf. vozm. no.1:30-33 '59. (MIRA 13:1)
(Arctic regions--Magnetism, Terrestrial)
(Antarctic regions--Magnetism, Terrestrial)

5 (6)
AUTHOR: Nikol'skiy, A. P.

SOV/20-127-1-21/65

TITLE: Solar Protons as the Cause of Matinal- and Nocturnal Magneti:
Perturbations in High Latitudes (Solnechnyye protony kak
prichina utrennikh i nochnykh magnitnykh vozmushcheniy v
vysokikh shirotakh)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 1, pp 82 - 85
(USSR)

ABSTRACT: As a result of the investigations carried out in antarctic re-
gions from 1938 to 1948, the author discovered new facts and
laws for these phenomena, and he also undertook several attempts
at explaining their nature. Because of the extended knowledge
now available concerning magnetic perturbations in high latitu-
des, some of the conclusions arrived at at that time as well as
some of the explanations given must now be revised from a new
point of view. The author first gives a report on his earlier
assumptions. Later investigations, which were based on a volu-
minous observation material and on a large number of stations,
permitted new conclusions to be drawn with respect to the na-
ture of magnetic perturbations in high latitudes. It was shown
in this connection that the isochronous curves of the matinal

Card 1/4

Solar Protons as the Cause of Matinal- and Nocturnal   SOV/20-127-1-21/65
Magnetic Perturbations in High Latitudes

maximum of magnetic perturbations consist of spirals emerging
from the pole of homogeneous magnetization and rotating clock-
wise. The author believes that the Stoermer particles coming
from the sun descend along this spiral. In this case, the ma-
tinal perturbations must be caused by protons. At present,
certain experiments are being carried out with a view of re-
viving the Birkeland-Stoermer theory of polar currents and mag-
netic phenomena. By the direct observation of the matinal ma-
ximum of magnetic perturbations the author was able to follow
the spirals in the longitudinal direction only over a limited
stretch of the order of 180°. From Stoermer's theory it follows
for terrestrial conditions that the actual spiral of the des-
cent of protons in arctic regions extends to 360°. According to
Stoermer's theory, the spiral of the descent of charged par-
ticles (among them also protons) in arctic regions contains do-
mains in which the trajectories of the protons are condensed.
These domains are concentrated for 15; 20; 02 and 08 o'clock
of local geomagnetic time, and are here described as the do-
mains A,B,C,D. The nocturnal maximum of magnetic perturbations
is produced by the sum of the effects of Stoermer's zones B

Card 2/4

Solar Protons as the Cause of Matinal- and Nocturnal   SOV/20-127-1-21/65
Magnetic Perturbations in High Latitudes

and C. If this is correct, both matinal- and the nocturnal mag-
netic perturbations are the result of the fact that protons
alone penetrate into the upper zones of the terrestrial atmos-
phere. However, this conclusion is in contradiction to the au-
thor's assumption that matinal- and nocturnal perturbations are
caused by particles of various signs (i.e. by electrons and pro-
tons). Without removing this contradiction, it was not possible
to give a more exact interpretation of the observed facts. By
analysis of the conclusions arrived at on the basis of Stoermer's
theory, it is possible to eliminate this contradiction. Accord-
ing to a formula developed by Stoermer, the angular distance of
the deviation of the spiral from the pole depends especially
also on the velocity of the corpuscles. With increasing the av-
erage velocity of the protons contained in the proton flux, the
spiral as a whole shifts toward South and Southeast. The shift-
ing of the nocturnal maximum towards an earlier time of the day
may also be explained by great storms, if it is assumed that
also the nocturnal maximum is due to protons, and that it is
located on the spiral of their descent. Further details are men-
Card 3/4   tioned. According to the results obtained by the present paper,

Solar Protons as the Cause of Matinal- and Nocturnal   SOV/20-127-1-21/65
Magnetic Perturbations in High Latitudes

        it is necessary to take Stoermer's theory into account to a
        considerable extent for the purpose of explaining the origin
        of magnetic perturbations in high latitudes. There are 2 fig-
        ures and 12 references, 6 of which are Soviet.

ASSOCIATION: Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy
             institut (Arctic- and Antarctic Scientific Research Institute)

PRESENTED: February 4, 1959, by V. V. Shuleykin, Academician

SUBMITTED: February 4, 1959

Card 4/4

NIKOLSKIY, A.P.

SOKOV, K.K., otv. red.; MAKSIMOV, I.V., zamestitel' otv.red.; TRESHNIKOV,
A.F., zamestitel' otv.red.; ANDRIYASHEV, A.P., red.; BUYNITSKIY,V.Kh.,red.;
VORONOV, P.S., red.; DOLGIN, I.M., red.; KALESNIK, S.V., red.;
KOROTKEVICH, Ye.S., red.; NIKOL'SKIY, A.P., red.;RAVICH, M.G.,
red.; TAUBER, G.M., red.; FROLOV, V.V., red.; SLEVICH, S.B.,
red.; KAPLINSKAYA, L.G., red.izd-va; DROZHZHINA, L.P., tekhn.red.

[Report on observations completed by the Soviet Antarctic Ex-
pedition in 1957 and 1958] Otchet o nabliudeniiakh, vypolnennykh
Sovetskoi antarkticheskoi ekspeditsiei v 1957 i 1958 gg.
Sovetskaia antarkticheskaia ekspeditsiia, 1955-1958. Leningrad,
Izd-vo "Morskoi transport," 1960. 39 p (Informatsionnyi biul-
letin', no.15)   (MIRA 13:6)
          (Antarctic regions--Russian exploration)

NIKOL'SKIY, A.P.

Dependence of the mean intensity of magnetic activity on latitude and longitude. Probl.Arkt.i Antarkt. no.3:85-91 '60.
(MIRA 13:9)

(Magnetism, Terrestrial)

28417
S/169/61/000/007/084/104
A006/A101

3.1410

AUTHOR: Nikol'skiy, A.P.

TITLE: On the problem of the geographical distribution of aurora polaris
            in the Arctic

PERIODICAL: Referativnyy zhurnal. Geofizika, no. 7, 1961, 34, abstract 7O243 (V
            sb. "Issled. polyarn. siyaniy, no. 4", Moscow, AN SSSR, 1960, 14-
            19, English summary)

TEXT: On the basis of contemporary data on the geographical distribution
of aurora polaris and magnetic disturbances, the author considers that neither
the Fritz nor the Vestayn zone can be regarded as fully real, since they were
both plotted on the basis of non-equivalent and incompatible observation data.
In some high-latitude regions of the northern hemisphere the isochasms are plot-
ted by taking into account the appearance of both nocturnal and early aurora
(north-eastern Canada and southern Greenland regions), whereas for other regions
(Eurasi. only nightfall and nocturnal polar auroras were taken into account.
On the basis of an analysis of observations carried out in the Central Arctic by
Soviet air expeditions and the drifting stations "North Pole" during 1948 - 1955,

Card 1/2

BRISTSKIY, V.N.; NILYAYEV, N.A.; NIKOL'SKIY, A.P.; FEDCHENKO, K.K.

Development of geophysical research in the Arctic during the
past 40 years. Probl. Arkt. i Antarkt. no. 4:97-110 '60.
                                              (MIRA 13:12)
(Arctic regions--Geophysical research)

2 420
S/169/61/000/007/087/104
A006/A101

3, /810

AUTHOR: Nikol'skiy, A.P.

TITLE: On the location of the zone of aurora polaris in the Antarctic

PERIODICAL: Referativnyy zhurnal. Geofizika, no. 7, 1961, 35, abstract 70246
("Inform. byul. Sov. antarkt. ekspeditsii", 1960, no. 24, 38 - 41)

TEXT: A review of studies published by a number of authors who attempted
to determine the location zones of auroras polaris in the Antarctic, indicates
that the Antarctic zone is probably situated over the southern geographical
pole, i.e. sharply asymmetrically in respect to the zone of auroras polaris in
the Arctic. This asymmetry is difficult to explain merely by the difference in
the structure of the magnetic field of the Earth. Such a discrepancy may also
be explained otherwise, if, contrarily, one starts from the symmetry in the run
of aurora polaris and magnetic disturbance phenomena, caused by the intrusion of
solar corpuscles, in the Arctic and Antarctic. Based on an analysis of magnetic
disturbances in the Arctic, the author advances the hypothesis that in the cir-
cumpolar region of the Arctic there is a second zone with a raised frequency and
intensity of magnetic disturbances and auroras polaris. This assumed second zone

Card 1/2

89767

9.9500 (also 1041,1046)

S/169/61/000/002/021/039
A005/A001

Translation from: Referativnyy zhurnal, Geofizika, 1961, No. 2, p. 39, # 20281

AUTHOR: Nikol'skiy, A. P.

TITLE: On the Global Distribution of Magnetic-Ionospheric Disturbances

PERIODICAL: "Tr. Arkt. i Antarkt. n.-i. in-ta", 1960, Vol. 223, pp. 5-20

TEXT: The conclusions earlier obtained by the author for the Arctic on the
helical shape of the isochrones of the morning maximum of magnetic disturbances
and on the existence of a second circumpolar region of enhanced intensity of
magnetic disturbances are verified by the study of geographical distribution of
the morning magnetic disturbances in the Antarctic region. It is concluded on the
community of regularities in the arctic and antarctic disturbances and on the
opposite direction of evolution of the helices - isochrones of disturbance maximum.
Because these helices represent the projections of trajectories of the solar
corpuscles penetrating into the Earth's atmosphere, the distribution of anomalous-
ly high absorption caused also by the solar corpuscles is considered for the
corroboration of the obtained map of geographical distribution of magnetic

Card 1/2

5/169/61/000/002/021/039
A005/A001

On the Global Distribution of Magnetic-Ionospheric Disturbances

disturbances. A close connection is detected in the nature of geographical
distribution of the anomalous absorption and the morning magnetic disturbances.
The possibility is discussed of the extension of the helices of settling to
regions of lower latitudes. It is concluded on a mechanism, general for the
entire Earth, of the origination of magnetic-ionospheric disturbances and aurora.
There are 17 references.

L. Lyakhova

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

89755
S/169/61/000/002/008/039
A005/A001

3.9100

Translation from: Referativnyy zhurnal, Geofizika, 1961, No. 2, p. 3, # 2017

AUTHOR: Nikol'skiy, A. P.

TITLE: Some Problems in the Methods of Investigation of Magnetic Disturbances

PERIODICAL: "Tr. Arkt. i Antarkt. n.-i. in-ta", 1960, Vol. 223, pp. 150-171

TEXT: The author criticizes the method of studying the magnetic activity
which is based on the derivation of the average characteristics (the S_D- and D_{st}-
variations) of the phenomenon and puts in the forefront the necessity of the study
of irregular variations; he considers the field of the S_D- and D_{st}-variations as
a summary field of a great number of irregular disturbances occurring simultaneous-
ly. The possibility of application of the statistical methods to geophysics is
considered. It is pointed out that it is necessary for statistical averaging of
geophysical data to investigate every time the problem, whether essential aspects
of the phenomenon get lost in the averaging process. The applicability of the
mathematical methods, in particular of the harmonical analysis, to the investiga-
tions of the Earth's variable magnetic field is considered. The necessity of

Card 1/2

89755

3/169/61/000/002/008/039
A005/A001

Some Problems in the Methods of Investigation of Magnetic Disturbances

schematizing the phenomena, when applying the mathematical analysis, may lead to the diversion from certain essential aspects of the phenomenon. The application of the harmonical analysis to the average statistical variations of geophysical elements is expedient only when these variations reflect the periodical changes existent in nature, but do not appear as a superposition of irregular processes.

L. Lyakhova

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

NIKOL'SKIY, A.P.

Possible causes of the irregular motions of ionization clouds
associated with auroras. Dokl.AN SSSR 134 no.2:741-744 8
'60.
(MIRA 13:9)

1. Arkticheskiy i antarkticheskiy institut Glavsevmorputi.
Predstavleno akad. V.V.Shuleykinym.
 (Auroras)   (Clouds)

NIKOLSKY, A. P.

"On the Geographical Distribution of the Areas of the Solar Corpuscular Impingements in the Artic. ((I-2-P2))

report submitted for the Intl. Conf. on Cosmic Rays and Earth Storms (IUPAP) Kyoto, Japan 4-15 Sept. 1961

3,1810

S/169/62/000/G06/083/093
D228/D304

AUTHOR: Nikol'skiy, A. P.

TITLE: Position of the second auroral zone and the relation of morning radiances to magnetic disturbances

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 6, 1962, 24, abstract 6G140 (V sb. Polyarn. siyaniya i svecheniye nochn. neba, no. 7, M., AN SSSR, 1961, 37-42)

V/B

TEXT: The suggestion that there is a second zone of auroras and magnetic disturbances was expressed by the author (RZhGeofiz, no. 4, 1957, 3661) on the grounds of the analysis of the course of magnetic disturbances at high-latitude stations. In the present article the author cites certain data of a number of research workers, which may serve as further proof for the possibility that there is a second zone. 16 references. /Abstracter's note: Complete translation./

Card 1/1

S/169/62/000/006/085/093
D228/D304

3.1810
3.9120

AUTHOR: Nikol'skiy, A. P.

TITLE: Causes of the asymmetry in the position of the auro-
            ral zone in the Arctic and the Antarctic

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 6, 1962, 25, ab-
            stract 6G142 (V sb. Polyarn. siyan.e i svecheniye
            nochn. neba, no. 7, M., AN SSSR, 1961, 61-64)

TEXT: The IGY's problem included the task of determining the lo-
cation of the zone of the maximum frequency and intensity of au-
roras in Antarctica. It was previously noted that the Antarctic
auroral zone has an evident tendency to pass through the geogra-
phic pole. Such a disposition for the auroral zone in Antarctica
differs abruptly from the Arctic zone's position, which is at pre-
sent known from more extensive and reliable data. It is diffi-
cult to recognize that this asymmetry is explained by the actual
asymmetry of the earth's magnetic field. This difference can be
explained in another way if one proceeds from the conviction that

Card 1/3

Causes of the asymmetry ...   S/169/62/000/006/085/093
                                D228/D304

the morning observations. In other words, the auroral zone found
for Antarctica may actually consist of the segments of two zones:
the second (inner) zone, associated with morning radiances, and
the first (normal) zone, associated with night radiances. The dis-
position of the Antarctic stations during the IGY, like that for
the stations operating there previously, was evidently such that
the effect of the existence of two different zones for morning and
night radiances was displayed especially strongly. /Abstracter's
note: Complete translation./

Card 3/3

S/169/62/000/004/060/103
D228/D302

AUTHOR: Nikol'skiy, A.P.

TITLE: 30 years of work at the polar magnetic station in
            Tikhaya Bay

PERIODICAL: Referativnyy zhurnal. Geofizika, no. 4, 1962, 1,
            abstract 4G1 (V sb. Probl. Arktiki i Antarktiki, no. 9
            L., Morsk. transport, 1961, 104)

TEXT: The magnetic station in Tikhaya Bay was organized in 1931 in
connexion with the 2nd International Polar Year. Observations were
made continuously to 1958, when the observatory was moved 75 km
north-eastwards to Kheys Island. The results of the observations of
the Tikhaya-Kheysa magnetic observatory have served as material for
a large number of scientific investigations. At present the Kheys
Island observatory is a complex geophysical observatory. [Abstrac-
tor's note: Complete translation].

Card 1/1

NIKOL'SKIY, A.P.

Daily variation of magnetic disturbances at the geomagnetic pole in
Antarctica. Geomag. i aer. 1 no.5:781-785 S-O '61. (MIRA 15:1)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.
          (Antarctic regions--Magnetism, Terrestrial)
              (Arctic regions--Magnetism, Terrestrial)

NIKOL'SKIY, A.P.

The controlling role of geomagnetic time in the development of
magnetic distrubances. Geomag. i aer.1 no.6:955-958 N-D '61.

(MIRA 15:2)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy
institut.

(Magnetism, Terrestrial)

NIKOL'SKIY, A.P.

Experimental evidence for the existence of a second zone of magnetic disturbances in the eastern Arctic. Geomag. i aer.1 no.6:959-964, N-D '61.   (MIRA 15:2)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.
    (Arctic regions—Magnetism, Terrestrial)

IGNATOV, V.S.; MILYAYEV, N.A.; NIKOL'SKIY, A.P.

Results of geophysical studies in the central Arctic. Probl.
Arkt.i Antarkt. no.11:65-74 '62.   (MIRA 16:2)
                (Arctic regions—Magnetism, Terrestrial)
            (Arctic regions—Ionospheric radio wave propagation)

44455
s/203/62/002/006/012/080
A160/A101

3.1800

AUTHOR: Nikol'skiy, A. F.

TITLE: A comparison of the magnetic disturbance in high latitudes with
             Störmer's theory

PERIODICAL: Geomagnetizm i aeronomiya, v. 2, no. 6, 1962, 1122 - 1125

TEXT: The author investigates the data on the magnetic disturbance at the
Chelyuskin Cape, CП-4 (SP-4) and SP-6 stations, and compares these data with
Störmer's theory. It is shown that the average interval length of the increased
values of magnetic disturbance is 6 to 8 hours. The spatial-time distribution
of irregular magnetic disturbances in the Arctic is satisfactorily explained on
the basis of Störmer's theory in a number of respects. It was determined that
the most typical form of a diurnal variation of the magnetic disturbance in high
latitudes is a curve with three maxima: a morning, an evening and a night
maximum. Figure 1, 1 presents data of the Chelyuskin station, and Figure 1, 2 -
of the SP-6 station for summer 1957. During this period, the SP-6 station was
almost on the same geomagnetic latitude as the Chelyuskin one, but 60° east from

Card 1/4

A comparison of the magnetic disturbance in...   8/203/62/002/006/012/020
                                                                 A160/A101

and the conclusions of Störmer's theory prove that it is possible to use it for qualitative explanations of some aspects of this phenomenon. Störmer's theory should be further developed on the basis of data of the processes in outer space, and the obtained data have to be checked with data of other similar stations. There are 3 figures, and 1 table.

ASSOCIATION: Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut
             (Arctic and Antarctic Scientific Research Institute)

SUBMITTED: June 23, 1962

Card 3/4

NIKOL'SKIY, A.P.

Stormer's theory and modern aeronomy. Trudy AANII 241 no.4:
7-19 '62.
(Auroras) (Magnetic storms)   (MIRA 15:8)

NIKOL'SKIY, A.P.

Possible causes of irregular movements of ionised clouds, connected with auroras. Trudy AANII 241 no.4:28-33 '62.

(MIRA 15:8)

(Polar regions—Ionosphere) (Auroras)

NIKOL'SKIY, A.P.

Structure of an irregular part of a field of magnetic disturbances on Cape Chelyuskin. Trudy AANII 241 no.4:90-98 '62.

(MIRA 15:8)

(Cape Chelyuskin—Magnetic storms)

45215
8/203/63/003/001/013/022
A061/A126

AUTHOR: Nikol'skiy, A. P.

TITLE: Characteristics of the daily distribution of irregular
             magnetic disturbances between the geomagnetic and geographic
             poles in Arctica

PERIODICAL: Geomagnetizm i aeronomiya, v. 3, no. 1, 1963, 104 - 112

TEXT: The data of the drifting stations СП-3 (SP-3) and СП-7
(SP-7), which were between the geomagnetic and geographic poles during
10 months in 1954 - 1955 and during 7 months in 1958 - 1959, were examined.
The daily course of the magnetic activity, estimated by changes of the
disturbance vector in the horizontal plane, has four maxima (9.3; 3.8;
20.6, and 14.0 hours local time). Fluctuations are ± 1.0 hour. The inten-
sity of the maxima differs in different months. The good agreement be-
tween the times at which the four maxima occur and the times at which the
shock zones are formed on the precipitation spirals of the Störmer par-
ticles (9.0; 2.8; 20.0, and 13.6 hours) is pointed out. An analogy is
established between the observations described and those made at Alert
Station and at Port Konger. In accordance with C. Störmer (The Polar

Card 1/2

NIKOL'SKIY, A.P.; OL', A.I.

Comments on V.M. Mishin and I.A. Zhulin's article "Some problems of magnetic activity. Part 1." Geomag. i aer. 3 no.2:370-373 Mr-Ap '63.   (MIRA 17:2)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.

NIKOL'SKIY, A.P.; NIKOLAYEV, Yu.V.

Reality of the diurnal periodicity of magnetic activity. Geomag.
i aer. 3 no.6:1139-1141 N-D '63.   (MIRA 16:12)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy
institut.

NIKOL'SKIY, A.P.

Use of some conclusions of Störmer's theory for the explanation
of certain regularities of magnetic disturbances at high
latitudes. Geomag. i aer. 4 no.1:141-150 Ja-F '64.
(MIRA 17:2)

1. Arktichoskiy i antarkticheskiy nauchno-issledovatel'skiy
institut.

ACCESSION NR: AP4041043   S/0120/64/000/003/0168/0169

AUTHOR: Nikol'skiy, A. P.; Kordonskiy, G. A.

TITLE: Effect of the distance between the x-ray tube and the specimen upon the sensitivity of fluorescent x-ray spectrometers

SOURCE: Pribory* i tekhnika eksperimenta, no. 3, 1964, 168-169

TOPIC TAGS: spectrometer, x ray spectrometer, fluorescent spectrometer

ABSTRACT: Experiments on an optical simulator established that the distance between the exit window of a BKhV-6 x-ray tube and a 30 x 18-mm specimen can be varied within 10—50 mm without impairment to the sensitivity of a fluorescent spectrometer if the angle of fluorescence collection is varied correspondingly. The model was not an exact simulator insofar as the x-ray tube anode radiation is anisotropic; however, the results are considered acceptable because the anisotropy within a small solid angle is insignificant. Orig. art. has: 2 figures.

Card   1/2

FBD/EWT(1)/FCC/EWG(v)/EEC-4/EEC(t)/F...   Po-4/Pe-5/Pq-4/Pee-2/Pt-10/
SSD/ASWD(t)/AFTC(b)/SSD/RAEM(a)/EJJ(c AFWL   35, 65

ACCESSION NR: AP4046298   S/0203/64/004/005/0968/0971

AUTHOR: Nikol'skiy, A. P.

TITLE: On the daily distribution of irregular magnetic disturbances
at stations in high latitudes in the Western and Eastern Hemispheres

SOF   Geomagnetism i aeronomiya, v. 4, no. 5, 1964, 968-971

TAGS: irregular magnetic disturbance, magnetogram, geomagnetic
altitude, solar corpuscular stream, terrestrial atmosphere, cosmic
..., radar reflection, magnetic activity, geomagnetic time

ABSTRACT   Three maxima of irregular magnetic disturbances, in the
...ng, in the afternoon, and at night, have been detected in the
... ...grams of stations in high geomagnetic latitudes. These maxima,
... ...iated with solar corpuscular streams which penetrate into the
... ...estrial atmosphere, correspond to the rate of absorption of cosmic
... ... and radar reflections from auroras.   A comparison of the rates
... ...regular geomagnetic disturbances at Soviet stations with those
of Canadian stations is made. Special attention is paid to the Cana-
... station Churchill, where the maxima and their changes are not

... 1/2

ACCESSION NR: AP4046298

like those of Soviet stations in the same geomagnetic latitude zone.
Magnetograms of mean daily magnetic activity at the Soviet station
Dikson were found to be like those at Churchill, although the geo-
magnetic latitude of Dikson differs from Churchill by 6°. These two
stations belong to the same zonal system. Mean monthly curves of the
daily rate of magnetic activity were drawn for nine stations within
the geomagnetic latitude belt from 50° to 80° in the Northern Hem-
isphere, in which an increase in activity in the geomagnetic time in-
terval from 3 to 5 p.m. was detected. The irregular magnetic dis-
turbances are alike all over the Arctic cap when the stations observe
similar conditions of the solar corpuscular streams. Orig. art. has:
3 figures.

ASSOCIATION: Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy
institut (Arctic and Antarctic Scientific Research Institute)

SUBMITTED: 03Feb64   ATD PRESS: 3114   ENCL: 00

SUB CODE: AA   NO REF SOV: 004   OTHER: 004

Card 2/2

ACCESSION NR: AP4036782   S/0048/64/028/005/0677/0679

AUTHOR: Nikol'skiy, A.P.

TITLE: Some formulas for calculating the intensity of fluorescence excited by a
polychromatic x-ray beam /Report, Seventh Conference on X-Ray Spectroscopy held in
Yerevan 23 Sep to 1 Oct 1963/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.28, no.5, 1964, 677-679

TOPIC TAGS: x-ray excitation, fluorescence integral

ABSTRACT: The evaluation of the "fluorescence integral"

$$I_\phi = \int_{\lambda_q}^{\lambda_q} \frac{\lambda^2(\lambda - \lambda_\phi)}{\lambda^3 + \varkappa}[1 - e^{-4c(\lambda^3+\varkappa)}]e^{-4c\lambda^3}\,d\lambda,$$

in which the exponential factors take account of the finite thickness of the sample
and the absorption of the primary beam by the x-ray tube window, was approximately
reduced to the evaluation of tabulated exponential integrals. No details of the re-
duction are given, except to say that the "quadratic integral approximation" (B.I.
Demidovich, I.A.Maron, E.Z.Shuvalova, Chislennyye metody analiza.Fizmatgiz.M.1962)
was employed. The error is reasonably small (<10%) for K lines of elements with

Card 1/2

ACCESSION NR: AP4038782

$11 < Z < 50$, but the formula is not adequate for $L\alpha$ lines of elements with $50 < Z < 92$. A similar approximation to the integral obtained by dividing the integrand by λ, and which is accordingly appropriate when the intensity is defined as energy flux rather than photon flux, is, however, sufficiently accurate even for the heavy elements. When neither exponential factor need be considered, the integral is elementary, but its expression in terms of the logarithm and the inverse tangent is involved. For this case an approximation is given based on the theorem of the mean and the assumption that the appropriate mean is the arithmetic mean of the limits of integration (the wavelengths of the Duane-Hunt limit and the absorption edge respectively). Orig.art.has: 11 formulas.

ASSOCIATION: Tsentral'naya laboratoriya avtomatiki (Central Automation Laboratory)

SUBMITTED: 00   DATE ACQ: 12June64   ENCL: 00

SUB CODE: OP   NR REF SOV: 004   OTHER: 000

Card 2/2

L 4766-66   EWI(m)/I   IJP(c)

ACC NR: AP5027009   SOURCE CODE: UR/0120/65/000/005/0071/0073

AUTHOR: Klyukvina, Ye. P.; Chaykovskiy, V. G.; Nikol'skiy, A. P.; Yevlanov, I. Ya.

ORG: none

TITLE: Construction and technical characteristics of a proportional counter

SOURCE: Pribory i tekhnika eksperimenta, no. 5, 1965, 71-73

TOPIC TAGS: gas discharge counter, proportional counter

ABSTRACT: A proportional counter designed for detection of 1—10-kev x-radiation is described. To meet the requirement of a large-area input aperture of minimum thickness, the design contains a cathode equipped with two 10-μ Al film apertures 25 x 16 mm each. To reduce attenuation of fluorescent radiation by the surrounding air, the counter itself is placed in a vacuum while the remainder of the unit is subjected to normal atmospheric pressure. Provisions are made for connecting the output of the counter to a scintillation counter. The active elements of the counter are a stainless steel cylindrical cathode 25 mm in diameter, a tungsten wire anode 0.05 mm in diameter, and a gas mixture of 90% Ar and 10% CH_4 which is passed through the counter interior at a rate of 5—20 cm^3/min. Fig. 1 shows the output pulse height as a function of the applied potential. The linear region corresponds to a gas avalanche factor range of $(1.3—1.6) \times 10^4$. The efficiency of the counter as a function of wavelength is shown in Fig. 2. The effectiveness of the counter in detecting hard radia-

Card 1/2   UDC: 539.1.074.822.3:621.386

L. 4968-66

ACC NR: AP5027009   O

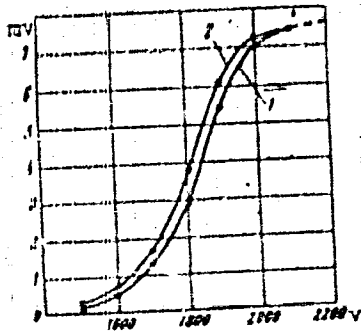tion is limited by the inadequate attenuating properties of the argon gas; for soft

Fig. 1. Pulse height as a
function of applied potential
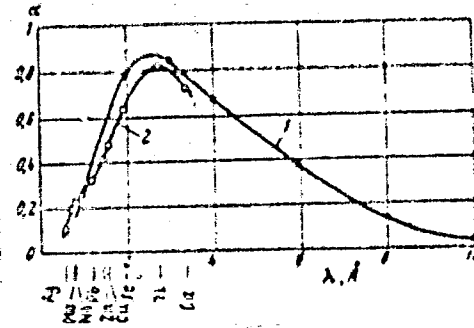
1 - FeK$_\alpha$; 2 - ZnK$_\alpha$.

Fig. 2. Counter efficiency as a
function of wavelength

1 - Calculated; 2 - experimental.

radiation, it is limited by the thickness of the cathode aperture. Most effective
radiation range is 3--4 kev. Orig. art. has: 2 figures and 4 formulas.   [RD]

SUB CODE: NP/   SUBM DATE: 20Jul64/   ORIG REF: 001/   ATD PRESS: 4/37

Card 2/2

L 1846-66   EWT(m)/FCC/T   IJP(c)

ACCESSION NR: AT5022288   UR/3136/64/000/618/0001/0016

AUTHOR: Mishakova, A. P.; Nikol'skiy, 3. A.

TITLE: Paired angular correlation of secondary particles in cosmic showers with energy E sub 0 greater than 10 super 11 ev

SOURCE: Moscow. Institut atomnoy energii. Doklady, IAE-618, 1964. Parnaya uglovaya korrelyatsiya vtorichnykh chastits v kosmicheskikh livnaykh s energiyey $E_0 > 10^{11}$ ev, 1-16

TOPIC TAGS: cosmic ray shower, secondary cosmic ray, cosmic ray particle

ABSTRACT: Experimental distributions of paired angles between secondary cosmic ray particles with energy $E_0 > 10^{11}$ ev are compared with calculated distributions obtained by assuming the absence of a systematic angular correlation of shower particles. A good agreement between the calculated and experimental distributions is observed. The results obtained are analyzed from the standpoint of the existence of unstable shower particles which decay into particles of short lifetime. "In conclusion, the authors express their appreciation to Prof. I. I. Gurevich for numerous discussions and for reviewing the results." Orig. art. has: 7 figures and 9 formulas.

Card 1/2

L 1846-66
ACCESSION NR: AT5022288   0

ASSOCIATION: none

SUBMITTED: 00   ENCL: 00   SUB CODE: AA, NP

NO REF SOV: 002   OTHER: 003

Card 2/2

L 15777-66   EWT(1)/FCC/EWA(h)   GW

ACC NR: AP6006669   SOURCE CODE: UR/0203/66/006/001/0140/0141

AUTHOR: Nikol'skiy, A. P.

ORG: Arctic and Antarctic Scientific Research Institute (Arkticheskiy i antark-
ticheskiy nauchno-issledovatel'skiy institut)

TITLE: Correlation between magnetic activity and disturbances in the ionospheric
F2 layer

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 1, 1966, 140-141

TOPIC TAGS: ionospheric disturbance, magnetic perturbation, forbidden period,
geomagnetic time

ABSTRACT: In order to compare ionospheric disturbances with magnetic perturba-
tions, both phenomena were studied simultaneously using data obtained over many
years. Peaks in magnetic perturbations at various hours of the day were taken
from Chelyuskin, Dikson, Tiksi, and Uelen (Welen) stations. The appearance
of geomagnetic peaks occurs very seldom between 0800 and 1400 hr local geomag-
netic time. This time interval is considered to be the forbidden period. Ion-
ospheric perturbations in the F2 layer coincide with the forbidden period and

Card 1/2   UDC: 550.388.2:550.385

L 15777-66

ACC NR: AF6006669   *0*

have a negative sign. Forbidden periods increase as the station latitude de-
creases. The length of the forbidden period in Tiksi and Welen is from 0700 to
1500 hr local geomagnetic time. The duration of the forbidden period at
Chelyuskin is about 4 hr. Orig. art. has: 1 figure.   [EG]

SUB CODE: 04/ SUBM DATE: 04Jan65/ ORIG REF: 003/ ATD PRESS: *4260*

Card 2/2

L 29976-66   EWT(l)/EWT(m)/EWP(t)/ETI   IJP(c)   JD
ACC NR: AP6012486   SOURCE CODE: UR/0181/66/008/004/1208/1211

AUTHOR: Nikol'skiy, A. P.

ORG: Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splavov)

TITLE: The mechanism of electric conductivity of ferrites

SOURCE: Fizika tverdogo tela, v. 8, no. 4, 1966, 1208-1211

TOPIC TAGS: ferrite, electric conductivity, x ray spectrum, spectral line, line broadening, crystal lattice structure, line splitting

ABSTRACT: The author has made a simultaneous study of the electric conductivity of ferrites of the system $MgO-Al_2O_3-Fe_2O_3$ and of the x ray lines of $FeK_{\beta 5}$ $(3d \rightarrow 1s)$ characterizing the energy spectrum of the 3d electrons. The tests were made with eight samples of different relative compositions and resistivities. The results show that on going from the sample with the minimum resistivity to that with the highest resistivity the x-ray lines broaden in the vicinity of the peak and kinks appear in the contours, corresponding to splitting of the central peak. It is concluded from an interpretation of the test results that the 3d elec-

Card   1/2

L 29978-66

ACC NR: AP6012486 α

trons can execute jumps between the ions Fe^{2+} and Fe^{3+} which are located
in nonequivalent points of the lattice. This becomes possible as a re-
sult of the approach of the components of the splitting of the levels of
3d electrons in the tetrahedral and octahedral sites by the crystal
field. A similar behavior of the $FeK_{\beta5}$ lines and the electric resistiv-
ity is observed in the $ZnFe_2O_4$-$NiFe_2O_4$ ferrimagnetic system. The author
thanks S. S. Gorelik for help with the work and a discussion of the
results, and Q. V. Zhevakin for supplying the magnesium-aluminate ferrite
samples. Orig. art. has: 3 figures and 2 tables.

SUB CODE: 20/   SUBM DATE: 11May65/ ORIG REF: 002/ OTH REF: 001

Card   2/2-96

ACC NR: AT7003582   .SOURCE CODE: UR/3116/66/280/000/0076/0085

AUTHOR: Nikol'skiy, A. P.

ORG: none

TITLE: Time-space distribution of anomalous absorption in the ionosphere

SOURCE: Leningrad. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy
institut. Trudy, v. 280, 1966. Issledovaniya magnitno-ionosfernykh vozmushche-
niy i rasprostraneniya radiovoln v Arktike i Antarktike (Studies of magnetic and
ionospheric disturbances and radio wave propagation in the Arctic and Antarctic),
76-85

TOPIC TAGS: ionospheric absorption, ionosphere, anomalous absorption,
absorption distribution/Soviet Arctic

ABSTRACT: Time-space distribution of anomalous absorption in the ionosphere is
determined on the basis of observations made during the winter 1963/1964 by the
network of rheometric stations located in the Soviet Arctic. The following conclu-
sions are reached: 1) a tendency of an increase in the occurrence of maximal
absorption values was observed at about 4, 10—12, 17, 19 and 24 hrs CMT;

Card 1/2

ACC NR: AT7003582

2) at higher latitude stations (up to ≈72°) the relative weight of cases with
maximum absorption in the 8—14 hr interval is higher than at zonal stations;
3) the distribution of increases in the daily occurrence of maximal absorption is in
good agreement with the daily distribution of the peaks of magnetic disturbance.
Orig. art. has: 5 figures and 1 table.   [DW]

SUB CODE: 04/

Card 2/2
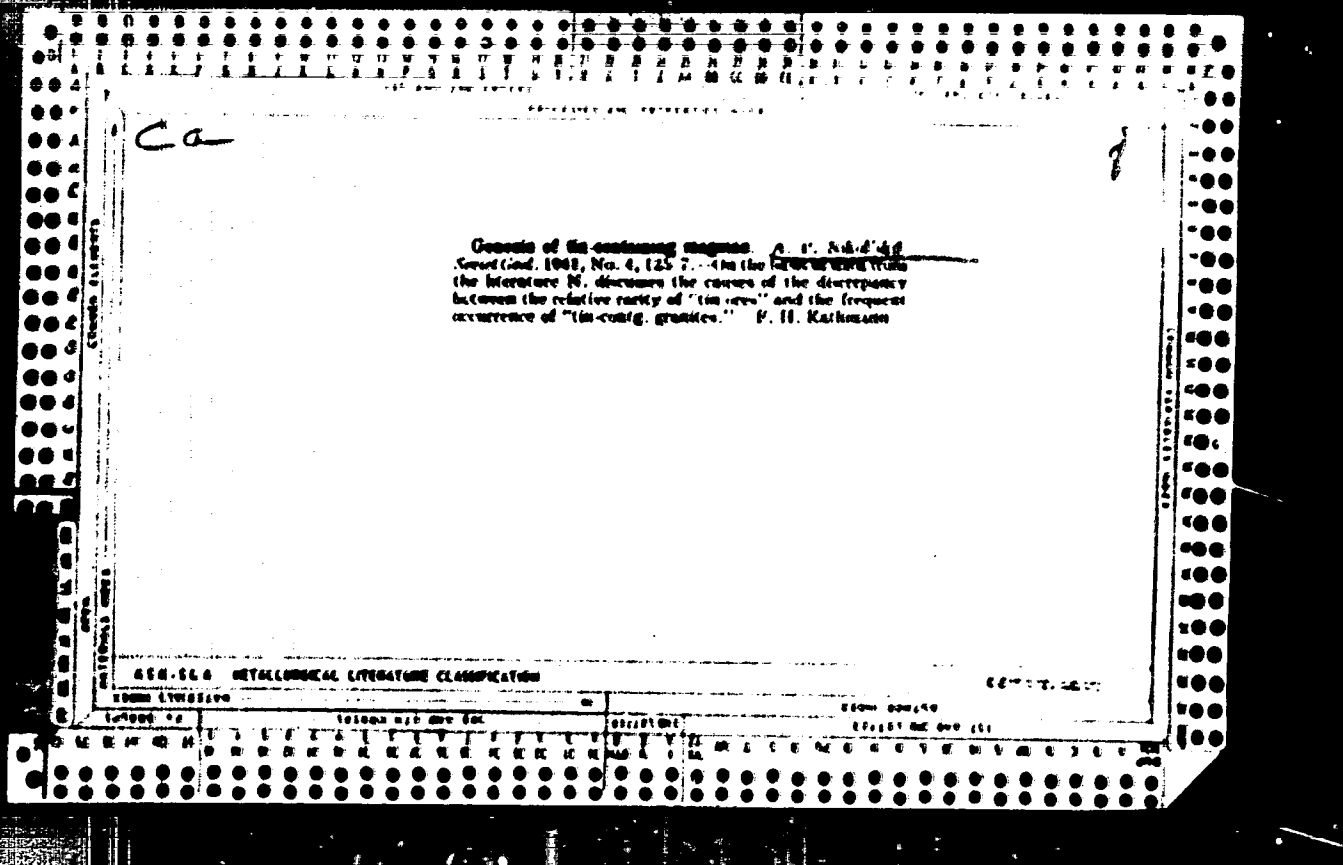
NIKOL'SKIY, A.P.; KORDONSKIY, G.A.

Effect of the distance between an X-ray tube and the specimen under study on the sensitivity of fluorescent X-ray spectrometers. Prib. i tekh. eksp. 9 no.3:168-169 My-Je '64
(MIRA 18:1)

1. TSentral'naya laboratoriya avtomatiki.

NIKOL'SKIY, A. F.

Geological structure and minerals in the eastern part of the Chukotsk
Peninsula.
Trudy Arkt Inst Vol. 104, 1938

SO: Trudy Arkticheskogo Nauchno-Issledovatel'skogo
     Instituta, GUSMP, Council of Ministers, Vol. 201,
     1948

Ca

Genesis of tin-containing magmas. A. P. Sobolev. Izvest Akad. 1948, No. 4, 125 7. In the literature N. discusses the causes of the discrepancy between the relative rarity of "tin ores" and the frequent occurrence of "tin-contg. granites." P. H. Kashmann

1. NIKOL'SKIY, A. P

2. USSR (600)

4. Wolframite Group - Altai Mountains

7. 1. Granitoids of the Altai and Kalbin; 2. Mineralogy of the wolframite deposits of the
    Altai and Kalbin.; 3. Types of wolframite deposits of the Altai and Kalbin.
    (Abstract). Izv. Glav. upr. geol. fon., no. 2. 1947.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

NIKOL'SKIY,A.P.

USSR (600)

Geology,Stratigrap hic-Algonkian; Geology- Ukraine

Stratigraphy of the Krivoi Rog region. Dokl. AN SSSR 82 no. 6,1952. Vsesoyuznyy
Nauchno- Issledovatel'skiy. Geologicheskiy Institut. red. 17 Dec. 1951.

SO: Monthly List of Russian Accession,Library of Congress, July 1952. Uncl.

NIKOL'SKIY, A. P.

Petrology - Altai Mountains

Magma of small intrusions of the Altai. Izv. AN SSSR. Ser. geol. No. 2, 1952

NIKOL'SKIY, A.P.

Talc schists and serpentines of the northern part of the Saksaganek zone of Krevorosh'ya. Izvest. Akad. Nauk S.S.S.R., Ser. Geol. '52, No.3, 130-5. (MIRA 6:4)
(CA 47 no.22:12155 '53)

1. NIKOL'SKIY, A. P.

2. USSR (600)

4. Rocks, Igneous – Altai Mountains

7. Concerning the article "Magma of small intrusions of the Altai." A. P. Nikol'skiy. Reviewed by G. N. Shcherba. Izv. AN SSSR. Ser. geol. No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, __April__ 1953, Uncl.

NIKOL'SKIY, A.P.

USSR/ Geology - Book review

Card   1/1   Pub. 46 - 18/24

Authors   : Nikol'skiy, A. P.

Title   : Biased criticism

Periodical   : Izv. AN SSSR. Ser. geol. 6, 129-134, Nov-Dec 1954

Abstract   : Rebuttal is given to the criticism of a report written by the author
                on the subject of, "The Geology of the Krivoy Rog Region." Eleven
                USSR references (1939-1954).

Institution : .....

Submitted   : June 8, 1954

NIKOL'SKIY, A. P.

POLOVINKINA, Yu.Ir.

A.P. Nikol'skii's articles on the geology of Krivoy Rog. Izv.
AN SSSR. Ser.geol. 19 no.2:152-156 Mr-Ap '54.   (MLRA 7:7)
        (Krivoy Rog--Geology) (Nikol'skii, A.P.)

NIKOL'SKIY, A.P.

NIKOL'SKIY, Ya.N.

A.P.Nikol'skii's views on the stratigraphy and structure of Pre-Cambrian rocks of Krivoy Rog. Izv.AN SSSR. Ser.geol. 19 no.2: 156-161 Mr-Ap '54.
(MLRA 7:7)
(Krivoy Rog--Geology, Stratigraphic) (Geology, Stratigraphic--Krivoy Rog) (Nikol'skii, A.P.)

NIKOL'SKIY, A.P.

Some problems of the origin of hydrothermal deposits. Sov.geol. no.43:
89-106 '55.   (Geochemistry)   (MLRA 8:9)

NIKOL'SKIY, A.P.

The absolute age of rocks and minerals of Ukraine and the Altai determined by the argon dating method compared with specific geological specimens. Inform sber. VSEGEI no.4:70-78 '56.
   (Ukraine--Radioargon dating)   (MIRA 10:4)
         (Altai Mountains--Radioargon dating)

15-57-8-11216

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 8, p 151 (USSR)

AUTHOR: Nikol'skiy, A. P.

TITLE: Metasomatites of the Iron-Bearing Quartzites of the Eastern Part of the Ukrainian Crystalline Shield and the Origin of Rich Iron Ores (Metasomatity zhelezistykh kvartsitov vostochnoy chasti Ukrainskogo kristalliches-kogo shchita i voprosy genezisa bogatykh zheleznykh rud)

PERIODICAL: Sov. geologiya, 1956, sb. Nr 50, pp 28-53

ABSTRACT: The author gives a description of the metasomatic processes developed in the strata of the iron-bearing quartzites of the eastern part of the Ukrainian crystalline shield. He presents the most intensively developed phases of replacement as follows: 1) formation of iron ores of the magnetite type of the

Card 1/3

15-57-8-11216

Metasomatites of the Iron-Bearing Quartzites (Cont.)

was converted into martite. The formation of the massive magnetite ores of the Korsak-Mogila was connected with the granitization of the magnetite quartzites, accompanied by the loss of considerable amounts of Fe. Intensive riebeckitization and replacement of the cummingtonite by rhodusite freed for migration considerable masses of Fe. In sections with an extensive development of amphibole-magnetite schists, quartz and amphibole were replaced by Fe, which led to the origination of rich amphibole-magnetite ores. The processes of carbonate replacement were also often accompanied by the formation of rich ores; this was possible in connection with albitization and quartzification. The author associates sodium replacement among the iron-bearing quartzites of the shield with the formation of aplitic granites and migmatites of the late Pre-cambrian period.
Card 3/3   I. V. Kunayev

NIKOL'SKIY, A.P.

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NJYG'SKIY, A.I.

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part of the Russian Platform. Trudy Inst. geol. dokem. no.19:
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          (Labor productivity)   (Economics)

NIKOLAYEV, A. V.

Dissertation: "Investigation of Surface
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Hardened Steel with Bound Abrasives."

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SO Vecheryaya Moskva
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NIKOL'SKIY, A.V.

Characteristics of surface layers of tempered steel subjected to
grinding and honing. Trudy Mos. po mach. povorkh. no.1:69-79 '51.
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Regulation of the process of lapping with vibrating bars. Trudy
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NIKOL'SKIY   A. V.

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Akademiya nauk SSSR. Institut mashinovedeniya. Komissiya po tekhnologii
    mashinostroyeniya

Osnovnyye voprosy vysokoproizvoditel'nogo shlifovaniya (Basic Problems in
    High-Productivity Grinding) Moscow, Mashgiz, 1960. 195 p. 3,000
    copies printed.

Ed. (title page): Ye. N. Maslov, Doctor of Technical Sciences, Professor;
    Ed. (inside book): A. T. Popov, Engineer; Tech. Ed.: V. D. El'kind;
Managing Ed. for Literature on Metalworking and Instrument Construction
    (Mashgiz): V. V. Rzhavinskiy, Engineer.

PURPOSE: This book is intended for technical personnel in metal grinding.

COVERAGE: This collection of articles deals with problems of efficient
    grinding of metals, the theory of grinding, the mechanism of the cutting
    action of grains, chip formation, and the effect of certain factors on
    the productivity of the grinding process. Emphasis is also given to the
    automation of the grinding process. A number of articles deal with the
    grinding of carbides and titanium alloys. No personalities are mentioned.
    References follow each article.

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Basic Problems (Cont.)

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Maslov, Ye. N. [Doctor of Technical Sciences, Professor]. Mechanism of
the Cutting Action of Abrasive Grains in Grinding
    The author discusses arrangement, spacing, dimensions, and geometry
    of abrasive grains. The theory of the process of chip formation and
    the thickness of the layer removed by a single grain are also discussed.

Popov, S. A. [Candidate of Technical Sciences]. Analysis of Types of Chip
Formation in Connection With the Geometry of the Grinding-Wheel Surface

Nikol'skiy, A. V. [Candidate of Technical Sciences]. Effect of Various
Factors on Productivity in Cylindrical Grinding
    The author describes a method for determining optimum feeding rate,
    unit pressure between work and wheel, and the cutting depth of single
    grains necessary for the maximum utilization of grinding wheels.

Vakser, D. B. [Docent]. Effect of the Geometry of an Abrasive Grain on
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Basic Problems (Cont..

The author discusses the relationships between the radii of curvature and the angles of peaks and valleys of abrasive grains. Grain forms were drawn in two projections by means of an RA-4 drawing apparatus built into the system of an ordinary biological microscope. Magnification of the microscope was adjusted to the grit size.

Lur'ye, G. B. [Professor]. The Theory of the Working Cycle in Cylindrical   87
Grinding as a Basis of High-Productivity Machining
The article is a study of the grinding operation and its regularities. Among the topics discussed are effect of processing factors on the quality of grinding, changes in cutting action of a grinding wheel over the wheel life and during operation, and the effect of wheel wear on productivity.

Zheleznov, Ye. S. Principles of High-Productivity Grinding and Its   109
Automation
The article deals with the principles of planning high-productivity grinding and the incorporation of a system of automation into grinding operations. Both subjects are discussed in connection with the reduction of cutting time, the achievement of process stability, and the

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