GRABOVSKIY, M. A., USAGIN, S. I.

Floating Bodies.

Floating of a body on the surface of water. Fiz. v shkole no. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952 Uncl.

GRABOVSKIY, M. A.

USSR/Geophysics - Ferrites Sep/Oct 52

"Magnetic Properties of Ferrites and Their Significance in Geophysics," M. A. Grabovskiy, Geophys Inst, Acad Sci USSR

"Iz Ak Nauk SSSR, Ser Fiz" No 5, pp 41-46

Brief survey devoted to analysis of phys and structural properties of ferrites--binary oxides formed by Fe_2O_3 with oxides of other divalent metals. Author derives some geophys conclusions on existence of ferrites in natural state. Indebted to A. G. Kalashnikov. Received 14 Apr 52.

226T56

GRABOVSKIY, M. A.

May/Jun 53

"Thermo-residual Magnetism of Mineral Rocks," M. A. Grabovskiy, Geophys Inst, Acad Sci USSR

Iz Ak Nauk SSSR, Ser Geofiz, No 3, pp 215-224

Examines, from the modern viewpoint of magnetization of ferromagnetics, the origin of thermo-residual magnetization in ferromagnetic mineral rocks and also clarifies the causes of reversible magnetic polarity in some rocks.

258 T63

GRABOVSKIY , M. A. Sep/Oct 53

USSR/Geophysics - Magnetite

"Variations of Magnetic Properties of Magnetites Under the Action of Large Compressing Stresses," M. A. Grabovskiy and E. I. Parkhomenko, Geophys Inst, Acad Sci USSR

Iz Ak Nauk SSSR, Ser Geofiz, No 5, pp 405-417

Investigate the magnetic properties of magnetite samples subjected to uniaxial compression due to hydrostatic pressure. Relate results to present-day views on ferromagnetism. Derive several geophys conclusions.

267T73

GRADOVSKIY, M.A. (Moscow).

Electrodynamic demonstrator-magnetometer. Fiz.v shkole 7 no.4:60-64 '53.
(MLRA 6:11)
(Magnetometer)

GRABOVSKIY, M. A.

FD 394

USSR/Geophysics - Reverse thermoremanent magnetism

Card 1/1

Author : Grabovskiy, M. A., and Pushkov, A. N.

Title : Problem of the origin of residual magnetization of reverse polarity in minerals

Periodical : Izv. AN SSSR, Ser. geofiz. 4, 320-330, Jul/Aug 1954

Abstract : Experimentally demonstrate that the demagnetizing field from an inductively magnetized ferromagnetic specimen is always less in absolute magnitude than that strength of the external field that caused this magnetization. Ferromagnetic specimens that have experienced thermomagnetization can acquire a demagnetizing field greater in absolute magnitude than the external magnetic field. These conclusions enable one to explain the appearance of residual magnetization of reverse polarity in certain minerals sometimes observed under natural conditions. Thank I. F. Paukov, senior laboratory assistant, for his aid.

Institution : Geophysics Institute, Acad Sci USSR

Submitted : August 18, 1953

GRABOVSKIY, M. A.

USSR/Physics of the Earth - Electric and Magnetic Field of the Earth, O-4

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36398

Author: Grabovskiy, M. A., Petrova, G. N., Isakova, L. I.

Institution: None

Title: On the Occurrence of Thermal Residual Magnetization of Mountain Rocks

Original Periodical: Izv. AN SSSR, ser. geofiz., 1956, No 1, 56-60

Abstract: A description of an experimental investigation of thermal magnetization of ferromagnetic mountain rocks and the conditions for the occurrence of residual magnetization I_r at all the stages of the cooling of the rock. Magnetometric methods are used to measure the magnetic properties of specimens of magnetite in the Ural, Kursk, and Angaro-Ilimsk deposits, and of pyrrotine and nickel. For all the specimens, curves of the thermal magnetization I_{it} are given, which show how the magnetization I_{it} increases in a definite orienting field (on the order of the magnitude of the

Card 1/2

USSR/Physics of the Earth - Electric and Magnetic Field of the Earth, 0-4

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36398

Abstract: earth's field and above) when t of the specimen drops from the Curie point (t_c) to the room temperature ($t = 20^o$). Investigation was made of the residual part of the thermal magnetization I_{rt}. It is shown, that I_{rt} occurs at values of t close to t_c. The development of the thermal-residual magnetization in weak fields occurs fundamentally as a result of irreversible magnetization processes. Particular attention is paid to the determination of the stability of I_{rt} and of its coercive force (thermal coercive force H_{ct}). Plots are given for the dependence of the H_{ct} and H_c on the magnetizing magnetic field. H_{ct} is greater than H_c for the same specimen, and in the region of weak fields it is much higher than the magnitude of the field that causes a given thermal magnetization. In this manner, I_{rt} is magnetically stable. The high values of H_c and of H_{ct} for many mountain rocks helps them retain their magnetization for many geological periods and it is therefore of great significance to paleomagnetism. Bibliography, 10 titles.

Card 2/2

GRABOVSKIY, M.A.

Determination of the vertical component of a magnetic field for a two-phase magnetic system after its thermal magnetization. Izv.AN SSSR.Ser.geofiz.no.2:157-164 F '56. (MLRA 9:7)

1.Akademiya nauk SSSR, Geofizicheskiy institut.
(Prospecting--Geophysical methods)

GRABOVSKIY, M. A.

USSR/Physics of the Earth - Electric and Magnetic Field of the Earth, O-4

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36399

Author: Grabovskiy, M. A., Petrova, G. N.

Institution: None Geophysics Inst, AS USSR

Title: On the Stability of the Residual Magnetization of Mountain Rocks

Original Periodical: Izv. AN SSSR, ser. geofiz., 1956, No 3, 290-296

Abstract: Results are given of an experimental investigation on thermal-residual magnetization and on thermal coercive force of specimens of magnetite, pyrrotine, and nickel. The different course of the relative change in the magnetization and of coercive force for normal magnetization and for thermal magnetization is established. It is shown that the mountain rocks have a high magnetic stability to thermal magnetization, which gives a definite physical foundation for development of paleomagnetic investigations.

Card 1/1

GRABOVSKIY, M.A.

Magnetic anisotropy of rocks. Izv.AN SSSR.Ser.geofiz. no.4:479-482 Ap '56. (MLRA 9:8)

1. Akademiya nauk SSSR, Geofizicheskiy institut.
(Rocks--Magnetic properties)

GRABOVSKIY, M.A.

magnetite of [illegible]

GRABOVSKIY, M.A.

PHASE I BOOK EXPLOITATION 496

Akademiya nauk SSSR. Komitet po geodezii i geofizike

Mezhdunarodnaya assotsiatsiya geomagnetizma i aeronomii; tezisy dokladov na XI General'noy assambleye Mezhdunarodnogo geodezicheskogo i geofizicheskogo soyuza (The International Association of Geomagnetism 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. 1,500 copies printed.

PURPOSE: This booklet is intended for dissemination of abstracts of papers presented by the Soviet members of the International Association of Geomagnetism and Aeronomy at the XI General Assembly of the International Union of Geodesy and Geophysics.

COVERAGE: This booklet with full English translation following the Russian text presents abstracts of papers, mainly on magnetics, telluric currents and auroras, presented by Soviet contributors at the XI General Assembly of the International Union of Geodesy and Geophysics. It was published by the National Committee for Geodesy and Geophysics of the Academy of Sciences of the USSR.

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TABLE OF
CONTENTS:

Krasovskiy, V. I. The Nature of Radiation in the Upper Atmosphere. 13

Radiation at 100 km from the surface of the earth is connected with the dissociation and formation of molecules. Variations of intensity of radiation are connected with temperature and pressure fluctuations in the upper atmosphere. Primary and secondary radiation of aurorae and their nature are discussed. Secondary radiation can originate as a result of recombination processes, formation of an electric field, and chemical reactions of primary ions and excited products.

Shklovskiy, I. S. Elementary Processes in the Upper Atmosphere as Evidenced by Radiation. 15

In addition to common fluorescence originating in the selective absorption of ultraviolet solar radiation by atoms in the atmosphere with subsequent reradiation of "softer" quanta, processes of resonance fluorescence take place in the upper atmosphere. With the detection of some lines in a twilight spectrum an estimate can be made of the number of Lyman quanta in short wave radiation from the Sun.

Troitskaya, V. A. Short-Period Oscillations of the Earth's Electromagnetic Field. 18

Simultaneous studies of telluric currents and magnetic records facilitate the study of short-period oscillations. Experiments, installations for receiving telluric currents, and the basic principles of a proposed classification system for types of oscillations are discussed. The causal genetic relationship between various types of oscillations and the most favorable relative position of the Earth and the Sun in exciting such oscillations were formulated.

Driatskiy, V. M. Ionosphere Near the Polar Region. 21

Observations made from May 15, 1954 to April 14, 1955 on the drifting station SP-3 include vertical sounding of the atmosphere on a sliding frequency. During the period of minimum solar activity, the number of sun spots in the working period was 8.3. The vertical component of the Earth's magnetic field changed from 56,612γ to 3,919 γ . The geomagnetic disturbance was much smaller than in polar observatories further south. The behavior of some ionospheric layers is nearly the same as in moderate latitudes and shows the same dependence on the elevation of the sun. Ionization of various layers is pronounced and triple magneto-ionic splitting was observed rather frequently.

Kalinin, Yu. D. Forecasting Secular Geomagnetic Variations 25

Variation in annual values of geomagnetic elements is the summary effect of changes in the geomagnetic field caused by internal agents (δf) and by geomagnetic activity (δf_a). The latter could be completely eliminated by taking average values for 10-11 year cycles. The morphological examination of such factors leads to the establishment of space-time relationships. The effects of internal forces in Eurasia are of a smooth, quasi-periodic character lasting a few decades and the geomagnetic activity follows an eleven year cycle. This makes it possible to forecast average values for a five year period with sufficient accuracy and to construct magnetic charts for the nearest epoch.

Nikol'skiy, A. N. Distribution of Magnetic Disturbances in the Arctic Region Near the Pole 30

Irregular changes in the magnetic field are the main indication of disturbances in the high latitudes. The form 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 latitudes are

very complex. Observations near the pole suggest the existence of a second zone of increased intensity and frequency of magnetic distrubances 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.

Ben'kova, N. P. Electric Current in Magnetic Storms 33

The regular components of world magnetic and polar storms were studied in world-wide observations from 1932-1933. The potentials of these fields were computed and a system of polar storm currents was reconstructed. An increase in conductivity with depth was determined and a break in it established at 900-1200 km, where Gutenberg and Repetti discovered a discontinuity for P-waves.

Veller, A. Ye. Hydrogen Radiation in the Auroral Spectrum 36

An investigation of hydrogen radiation in the auroral spectrum was conducted at 64° of geomagnetic latitude and in the neighbouring regions. The data obtained concerns the bright beam flash and the afterglow phases. Prolonged exposure spectograms (1-2 hours) in the region of 6,400-6,600Å bear intense bands of the first positive system of N_2; there are no evident signs of H α on the photographs or microphotographs, yet in all seven spectra the presence of H α lines could be confirmed. Hydrogen radiation is regularly observed in the afterglow spectrum following a normally developing aurora.

The International Association (Cont.)

Ivanov, M. M. Magnetic Surveys at Sea in the Non-Magnetic Ship "Zarya". 38

Lack of magnetic observations on the oceans after 1929 makes the study of variations of the earth's magnetic field and the secular changes largely conjectural. Older observations made by the ships "Galileo" and "Carnegie", based on a 100 mile grid, do not reflect regional magnetic anomalies related to the structure or relief of the sea bottom. A proposal has been made for another survey to be conducted by a laboratory ship. The specially built ship "Zarya" with a 600 t. displacement was supplied with everything necessary for a month's voyage. The personnel consisted of 34 persons of which 9 were research workers. The instruments used for measuring magnetic phenomena are: for measuring declination, a 127 mm optical goniometric compass and a range finding compass for continuous recording and measurement of differences between the gyro-course and the magnetic course for the horizontal component, two double magnetic compasses; for measuring H and Z, a two-component magnetodynamic magnetometer and a magnetodynamic T magnetometer with a self orientating indicator. "Zarya" already conducted some experimental work in the Baltic and the North Sea, discovering a considerable number of anomalies. In the future it will make some observations in several regions of the supposed maximum secular movement of magnetic elements.

Card 7/9

The author discusses the neutron theory explaining the relationship between solar activity and processes occurring on earth, the possible physical processes leading to the formation of a large number of neutrons and the experimental findings in this field, and the determination of velocities of solar particles by time intervals between phenomena occurring on the sun and on Earth.

Telluric currents have interested scientists for a long time but the lack of systematic studies and the irregular distribution of stations prevents definite conclusions. Statistical examination of around-the-clock observations at the Dusheti station (Caucasus), led the authors to the opinion that the potential difference in a telluric field can be divided into the constant and the variable components. The latter depend on the Sun's diurnal, seasonal, annual and secular variations as well as the time of occurrence of extremes of these variations. At the same time, the meteorological factors and the type

of electrode grounding play an important part in the creation of a potential. The review analyzes telluric storms and distrubances, their rates, frequencies and amplitudes. Parallelism of the horizontal component of the magnetic and the latitudinal component of the telluric fields is fully established. The application of such currents to the study of geological structures in Georgia seems to be particularly successful in determing the depth of the crystalline basement.

AVAILABLE: Library of Congress

MM/bmd
9-2-58

AUTHORS: Grabovskiy, M. A., and Yegorov, V. S.

TITLE: Some Cases of Experimental Demonstrations for the General Course in Physics (Neskol'ko demonstratsionnykh opytov po obshchemu kursu fiziki). 53-4-7/11

PERIODICAL: Uspekhi Fizicheskikh Nauk, 1957, Vol. 63, Nr 4, pp. 813-818 (USSR).

ABSTRACT: A device for the demonstration of the motion of the center of mass of a system "Falling Board": This device consists of a board in oblique position. One of the ends of this board is held firmly by means of an electromagnet, while the other end slides, nearly without friction, by means of balls on a slideway. For the determination of the path of the center of mass two brushes are fastened on the system, which are in slight touch with a vertical sheet of paper. One of the brushes is fastened to the center of mass of the system, the other somewhat higher. After switching off the electromagnet the brush located in the center of mass will draw a straight line, and the brush located somewhat higher will draw a curved line (with the curvature directed towards the center of mass). Following this, a weight is fastened to the upper end of the board. The upper brush is now in the center of mass. When the experiment was repeated it was found that the upper brush draws a straight line, whereas now the lower brush draws a curved line the curvature of which is

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Some Cases of Experimental Demonstrations for the General Course in Physics 53-4-7/11

directed towards the center of mass. The authors give some practical directions as to the construction of this device. 2. The resonance of a motor suspended on a spring: In the case of resonance motors are able to loosen their fundament. These and similar phenomena can be demonstrated as follows: A small motor is fastened on a cylindrical spring on a massive stand. On the axis of the motor a small rod is asymmetrically fastened, which causes percussions of the frequency of the motor. The first resonance at ~85 rotations per minute manifests itself by a periodical lifting and lowering of the motor. The resonance frequency of the spring depends on the elasticity coefficient of the spring and on the mass of the motor. In the case of the second resonance, at about 170 rotations per minute, the motor oscillated round a vertical axis. With an increase of the number of rotations new frequencies occur. With the highest frequency standing oscillations occur on the cylindrical spring, but the motor remains in its position. In large lecture halls it is advisable to project the shadow of the motor on to a screen. 3. The phenomenon of acoustic resonance on Helmholtz resonators: Four Helmholtz resonators of different size are arranged in such a manner that the holes are on the same level. In front of these holes four similar paper turn-wheels are fastened. In front of the large openings of the resonators a loudspeaker connected with a sound source is moun-

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ted. The turn-wheels which happen to be before the excited resonator then rotate. The dimensions of the apparatus are given. 4. A small ball in a gas- or liquid jet: A glass tube, one half of which has a cross section that is about 16 times as great as that of the other, is connected by means of a rubber tube with a balloon which contains liquid carbon dioxide under high pressure. In the wider part there is a ball, the diameter of which is smaller by about 1 - 1,5 mm than the inner diameter of the wider part of the tube. The gas flows from the narrower into the wider part of the tube. Because of the decrease of pressure occurring on the wider part, it is possible to turn the tube with its wider part directed downwards without the ball falling out. 5. A "cut" ball: A tennis ball caused to rotate by an oblique impact is surrounded by rather complicated currents of air. Therefore, a "cut" ball may change its direction during flight and may thus deceive the other tennis partner. For the purpose of demonstrating this application of the Magnus effect a special device is here described: A direct current motor of 25 watt power is vertically fastened to a massive stand. On the motor axis a rubber tube is fastened which is longer by 1 - 2 mm than the axis protruding from the motor. On to the end of the rubber tube a celluloid table-tennis ball is fastened.

Some Cases of Experimental Demonstrations for the General Course in Physics 53-4-7/11

A small disk is pressed on to this ball from above by means of two cylindrical springs. When the motor rotates the ball is taken along by the rubber tubes and rotates with good regularity with the frequency of the motor. The resting as well as the rotating tennis ball can be knocked out of its position by means of a spring. First, the ball is knocked out several times while the motor is not rotating, and in this case it practically always flies in the same direction. However, in the case of a rapidly rotating motor, it flies in another direction.
There are lo figures.

AVAILABLE: Library of Congress.

Card 4/4

24(3)

Author: D'yakov, G.P., Candidate of Physical-Mathematical Sciences

SOV/55-58-2-34/35

TITLE: Survey of Papers Read by Scientists of Moscow University at the All-Union Congress on the Physics of Magnetic Materials (Obzor dokladov uchenykh moskovskogo universiteta na vsesoyuznom soveshchanii po fizike magnitnykh materialov)

PERIODICAL: Vestnik Moskovskogo Universiteta.Seriya matematiki, mekhaniki, astronomii, fiziki, khimii, 1958, Nr 2,pp 247-250 (USSR)

ABSTRACT: From December 6 - 11,1957 there took place the fourth Union Congress on physics of magnetic materials in Leningrad. (The first two meetings took place 1946 and 1951 in Sverdlovsk, the third meeting 1956 in Moscow). The congress was organized by : Academy of Sciences of the USSR, Department of Physical-Mathematical Sciences, Scientific Council on Fundamental Problems of Magnetism, Institute for Semiconductors of the Academy of Sciences, USSR and Committee for Magnetism. There were more than 300 participators, 59 lectures were given, among them the following lectures of the representatives of the Moscow State University :

1. Professor R.V. Telesnin, Ye.F. Kuritsyna, Lecturer "On the Velocity of Magnetic Reversal of the Ferromagnetica".
2. Professor R.V. Telesnin, Ye.V. Karzhagina, Assistant "On Magnetic Viscosity of Ferrites".
3. Professor R.V. Telesnin A.G. Shishkov, Aspirant "Effect of Magnetic Viscosity on the Frequency Characteristics of Ferrites".
4. N.V. Degtyar, Lecturer "Variations of Structure and Antiferromagnetic Properties of Ni_3Fe".
5. K.A. Grabovskiy, Lecturer, S.Yu. Brodskaya, Junior Scientific Assistant "Magnetic Properties of Anisotropic Stones".
6. G.P. D'yakov, Lecturer "Magnetostriction Properties of Binary Alloys".
7. Professor Ye.I. Kondorskiy, L.V. Sobolev, Assistant "Electric Properties of Ni-Zn-Ferrites".
8. N.Z. Miryasov, Senior Scientific Assistant, A.P. Parsanov, Aspirant "Magnetic Properties and Structure of Manganese - Boron - Alloys".
9. N.A. Smol'kov, Senior Scientific Assistant, B.V. Belov "Some Properties of Ferrites".
10. N.A. Smol'kov, Senior Scientific Assistant, Yu.P.Simanov, Lecturer "Properties of $NiFe_2O_4$ - $MgFe_2O_4$ ".
11. N.A. Smol'kov and Ye.I. Pozenko, Engineer "Properties of Ferrites in the High-Frequency Range".
12. Professor K.P. Belov, K.M. Bol'shova,Lecturer, T.A. Yelkina, Lecturer, and M.A. Zaytseva, Junior Scientific Assistant "Ferrites With Compensation Point".
13. K.P. Belov, Ye.V. Talalayeva, Assistant "Electric and Galvanomagnetic Properties of the Manganese Ferrites".
14. V.A. Timofeyeva, Junior Scientific Assistant, A.V. Zaleskiy "Production of Monocrystals of Ferrites".
15. Professor K.P. Belov, A.V. Ped'ko, Junior Scientific Assistant "On Galvanomagnetic Properties of Ferromagnetic Alloys Near the Absolute Zero of Temperature".

The participators of the meeting visited a laboratory of the Institute of Semiconductors of the Academy of Sciences of the USSR (Professor D.A. Smolenskiy).
The meeting was concluded by Professor S.V. Vonsovskiy, Corresponding Member, Academy of Sciences, USSR with the indication to the following Union Congress planned for 1958.
1. Magnetic Resonance and Galvanomagnetic Effects in Kazan'.
2. Ferromagnetic Semiconductors (Ferrites) - in Minsk.
3. Blast-Formate Structure of the Ferromagnetica and Barkhausen Effects - in Krasnoyarsk.

SOV/49-58-8-4/17

AUTHORS: Grabovskiy, M.A. and Brodskaya, S.Yu.

TITLE: Normal Magnetisation and Thermo-magnetisation of Anisotropic Rocks (Normal'noye namagnichivaniye i termo-namagnichivaniye anizotropnykh gornykh porod)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1958, Nr 8, pp 977 - 988 (USSR)

ABSTRACT: The results are described of laboratory investigations of normal magnetisation and thermo-magnetisation of rocks possessing a pronounced magnetic anisotropy and also of investigations of the magnetic stability of such rocks for two types of magnetisation. The measurements were effected magnetometrically on a vertical, astatic thermo-magnetometer with a sensitivity of 1.94×10^{-2} Gauss/mm. Magnetically-isotropic 10 x 10 x 100 mm specimens of thinly-layered iron-mica magnetite quartz from the Kursk magnetic anomaly were investigated. One series of specimens were cut parallel to the direction of layering, the other perpendicular to that direction. Prior to thermo-magnetisation, the intensity of magnetic saturation I_s was determined for all the specimens in a closed

Cardl/6 circuit; I_s characterises the quantity of magnetite

in the specimen. For the magnetic investigations, the specimens were selected in such a way that the "longitudinal" and the "transverse" specimens had equal values I_s . In cases in which this could not be accurately fulfilled, specimens were chosen with somewhat higher values of I_s . The specimen was placed into one of the coils of the thermo-magnetometer and, prior to heating, the normal magnetisation curve at room temperature and the curve of residual magnetisation I_r were measured and the magnetic stability of the residual magnetisation in various fields was evaluated. For evaluating the stability, the following three magnitudes were used: the coercive force $H_{c,ac}$, the dc field required for reducing the residual magnetisation to zero when recording H_c (the "destroying" field) and $H'_{c,ac}$ which reduces the residual magnetisation to zero (the ac "demagnetising" field). The investigated specimen was heated in a furnace to a temperature 50 to 100 °C above the Curie point at which it was held for a certain time

and then cooled to room temperature inside a certain magnetic field. The cooling was effected successively in orienting fields of the following 8 intensities: 0.5, 2, 5, 10, 15, 25, 50 and 100 Oe. During the process of cooling, the magnetisation of the specimen I_t was measured at intermediate temperatures whereby the last value of I_t was determined at room temperature. Then the orientating field was removed and at room temperature the thermo-residual magnetisation and the thermo-coercive force were measured and, following that, the stability of the thermo-residual magnetisation of the specimens was evaluated. For eliminating relatively large changes in the magnetic properties of the investigated specimens caused by the heating, the average values of the normal magnetisation at room temperature prior to and after heating were taken. The magnetic characteristics relating to the specimens cut in the direction of the layers are denoted in the text and in the graphs by the index $\parallel$, whilst those relating to the transverse specimens are denoted by the index $=$. The measured results are reproduced in the graphs, Figures 1-14. It

was found that if the layers of the disturbing, layered, ferromagnetic body are distributed in the direction perpendicular to the vector of the total magnetic field, then (due to the large de-magnetisation factor) the body will hardly be magnetised at all in the direction of the field; the vector of the inductive and the residual magnetisation will be very small. The magnetic anomaly will manifest itself very little, in spite of the high percentage of magnetite content of the rock. If the same body (or a similar body with an equal content of magnetite) is located in the direction of the vector of the total magnetic field, the inductive and residual magnetisation will increase considerably, which will bring about an increase in the intensity of the magnetic anomaly. This is the picture of the process of magnetisation of an anisotropic, layered rock if the formation of the ferromagnetic rock takes place without the effect of temperature. If it is assumed that the rock formation takes place under conditions of thermo-magnetisation, the decrease of the temperature from the Curie point to the temperature at which the body is at present will cause an intensive

increase in the magnetisation both parallel and transverse to the layering, as can be seen from the described experimental results. Consequently, in this case, the residual magnetisation will manifest itself also in the direction perpendicular to the layering if the layers were in the direction transverse to the magnetising field during a relatively intensive magnetisation in the longitudinal direction of the layers. Therefore, it can be assumed that the total magnetisation of the rock will be in an oblique direction, in which case it is to be anticipated that the disturbing body will form a more complex magnetic field. The magnetic stability of the rocks cannot be expressed by a single parameter but by several, each of which is linked with the geological conditions of formation of the residual magnetisation. Thermo-magnetisation of anisotropic rocks brings about a considerable increase in the magnetic values. This increase of the magnetisation in the transverse direction of the ferromagnetic layers during thermo-magnetisation can be so intensive that it can exceed the residual magnetisation of the anisotropic rock along the layers

Normal Magnetisation and Thermo-magnetisation of Anisotropic Rocks

produced by isothermal magnetisation. This brings about a relatively complex distribution of the residual magnetisation in the anisotropic rock and, consequently, complicates the magnetic field above the disturbing body.
There are 14 figures and 12 references, 1 of which is English and 11 Soviet.

ASSOCIATION: Akademiya nauk SSSR Institut fiziki Zemli (Ac.Sc.USSR, Institute of Terrestrial Physics)

SUBMITTED: May 28, 1957

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1. Rock--Magnetic properties

GRABOVSKIY, M.A.

05218
SOV/142-2-3-26/27

9(3,9), 24(1)

AUTHOR: Sokolova, Ye.S., Candidate of Technical Sciences

TITLE: A Scientific Conference on the Application of Ultrasound in the Investigation of Matter

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, 1959, Vol 2, Nr 3, p 386 (USSR)

ABSTRACT: From February 10-14, 1959, the Seventh Scientific Conference on the Application of Ultrasound for the Investigation of Matter was convened in Moscow at the Moskovskiy Oblast'noy pedagogicheskiy institut, imeni N.K. Krupskoy (Moscow Oblast Pedagogical Institute, imeni N.K. Krupskaya). About 500 vuz instructors from Moscow, Leningrad, Krasnoyarsk, Kaunas, Stalingrad and scientists from the German Democratic Republic and Poland participated in the conference work. More than 80 papers were read at the conference. The following sections were organized at this conference: molecular acoustics, industrial application of ultrasound research methods, propagation of ultrasound in solid bodies, demonstration of acoustical phenomena in schools and vuzes. At the first plenary session, the paper of V.F. Nozdrev was read "Physical Principles of Tech-

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nological Application of Low-Amplitude Molecular Acoustics". B.B. Kudryavtsev read his paper "The Application of Ultrasound in Industry". The following papers were read at the plenary session: A.S. Predvoditelev "The Sound Wave Dispersion in Rarefied Gases"; Dr. Rothard, German Democratic Republic, "Ultrasonic Investigation of Silica Gel and Its Derivatives"; M. Kvek, Poland, "The Application of the Molecular Kinematic Theory of Gases to the Problem of Waves with a Limited Amplitude"; N.S. Akulov, "The Theory of Roschell-type Salts", and a paper of Professor P. Kucher, Poland. Research in the field of ultrasound wave propagation in liquids was the subject of the papers of B.B. Kudryavtsev, S.A. Balyan, L.G. Belinskaya, O.A. Karostina, V.M. Zakurenova, V.D. Kaspar'yants, M.G. Shirkevich, L.F. Vereshchagina, N.L. Bryukhatova, and N.A. Golosova. The paper jointly produced by B.B. Kudryavtsev, V.F. Nozdrev, N.I. Koshkin and V.F. Yakovlev was devoted to the consideration of problems in the development of molecular acoustics. Dr. Rothard delivered a report on the dynamic equation of the state of strongly viscous liquids. The ultrasonic oscillations were subject of the reports of Yu.M. Dystrov, A.N. Trofimov, A.I.

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Ryazanov, L.B. Pirozhnikov, L.F. Lependin, F.L. Lokshin, I.L. Cherchenko and others. The report of L.A. Ol'shanskiy, A.V. Mordvintseva and others dealt with the application of ultrasound in welding. In the sections of acoustic research methods, the papers of the following authors were read: B.I. Kal'yanov, V.F. Yakovlev, A.B. Lipir and V. Kovaleva. These reports dealt with pulse measuring methods of velocity and absorption of ultrasound. The propagation of ultrasound in solid bodies was the subject of the reports of L.G. Merkulov, V.S. Cherkashin, L.A. Yakovlev, A.I. Drokin, A.K. Matveyev and others. In the section dealing with acoustical demonstration at schools and vuzes, the following reports were delivered: M.A. Grabovskiy and V.P. Topolev, "Experimental Demonstration of Ultrasound"; N.I. Mel'nikov, "The Experimental Demonstration of Sound"; S.N. Prokof'yev, "An Acoustic Radiometer for Demonstration Purposes". The annual conference convened at MOPI showed the rising interest in problems of applying ultrasound to the investigation of matter. The number of participants and the number of subjects is rising steadily.

Card 3/3

SUBMITTED: April 13, 1959

SOV/47-59-3-41/53

22(1)

AUTHOR: Grabovskiy M.A.

TITLE: Comment on the Problem of the "Dead Loop"

PERIODICAL: Fizika v shkole, 1959, Nr 3, pp 93-95 (USSR)

ABSTRACT: The author proposes a new method to approach the problem of the "dead loop" in physics lessons. Nearly all physics workbooks contain the following problem: from which height must a carriage roll down an inclined plane so that it will describe the "dead loop" without falling from the highest point? Often the problem is solved by explaining the phenomenon as due to centrifugal force. The author, however, takes another approach which can be summarized as follows: the movement of an object along the "dead loop" can be considered as the movement of a body flung with initial speed at an angle against the horizon, but complicated by the uninterrupted action

Card 1/2

Comment on the Problem of the "Dead Loop"

of the deformed rails on it, i.e. as the case of a body moving along an assigned way. The author neglects friction. For experiments, therefore, he recommends the assembling of special carriages, the mass of which is mainly concentrated in the body, whereas the mass of the wheels can be neglected. There are 5 diagrams.

ASSOCIATION: MGU, Moskva (MGU, Moscow)

S/049/60/000/03/016/019
E131/E691

AUTHORS: Brodskaya, S.Yu. and Grabovskiy, M.A.

TITLE: One of the Causes of Discrepancy Between the Vector of Remanent Magnetization of Rocks and the Direction of the Magnetizing Field

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1960, Nr 3, pp 490-494 (USSR)

ABSTRACT: The authors were investigating the direction of present or past magnetising field H in relation to the remanent magnetization I_n in rocks. Their method of investigation is illustrated in Figs 1, 2 and 3. They found that the vector of remanent magnetism in the anisotropic rocks always differed from that of the magnetizing field. In the case where the present magnetizing field was found to be perpendicular to the rock stratification, the vectors of remanent magnetization of rock samples were parallel to the rock stratification, although they might be in two opposite directions

Card 1/2

S/049/60/000/03/016/019
E131/E691

One of the Causes of Discrepancy Between the Vector of Remanent Magnetization of Rocks and the Direction of the Magnetizing Field

(Fig 4). It was found that the discrepancy between the two vectors H and I_n in the anisotropic rocks could also occur during magnetization in low temperatures. Acknowledgments are expressed to N.N. Yelkin for his assistance. There are 4 figures, 2 tables and 17 references, 10 of which are Soviet, 5 English and 2 French.

ASSOCIATION: Akademiya nauk SSSR, institut fiziki zemli (Academy of Sciences USSR, Institute of Physics of the Earth)

SUBMITTED: July 22, 1959

Card 2/2

GRABOVSKIY, M.A.; MALININ, M.V.; USAGIN, S.I.

Description of the physics auditoriums and the laboratory for physics demonstrations at Moscow State University. Usp. fiz.nauk 71 no.3:515-524 Jl '60. (MIRA 13:7)
(Moscow--Physics--Study and teaching)

S/053/60/071/004/005/005/XX
B006/B067

AUTHORS: Grabovskiy, M. A. and Yegorov, V. S.

TITLE: Some Experiments on the Topic "Rotational Motion"

PERIODICAL: Uspekhi fizicheskikh nauk, 1960, Vol. 71, No. 4, pp. 677-680

TEXT: The authors describe some demonstration experiments for physics classes of demonstrating some rules governing the rotational motion. The first device which is described is a cylindrical double spiral which is perpendicularly fitted onto a stand and which can rotate about its longitudinal axis. The instrument shown in Fig. 1 (photograph) is 1.1 m high, and the distance between the two windings is 55 mm. The two spirals form rails on which a metal or wooden sphere may roll. The uppermost part which is called the "accelerating part" is designed in such a way that the sphere is supported by the lower rail; as soon as the speed of the sphere is high enough it rolls downward on the rails which are now lying on the wall of the cylinder ("perpendicular part of the winding") (see Fig. 2). With this device a demonstration of the rolling of the sphere on the perpendicular winding with braked rotation

GRABOVSKIY, M.A.; ZHERDENKO, O.N.; SKOBORODKIN, Yu.P.

Possible use of magnetic powder in studying the composition of iron ores. Izv.AN SSSR.Ser.geofiz. no.7: 970-973 Jl '60. (MIRA 13:7)

1. Akademiya nauk SSSR, Institut fiziki Zemli.
(Iron ores--Magnetic properties)
(Ores--Sampling and estimation)

S/053/60/071/03/05/008
B006/B063

AUTHORS: Grabovskiy, M. A., Malinin, M. V., Usagin, S. I.

TITLE: The Lecture Rooms and the Demonstration Rooms for Physics of Moscow State University

PERIODICAL: Uspekhi fizicheskikh nauk, 1960, Vol. 71, No. 3, pp. 515-524

TEXT: The article gives a description of the lecture rooms and the demonstration rooms in the new building of the fizicheskiy fakul'tet MGU (Department of Physics of Moscow State University) and briefly deals with the teaching and research program. The new building stands on the Lenin Hills and covers an area of 28,000 m^2. Its front has a length of 228 m. On the sides of the main entrance there are two statues representing the famous Russian physicists A. G. Stoletov and P. N. Lebedev. Besides numerous laboratories, rooms for practical work, and a library, the building has three large physical lecture rooms and demonstration rooms. Elevation and ground plan of these rooms are shown in Figs. 1 and 2. The central auditorium is 21.6 m long, 18 m wide, and 11.4 m high. The two

side walls have six windows each, with a total area of 83 m^2. The equipment of the rooms is described in detail. Fig. 3 shows the two desks, the blackboard, and the projection screen. The doors open into the demonstration rooms. The central auditorium has 530 seats, and the two side rooms (north and south) 300 each. A partial view of one of the demonstration rooms is shown in Fig. 4. The apparatus and objects for demonstration were collected and arranged by N. A. Lyubimov, A. G. Stoletov, N. A. Umov, I. F. Usagin, S. I. Vavilov, G. S. Landsberg, V. G. Tikhonov, M. V. Kolbanov, A. B. Mlodzeyevskiy et al. At present, the demonstration rooms have 1795 instruments. The building also contains a workshop covering 30 m^2. The final part of the present paper is devoted to problems of organization, teaching, and teaching methods at the demonstration rooms which are administered by the kafedra obshchey fiziki (Chair of General Physics). The curriculum includes courses, lectures, and practical training. The following persons are mentioned in this connection: A. B. Mlodzeyevskiy (deceased), M. A. Grabovskiy, S. I. Usagin, Professors K. P. Yakovlev, K. F. Teodorchik, S. E. Khaykin, S. G. Kalashnikov, V. I. Iveronova, S. P. Strelkov, R. V. Telesnin, I. K. Kikoin, and I. A. Yakovlev. There are 4 figures.

Card 2/2

GRABOVSKIY, M.A.; YEGOROV, V.S.

A few experiments in rotary motion. Usp.fiz.nauk 71 no.4: 677-680 Ag 60. (MIRA 13:8)
(Rotating bodies)

GRABOVSKIY, M.A.; ZHERDENKO, O.N.; SKOVORODKIN, Yu.P.

Possibility of the use of magnetic powders in the investigation of pyrrhotite ores. Izv.AN SSSR.Ser.geofiz. no.5:737-743 My '61. (MIRA 14:4)

1. Akademiya nauk SSSR, Institut fiziki Zemli.
(Pyrrhotite--Magnetic properties) (Mineralogy, Determinative)

BRODSKAYA, S.Yu.; GRABOVSKIY, M.A.

Study of magnetization processes in one-component and two-component ferromagnetic systems. Izv. AN SSSR. Ser. geofiz. no.8:1158-1170 Ag '61. (MIRA 14:7)

1. Akademiya nauk SSSR, Institut fiziki Zemli.
(Ferromagnetism)

BRODSKAYA, S.Yu.; GRABOVSKIY, M.A.

Magnetic stability of single-component and two-component artificial systems. Izv. AN SSSR. Ser. geofiz. no.1:54-66 Ja '62. (MIRA 15:2)

1. AN SSSR, Institut fiziki Zemli.
(Rocks--Magnetic properties)

GRABOVSKIY, M.A.; ZHERDENKO, O.N.

Using the magnetic pattern method for studying ore minerals. Geol.rud.mestorozh. 5 no.1:99-104 Ja-F '63. (MIRA 16:3)

1. Muzey zemlevedeniya Moskovskogo gosudarstvennogo universiteta i kafedra obshchey fiziki fizicheskogo fakul'teta Moskovskogo gosudarstvennogo universiteta.
(Mineralogy, Determinative)

IVERONOVA, V.I., prof., red.; GRABOVSKIY, M.A., dots., red.; KONONKOV, A.F., kand. fiz.-mate. nauk, red.; MALOV, N.N., prof., red.; TELESNIN, R.V., prof., red.; USAGIN, S.I., st. prepod., red.; YAKOVLEV, K.P., prof., red.; YAKOVLEV, I.A., prof., red.

[Methodology and technique of lecture demonstrations in physics; transactions] Metodika i tekhnika lektsionnykh demonstratsii po fizike; sbornik trudov. Moskva, Izd-vo Mosk. univ., 1964. 280 p. (MIRA 17:5)

1. Mezhvuzovskaya konferentsiya po lektsionnym demonstratsiyam po kursu obshchey fiziki. 1st.

L 5435-65 ASD(a)-5/AS(mp)-2/RAEM(t)

ACCESSION NR: AP4048686 S/0139/64/000/004/0027/0034

AUTHOR: Grabovskiy, M. A.; Zhern[illegible]enko, O. N.

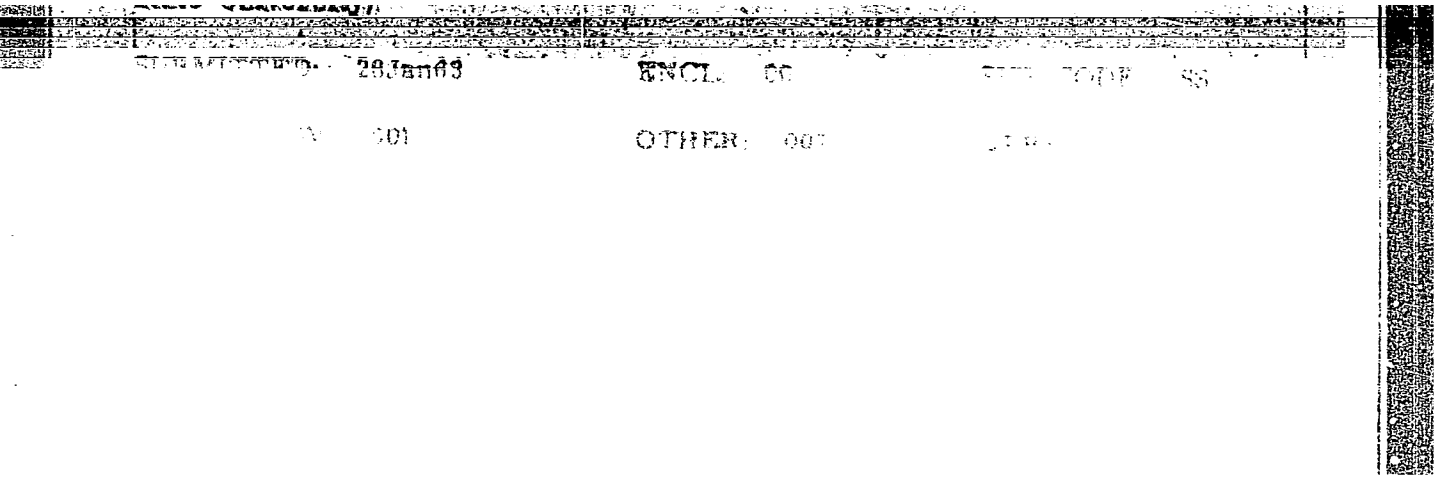
TITLE: Domain structure of natural pyrrhotine

SOURCE: IVUZ. Fizika, no. 4, 1964, 27-34

TOPIC TAGS: domain structure, pyrrhotine, crystal

ABSTRACT: Results are given of observations of domain structures by the [illegible] Bitter-Akulov figures on crystals of natural pyrrhotine. The [illegible]ctures were observed on various crystallographic planes of the [illegible]. The motion of the domain boundaries

...microscope. The motion of the domain boundaries was traced in magnetic fields of various intensities and directions. In this work a sharp dis... established in powder figures according ... regions depending on the section of the ... being studied. ... express their gratitude to [illegible] ... laboratory worker, ... carrying out the experiments."



GRABOVSKIY, M.A.; ZHERDENKO, O.N.

Domain structure of the pyrrhotites of different genesis. Geol. rud. mestorozh. 6 no.3:90-97 My-Je '64 (MIRA 18:1)

1. Muzey zemlevedeniya Moskovskogo gosudarstvennogo universiteta i Kafedry obshchey fiziki fizicheskogo fakul'teta Moskovskogo gosudarstvennogo universiteta.

GRABOVSKIY, N.A.; GREKU, R.Kh.; METAL'NIKOV, A.P.

Some geomorphological characteristics of the bottom relief of the Atlantic Ocean along the 30th meridian from the Arctic Circle to the Tropic of Capricorn. Okeanologiia 1 no.5:860-865 '61.
(MIRA 15:3)

1. Kalingradskoye otdeleniye Morskogo gidrofizicheskogo instituta AN SSSR.

(Atlantic Ocean--Submarine topography)

GRABOVSKIY, N.A.

Geomorphological characteristics of the bottom relief in the northeastern Atlantic. Okeanologiia 2 no.1:92-97 '62. (MIRA 15:2)

1. Kaliningradskoye otdeleniye Morskogo gidrofizicheskogo instituta.
(Atlantic Ocean--Submarine topography)

L 28508-66 EWT(1) GW

ACC NR: AP6014283 (N) SOURCE CODE: UR/0213/66/006/002/0285/0293

24
22
B

AUTHOR: Grabovskiy, N. A.

ORG: Kaliningrad Department of the Institute of Oceanography, AN SSSR (Kaliningradskoye otdeleniye instituta okeanologii AN SSSR)

TITLE: Bottom geomorphology in the region of the Newfoundland Grand Banks

SOURCE: Okeanologiya, v. 6, no. 2, 1966, 285-293

TOPIC TAGS: ocean floor topography, geomorphology, geophysics, research ship, ocean current

ABSTRACT: A geomorphic description is given of the relief of the Atlantic floor in the Newfoundland region, as shown on maps prepared by the author. These are based on a new bathymetric map of the northwest Atlantic prepared by a group from the Kaliningrad Department of the Institute of Oceanography, AN SSSR from data of marine navigation maps, domestic and foreign (1848-1962), and also from recent data of expeditionary ships. Geologic structure is interpreted on the basis of geophysical studies, but the geomorphology also strongly reflects these structures. The main divisions are the underwater margin of the continent (to 200 m), the transitional zone (200—4500 m), and the ocean platform (4500—5000 m and deeper). In the marginal zone, the relief-producing agents are wave action, tidal currents, and bottom currents. The transitional zone ranges from 75 km in width at the south

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ACC NR: AP6014283

end of the Flemish Cape bank to 560 km at the southeastern edge of the Grand Bank. Two types of relief are present: continental slope from 200 to 3000 m and continental foot from 3000 to 4500 m. Characteristic features of the continental slope are submarine canyons, salients, and terraces. The continental foot is essentially a plain of accumulation. The ocean platform is represented by abyssal plains, modified by oceanic deeps. All features are displayed on maps supplied by the author. For valuable remarks made during writing of this paper, the author thanks O. K. Leont'yev and the senior scientific co-worker G. B. Udintsev. Orig. art. has: 6 figures.

SUB CODE: 08/ SUBM DATE: 15Jun64/ ORIG REF: 021/ OTH REF: 012

Card 2/2 CC

GRABOVSKIY, P., polkovnik, kand. voyennykh nauk

Navigation on dry land. Voen. znan. 41 no.6:36-37 Je '65. (MIRA 18:5)

RISMAN, M.B. [Rysman, M.B.]; BAKALOR, M. Yu.; SHKOL'NIKOVA, N.B. [Shkol'nykova, N.B.]; GRABOVSKIY, P.A. [Hrabovs'kyi, P.A.]

Fusion sealing of seams and cuts on articles made from nylon fabrics. Leh. prom. no.2:51-52 Ap-Je'64 (MIRA 17:7)

GRABOVSKIY, P.I.

Meteorological Abst.
Vol. 5 No. 1
Jan. 1954
Aqueous Vapor and
Hydrometeors

5.1-217 551.574.1

Grabovskiĭ, P. I. (*Leningrad*), **O proiskhozhdenii atmosfernykh iader kondensatsii.** [The origin of atmospheric condensation nuclei.] *Priroda*, Moscow, No. 1:89–91, Jan. 1954. 3 refs. Hungarian trans. in: *Időjárás*, 57(1):32–34, Jan./Feb. 1953. DLC.—Popular review. Author made a critical survey of hypotheses on the origin of condensation nuclei and found that the most important cause may be sea water spraying into the air. Transfer of chloride ions into the atmosphere by spraying at least 15.10^9 tons per annum. Back transfer by precipitation in form of condensation nuclei only $1.4.10^9$ tons. Water loss of oceans by spraying is about 1% of the loss by evaporation. *Subject Headings:* 1. Condensation nuclei 2. Saline nuclei 3. Salt spray. I. Gelléri, Sándor (*trans.*).—*A.A.*

GRABOVSKIY, P.M.

Accelerated diagnosis of acute dysentery by the method of fluorescent antibodies. Lab.delo 7 no.9:38-42 S '61. (MIRA 14:10)

1. Kafedra mikrobiologii (zav. - prof. M.N.Fisher) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.
(DYSENTERY—DIAGNOSIS) (ANTIGENS AND ANTIBODIES)
(FLUORESCENCE)

GRABOVSKIY, P.M.

Serological diagnosis of acute dysentery by means of a fluorescent antibody method. Zhur.mikrobiol.epid.i immun. 32 no.2:3-6 F '61. (MIRA 14:6)

1. Iz kafedry mikrobiologii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.
(DYSENTERY)

GRABOVSKIY, P.M.

Specificity and sensitivity of the indirect fluorescent antibody method. Trudy LSGMI 66:120-123 '62.

Use of fluorescent sera in the diagnosis of acute dysentery. Ibid.:124-129

Study of parastrains of intestinal microflora by the indirect fluorescent antibody method. Ibid.:130-134 (MIRA 17:4)

Kafedra mikrobiologii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav. kafedroy - prof. M.N.Fisher).

GRABOVSKIY, P.P., red.; LOKHMATYY, Ye.G., tekhn.red.

[Public health in the Ukrainian S.S.R.; a statistical manual] Zdravookhranenie v USSR; statisticheskii spravochnik. Kiev, Gos. med.izd-vo USSR, 1957. 139 p. (MIRA 11:4)

1. Ukraine. Ukrainskoye nauchno-issledovatel'skoye byuro sanitarnoy statistiki.

(UKRAINE--PUBLIC HEALTH--STATISTICS)

GRABOVSKIY, P.P. (Kiyev)

Some characteristics of health statistics in the People's Republic of Bulgaria. Sovl zdrav. 20 no.11:94-96 '61. (MIRA 14:12)

1. Iz Otdela organizatsii zdravookhraneniya Ukrainskogo nauchno-issledovatel'skogo instituta kommunal'noy gigiyeny.
(BULGARIA--PUBLIC HEALTH--STATISTICS)

GRABOVSKIY, P.P. (Kiyev)

Validity of selection in the processing of data on disease incidence.
Gig. i san. 26 no.8:93-96 Ag '61. (MIRA 15:4)
(DISEASES--REPORTING)

GRABOVSKIY, P.P. (Kiyev)

New data on the method of studying population morbidity; materials of the Fourth Session of the Semashko Institute of Public Health Organization and Medical History. Vrach. delo 4:126-127 Ap '62. (MIRA 15:5)

(MEDICAL STATISTICS)

BEREZOVSKAYA, A.M.; GRABOVSKIY, P.P. (Kiyev)

Some problems of rural public health service in the Bulgarian People's Republic. Vrach. delo no.9:122-124 S '63. (MIRA 16:10)

1. Otdel organizatsii zdravookhraneniya (zav. - O.M.Zelezinskaya) Ukrainskogo nauchno-issledovatel'skogo instituta kommunal'noy gigiyeny.
(BULGARIA--PUBLIC HEALTH, RURAL)

GRABOVSKIY, R. I.

F. Geo

Meteorological Abst.
Vol. 4 No. 2
Feb. 1953
Aqueous Vapor and
Hydrometeors

4.2-185 ✓ 551.574.1

Grabovskii, R. I., Mirovoi okean kak istochnik atmosfernykh iader kondensatsii. [The world ocean as a source of condensation nuclei.] Akademiia Nauk SSSR, Izvestiia, Ser. Geofizicheskaia, 2:56-74, 1952. 2 figs., 5 tables, 36 eqs. DLC--The various hypotheses concerned with the origin of atmospheric condensation nuclei namely the continental, cosmic and marine hypotheses are discussed critically. A thorough analysis is made of the marine hypothesis which attributes the origin of atmospheric condensation nuclei to the action of wind upon the sea surface and the resulting spray formation. An approximate calculation of the annual amount of salt entering the atmosphere from the sea surface is made and the quantity of chlorides removed from the atmosphere in the form of condensation nuclei of precipitation is estimated. Conclusive evidence is presented indicating that spray from sea water plays a fundamental role in the salt balance of the earth and is the source of condensation nuclei. Subject Headings: 1. Condensation nuclei 2. Sea spray 3. Chloride content of air.--I.L.D.

Evaluation B-77867, 11 Aug 54

Leningrad State U. im. Zhdanov

GRABOVSKIY, R.I.

Washing of the chlorides from the atmosphere by meteorological precipitations. R. I. Grabovskii. *Vestnik Leningrad. Univ.* 7, No. 12: Ser. Mat., Fiz. i Khim. 87-91 (1952).—It is proved mathematically that from 16.3 l. of air "cut" out by a 50-mg. rain drop falling from the height of 1 km. only 0.012 cc. is actually scrubbed free of chlorides. Two methods of calcns. are used: one involving gravitational coagulation of aerosol with the rain drop, the other, coagulation caused by the Brownian motion. These calcns are based on the assumptions that the concn. of aerosol throughout 1 km. layer of air is 10^4 cm.$^{-3}$ and the content of aerosol is taken as satd. soln. of NaCl. Only aerosol particles with radius > 10^{-6} cm. can be efficiently washed out by meteorological pptns.

A. P. Kotlobay

GRABOVSKIJ, R.

Grabovszkij, R.
"Process of atmospheric nucleation." p. 32.
(Idojaras. Vol. 57, no. 1, Jan./Feb. 1953, Budapest.)

SO: Monthly List of East European Accessions, Vol. 2, No. 9, Library of Congress, September 1953, Uncl.

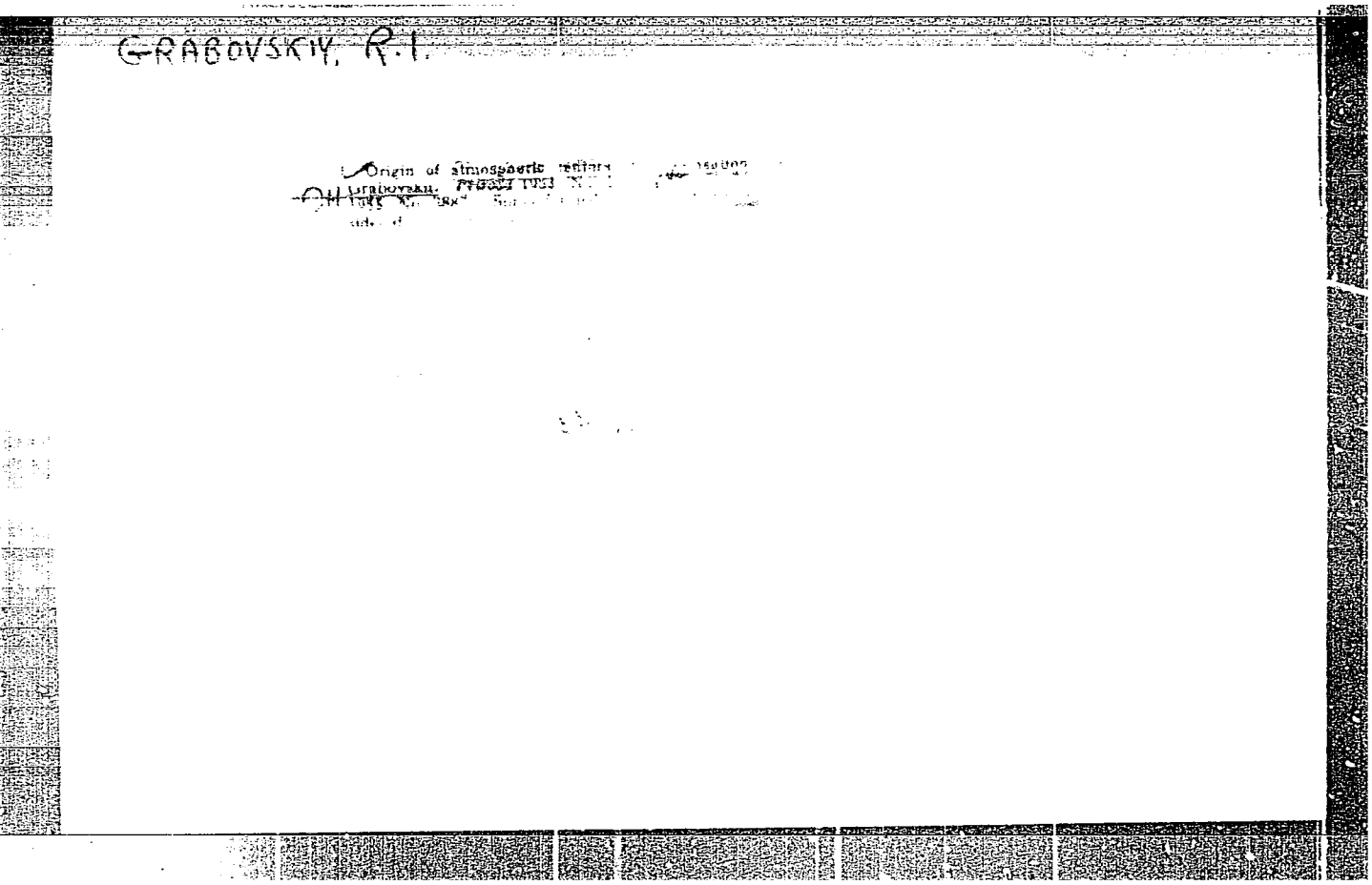
GRAEOVSKIY, R. I., KONDRAT'YEV, K. Ya., and SELEZNEVA, Ye. S.

"Pavel Nikolayevich Tverskoy," Meteorol. i gidrologiya, No 1, 1953, pp 59-60

On the occasion of the 60th birthday of the well known Soviet meteorologist and geophysicist, Prof. P. N. Tverskoy, Doctor of Physicomathematical Sciences and head of the Chair of the Physics of the Atmosphere in Leningrad University. (RZhGeol, No 5, 1954)

SO: Sum. No 568, 6 Jul 55

GRABOVSKIY, R.I.



GRHGOVSKIY, K. I.

Grabovskiy, K. I., Ob obrazovanii oblakov i atmosfernykh osadkov. [Cloud formation and atmospheric precipitation.] *Priroda*, Moscow, 1954(6):91-95, June 1954. 2 figs., 3 refs.
DLC—After discussing the theoretical mechanism of the formation of cloud droplets and the development of clouds, the author describes possible experimental verification of the theoretical model involving the relationship between a presumed decrease in the concentration of atmospheric chlorides with the corresponding increase in the number of cloud droplets. The experimental procedure involved the collection of cloud droplets by passing them to freeze upon a moving surface attached to an airplane. This device is described and illustrated. Chemical analysis of the chloride content carried out by the author at the University of Leningrad and by S. M. SHMETER at the Central Aerological Observatory (Moscow) gave a chloride concentration of 6.3 mg/litre and 8.0 mg/litre, respectively. An examination of the relationship between the concentration of chlorides in droplets and their radius [illegible] grow by condensation up to a radius of 13–14μ, that [illegible] condensation begins and that at a radius 20–25μ [illegible] cloud droplets. [illegible] 1. Cloud droplets [illegible] 4. Chloride content [illegible] 5. [illegible]agulation

Leningrad State Univ, im. A. A. Zhdanov

GRABOVSKIY, Rostislav Ivanovich; TVERSKOY, P.N., redaktor; VLASOVA, Yu.V., redaktor; FLAUM, M.Ya., tekhnicheskiy redaktor

[Condensation nuclei in the atmosphere] Atmosfernye iadra dondensatsii. Pod red. P.N.Tverskogo. Leningrad, Gidrometeorologicheskoe izd-vo, 1956. 163 p. (MLRA 10:1)
(Atmospheric nucleation)

GRABOVSKIY, R. I.

Atmospheric condensation nuclei. (In Russian).
Leningrad, Gidrometeoizdat, 1956, 364 p., 43 figs., num., tables, bibl.

GRABOVSKIY, Rostislav Ivanovich; IVANOV, I.A., red.

[Physics course for agricultural institutes] Kurs fiziki dlia sel'skokhoziaistvennykh institutov. Moskva, Vysshaia shkola, 1963. 525 p. (MIRA 17:6)

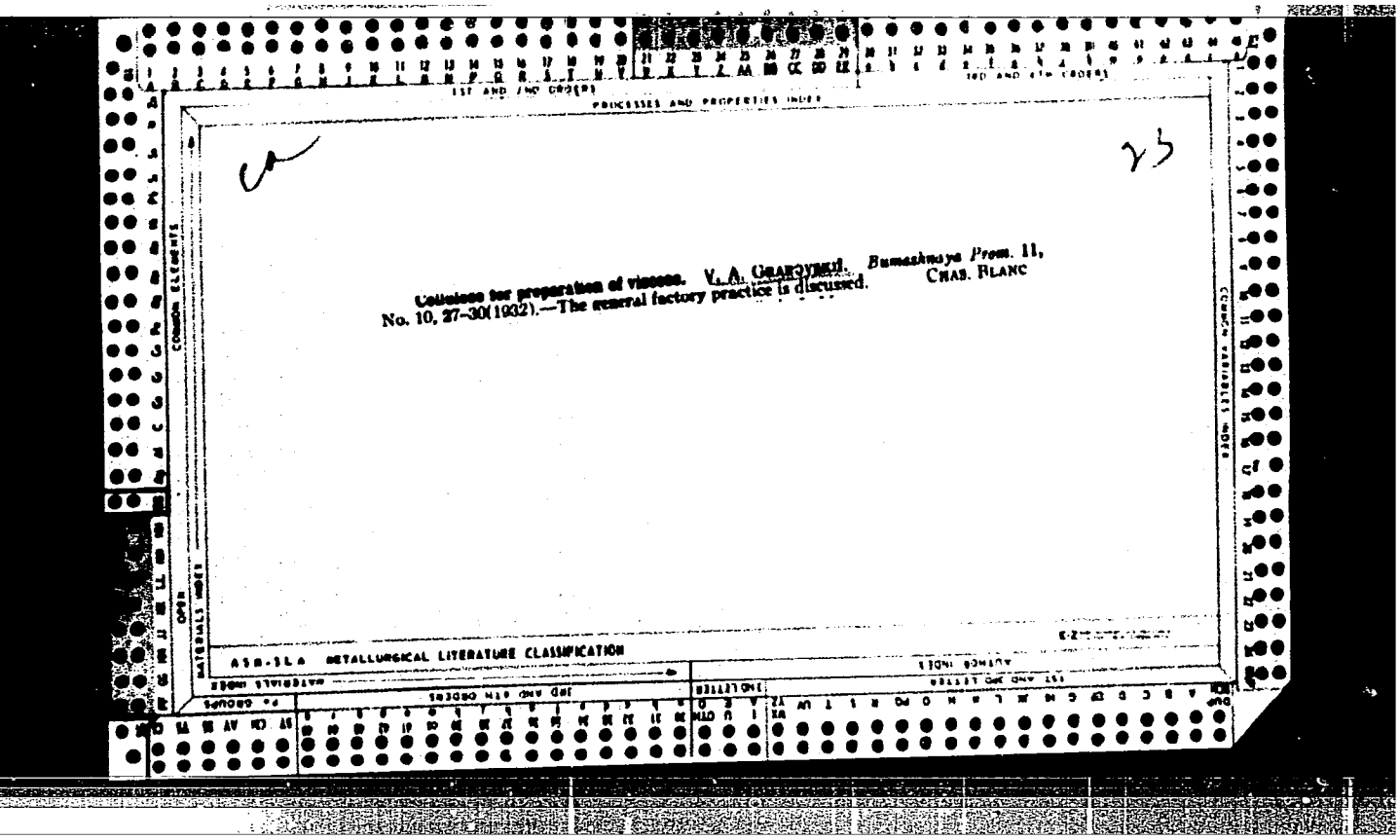
GRABOVSKIY, V.A., kand.tekhn.nauk; IOFFINA, E.M., starshiy inzh.; NOVIKOVA, A.I., mladshiy nauchnyy sotrudnik; SKOMKANOVA, V.M., mladshiy nauchnyy sotrudnik

Intensification of the clarification of sulfite liquors in the causticizing shops of sulfate pulp factories. Trudy LTITSBP no.11:73-82 '62. (MIRA 16:10)

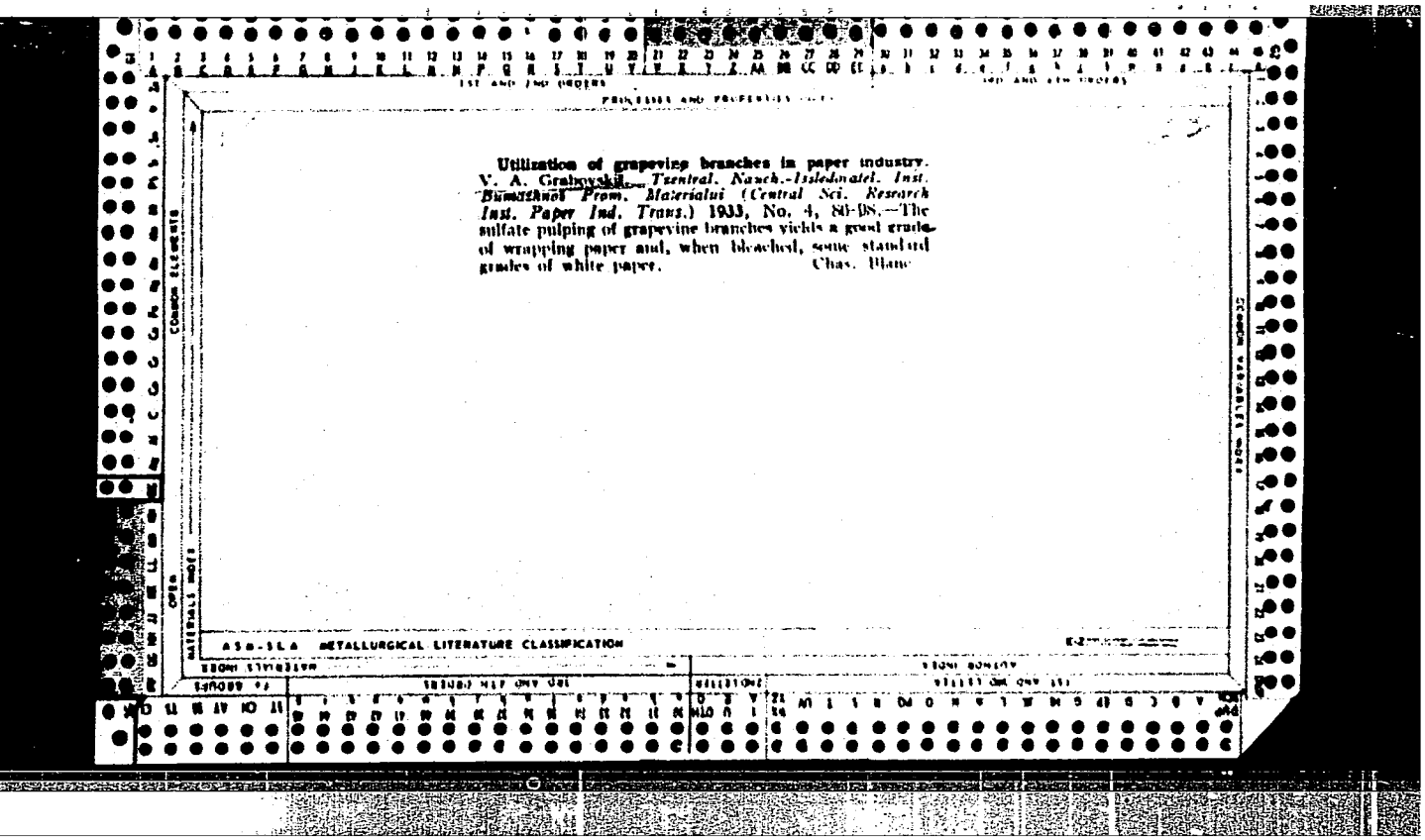
GRABOVSKIY, V. [A]

Testing of the mechanical properties of pulps. V. Grabovskii and E. Iotina. *Materialui Vsesoyuznogo Nauch.-Issledovatel. Inst. Bumazhnoi Tzellyuloznoi Prom.* (*Trans. All-Union Sci. Research Inst. Paper Cellulose Ind.*) 1931, No. 4, 50-78.—A comparative study of the American, British and German standard testing methods.

Chas. Blanc



Coalescence for preparation of viscose. V. A. GRABOVSKII. *Bumazhnaya Prom.* 11, No. 10, 27–30(1932).—The general factory practice is discussed. CHAS. BLANC



Utilization of grapevine branches in paper industry. V. A. Grabovskii. *Tsentral. Nauch.-Issledovatel. Inst. Bumazhnoi Prom. Materialui (Central Sci. Research Inst. Paper Ind. Trans.)* 1933, No. 4, 80-98.—The sulfate pulping of grapevine branches yields a good grade of wrapping paper and, when bleached, some standard grades of white paper. Chas. Blanc

PROCESSES AND PROPERTIES INDEX

CA

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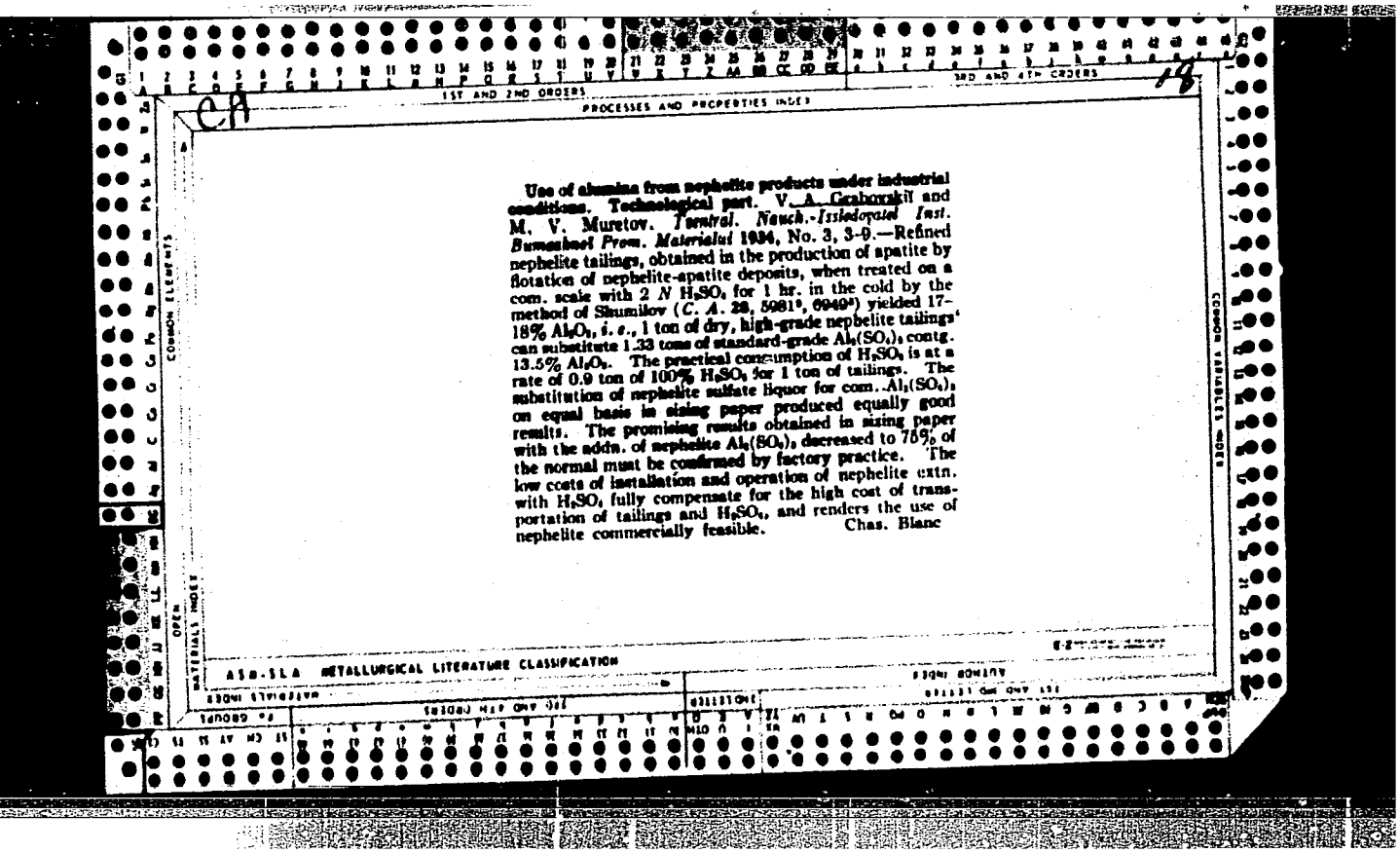
Printing paper of the reduced density of 35-40 g./sq. m. V. A. Ordovshil, P. V. Shumilov and M. Ya. Marshak. Trudy Nauch.-Issledovatel. Inst. Bumazhnoi Prom. Materialy 1934, No. 9, 53-67.—A printing paper of 40 g./sq. m., comparable in quality with the Soviet Union and foreign India and Bible paper, was obtained in the lab. by using 100% half-bleached sulfite pulp of 50-65° hardness and 45° freeness by filling with 40% kaolin and heavily sizing. Chas. Blanc

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



1ST AND 2ND ORDERS

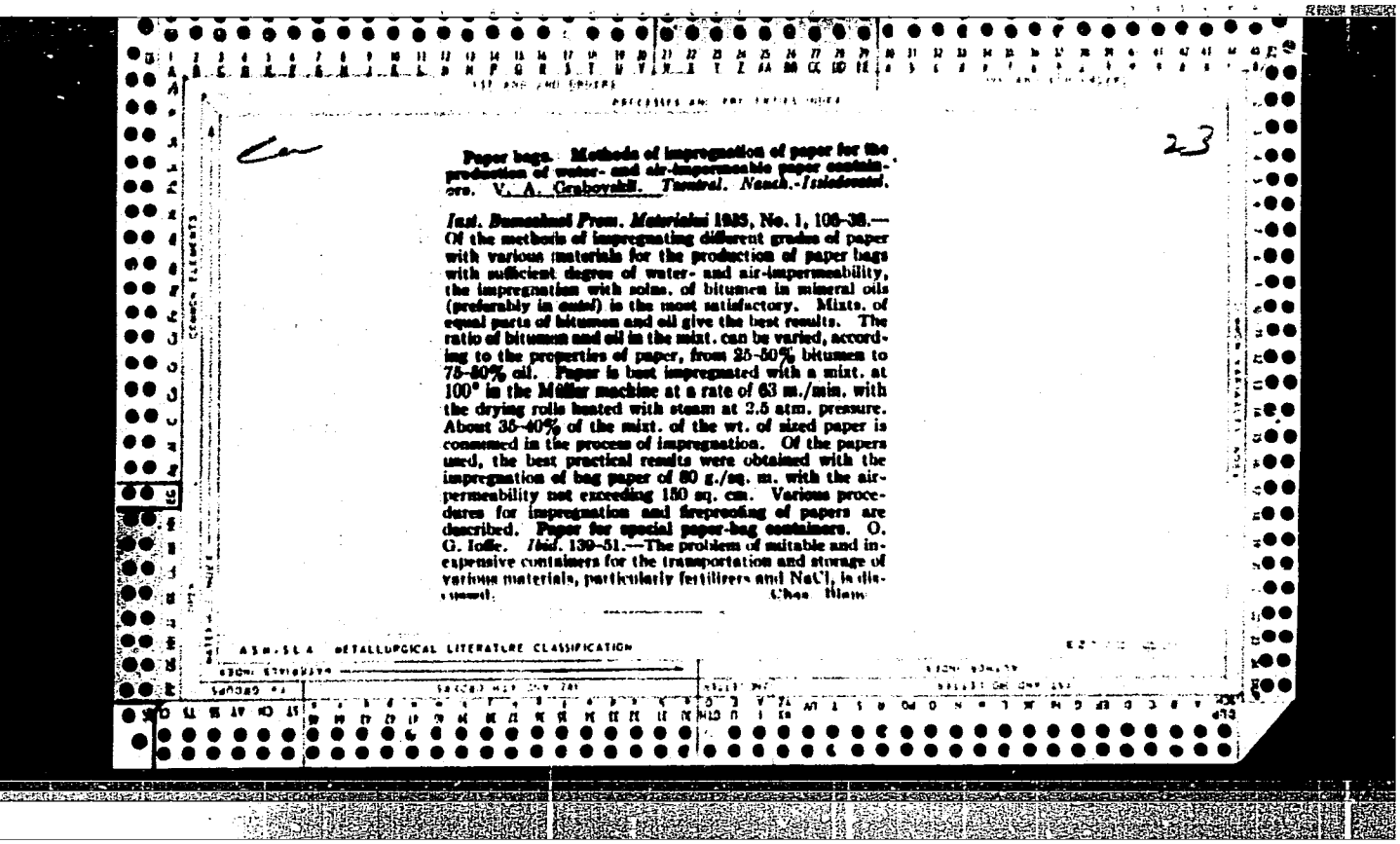
PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

CA

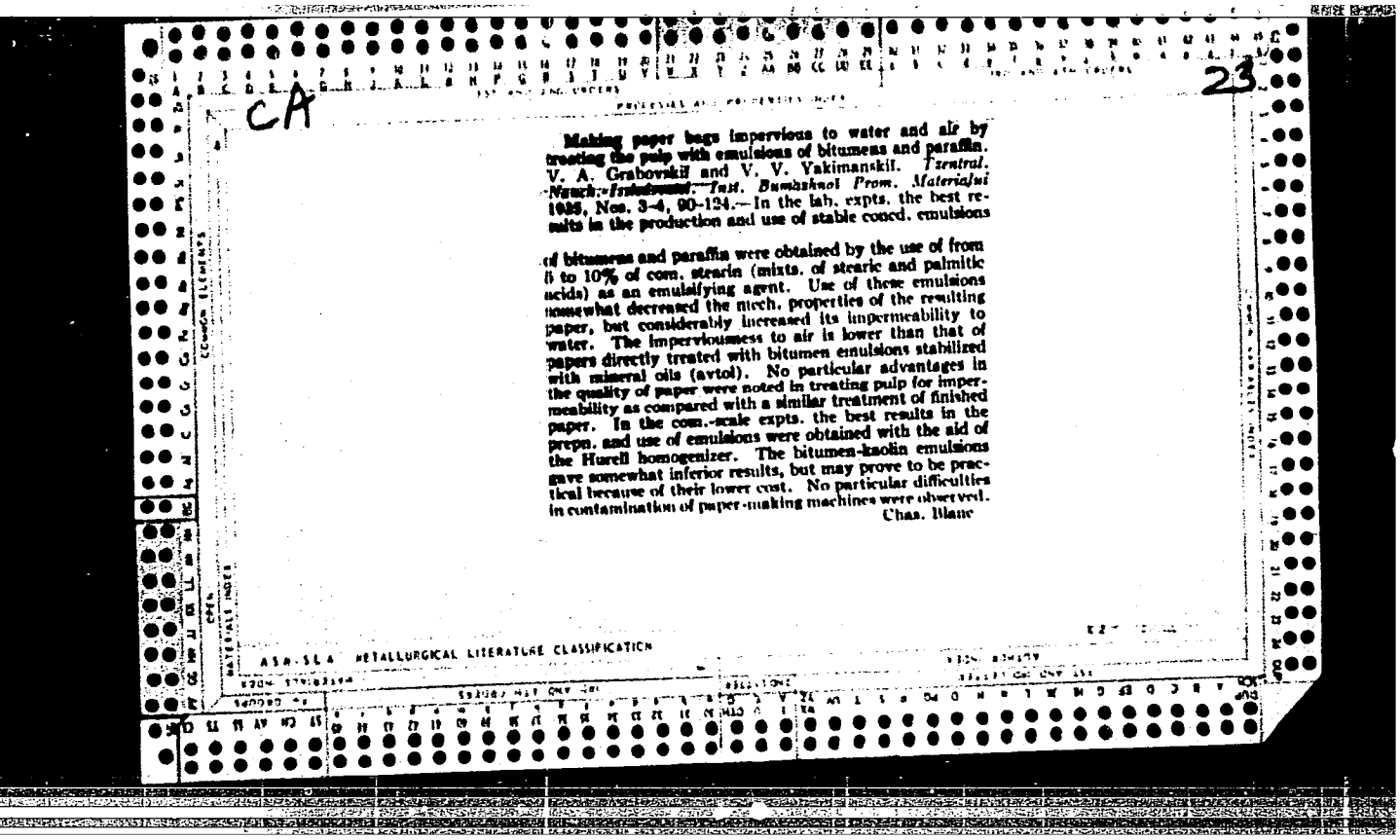
Use of alumina from nephelite products under industrial conditions. Technological part. V. A. Grabovskii and M. V. Muretov. *Tsentral. Nauch.-Issledovatel Inst. Bumazhnoi Prom. Materialui* 1934, No. 3, 3–9.—Refined nephelite tailings, obtained in the production of apatite by flotation of nephelite-apatite deposits, when treated on a com. scale with 2 *N* H_2SO_4 for 1 hr. in the cold by the method of Shumilov (*C. A.* 28, 5981[9], 6949[3]) yielded 17–18% Al_2O_3, *i. e.*, 1 ton of dry, high-grade nephelite tailings can substitute 1.33 tons of standard-grade $Al_2(SO_4)_3$ contg. 13.5% Al_2O_3. The practical consumption of H_2SO_4 is at a rate of 0.9 ton of 100% H_2SO_4 for 1 ton of tailings. The substitution of nephelite sulfate liquor for com. $Al_2(SO_4)_3$ on equal basis in sizing paper produced equally good results. The promising results obtained in sizing paper with the addn. of nephelite $Al_2(SO_4)_3$ decreased to 75% of the normal must be confirmed by factory practice. The low costs of installation and operation of nephelite extn. with H_2SO_4 fully compensate for the high cost of transportation of tailings and H_2SO_4, and renders the use of nephelite commercially feasible. Chas. Blanc

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



Paper bags. Methods of impregnation of paper for the production of water- and air-impermeable paper containers. V. A. Grabovskii. *Tsentral. Nauch.-Issledovatel. Inst. Bumazhnoi Prom. Materialai* 1935, No. 1, 106–38.—Of the methods of impregnating different grades of paper with various materials for the production of paper bags with sufficient degree of water- and air-impermeability, the impregnation with solns. of bitumen in mineral oils (preferably in *naftol*) is the most satisfactory. Mixts. of equal parts of bitumen and oil give the best results. The ratio of bitumen and oil in the mixt. can be varied, according to the properties of paper, from 25–50% bitumen to 75–50% oil. Paper is best impregnated with a mixt. at 100° in the Müller machine at a rate of 63 m./min. with the drying rolls heated with steam at 2.5 atm. pressure. About 35–40% of the mixt. of the wt. of sized paper is consumed in the process of impregnation. Of the papers used, the best practical results were obtained with the impregnation of bag paper of 80 g./sq. m. with the air-permeability not exceeding 150 sq. cm. Various procedures for impregnation and fireproofing of papers are described. Paper for special paper-bag containers. O. G. Iofis. *Ibid.* 139–51.—The problem of suitable and inexpensive containers for the transportation and storage of various materials, particularly fertilizers and NaCl, is discussed.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

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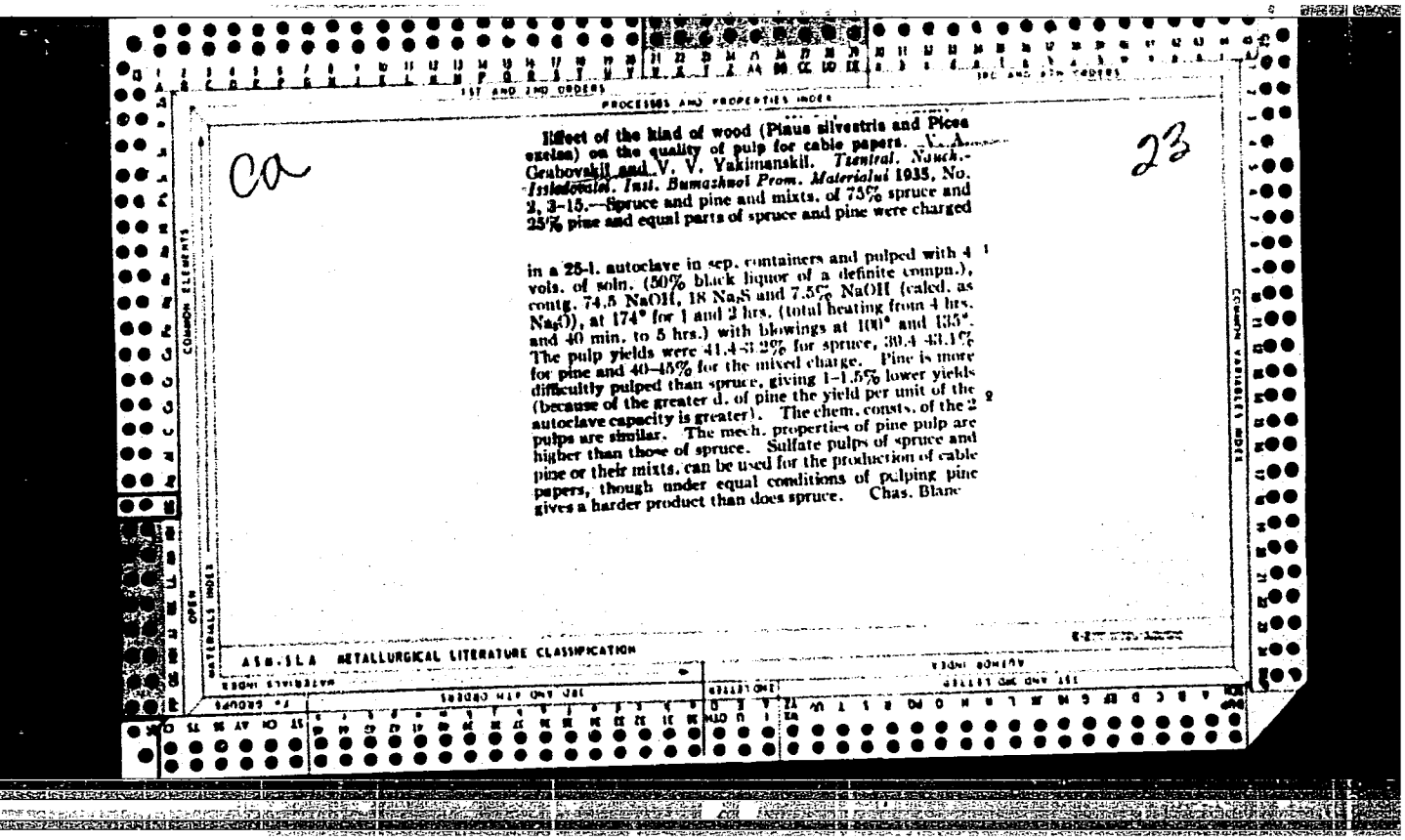
Making paper bags impervious to water and air by treating the pulp with emulsions of bitumens and paraffin. V. A. Grabovskii and V. V. Yakimanskii. *Tsentral. Nauch.-Issledovatel. Inst. Bumazhnoi Prom. Materialui* 1935, Nos. 3-4, 90-124.—In the lab. expts. the best results in the production and use of stable concd. emulsions of bitumens and paraffin were obtained by the use of from 5 to 10% of com. stearin (mixts. of stearic and palmitic acids) as an emulsifying agent. Use of these emulsions somewhat decreased the mech. properties of the resulting paper, but considerably increased its impermeability to water. The imperviousness to air is lower than that of papers directly treated with bitumen emulsions stabilized with mineral oils (avtol). No particular advantages in the quality of paper were noted in treating pulp for impermeability as compared with a similar treatment of finished paper. In the com.-scale expts. the best results in the prepn. and use of emulsions were obtained with the aid of the Hurell homogenizer. The bitumen-kaolin emulsions gave somewhat inferior results, but may prove to be practical because of their lower cost. No particular difficulties in contamination of paper-making machines were observed.

Chas. Blanc

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Ca

23

Effect of the kind of wood (Pinus silvestris and Picea excelsa) on the quality of pulp for cable papers. V. A. Grubovskii and V. V. Yakimanskii. *Tsentral. Nauch.-Issledovatel. Inst. Bumazhnoi Prom. Materialui* 1935, No. 2, 3–15.—Spruce and pine and mixts. of 75% spruce and 25% pine and equal parts of spruce and pine were charged in a 25-l. autoclave in sep. containers and pulped with 4 vols. of soln. (50% black liquor of a definite compn.), contg. 74.5 NaOH, 18 Na_2S and 7.5% NaOH (calcd. as Na_2O), at 174° for 1 and 2 hrs. (total heating from 4 hrs. and 40 min. to 5 hrs.) with blowings at 100° and 135°. The pulp yields were 41.4–51.2% for spruce, 30.4–43.1% for pine and 40–48% for the mixed charge. Pine is more difficultly pulped than spruce, giving 1–1.5% lower yields (because of the greater d. of pine the yield per unit of the autoclave capacity is greater). The chem. consts. of the 2 pulps are similar. The mech. properties of pine pulp are higher than those of spruce. Sulfate pulps of spruce and pine or their mixts. can be used for the production of cable papers, though under equal conditions of pulping pine gives a harder product than does spruce. Chas. Blanc

GRABOVSKIY, V.A., kand.tekhn.nauk; NAMESTNIKOV, I.V., kand.tekhn.nauk

Effect of pressure differences in the diffuser on the washing of sulfate pulp. Trudy LTITSBP no.8:105-108 '61. (MIRA 16:9)
(Woodpulp)

ALEKSEYEV, A.A., inzhener, redaktor; ASHKENAZI, K.M., doktor tekhnicheskikh nauk, redaktor; GRABOVSKIY, V.A., kandidat tekhnicheskikh nauk, redaktor; GORBACHEV, A.N., kandidat tekhnicheskikh nauk, redaktor; IVANOV, S.N., kandidat tekhnicheskikh nauk, redaktor; LAPIN, P.S., kandidat tekhnicheskikh nauk, redaktor; LEPNIN, N.N., doktor tekhnicheskikh nauk, redaktor; PUZYREV, S.A., kandidat tekhnicheskikh nauk, redaktor; RYUKHIN, N.V., kandidat tekhnicheskikh nauk, redaktor; FLYATE, D.M., kandidat tekhnicheskikh nauk, redaktor; SHAPIRO, A.D., kandidat tekhnicheskikh nauk, redaktor; ELIASHBERG, M.G., kandidat tekhnicheskikh nauk, redaktor; KHUDYAKOVA, A.V., redaktor; VOLKHOVER, R.S., tekhnicheskiy redaktor.

[Paper maker's handbook] Spravochnik bumazhnika (tekhnologa) Moskva, Goslesbumizdat. Vol. 1 1955. 790 p. (MLRA 8:10)
(Paper industry)

GRABOVSKIY, V.A.

ALEKSEYEV, A.A., inzhener, redaktor; ASHKENAZI, K.M., doktor tekhnicheskikh nauk, redaktor; GRABOVSKIY, V.A., kandidat tekhnicheskikh nauk, redaktor; GORBACHEV, A.N., kandidat tekhnicheskikh nauk, redaktor; IVANOV, S.N., kandidat tekhnicheskikh nauk, redaktor; LARIN, P.S., kandidat tekhnicheskikh nauk, redaktor; NEPENIN, N.N., doktor tekhnicheskikh nauk, redaktor; PUZYREV, S.A., kandidat tekhnicheskikh nauk, redaktor; RYUKHIN, N.V., kandidat tekhnicheskikh nauk, redaktor; FLYATE, D.M., kandidat tekhnicheskikh nauk, redaktor; SHAPIRO, A.D., kandidat tekhnicheskikh nauk, redaktor; ELIASHBERG, M.G., kandidat tekhnicheskikh nauk, redaktor; KHUDYAKOVA, A.V., redaktor izdatel'stva; KARASIK, N.P., tekhnicheskiy redaktor

[Paper maker's handbook] Spravochnik bumazhnika (tekhnologa). Moskva, Goslesbumizdat, Vol.2., book 1. 1956. 458 p. (MLRA 10:2)

1. Leningrad TSentral'nyy nauchno-issledovatel'skiy institut tsellyulozno-noy i bumazhnoy promyshlennosti (Paper industry)

GRABOVSKIY, V.A.

ALEKSEYEV, A.A., inzhener, redaktor; ASHKENAZI, K.M., doktor tekhnicheskikh nauk, redaktor; GRABOVSKIY, V.A., kandidat tekhnicheskikh nauk, redaktor; GORBACHEV, A.N., kandidat tekhnicheskikh nauk, redaktor; IVANOV, S.N., kandidat tekhnicheskikh nauk, redaktor; LARIN, P.S., kandidat tekhnicheskikh nauk, redaktor; NEPENIN, N.N., doktor tekhnicheskikh nauk, redaktor; PUZYREV, S.A., kandidat tekhnicheskikh nauk, redaktor; RYUKHIN, N.V., kandidat tekhnicheskikh nauk, redaktor; FLYATE, D.M., kandidat tekhnicheskikh nauk, redaktor; SHAPIRO, A.D., kandidat tekhnicheskikh nauk, redaktor; ELIASHBERG, M.G., kandidat tekhnicheskikh nauk, redaktor; PUZYREV, S.A., redaktor; PYUKHIN, N.V., redaktor; KHUDYAKOVA, A.V., redaktor izdatel'stva; KARASIK, N.P. tekhnicheskiy redaktor

[Paper maker's manual] Spravochnik bumazhnika; tekhnologa. Moskva, Goslesbumizdat. Vol. 2, book 2. 1957. 433 p. (MLRA 10:4)

1. Leningrad. TSentral'nyy nauchno-issledovatel'skiy institut tsellyuloznoy i bumazhnoy promyshlennosti.
(Paper industry)

GRABOVSKIY, V.A., dots.; NAMESTNIKOV, I.V., inzh.; YAROTSKIY, B.E.

Rapid washing of sulfate pulp in diffusers. Bum. prom. 33 no.4: 16-18 Ap '58. (MIRA 11:4)

1. Leningradskiy tekhnologicheskiy institut (for Grabovskiy, Namestnikov). 2. Svetogorskiy tsellyulozno-bumazhnyy kombinat (for Yarotskiy).

(Woodpulp) (Diffusers)

GRABOVSKIY, V.A., dots.; NAMESTNIKOV, I.V., inzh.

Effect of certain factors on the washing of sulfate pulp in diffuser tanks. Bum.prom. 34 no.6:2-4 Je '59.
(MIRA 12:10)

1. Leningradskiy tekhnologicheskiy institut tsellyulozno-bumazhnoy promyshlennosti.
(Woodpulp)

BARANOV, Nikolay Aleksandrovich; GORBOVSKIY, Boris Grigor'yevich; SOLYUS, N.G., retsenzent[deceased]; DENISOV, Yu.A., retsenzent; GRABOVSKIY, V.A., red.; PROTANSKAYA, I.V., red. izd-va; VOLOKHONSKAYA, L.V., red. izd-va; VDOVINA, V.M., tekhn. red.

[Technology and automation of cellulose production] Tekhnologiia i avtomatizqtsiia tselliuloznogo proizvodstva. Moskva, Goslesbumizdat, 1961. 471 p. (MIRA 14:6)
(Cellulose) (Automation)

ALEKSEYEV, A.A., inzh., red.; ASHKENAZI, K.M., doktor tekhn.nauk, red.; GRABOVSKIY, V.A., kand.tekhn.nauk, red.; GORBACHEV, A.N., kand.tekhn. nauk, red.; IVANOV, S.N., kand.tekhn.nauk, red.; LARIN, P.S., kand. tekhn.nauk, red.; NEPENIN, N.N., doktor tekhn.nauk, red.; PUZYREV, S.A., kand.tekhn.nauk, red.; RYUKHIN, N.V., kand.tekhn.nauk, red.; FLYATE, D.M., kand.tekhn.nauk, red.; SHAPIRO, A.D., kand.tekhn.nauk, red.; ELIASHBERG, M.G., doktor tekhn.nauk, red.; KHUDYAKOVA, A.V., red.izd-va; SIDEL'NIKOVA, L.A., red.izd-va; LOBANKOVA, R.Ye., tekhn.red.

[Manual for paper industry technicians] Spravochnik bumazhnika; (tekhnologa). Moskva, Goslesbumizdat. Vol.3. 1961. 719 p. (MIRA 14:6)

1. Leningrad. TSentral'nyy nauchno-issledovatel'skiy institut tsellyuloznoy i bumazhnoy promyshlennosti.

(Paper products)

ALEKSEYEV, A.A., inzh., red.; V'YUKOV, I.Ye., kand. tekhn. nauk, red.; GRABOVSKIY, V.A., kand. tekhn. nauk, red.; ZHITKOV, A.V., kand. tekhn. nauk, red.; NAUMOV, V.V., kand. ekon. nauk, red.; NEPENIN, Yu.N., kand. tekhn. nauk, red.; PUZYREV, S.A., kand. tekhn. nauk, red.; RYUKHIN, N.V., kand. tekhn. nauk, red.; SHAPIRO, A.D., kand. tekhn. nauk, red.; ELIASHBERG, M.G., doktor tekhn. nauk, red.

[Handbook for the papermaker in three volumes] Spravochnik bumazhnika v trekh tomakh. Moskva, Izd-vo "Lesnaia promyshlennost'." Vol.1. Izd.2., perer. i dop. 1964. 840 p. (MIRA 17:8)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut tsellyulozno-bumazhnoy promyshlennosti.

GRABOVSKIY, V.A.; LYAN VEN-CHI

Balance of silicic acid in the sulfite cooking of reed pulp and desiliconization of black liquor. Trudy LTITSBP no.12:232-241 '64. (MIRA 18:8)

30-58-4-17/44

AUTHORS: Grabovskiy, V. I., Professor; Kolesnikov, A. G., Professor; Ivanov, A. A., Doctor of Physical and Mathematical Sciences

TITLE: Research Done During the Expedition of the "Mikhail Lomonosov" (Ekspeditsionnyye issledovaniya na sudne "Mikhail Lomonosov") Studies of Hydrophysics in the Atlantic (Gidrofizicheskiye raboty v Atlanticheskom okeane)

PERIODICAL: Vestnik Akademii Nauk SSSR, 1958, Vol. 28 Nr 4, pp. 86-90 (USSR)

ABSTRACT: The present investigations of oceans and seas show that their most essential processes are dependent on the thermal and dynamic interaction of the ocean and the atmosphere. Therefore the main interest is directed to the investigation of the heat exchange processes between atmosphere and ocean, to the distribution of heat in quantities of water as well as to the formation of streams and waves. Then the authors report in detail on the future research within the frame of the program of the International Geophysical Year. According to a decision of the Committee for the execution of the works of the MGG the investigations in the North Atlantic are to be carried out by the scientific research ships "Mikhail Lomonosov"

Card 1/3

Research Done During the Expedition of the "Mikhail Lomonosov". Hydrophysics in the Atlantic

(Figure 1) , "Ekvator" and "Sevastopol". The "Mikhail Lomonosov" was built in the "Neptun" ship yards in Rostok (DDR), it has a displacement of 6000 t and can also be used for works in ice. Its deck was made longer and a landing place for helicopters was incorporated. The ship has special devices and equipment, among others a deep-sea hoist for anchoring down to 15000 m, 8 hydrologic hoists of the "Okean"--type down to 4000 m, 3 echosonic fathometer automatic recorders down to 12000 m, 1 echosonic fathometer of the "Lodar"--type for vertical and horizontal probing. Then a workshop for experiments and 16 laboratory rooms are installed aboard the ship. The average speed of the ship is 13 knots and it has an operating range of about 11000 miles. The maiden voyage was made for testing the equipment of the ship (Figure 2). But also a number of works of general kind were carried out. Also a group of German scientists under the direction of Doctor E. Bruns took part in this expedition. The second voyage is shown in Figure 3 and is supposed to include the collaboration of all three ships. The main oceanographic work of this voyage will be carried out according to the plan by the MGG, which is further detailed. The "Mikhail Lomonosov" started on this voyage which will last 4 months

30-58-4-17/44

Research Done During the Expedition on the "Mikhail Lomonosov" Hydrophysics in the Atlantic

on February 23, 1958. There are 3 figures.

1. Oceanography—Atlantic Ocean 2. Oceanography—Instrumentation

Card 3/3

GRABOVSKIY, V. K.

HRABOVS'KYI, Volodymyr Klymentievych

[Cooperation and mutual aid among all members of society are forms of the productive relations in socialism]Spivrobitnytstvo ta vzaiemodopomoha vsikh pratsivnykiv suspil'stva - forma vyrobnychykh vidnosyn sotsializmu. Kyiv, Vyd. Kyivs'koho univ., 1961. 60 p. (MIRA 16:4)
(Communism)

SHUMILOVSKIY, Nikolay Nikolayevich; YARMOL'CHUK, Georgiy Grigor'yevich; GRABOVETSKIY, Vitaliy Prokof'yevich; PRUSOV, Mikhail Antipovich

[Eddy current methods for production parameter control; principles of theory and design] Metod vikhrevykh tokov dlia kontrolia proizvodstvennykh parametrov; osnovy teorii i rascheta. [By] N.N.Shumilovskii i dr. Frunze, Izd-vo "Ilim," 1964. 296 p. (MIRA 18:3)

ACC NR: AP7012411 SOURCE CODE: UR/0367/67/005/001/0123/0128

AUTHOR: Gareyev, F. A. -- Gareev, F. A.; Grabovskiy, Ya. -- Grabowski, Ya.; Kalinkin, B. N.

ORG: Joint Institute for Nuclear Research (Ob"yedinennyy institut yadernykh issledovaniy)

TITLE: Diffraction effect in the angular distribution of transfer reaction products

SOURCE: Yadernaya fizika, v. 5, no. 1, 1967, 123-128

TOPIC TAGS: angular distribution, nuclear collision

SUB CODE: 20

ABSTRACT: The diffraction effect in the angular distribution of transfer reaction products has been treated. Its relation to the parameters characterizing collisions between nuclei is established. It is qualitatively explained why an asymmetry exists in the half-widths of the stripping and pick-up reaction product energy spectrum. Orig. art. has: 3 figures and 10 formulas. [Based on authors' Eng. Abst.] [JPRS: 40,393]

Card 1/1 0932 1343